Fundamentals Pilot Paper – Knowledge module

Accountant in Business

Paper F1

Time allowed: 2 hours

ALL FIFTY questions are compulsory and MUST be attempted.

Do NOT open this paper until instructed by the supervisor.

This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

ALL FIFTY questions are compulsory and MUST be attempted
Please use the Candidate Registration Sheet provided to indicate your chosen answer to each multiple choice question.

1 Span of control is concerned with the number of levels of management in an organisation.

Is this statement true or false?

A True

B False

(1 mark)

2 **Which of the following is the main function of marketing?**

A To maximise sales volume

B To identify and anticipate customer needs

C To persuade potential consumers to convert latent demand into expenditure

D To identify suitable outlets for goods and services supplied

(2 marks)

3 **Which one of the following has become an established best practice in corporate governance in recent years?**

A An increasingly prominent role for non-executive directors

B An increase in the powers of external auditors

C Greater accountability for directors who are in breach of their fiduciary duties

D A requirement for all companies to establish an internal audit function

(2 marks)

4 **According to Charles Handy's four cultural stereotypes, which of the following organisations would adopt a task culture?**

A The cost accounting department of a large steel producing company

B The consulting division of a 'big four' accountancy firm

C A civil service department

D A small clothes and design fashion house

(2 marks)

5 **At what stage of the planning process should a company carry out a situation analysis?**

A When converting strategic objectives into tactical plans

B When formulating a mission statement

C When validating the effectiveness of plans against outcomes

D When formulating strategic objectives

(2 marks)

6 **Which one of the following is potential advantage of decentralisation?**

A Greater control by senior management

B Risk reduction in relation to operational decision-making

C More accountability at lower levels

D Consistency of decision-making across the organisation

(2 marks)

7 **Which one of the following is an example of a internal stakeholder?**

A A shareholder

B An non-executive director

C A manager

D A supplier

(2 marks)

8 **According to Mendelow, companies must pay most attention to the needs of which group of stakeholders?**

A Those with little power and little interest in the company

B Those with a high level of power but little interest in the company

C Those with little power but a high level of interest in the company

D Those with a high level of power and a high level of interest in the company

(2 marks)

9 **What is the responsibility of a Public Oversight Board?**

A The establishment of detailed rules on internal audit procedures

B The commissioning of financial reporting standards

C The creation of legislation relating to accounting standards

D The monitoring and enforcement of legal and compliance standards

(2 marks)

10 The ageing population trend in many European countries is caused by a increasing birth rate and an increasing mortality rate.

Is this statement true or false?

A True

B False

(1 mark)

11 **Which one of the following is consistent with a government's policy objective to expand the level of economic activity?**

A An increase in taxation

B An increase in interest rates

C An increase in personal savings

D An increase in public expenditure

(2 marks)

12 **Which of the following is the name given to unemployment arising from labour in the market place being of the wrong type or available in the wrong place?**

A Structural unemployment

B Cyclical unemployment

C Frictional unemployment

D Marginal unemployment

(2 marks)

13 When an organisation carries out an environmental scan, it analyses which of the following?

A Strengths, weaknesses, opportunities and threats

B Political, economic, social and technological factors

C Strategic options and choice

D Inbound and outbound logistics

(2 marks)

14 Which of the following is data protection legislation primarily designed to protect?

A All private individuals and corporate entities on whom only regulated data is held

B All private individuals on whom only regulated data is held

C All private individuals on whom any data is held

D All private individuals and corporate entities on whom any data is held

(2 marks)

15 Which of the following types of new legislation would provide greater employment opportunities in large companies?

A New laws on health and safety

B New laws to prevent discrimination in the workplace

C New laws making it more difficult to dismiss employees unfairly

D New laws on higher compensation for employer breaches of employment contracts

(2 marks)

16 The total level of demand in the economy is made up of consumption, ____________, government expenditure and net gains from international trade.

Which of the following correctly completes the sentence above.

A Savings

B Taxation

C Investment

(1 mark)

17 Which set of environmental factors does a lobby group intend to directly influence?

A Political

B Technological

C Demographic

D Economic

(2 marks)

18 The use of advanced technology solutions in order to maximise the productivity and effectiveness of call centre operations is an application of the principles established by which school of management thought?

A Human relations

B Empirical

C Scientific

D Administrative

(2 marks)

19 The original role of the accounting function was which one of the following?

A Providing management information

B Recording financial information

C Maintaining financial control

D Managing funds efficiently

(2 marks)

20 Tax avoidance is a legal activity whilst tax evasion is an illegal activity.

Is this statement true or false?

A True

B False

(1 mark)

21 The system used by a company to record sales and purchases is an example of which of the following?

A A transaction processing system.

B A management information system

C An office automation system

D A decision support system

(2 marks)

22 The implementation of a budgetary control system in a large organisation would be the responsibility of the internal auditor.

Is this statement true or false?

A True

B False

(1 mark)

23 Which type of organisation would have the retail prices it charges to personal consumers subject to close scrutiny by a regulator?

A A multinational corporation

B A multi-divisional conglomerate

C A national utilities company

D A financial services provider

(2 marks)

24 The central bank has announced a 2% increase in interest rates.

This decision has the most impact on which department in a large company?

A Marketing

B Treasury

C Financial accounting

D Production

(2 marks)

25 The major purpose of the International Accounting Standards Board (IASB) is to ensure consistency in __________.

Which two words complete this sentence?

A Financial control

B Corporate reporting

C External auditing

(1 mark)

26 X Co has a financial accountant and a management accountant.

Which group of activities would fall within the responsibility of the financial accountant?

A Payroll, purchase ledger, sales invoicing

B Inventory valuation, budgetary control and variance analysis

C Fraud avoidance, segregation of duties, internal review and control

D Funds management, risk assessment, project and investment appraisal

(2 marks)

27 In an economic environment of high price inflation, those who owe money will gain and those who are owed money will lose.

Is this statement true or false?

A True

B False

(1 mark)

28 **To whom is the internal auditor primarily accountable?**

A The directors of the company

B The company as a separate entity

C The shareholders of the company

D The employees of the company

(2 marks)

29 Which one of the following is a DISADVANTAGE of a computerised accounting system over a manual accounting system?

A A computerised system is more time consuming to operate

B The operating costs of a computerised system are higher

C The computerised system is more costly to implement

D A computerised system is more error prone

(2 marks)

30 The identification, evaluation, testing and reporting on internal controls is a feature of which of the following?

A Operational audit

B Transactions audit

C Social responsibility audit

D Systems audit

(2 marks)

31 What is the primary responsibility of the external auditor?

A To verify all the financial transactions and supporting documentation of the client

B To ensure that the client's financial statements are reasonably accurate and free from bias

C To report all financial irregularities to the shareholders of the client

D To ensure that all the client's financial statements are prepared and submitted to the relevant authorities on time

(2 marks)

32 Which of the following are substantive tests used for in the context of external audit of financial accounts?

A To establish whether a figure is correct

B To investigate why a figure is incorrect

C To investigate whether a figure should be included

D To establish why a figure is excluded

(2 marks)

33 In the context of fraud, 'teeming and lading' is most likely to occur in which area of operation?

A Sales

B Quality control

C Advertising and promotion

D Despatch

(2 marks)

34 In order to establish an effective internal control system that will minimise the prospect of fraud, which one of the following should be considered first?

A Recruitment policy and checks on new personnel.

B Identification of areas of potential risk.

C Devising of appropriate sanctions for inappropriate behaviour.

D Segregation of duties in critical areas

(2 marks)

35 The leadership style that least acknowledges the contribution that subordinates have to make is ___________.

Which word correctly completes this sentence?

A Authoritarian

B Autocratic

C Assertive

(1 mark)

36 The Blake and Mouton managerial grid examines the relationship between 'concern for production' and which of the following?

A concern for people

B concern for sales

C concern for quality

D concern for service

(2 marks)

37 Jackie leads an established team of six workers. In the last month, two have left to pursue alternative jobs and one has commenced maternity leave. Three new staff members have joined Jackie's team.

Which one of Tuckman's group stages will now occur?

A Norming

B Forming

C Performing

D Storming

(2 marks)

38 Richard is a valuable member of his team. He is enthusiastic and curious, highly communicative and has a capacity for contacting people and exploring anything new.

Which of Belbin's team roles does Richard fulfil?

A Monitor-evaluator.

B Plant

C Resource-investigator

D Company worker

(2 marks)

39 Which one of the following statements is correct in relation to monetary rewards in accordance with Herzberg's Two-Factor theory?

A Pay increases are a powerful long-term motivator

B Inadequate monetary rewards are a powerful dissatisfier

C Monetary rewards are more important than non-monetary rewards

D Pay can never be used as a motivator

(2 marks)

40 Which one of the following is a characteristic of a team as opposed to a group?

A Members agree with other members

B Members negotiate personal roles and positions

C Members arrive at decisions by consensus

D Members' work in cooperation

(2 marks)

41 According to Victor Vroom:

Force (or motivation) = _________ x expectancy

Which of the following words completes Vroom's equation.

A Needs

B Valence

C Opportunity

(1 mark)

42 According to Handy's 'shamrock' organisation model, which one of the following is becoming progressively less important in contemporary organisations?

A The permanent, full-time work force

B The part-time temporary work force

C The role of independent sub-contractors

D The role of technical support functions

(2 marks)

43 Which pattern of communication is the quickest way to send a message?

A The circle

B The chain

C The Y

D The wheel

(2 marks)

44 Poor quality lateral communication will result in which of the following?

A Lack of direction

B Lack of coordination

C Lack of delegation

D Lack of control

(2 marks)

45 Role playing exercises using video recording and playback would be most effective for which type of training?

A Development of selling skills

B Regulation and compliance

C Dissemination of technical knowledge

D Introduction of new processes or procedures

(2 marks)

46 In the context of marketing, the 'four P's' are price, place, promotion and __________.

Which word correctly completes this sentence?

A Processes

B Production

C Product

(1 mark)

47 In relation to employee selection, which type of testing is most appropriate for assessing the depth of knowledge of a candidate and the candidate's ability to apply that knowledge?

A Intelligence testing

B Personality testing

C Competence testing

D Psychometric testing

(2 marks)

48 A company has advertised for staff who must be at least 1.88 metres tall and have been in continuous full-time employment for at least five years.

Which of the following is the legal term for this unlawful practice?

A Direct discrimination

B Indirect discrimination

C Victimisation

D Implied discrimination.

(2 marks)

49 **Which one of the following is most appropriate for the purpose of supporting the individual through the learning process with a view to promoting career development?**

A Buddy

B Counsellor

C Mentor

D Instructor

(2 marks)

50 Gils is conducting an appraisal interview with his assistant Jill. He initially invites Jill to talk about the job, her aspirations, expectations and problems. He adopts a non-judgmental approach and offers suggestions and guidance.

This is an example of which approach to performance appraisal?

A Tell and sell approach

B Tell and listen approach

C Problem solving approach

D 360 degree approach

(2 marks)

End of Question Paper

Answers

1	B	**26**	A
2	B	**27**	A
3	A	**28**	A
4	B	**29**	C
5	D	**30**	D
6	C	**31**	B
7	C	**32**	A
8	D	**33**	A
9	D	**34**	B
10	B	**35**	B
11	D	**36**	A
12	C	**37**	B
13	B	**38**	C
14	B	**39**	B
15	B	**40**	C
16	C	**41**	B
17	A	**42**	A
18	C	**43**	D
19	B	**44**	B
20	A	**45**	A
21	A	**46**	C
22	B	**47**	C
23	C	**48**	B
24	B	**49**	C
25	B	**50**	B

Rationale for answers

1 **B** The span of control is concerned with the number of subordinates reporting directly to one person. The scalar chain concept relates to the number of levels in the management structure.

2 **B** The basic principle that underlies marketing is that it is a management process that identifies and anticipates customer needs. The other distractors in the question refer to specific activities undertaken by a marketing function.

3 **A** Successive reports on corporate governance (Cadbury, Higgs, etc.) have highlighted the increasingly prominent role that non-executive directors should take in large organisations. This has become an established best practice.

4 **B** The task culture is appropriate where organisations can accommodate the flexibility required to adjust management and team structures to address the tasks that must be fulfilled. This is very common in large consultancy firms.

5 **D** A situation analysis is carried out when deciding on strategic objectives. The organisation will have already decided on its mission statement and goals.

6 C Greater accountability at lower levels will lead to greater empowerment of those taking decisions and hence greater motivation and commitment.

7 C A manager is employed by the organisation and is therefore a constituent part of it. All the others are known as 'connected' stakeholders.

8 D The organisation must constantly be aware of the needs of stakeholders with a high level of power and the ability to influence the organisation profoundly. Management decisions must therefore take most account of the needs of this group of stakeholders.

9 D The primary aim of a public oversight board is to eliminate or minimise any actual or potential breaches of legislative requirements and to ensure compliance with regulations applicable to organisations within their terms of reference.

10 B The ageing population trend is caused by decreasing birth rate and a decreasing mortality rate.

11 D An increase in public expenditure should increase the level of consumer demand and hence the level of economic activity. This would also be achieved by other measures, such as a reduction in taxation or a reduction in interest rates.

12 C Frictional unemployment arises even when there are unfilled vacancies in the economy. It is because there is never a perfect match between the types of job available and their location with the skills of those seeking work and where they live.

13 B Any environmental scan analyses the external factors that affect an organisation, often categorised as political, economic, social and technological factors.

14 B Data protection legislation is formulated to protect the interests of data subjects who are private individuals. Not all data is regulated.

15 B Diversity policies are intended to reduce recruitment and selection policies and processes that enable discrimination to arise on the basis of gender, race, lifestyle and age.

16 C The components of effective demand in the economy are consumer spending, investment by enterprises, central and local government expenditure and the net gains from international trade.

17 A Lobby groups are primarily established to influence political decision takers, such as the government and individual lawmakers.

18 C Scientific management principles consider the ways in which the factors of production (land, labour, capital and the entrepreneurial function) can be combined to maximise efficiency in production. The founding principles are based on the work of Frederick Winslow Taylor.

19 B The accounting function originated from the need to record transactions completely and accurately. Other requirements naturally evolved from this at a later stage.

20 A Tax avoidance enables the individual or entity to apply legitimate rules to reduce the amount of tax payable. Tax evasion is always based on a deliberate intent not to pay tax that is lawfully due.

21 A A transaction processing system enables all sales and purchase transactions to be recorded by volume and category.

22 B The implementation of a budgetary control system would be the responsibility of the financial controller in many organisations. The internal auditor is not responsible for implementing systems, but is involved in monitoring the effectiveness of these systems.

23 C Public ultilities companies often have national or local monopolies and it is therefore necessary for their pricing structures to be subject to the scrutiny of a regulatory body.

24 B An interest rate is the price of money. The output of the treasury function is directly affected by the price of funds to the organisation and the returns that can be made from surplus funds.

25 B The IASB aims to promote consistency in corporate reporting by creating financial reporting standards to which major businesses are expected to adhere.

26 A Payroll, purchase ledger and sales invoicing are core functions within the responsibility of the financial accountant.

27 A Where price inflation is high the value of money reduces consistently over time. Those who owe money (debtors) therefore pay back less capital in real terms, and interest rates seldom adjust adequately to compensate for this.

28 A The internal auditor must have the right to report and is most accountable to the highest level of management (Directors) in the organisation. They must be free of influence from any individual manager, irrespective of seniority.

29 C A computerised system can be costly to set up, though this disadvantage is essentially a short-term issue, as the running costs should offset this over time. A computer system should also reduce transaction processing time and the incidence of errors.

30 D Systems audit is concerned with the effectiveness of the system itself and not the processes, activities or values of the organisation.

31 B The external auditor has to ensure that the financial statements of the organisation truly reflect the activities of the business in the relevant accounting period. This assessment should be independent and therefore free from subjectivity on the part of the management of the client organisation.

32 A Substantive tests verify the accuracy of the financial information.

33 A Teeming and lading involves the theft of cash and is a type of fraud that is carried out by manipulating transactions. There would be most potential for this fraud within the sales department where cash may be received and remitted.

34 B All control systems should be based on an assessment of areas of risk prior to the consideration of other factors.

35 B The Ashridge model identifies four styles: autocratic; authoritarian; consultative; laissez-faire (or participative). The first of these is the least participative.

36 A The Blake and Mouton managerial grid enables leadership styles to be categorised on a nine point scale with reference to concern for people and concern for production.

37 B With the recent departures and the new staff joining the group, it will revert to the forming stage.

38 C The words ‘curious’ and ‘explore’ confirm that the individual is a resource-investigator.

39 B According to Herzberg, money is a hygiene factor (or dissatisfier). Although it is a powerful short-term motivator, it is questionable whether each individual increase in monetary reward will have a major long-term effect. According to Herzberg, ‘A reward once given becomes a right’.

40 C Consensus implies coming to decisions that are acceptable, paying due regard to the input of all members of the team.

41 B Victor Vroom defines ‘valence’ as the individual’s preference for a given outcome.

42 A Handy’s theory suggests that full-time, permanent workers are both expensive and inflexible in comparison with other elements of the shamrock. These other elements are part-time workers and independent contractors. A fourth leaf can be getting the customer to do the work.

43 D The wheel facilitates transmission of the message directly to all receivers and therefore transmits most quickly.

44 B Lateral communication is horizontal. Therefore, poor quality communication will result in poor coordination between team members.

45 A Role playing exercises are most effectively used for skills development, including sales training. Other common business applications include effective selection interviewing and performance appraisal interviewing.

46 C Product is the fourth component of the marketing mix. This term can also relate to a service as well as tangible products.

47 C Competence testing evaluates and validates knowledge and the ability to apply these to given situations. It assesses whether the individual can actually do specified tasks.

48 B A height restriction is a form of indirect discrimination on the grounds of gender. On average, men are taller than women.

49 C A mentor has a longer-term role than buddies, counsellors or instructors.

50 B The ‘tell and listen’ approach encourages input from the individual, promoting participation the process by the appraisee.

Fundamentals Pilot Paper – Knowledge module

Management Accounting

Paper F2

Time allowed: 2 hours

ALL FIFTY questions are compulsory and MUST be attempted.

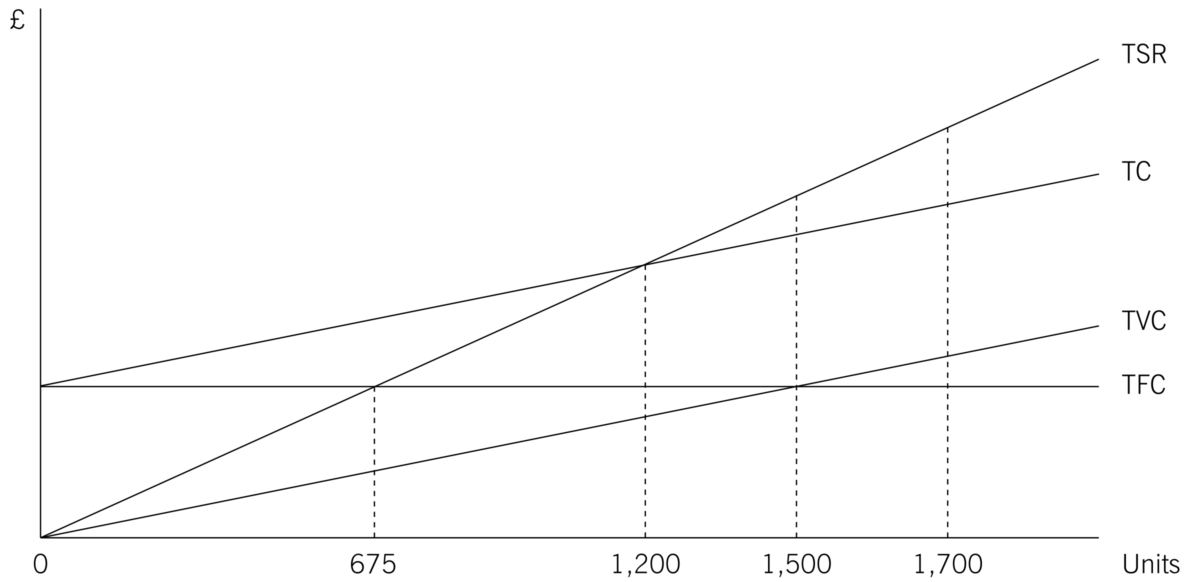
Do NOT open this paper until instructed by the supervisor.

This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

ALL 50 questions are compulsory and MUST be attempted.

1 The following break-even chart has been drawn showing lines for total cost (TC), total variable cost (TVC), total fixed cost (TFC) and total sales revenue (TSR):



What is the margin of safety at the 1,700 units level of activity?

A 200 units

B 300 units

C 500 units

D 1,025 units

(2 marks)

2 The following assertions relate to financial accounting and to cost accounting:
(i) The main users of financial accounting information are external to an organisation.
(ii) Cost accounting is that part of financial accounting which records the cash received and payments made by an organisation.

Which of the following statements are true?

A Assertions (i) and (ii) are both correct.

B Only assertion (i) is correct.

C Only assertion (ii) is correct.

(1 mark)

3 Regression analysis is being used to find the line of best fit ($y = a + bx$) from eleven pairs of data. The calculations have produced the following information:
$\Sigma x = 440$, $\Sigma y = 330$, $\Sigma x^2 = 17{,}986$, $\Sigma y^2 = 10{,}366$, $\Sigma xy = 13{,}467$ and $b = 0.69171$

What is the value of 'a' in the equation for the line of best fit (to 2 decimal places)?

A 0.63

B 0.69

C 2.33

D 5.33

(2 marks)

4 The purchase price of a stock item is $25 per unit. In each three month period the usage of the item is 20,000 units. The annual holding costs associated with one unit equate to 6% of its purchase price. The cost of placing an order for the item is $20.

What is the Economic Order Quantity (EOQ) for the stock item to the nearest whole unit?

A 730

B 894

C 1,461

D 1,633

(2 marks)

5 A company uses an overhead absorption rate of $3.50 per machine hour, based on 32,000 budgeted machine hours for the period. During the same period the actual total overhead expenditure amounted to $108,875 and 30,000 machine hours were recorded on actual production.

By how much was the total overhead under or over absorbed for the period?

A Under absorbed by $3,875

B Under absorbed by $7,000

C Over absorbed by $3,875

D Over absorbed by $7,000

(2 marks)

6 **For which of the following is a profit centre manager responsible?**

A Costs only

B Revenues only

C Costs and revenues.

(1 mark)

7 An organisation has the following total costs at two activity levels:

Activity level (units)	16,000	22,000
Total costs ($)	135,000	170,000

Variable cost per unit is constant within this range of activity but there is a step up of $5,000 in the total fixed costs when the activity exceeds 17,500 units.

What is the total cost at an activity of 20,000 units?

A $155,000

B $158,000

C $160,000

D $163,000

(2 marks)

8 A company manufactures and sells a single product. In two consecutive months the following levels of production and sales (in units) occurred:

	Month 1	Month 2
Sales	3,800	4,400
Production	3,900	4,200

The opening inventory for Month 1 was 400 units. Profits or losses have been calculated for each month using both absorption and marginal costing principles.

Which of the following combination of profits and losses for the two months is consistent with the above data?

	Absorption costing profit/(loss)		Marginal costing profit/(loss)	
	Month 1	Month 2	Month 1	Month 2
	$	$	$	$
A	200	4,400	(400)	3,200
B	(400)	4,400	200	3,200
C	200	3,200	(400)	4,400
D	(400)	3,200	200	4,400

(2 marks)

9 **Which of the following best describes a flexible budget?**

A A budget which shows variable production costs only.

B A monthly budget which is changed to reflect the number of days in the month.

C A budget which shows sales revenue and costs at different levels of activity.

D A budget that is updated halfway through the year to incorporate the actual results for the first half of the year.

(2 marks)

10 Information relating to two processes (F and G) was as follows:

Process	Normal loss as % of input	Input litres	Output litres
F	8	65,000	58,900
G	5	37,500	35,700

For each process, was there an abnormal loss or an abnormal gain?

	Process F	Process G
A	Abnormal gain	Abnormal gain
B	Abnormal gain	Abnormal loss
C	Abnormal loss	Abnormal gain
D	Abnormal loss	Abnormal loss

(2 marks)

11 An organisation manufactures a single product which is sold for $80 per unit. The organisation's total monthly fixed costs are $99,000 and it has a contribution to sales ratio of 45%. This month it plans to manufacture and sell 4,000 units.

What is the organisation's margin of safety this month (in units)?

A 1,250

B 1,750

C 2,250

D 2,750

(2 marks)

12 **Which one of the following should be classified as indirect labour?**

A Assembly workers on a car production line

B Bricklayers in a house building company

C Machinists in a factory producing clothes

D Forklift truck drivers in the stores of an engineering company.

(2 marks)

13 A company is evaluating a project that requires 400kg of raw material X. The company has 150kg of X in stock that were purchased six months ago for $55 per kg. The company no longer has any use for X. The inventory of X could be sold for $40 per kg. The current purchase price for X is $53 per kg.

What is the total relevant cost of raw material X for the project?

A $17,950

B $19,250

C $21,200

D $21,500

(2 marks)

14 **Which of the following is NOT a feasible value for the correlation coefficient?**

A +1.4

B +0.7

C 0

D −0.7

(2 marks)

15 The following statements relate to aspects of budget administration:
Statement (1): An important task of a budget committee is to ensure that budgets are properly coordinated.
Statement (2): A budget manual is the document produced at the end of the budget setting process.

Which of the following is true?

A Only statement (1) is correct.

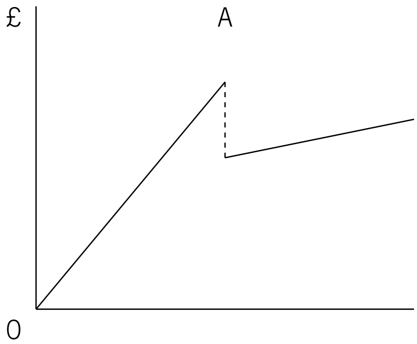
B Only statement (2) is correct.

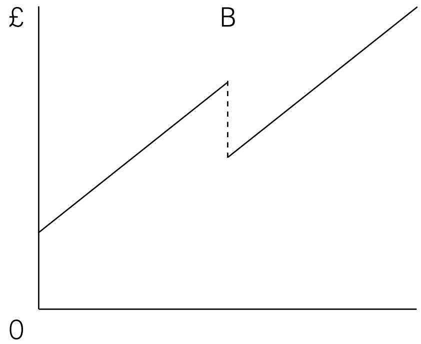
C Both statements are correct.

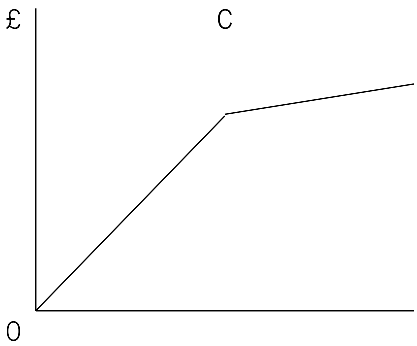
(1 mark)

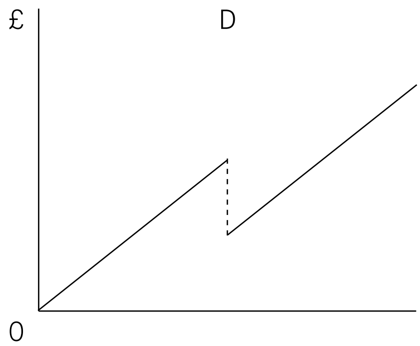
16 Up to a given level of activity in each period the purchase price per unit of a raw material is constant. After that point a lower price per unit applies both to further units purchased and also retrospectively to all units already purchased.

Which of the following graphs depicts the total cost of the raw materials for a period?









(2 marks)

17 A manufacturing organisation incurs costs relating to the following:

(1) Commission payable to salespersons.
(2) Inspecting all products.
(3) Packing the products at the end of the manufacturing process prior to moving them to the warehouse.

Which of these costs are classified as production costs?

A (1) and (2) only

B (1) and (3) only

C (2) and (3) only

D (1), (2) and (3)

(2 marks)

18 **Which of the following is correct with regard to expected values?**

A Expected values provide a weighted average of anticipated outcomes.

B The expected value will always equal one of the possible outcomes.

C Expected values will show the decision maker’s attitude to risk.

D The expected value will never equal one of the possible outcomes.

(2 marks)

19 There is a 60% chance that a company will make a profit of $300,000 next year and a 40% chance of making a loss of $400,000.

What is the expected profit or loss for next year?

A $120,000 Loss

B $20,000 Loss

C $20,000 Profit

D $120,000 Profit

(2 marks)

20 A company's budgeted sales for last month were 10,000 units with a standard selling price of $20 per unit and a standard contribution of $8 per unit. Last month actual sales of 10,500 units at an average selling price of $19.50 per unit were achieved.

What were the sales price and sales volume contribution variances for last month?

	Sales price variance ($)	Sales volume contribution variance ($)
A	5,250 Adverse	4,000 Favourable
B	5,250 Adverse	4,000 Adverse
C	5,000 Adverse	4,000 Favourable
D	5,000 Adverse	4,000 Adverse

(2 marks)

21 A company manufactures and sells one product which requires 8 kg of raw material in its manufacture. The budgeted data relating to the next period are as follows:

	Units
Sales	19,000
Opening inventory of finished goods	4,000
Closing inventory of finished goods	3,000
	Kg
Opening inventory of raw materials	50,000
Closing inventory of raw materials	53,000

What is the budgeted raw material purchases for next period (in kg)?

A 141,000

B 147,000

C 157,000

D 163,000

(2 marks)

22 The following statements refer to spreadsheets:

(i) A spreadsheet is the most suitable software for the storage of large volumes of data.
(ii) A spreadsheet could be used to produce a flexible budget.
(iii) Most spreadsheets contain a facility to display the data in them within them in a graphical form.

Which of these statements are correct?

A (i) and (ii) only

B (i) and (iii) only

C (ii) and (iii) only

D (i), (ii) and (iii)

(2 marks)

23 A company always determines its order quantity for a raw material by using the Economic Order Quantity (EOQ) model.

What would be the effects on the EOQ and the total annual holding cost of a decrease in the cost of ordering a batch of raw material?

	E O Q	Annual holding cost
A	Higher	Lower
B	Higher	Higher
C	Lower	Higher
D	Lower	Lower

(2 marks)

24 **Which one of the following is most likely to operate a system of service costing?**

A A printing company

B A hospital

C A firm of solicitors.

(1 mark)

25 The following budgeted information relates to a manufacturing company for next period:

	Units		$
Production	14,000	Fixed production costs	63,000
Sales	12,000	Fixed selling costs	12,000

The normal level of activity is 14,000 units per period.
Using absorption costing the profit for next period has been calculated as $36,000.

What would the profit for next period be using marginal costing?

A $25,000

B $27,000

C $45,000

D $47,000

(2 marks)

26 A company manufactures a single product which it sells for $20 per unit. The product has a contribution to sales ratio of 40%. The company's weekly break- even point is sales revenue of $18,000.

What would be the profit in a week when 1,200 units are sold?

A $1,200

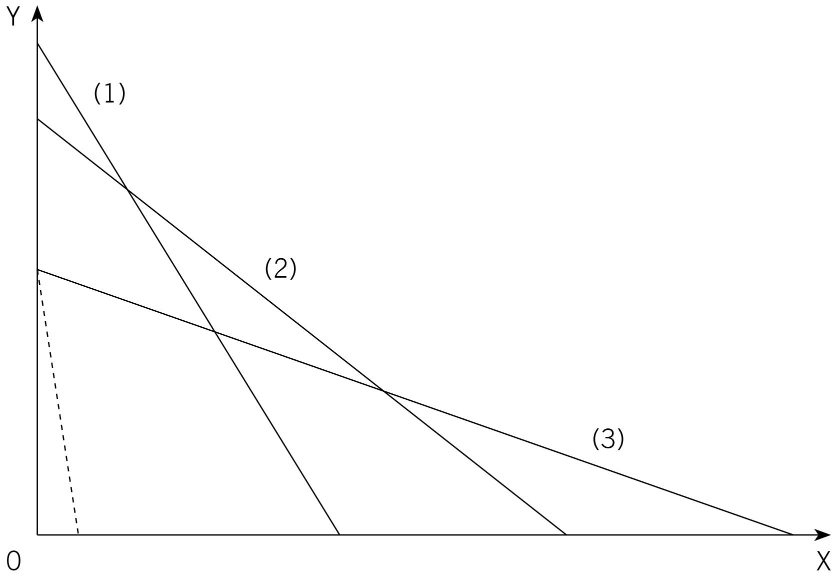
B $2,400

C $3,600

D $6,000

(2 marks)

27 The following graph relates to a linear programming problem:



The objective is to maximise contribution and the dotted line on the graph depicts this function. There are three constraints which are all of the "less than or equal to" type which are depicted on the graph by the three solid lines labelled (1), (2) and (3).

At which of the following intersections is contribution maximised?

A Constraints (1) and (2)

B Constraints (2) and (3)

C Constraints (1) and (3)

D Constraint (1) and the x-axis

(2 marks)

28 In an organisation manufacturing a number of different products in one large factory, the rent of that factory is an example of a direct expense when costing a product.

Is this statement true or false?

A True

B False

(1 mark)

29 A company operates a process in which no losses are incurred. The process account for last month, when there was no opening work-in-progress, was as follows:

Process Account

	$		$
Costs arising	624,000	Finished output (10,000 units)	480,000
		Closing work-in progress (4,000 units)	144,000
	624,000		624,000

The closing work-in-progress was complete to the same degree for all elements of cost.

What was the percentage degree of completion of the closing work-in-progress?

A 12%

B 30%

C 40%

D 75%

(2 marks)

30 A company manufactures and sells two products (X and Y) both of which utilise the same skilled labour. For the coming period, the supply of skilled labour is limited to 2,000 hours. Data relating to each product are as follows:

Product	X	Y
Selling price per unit	$20	$40
Variable cost per unit	$12	$30
Skilled labour hours per unit	2	4
Maximum demand (units) per period	800	400

In order to maximise profit in the coming period, how many units of each product should the company manufacture and sell?

A 200 units of X and 400 units of Y

B 400 units of X and 300 units of Y

C 600 units of X and 200 units of Y

D 800 units of X and 100 units of Y

(2 marks)

31 The following statements refer to organisations using job costing:
(i) Work is done to customer specification.
(ii) Work is usually completed within a relatively short period of time.
(iii) Products manufactured tend to be all identical.

Which two of these statements are CORRECT?

A (i) and (ii)

B (i) and (iii)

C (ii) and (iii)

(1 mark)

The following information relates to questions 32 and 33:
A company uses standard costing and the standard variable overhead cost for a product is:
6 direct labour hours @ $10 per hour

Last month when 3,900 units of the product were manufactured, the actual expenditure on variable overheads was $235,000 and 24,000 hours were actually worked.

32 What was the variable overhead expenditure variance for last month?

A $5,000 Adverse

B $5,000 Favourable

C $6,000 Adverse

D $6,000 Favourable

(2 marks)

33 What was the variable overhead efficiency variance for last month?

A $5,000 Adverse

B $5,000 Favourable

C $6,000 Adverse

D $6,000 Favourable

(2 marks)

34 When a manufacturing company operates a standard marginal costing system there are no fixed production overhead variances.

Is this statement true or false?

A True

B False

(1 mark)

35 A company operates a standard costing system. The variance analysis for last month shows a favourable materials price variance and an adverse labour efficiency variance.

The following four statements, which make comparisons with the standards, have been made:
(1) Inferior quality materials were purchased and used.
(2) Superior quality materials were purchased and used.
(3) Lower graded workers were used on production.
(4) Higher graded workers were used on production.

Which statements are consistent with the variance analysis?

A (1) and (3)

B (1) and (4)

C (2) and (3)

D (2) and (4)

(2 marks)

36 Which of the following best describes a principal budget factor?

A A factor that affects all budget centres.

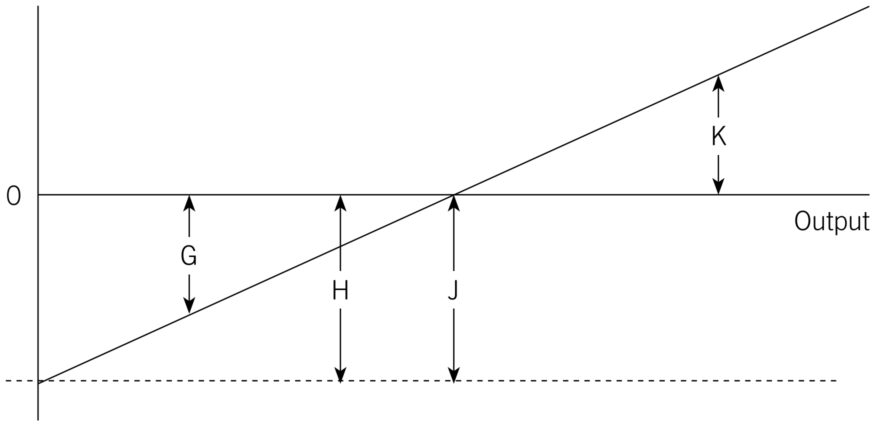
B A factor that is controllable by a budget centre manager.

C A factor which limits the activities of an organisation.

D A factor that the management accountant builds into all budgets.

(2 marks)

37 Four vertical lines have been labelled G, H, J and K at different levels of activity on the following profit-volume chart:



Which line represents the total contribution at that level of activity?

A Line G

B Line H

C Line J

D Line K

(2 marks)

38 Data is information that has been processed in such a way as to be meaningful to its recipients.

Is this statement true or false?

A True

B False

(1 mark)

39 Two products G and H are created from a joint process. G can be sold immediately after split-off. H requires further processing into product HH before it is in a saleable condition. There are no opening inventories and no work in progress of products G, H or HH. The following data are available for last period:

	$
Total joint production costs	350,000
Further processing costs of product H	66,000

Product	Production units	Closing inventory units
G	420,000	20,000
HH	330,000	30,000

Using the physical unit method for apportioning joint production costs, what was the cost value of the closing inventory of product HH for last period?

A $16,640

B $18,625

C $20,000

D $21,600

(2 marks)

40 A company purchased a machine several years ago for $50,000. Its written down value is now $10,000. The machine is no longer used on normal production work and it could be sold now for $8,000.

A project is being considered which would make use of this machine for six months. After this time the machine would be sold for $5,000.

What is the relevant cost of the machine to the project?

A $2,000

B $3,000

C $5,000

D $10,000

(2 marks)

41 A company operates a standard absorption costing system. The standard fixed production overhead rate is $15 per hour.

The following data relate to last month:

Actual hours worked	5,500
Budgeted hours	5,000
Standard hours for actual production	4,800

What was the fixed production overhead capacity variance?

A $7,500 Adverse

B $7,500 Favourable

C $10,500 Adverse

D $10,500 Favourable

(2 marks)

42 The following statements relate to relevant cost concepts in decision-making:

(i) Materials can never have an opportunity cost whereas labour can.
(ii) The annual depreciation charge is not a relevant cost.
(iii) Fixed costs would have a relevant cost element if a decision causes a change in their total expenditure

Which statements are correct?

A (i) and (ii) only

B (i) and (iii) only

C (ii) and (iii) only

D (i), (ii) and (iii)

(2 marks)

43 A contract is under consideration which requires 600 labour hours to complete. There are 350 hours of spare labour capacity for which the workers are still being paid the normal rate of pay. The remaining hours for the contract can be found either by weekend overtime working paid at double the normal rate of pay or by diverting labour from other production. This other production makes a contribution, net of labour cost, of $5 per hour. The normal rate of pay is $9 per hour.

What is the total relevant cost of labour for the contract?

A $1,250

B $3,500

C $4,500

D $4,900

(2 marks)

44 An organisation operates a piecework system of remuneration, but also guarantees its employees 80% of a time-based rate of pay which is based on $20 per hour for an eight hour working day. Three minutes is the standard time allowed per unit of output. Piecework is paid at the rate of $18 per standard hour.

If an employee produces 200 units in eight hours on a particular day, what is the employee's gross pay for that day?

A $128

B $144

C $160

D $180

(2 marks)

45 A semi-variable cost is one that, in the short term, remains the same over a given range of activity but beyond that increases and then remains constant at the higher level of activity.

Is this statement true or false?

A True

B False

(1 mark)

46 A factory consists of two production cost centres (P and Q) and two service cost centres (X and Y). The total allocated and apportioned overhead for each is as follows:

P	Q	X	Y
$95,000	$82,000	$46,000	$30,000

It has been estimated that each service cost centre does work for other cost centres in the following proportions:

	P	Q	X	Y
Percentage of service cost centre X to	50	50	–	–
Percentage of service cost centre Y to	30	60	10	–

The reapportionment of service cost centre costs to other cost centres fully reflects the above proportions.

After the reapportionment of service cost centre costs has been carried out, what is the total overhead for production cost centre P?

A $124,500

B $126,100

C $127,000

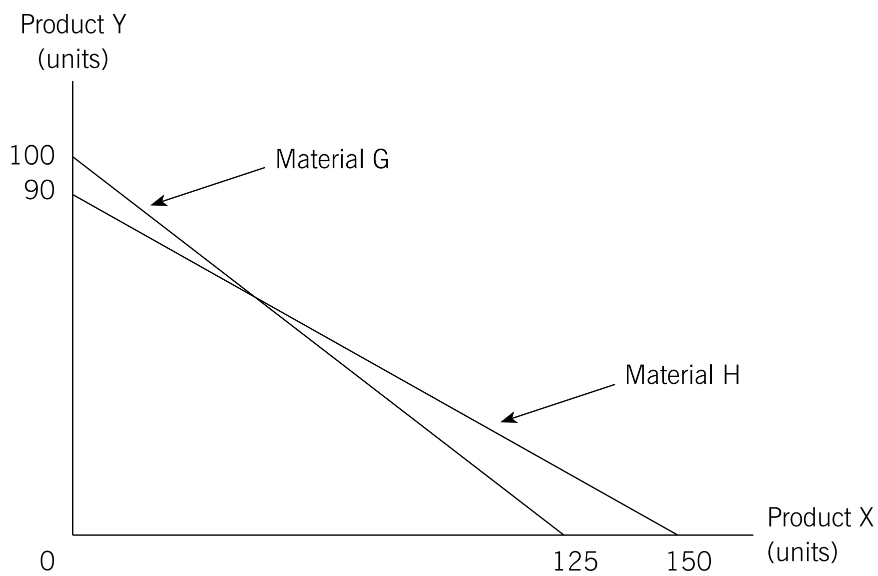
D $128,500

(2 marks)

The following information relates to questions 47 and 48:

A company manufactures and sells two products (X and Y) which have contributions per unit of $8 and $20 respectively. The company aims to maximise profit. Two materials (G and H) are used in the manufacture of each product. Each material is in short supply – 1,000 kg of G and 1,800 kg of H are available next period. The company holds no inventories and it can sell all the units produced.

The management accountant has drawn the following graph accurately showing the constraints for materials G and H.



47 What is the amount (in kg) of material G and material H used in each unit of product Y?

	Material G	Material H
A	10	20
B	10	10
C	20	20
D	20	10

(2 marks)

48 What is the optimal mix of production (in units) for the next period?

	Product X	Product Y
A	0	90
B	50	60
C	60	50
D	125	0

(2 marks)

49 The following statement refers to a quality of good information:
The cost of producing information should be greater than the value of the benefits of that information to management.

Is this statement true or false?

A True

B False

(1 mark)

50 A company which operates a process costing system had work-in-progress at the start of last month of 300 units (valued at £1,710) which were 60% complete in respect of all costs. Last month a total of 2,000 units were completed and transferred to the finished goods warehouse. The cost per equivalent unit for costs arising last month was $10. The company uses the FIFO method of cost allocation.

What was the total value of the 2,000 units transferred to the finished goods warehouse last month?

A $19,910

B $20,000

C $20,510

D $21,710

(2 marks)

FORMULAE SHEET

Regression analysis

$$a = \frac{\sum y}{n} - \frac{b\sum x}{n}$$

$$b = \frac{n\sum xy - \sum x\sum y}{n\sum x^2 - (\sum x)^2}$$

$$r = \frac{n\sum xy - \sum x\sum y}{\sqrt{(n\sum x^2 - (\sum x)^2)(n\sum y^2 - (\sum y)^2)}}$$

Economic order quantity

$$= \sqrt{\frac{2C_0D}{C_h}}$$

Economic batch quantity

$$= \sqrt{\frac{2C_0D}{C_h(1 - \frac{D}{R})}}$$

Answers

Summarised

1	C	**26**	B
2	B	**27**	D
3	C	**28**	B
4	C	**29**	D
5	A	**30**	D
6	C	**31**	A
7	C	**32**	B
8	C	**33**	C
9	C	**34**	B
10	C	**35**	A
11	A	**36**	C
12	D	**37**	C
13	B	**38**	B
14	A	**39**	C
15	A	**40**	B
16	D	**41**	B
17	C	**42**	C
18	A	**43**	B
19	C	**44**	D
20	A	**45**	B
21	B	**46**	D
22	C	**47**	A
23	D	**48**	A
24	B	**49**	B
25	B	**50**	A

In detail

1 C

2 B

3 C $a = (\Sigma y \div n) - [(b\Sigma x) \div n] = (330 \div 11) - [(0.69171 \times 440) \div 11]$
$= (30 - 27.6684)$
$= 2.3316$ (2.33 to 2 decimal places)

4 C $\{[\, 2 \times 20 \times (4 \times 20{,}000)\,] \div [0.06 \times 25]\}^{0.5} = 1{,}461$ units

5 A

Actual cost	\$108,875
Absorbed cost (30,000 × 3.50)	\$105,000
Under absorption	\$ 3,875

6 C

7 C Variable cost per unit: [(170,000 – 5,000) – 135,000] ÷ (22,000 – 16,000) = \$5
Total fixed cost (below 17,500 units): [135,000 – (16,000 × 5)] = \$55,000
Total cost for 20,000 units: 55,000 + 5,000 + (20,000 × 5) = \$160,000

8 C Month 1: Production > Sales Absorption costing profit > Marginal costing profit
Month 2: Sales > Production Marginal costing profit > absorption costing profit
A and C satisfy Month 1, C and D satisfy Month 2. Therefore C satisfies both.

9 C

10 C

	Normal loss	Actual loss	Abnormal loss	Abnormal gain
	litres	litres	litres	litres
Process F	5,200	6,100	900	–
Process G	1,875	1,800	–	75

11 A Contribution per unit (CPU): $(80 \times 0.45) = \$36$
Break even point (units): $(99{,}000 \div 36) = 2{,}750$
Margin of safety: $(4{,}000 - 2{,}750) = 1{,}250$ units

12 D

13 B $(150 \times 40) + (250 \times 53) = \$19{,}250$

14 A

15 A

16 D

17 C

18 A

19 C $(300{,}000 \times 0.60) - (400{,}000 \times 0.40) = +\$20{,}000$ (profit)

20 A Price variance: $(0.50 \times 10{,}500) = \$5{,}250$ Adverse
Volume variance: $(500 \times 8) = \$4{,}000$ Favourable

21 B Budgeted production: $(19{,}000 + 3{,}000 - 4{,}000) = 18{,}000$ units
Raw materials required for budgeted production: $(18{,}000 \times 8) = 144{,}000$ kg
Budgeted raw material purchases: $(144{,}000 + 53{,}000 - 50{,}000) = 147{,}000$ kg

22 C

23 D

24 B

25 B Production > Sales Absorption costing profit > Marginal costing profit
Marginal costing profit: $\{36{,}000 - [2{,}000 \times (63{,}000 \div 14{,}000)]\} = \$27{,}000$

26 B CPU: $(20 \times 0.4) = \$8$
Break even point: $(18{,}000 \div 20) = 900$ units
Profit when 1,200 units produced and sold: $(300 \times 8) = \$2{,}400$

27 D

28 B

29 D Cost per equivalent unit: $(480{,}000 \div 10{,}000) = \$48$
Closing work in progress valuation: $(4{,}000 \times \text{Degree of completion} \times 48) = 144{,}000$
Degree of completion $= (144{,}000 \div 4{,}000 \div 48) = 0.75 = 75\%$

30 D

	X	Y
CPU	$8	$10
Contribution per hour	$4	$2.50
Ranking	1st	2nd

Therefore produce and sell the maximum 800 units of X using 1,600 hours and with the remaining 400 hours produce and sell 100 units of Y.

31 A

32 B

	$	
Actual expenditure	235,000	
Actual hours × standard rate (24,000 × 10)	240,000	
Expenditure variance	5,000	Favourable

33 C

	$	
Actual hours × standard rate	240,000	
Standard cost of actual production (3,900 × 6 × 10)	234,000	
Efficiency variance	6,000	Adverse

34 B

35 A

36 C

37 C

38 B

39 C Joint costs apportioned to H: [330,000 ÷ (420,000 + 330,000)] × 350,000 = $154,000
Closing inventory valuation (HH): (30,000 ÷ 330,000) × (154,000 + 66,000) = $20,000

40 B Relevant cost: (8,000 − 5,000) = $3,000

41 B

Budgeted hours	5,000	
Actual hours worked	5,500	
Capacity variance	500	hours × 15 = $7,500 Favourable

42 C

43 B Overtime cost for 250 hours: (250 × 9 × 2) = $4,500
Cost of diverting labour: 250 × (9 + 5) = $3,500
Relevant cost (lowest alternative) = $3,500

44 D 200 units × (3 ÷ 60) × 18 = $180

45 B, this is a stepped fixed cost

46 D

Total overhead to cost centre P:	$
Direct	95,000
Proportion of cost centre X [46,000 + (0.10 × 30,000)] × 0.50	24,500
Proportion of cost centre Y [30,000 × 0.3]	9,000
	128,500

47 A
100 units of Y with all of material G (1,000 kg) = 10 kg per unit
90 units of Y with all of material H (1,800 kg) = 20 kg per unit

48 A
Total contributions:
A [(0 × 8) + (90 × 20)] = $1,800
B [(50 × 8) + (60 × 20)] = $1,600
C [(60 × 8) + (50 × 20)] = $1,480
D [(125 × 8) + (0 × 20)] = $1,000

49 B

50 A

	$
Value of 2,000 units transferred:	
1,700 units × 10	17,000
300 units × 0.40 × 10	1,200
Opening work in progress value	1,710
	19,910

Fundamentals Pilot Paper – Knowledge module

Financial Accounting (International)

Paper F3 (INT)

Time allowed: 2 hours

ALL FIFTY questions are compulsory and MUST be attempted.

Do NOT open this paper until instructed by the supervisor.

This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

ALL 50 questions are compulsory and MUST be attempted
Please use the Candidate Registration Sheet provided to indicate your chosen answer to each multiple choice question.

1 Should details of material adjusting or material non-adjusting events after the balance sheet date be disclosed in the notes to financial statements according to IAS 10 *Events After the Balance Sheet Date*?

A Adjusting events

B Non-Adjusting events

(1 mark)

2 At 30 June 2005 a company's allowance for receivables was $39,000. At 30 June 2006 trade receivables totalled $517,000. It was decided to write off debts totalling $37,000 and to adjust the allowance for receivables to the equivalent of 5 per cent of the trade receivables based on past events.

What figure should appear in the income statement for the year ended 30 June 2006 for these items?

A $61,000

B $22,000

C $24,000

D $23,850

(2 marks)

3 In times of rising prices, what effect does the use of the historical cost concept have on a company's asset values and profit?

A Asset values and profit both understated

B Asset values and profit both overstated

C Asset values understated and profit overstated

D Asset values overstated and profit understated.

(2 marks)

4 The IASB's *Framework for the preparation and presentation of financial statements* gives qualitative characteristics that make financial information reliable.

Which of the following are examples of those qualitative characteristics?

A Faithful Representation, neutrality and prudence

B Neutrality, comparability and true and fair view

C Prudence, comparability and accruals

D Neutrality, accruals and going concern

(2 marks)

5 The following bank reconciliation statement has been prepared by a trainee accountant:

	$
Overdraft per bank statement	3,860
less: Outstanding cheques	9,160
	5,300
add: Deposits credited after date	16,690
Cash at bank as calculated above	21,990

What should be the correct balance per the cash book?

A $21,990 balance at bank as stated

B $3,670 balance at bank

C $11,390 balance at bank

D $3,670 overdrawn.

(2 marks)

6 **Which of the following calculates a trader's net profit for a period?**

A Closing net assets + drawings – capital introduced – opening net assets

B Closing net assets – drawings + capital introduced – opening net assets

C Closing net assets – drawings – capital introduced – opening net assets

D Closing net assets + drawings + capital introduced – opening net assets.

(2 marks)

7 A sole trader took some goods costing $800 from inventory for his own use. The normal selling price of the goods is $1,600.

Which of the following journal entries would correctly record this?

		Dr	Cr
		$	$
A	Drawings account	800	
	Inventory account		800
B	Drawings account	800	
	Purchases account		800
C	Sales account	1,600	
	Drawings account		1,600

(1 mark)

8 The debit side of a company's trial balance totals $800 more than the credit side.

Which one of the following errors would fully account for the difference?

A $400 paid for plant maintenance has been correctly entered in the cash book and credited to the plant asset account.

B Discount received $400 has been debited to discount allowed account

C A receipt of $800 for commission receivable has been omitted from the records

D The petty cash balance of $800 has been omitted from the trial balance.

(2 marks)

9 A company's income statement for the year ended 31 December 2005 showed a net profit of $83,600. It was later found that $18,000 paid for the purchase of a motor van had been debited to the motor expenses account. It is the company's policy to depreciate motor vans at 25 per cent per year on the straight line basis, with a full year's charge in the year of acquisition.

What would the net profit be after adjusting for this error?

A $106,100

B $70,100

C $97,100

D $101,600

(2 marks)

10 Should dividends paid appear on the face of a company's income statement?

A Yes

B No

(1 mark)

11 The following control account has been prepared by a trainee accountant:

Receivables ledger control account

	$		$
Opening balance	308,600	Cash received from credit customers	147,200
Credit sales	154,200	Discounts allowed to credit customers	1,400
Cash sales	88,100	Interest charged on overdue accounts	2,400
Contras against credit balances in payables ledger	4,600	Bad debts written off	4,900
		Allowance for receivables	2,800
		Closing balance	396,800
	555,500		555,500

What should the closing balance be when all the errors made in preparing the receivables ledger control account have been corrected?

A $395,200

B $304,300

C $309,500

D $307,100

(2 marks)

12 At 31 December 2004 Q, a limited liability company, owned a building that cost $800,000 on 1 January 1995. It was being depreciated at two per cent per year.

On 1 January 2005 a revaluation to $1,000,000 was recognised. At this date the building had a remaining useful life of 40 years.

What is the depreciation charge for the year ended 31 December 2005 and the revaluation reserve balance as at 1 January 2005?

	Depreciation charge for year ended 31 December 2005	Revaluation reserve as at 1 January 2005
	$	$
A	25,000	200,000
B	25,000	360,000
C	20,000	200,000
D	20,000	360,000

(2 marks)

13 P and Q are in partnership, sharing profits equally.

On 30 June 2005, R joined the partnership and it was agreed that from that date all three partners should share equally in the profit.

In the year ended 31 December 2005 the profit amounted to $300,000, accruing evenly over the year, after charging a bad debt of $30,000 which it was agreed should be borne equally by P and Q only.

What should P's total profit share be for the year ended 31 December 2005?

A $ 95,000

B $122,500

C $125,000

D $110,000

(2 marks)

14 A company has made a material change to an accounting policy in preparing its current financial statements.

Which of the following disclosures are required by IAS 8 *Accounting policies, changes in accounting estimates and errors* in the financial statements?

1 The reasons for the change.
2 The amount of the adjustment in the current period and in comparative information for prior periods.
3 An estimate of the effect of the change on the next five accounting periods.

A 1 and 2 only

B 1 and 3 only

C 2 and 3 only

D 1, 2 and 3

(2 marks)

15 According to IAS 2 *Inventories*, which of the following costs should be included in valuing the inventories of a manufacturing company?

(1) Carriage inwards

(2) Carriage outwards

(3) Depreciation of factory plant

(4) General administrative overheads

A All four items

B 1, 2 and 4 only

C 2 and 3 only

D 1 and 3 only

(2 marks)

16 Part of a company's cash flow statement is shown below:

	$'000
Operating profit	8,640
Depreciation charges	(2,160)
Increase in inventory	(330)
Increase in accounts payable	440

The following criticisms of the extract have been made:

(1) Depreciation charges should have been added, not deducted.

(2) Increase in inventory should have been added, not deducted.

(3) Increase in accounts payable should have been deducted, not added.

Which of the criticisms are valid?

A 2 and 3 only

B 1 only

C 1 and 3 only

D 2 only

(2 marks)

17 Which of the following explains the imprest system of operating petty cash?

A Weekly expenditure cannot exceed a set amount.

B The exact amount of expenditure is reimbursed at intervals to maintain a fixed float.

C All expenditure out of the petty cash must be properly authorised.

D Regular equal amounts of cash are transferred into petty cash at intervals.

(2 marks)

18 Which of the following are differences between sole traders and limited liability companies?

(1) A sole traders' financial statements are private; a company's financial statements are sent to shareholders and may be publicly filed

(2) Only companies have capital invested into the business

(3) A sole trader is fully and personally liable for any losses that the business might make; a company's shareholders are not personally liable for any losses that the company might make.

A 1 and 2 only

B 2 and 3 only

C 1 and 3 only

D 1, 2 and 3

(2 marks)

19 Which of the following documents should accompany a payment made to a supplier?

A Supplier statement

B Remittance advice

C Purchase invoice

(1 mark)

20 Goodwill should **never** be shown on the balance sheet of a partnership.

Is this statement true or false?

A False

B True

(1 mark)

21 Which of the following journal entries are correct, according to their narratives?

		Dr	CR
		$	$
1	Suspense account	18,000	
	Rent received account		18,000
	Correction of error in posting $24,000 cash received for rent to the rent received account as $42,000		
2	Share premium account	400,000	
	Share capital account		400,000
	1 for 3 bonus issue on share capital of 1,200,000 50c shares		
3	Trade investment in X	750,000	
	Share capital account		250,000
	Share premium account		500,000
	500,000 50c shares issued at $1.50 per share in exchange for shares in X		

A 1 and 2

B 2 and 3

C 1 only

D 3 only

(2 marks)

22 The plant and machinery account (at cost) of a business for the year ended 31 December 2005 was as follows:

Plant and machinery – cost

2005	$	2005	$
1 Jan Balance	240,000	31 March Transfer disposal account	60,000
30 June Cash – purchase of plant	160,000	31 Dec Balance	340,000
	400,000		400,000

The company's policy is to charge depreciation at 20% per year on the straight line basis, with proportionate depreciation in the years of purchase and disposal.

What should be the depreciation charge for the year ended 31 December 2005?

A $68,000

B $64,000

C $61,000

D $55,000

(2 marks)

23 Which of the following should appear in a company's statement of changes in equity?

1 Profit for the financial year
2 Amortisation of capitalised development costs
3 Surplus on revaluation of non-current assets

A All three items

B 2 and 3 only

C 1 and 3 only

D 1 and 2 only

(2 marks)

24 Which of the following statements are correct?

(1) Capitalised development expenditure must be amortised over a period not exceeding five years.

(2) Capitalised development costs are shown in the balance sheet under the heading of Non-current Assets

(3) If certain criteria are met, research expenditure must be recognised as an intangible asset.

A 2 only

B 2 and 3

C 1 only

D 1 and 3

(2 marks)

25 A fire on 30 September destroyed some of a company's inventory and its inventory records.

The following information is available:

	$
Inventory 1 September	318,000
Sales for September	612,000
Purchases for September	412,000
Inventory in good condition at 30 September	214,000

Standard gross profit percentage on sales is 25%

Based on this information, what is the value of the inventory lost?

A $96,000

B $271,000

C $26,400

D $57,000

(2 marks)

26 At 31 December 2004 a company's capital structure was as follows:

	$
Ordinary share capital (500,000 shares of 25c each)	125,000
Share premium account	100,000

In the year ended 31 December 2005 the company made a rights issue of 1 share for every 2 held at $1 per share and this was taken up in full. Later in the year the company made a bonus issue of 1 share for every 5 held, using the share premium account for the purpose.

What was the company's capital structure at 31 December 2005?

	Ordinary share capital $	Share premium account $
A	450,000	25,000
B	225,000	250,000
C	225,000	325,000
D	212,500	262,500

(2 marks)

27 The inventory value for the financial statements of Q for the year ended 31 May 2006 was based on an inventory count on 4 June 2006, which gave a total inventory value of $836,200.

Between 31 May and 4 June 2006, the following transactions took place:

	$
Purchases of goods	8,600
Sales of goods (profit margin 30% on sales)	14,000
Goods returned by Q to supplier	700

What adjusted figure should be included in the financial statements for inventories at 31 May 2006?

A $838,100

B $853,900

C $818,500

D $834,300

(2 marks)

28 In preparing a company's bank reconciliation statement at March 2006, the following items are causing the difference between the cash book balance and the bank statement balance:

(1) Bank charges $380

(2) Error by bank $1,000 (cheque incorrectly debited to the account)

(3) Lodgements not credited $4,580

(4) Outstanding cheques $1,475

(5) Direct debit $350

(6) Cheque paid in by the company and dishonoured $400.

Which of these items will require an entry in the cash book?

A 2, 4 and 6

B 1, 5 and 6

C 3, 4 and 5

D 1, 2 and 3

(2 marks)

29 At 31 December 2005 the following require inclusion in a company's financial statements:

(1) On 1 January 2005 the company made a loan of $12,000 to an employee, repayable on 1 January 2006, charging interest at 2 per cent per year. On the due date she repaid the loan and paid the whole of the interest due on the loan to that date.

(2) The company has paid insurance $9,000 in 2005, covering the year ending 31 August 2006.

(3) In January 2006 the company received rent from a tenant $4,000 covering the six months to 31 December 2005.

For these items, what total figures should be included in the company's balance sheet at 31 December 2005?

	Current assets	Current liabilities
	$	$
A	10,000	12,240
B	22,240	nil
C	10,240	nil
D	16,240	6,000

(2 marks)

30 **How should a contingent liability be included in a company's financial statements if the likelihood of a transfer of economic benefits to settle it is remote?**

A Disclosed by note with no provision being made

B No disclosure or provision is required

(1 mark)

31 **Which of the following material events after the balance sheet date and before the financial statements are approved are adjusting events?**

(1) A valuation of property providing evidence of impairment in value at the balance sheet date.

(2) Sale of inventory held at the balance sheet date for less than cost.

(3) Discovery of fraud or error affecting the financial statements.

(4) The insolvency of a customer with a debt owing at the balance sheet date which is still outstanding.

A 1, 2, 3 and 4

B 1, 2 and 4 only

C 3 and 4 only

D 1, 2 and 3 only.

(2 marks)

32 Alpha received a statement of account from a supplier Beta, showing a balance to be paid of $8,950. Alpha's payables ledger account for Beta shows a balance due to Beta of $4,140.

Investigation reveals the following:

(1) Cash paid to Beta $4,080 has not been allowed for by Beta
(2) Alpha's ledger account has not been adjusted for $40 of cash discount disallowed by Beta.

What discrepancy remains between Alpha's and Beta's records after allowing for these items?

A $690

B $770

C $9,850

D $9,930

(2 marks)

33 The business entity concept requires that a business is treated as being separate from its owners.

Is this statement true or false?

A True

B False

(1 mark)

34 Theta prepares its financial statements for the year to 30 April each year. The company pays rent for its premises quarterly in advance on 1 January, 1 April, 1 July and 1 October each year. The annual rent was $84,000 per year until 30 June 2005. It was increased from that date to $96,000 per year.

What rent expense and end of year prepayment should be included in the financial statements for the year ended 30 April 2006?

	Expense	Prepayment
A	$93,000	$8,000
B	$93,000	$16,000
C	$94,000	$8,000
D	$94,000	$16,000

(2 marks)

35 Which of the following items could appear in a company's cash flow statement?

(1) Surplus on revaluation of non-current assets

(2) Proceeds of issue of shares

(3) Proposed dividend

(4) Dividends received

A 1 and 2

B 3 and 4

C 1 and 3

D 2 and 4

(2 marks)

36 What is the role of the International Financial Reporting Interpretations Committee?

A To create a set of global accounting standards

B To issue guidance on the application of International Financial Reporting Standards

(1 mark)

37 Q's trial balance failed to agree and a suspense account was opened for the difference. Q does not keep receivables and payables control accounts. The following errors were found in Q's accounting records:

(1) In recording an issue of shares at par, cash received of $333,000 was credited to the ordinary share capital account as $330,000

(2) Cash $2,800 paid for plant repairs was correctly accounted for in the cash book but was credited to the plant asset account

(3) The petty cash book balance $500 had been omitted from the trial balance

(4) A cheque for $78,400 paid for the purchase of a motor car was debited to the motor vehicles account as $87,400.

Which of the errors will require an entry to the suspense account to correct them?

A 1, 2 and 4 only

B 1, 2, 3 and 4

C 1 and 4 only

D 2 and 3 only

(2 marks)

38 Mountain sells goods on credit to Hill. Hill receives a 10% trade discount from Mountain and a further 5% settlement discount if goods are paid for within 14 days. Hill bought goods with a list price of $200,000 from Mountain. Sales tax is at 17.5%.

What amount should be included in Mountain's receivables ledger for this transaction?

A $235,000

B $211,500

C $200,925

D $209,925

(2 marks)

39 A computerised accounting system operates using the principle of double entry accounting.

Is this statement true or false?

A False

B True

(1 mark)

40 A company receives rent from a large number of properties. The total received in the year ended 30 April 2006 was $481,200.

The following were the amounts of rent in advance and in arrears at 30 April 2005 and 2006:

	30 April 2005	30 April 2006
	$	$
Rent received in advance	28,700	31,200
Rent in arrears (all subsequently received)	21,200	18,400

What amount of rental income should appear in the company's income statement for the year ended 30 April 2006?

A $486,500

B $460,900

C $501,500

D $475,900

(2 marks)

41 Annie is a sole trader who does not keep full accounting records. The following details relate to her transactions with credit customers and suppliers for the year ended 30 June 2006:

	$
Trade receivables, 1 July 2005	130,000
Trade payables, 1 July 2005	60,000
Cash received from customers	686,400
Cash paid to suppliers	302,800
Discounts allowed	1,400
Discounts received	2,960
Contra between payables and receivables ledgers	2,000
Trade receivables, 30 June 2006	181,000
Trade payables, 30 June 2006	84,000

What figure should appear in Annie's income statement for the year ended 30 June 2006 for purchases?

A $331,760

B $740,800

C $283,760

D $330,200

(2 marks)

42 The bookkeeper of Field made the following mistakes:

Discounts allowed $3,840 was credited to the discounts received account

Discounts received $2,960 was debited to the discounts allowed account

Which journal entry will correct the errors?

		DR	CR
A	Discounts allowed	$7,680	
	Discounts received		$5,920
	Suspense account		$1,760
B	Discounts allowed	$880	
	Discounts received	$880	
	Suspense account		$1,760
C	Discounts allowed	$6,800	
	Discounts received		$6,800
D	Discounts allowed	$3,840	
	Discounts received		$2,960
	Suspense account		$880

(2 marks)

43 **Which of the following statements are correct?**

(1) Materiality means that only items having a physical existence may be recognised as assets.

(2) The substance over form convention means that the legal form of a transaction must always be shown in financial statements even if this differs from the commercial effect.

(3) The money measurement concept is that only items capable of being measured in monetary terms can be recognised in financial statements.

A 2 only

B 1, 2 and 3

C 1 only

D 3 only

(2 marks)

44 The total of the list of balances in Valley's payables ledger was $438,900 at 30 June 2006. This balance did not agree with Valley's payables ledger control account balance. The following errors were discovered:

1 A contra entry of $980 was recorded in the payables ledger control account, but not in the payables ledger.
2 The total of the purchase returns daybook was undercast by $1,000.
3 An invoice for $4,344 was posted to the supplier's account as $4,434.

What amount should Valley report in its balance sheet as accounts payable at 30 June 2006?

A $436,830

B $438,010

C $439,790

D $437,830

(2 marks)

45 Which of the following statements are correct?

(1) A cash flow statement prepared using the direct method produces a different figure for operating cash flow from that produced if the indirect method is used.

(2) Rights issues of shares do not feature in cash flow statements.

(3) A surplus on revaluation of a non-current asset will not appear as an item in a cash flow statement

(4) A profit on the sale of a non-current asset will appear as an item under Cash Flows from Investing Activities in a cash flow statement.

A 1 and 4

B 2 and 3

C 3 only

D 2 and 4

(2 marks)

46 Gareth, a sales tax registered trader purchased a computer for use in his business. The invoice for the computer showed the following costs related to the purchase:

	$
Computer	890
Additional memory	95
Delivery	10
Installation	20
Maintenance (1 year)	25
	1,040
Sales tax (17.5%)	182
Total	1,222

How much should Gareth capitalise as a non-current asset in relation to the purchase?

A $1,222

B $1,040

C $890

D $1,015

(2 marks)

47 A and B are in partnership sharing profits and losses in the ratio 3:2 respectively. Profit for the year was $86,500. The partners' capital and current account balances at the beginning of the year were as follows:

	A	B
	$	$
Current accounts	5,750CR	1,200CR
Capital accounts	10,000CR	8,000CR

A's drawings during the year were $4,300, and B's were $2,430.

What should A's current account balance be at the end of the year?

A $57,650

B $51,900

C $61,950

D $53,350

(2 marks)

48 What is the correct double entry to record the depreciation charge for a period?

A DR Depreciation expense
CR Accumulated depreciation

B DR Accumulated depreciation
CR Depreciation expense

(1 mark)

49 A company values its inventory using the first in, first out (FIFO) method. At 1 May 2005 the company had 700 engines in inventory, valued at $190 each.

During the year ended 30 April 2006 the following transactions took place:

2005			
1 July	Purchased	500 engines	at $220 each
1 November	Sold	400 engines	for $160,000
2006			
1 February	Purchased	300 engines	at $230 each
15 April	Sold	250 engines	for $125,000

What is the value of the company's closing inventory of engines at 30 April 2006?

A $188,500

B $195,500

C $166,000

D $106,000

(2 marks)

50 A company's motor vehicles at cost account at 30 June 2006 is as follows:

Motor vehicles – cost

	$		$
Balance b/f	35,800	Disposal	12,000
Additions	12,950	Balance c/f	36,750
	48,750		48,750

What opening balance should be included in the following period's trial balance for motor vehicles – cost at 1 July 2006?

A $36,750 DR

B $48,750 DR

C $36,750 CR

D $48,750 CR

(2 marks)

Answers

1 B
2 B 37,000 + ((517,000 – 37,000)*5%) – 39,000) = 22,000
3 C
4 A
5 B -3,860 – 9,160 + 16,690 = 3,670
6 A
7 B
8 B
9 C 83,600 +18,000 – (18,000*25%) = 97,100
10 B
11 D

Receivables ledger control account

	$		$
Opening balance	308,600	Contras	4,600
Credit sales	154,200	Cash received	147,200
Interest charged	2,400	Discounts allowed	1,400
		Bad debts	4,900
		Closing balance	307,100
	465,200		465,200

12 B 1,000,000/40years = 25,000; 1,000,000 – (800,000 – (800,000*2%*10years)) = 360,000
13 B ((300,000 + 30,000) / 2 * ½) + (300,000 + 30,000) / 2 * 1/3) – (30,000 * ½) = 122,500
14 A
15 D
16 B
17 B
18 C
19 B
20 A
21 D
22 D (240,000*20%) + (6/12*160,000*20%) – (9/12*60,000*20%) = 55,000
23 C
24 A
25 D (318,000 + 412,000 – 214,000) – (612,000*75%) = 57,000
26 B 125,000 + (500,000*1/2*25c) + (750,000*1/5*25c) = 225,000; 100,000 + (500,000*1/2*75c) – (750,000*1/5*25c) = 250,000
27 A 836,200 – 8,600 + (14,000*70%) + 700 = 838,100
28 B
29 B 12,000 + (12,000*2%) + (9,000*8/12) + 4,000 = 22,240
30 B
31 A
32 A (8,950 – 4,080) – (4,140 + 40) = 690
33 A
34 D (84,000*2/12) + (96,000*10/12) = 94,000; 96,000*2/12 = 16,000
35 D
36 B
37 B
38 D

List Price	200,000
Trade discount	(20,000)
	180,000
Sales tax (17.5%*95%*180,000)	29,925
	209,925

39 B
40 D

Rent receivable

	$		$
O/Balance	21,200	O/Balance	28,700
Income statement	475,900	Disposal	481,200
C/Balance	31,200	C/Balance	18,400
	528,300		528,300

41 A

Payables ledger

	$		$
Cash paid	302,800	O/balance	60,000
Discounts received	2,960	Purchases	331,760
Contra	2,000		
C/balance	84,000		
	391,760		391,760

42 B
43 D
44 D 438,900 – 980-90 = 437,830
45 C
46 D 890 + 95 + 10 + 20 = 1,015
47 D 5,750 + (86,500*3/5) – 4,300 = 53,350
48 A
49 A (300@230) + (500@220) + (50@190) = 188,500
50 A

Fundamentals Pilot Paper – Skills module

Corporate and Business Law (Global)

Time allowed
Reading and planning: 15 minutes
Writing: 3 hours

ALL TEN questions are compulsory and MUST be attempted.

Do NOT open this paper until instructed by the supervisor.

During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.

This question paper must not be removed from the examination hall.

Paper F4 (GLO)

The Association of Chartered Certified Accountants

This is a blank page
The question paper starts on page 3

ALL TEN questions are compulsory and MUST be attempted

1 Explain the role and activities of the following organisations:

(a) UNCITRAL; (6 marks)

(b) WTO. (4 marks)

(10 marks)

2 Within the context of the UNCITRAL Model Law on International Commercial Arbitration, explain the grounds and procedure for challenging a decision of an arbitration panel.

(10 marks)

3 Within the context of the UN Convention on Contracts for the International Sale of Goods, explain the meaning of, and the rules relating to, the concept of 'acceptance'.

(10 marks)

4 Within the context of the UN Convention on Contracts for the International Sale of Goods, explain the obligations placed on the contractual parties to preserve goods, in their possession, belonging to the other contractual party.

(10 marks)

5 In relation to company directors explain how the following types of authority may arise and explain the extent of the authority arising under each category:

(a) express authority; (3 marks)

(b) implied authority; (3 marks)

(c) apparent/ostensible authority. (4 marks)

(10 marks)

6 In relation to company law explain and distinguish between the following:

(a) annual general meeting; (5 marks)

(b) extraordinary general meeting; (2 marks)

(c) class meeting. (3 marks)

(10 marks)

7 (a) Explain briefly what is meant by 'corporate governance'. (4 marks)

(b) Within the context of corporate governance examine the role of, and relationship between, executive directors and non-executive directors. (6 marks)

(10 marks)

8 Art, a Dutch wholesaler entered into a contract with Carl, a Belgian chocolate manufacturer for the delivery of one tonne of chocolates per week at a specified price to an English retailer. The contract stated that the deliveries were to be made for a period of eight weeks, from May until the end of June.

During May the contract worked well, Art paid the weekly instalments and Carl delivered the chocolates to the retailer. However, in the first week in June, Art paid the usual instalment but Carl did not supply any chocolates to England, informing Art that he was uncertain as to whether he would ever be able to supply the full one tonne of chocolates as required under the contract.

Required:

Advise Art as to what action he can take under the UN Convention on Contracts for the International Sale of Goods, paying particular attention to the effect of Article 73 of the Convention.

(10 Marks)

9 Flop Ltd was in financial difficulties. In January, in order to raise capital it issued 10,000 $1 shares to Gus, but only asked him to pay 75 cents per share at the time of issue. The directors of Flop Ltd intended asking Gus for the other 25 cents per share at a later date. However, in June it realised that it needed even more than the $2,500 it could raise from Gus's existing shareholding. So in order to persuade Gus to provide the needed money Flop Ltd told him that if he bought a further 10,000 shares he would only have to pay a total of 50 cents for each $1 share, and it would write off the money owed on the original share purchase.

Gus agreed to this, but the injection of cash did not save Flop and in December it went into insolvent liquidation, owing a considerable amount of money.

Required:

Explain any potential liability that Gus might have on the shares he holds in Flop Ltd.

(10 marks)

10 In January the board of directors of Huge plc decided to make a take over bid for Large plc. After the decision was taken, but before it is announced the following chain of events occurs:

(i) Slye a director of Huge plc buys shares in Large plc;

(ii) Slye tells his friend Mate about the likelihood of the take-over and Mate buys shares in Large plc;

(iii) at a dinner party Slye, without actually telling him about the take-over proposal, advises his brother Tim to buy shares in Large plc and Tim does so.

Required:

Consider the legal position of Slye, Mate and Tim under the law relating to insider dealing.

(10 marks)

End of Question Paper

Answers

1 (a) The United Nations Commission on International Trade Law (UNCITRAL) is the core legal body within the United Nations system in the field of international trade law. It was established by the General Assembly in 1966 (Resolution 2205(XXI)). In establishing the Commission, the General Assembly recognized that disparities in national laws governing international trade created obstacles to the flow of trade, and UNCITRAL was given the task of furthering the progressive harmonization and unification of the law of international trade. This was to be achieved by:

- Co-ordinating the work of organisations active in this field and encouraging co-operation among them;
- Promoting wider participation in existing international conventions and wider acceptance of existing model and uniform laws;
- Preparing or promoting the adoption of new international conventions, model laws and uniform laws and promoting the codification and wider acceptance of international trade terms, provisions, customs and practices, in collaboration, where appropriate, with the organisations operating in this field;
- Promoting ways and means of ensuring a uniform interpretation and application of international conventions and uniform laws in the field of the law of international trade;
- Collecting and disseminating information on national legislation and modern legal developments, including case law, in the field of the law of international trade;
- Establishing and maintaining a close collaboration with the United Nations Conference on Trade and Development;
- Maintaining liaison with other United Nations organs and specialised agencies concerned with international trade;
- Taking any other action it may deem useful to fulfil its functions.

The Commission is composed of 60 member States elected by the General Assembly and is structured so as to be representative of the world's various geographic regions, economic and legal systems. The Commission carries out its work at annual sessions, which are held in alternate years at United Nations Headquarters in New York and in Vienna. Members of the Commission are elected for terms of six years, the terms of half the members expiring every three years.

The Commission operates through six working groups, although these are composed of all member States of the Commission. The six working groups and their current topics are as follows:

- working group I – Privately-financed infrastructure projects
- working group II – International arbitration and conciliation
- working group III – Transport law
- working group IV – Electronic
- working group V – Insolvency
- working group VI – Security interests

Non-members of the Commission, as well as interested international organizations, are invited to attend sessions of the Commission and of its working groups as observers and can participate in any discussions to the same extent as members.

The following are some of the most important outcomes of the work conducted by UNCITRAL:

United Nations Convention on Contracts for the International Sale of Goods (Vienna, 1980). This Convention establishes a comprehensive code of legal rules governing the formation of contracts for the international sale of goods, the obligations of the buyer and seller, remedies for breach of contract and other aspects of the contract.

United Nations Convention on the Carriage of Goods by Sea, 1978 (the 'Hamburg Rules'). This Convention establishes a uniform legal regime governing the rights and obligations of shippers, carriers and consignees under a contract of carriage of goods by sea.

UNCITRAL Model Law on International Commercial Arbitration (1985). These provisions are designed to assist States in reforming and modernizing their laws on arbitral procedure so as to take into account the particular features and needs of international commercial arbitration.

United Nations Convention on International Bills of Exchange and International Promissory Notes (New York, 1988). This Convention provides a comprehensive code of legal rules governing new international instruments for optional use by parties to international commercial transactions.

UNCITRAL Model Law on Electronic Commerce. This Model Law, adopted in 1996, is intended to facilitate the use of modern means of communications and storage of information.

UNCITRAL Model Law on Cross-Border Insolvency. This Model Law seeks to promote fair legislation for cases where an insolvent debtor has assets in more than one State.

(b) The World Trade Organization (WTO) was created in 1995, as the re-embodiment of the General Agreement on Tariffs and Trade (GATT) had provided the rules for the system of international trade since 1948. GATT evolved through several rounds of negotiations, with the last one, the Uruguay Round which lasted from 1986 to 1994 leading to the agreement to the creation of the WTO. Whereas GATT had mainly dealt with trade in goods, the WTO and its agreements now cover trade in services, and in traded inventions, creations and intellectual property. The WTO has nearly 150 members, accounting for over 97% of world trade.

The WTO's overriding purpose is to assist the free flow of trade through the removal of obstacles to such trade. It also endeavours to ensure that individuals, companies and governments know what the trade rules are around the world, thus giving them the confidence that there will be no sudden changes of policy.

The WTO seeks to achieve these purposes by:

– Administering trade agreements
– Acting as a forum for trade negotiations
– Settling trade disputes
– Reviewing national trade policies
– Assisting developing countries in trade policy issues, through technical assistance and training programmes
– Cooperating with other international organizations.

The WTO Agreements, covering goods, services and intellectual property, spell out the principles of liberalization, and the limited permitted exceptions to that process are the result of negotiations between the members. The agreements include individual countries' commitments to lower customs tariffs and other trade barriers, and to open and keep open services markets. They set procedures for settling disputes. They prescribe special treatment for developing countries. They require governments to make their trade policies transparent by notifying the WTO about laws in force and measures adopted, and through regular reports by the secretariat on countries' trade policies. The current set of agreements is the outcome of the 1986–94 Uruguay Round negotiations which included a major revision of the original General Agreement on Tariffs and Trade (GATT). Through these agreements, WTO members engage to operate a non-discriminatory trading system that spells out their rights and their obligations. Each country receives guarantees that its exports will be treated fairly and consistently in other countries' markets. Each promises to do the same for imports into its own market. The system does, however, allow a degree of latitude to developing countries in implementing their commitments.

All WTO members must undergo periodic scrutiny, each review containing reports by the country concerned and the WTO Secretariat.

Decisions of the WTO are made by the entire membership, usually on the basis of consensus. However, a majority vote is possible but it has never actually been used in the WTO, although such decisions were taken under the WTO's predecessor, GATT.

The WTO's structure is as follows:

– the **Secretariat** is based in Geneva. It employs around 600 staff under the direction of a director-general. The Secretariat has no decision-making role and its duties are to supply technical support for the various councils and committees and the ministerial conferences, to provide technical assistance for developing countries, to analyze world trade, and to explain WTO affairs to the public and media. The Secretariat also provides some forms of legal assistance in the dispute settlement process and advises governments wishing to become members of the WTO.

– the **Ministerial Conference** is the WTO's top level decision-making body is which meets at least once every two years.

– the **General Council** (normally ambassadors and heads of delegation in Geneva, but sometimes officials sent from members' capitals) which meets several times a year in Geneva. The General Council also meets as the Trade Policy Review Body and the Dispute Settlement Body.

– Specific councils such as the **Goods Council, Services Council and Intellectual Property (TRIPS) Council** report to the General Council.

– numerous specialised committees, **working groups** and **working parties** deal with the individual agreements and other areas such as the environment, development, membership applications and regional trade agreements.

Under the Dispute Settlement Understanding the WTO operates a dispute settlement procedure for resolving trade quarrels when they arise between members countries. The dispute settlement procedure encourages countries to settle their differences through consultation. However, where this proves unsuccessful, the parties engage in a stage-by-stage procedure that may eventually result in a binding ruling by a panel of experts, subject to the further possibility of an appeal. The judgments of the panels are based on interpretations of the agreements and individual countries' commitments.

Settling disputes is the responsibility of the Dispute Settlement Body (the General Council in another guise), which consists of all WTO members.

The Dispute Settlement Body has the sole authority to establish 'panels' of experts to consider the case, and to accept or reject the panels' findings or the results of an appeal on a point of law only. It monitors the implementation of the rulings and recommendations, and has the power to authorize retaliation when a country does not comply with a ruling. Panellists are usually chosen in consultation with the countries in dispute. Only if the two sides cannot agree does the WTO director-general appoint them. Panels consist of three (possibly five) experts from different countries, who examine the evidence and decide who is right and who is wrong. The panel's report is passed to the Dispute Settlement Body, which can only reject the report by consensus. Panellists for each case can be chosen from a permanent list of well-qualified candidates, or from elsewhere. They serve in their individual capacities. They cannot receive instructions from any government.

Any appeal is heard by three members of a permanent seven-member Appellate Body set up by the Dispute Settlement Body and broadly representing the range of WTO membership. Members of the Appellate Body have to be individuals with recognized standing in the field of law and international trade, not affiliated with any government.

The appeal can uphold, modify or reverse the panel's legal findings and conclusions. The ultimate decision rests with the Dispute Settlement Body which has to accept or reject the appeals report within 30 days, however, and rejection is only possible by consensus.

2 In any case of arbitration it is essential that the parties involved can place utmost reliance on the person chosen to be the arbitrator. They must be able to rely on the fact that the arbitrator has the requisite skills to act in his arbitral capacity, but equally they must be able to trust that the person appointed is, and will remain, neutral and will deliver a fair and impartial decision. Impartiality and independence are therefore of crucial importance in the operation of international arbitration. Consequently, under Article 12 of the UNCITRAL Model Law of Commercial Arbitration, when a person is approached in connection with the possibility of their being appointed as an arbitrator, they are required to disclose any circumstances likely to give rise to justifiable doubts as to their impartiality or independence. They are also required to notify the parties of any circumstances that subsequently raise such doubts as to their impartiality.

The appointment of a person as an arbitrator may only be challenged on two grounds:
- where circumstances exist that give rise to justifiable doubts as to his impartiality or independence, or
- where the person appointed does not possess qualifications agreed to by the parties.

In addition a party can not challenge an arbitrator appointed by them, or in whose appointment they participated, for any reasons they were aware of before the arbitrator was appointed.

Under Article 13 the parties are free to agree on a procedure for challenging an arbitrator. Where no such agreement has been established, then any party who intends to challenge an arbitrator has 15 days, after becoming aware of the constitution of the arbitral tribunal or after becoming aware of any grounds for challenge, to send a written statement of the reasons for the challenge to the arbitral tribunal.

Unless the challenged arbitrator withdraws from his office or the other party agrees to the challenge, the arbitral tribunal shall decide on the challenge. If a challenge is not successful, the party issuing the challenge has a further 30 days to request the court or other specified authority to decide on the challenge. This level of decision is final, and cannot be further appealed against. Whilst any appeal is under way, the original arbitral tribunal, including the challenged arbitrator, may continue the arbitral proceedings and make an award.

3 A contract is concluded at the moment when an acceptance of an offer becomes effective in accordance with the provisions of the Convention (*Article 23*). Such a pronouncement, however, requires an explanation of what is to be taken as amounting to acceptance under the provisions of the Convention.

By virtue of *Article 18* acceptance of an offer may be made by means of a *statement* or other *conduct* of the offeree. The essential feature is that the action indicates agreement to the offer originally made by the offeror. Consequently it is possible for acceptance to be spoken or written, but it is equally possible for the acceptance to take place through the performance of an action such as the despatch of goods or payment of an agreed price. As with other forms of acceptance, any such act normally takes effect at the moment of performance. It is imperative to emphasise that, silence or inactivity cannot amount to acceptance, so the offeror cannot impose acceptance on the offeree on the basis of the latter's inaction.

As regards the time of acceptance, it becomes effective at the moment the indication of assent reaches the offeror. An acceptance is not effective if the indication of assent does not reach the offeror within the time he has fixed or, if no time is fixed, within a reasonable time, due account being taken of the circumstances of the transaction, including the rapidity of the means of communication employed by the offeror.

An oral offer must be accepted immediately unless the circumstances indicate otherwise.

However, if, by virtue of the offer, or as a result of practices which the parties have established between themselves, or of usage, the offeree may indicate assent by performing an act, such as one relating to the despatch of the goods or payment of the price, without notice to the offeror, the acceptance is effective at the moment the act is performed, provided that the act is performed within the period of time laid down in the preceding paragraph.

Under *Article 19* an acceptance which contains additions, limitations or other modifications constitutes a counteroffer and acts as a rejection of the original offer.

However, if the additional terms do not 'materially alter the terms of the offer' then the acceptance is valid unless the offeror, without undue delay, objects to the alterations to the original offer.

Article 20 deals with matters relating to the time period within which acceptance has to be made. Thus,

– where a period of time for acceptance is set by the offeror in a telegram then that period begins to run from the moment the telegram is handed in for dispatch.
– where the period of time for acceptance is set in a letter then the period begins to run from the date shown on the letter. If no such date is shown, then the period runs from the date shown on the envelope.
– a period of time for acceptance fixed by the offeror by telephone, telex or other means of instantaneous communication, begins to run from the moment that the offer reaches the offeree.
– if a letter or other writing containing a late acceptance shows that it has been sent in such circumstances that if its transmission had been normal it would have reached the offeror in due time, the late acceptance is effective as an acceptance unless, without delay, the offeror orally informs the offeree that he considers his offer as having lapsed or dispatches a notice to that effect (*Article 21*).
– Official holidays or non-business days occurring during the period for acceptance are included in calculating the period. However, if a notice of acceptance cannot be delivered at the address of the offeror on the last day of the period because that day falls on an official holiday or a non-business day at the place of business of the offeror, the period is extended until the first business day which follows.

Acceptance 'reaches' the addressee when it is made orally to him or delivered by any other means to him personally, to his place of business or mailing address or, if he does not have a place of business or mailing address, to his habitual residence (*Article 24*).

Late acceptance may, however, be effective if without delay the offeror orally so informs the offeree or dispatches a notice to that effect (*Article 21*).

An acceptance may be withdrawn if the withdrawal reaches the offeror before or at the same time as the acceptance would have become effective (*Article 22*).

4 The United Nations Convention on Contracts for the International Sale of Goods imposes a duty on both parties to any contract covered by its provisions to preserve any goods in their possession belonging to the other party. Such a duty is of particular importance in international sale of goods contracts where the other party is unlikely to have a physical presence, and may not even have agents to act for them, in the country where the goods are located.

Under certain circumstances the party in possession of the goods may sell them, or may even be required to sell them. In such a situation the party selling the goods has the right to retain reasonable expenses for preserving and selling the goods out of the proceeds of the sale. They must of course account for any deduction to the other party for the balance.

The detailed provision of the Convention is as follows;

Article 85 provides that if the buyer does not take delivery of the goods at the agreed time and the seller has the goods in their possession or control, then the seller must take such steps as are reasonable in the circumstances to preserve them. As a result of the failure on the part of the buyer, the seller is entitled to any additional expense entered into to preserve the goods. The seller is entitled to keep the goods until they have received reasonable expenses from the buyer.

Equally, where the goods are supposed to be paid for on delivery, failure by the buyer to pay the price gives rise to similar provisions and procedures.

Article 86 applies to situations where goods are rejected by the buyer for some reason, either under the specific terms of the contract, or the under the general provisions of the Convention and the seller, or their agent, is not present at the place of delivery. In such circumstances, the buyer must take such steps to preserve the goods as are reasonable in the circumstances. If the goods have been placed at the buyers' disposal at the agreed destination and the buyers exercise the right to reject them, they must nonetheless take possession of the goods on behalf of the seller, provided that this can be done without payment of the price and without unreasonable inconvenience or unreasonable expense.

Once again, as with *Article 85*, they are entitled to retain the goods until they have been compensated for any reasonable expenses incurred. In respect of this latter point, *Article 87* expressly provides that any party, who is bound to take steps to preserve goods under the provisions of the Convention, may deposit them in a warehouse of a third person at the expense of the other party to the contract, provided that the expense incurred is not unreasonable.

Article 88
If the goods are subject to rapid deterioration, or their preservation would involve unreasonable expense, the party who is bound to preserve the goods in accordance with the Convention must take reasonable measures to sell them.

Also, where there has been an unreasonable delay by the other party in taking possession of the goods, or in taking them back, or in paying the price or the cost of preservation, then the party who was bound by the Convention to preserve the goods *may* sell them.

In the first situation the party selling the goods must give notice to the other party of his intention to sell to the extent that such notice is reasonably possible. In the second situation reasonable notice of the intention to sell must be given to the other party.

In any case the party selling the goods has the right to retain reasonable expenses for preserving and selling the goods out of the proceeds of the sale. They must, of course, account to the other party for any balance due on the sale.

5 An agent is a person who is empowered to represent another legal party, called the principal, and to bring the principal into a legal relationship with a third party. Any contract entered into is between the principal and the third party each of whom may enforce it. In the normal course of events the agent has no personal rights or liabilities in relation to the contract.

The principal/agent relationship can be created in a number of ways. It may arise as the outcome of a distinct contract, which may be made either orally or in writing, or it may be established purely gratuitously, where some person simply agrees to act for another.

In establishing a relationship of principal/agent, however the principal does not give the agent unlimited power to enter into any contract whatsoever but is likely to place strict limits on the nature of the contracts that the agent can enter into on his behalf. In other words the authority of the agent is limited and in order to bind a principal any contract entered into must be within the limits of the authority extended to the agent. The authority of an agent can take a number of distinct forms.

(a) Express authority

In this instance, when the principal/agency relationship is established, the agent is instructed as to what particular tasks are required to be performed and is informed of the precise powers given in order to fulfil those tasks. If the agent subsequently contracts outside of the ambit of their express authority then they will be liable to the principal and to the third party for breach of warrant of authority (see below). The consequences for the relationship between the principal and third party depends on whether the third party knew that the agent was acting outside the scope of their authority.

For example, an individual director of a company may be given the express power by the board of directors to enter into a specific contract on behalf of the company. In such circumstances the company would be bound by the subsequent contract but the director would have no power to bind the company in other contracts.

(b) Implied authority

This refers to the way in which the scope of express authority may be increased. Third parties are entitled to assume that agents holding a particular position have all the powers that are usually provided to such an agent. Without actual knowledge to the contrary they may safely assume that the agent has the usual authority that goes with their position.

In *Watteau* v *Fenwick* (1893) the new owners of a hotel continued to employ the previous owner as its manager. They expressly forbade him to buy certain articles including cigars. The manager, however, bought cigars from a third party, who later sued the owners for payment as the manager's principal. It was held that the purchase of cigars was within the usual authority of a manager of such an establishment and that for a limitation on such usual authority to be effective it must be communicated to any third party.

Directors of companies can also bind their companies on the basis of implied authority. In *Hely-Hutchinson* v *Brayhead Ltd* (1968) although the chairman and chief-executive of a company acted as its de facto managing director he had never been formally appointed to that position. Nevertheless, he purported to bind the company to a particular transaction. When the other party to the agreement sought to enforce it, the company claimed that the chairman had no authority to bind it. It was held that although the director derived no authority from his position as chairman of the board he did acquire such authority from his position as chief executive and thus the company was bound by the contract he had entered into on its behalf as it was within the implied authority of a person holding such a position.

(c) Apparent/ostensible authority

This type of authority, which is an aspect of agency by estoppel, can arise in two distinct ways:

(i) Where a person makes a representation to third parties that a particular person has the authority to act as their agent without actually appointing them as their agent. In such a case the person making the representation is bound by the actions of the ostensible/apparent agent. The principal is also liable for the actions of the agent where they are aware that the agent claims to be their agent and yet does nothing to correct that impression.

In *Freeman & Lockyer* v *Buckhurst Park Properties (Mangal) Ltd* (1964), although a particular director had never been appointed as managing director, he acted as such with the clear knowledge of the other directors and entered into a contract with the plaintiffs on behalf of the company. When the plaintiffs sought to recover fees due to them under that contract it was held that the company was liable: a properly appointed managing director would have been able to enter into such a contract and the third party was entitled to rely on the representation of the other directors that the person in question had been properly appointed to that position.

(ii) Where a principal has previously represented to a third party that an agent has the authority to act on their behalf. Even if the principal has subsequently revoked the agent's authority they may still be liable for the actions of the former agent unless they have informed third parties who had previously dealt with the agent about the new situation (*Willis Faber & Co Ltd* v *Joyce* (1911)). Thus companies should inform their previous clients where a director has had his authority, either express or implied, removed or reduced.

6 In theory, the ultimate control over a company's business lies with the members in a general meeting. One would obviously conclude that a meeting involved more than one person; and indeed there is authority to that effect in *Sharp* v *Dawes* (1876) in which a meeting between a lone member and the company secretary was held not to be validly constituted. It is possible, however, for a meeting of only one person to take place in the following circumstances:

(i) in the case of a meeting of a particular class of shareholders and all the shares of that class are owned by the one member.

(ii) by virtue of s.371 of the Companies Act 1985 (CA) the court may order the holding of a general meeting at which the quorum is to be one member.

Types of meetings

There are three types of meeting:

(a) **the annual general meeting**. By virtue of s.366 of CA 1985, every company is required to hold an annual general meeting (AGM) every calendar year; subject to a maximum period of 15 months. This means that if a company held its AGM on 1 January 2000, then it must hold its next AGM by 31 March 2001 at the latest.

If a company fails to hold an AGM then any member may apply to the Secretary of State to call a meeting in default (CA s 367). The business conducted at AGMs tends to be routine such as the re-election of directors, consideration of accounts and approval of dividends. In line with the recognised distinction between public and private companies the CA 1989 introduced a provision, in the form of a new CA s.366 A, which permitted private companies, subject to approval by a unanimous vote, to dispense with the holding of annual general meetings. Under s.381 A of the CA 1985 it is no longer necessary for a private company to convene a general meeting where the members have unanimously signed a written resolution setting out a particular course of action.

(b) **the extraordinary general meeting**. An extraordinary general meeting (EGM) is any meeting other than an AGM. EGMs are usually called by the directors, although members holding 10% of the voting shares may requisition such a meeting by virtue of s.368 (CA 1985).

(c) **the class meeting**. This refers to the meeting of a particular class of shareholder; ie those who hold a type of share providing particular rights, such as preference shares. Where it is proposed to alter the rights attached to particular shares then it is necessary to acquire the approval of the holders of those particular shares to any such alteration. In order to achieve this approval, a meeting of those holding such shares has to be called to seek their approval of any proposed alteration (CA ss.125 –127).

Meetings may be convened in a number of ways by various people:

(i) by the directors of the company under Article 37 of Table A. Under s.142 CA 1985, to call meetings where there has been a serious loss of capital, defined as the assets falling to half or less than the nominal value of the called up share capital.
(ii) by the members using the power to requisition a meeting under s.368 CA 1985.
(iii) by the auditor of a company under s.392A, which provides for a resigning auditor to require the directors to convene a meeting in order to explain the reason for the auditor's resignation.
(iv) the Secretary of State may under s.367, on the application of any member, call a meeting of a company where it has failed to hold an AGM as required under s.366.
(v) the court may order a meeting under s.371, where it is impracticable otherwise to call a meeting.

7 **(a)** Corporate governance refers to the way in which companies are run and operated. According to the Organisation for Economic Co-operation and Development:

Corporate governance is the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as, the board, managers, shareholders and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structure through which the company objectives are set, and the means of attaining those objectives and monitoring performance.

Although these interrelated issues have always been of concern in the way companies function, it cannot but be recognised that the increase in the attention placed on matters of corporate governance has been a result of the perceived weakness in company regulation which has been apparent in some of the recent scandals involving such large companies as Enron and Worldcom in America and Marconi and Parmalat in Europe.

In order to ensure an effective corporate governance framework it has been deemed necessary to set out defined rules and regulations, including voluntary codes. In the United Kingdom one such code is the Combined Code On Corporate Governance, which is the result of the review of the role and effectiveness of non-executive directors conducted by Derek Higgs and a review of audit committees conducted by Sir Robert Smith. This new combined code has applied to listed companies since November 2003. Companies have either to confirm that they comply with the Code's provisions or, where it does not, to provide an explanation of their non-compliance. Whilst listed companies are expected to comply with the Code's provisions most of the time, it is recognised that departure from its provisions may be justified in particular circumstances. Every company must review each provision carefully and give a considered explanation if it departs from the Code provisions.

(b) As regards the structure pf the board of directors the Combined Code requires that the board should include a balance of executive and non-executive directors (and in particular independent non-executive directors) such that no individual or small group of individuals can dominate the board's decision taking.

Executive directors usually work on a full time basis for the company and may be employees of the company with specific contracts of employment. Section 318 Companies Act (CA) 1985 requires that the terms of any such contract must be made available for inspection by the members. Section 319 renders void any such contract, which purports to be effective for a period of more than five years, unless it has been approved by a resolution of the company in a general meeting. In fact the Combined Code on Corporate Governance recommends that the maximum period for directors employment contracts should be one year.

Non-executive directors do not usually have a full-time relationship with the company, they are not employees and only receive directors' fees. The role of the non-executive directors, at least in theory, is to bring outside experience and expertise to the board of directors. They are also expected to exert a measure of control over the executive directos to ensure that the latter do not run in the company in their, rather than the company's, best interests. As the Combined Code puts it:

> 'As part of their role as members of a unitary board, non-executive directors should constructively challenge and help develop proposals on strategy. Non-executive directors should scrutinise the performance of management in meeting agreed goals and objectives and monitor the reporting of performance. They should satisfy themselves on the integrity of financial information and that financial controls and systems of risk management are robust and defensible. They are responsible for determining appropriate levels of remuneration of executive directors and have a prime role in appointing, and where necessary removing, executive directors, and in succession planning.'

It is important to note that there is no distinction in law between executive and non-executive directors and the latter are subject to the same controls and potential liabilities as are the former.

8 Art and Carl entered into a binding instalment contract in which the latter was obliged to supply the agreed quantity of chocolate at the agreed price. Article 73 of the UN Convention on Contracts for the International Sale of Goods specifically deals with instalment contracts. Article 73(1) provides that, in the case of a contract for delivery of goods by instalments, if the failure of one party to perform any of his obligations in respect of any instalment constitutes a fundamental breach of contract with respect to that instalment, the other party may declare the contract avoided with respect to that instalment. It is clear that Carl's failure to supply any chocolate is a fundamental breach of the contract and consequently, under Article 73(1) Art can avoid that instalment of the contract and claim for damages to the extent of his lost profit on the sale of the chocolate. However, Art clearly wants to bring the contract to an end completely and Article 73(2) allows for just that possibility. Under that article, where one party's failure to perform any of his obligations in respect of any instalment gives the other party good grounds to conclude that a fundamental breach of contract will occur with respect to future instalments, he may declare the contract avoided for the future, provided that he does so within a reasonable time. It is clear that Carl's failure to deliver and his statement about his uncertainty in relation to the future supply of chocolate provides Art with sufficient grounds for suspecting that future instalments will not be met as required in the original agreement. Consequently Art can avoid the contract for the future, as long as he gives Carl notice of the fact within a reasonable time.

Article 73(3) further states that a buyer, who declares the contract avoided in respect of any delivery may, at the same time, declare it avoided in respect of deliveries already made or of future deliveries if, by reason of their interdependence, those deliveries could not be used for the purpose contemplated by the parties at the time of the conclusion of the contract. This provision, however, does not apply to the facts of this situation so Art cannot avoid his liabilities in relation to the chocolates already received.

9 This question requires candidates to consider various issues relating to the issuing of shares by companies, the requirement for those shares to be paid for by shareholders and shareholders' potential liabilities for the debts of their companies.

The first issue relates to the shares taken by Gus in January. United Kingdom law requires that the capital of any company having share capital must be divided into shares of a designated and fixed amount (s.2(5)). The nominal value of the shares represents the extent of a shareholder's potential liability (*Borlands Trustees* v *Steel* (1901)).

There is, however, no requirement that companies issue shares to the full extent of their authorised capital, nor indeed is there any requirement that the company require its shareholders to immediately pay the full value of the shares.

The proportion of the nominal value of the issued capital actually paid by the shareholder is called the paid up capital. It may be the full nominal value, in which case it fulfils the shareholders responsibility to outsiders; or it can be a mere part payment, in which case the company has an outstanding claim against the shareholder. It is possible for a company to pass a resolution that it will not make a call on any unpaid capital. However, even in that situation, the unpaid element can be called upon if the company cannot pay its debts from existing assets in the event of its liquidation.

Consequently, there was nothing unlawful in the issue of the shares as partly paid up, but the remaining, unpaid, part, can always be called upon if the company requires it to pay off its debts.

The foregoing point is further strengthened by rules preventing companies from issuing shares at a discount. It is a long established rule that companies are not permitted to issue shares for a consideration that is less than the nominal value of the shares together with any premium due. The strictness of this rule may be seen in *Ooregum Gold Mining Co of India* v *Roper* (1892). In that case the shares in the company, although nominally £1, were trading at 12.5p. In an honest attempt to refinance the company, new £1 preference shares were issued and credited with 75p already paid (note the purchasers of the shares were actually paying twice the market value of the ordinary shares). When, however, the company subsequently went into insolvent liquidation the holders of the new shares were required to pay a further 75p.

The common law rule is now given statutory effect in s.100 Companies Act 1985 (CA) and is supported by s. 99 which states that shares are only treated as paid up to the extent that the company has received money or money's worth. If a company does enter into a contract to issue shares at a discount it will not be able to enforce this against the proposed allottee. However, anyone who takes shares without paying the full value, plus any premium due, is liable to pay the amount of the discount as unpaid share capital, together with interest at 5% (s.100(2)/CA 1985). Also any subsequent holder of such a share who was aware of the original underpayment will liable to make good the shortfall (s.112 CA 1985).

Applying the foregoing to Gus's situation in relation to his shareholdings in Flop Ltd he cannot avoid liability to pay up to the full value of the shares he has taken in it. Thus in relation to the first lot of shares he will be liable to pay a maximum of $2,500 (25 cents x 10,000) shares and in relation to the second lot he will be liable to pay a maximum of $5,000 (50 cents x 10,000 shares). The extent of his liability will depend on the actual debts owed but cannot exceed the nominal value of the shares.

10 Dealing in shares, on the basis of access to unpublished price sensitive information, provides the basis for what is referred to as 'insider dealing' and is governed by part V of the Criminal Justice Act 1993 (CJA).

Section 52 of the CJA sets out the three distinct offences of insider dealing:

(i) an individual is guilty of insider dealing if they have information as an insider and deal in price-affected securities on the basis of that information.

(ii) an individual who has information as an insider will also be guilty of insider dealing if they encourage another person to deal in price-affected securities in relation to that information.

(iii) an individual who has information as an insider will also be guilty of insider dealing if they disclose it to anyone other than in the proper performance of their employment, office or profession.

The CJA goes on to explain the meaning of some of the above terms as follows.

(i) Dealing is defined in s.55 CJA, amongst other things, as acquiring or disposing of securities, whether as a principal or agent, or agreeing to acquire securities. Section 52 makes it clear that only such activity in a regulated market is covered by the Act.

(ii) Inside information is defined in section 56 as:

- relating to particular securities,
- being specific or precise,
- not having been made public and
- being likely to have a significant effect on the price of the securities.

(iii) Section 57 states that a person has information as an insider only if they know it is inside information and they have it from an inside source. The section then goes on to consider what might be described as primary and secondary insiders. The first category of primary insiders covers those who get the inside information directly through either:

- being a director, employee or shareholder of an issuer of securities; or
- having access to the information by virtue of their employment, office or profession.

The second category of insiders includes those whose source, either directly or indirectly, is a primary insider, as defined above.

Applying the general law to the problem scenario, one can conclude as follows:

(i) Slye is an 'insider' as he receives inside information from his position as a director of Huge plc. The information fulfils the requirements for 'inside information' as it relates to: particular securities, the shares in Large plc; is specific, in that it relates to the takeover; has not been made public; and is likely to have a significant effect on the price of the securities. On that basis Slye is clearly guilty of an offence under s.52 when he buys the shares in Large plc.

(ii) When Slye tells his friend Mate about the likelihood of the take-over he commits the second offence of disclosing information he has as an insider. Mate then becomes an insider himself and is guilty of dealing when he buys shares in Large plc.

(iii) When Slye advises his brother Tim to buy shares in Large plc, he commits the third offence under s.52 of encouraging another person to deal in price-affected securities in relation to inside information. Tim on the other hand has committed no offence for the reason that, although he has bought shares in Large plc, he has not received any specific information and therefore cannot be guilty of dealing on the basis of such information.

1 8–10 Good explanation of the two organisations.

5–7 Sound explanation but lacking in detail or perhaps slightly unbalanced.

0–4 Weak explanation or very unbalanced in that the answer only deals with one type.

2 8–10 Good explanation of the grounds and procedure for challenging an arbitrator's appointment. Reference to the provisions of the Model Law will be expected.

5–7 Fair understanding perhaps lacking in detail or reference to the Model Law.

0–4 Very unbalanced answer or lacking any detailed explanation.

3 This question requires candidates to explain the rules relating to the concept of acceptance under the UN Convention on Contracts for the International Sale of Goods.

8–10 Good explanation of the meaning acceptance with reference to the appropriate Articles.

5–7 Fair explanation of the meaning but perhaps lacking in detail or examples.

0–4 Very unbalanced answer or lacking any detailed explanation.

4 This question requires candidates to explain the rules relating to the preservation of goods under the UN Convention on Contracts for the International Sale of Goods.

8–10 Good explanation of rules with reference to the appropriate Articles.

5–7 Fair explanation of the obligations but perhaps lacking in detail or examples.

0–4 Very unbalanced answer or lacking any detailed explanation.

5 8–10 Good to complete answer which shows a knowledge of the meaning and effect of the two types of authority. It is likely that case authority will be provided, and they will be rewarded accordingly.

5–7 Fair explanation of the two types of authority but perhaps lacking in detail, or only dealing with two types.

0–4 Some basic knowledge of what is meant by the terms, but no real depth of understanding. Perhaps an unbalanced answer that only deals with one part of the question.

6 8–10 A good treatment of all three types of meeting, probably, although not necessarily, with reference to statutory provisions.

5–7 A sound understanding of the area, although perhaps lacking in detail.

2–4 Some understanding of the area, but lacking in detail, perhaps failing to deal with one type of meeting.

0–1 Little or no knowledge of the area.

7 8–10 A good explanation of the meaning of corporate governance generally and the roles of the two types of directors in particular. Reference might well be made to the OECD or the Combined Code.

5–7 A sound understanding of the area, although perhaps lacking in detail.

2–4 Some understanding of the area, but lacking in detail, perhaps failing to deal the relationship of the two group of directors.

0–1 Little or no knowledge of the area.

8 8–10 A good analysis of the scenario with a understanding and application of the law, with detailed reference to the convention.

5–7 Some understanding of the situation but perhaps lacking in detail or reference to the convention.

0–4 Weak answer lacking in knowledge or application, with little or no reference to the convention.

9 8–10 A complete answer, highlighting and dealing with all of the issues presented in the problem scenario. It is most likely that cases and statutory provisions will be referred to, and they will be credited.

5–7 An accurate recognition of the problems inherent in the question, together with an attempt to apply the appropriate legal rules to the situation.

2–4 An ability to recognise some, although not all, of the key issues and suggest appropriate legal responses to them. A recognition of the area of law but no attempt to apply that law.

0–1 Very weak answer showing no, or very little, understanding of the question.

10 8–10 A good analysis of the scenario with a clear explanation of the law relating to the insider dealing, with detailed reference to statutory provisions.

5–7 Some understanding of the situation but perhaps lacking in detail or reference to the statutes.

0–4 Weak answer lacking in knowledge or application, with little or no reference to the statute.

Fundamentals Pilot Paper – Skills module

Performance Management

Paper F5

Time allowed
Reading and planning: 15 minutes
Writing: 3 hours

ALL FOUR questions are compulsory and MUST be attempted.

Do NOT open this paper until instructed by the supervisor.

During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.

This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

Answer ALL FOUR questions

1 Triple Limited makes three types of gold watch – the Diva (D), the Classic (C) and the Poser (P). A traditional product costing system is used at present; although an activity based costing (ABC) system is being considered. Details of the three products for a typical period are:

	Hours per unit		Materials	Production
	Labour hours	Machine hours	Cost per unit ($)	Units
Product D	½	1½	20	750
Product C	1½	1	12	1,250
Product P	1	3	25	7,000

Direct labour costs $6 per hour and production overheads are absorbed on a machine hour basis. The overhead absorption rate for the period is $28 per machine hour.

Required:

(a) Calculate the cost per unit for each product using traditional methods, absorbing overheads on the basis of machine hours. (3 marks)

Total production overheads are $654,500 and further analysis shows that the total production overheads can be divided as follows:

	%
Costs relating to set-ups	35
Costs relating to machinery	20
Costs relating to materials handling	15
Costs relating to inspection	30
Total production overhead	100

The following total activity volumes are associated with each product line for the period as a whole:

	Number of Set ups	Number of movements of materials	Number of inspections
Product D	75	12	150
Product C	115	21	180
Product P	480	87	670
	670	120	1,000

Required:

(b) Calculate the cost per unit for each product using ABC principles (work to two decimal places). (12 marks)

(c) Explain why costs per unit calculated under ABC are often very different to costs per unit calculated under more traditional methods. Use the information from Triple Limited to illustrate. (4 marks)

(d) Discuss the implications of a switch to ABC on pricing and profitability. (6 marks)

(25 marks)

2 Simply Soup Limited manufactures and sells soups in a JIT environment. Soup is made in a manufacturing process by mixing liquidised vegetables, melted butter and stock (stock in this context is a liquid used in making soups). They operate a standard costing and variances system to control its manufacturing processes. At the beginning of the current financial year they employed a new production manager to oversee the manufacturing process and to work alongside the purchasing manager. The production manager will be rewarded by a salary and a bonus based on the directly attributable variances involved in the manufacturing process

After three months of work there is doubt about the performance of the new production manager. On the one hand, the cost variances look on the whole favourable, but the sales director has indicated that sales are significantly down and the overall profitability is decreasing.

The table below shows the variance analysis results for the first three months of the manager's work.

Table 1

F = Favourable. A = Adverse

	Month 1	Month 2	Month 3
Material Price Variance	\$300 (F)	\$900 (A)	\$2,200 (A)
Material Mix Variance	\$1,800 (F)	\$2,253 (F)	\$2,800 (F)
Material Yield Variance	\$2,126 (F)	\$5,844 (F)	\$9,752 (F)
Total Variance	\$4,226 (F)	\$7,197 (F)	\$10,352 (F)

The actual level of activity was broadly the same in each month and the standard monthly material total cost was approximately \$145,000.

The standard cost card is as follows for the period under review

	\$
0.90 litres of liquidised vegetables @ \$0.80/ltr =	0.72
0.05 litres of melted butter @\$4/ltr	0.20
1.10 litres of stock @ \$0.50/ltr	0.55
Total cost to produce 1 litre of soup	1.47

Required:

(a) Using the information in table 1:

(i) Explain the meaning of each type of variances above (price, mix and yield but excluding the total variance) and briefly discuss to what extent each type of variance is controllable by the production manager. (6 marks)

(ii) Evaluate the performance of the production manager considering both the cost variance results above and the sales director's comments. (6 marks)

(iii) Outline two suggestions how the performance management system might be changed to better reflect the performance of the production manager. (4 marks)

(b) The board has asked that the variances be calculated for Month 4. In Month 4 the production department data is as follows:

Actual results for Month 4

Liquidised vegetables:	Bought	82,000 litres	costing \$69,700
Melted butter:	Bought	4,900 litres	costing \$21,070
Stock:	Bought	122,000 litres	costing \$58,560

Actual production was 112,000 litres of soup

Required:

Calculate the material price, mix and yield variances for Month 4. You are not required to comment on the performance that the calculations imply. Round variances to the nearest \$. (9 marks)

(25 marks)

3 BFG Limited is investigating the financial viability of a new product the S-pro. The S-pro is a short-life product for which a market has been identified at an agreed design specification. The product will only have a life of 12 months.

The following estimated information is available in respect of S-pro:

1. Sales should be 120,000 in the year in batches of 100 units. An average selling price of $1,050 per batch of 100 units is expected. All sales are for cash.
2. An 80% learning curve will apply for the first 700 batches after which a steady state production time will apply, with the labour time per batch after the first 700 batches being equal to the time for the 700th batch. The cost of the first batch was measured at $2,500. This was for 500 hours at $5 per hour.
3. Variable overhead is estimated at $2 per labour hour.
4. Direct material will be $500 per batch of S-pro for the first 200 batches produced. The second 200 batches will cost 90% of the cost per batch of the first 200 batches. All batches from then on will cost 90% of the batch cost for each of the second 200 batches. All purchases are made for cash
5. S-pro will require additional space to be rented. These directly attributable fixed costs will be $15,000 per month.

A target net cash flow of $130,000 is required in order for this project to be acceptable.

Note: The learning curve formula is given on the formulae sheet. At the learning rate of 0.8 (80%), the learning factor (b) is equal to -0.3219.

Required:

(a) Prepare detailed calculations to show whether product S-pro will provide the target net cash flow. (12 marks)

(b) Calculate what length of time then second batch will take if the actual rate of learning is:
(i) 80%;
(ii) 90%.

Explain which rate shows the faster learning. (5 marks)

(c) Suggest specific actions that BFG could take to improve the net cash flow calculated above. (8 marks)

(25 marks)

4 The following information relates to Preston Financial Services, an accounting practice. The business specialises in providing accounting and taxation work for dentists and doctors. In the main the clients are wealthy, self-employed and have an average age of 52.

The business was founded by and is wholly owned by Richard Preston, a dominant and aggressive sole practitioner. He feels that promotion of new products to his clients would be likely to upset the conservative nature of his dentists and doctors and, as a result, the business has been managed with similar products year on year.

You have been provided with financial information relating to the practice in appendix 1. In appendix 2, you have been provided with non-financial information which is based on the balanced scorecard format.

Appendix 1: Financial information

	Current year	Previous year
Turnover ($'000)	945	900
Net profit ($'000)	187	180
Average cash balances ($'000)	21	20
Average debtor / trade receivables days (industry average 30 days)	18 days	22 days
Inflation rate (%)	3	3

Appendix 2: Balanced Scorecard (extract)

Internal Business Processes

	Current year	Previous year
Error rates in jobs done	16%	10%
Average job completion time	7 weeks	10 weeks

Customer Knowledge

	Current year	Previous year
Number of customers	1220	1500
Average fee levels ($)	775	600
Market Share	14%	20%

Learning and Growth

	Current year	Previous year
Percentage of revenue from non-core work	4%	5%
Industry average of the proportion of revenue from non-core work in accounting practices	30%	25%
Employee retention rate.	60%	80%

Notes

1. Error rates measure the number of jobs with mistakes made by staff as a proportion of the number of clients serviced
2. Core work is defined as being accountancy and taxation. Non-core work is defined primarily as pension advice and business consultancy. Non core work is traditionally high margin work

Required:

(a) Using the information in appendix 1 only, comment on the financial performance of the business (briefly consider growth, profitability, liquidity and credit management). (8 marks)

(b) Explain why non financial information, such as the type shown in appendix 2, is likely to give a better indication of the likely future success of the business than the financial information given in appendix 1. (5 marks)

(c) Using the data given in appendix 2 comment on the performance of the business. Include comments on internal business processes, customer knowledge and learning/growth, separately, and provide a concluding comment on the overall performance of the business. (12 marks)

(25 marks)

End of Question paper

Formulae Sheet

Learning curve

$Y = ax^b$

Where y = average cost per batch
a = cost of first batch
x = total number of batches produced
b = learning factor (log LR/log 2)
LR = the learning rate as a decimal

Regression analysis

$$y = a + bx$$

$$b = \frac{n\sum xy - \sum x \sum y}{n\sum x^2 - (\sum x)^2}$$

$$a = \frac{\sum y}{n} - \frac{b\sum x}{n}$$

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{(n\sum x^2 - (\sum x)^2)(n\sum y^2 - (\sum y)^2)}}$$

Demand curve

P = a – bQ

$$b = \frac{\text{change in price}}{\text{change in quantity}}$$

a = price when Q = 0

Answers

1 TRIPLE Limited

(a) Traditional cost per unit

	D	C	P
	$	$	$
Material	20	12	25
Labour ($6/hour)	3	9	6
Direct costs	23	21	31
Production overhead ($28/machine hour)	42	28	84
Total production cost /unit	65	49	115

(b) ABC cost per unit

Examiners note: Each step required has been given its own sub-heading to make the procedure clear. The basic principle is to find an overhead cost per unit of activity for each element of overhead cost. In some cases it might then be possible to find an overhead cost per unit directly; here it is probably easier to split overheads between each product type first and then find a cost per unit as shown.

(i) Total overheads

These were given at $654,500

(ii) Total machine hours (needed as the driver for machining overhead)

Product	Hours/unit	Production units	Total hours
D	1½	750	1,125
C	1	1,250	1,250
P	3	7,000	21,000
Total machine hours			23,375

(iii) Analysis of total overheads and cost per unit of activity

Type of overhead	Driver	%	Total overhead $	Level of driver activity	Cost/driver
Set-ups	Number of set ups	35	229,075	670	341.90
Machining	Machine hours	20	130,900	23,375	5.60
Materials handling	Material movements	15	98,175	120	818.13
Inspection	Number of inspections	30	196,350	1,000	196.35
		100	**654,500**		

(iv) Total overheads by product and per unit

	Product D		Product C		Product P		Total	
Overhead	**Activity**	**$ Cost**	**Activity**	**$ Cost**	**Activity**	**$ Cost**	**Activity**	**$ Cost**
Set-ups	75	25,643	115	39,319	480	164,113	670	229,075
Machining	1,125	6,300	1,250	7,000	21,000	117,600	23,375	130,900
Material Handling	12	9,817	21	17,181	87	71,177	120	98,175
Inspection	150	29,453	180	35,343	670	131,554	1,000	196,350
Total overhead cost		77,213		98,843		484,444		654,500
Units produced		750		1,250		7,000		
Costs per unit		$94.95		$79.07		$69.21		

(v) Cost per unit

	D	C	P
	$	$	$
Direct costs (from (a))	23.00	21.00	31.00
Overheads (from (iv))	94.95	79.07	69.21
	117.95	100.07	100.21

(c) Comment

The overhead costs per unit are summarised below together with volume of production.

Product	D	C	P
Volume	750	1,250	7,000
Conventional overheads	$42	$28	$84
ABC overheads	$95	$79	$69

The result of the change to Activity Based Costing is clear, the overhead cost of D and C have risen whilst that of P has fallen.

This is in line with the comments of many who feel that ABC provides a fairer unit cost better reflecting the effort required to make different products. This is illustrated here with product P which may take longer to make than D or C, but once production has started the process is simple to administer. This may be due to having much longer production lines.

Products D and C are relatively minor volume products but still require a fair amount of administrative time by the production department; ie they involve a fair amount of `hassle`. This is explained by the following table of `activities per 1,000 units produced`.

	Set-ups	Materials movements	Inspections
D	100	16	200
C	92	17	144
P	69	12	96

This table highlights the problem.

- Product P has fewer set-ups, material movements and inspections per 1,000 units than or C
- As a consequence product P's overhead cost per unit for these three elements has fallen
- The machining overhead cost per unit for P is still two or three times greater than for products D or C, but because this overhead only accounts for 20% of the total overhead this has a small effect on total cost.
- The overall result is P's fall in production overhead cost per unit and the rise in those figures for D and C

(d) Pricing and Profitability

Switching to ABC can, as in this case, substantially change the costs per unit calculations. Consequently if an organisation's selling prices are determined by a version of cost-plus pricing then the selling prices would alter.

In this case the selling price of D and C would rise significantly, and the selling price of P would fall. This, at first glance may be appealing however:

- Will the markets for D and C tolerate a price rise? There could be competition to consider. Will customers be willing to pay more for a product simply because Triple Ltd has changed its cost allocation methods?

- Product P is a high volume product. Reducing its selling price will have a dramatic effect on revenue and contribution. One would have to question whether such a reduction would be compensated for by increased volumes.

Alternatively, one could take the view that prices are determined by the market and therefore if Triple Ltd switches to ABC, it is not the price that would change but the profit or margin per unit that would change.

This can change attitudes within the business. Previously high margin products (under a traditional overhead absorption system) would be shown as less profitable. Salesmen (possibly profit motivated) can begin to push the sales of different products seeking higher personal rewards. (Assuming commission based on profits per unit sold)

It must always be remembered that if overheads are essentially fixed then they should be ignored in business decision making. Switching to ABC can change reported profits per unit but it is contribution per unit that is perhaps more important.

2 (a) SIMPLY SOUP Limited

(i) Meaning and Controllability of the variances

Material Price Variance

Indicates whether Simply Soup has paid more (adverse) or less (favourable) for its input materials than the standard prices set for the period. For example, if a new supplier had to be found and the price paid was more than the standard price then Simply Soup would incur an extra cost. This extra cost is the price variance.

Price variances are controllable to the extent that Simply Soup can choose its suppliers. On the other hand, vegetables are a seasonal and weather dependent crop and therefore factors outside Simply Soups control can influence prices in the market. The key issue is that the production manager will not control the price paid that is the job of the Purchasing Manager.

Material Mix Variance

Considers the cost of a change in the mix of the ingredients to make soup. For example adding less butter (which is expensive) and more stock (which is cheaper) will be a cheaper mix than the standard mix. A cheaper mix will result in a favourable variance.

The recipe determines the mix. The recipe is entirely under the control of the production manager.

Material Yield Variance

This shows the productivity of the manufacturing process. If the process produces more soup than expected then the yield will be good (favourable). At the moment 2.05 litres of input produces 1 litre of soup, if 2.05 litres of input produces more than 1 litre of soup then the yield is favourable. Greater yield than expected can be a result of operational efficiency or a change in mix.

The production manager controls the operational process so should be able to control the yield. Poor quality ingredients can damage yield but the production manager should be in control of quality and reject dubious ingredients. The production manager is also responsible for things like spillage. Higher spillage can also reduce yield.

(ii) Production manager's performance

Cost Efficiency

The production manager has produced significant favourable cost variances. The total favourable variance has risen from \$4,226 to \$10,352 in the first three months. This last figure represents approximately 7.1% of the standard monthly spend.

The prices for materials have been rising but are probably outside the control of the production manager. The rising prices may have put pressure on the production manager to cheapen the mix.

The mix has become cheaper. This could be seen as a cost efficient step. However, Simply Soup must question the quality implications of this (see later).

The yield results are the most significant. The manager is getting far more out of the process than is usual. The new mix is clearly far more productive than before. This could easily be seen as an indicator of good performance as long as the quality is maintained.

Quality

The concern is that the production manager has sacrificed quality for lower cost and greater quantity. The sales director has indicated that sales are falling, perhaps an indication that the customers are unhappy with the product when compared to competitor offers. The greater yield and cheaper mix may well have produced a tasteless soup.

Overall

Overall there has to be concern about the production manager's performance. Cost control and efficiency are important but not at the expense of customer satisfaction and quality. We do not have figures for the extent to which sales have been damaged and small reductions may be acceptable.

(iii) Changes to the performance management system

The performance management system needs to take account of the quality of the soup being produced and the overall impact a decision has on the business.

Quality targets need to be agreed with the manager. These are difficult to quantify but not impossible. For example soup consistency (thickness) is measurable. Regular tasting will indicate a fall in quality; tasters could give the soup a mark out of 10 on taste, colour, smell etc.

The production manager should not be rewarded for producing lots of cheap soup that cannot be sold. The performance management system should reflect the overall effect that decisions have. If the production manager's actions have reduced sales then sales volume variances should be allocated to the production manager as part of the performance assessment.

(b) Variance calculations

Material Price Variance

Mixed Vegetables: $\left[\left(\frac{\$69{,}700}{82{,}000}\right) - 0.80\right] \times 82{,}000 = \$4{,}100\ (A)$

Butter: $\left[\left(\frac{\$21{,}070}{4{,}900}\right) - 4\right] \times 4{,}900 = \$1{,}470\ (A)$

Stock: $\left[\left(\frac{\$58{,}560}{122{,}000}\right) - 0.50\right] \times 122{,}000 = \$2{,}440\ (F)$

Material Mix Variance

Mixed Vegetables:	(82,000 – 91,712.2*) x 0.80	=	$7,770 (F)
Butter:	(4,900 – 5,095.1) x 4	=	$780 (F)
Stock:	(122,000 – 112,092.7) x 0.50	=	$4,954 (A)
Total Mix Variance			$3,596 (F)

Note: it is only the total mix variance that is a valid variance here
Total input volume = (82,000 + 4,900 + 122,000) = 208,900

* Standard mix for mixed vegetables is = $91,712.2

Note: alternate approaches are acceptable.

Material Yield Variance
[112,000 – 101,902.4] x 1.47 = $14,843(F)

The standard inputs add up to 2.05 units (0.9+0.5+1.1). This produces 1ltr of soup. The actual inputs were 208,900 litres and therefore the standard expected output should be

$$208{,}900 \ \frac{1}{2.05} = 101{,}902.4 \text{ litres}$$

3 BFG Limited

(a)

Sales	120,000	units
Sales Revenue	$1,260,000	
Costs:		
Direct materials (W1)	$514,000	
Direct Labour (W2)	$315,423	
Variable overhead	$126,169	
Rent	$180,000	
Net cash flow	$124,408	
Target cash flow	$130,000	

The target cash flow will not be achieved

Workings:

(1) Direct material: Batches

	$
First 200 @ $500	100,000
Second 200 @$450	90,000
Remaining 800 @$405	324,000
Total	514,000

(2) Direct labour

For first seven hundred batches
$y = ax^b$
$y = 2{,}500 \times 700^{-0.3219}$
$y = \$303.461045$

Total cost for first 700 batches = $303.461045 x 700 = $212,423

All batches after the first 700 will have the same cost as the 700th batch. To calculate the cost of the 700th batch we need to take the cost of 699 batches from the cost of 700 batches.

For 699 batches
$y = a \times b$
$y = 2{,}500 \times 699^{-0.3219}$
$y = \$303.600726$

Total cost for first 699 batches = $303.600726 x 699 = $212,217

Cost of 700th batch is $212,423 - $212,217 = $206

Total cost for the 12 months of production

$212,423 + ($206 x 500) = $315,423

(3) Variable overhead is $2 per hour or 40% of direct labour

(b) To calculate the learning factor BFG will have had to measure the time taken to make the first batch (500 hours) and then the time taken to make the second batch. The learning rate measures the relationship between the average time taken between two points as production doubles. The easiest way to measure the learning rate is when the production doubles between the first and second batches.

At 80%

Time for first batch			500
Average time for two batches @80%	500 x 0.8	=	400
Total time for two batches	2 x 400	=	800
Time for second batch	800 – 500	=	300

At 90%

Time for first batch			500
Average time for two batches @90%	500 x 0.9	=	450
Total time for two batches	2 x 450	=	900
Time for second batch	900 – 500	=	400

The 80% learning rate reduces the time taken for the two successive batches above by a greater amount (or faster). Hence the 80% learning rate is the faster learning.

(c) Possible actions to improve the net cash flows are:

– Increase the price charged. The question states that an agreed specification has been reached, however further research may reveal that a higher price could be tolerated by the market. Equally a form of price skimming may be possible to improve short term net cash flow.

– Reduce the labour cost per batch by removing unnecessary operations or processes. It may be possible to simplify the design without damaging the ability to achieve the price stated.

– Improve the learning rate. This may involve improving the training or the quality of people involved in the production process. This does takes time and costs money in the short run.

– Consider substitute materials (without damaging the product specification). Also look for new suppliers to reduce the input cost.

– Consider ways to reduce the level of variable overhead incurred by the product.

– Investigate whether the production of product X could take place in existing space and hence avoid the extra rent charge. Re-negotiate the rent charge with the landlord.

4 Preston Financial Services

(a) Financial analysis

There are various financial observations that can be made from the data.

– **Turnover** is up 5% – this is not very high but is at least higher than the rate of inflation indicating real growth. This is encouraging and a sign of a growing business.
– The main weakness identified in the financial results is that the **net profit margin** has fallen from 20% to 19.8% suggesting that cost control may be getting worse or fee levels are being competed away.
– **Profit** is up 3.9%. In absolute terms profits are impressive given that Richard Preston is the sole partner owning 100% of the business.
– **Average cash balances** are up 5% – indicating improved liquidity. Positive cash balances are always welcome in a business.
– Average **debtors days** are down by 3 days – indicating improved efficiency in chasing up outstanding debts. It is noticeable that Preston's days are lower than the industry average indicating strong working capital management. The only possible concern may be that Richard is being particularly aggressive in chasing up outstanding debts.

Overall, with a possible concern about margins and low growth, the business looks in good shape and would appear to have a healthy future.

(b) Financial performance indicators will generally only give a measure of the past success of a business. There is no guarantee that a good past financial performance will lead to a good future financial performance. Clients may leave and costs may escalate turning past profits to losses in what can be a very short time period.

Non financial measures are often termed "indicators of future performance". Good results in these measures can lead to a good financial performance. For example if a business delivers good quality to its customers then this could lead to more custom at higher prices in the future.

Specifically the information is appendix 2 relates to the non financial measures within the balanced scorecard.

Internal business processes are a measure of internal efficiency. Interestingly these measures can indicate current cost efficiency as much as any future result

Customer knowledge measure how well the business is dealing with its external customers. A good performance here is very likely to lead to more custom in the future.

Innovation and learning measures that way the business develops. New products would be reflected here along with indicators of staff retention. Again this is much more focused on the future than the present.

Measuring performance by way of non-financial means is much more likely to give an indication of the future success of a business.

(c) The extra non-financial information gives much greater insight into key operational issues within the business and paints a bleaker picture for the future.

Internal business processes

Error rates
Error rates for jobs done are up from 10% to 16%, probably a result of reducing turnaround times to improve delivery on time percentages. This is critical as users expect the accounts to be correct. Errors could lead to problems for clients with the Inland Revenue, bankers, etc. What is worse, Richard could be sued if clients lose out because of such errors. One could say that errors are unlikely to be revealed to clients. Businesses rarely advertise mistakes that have been made. They should of course put mistakes right immediately.

Customer Knowledge

Client retention
The number of clients has fallen dramatically – this is alarming and indicates a high level of customer dissatisfaction. In an accountancy practice one would normally expect a high level of repeat work – for example, tax computations will need to be done every year. Clearly existing clients are not happy with the service provided.

Average fees
It would appear that the increase in revenue is thus due to a large increase in average fees rather than extra clients – average fee is up from $600 to $775, an increase of 29%! This could explain the loss of clients in itself, however there could be other reasons.

Market share
The result of the above two factors is a fall in market share from 20% to 14%. Looking at revenue figures one can estimate the size of the market as having grown from $4.5m to $6.75m, an increase of 50%. Compared to this, Preston's figures are particularly worrying. The firm should be doing much better and looks to being left behind by competitors.

Learning and Growth

Non-core services
The main weakness of the firm seems to be is its lack of non-core services offered. The industry average revenue from non-core work has increased from 25% to 30% but Richard's figures have dropped from 5% to 4%. It would appear that most clients are looking for their accountants to provide a wider range of products but Richard is ignoring this trend.

Employee retention
Employee turnover is up indicating that the staff are dissatisfied. Continuity of staff at a client is important to ensure a quality product. Conservative clients may resent revealing personal financial details to a variety of different people each year. Staff turnover is possibly a result of extra pressure to complete jobs more quickly without the satisfaction of a job well done. Also staff may realise that the lack of range of services offered by the firm will limit their own experience and career paths

Conclusion
In conclusion, the financial results do not show the full picture. The firm has fundamental weaknesses that need to be addressed if it is to grow into the future. At present it is being left behind by a changing industry and changing competition. It is vital that Richard reassesses his attitude and ensures that the firm has a better fit with its business environment.

In particular he should seek to develop complementary services and reduce errors on existing work.

1	**(a)**	For each product	1 mark	
		Total		3 marks
	(b)	Total machine hours	2 marks	
		Cost per driver calculation	3 marks	
		Overheads split by product table	4 marks	
		Cost per unit calculation	3 marks	
		Total		12 marks
	(c)	Explanation		4 marks
	(d)	Comment on pricing, markets, customers and profitability		6 marks
		Total		**25 marks**
2	**(a)**	For each variance		
		Explanation of meaning of variance	1 mark	
		Brief discussion of controllability	1 mark	6 marks
	(b)	Comment on cost variance		
		Price:		
		Outside Production Managers Control	1 mark	
		Rising prices pressures	1 mark	
		Mix		
		Cheaper mix and comment	1 mark	
		Yield		
		High yield results and comment	1 mark	
		Quality		
		Comment on quality implications	1 mark	
		Overall summary	1 mark	6 marks
	(c)	Improvements to performance measurement system		
		For each sensible suggestion 2 marks		4 marks
	(d)	Variance calculations		
		Price: 1 mark for each ingredient	3 marks	
		Mix:	3 marks	
		Yield:	3 marks	
		Method marks should be awarded as appropriate		9 marks
		Total		**25 marks**
3	**(a)**	Sales	1 mark	
		Direct material	2 marks	
		Direct labour first seven months	3 marks	
		last five months	3 marks	
		Variable overhead	1 mark	
		Rent	1 mark	
		Decision	1 mark	
		Total for part (a)		12 marks
	(b)	Second batch times 80%	2 marks	
		90%	2 marks	
		Comment on faster learning	1 mark	
		Total for part (b)		5 marks
	(c)	Actions to improve net cash flow		
		(2 marks per explained idea)		8 marks
		Total for part (c)		
		Total		**25 marks**

4	**(a)**	Financial commentary		
		Turnover growth	2 marks	
		Profitability	2 marks	
		Cash position	2 marks	
		Debtor management	2 marks	
		Total		8 marks
	(b)	Future performance		
		General explanation with example	2 marks	
		Comment on each area	3 marks	
		Total		5 marks
	(c)	Assessment of future prospects.		
		Internal business processes		
		Error rates	3 marks	
		Not revealed to clients	1 mark	
		Customer Knowledge		
		Retention	1 mark	
		Fee levels	2 marks	
		Market share/size	1 mark	
		Learning and growth		
		Lack of product range	2 marks	
		Employee retention	2 marks	
		Total		12 marks
		Total		**25 marks**

Fundamentals Pilot Paper – Skills module

Taxation (United Kingdom)

Paper F6 (UK)

Time allowed

Reading and planning:	15 minutes
Writing:	3 hours

ALL FIVE questions are compulsory and MUST be attempted.
Rates of tax and tables are printed on pages 2–4.

Do NOT open this paper until instructed by the supervisor.

During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.

This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

The following tax rates and allowances are to be used in answering the questions:

Income Tax

		%
Starting rate	£1 – £2,150	10
Basic rate	£2,151 – £33,300	22
Higher rate	£33,301 and above	40

Personal Allowance

Personal allowance	£5,035
Personal allowance aged 65 to 74	£7,280
Personal allowance aged 75 and over	£7,420
Income limit for age related allowances	£20,100

Car Benefit Percentage

The base level of CO2 emissions is 140 grams per kilometre.

Car Fuel Benefit

The base figure for calculating the car fuel benefit is £14,400

Pension Scheme Limits

Annual allowance	£215,000

The maximum contribution that can qualify for tax relief without any earnings is £3,600.

Capital Allowances

		%
Plant and machinery		
Writing-down allowance		25
First-year allowance	– Plant and machinery	40
	– Low emission motor cars (CO2 emissions of less than 120 grams per kilometre)	100

For small businesses only: the rate of plant and machinery first-year allowance is increased to 50% for the period from 1 April 2006 to 31 March 2007 (6 April 2006 to 5 April 2007 for unincorporated businesses).

Long-life assets

Writing-down allowance	6
Industrial buildings Writing-down allowance	4

Corporation Tax

Financial year	2004	2005	2006
Small companies rate	19%	19%	19%
Full rate	30%	30%	30%
Lower limit	300,000	300,000	300,000
Upper limit	1,500,000	1,500,000	1,500,000
Marginal relief fraction	11/400	11/400	11/400

Marginal Relief

(M – P) x I/P x Marginal relief fraction

Value Added Tax

	£
Registration limit	61,000
Deregistration limit	59,000

Capital Gains Tax: Annual Exemption

Individuals	£8,800

Capital Gains Tax: Taper Relief

Complete years after 5 April 1998 for which asset held	Gains on business assets	Gains on non-business assets
1	50%	100%
2	25%	100%
3	25%	95%
4	25%	90%
5	25%	85%
6	25%	80%
7	25%	75%
8	25%	70%
9	25%	65%
10	25%	60%

National Insurance Contributions
(Not contracted out rates)

		%
Class 1 Employee	£1 – £5,035 per year	Nil
	£5,036 – £33,540 per year	11.0
	£33,541 and above per year	1.0
Class 1 Employer	£1 – £5,035 per year	Nil
	£5,036 and above per year	12.8
Class 1A		12.8
Class 2	£2.10 per week	
Class 4	£1 – £5,035 per year	Nil
	£5,036 – £33,540 per year	8.0
	£33,541 and above per year	1.0

Rates of Interest

Official rate of interest:	5.0%	
Rate of interest on underpaid tax:	6.5%	(assumed)
Rate of interest on overpaid tax:	2.25%	(assumed)

Calculations and workings need only be made to the nearest £.
All apportionments may be made to the nearest month.
All workings should be shown.

ALL FIVE questions are compulsory and MUST be attempted

1 On 31 December 2006 Mark Kett ceased trading as a marketing consultant. He had been self-employed since 6 April 2001, and had always made his accounts up to 5 April. On 1 January 2007 Mark commenced employment as the marketing manager of Sleep-Easy plc. The company runs a hotel. The following information is available for the tax year 2006–07:

Self-employment

(1) Mark's tax adjusted trading profit for the nine-month period ended 31 December 2006 is £19,200. This figure is before taking account of capital allowances.

(2) The tax written down values for capital allowances purposes at 6 April 2006 were as follows:

	£
General pool	13,800
Expensive motor car	14,600

The expensive motor car was used by Mark, and 40% of the mileage was for private purposes.

(3) On 15 June 2006 Mark had purchased office furniture for £1,900. All of the items included in the general pool were sold for £18,800 on 31 December 2006. On the cessation of trading Mark personally retained the expensive motor car. Its value on 31 December 2006 was £11,800.

Employment

(1) Mark is paid a salary of £3,250 (gross) per month by Sleep-Easy plc, from which income tax of £620 per month has been deducted under PAYE.

(2) During the period from 1 January 2007 to 5 April 2007 Mark used his private motor car for business purposes. He drove 2,500 miles in the performance of his duties for Sleep-Easy plc, for which the company paid an allowance of 16 pence per mile. The relevant HM Revenue & Customs authorised mileage rate to be used as the basis of an expense claim is 40 pence per mile.

(3) On 1 January 2007 Sleep-Easy plc provided Mark with an interest free loan of £80,000 so that he could purchase a new main residence.

(4) During the period from 1 January 2007 to 5 April 2007 Mark was provided with free meals in Sleep-Easy plc's staff canteen. The total cost of these meals to the company was £400.

Property income

(1) Mark let out a furnished property throughout the tax year 2006-07. He received gross rents of £8,600, 5% of which was paid to a letting agency. During December 2006 Mark spent £540 on replacing dilapidated furniture and furnishings.

(2) From 6 April 2006 to 31 December 2006 Mark let out a spare room in his main residence, receiving rent of £350 per month.

Investment income

(1) During the tax year 2006–07 Mark received dividends of £2,880, interest from government stocks (gilts) of £1,900, and interest of £430 from an individual savings account (ISA). These were the actual cash amounts received.

(2) On 3 May 2006 Mark received a premium bond prize of £100.

Other information

(1) On 15 December 2006 Mark made a gift aid donation of £780 (net) to a national charity.

(2) Mark's payments on account of income tax in respect of the tax year 2006–07 totalled £11,381.

Required:

(a) **Compute the income tax payable by Mark for the tax year 2006–07, and the balancing payment or repayment that will be due for the year.** (22 marks)

(b) **Advise Mark as to how long he must retain the records used in preparing his tax return for the tax year 2006–07, and the potential consequences of not retaining the records for the required period.** (3 marks)

(25 marks)

2 **(a)** Scuba Ltd is a manufacturer of diving equipment. The following information is relevant for the year ended 31 December 2006:

Operating profit

The operating profit is £170,400. The expenses that have been deducted in calculating this figure include the following:

	£
Depreciation and amortisation of lease	45,200
Entertaining customers	7,050
Entertaining employees	2,470
Gifts to customers (diaries costing £25 each displaying Scuba Ltd's name)	1,350
Gifts to customers (food hampers costing £80 each)	1,600

Leasehold property

On 1 April 2006 Scuba Ltd acquired a leasehold office building that is used for business purposes. The company paid a premium of £80,000 for the grant of a twenty-year lease.

Purchase of industrial building

Scuba Ltd purchased a new factory from a builder on 1 July 2006 for £240,000, and this was immediately brought into use. The cost was made up as follows:

	£
Drawing office serving the factory	34,000
General offices	40,000
Factory	98,000
Land	68,000
	240,000

Plant and machinery

On 1 January 2006 the tax written down values of plant and machinery were as follows:

	£
General pool	47,200
Expensive motor car	22,400

The following transactions took place during the year ended 31 December 2006:

		Cost/ (Proceeds) £
3 January 2006	Purchased machinery	22,800
29 February 2006	Purchased a computer	1,100
4 May 2006	Purchased a motor car	10,400
18 August 2006	Purchased machinery	7,300
15 November 2006	Sold a lorry	(12,400)

The motor car purchased on 4 May 2006 for £10,400 is used by the factory manager, and 40% of the mileage is for private journeys. The lorry sold on 15 November 2006 for £12,400 originally cost £19,800.

Scuba Ltd is a small company as defined by the Companies Acts.

Property income

Scuba Ltd lets a retail shop that is surplus to requirements. The shop was let until 31 December 2005 but was then empty from 1 January 2006 to 30 April 2006. During this period Scuba Ltd spent £6,200 on decorating the shop, and £1,430 on advertising for new tenants. The shop was let from 1 May 2006 to 31 December 2006 at a quarterly rent of £7,200, payable in advance.

Interest received

Interest of £430 was received from HM Revenue & Customs on 31 October 2006 in respect of the overpayment of corporation tax for the year ended 31 December 2005.

Other information

Scuba Ltd has no associated companies, and the company has always had an accounting date of 31 December.

Required:

(i) **Compute Scuba Ltd's tax adjusted trading profit for the year ended 31 December 2006. You should ignore value added tax (VAT);** (15 Marks)

(ii) **Compute Scuba Ltd's corporation tax liability for the year ended 31 December 2006.** (4 marks)

(b) Scuba Ltd registered for value added tax (VAT) on 1 April 2004. The company's VAT returns have been submitted as follows:

Quarter ended	VAT paid/ (refunded) £	Submitted
30 June 2004	18,600	One month late
30 September 2004	32,200	One month late
31 December 2004	8,800	On time
31 March 2005	3,400	Two months late
30 June 2005	(6,500)	One month late
30 September 2005	42,100	On time
31 December 2005	(2,900)	On time
31 March 2006	3,900	On time
30 June 2006	18,800	On time
30 September 2006	57,300	Two months late
31 December 2006	9,600	On time

Scuba Ltd always pays any VAT that is due at the same time that the related return is submitted.

During February 2007 Scuba Ltd discovered that a number of errors had been made when completing its VAT return for the quarter ended 31 December 2006. As a result of these errors the company will have to make an additional payment of VAT to HM Revenue & Customs.

Required:

(i) **State, giving appropriate reasons, the default surcharge consequences arising from Scuba Ltd's submission of its VAT returns for the quarter ended 30 June 2004 to the quarter ended 30 September 2006 inclusive.** (8 marks)

(ii) **Explain how Scuba Ltd can voluntarily disclose the errors relating to the VAT return for the quarter ended 31 December 2006, and state whether default interest will be due, if (1) the net errors in total are less than £2,000, and (2) the net errors in total are more than £2,000.** (3 marks)

(30 marks)

3 Paul Opus disposed of the following assets during the tax year 2006–07:

(1) On 10 April 2006 Paul sold 5,000 £1 ordinary shares in Symphony Ltd, an unquoted trading company, for £23,600. He had originally purchased 40,000 shares in the company on 23 June 2004 for £110,400.

(2) On 15 June 2006 Paul made a gift of his entire shareholding of 10,000 £1 ordinary shares in Concerto plc to his daughter. On that date the shares were quoted on the Stock Exchange at £5.10–£5.18, with recorded bargains of £5.00, £5.15 and £5.22. Paul's shareholding had been purchased on 29 April 1992 for £14,000. The shareholding is less than 1% of Concerto plc's issued share capital, and Paul has never been employed by Concerto plc. The indexation factor from April 1992 to April 1998 is 0.170, and from April 1992 to June 2006 it is 0.297.

(3) On 9 August 2006 Paul sold a motor car for £16,400. The motor car had been purchased on 21 January 2003 for £12,800.

(4) On 4 October 2006 Paul sold an antique vase for £8,400. The antique vase had been purchased on 19 January 2006 for £4,150.

(5) On 31 December 2006 Paul sold a house for £220,000. The house had been purchased on 1 April 2000 for £114,700. Paul occupied the house as his main residence from the date of purchase until 30 June 2003. The house was then unoccupied until it was sold on 31 December 2006.

(6) On 16 February 2007 Paul sold three acres of land for £285,000. He had originally purchased four acres of land on 17 July 2005 for £220,000. The market value of the unsold acre of land as at 16 February 2007 was £90,000. The land has never been used for business purposes.

(7) On 5 March 2007 Paul sold a freehold holiday cottage for £125,000. The cottage had originally been purchased on 28 July 2005 for £101,600 by Paul's wife. She transferred the cottage to Paul on 16 November 2006 when it was valued at £114,800. The cottage is not a business asset for taper relief purposes.

Paul's taxable income for the tax year 2006–07 is £15,800.

Required:

Compute Paul's capital gains tax liability for the tax year 2006–07, and advise him by when this should be paid.

(20 marks)

4 Li Fung commenced in self-employment on 1 October 2002. She initially prepared accounts to 30 June, but changed her accounting date to 31 March by preparing accounts for the nine-month period to 31 March 2006. Li's trading profits since she commenced self-employment have been as follows:

	£
Nine-month period ended 30 June 2003	18,600
Year ended 30 June 2004	24,900
Year ended 30 June 2005	22,200
Nine-month period ended 31 March 2006	16,800
Year ended 31 March 2007	26,400

Required:

(a) State the qualifying conditions that must be met for a change of accounting date to be valid. (3 marks)

(b) Compute Li's trading income assessments for each of the five tax years 2002–03, 2003–04, 2004–05, 2005–06 and 2006–07. (9 marks)

(c) Advise Li of the advantages and disadvantages for tax purposes of changing her accounting date from 30 June to 31 March. (3 marks)

(15 marks)

5 Loser Ltd's results for the year ended 30 June 2004, the nine month period ended 31 March 2005, the year ended 31 March 2006 and the year ended 31 March 2007 are as follows:

	Year ended 30 June 2004	Period ended 31 March 2005	Year ended 31 March 2006	Year ended 31 March 2007
	£	£	£	£
Trading profit/(loss)	86,600	(25,700)	27,300	(78,300)
Property business profit	–	4,500	8,100	5,600
Charges on income	(1,400)	(800)	(1,200)	(1,100)

The charges on income are all donations to a national charity paid under the gift aid scheme.

Loser Ltd does not have any associated companies.

Required:

(a) State the factors that will influence a company's choice of loss relief claims. You are not expected to consider group relief. (3 marks)

(b) Assuming that Loser Ltd claims relief for its losses as early as possible, compute the company's profits chargeable to corporation tax for the year ended 30 June 2004, the nine month period ended 31 March 2005, the year ended 31 March 2006 and the year ended 31 March 2007. Your answer should clearly identify the amount of any losses that are unrelieved. (5 marks)

(c) Explain how your answer to (b) above would have differed if Loser Ltd had ceased trading on 31 March 2007. (2 marks)

(10 marks)

End of Question Paper

Answers

1 (a) Mark Kett – Income tax computation 2006–07

	£	£
Trading profit		19,200
Capital allowances		1,420
		20,620
Employment income		
Salary (3,250 x 3)	9,750	
Beneficial loan	1,000	
Staff canteen	–	
	10,750	
Expense claim	600	
		10,150
Property business profit		7,310
Interest from government stocks		1,900
Dividends (2,880 x 100/90)		3,200
Individual savings account interest		–
Premium bond prize		–
		43,180
Personal allowance		5,035
Taxable income		38,145
Income tax		
2,150 at 10%		215
30,895 (38,145–3,200–1,900–2,150) at 22%		6,797
1,255 (32,150–30,895) at 20%		251
645 (1,900–1,255) at 40%		258
3,200 at 32.5%		1,040
		38,145
Income tax liability		8,561
Tax suffered at source		
PAYE (620 x 3)	1,860	
Dividends (3,200 at 10%)	320	
		2,180
Income tax payable		6,381

(1) A balancing repayment of £5,000 (11,381–6,381) will be due for 2006-07.

(2) Capital allowances are as follows:

	Pool	Motor car		Allowances
	£	£		£
WDV brought forward	13,800	14,600		
Addition	1,900			
	15,700			
Disposals	18,800	11,800		
Balancing charge	(3,100)			(3,100)
Balancing allowance		2,800	x 60%	1,680
				(1,420)

(3) The taxable benefit from the beneficial loan is £1,000 (80,000 at 5% x 3/12).

(4) The provision of meals in a staff canteen does not give rise to a taxable benefit.

(5) The mileage allowance received will be tax-free.

(6) Mark can make the following expense claim:

	£
2,500 miles at 40p	1,000
Mileage allowance 2,500 at 16p	400
	600

(7) The property business profit is calculated as follows:

	£	£
Rent receivable		8,600
Agency fees (8,600 at 5%)	430	
Wear and tear allowance (8,600 at 10%)	860	1,290
Property business profit		7,310

(8) No deduction is available for furniture and furnishings where the wear and tear is claimed.

(9) Mark's property income from the rent of his spare room is less than £4,250 (350 x 9 = £3,150), and it is therefore exempt under the rent-a-room scheme.

(10) Interest from individual savings accounts and premium bond prizes are exempt from income tax.

(11) Mark's basic rate tax band is extended by £1,000 (780 x 100/78) to £32,150 (31,150 + 1,000) as a result of making the gift aid donation.

(b) (1) The business records relating to self-employment and property income must be retained until five years after the filing date, which is 31 January 2013.

(2) As Mark is in business during 2006–07, all of his other records relating to employment and investment income must also be retained until the same date.

(3) A failure to retain records for 2006–07 can result in a penalty of up to £3,000. However, the maximum penalty will only be charged in serious cases.

2 (a) Scuba Ltd – Trading profit for the year ended 31 December 2006

	£	£
Operating profit	170,400	
Depreciation and amortisation of lease	45,200	
Entertaining	7,050	
Gifts to customers	1,600	
Deduction for lease premium (working 1)		1,860
Capital allowances – IBA (working 2)		6,880
– P & M (working 3)		27,510
	224,250	36,250
	36,250	
Trading profit	188,000	

(1) Entertainment expenditure is not allowable except for expenditure relating to employees.

(2) Gifts to customers are an allowable deduction if they cost less than £50 per recipient per year, are not of food, drink, tobacco, or vouchers for exchangeable goods, and carry a conspicuous advertisement for the company making the gift.

Working 1 – Deduction for lease premium

(1) The office building is used for business purposes, and so a proportion of the lease premium assessed on the landlord can be deducted.

(2) The amount assessed on the landlord is £49,600 calculated as follows:

	£
Premium received	80,000
Less: 80,000 x 2% x (20 – 1)	30,400
	49,600

(3) This is deductible over the life of the lease, starting from 1 April 2006, so the deduction for the year ended 31 December 2006 is £1,860 (49,600/20 = 2,480 x 9/12).

Working 2 – Industrial buildings allowance

	£
Drawing office	34,000
General offices	40,000
Factory	98,000
Eligible expenditure	172,000
Industrial buildings allowance at 4%	6,880

(1) The cost of the land does not qualify.

(2) The general offices qualify as they cost less than 25% of the total qualifying cost (172,000 x 25% = £43,000).

Working 3 – Plant and machinery

	£	Pool £	Motor car £	Allowances £
WDV brought forward		47,200	22,400	
Addition		10,400		
		57,600		
Proceeds		12,400		
		45,200		
WDA – 25%		11,300		11,300
WDA – Restricted			3,000	3,000
		33,900		
Additions qualifying for FYA				
Machinery	22,800			
Computer	1,100			
	23,900			
FYA – 40%	9,560			9,560
		14,340		
Machinery	7,300			
FYA – 50%	3,650			3,650
		3,650		
WDV carried forward		51,890	19,400	27,510

(1) The cost of the lorry will have originally been added to the pool, so the disposal proceeds are now deducted.

(2) The private use of the motor car purchased on 4 May 2006 is irrelevant, since such usage will be assessed on the employee as a benefit.

Scuba Ltd – Corporation tax computation for the year ended 31 December 2006

	£	£
Trading profit		188,000
Property business profit (working)		11,570
Interest		430
PCTCT		200,000
Corporation tax (200,000 at 19%)		38,000

Working – Property business profit

	£	£
Rent receivable (7,200/3 = 2,400 x 8)		19,200
Decorating	6,200	
Advertisements	1,430	
		7,630
Property business profit		11,570

(b) Default surcharge

(1) The late submission of the VAT return for the quarter ended 30 June 2004 will have resulted in HM Revenue & Customs issuing a surcharge liability notice specifying a surcharge period running to 30 June 2005.

(2) The late payment of VAT for the quarter ended 30 September 2004 will have resulted in a surcharge of £644 (32,200 x 2%).

(3) The late payment of VAT for the quarter ended 31 March 2005 will have resulted in a surcharge of £170 (3,400 x 5%), but this will not have been collected as it was less than £400.

(4) Although the VAT return for the quarter ended 30 June 2005 was submitted late, this will not have resulted in a surcharge as Scuba Ltd was due a refund for this period.

(5) The continued late submission of VAT returns will have resulted in the surcharge period being extended to 30 September 2005, then to 31 March 2006, and finally to 30 June 2006.

(6) Scuba Ltd then submitted the four consecutive VAT returns during the surcharge period running to 30 June 2006 on time, and so will have reverted to a clean default surcharge record.

(7) The late submission of the VAT return for the quarter ended 30 September 2006 will therefore simply have resulted in a surcharge liability notice specifying a surcharge period running to 30 September 2007.

Errors on VAT return

(1) If the net errors total less than £2,000 then they can be voluntarily disclosed by simply entering them on the VAT return for the quarter ended 31 March 2007.

(2) If the net errors total more than £2,000 then they can be voluntarily disclosed, but disclosure must be made separately to HM Revenue & Customs.

(3) Default interest will be charged if the net errors total more than £2,000, but not if they are less than £2,000.

3 (a) Paul Opus – CGT liability 2006–07

	£	£
Ordinary shares in Symphony Ltd		
Disposal proceeds	23,600	
Cost (110,400 x 5,000/40,000)	13,800	
	9,800	
Taper relief (9,800 x 50% (100% – 50%))	4,900	
		4,900
Ordinary shares Concerto plc		
Deemed proceeds (10,000 x £5.11)	51,100	
Cost	14,000	
	37,100	
Indexation 14,000 x 0.170	2,380	
	34,720	
Taper relief (34,720 x 35% (100% – 65%))	12,152	
		22,568
Antique vase		4,000
House		
Disposal proceeds	220,000	
Cost	114,700	
	105,300	
Principal private residence exemption	97,500	
	7,800	
Taper relief (7,800 x 20% (100% – 80%))	1,560	
		6,240
Land		
Disposal proceeds	285,000	
Cost	167,200	
		117,800
Holiday cottage		
Disposal proceeds	125,000	
Cost	101,600	
		23,400
Chargeable gains		178,908
Annual exemption		8,800
Taxable gains		170,108

		£	£
Capital gains tax	17,500 (33,300 – 15,800) at 20%		3,500
	152,608 (170,108 – 17,500) at 40%		61,043
			64,543
Due date			31 January 2008

(1) The shares in Symphony Ltd are a business asset, and taper relief is based on one complete year of ownership.

(2) The shares in Concerto plc are valued at the lower of £5.12 (£5.10 + ¼(£5.18 – £5.10)) and £5.11 ((£5.00 + £5.22)/2).

(3) The shares in Concerto plc are a non-business asset, and taper relief is based on nine complete years of ownership (eight years plus the bonus year).

(4) Motor cars are exempt from CGT.

(5) The antique vase is a non-wasting chattel. The gain is restricted to £4,000 (8,400 – 6,000 = 2,400 x 5/3) as this is less than £4,250 (8,400 – 4,150).

(6) The total period of ownership of the house is 81 months, of which a total of 75 months (period of occupation plus final 36 months) qualify for exemption. The exemption is therefore £97,500 (105,300 x 75/81).

(7) The cost relating to the three acres of land sold is £167,200 (220,000 x 285,000/375,000 (285,000 + 90,000)).

(8) The transfer of the holiday cottage between Paul and his wife is effectively ignored for CGT purposes, so the wife's original cost is used in calculating Paul's capital gain.

4 **(a)** (1) The change of accounting date must be notified to HM Revenue & Customs by the 31 January following the tax year in which the change is made.

(2) The first accounts to the new accounting date must not exceed 18 months in length.

(3) There must not have been a change of accounting date within the preceding five tax years, although this does not apply if the present change is made for genuine commercial reasons.

(b)

		£
2002–03	(1 October 2002 to 5 April 2003) 18,600 x 6/9	12,400
2003–04	(1 October 2002 to 30 September 2003) 18,600 + 6,225 (24,900 x 3/12)	24,825
2004–05	(Year ended 30 June 2004)	24,900
2005–06	(1 July 2004 to 31 March 2006)	
	Year ended 30 June 2005	22,200
	Period ended 31 March 2006	16,800
		39,000
	Relief for overlap profits 12,400 + 6,225	18,625
		20,375
2006–07	(Year ended 31 March 2007)	26,400

(1) The assessment for 2003–04 is the first twelve months of trading as the accounting date falling in that year is less than twelve months from the commencement of trading.

(2) In 2003–04 there are overlap profits of £12,400 in respect of the six-month period 1 October 2002 to 5 April 2003.

(3) In 2004–05 there are overlap profits of £6,225 in respect of the three-month period 1 July 2003 to 30 September 2003.

(4) The basis period for 2005–06 is 21 months long. Therefore all nine months of overlap profits are relieved so that only twelve months worth of profits are assessed in this year.

(c) (1) If Li changes her accounting date from 30 June to 31 March the application of the basis period rules will be simplified.

(2) The maximum assessment in the year of cessation will be for twelve months.

(3) Li's existing overlap profits are fully utilised as a result of the change. Otherwise, these overlap profits would not be relieved until the cessation of trading.

(4) The disadvantage is that the interval between earning profits and paying the related tax liability will be nine months shorter with an accounting date of 31 March.

5 **(a)** (1) The rate of corporation tax at which relief will be obtained, with preference being given to profits charged at the marginal rate of 32.75% or the full rate of 30%.

(2) The timing of the relief obtained, with a claim against total profits under s.393A ICTA 1988 resulting in earlier relief than a claim under s.393(1) ICTA 1988 against future trading profits.

(3) The extent to which relief for charges on income will be lost, since these cannot be carried forward.

(b)

	Year ended 30 June 2004 £	Period ended 31 March 2005 £	Year ended 31 March 2006 £	Year ended 31 March 2007 £
Trading profit	86,600	–	27,300	–
Property business profit	–	4,500	8,100	5,600
	86,600	4,500	35,400	5,600
Loss relief s.393A	21,200	4,500	35,400	5,600
	65,400	–	–	–
Charge on income	1,400	–	–	–
PCTCT	64,000	–	–	–

(1) The balance of the trading loss for the period ended 31 March 2005 (25,700 – 4,500 = £21,200) is carried back to the year ended 30 June 2004.

(2) The amount of the unrelieved trading loss for the year ended 31 March 2007 is £37,300 (78,300 – 5,600 – 35,400).

(c) (1) The trading loss for the final twelve months of trading can be relieved against total profits for the previous 36 months under s.393A ICTA 1988.

(2) Therefore the unrelieved losses of £37,300 could have been carried back and fully set off in the year ended 30 June 2004.

			Marks
1	**(a)**	**Trading profit**	0.5
		Capital allowances – Pool	2
		– Motor car	2
		Employment income	1
		Beneficial loan	1
		Staff canteen	0.5
		Expense claim	1.5
		Property business profit	2
		Furniture and furnishings	0.5
		Rent-a-room scheme	1
		Interest from government stocks	1
		Dividends	1
		Individual savings account	0.5
		Premium bond prize	0.5
		Personal allowance	0.5
		Extension of basic rate band	1
		Income tax	2.5
		Tax suffered at source – PAYE	1
		– Dividends	1
		Balancing repayment	1
			22
	(b)	Business records	1
		Other records	1
		Penalty	1
			3
			25
2	**(a)**	**Trading profit**	
		Operating profit	0.5
		Depreciation and amortisation	0.5
		Entertaining	1
		Gifts to customers	1
		Lease premium – Assessable amount	1.5
		– Deduction	1.5
		IBA – Land	0.5
		– General offices	1
		– Eligible expenditure	1
		– Allowance	1
		P & M – Pool	2
		– Motor car	1
		– 50% FYA	1
		– 40% FYA	1.5
			15
		Corporation tax computation	
		Trading profit	0.5
		Property business profit – Rent receivable	1
		– Expenses	1
		Interest	1
		Corporation tax	0.5
			4

			Marks
	(b)	**Default surcharge**	
		Quarter ended 30 June 2004	1
		Quarter ended 30 September 2004	1
		Quarter ended 31 March 2005	2
		Quarter ended 30 June 2006	1
		Extension of surcharge period	1
		Four consecutive VAT returns on time	1
		Quarter ended 30 September 2006	1
			8
		Errors on VAT return	
		Net errors of less than £2,000	1
		Net errors of more than £2,000	1
		Default interest	1
			3
			30

		Marks
3	Symphony Ltd – Proceeds	0.5
	– Cost	1
	– Taper relief	1.5
	Concerto plc – Proceeds	2
	– Cost	0.5
	– Indexation	1
	– Taper relief	1.5
	Motor car	0.5
	Antique vase	2
	House – Proceeds	0.5
	– Cost	0.5
	– Exemption	2
	– Taper relief	1
	Land – Proceeds	0.5
	– Cost	2
	Holiday cottage	1
	Annual exemption	0.5
	Capital gains tax	1
	Due date	0.5
		20

			Marks
4	**(a)**	Notification	1
		18 month limit	1
		Change within five years	3
	(b)	Assessments – 2002-03	
		– 2003–04	
		– 2004–05	
		– 2005–06	
		– 2006–07	0.5
		Overlap profits – 2003–04	1
		– 2004–05	1
		– Relieved in 2005–06	1
			9
	(c)	Simplification	0.5
		Assessment in year of cessation	0.5
		Overlap profits	1
		Disadvantages	1
			3
			15

			Marks
5	(a)	Rate of corporation tax	1
		Timing of relief	1
		Charges on income	1
			3
	(b)	Trading profit	0.5
		Property business profit	0.5
		Loss relief s.393A ICTA 1988	2
		Charges on income	1
		Unrelieved trading loss	1
			5
	(c)	Extension of relief	1
		Year ended 30 June 2004	1
			2
			10

Fundamentals Pilot Paper – Skills module

Financial Reporting (International)

Paper F7 (INT)

Time allowed

Reading and planning: 15 minutes

Writing: 3 hours

ALL FIVE questions are compulsory and MUST be attempted.

Do NOT open this paper until instructed by the supervisor.

During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.

This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

ALL FIVE questions are compulsory and MUST be attempted

1 On 1 October 2005 Pumice acquired the following non-current investments:

- 80% of the equity share capital of Silverton at a cost of $13.6 million
- 50% of Silverton's 10% loan notes at par
- 1.6 million equity shares in Amok at a cost of $6.25 each.

The summarised draft balance sheets of the three companies at 31 March 2006 are:

	Pumice $'000	Silverton $'000	Amok $'000
Non-current assets			
Property, plant and equipment	20,000	8,500	16,500
Investments	26,000	nil	1,500
	46,000	8,500	18,000
Current assets	15,000	8,000	11,000
Total assets	61,000	16,500	29,000
Equity and liabilities			
Equity			
Equity shares of $1 each	10,000	3,000	4,000
Retained earnings	37,000	8,000	20,000
	47,000	11,000	24,000
Non-current liabilities			
8% loan note	4,000	nil	nil
10% loan note	nil	2,000	nil
Current liabilities	10,000	3,500	5,000
Total equity and liabilities	61,000	16,500	29,000

The following information is relevant:

(i) The fair values of Silverton's assets were equal to their carrying amounts with the exception of land and plant. Silverton's land had a fair value of $400,000 in excess of its carrying amount and plant had a fair value of $1.6 million in excess of its carrying amount. The plant had a remaining life of four years (straight-line depreciation) at the date of acquisition.

(ii) In the post acquisition period Pumice sold goods to Silverton at a price of $6 million. These goods had cost Pumice $4 million. Half of these goods were still in the inventory of Silverton at 31 March 2006. Silverton had a balance of $1.5 million owing to Pumice at 31 March 2006 which agreed with Pumice's records.

(iii) The net profit after tax for the year ended 31 March 2006 was $2 million for Silverton and $8 million for Amok. Assume profits accrued evenly throughout the year.

(iv) An impairment test at 31 March 2006 concluded that consolidated goodwill was impaired by $400,000 and the investment in Amok was impaired by $200,000.

(v) No dividends were paid during the year by any of the companies.

Required:

(a) Discuss how the investments purchased by Pumice on 1 October 2005 should be treated in its consolidated financial statements. (5 marks)

(b) Prepare the consolidated balance sheet for Pumice as at 31 March 2006. (20 marks)

(25 marks)

2 The following trial balance relates to Kala, a publicly listed company, at 31 March 2006:

	$'000	$'000
Land and buildings at cost (note (i))	270,000	
Plant – at cost (note (i))	156,000	
Investment properties – valuation at 1 April 2005 (note (i))	90,000	
Purchases	78,200	
Operating expenses	15,500	
Loan interest paid	2,000	
Rental of leased plant (note (ii))	22,000	
Dividends paid	15,000	
Inventory at 1 April 2005	37,800	
Trade receivables	53,200	
Revenue		278,400
Income from investment property		4,500
Equity shares of $1 each fully paid		150,000
Retained earnings at 1 April 2005		119,500
8% (actual and effective) loan note (note (iii))		50,000
Accumulated depreciation at 1 April 2005 – buildings		60,000
– plant		26,000
Trade payables		33,400
Deferred tax		12,500
Bank		5,400
	739,700	739,700

The following notes are relevant:

(i) The land and buildings were purchased on 1 April 1990. The cost of the land was $70 million. No land and buildings have been purchased by Kala since that date. On 1 April 2005 Kala had its land and buildings professionally valued at $80 million and $175 million respectively. The directors wish to incorporate these values into the financial statements. The estimated life of the buildings was originally 50 years and the remaining life has not changed as a result of the valuation.

Later, the valuers informed Kala that investment properties of the type Kala owned had increased in value by 7% in the year to 31 March 2006.

Plant, other than leased plant (see below), is depreciated at 15% per annum using the reducing balance method. Depreciation of buildings and plant is charged to cost of sales.

(ii) On 1 April 2005 Kala entered into a lease for an item of plant which had an estimated life of five years. The lease period is also five years with annual rentals of $22 million payable in advance from 1 April 2005. The plant is expected to have a nil residual value at the end of its life. If purchased this plant would have a cost of $92 million and be depreciated on a straight-line basis. The lessor includes a finance cost of 10% per annum when calculating annual rentals. (Note: you are not required to calculate the present value of the minimum lease payments.)

(iii) The loan note was issued on 1 July 2005 with interest payable six monthly in arrears.

(iv) The provision for income tax for the year to 31 March 2006 has been estimated at $28.3 million. The deferred tax provision at 31 March 2006 is to be adjusted to a credit balance of $14.1 million.

(v) The inventory at 31 March 2006 was valued at $43.2 million.

Required, prepare for Kala:

(a) An income statement for the year ended 31 March 2006. (10 marks)

(b) A statement of changes in equity for the year ended 31 March 2006. (4 marks)

(c) A balance sheet as at 31 March 2006. (11 marks)

(25 marks)

3 Reactive is a publicly listed company that assembles domestic electrical goods which it then sells to both wholesale and retail customers. Reactive's management were disappointed in the company's results for the year ended 31 March 2005. In an attempt to improve performance the following measures were taken early in the year ended 31 March 2006:

– a national advertising campaign was undertaken,
– rebates to all wholesale customers purchasing goods above set quantity levels were introduced,
– the assembly of certain lines ceased and was replaced by bought in completed products. This allowed Reactive to dispose of surplus plant.

Reactive's summarised financial statements for the year ended 31 March 2006 are set out below:

Income statement	$million
Revenue (25% cash sales)	4,000
Cost of sales	(3,450)
Gross profit	550
Operating expenses	(370)
	180
Profit on disposal of plant (note (i))	40
Finance charges	(20)
Profit before tax	200
Income tax expense	(50)
Profit for the period	150

Balance sheet	$million	$million
Non-current assets		
Property, plant and equipment (note (i))		550
Current assets		
Inventory	250	
Trade receivables	360	
Bank	nil	610
Total assets		1,160
Equity and liabilities		
Equity shares of 25 cents each		100
Retained earnings		380
		480
Non-current liabilities		
8% loan notes		200
Current liabilities		
Bank overdraft	10	
Trade payables	430	
Current tax payable	40	480
Total equity and liabilities		1,160

Below are ratios calculated for the year ended 31 March 2005.

Return on year end capital employed (profit before interest and tax over total assets less current liabilities)	28.1%
Net asset (equal to capital employed) turnover	4 times
Gross profit margin	17%
Net profit (before tax) margin	6.3%
Current ratio	1.6:1
Closing inventory holding period	46 days
Trade receivables' collection period	45 days
Trade payables' payment period	55 days
Dividend yield	3.75%
Dividend cover	2 times

Notes:

(i) Reactive received $120 million from the sale of plant that had a carrying amount of $80 million at the date of its sale.

(ii) the market price of Reactive's shares throughout the year averaged $3.75 each.

(iii) there were no issues or redemption of shares or loans during the year.

(iv) dividends paid during the year ended 31 March 2006 amounted to $90 million, maintaining the same dividend paid in the year ended 31 March 2005.

Required:

(a) Calculate ratios for the year ended 31 March 2006 (showing your workings) for Reactive, equivalent to those provided above. (10 marks)

(b) Analyse the financial performance and position of Reactive for the year ended 31 March 2006 compared to the previous year. (10 marks)

(c) Explain in what ways your approach to performance appraisal would differ if you were asked to assess the performance of a not-for-profit organisation. (5 marks)

(25 marks)

4 (a) The qualitative characteristics of relevance, reliability and comparability identified in the IASB's *Framework for the preparation and presentation of financial statements* (Framework) are some of the attributes that make financial information useful to the various users of financial statements.

Required:

Explain what is meant by relevance, reliability and comparability and how they make financial information useful. (9 marks)

(b) During the year ended 31 March 2006, Porto experienced the following transactions or events:

(i) entered into a finance lease to rent an asset for substantially the whole of its useful economic life.

(ii) a decision was made by the Board to change the company's accounting policy from one of expensing the finance costs on building new retail outlets to one of capitalising such costs.

(iii) the company's income statement prepared using historical costs showed a loss from operating its hotels, but the company is aware that the increase in the value of its properties during the period far outweighed the operating loss.

Required:

Explain how you would treat the items in (i) to (iii) above in Porto's financial statements and indicate on which of the Framework's qualitative characteristics your treatment is based. (6 marks)

(15 marks)

5 IAS 11 *Construction contracts* deals with accounting requirements for construction contracts whose durations usually span at least two accounting periods.

Required:

(a) Describe the issues of revenue and profit recognition relating to construction contracts. (4 marks)

(b) Beetie is a construction company that prepares its financial statements to 31 March each year. During the year ended 31 March 2006 the company commenced two construction contracts that are expected to take more than one year to complete. The position of each contract at 31 March 2006 is as follows:

Contract	1	2
	$'000	$'000
Agreed contract price	5,500	1,200
Estimated total cost of contract at commencement	4,000	900
Estimated total cost at 31 March 2006	4,000	1,250
Agreed value of work completed at 31 March 2006	3,300	840
Progress billings invoiced and received at 31 March 2006	3,000	880
Contract costs incurred to 31 March 2006	3,900	720

The agreed value of the work completed at 31 March 2006 is considered to be equal to the revenue earned in the year ended 31 March 2006. The percentage of completion is calculated as the agreed value of work completed to the agreed contract price.

Required:

Calculate the amounts which should appear in the income statement and balance sheet of Beetie at 31 March 2006 in respect of the above contracts. (6 marks)

(10 marks)

End of Question Paper

Answers

1 (a) As the investment in shares represents 80% of Silverton's equity, it is likely to give Pumice control of that company. Control is the ability to direct the operating and financial policies of an entity. This would make Silverton a subsidiary of Pumice and require Pumice to prepare group financial statements which would require the consolidation of the results of Silverton from the date of acquisition (1 October 2005). Consolidated financial statements are prepared on the basis that the group is a single economic entity.

The investment of 50% ($1 million) of the 10% loan note in Silverton is effectively a loan from a parent to a subsidiary. On consolidation Pumice's asset of the loan ($1 million) is cancelled out with $1 million of Silverton's total loan note liability of $2 million. This would leave a net liability of $1 million in the consolidated balance sheet.

The investment in Amok of 1.6 million shares represents 40% of that company's equity shares. This is generally regarded as not being sufficient to give Pumice control of Amok, but is likely to give it significant influence over Amok's policy decisions (eg determining the level of dividends paid by Amok). Such investments are generally classified as associates and IAS 28 *Investments in associates* requires the investment to be included in the consolidated financial statements using equity accounting.

(b) Consolidated balance sheet of Pumice at 31 March 2006

		$'000
Non-current assets:		
Plant, property and equipment (w (i))		30,300
Goodwill (4,000 (w (ii)) – 400 impairment)		3,600
Investments – associate (w (iii))		11,400
– other ((26,000 – 13,600 – 10,000 – 1,000 intra-group loan note))		1,400
		46,700
Current assets (15,000 + 8,000 – 1,000 (w (iv)) – 1,500 current account)		20,500
Total assets		67,200
Equity and liabilities		
Equity attributable to equity holders of the parent		
Equity shares of $1 each		10,000
Reserves:		
Retained earnings (w (v))		37,640
		47,640
Minority interest (w (vi))		2,560
Total equity		50,200
Non-current liabilities		
8% Loan note	4,000	
10% Loan note (2,000 – 1,000 intra-group)	1,000	5,000
Current liabilities (10,000 + 3,500 – 1,500 current account)		12,000
		67,200

Workings in $'000

(i) Property, plant and equipment

Pumice		20,000
Silverton		8,500
Fair value – land	400	
– plant	1,600	2,000
Additional depreciation (see below)		(200)
		30,300

The fair value adjustment to plant will create additional depreciation of $400,000 per annum (1,600/4 years) and in the post acquisition period of six months this will be $200,000.

(ii) Goodwill in Silverton:

Investment at cost		13,600
Less – equity shares of Silverton (3,000 x 80%)	(2,400)	
– pre-acquisition reserves (7,000 x 80% (see below))	(5,600)	
– fair value adjustments (2,000 (w (i)) x 80%)	(1,600)	(9,600)
Goodwill on consolidation		4,000

The pre-acquisition reserves are:

At 31 March 2006	8,000
Post acquisition (2,000 x 6/12)	(1,000)
	7,000

(iii) Carrying amount of Amok at 31 March 2006

Cost (1,600 x $6.25)	10,000
Share post acquisition profit (8,000 x 6/12 x 40%)	1,600
	11,600
Impairment loss per question	(200)
	11,400

(iv) The unrealised profit (URP) in inventory is calculated as:
Intra-group sales are $6 million of which Pumice made a profit of $2 million. Half of these are still in inventory, thus there is an unrealised profit of $1 million.

(v) Consolidated reserves:

Pumice's reserves	37,000
Silverton's post acquisition (((2,000 x 6/12) - 200 depreciation) x 80%)	640
Amok's post acquisition profits (8,000 x 6/12 x 40%)	1,600
URP in inventory (see (iv))	(1,000)
Impairment of goodwill – Silverton	(400)
– Amok	(200)
	37,640

(vi) Minority interest

Equity shares of Silverton (3,000 x 20%)	600
Retained earnings ((8,000 – 200 depreciation) x 20%)	1,560
Fair value adjustments (2,000 x 20%)	400
	2,560

2 (a) Kala – Income statement – Year ended 31 March 2006

	$'000	$'000
Revenue		278,400
Cost of sales (w (i))		(115,700)
Gross profit		162,700
Operating expenses		(15,500)
		147,200
Investment income – property rental	4,500	
– valuation gain (90,000 x 7%)	6,300	10,800
Finance costs – loan (w (ii))	(3,000)	
– lease (w (iii))	(7,000)	(10,000)
Profit before tax		148,000
Income tax expense (28,300 + (14,100 – 12,500))		(29,900)
Profit for the period		118,100

(b) Kala – Statement of changes in equity – Year ended 31 March 2006

	Equity shares $'000	Revaluation reservr $'000	Retained earnings $'000	Total $'000
At 1 April 2005	150,000	nil	119,500	269,500
Profit for period (see (a))			118,100	118,100
Revaluation of property (w (iv))		45,000		45,000
Equity dividends paid			(15,000)	(15,000)
At 31 March 2006	150,000	45,000	222,600	417,600

(c) Kala – Balance sheet as at 31 March 2006

Non-current assets	**$'000**	**$'000**
Property, plant and equipment (w (iv))		434,100
Investment property (90,000 + 6,300)		96,300
		530,400
Current assets		
Inventory	43,200	
Trade receivables	53,200	96,400
Total assets		626,800
Equity and liabilities		
Equity (see (b) above)		
Equity shares of $1 each		150,000
Reserves:		
Revaluation	45,000	
Retained earnings	222,600	267,600
		417,600
Non-current liabilities		
8% loan note	50,000	
Deferred tax	14,100	
Lease obligation (w (iii))	55,000	119,100
Current liabilities		
Trade payables	33,400	
Accrued loan interest (w (ii))	1,000	
Bank overdraft	5,400	
Lease obligation (w (iii)) – accrued interest	7,000	
– capital	15,000	
Current tax payable	28,300	90,100
Total equity and liabilities		626,800

Workings in brackets in $'000

(i) Cost of sales:

Opening inventory	37,800
Purchases	78,200
Depreciation (w (iv)) – buildings	5,000
– plant: owned	19,500
leased	18,400
Closing inventory	(43,200)
	115,700

(ii) The loan has been in issue for nine months. The total finance cost for this period will be $3 million (50,000 x 8% x 9/12). Kala has paid six months interest of $2 million, thus accrued interest of $1 million should be provided for.

(iii) Finance lease:

Finance lease:	**$'000**
Net obligation at inception of lease (92,000 – 22,000)	70,000
Accrued interest 10% (current liability)	7,000
Total outstanding at 31 March 2006	77,000

The second payment in the year to 31 March 2007 (made on 1 April 2006) of $22 million will be $7 million for the accrued interest (at 31 March 2006) and $15 million paid of the capital outstanding. Thus the amount outstanding as an obligation over one year is $55 million (77,000 – 22,000).

(iv) Non-current assets/depreciation:

Land and buildings:

At the date of the revaluation the land and buildings have a carrying amount of $210 million (270,000 – 60,000). With a valuation of $255 million this gives a revaluation surplus (to reserves) of $45 million. The accumulated depreciation of $60 million represents 15 years at $4 million per annum (200,000/50 years) and means the remaining life at the date of the revaluation is 35 years. The amount of the revalued building is $175 million, thus depreciation for the year to 31 March 2006 will be $5 million (175,000/35 years). The carrying amount of the land and buildings at 31 March 2006 is $250 million (255,000 – 5,000).

Plant: owned

The carrying amount prior to the current year's depreciation is $130 million (156,000 – 26,000). Depreciation at 15% on the reducing balance basis gives an annual charge of $19.5 million. This gives a carrying amount at 31 March 2006 of $110.5 million (130,000 – 19,500).

Plant: leased
The fair value of the leased plant is $92 million. Depreciation on a straight-line basis over five years would give a depreciation charge of $18.4 million and a carrying amount of $73.6 million.

Summarising the carrying amounts:

Land and buildings	250,000
Plant (110,500 + 73,600)	184,100
Property, plant and equipment	434,100

3 (a) Note: figures in the calculations are in $million

Return on year end capital employed	32.3 %	220/(1,160 – 480) x 100
Net asset turnover	5.9 times	4,000/680
Gross profit margin	13.8 %	(550/4,000) x 100
Net profit (before tax) margin	5.0 %	(200/4,000) x 100
Current ratio	1.3 :1	610:480
Closing inventory holding period	26 days	250/3,450 x 365
Trade receivables' collection period	44 days	360/(4,000 – 1,000) x 365
Trade payables' payment period (based on cost of sales)	45 days	(430/3,450) x 365
Dividend yield	6.0%	(see below)
Dividend cover	1.67 times	150/90

The dividend per share is 22.5 cents (90,000/(100,000 x 4 ie 25 cents shares). This is a yield of 6.0% on a share price of $3.75.

(b) Analysis of the comparative financial performance and position of Reactive for the year ended 31 March 2006

Profitability
The measures taken by management appear to have been successful as the overall ROCE (considered as a primary measure of performance) has improved by 15% (32.3 -28.1)/28.1). Looking in more detail at the composition of the ROCE, the reason for the improved profitability is due to increased efficiency in the use of the company's assets (asset turnover), increasing from 4 to 5.9 times (an improvement of 48%). The improvement in the asset turnover has been offset by lower profit margins at both the gross and net level. On the surface, this performance appears to be due both to the company's strategy of offering rebates to wholesale customers if they achieve a set level of orders and also the beneficial impact on sales revenue of the advertising campaign. The rebate would explain the lower gross profit margin, and the cost of the advertising has reduced the net profit margin (presumably management expected an increase in sales volume as a compensating factor). The decision to buy complete products rather than assemble them in house has enabled the disposal of some plant which has reduced the asset base. Thus possible increased sales and a lower asset base are the cause of the improvement in the asset turnover which in turn, as stated above, is responsible for the improvement in the ROCE.

The effect of the disposal needs careful consideration. The profit (before tax) includes a profit of $40 million from the disposal. As this is a 'one-off' profit, recalculating the ROCE without its inclusion gives a figure of only 23.7% (180m/(1,160 - 480m + 80m (the 80m is the carrying amount of plant)) and the fall in the net profit percentage (before tax) would be down even more to only 4.0% (160m/4,000m). On this basis the current year performance is worse than that of the previous year and the reported figures tend to flatter the company's underlying performance.

Liquidity
The company's liquidity position has deteriorated during the period. An acceptable current ratio of 1.6 has fallen to a worrying 1.3 (1.5 is usually considered as a safe minimum). With the trade receivables period at virtually a constant (45/44 days), the change in liquidity appears to be due to the levels of inventory and trade payables. These give a contradictory picture. The closing inventory holding period has decreased markedly (from 46 to 26 days) indicating more efficient inventory holding. This is perhaps due to short lead times when ordering bought in products. The change in this ratio has reduced the current ratio, however the trade payables payment period has decreased from 55 to 45 days which has increased the current ratio. This may be due to different terms offered by suppliers of bought in products.

Importantly, the effect of the plant disposal has generated a cash inflow of $120 million, and without this the company's liquidity would look far worse.

Investment ratios
The current year's dividend yield of 6.0% looks impressive when compared with that of the previous year's yield of 3.75%, but as the company has maintained the same dividend (and dividend per share as there is no change in share capital) , the 'improvement' in the yield is due to a falling share price. Last year the share price must have been $6.00 to give a yield of 3.75% on a dividend per share of 22.5 cents. It is worth noting that maintaining the dividend at $90 million from profits of $150 million gives a cover of only 1.67 times whereas on the same dividend last year the cover was 2 times (meaning last year's profit (after tax) was $180 million).

Conclusion
Although superficially the company's profitability seems to have improved as a result of the directors' actions at the start of the current year, much, if not all, of the apparent improvement is due to the change in supply policy and the consequent beneficial effects of the disposal of plant. The company's liquidity is now below acceptable levels and would have been even worse had the disposal not occurred. It appears that investors have understood the underlying deterioration in performance as there has been a marked fall in the company's share price.

(c) It is generally assumed that the objective of stock market listed companies is to maximise the wealth of their shareholders. This in turn places an emphasis on profitability and other factors that influence a company's share price. It is true that some companies have other (secondary) aims such as only engaging in ethical activities (eg not producing armaments) or have strong environmental considerations. Clearly by definition not-for-profit organisations are not motivated by the need to produce profits for shareholders, but that does not mean that they should be inefficient. Many areas of assessment of profit oriented companies are perfectly valid for not-for-profit organisations; efficient inventory holdings, tight budgetary constraints, use of key performance indicators, prevention of fraud etc.

There are a great variety of not-for-profit organisations; eg public sector health, education, policing and charities. It is difficult to be specific about how to assess the performance of a not-for-profit organisation without knowing what type of organisation it is. In general terms an assessment of performance must be made in the light of the stated objectives of the organisation. Thus for example in a public health service one could look at measures such as treatment waiting times, increasing life expectancy etc, and although such organisations don't have a profit motive requiring efficient operation, they should nonetheless be accountable for the resources they use. Techniques such as 'value for money' and the three Es (economy, efficiency and effectiveness) have been developed and can help to assess the performance of such organisations.

4 **(a)** **Relevance**
Information has the quality of relevance when it can influence, on a timely basis, users' economic decisions. It helps to evaluate past, present and future events by confirming or perhaps correcting past evaluations of economic events. There are many ways of interpreting and applying the concept of relevance, for example, only material information is considered relevant as, by definition, information is material only if its omission or misstatement could influence users. Another common debate regarding relevance is whether current value information is more relevant than that based on historical cost. An interesting emphasis placed on relevance within the Framework is that relevant information assists in the predictive ability of financial statements. That is not to say the financial statements should be predictive in the sense of forecasts, but that (past) information should be presented in a manner that assists users to assess an entity's ability to take advantage of opportunities and react to adverse situations. A good example of this is the separate presentation of discontinued operations in the income statement. From this users will be better able to assess the parts of the entity that will produce future profits (continuing operations) and users can judge the merits of the discontinuation ie has the entity sold a profitable part of the business (which would lead users to question why), or has the entity acted to curtail the adverse affect of a loss making operation.

Reliability
The Framework states that for information to be useful it must be reliable. The quality of reliability is described as being free from material error (accurate) and a faithful representation of that which it purports to portray (i.e. the financial statements are a faithful representation of the entity's underlying transactions). There can be occasions where the legal form of a transaction can be engineered to disguise the economic reality of the transaction. A cornerstone of faithful representation is that transactions must be accounted for according to their substance (i.e. commercial intent or economic reality) rather than their legal or contrived form. To be reliable, information must be neutral (free from bias). Biased information attempts to influence users (perhaps to come to a predetermined decision) by the manner in which it is presented. It is recognised that financial statements cannot be absolutely accurate due to inevitable uncertainties surrounding their preparation. A typical example would be estimating the useful economic lives of non-current assets. This is addressed by the use of prudence which is the exercise of a degree of caution in matters of uncertainty. However prudence cannot be used to deliberately understate profit or create excessive provisions (this would break the neutrality principle). Reliable information must also be complete, omitted information (that should be reported) will obviously mislead users.

Comparability
Comparability is fundamental to assessing an entity's performance. Users will compare an entity's results over time and also with other similar entities. This is the principal reason why financial statements contain corresponding amounts for previous period(s). Comparability is enhanced by the use (and disclosure) of consistent accounting policies such that users can confirm that comparative information (for calculating trends) is comparable and the disclosure of accounting policies at least informs users if different entities use different policies. That said, comparability should not stand in the way of improved accounting practices (usually through new Standards); it is recognised that there are occasions where it is necessary to adopt new accounting policies if they would enhance relevance and reliability.

(b) (i) This item involves the characteristic of reliability and specifically reporting the substance of transactions. As the lease agreement is for substantially the whole of the asset's useful economic life, Porto will experience the same risks and rewards as if it owned the asset. Although the legal form of this transaction is a rental, its substance is the equivalent to acquiring the asset and raising a loan. Thus, in order for the financial statements to be reliable (and comparable to those where an asset is bought from the proceeds of a loan), the transaction should be shown as an asset on Porto's balance sheet with a corresponding liability for the future lease rental payments. The income statement should be charged with depreciation on the asset and a finance charge on the 'loan'.

(ii) This item involves the characteristic of comparability. Changes in accounting policies should generally be avoided in order to preserve comparability. Presumably the directors have good reason to be believe the new policy presents a more reliable and relevant view. In order to minimise the adverse effect a change in accounting policy has on comparability, the financial statements (including the corresponding amounts) should be prepared on the basis that the new policy had always been in place (retrospective application). Thus the assets (retail outlets) should include the previously expensed finance costs and income statements will no longer show a finance cost (in relation to these assets whilst under construction). Any finance costs relating to periods prior to the policy change (i.e. for two or more years ago) should be adjusted for by increasing retained earnings brought forward in the statement of changes in equity.

(iii) This item involves the characteristic of relevance. This situation questions whether historical cost accounting is more relevant to users than current value information. Porto's current method of reporting these events using purely historical cost based information (i.e. showing an operating loss, but not reporting the increases in property values) is perfectly acceptable. However, the company could choose to revalue its hotel properties (which would subject it to other requirements). This option would still report an operating loss (probably an even larger loss than under historical cost if there are increased depreciation charges on the hotels), but the increases in value would also be reported (in equity) arguably giving a more complete picture of performance.

5 (a) The correct timing of when revenue (and profit) should be recognised is an important aspect of an income statement showing a faithful presentation. It is generally accepted that only realised profits should be included in the income statement. For most types of supply and sale of goods it is generally understood that a profit is realised when the goods have been manufactured (or obtained) by the supplier and satisfactorily delivered to the customer. The issue with construction contracts is that the process of completing the project takes a relatively long time and, in particular, will spread across at least one accounting period-end. If such contracts are treated like most sales of goods, it would mean that revenue and profit would not be recognised until the contract is completed (the "completed contracts" basis). This is often described as following the prudence concept. The problem with this approach is that it may not show a faithful presentation as all the profit on a contract is included in the period of completion, whereas in reality (a faithful representation), it is being earned, but not reported, throughout the duration of the contract. IAS 11 remedies this by recognising profit on uncompleted contracts in proportion to some measure of the percentage of completion applied to the estimated total contract profit. This is sometimes said to reflect the accruals concept, but it should only be applied where the outcome of the contract is reasonably foreseeable. In the event that a loss on a contract is foreseen, the whole of the loss must be recognised immediately, thereby ensuring the continuing application of prudence.

(b) **Beetie**

Income statement	**Contract 1**	**Contract 2**	**Total**
	$'000	**$'000**	**$'000**
Revenue recognised	3,300	840	4,140
Contract expenses recognised (balancing figure contract 1)	(2,400)	(720)	(3,120)
Expected loss recognised (contract 2)		(170)	(170)
Attributable profit/(loss) (see working)	900	(50)	850
Balance sheet			
Contact costs incurred	3,900	720	4,620
Recognised profit/(losses)	900	(50)	850
	4,800	670	5,470
Progress billings	(3,000)	(880)	(3,880)
Amounts due from customers	1,800		1,800
Amounts due to customers		(210)	(210)

Workings (in $'000)

Estimated total profit:		
Agreed contract price	5,500	1,200
Estimated contract cost	(4,000)	(1,250)
Estimated total profit/(loss)	1,500	(50)
Percentage complete:		
Agreed value of work completed at 31 March 2006	3,300	
Contract price	5,500	
Percentage complete at 31 March 2006 (3,300/5,500 x 100)	60%	
Profit to 31 March 2006 (60% x 1,500)	900	

At 31 March 2006 the increase in the expected total costs of contract 2 mean that a loss of $50,000 is expected on this contract. In these circumstances, regardless of the percentage completed, the whole of this loss should be recognised immediately.

This marking scheme is given as a guide in the context of the suggested answers. Scope is given to markers to award marks for alternative approaches to a question, including relevant comment, and where well-reasoned conclusions are provided. This is particularly the case for written answers where there may be more than one acceptable solution.

1	**(a)**	1 mark per relevant point	**5**
	(b)	Balance sheet:	
		property, plant and equipment	2½
		goodwill	3½
		investments – associate	3
		– other	1
		current assets	2
		equity shares	1
		retained earnings	3
		minority interest	1½
		8% loan notes	½
		10% loan notes	1
		profit and loss account	1
			20
		Total for question	**25**
2	**(a)**	Income statement	
		revenue	½
		cost of sales	4½
		operating expenses	½
		investment income	1½
		finance costs	1½
		taxation	1½
			10
	(b)	Movement in share capital and reserves	
		brought forward figures	1
		revaluation	1
		profit for period	1
		dividends paid	1
			4
	(c)	Balance sheet	
		land and buildings	2
		plant and equipment	2
		investment property	1
		inventory and trade receivables	1
		8% loan	½
		deferred tax	½
		lease obligation: interest and capital one year	1
		capital over one year	1
		trade payables and overdraft	1
		accrued interest	½
		income tax provision	½
			11
		Total for question	**25**

3	**(a)**	one mark per ratio		**10**
	(b)	1 mark per valid point	**maximum**	**10**
	(c)	1 mark per valid point	**maximum**	**5**
			Total for question	**25**
4	**(a)**	3 marks each for relevance, reliability and comparability		9
	(b)	2 marks for each transaction ((i) to (iii)) or event		6
			Total for question	**15**
5	**(a)**	one mark per valid point to	**maximum**	**4**
	(b)	revenue (½ mark for each contract)		1
		profit/loss (½ mark for each contract)		1
		amounts due from customers (contract 1)		2
		amounts due to customers (contract 2)		2
				6
			Total for question	**10**

Fundamentals Pilot Paper – Skills module

Audit and Assurance (International)

Time allowed

Reading and planning: 15 minutes
Writing: 3 hours

ALL FIVE questions are compulsory and MUST be attempted.

Do NOT open this paper until instructed by the supervisor.

During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.

This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

Paper F8 (INT)

ACCA

This is a blank page
The question paper starts on page 3

ALL FIVE questions are compulsory and MUST be attempted

1 Westra Co assembles mobile telephones in a large factory. Each telephone contains up to 100 different parts, with each part being obtained from one of 50 authorised suppliers.

Like many companies, Westra's accounting systems are partly manual and partly computerised. In overview the systems include:

(i) Design software
(ii) A computerised database of suppliers (bespoke system written in-house at Westra)
(iii) A manual system for recording goods inwards and transferring information to the accounts department
(iv) A computerised payables ledger maintained in the accounts department (purchased off-the-shelf and used with no program amendments)
(v) Online payment to suppliers, also in the accounts department
(vi) A computerised general ledger which is updated by the payables ledger

Mobile telephones are assembled in batches of 10,000 to 50,000 telephones. When a batch is scheduled for production, a list of parts is produced by the design software and sent, electronically, to the ordering department. Staff in the ordering department use this list to place orders with authorised suppliers. Orders can only be sent to suppliers on the suppliers' database. Orders are sent using electronic data interchange (EDI) and confirmed by each supplier using the same system. The list of parts and orders are retained on the computer in an 'orders placed' file, which is kept in date sequence.

Parts are delivered to the goods inwards department at Westra. All deliveries are checked against the orders placed file before being accepted. A hand-written pre-numbered goods received note (GRN) is raised in the goods inwards department showing details of the goods received with a cross-reference to the date of the order. The top copy of the GRN is sent to the accounts department and the second copy retained in the goods inwards department. The orders placed file is updated with the GRN number to show that the parts have been received.

Paper invoices are sent by all suppliers following dispatch of goods. Invoices are sent to the accounts department, where they are stamped with a unique ascending number. Invoice details are matched to the GRN, which is then attached to the invoice. Invoice details are then entered into the computerised payables ledger. The invoice is signed by the accounts clerk to confirm entry into the payables ledger. Invoices are then retained in a temporary file in number order while awaiting payment.

After 30 days, the payables ledger automatically generates a computerised list of payments to be made, which is sent electronically to the chief accountant. The chief accountant compares this list to the invoices, signs each invoice to indicate approval for payment, and then forwards the electronic payments list to the accounts assistant. The assistant uses online banking to pay the suppliers. The electronic payments list is filed in month order on the computer.

Required:

(a) List the substantive audit procedures you should perform to confirm the assertions of completeness, occurrence and cut-off for purchases in the financial statements of Westra Co. For each procedure, explain the purpose of that procedure. (12 Marks)

(b) List the audit procedures you should perform on the trade payables balance in Westra Co's financial statements. For each procedure, explain the purpose of that procedure. (8 Marks)

(c) Describe the control procedures that should be in place over the standing data on the trade payables master file in Westra Co's computer system. (5 Marks)

(d) Discuss the extent to which computer-assisted audit techniques might be used in your audit of purchases and payables at Westra Co. (5 Marks)

(30 marks)

2 **(a)** ISA 210 *Terms of Audit Engagements* explains the content and use of engagement letters.

Required:

State SIX items that could be included in an engagement letter. (3 marks)

(b) ISA 500 *Audit Evidence* explains types of audit evidence that the auditor can obtain.

Required:

State, and briefly explain, four types of audit evidence that can be obtained by the auditor. (4 marks)

(c) ISA 700 *The Independent Auditor's Report on a Complete Set of General Purpose Financial Statements* explains the form and content of audit reports.

Required:

State three ways in which an auditor's report may be modified and briefly explain the use of each modification. (3 marks)

(10 marks)

3 You are the audit manager in the audit firm of Dark & Co. One of your audit clients is NorthCee Co, a company specialising in the manufacture and supply of sporting equipment. NorthCee have been an audit client for five years and you have been audit manager for the past three years while the audit partner has remained unchanged.

You are now planning the audit for the year ending 31 December 2007. Following an initial meeting with the directors of NorthCee, you have obtained the following information.

(i) NorthCee is attempting to obtain a listing on a recognised stock exchange. The directors have established an audit committee, as required by corporate governance regulations, although no further action has been taken in this respect. Information on the listing is not yet public knowledge.
(ii) You have been asked to continue to prepare the company's financial statements as in previous years.
(iii) As the company's auditors, NorthCee would like you and the audit partner to attend an evening reception in a hotel, where NorthCee will present their listing arrangements to banks and existing major shareholders.
(iv) NorthCee has indicated that the fee for taxation services rendered in the year to 31 December 2005 will be paid as soon as the taxation authorities have agreed the company's taxation liability. You have been advising NorthCee regarding the legality of certain items as 'allowable' for taxation purposes and the taxation authority is disputing these items.

Finally, you have just inherited about 5% of NorthCee's share capital as an inheritance on the death of a distant relative.

Required:

(a) **Identify, and explain the relevance of, any factors which may threaten the independence of Dark & Co's audit of NorthCee Co's financial statements for the year ending 31 December 2007. Briefly explain how each threat should be managed.** (10 Marks)

(b) **Explain the actions that the board of directors of NorthCee Co must take in order to meet corporate governance requirements for the listing of NorthCee Co.** (6 Marks)

(c) **Explain why your audit firm will need to communicate with NorthCee Co's audit committee for this and future audits.** (4 Marks)

(20 Marks)

4 SouthLea Co is a construction company (building houses, offices and hotels) employing a large number of workers on various construction sites. The internal audit department of SouthLea Co is currently reviewing cash wages systems within the company.

The following information is available concerning the wages systems:

(i) Hours worked are recorded using a clocking in/out system. On arriving for work and at the end of each days work, each worker enters their unique employee number on a keypad.

(ii) Workers on each site are controlled by a foreman. The foreman has a record of all employee numbers and can issue temporary numbers for new employees.

(iii) Any overtime is calculated by the computerised wages system and added to the standard pay.

(iv) The two staff in the wages department make amendments to the computerised wages system in respect of employee holidays, illness, as well as setting up and maintaining all employee records.

(v) The computerised wages system calculates deductions from gross pay, such as employee taxes, and net pay. Finally a list of net cash payments for each employee is produced.

(vi) Cash is delivered to the wages office by secure courier.

(vii) The two staff place cash into wages packets for each employee along with a handwritten note of gross pay, deductions and net pay. The packets are given to the foreman for distribution to the individual employees.

Required:

(a) (i) Identify and explain weaknesses in SouthLea Co's system of internal control over the wages system that could lead to mis-statements in the financial statements.

(ii) For each weakness, suggest an internal control to overcome that weakness. (8 Marks)

(b) Compare the responsibilities of the external and internal auditors to detect fraud. (6 Marks)

The computer system in the wages department needs to be replaced. The replacement will be carried out under the control of a specialist external consultant.

Required:

(c) Explain the factors that should be taken into consideration when appointing an external consultant. (6 Marks)

(20 Marks)

5 EastVale Co manufactures a range of dairy products (for example, milk, yoghurt and cheese) in one factory. Products are stored in a nearby warehouse (which is rented by EastVale) before being sold to 350 supermarkets located within 200 kilometres of EastVale's factory. The products are perishable with an average shelf life of eight days. EastVale's financial statements year-end is 31 July.

It is four months since the year-end at your audit client of EastVale and the annual audit of EastVale is almost complete, but the auditor's report has not been signed.

The following events have just come to your attention. Both events occurred in late November.

(a) A fire in the warehouse rented by the company has destroyed 60% of the inventory held for resale.

(b) A batch of cheese produced by EastVale was found to contain some chemical impurities. Over 300 consumers have complained about food poisoning after eating the cheese. 115 supermarkets have stopped purchasing EastVale's products and another 85 are considering whether to stop purchasing from EastVale. Lawyers acting on behalf of the consumers are now presenting a substantial claim for damages against EastVale.

Required:

In respect of EACH of the events at EastVale Co mentioned above:

(i) Describe the additional audit procedures you will carry out; (8 Marks)

(ii) State, with reasons, whether or not the financial statements for the year-end require amendment; and (6 Marks)

(iii) Discuss whether or not the audit report should be modified. (6 Marks)

Note: The total marks will be split equally between each event.

(20 Marks)

End of question paper

Answers

Tutorial note: Some answers are longer than could be expected from candidates sitting this examination. The answers may also include more points than would be necessary to obtain full marks in the examination. This is to provide examples of valid points that could be made.

1 (a) Audit procedures – purchases

Audit procedure	Reason for procedure
Obtain a sample of list of parts documents from the computer. Trace individual parts to the goods received note (GRN).	Checks the *completeness* of recording of liabilities.
For entries in the list of parts where no GRN number has been entered, enquire with goods inwards staff why there is no GRN. Document reasons obtained.	Checks that goods have not been received but details not recorded. Possible *cut-off* error where goods have been received but GRN not raised.
Obtain a sample of GRNs. Agree details to the list of parts document on the computer.	Ensures that the parts received had been ordered by Westra, giving evidence for the *occurrence* assertion.
For a sample of GRNs from the goods inwards department, trace to the invoice held in the accounts department.	Ensures the *completeness* of recording of liabilities. GRNs with no matching invoice indicate a liability has been incurred. Unmatched GRNs should be included in the payables accrual. Note this test will be difficult because there is no cross reference maintained of the GRN to the invoice.
Review file of unmatched GRNs, investigate reasons for any old (more than one week) items.	Ensures the *completeness* of recording of liabilities. Unmatched items prior to the year end should be included in the payables accrual.
Obtain a sample of paid invoices. Ensure that the GRN is attached.	Confirms that the invoice should be included in the payables ledger, meeting the *completeness* assertion.
For the sample of invoices, check details into the computerised payables ledger, ensuring the correct account has been updated and the invoice amount is accurate.	Confirms the *completeness* of recording of payables invoices in the ledger.
Obtain the unmatched invoices file. Investigate old items obtaining reason for GRN not being received / invoice not being processed.	Unmatched items at the year end could indicate unrecorded liabilities. Ensure included in the payables accrual if the goods had been received pre-year end.
For a sample of entries from the payables ledger, agree details back to the purchase invoice.	Ensures that the liability does belong to Westra, meeting the *occurrence* assertion.
For the sample of entries on the payables ledger, agree to the electronic payments list confirming that the supplier name and amount is correct.	Ensures that the liability has been properly discharged by Westra and that the payments list is therefore *complete*.
For a sample of entries on each electronic payments list, agree details to the purchase invoice.	Ensures that the payment has been made for a liability incurred by Westra, meeting the *occurrence* assertion.
For the sample of entries in the electronic payments list, agree details to the bank statement.	Shows that the payment was actually made to that supplier.
Obtain the bank statements. Trace a sample of payments to the electronic payments list.	Confirms that the payment made does relate to Westra, confirming the *occurrence* assertion.
For a sample of GRNs in the week pre- and post- year-end, trace to the supporting invoice and entry in the payables ledger, ensuring recorded in the correct accounting year.	Confirms the accuracy of *cut-off* in the financial statements.

Tutorial note. This answer follows the structure of the scenario provided in the question. An alternative and valid format would be to use the assertions as main headings and to make points under each heading.

(b) Audit procedures – payables

Audit procedure	Reason for procedure
Obtain a list of payables balances from the computerised payables ledger as at Westra's year end. Cast the list.	To ensure that the list is accurate and that the total is represented by the individual balances (completeness assertion).
Agree the total of payables to the general ledger and financial statements.	To confirm that the total has been accurately recorded and that the balance in the financial statements is represented by valid payables (occurrence assertion).
Perform analytical procedures on the list of payables. Determine reasons for any unusual changes in the total balance or individual payables in the list.	Provides initial indication of the accuracy and completeness of the list of payables.
For a sample of payables on the list, agree to supplier statements at the year-end.	Confirms that the payables balance is due from Westra meeting the occurrence assertion.
Reconcile supplier statement balances to the payables ledger.	Ensures that the liabilities exist and belong to Westra at the year-end.
For invoices on the statements not in the ledger, agree to invoices entered after the year-end. Check the date of goods receipt per the GRN attached to the invoice. Where goods received pre-year end agree invoice to the payables accrual.	Ensures that all liabilities were recorded at the year end, meeting the completeness and cut-off assertions.
For payments not included in the supplier statements, agree to the next month-end statement ensuring that the payment has been recorded.	Ensures that payments have been made to the correct supplier.
Review the payables ledger for old unpaid invoices. Enquire of the chief accountant the reason for non-payment.	Non-payment may be indicative of goods being returned for credit indicating that the payables figure may be overstated. Alternatively, taking additional credit from payables may be a going concern indicator.
Review credit notes received post-year end ensuring that where they relate to pre-year end purchases that the payables accrual has been reduced.	Ensures that payables are not over-stated at the year-end. Large credit notes may also be an indication of overstating payables deliberately to reduce profit.
Ensure that payables have been included in the financial statements under the heading of current liabilities.	Confirm the correct classification of payables in the financial statements.

(c) Controls over standing data

Controls include:

– Any amendment (addition, amendment or deletion) to the payables ledger should be authorised by a responsible official, for example, the chief accountant.

– Authorisation can be by a manual form being signed or by the chief accountant having restricted access password to amend the standing data.

– The computer should reject deletion of a supplier account where there is an outstanding balance (debit or credit).

– A record of amendments made to the payables ledger should be maintained within the ledger and reviewed on a regular basis by the chief accountant to ensure that the changes are bona fide.

– The chief accountant should review the list of suppliers on a regular basis (perhaps every four to six months) and delete those which are no longer used.

– A comparison should be made regularly (perhaps every month) between the authorised list of suppliers on the computerised list of suppliers and the payables ledger. Any new supplier on the list of suppliers should be added to the payables ledger in preparation for payment.

– A review of the computer control log regarding access to the payables standing data should be made on a regular basis and any unauthorised access identified and changes made under that access identified and if necessary reversed.

– A list of suppliers should be printed out occasionally (about every three months) and kept in a secure location in the chief accountant's office. The chief accountant should then compare this list with the computerised list in three months time and account for any unauthorised additions.

(d) Use of CAATs

Audit software may be used to identify old/obsolete balances in some of Westra's systems eg outstanding deliveries and payments not being made to suppliers. However, the usefulness of the testing is limited and it is possible that the computer system already provides similar controls.

Test data input by the auditor would be useful in checking the online payments system, perhaps by setting up some "dummy" accounts and ensuring that payments are sent to the correct suppliers. Other controls over payments such as access controls are more likely to be tested manually by the auditor.

Use of Computer-Assisted Audit Techniques (CAATs) may be limited in Westra due to the lack of integration of computer systems. For example, the suppliers' database is not connected to the payables ledger, limiting the use of test data to check transactions all the way through the purchases/payables system.

There is no indication provided in the scenario regarding the extent and effectiveness of computer controls. Controls would have to be identified and assessed for reliability prior to reliance being placed.

Given that some of Westra's systems are bespoke, then it may not be cost effective to use CAATs given the time required to write specific test data or program audit software to use Westra's data.

Use of CAATs in the suppliers' database may not be effective given that the database does not input directly into any financial accounting system. Testing GRNs to purchase invoice to ledgers, etc will provide greater assurance of the completeness and accuracy of purchases than testing the suppliers' database.

2 Engagement letter

(a) Contents of an engagement letter

– Objective of the audit of the financial statements
– Management's responsibility for the financial statements
– The scope of the audit with reference to appropriate legislation
– The form of any report or other communication of the results of the engagement
– The auditor may not discover all material errors
– Provision of access to the auditor of all relevant books and records
– Arrangements for planning the audit
– Agreement of management to provide a representation letter
– Request that the client confirms in writing the terms of engagement
– Description of any letters or reports to be issued to the client
– Basis of fee calculation and billing arrangements.

(b) Types of audit evidence

– Inspection – examination of records or documents in whatever form eg manual computerised, external or internal.

– Observation – looking at the processes or procedures being carried out by others.

– Inquiry – seeking information from knowledgeable persons, both financial or non-financial, either within or outside the entity being audited.

– Confirmation – the process of obtaining a representation of an existing condition from a third party eg a receivables letter.

– Recalculation – checking the mathematical accuracy of documents or records.

– Reperformance – this is the auditor's independent execution of procedures or controls that were originally performed as part of the entity's internal control system.

– Analytical procedures – evaluation of financial information made by a study of plausible relationships among both financial and non-financial data.

(c) Modification of audit reports

Emphasis of matter paragraph. Used where the auditor wishes to draw attention to an important item in the financial statements.

Qualification – limitation in scope. Used where the audit cannot obtain sufficient evidence regarding an item in the financial statements.

Qualification – disagreement. Used where the auditor disagrees concerning the amount or disclosure of an item in the financial statements.

3 (a) Threats to independence

Rotation of audit partner
NorthCee Co have had the same audit partner for the last five years. An audit partner's independence may be impaired where that position is retained for more than five years for a listed company. The reason being that the partner has become too close to the directors and staff in the firm and this may impair his judgement on the financial statements. However, NorthCee is currently not listed so this requirement does not apply.

As NorthCee is now being listed, Dark & Co should rotate the audit partner this year to avoid any familiarity threat. However, given that NorthCee was not a listed company up to this audit, may imply that the partner could continue this year, but would be recommended to be rotated before the 2008 audit.

Preparation of financial statements
Apparently Dark have been preparing NorthCee's financial statements as well as carrying out the audit in previous years. While this may not have been an independence issue in the past, it is likely to be now as in many jurisdictions auditors may not provide other services to their audit clients, especially listed client. Preparing financial statements as well as auditing them would provide Dark with a self-review threat, that is they may not see any errors, or want to report errors in material that they have previously prepared.

Dark should therefore decline from preparation of NorthCee's financial statements.

Attendance at social event
Attending the social event with respect to the new listing may be inappropriate as Dark may be seen as supporting NorthCee in this venture. There is an advocacy threat to independence. Support for a client may imply that the audit firm are "too close" to that client and may therefore lose their independent view regarding the audit. There is also a familiarity threat.

Dark should therefore politely decline the dinner invitation, clearly stating their reasons.

Unpaid taxation fee
The unpaid fee in respect of taxation services could be construed as a loan to the audit client. Audit firms should not make loans to or receive loans from audit clients. An outstanding loan will affect independence as closure of the loan may be seen as more important than providing an appropriate audit opinion.

Dark need to discuss the situation with NorthCee again, suggesting that a payment on account could be made to show that the whole fee will be paid. Alternatively, audit work on the 2007 financial statements can be delayed until the taxation fee is paid.

Inheritance
Under ACCA's Code of Ethics and Conduct, audit partners may not hold beneficial shares in a client company. This provision includes audit staff where they are involved in the audit. The independence issue is simply that the shareholder (the auditor in this case) may be more interested in the value of the shares than providing a "correct "opinion on the financial statements.

The shares should be disposed of as soon as possible. However, given the inside knowledge of the listing, disposal now, or delaying disposal a few days to obtain a better price may be considered "insider dealing". It may be better that the audit manager resigns from the audit immediately to limit any real or potential independence problems. Professional advice may be needed on when to sell the shares.

(b) Meeting corporate governance requirements

Currently, the only action that the directors appear to have taken is to establish an audit committee. Given that NorthCee is going to be listed on a recognised stock exchange, then there are other corporate governance requirements to be met. These requirements include:

– Ensuring that the chairman and the company chief executive officer (CEO) are different people.
– Appointing non-executive directors (NEDs) to the board of NorthCee. The number of NEDs should be the same as the number of executive directors less the chairman.
– Ensuring that at least one NED has relevant financial experience.

– Appointing the NEDs to the audit committee, remuneration committee and possibly an appointments committee. The chairman will also have a seat on these committees.
– Establishing an internal audit department to review NorthCee's internal control systems and make reports to the audit committee.
– Ensure that NorthCee has an appropriate system of internal control and that the directors recognise their responsibilities for establishing and maintaining this system.
– Establishing procedures to maintain contact with institutional shareholders and any other major shareholders. The evening reception for shareholders could become a regular event in this respect.
– Checking that the annual financial report contains information on corporate governance required by the stock exchange (eg a report on how directors monitor the internal control systems).

(c) Communication with the audit committee

Under most systems of corporate governance, the external auditor's primary point of contact with a company is the audit committee. There are various reasons for this:

- Initially, to ensure that there is independence between the board of directors and the audit firm. The audit committee consists of non-executive directors (NEDs), who by definition are independent of the company and can therefore take an objective view of the audit report.
- The audit committee will have more time to review the audit report and other communications to the company from the auditor (eg management letters) than the board. The auditor should therefore benefit from their reports being reviewed carefully.
- The audit committee can ensure that any recommendations from the auditor are implemented. The audit committee has independent NEDs who can pressurise the board to taking action on auditor recommendations.
- The audit committee also has more time to review the effectiveness and efficiency of the work of the external auditor than the board. The committee can therefore make recommendations on the re-appointment of the auditor, or recommend a different firm if this would be appropriate.

4 (a) Control weaknesses and recommendations

Control weakness	Internal control recommendation
Employees can be paid for work not done. There appears to be no check to ensure that hours recorded in the computer system actually relate to hours worked.	A record of hours worked by each employee should be printed from the computerised wages system and signed by the site foreman to confirm that the hours are accurate.
There is no check to ensure that each employee inputs his/her employee number. One employee could input two numbers hiding the fact that one employee is absent.	The computerised wages system should print a list of employees present per the computer system during the day and the foreman should then sign this list to confirm it is accurate.
Fake or dummy employees can be put onto the payroll. The foreman can set up employee records for workers who do not exist. As payment is made automatically from the record of hours worked.	The wages office should check the list of employees against personnel records of authorised employees. Any new employees particularly should be verified in this way before payment is made.
The staff in the wages office could collude by setting up fake employee records in a similar way to the site foreman.	The list of employees on the payroll should be checked for accuracy by a person outside of the wages department, for example the personnel department or the chief accountant. The list of net payments should be signed by this person to show it is correct.
Gross pay inflated by wages department staff. The staff in the wages department could add extra hours to the records of some employees, and remove the net pay from the payment received from the courier prior to making up the pay packets.	The computerised payroll system should be programmed to produce a list of all amendments made to the payroll. This list should be reviewed by a responsible official outside of the wages department prior to wages being paid. Alternatively, the computerised payroll system should produce payslips for each employee showing the hours worked, gross and net pay etc. Employees should then check that the cash paid agrees to the net payment recorded on the payslip.

(b) **Fraud and External/Internal audit**

Guidance on the auditor's responsibility with respect to fraud can be found in ISA 240 *The Auditor's Responsibility to Consider Fraud in an Audit of Financial Statements*.

Main reason for audit work

The external auditor is primarily responsible for the audit opinion on the financial statements. The main focus of audit work is therefore to ensure that the financial statements show a true and fair view. The detection of fraud is therefore not the main focus of the external auditor's work.

The main focus of the work of the internal auditor is checking that the internal control systems in a company are working correctly. Part of that work may be to conduct detailed review of systems to ensure that fraud is not taking place.

Materiality

In reaching the audit opinion and performing audit work, the external auditor takes into account the concept of materiality. In other words, the external auditor is not responsible for checking all transactions. Audit procedures are planned to have a reasonable likelihood of identifying material fraud,

However, internal auditors may carry out a detailed review of transactions, effectively using a much lower materiality limit. It is more likely that internal auditors will detect fraud from their audit testing.

Identification of fraud

In situations where the external auditor does detect fraud, then the auditor will need to consider the implications for the entire audit. In other words, the external auditor has a responsibility to extend testing into other areas because the risk of providing an incorrect audit opinion will have increased.

Where internal auditors detect fraud, they may extend testing into other areas. However, audit work is more likely to focus on determining the extent of fraud and ensuring similar fraud has not occurred in other locations.

(c) **Use of expert**

Qualification

The consultant should have a relevant qualification to show ability to undertake the work. In this case being a member of a relevant computer society or the Institute of Internal Auditors would be appropriate.

Experience

The consultant should be able to show relevant experience from previous projects for example, upgrading or amending wages systems for other clients.

References

Hopefully the consultant will be able to provide references from previous employers showing capability to undertake the work.

Project management skills

The consultant should be able to display appropriate project management skills as managing a team will be an important element of the systems change work.

Access to information

The consultant will need access to important and sensitive information in SouthLea. The chief accountant must ensure that this information will be made available to third parties. The consultant will have to sign a confidentiality agreement.

Acceptance by other staff

Employing a consultant can be difficult as other internal audit staff may feel threatened or resentful that a consultant has been employed. The chief internal auditor must ensure that the reasons for employing the consultant are understood by members of the internal audit department.

5 (a) Fire at warehouse

(i) Audit procedures

- Discuss the matter with the directors checking whether the company has sufficient inventory to continue trading in the short term.
- Enquire that the directors are satisfied that the company can continue to trade in the longer term. Ask the directors to sign an additional letter of representation to this effect.
- Obtain a schedule showing the inventory destroyed and if possible check this is reasonable given past production records and inventory valuations.
- Enquire that the insurers have been informed. Review correspondence from the insurers confirming the amount of the insurance claim.
- Consider whether or not EastVale can continue as a going concern, given the loss of inventory and potential damage to the company's reputation if customer orders cannot be fulfilled.

(ii) Amendment to financial statements

- Enquire whether the directors have considered whether the event needs disclosure in the financial statements. Disclosure is unlikely given that the inventory was not in existence at the year-end and on the assumption that insurance is adequate to cover the loss.
- Amendment is not required as the fire did not affect any company property and the inventory would not have been in existence at the year end (inventory turn being very high).

(iii) Modification of audit report

- Consider modifying the audit report with an emphasis of matter paragraph to draw attention to the disclosure of the note on the fire in the financial statements.
- If the going concern status of EastVale is in doubt, then consider modifying the audit report with an emphasis of matter paragraph to this effect.
- If disclosure made by the directors is considered to be inadequate, then modify the audit report with an "except for" qualification.

(b) Batch of cheese

(i) Audit procedures

- Discuss the matter with the directors, determining specifically whether there was any fault in the production process.
- Obtain a copy of the damages claim and again discuss with the directors the effect on EastVale and the possibility of success of the claim.
- Obtain independent legal advice on the claim from EastVale's lawyers. Attempt to determine the extent of damages that may have to be paid.
- Review any press reports about the contaminated cheese. Consider the impact on the reputation of EastVale and whether the company can continue as a going concern.
- Discuss the going concern issue with the directors. Obtain an additional letter of representation on the directors' opinion of the going concern status of EastVale.

(ii) Amendment to financial statements

- The event should be disclosed in the financial statements in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assests* as it may have a significant impact on EastVale. Over two-thirds of EastVale's customers have either stopped purchasing products from the company or are considering taking this action.
- No adjustment is required for the event itself as it was not a condition at the balance sheet date.
- However, the event may become adjusting if company's reputation has been damaged and the amount of the legal claim is significant. In this situation the directors may decide that EastVale is no longer a going concern so the financial statements may have to be re-drafted on a break-up basis. This action complies with International Accounting Standard 8; the break-up basis is used where the directors have no realistic alternative but to liquidate the company.

(iii) Modification of audit report

Modification of the audit report depends on the director's actions above.

– If the financial statements are prepared on a breakup basis, and the auditor agrees with that assessment, then a modified report can be issued with an emphasis of matter paragraph drawing attention to the accounting basis used.

– However, if the financial statements are prepared on a going concern basis then the auditor should consider modifying the audit report with an emphasis of matter paragraph to draw attention to the disclosure of the note on the fire in the financial statements. This is providing that the auditor agrees that the going concern basis is appropriate.

– If the going concern status of EastVale is in doubt, then consider modifying the audit report with an emphasis of matter paragraph to this effect, drawing attention to disclosure made by the directors.

– If EastVale is not a going concern, and the financial statements have been prepared using this assumption, qualify the audit report with an adverse qualification stating that the company is not a going concern.

1 (a) Audit procedures – purchases 12 marks. 1 for procedure and 1 for the reason. Limit to .5 mark in each category where stated briefly without full detail.

Audit procedure	Reason for procedure	Marks
Parts to GRN	Check completeness	
Parts no GRN number	System error or cut-off error	
GRN to computer	Parts received were ordered – occurrence	
GRN agree to invoice	Completeness of recording	
Review unmatched GRN file	Completeness of recording of liabilities	
Paid invoice – GRN attached	Confirms invoice in PDB	
Invoice details to payables ledger	Completeness and accuracy of recording	
Review unmatched invoices file	Indicate understatement of liability (lack of completeness)	
Payables ledger to purchase invoice	Liability belongs to Westra	
Payables ledger to payments list	Liability properly discharged – payments complete	
Payment list entries to invoice	Payment made for bona fide liability	
Payments list to bank statement	Confirms payment to supplier	
Bank statement entry to payments list	Confirms payment relates to Westra	
GRN cut-off testing	Accuracy of cut-off	
Maximum marks		12

(b) Audit procedures – payables 8 marks. 1 for procedure and 1 for the reason. Limit to 0.5 mark in each category where stated briefly without full detail.

Audit procedure	Reason for procedure	Marks
Obtain and cast list of payables	Ensure that the list is accurate	
Total of payables to the general ledger and financial statements	Confirm that the total has been accurately recorded	
Analytical procedures	Indicates problems with the accuracy and completeness of payables	
Agree payables to supplier statements	Confirm balance due from Westra	
Supplier statement reconciliation	Liabilities exist and belong to Westra	
Reconcile invoices	Confirms completeness and cut-off assertions	
Reconcile payments	Payment to correct supplier	
Review ledger old unpaid invoices	Credits OS or going concern indicator	
After date credit notes	Payables not overstated	
FS categorisation payables	Classification objective	
Maximum marks		8

(c) Controls over standing data 5 marks. 1 mark for explaining each control. 0.5 for poor/limited explanation.

Amendments authorised
How authorised (form or access control)
Reject deletion where outstanding balance
Keep record of amendments
Review list of suppliers – unauthorised amendments
Update supplier list on computer regularly
Review computer control log
Review list of suppliers – unauthorised additions
Other relevant points (each)

Maximum marks	5

		Marks
(d)	Use of CAATs	5
	Review computer control log	
	Identify old / obsolete – computer may already do this	
	Test data – online payments system	
	Use of CAATs – limited – lack of computer system integration	
	Need to assess computer controls prior to use of CAATs	
	Not cost effective – bespoke systems	
	Limited use of CAATs in suppliers ledger	
	Other relevant points (each)	
	Maximum marks	**5**

2 **Engagement letter**

(a) Contents of an engagement letter – 3 marks. 0.5 mark per point.

Objective of the audit of the financial statements	0.5
Management's responsibility for the financial statements	0.5
The scope of the audit with reference to appropriate legislation	0.5
The form of any report or other communication of the results of the engagement	0.5
The auditor may not discover all material errors	0.5
Provision of access to the auditor of all relevant books and records	0.5
Arrangements for planning the audit	0.5
Agreement of management to provide a representation letter	0.5
Request that the client confirms in writing the terms of engagement	0.5
Description of any letters or reports to be issued to the client	0.5
Basis of fee calculation and billing arrangements	0.5
Maximum marks	**3**

(b) Types of audit evidence – 4 marks: 0.5 only for stating the type and 0.5 for explanation. Maximum 2 marks for simply providing a list of types of evidence.

Inspection	1
Observation	1
Inquiry	1
Confirmation	1
Recalculation	1
Reperformance	1
Analytical procedures	1
Maximum marks	**4**

(c) Modification of audit reports. 3 marks. 0.5 for the type of report and 0.5 for explanation.

Emphasis of matter paragraph	1
Qualification – limitation in scope	1
Qualification – disagreement	1
Maximum marks	**3**

			Marks
3	**(a)**	Audit risks 10 marks. 0.5 for identifying risk area, 1 for explanation of risk and 1 for stating how to resolve. Maximum 2.5 for each area.	
		Rotation of audit partner	
		Preparation of financial statements	
		Attendance at social event	
		Unpaid taxation fee	
		Inheritance	
		Other relevant points (each)	
		Maximum marks	10
	(b)	Meeting corporate governance requirements. 6 marks. 1 mark for each point.	
		Chief executive officer (CEO)/chairman split	1
		Appoint NED	1
		NED with financial experience	1
		NEDs to sub-committees of board	1
		Internal audit	1
		Internal control system	1
		Contact institutional shareholders	1
		Financial report information	1
		Other relevant points (each)	1
		Maximum marks	6
	(c)	Communication with audit committee 4 marks. 1 each point.	
		Independence from board	1
		Time to review audit work	1
		Check auditor recommendations implemented	1
		Review work of internal auditor (efficiency, etc.)	1
		Other relevant points (each)	1
		Maximum marks	4

4 **(a)** Control weaknesses and recommendations. 8 marks. 1 for explanation of weakness and 1 for internal control recommendation. Maximum 2 per weakness/recommendation.

Control weakness	Recommendation	Marks
Employees can be paid for work not done.		
No check hours actually worked	Authorise hours worked on computer	
Fraudulent input employee number	Reconcile computer to actual employees	
Fake or dummy employees can be put onto the payroll.		
Foreman setup	Check employees against personnel records	
Wages office staff setup	List of employees reviewed for accuracy	
Gross pay inflated by wages department staff.		
Add extra hours work done	List amendments to payroll produced	
Other valid points		
Maximum marks		8

		Mark
(b)	Fraud and External/Internal audit. 6 marks. 1 for internal audit work and 1 for external audit. Maximum 2 per point	
	Main reason for audit work	
	Materiality	
	Identification of fraud	
	Other relevant points	
	Maximum marks	6
(c)	Use of expert. 6 marks. 1 mark per valid point.	
	Qualification	1
	Experience	1
	References	1
	Project management skills	1
	Access to information	1
	Acceptance by other staff	1
	Other relevant points (each)	1
	Maximum marks	6

5 (a) Fire at warehouse

(i)	Audit procedures. 5 marks for fire 1 per well-explained point.	
	Discuss the matter with the directors	1
	Letter of representation point	1
	Schedule of inventory destroyed – reasonable?	1
	Insurance	1
	Going concern status of company	1
	Other relevant points (each)	1
	Maximum marks	4
(ii)	Amendment to financial statements 2 marks – 1 per well-explained point	
	Disclosure in FS – unlikely with reason	1
	No amendment to B/S etc	1
	Other relevant points	1
	Maximum marks	3
(iii)	Modification of audit report 3 marks – 1 per well-explained point	
	Modification of report	1
	Going concern status?	1
	Inadequate disclosure by directors	1
	Other relevant points (each)	1
	Maximum marks	3

	Marks
(b) Batch of cheese	
(i) Audit procedures 5 marks for fire 1 per well-explained point.	
Discuss with directors	1
Copy of damages claim	1
Legal advice	1
Press reports (or other third party) on cheese	1
Going concern?	1
Other relevant points (each)	1
Maximum marks	4
(ii) Disclosure of event 2 marks – 1 per well-explained point	
Disclosure event – because significant impact	1
No adjustment	1
Going concern issue – reputation	1
May result in amendment to FS	1
Other relevant points (each)	1
Maximum marks	3
(iii) Modification of audit report – 3 marks – 1 per well-explained point	
Preparation of FS breakup basis	1
Prepared going concern basis – emphasis of matter to note this	1
Prepared going concern – but in doubt – emphasis of matter to note this	1
Prepared going concern and disagree – qualify report	1
Maximum marks	3

Fundamentals Pilot Paper – Skills module

Financial Management

Time allowed
Reading and planning: 15 minutes
Writing: 3 hours

ALL FOUR questions are compulsory and MUST be attempted.

Do NOT open this paper until instructed by the supervisor.

During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.

This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

Paper F9

ALL FOUR questions are compulsory and MUST be attempted

1 Droxfol Co is a listed company that plans to spend $10m on expanding its existing business. It has been suggested that the money could be raised by issuing 9% loan notes redeemable in ten years' time. Current financial information on Droxfol Co is as follows.

Income statement information for the last year

	$000
Profit before interest and tax	7,000
Interest	(500)
Profit before tax	6,500
Tax	(1,950)
Profit for the period	4,550

Balance sheet for the last year	$000	$000
Non-current assets		20,000
Current assets		20,000
Total assets		40,000
Equity and liabilities		
Ordinary shares, par value $1	5,000	
Retained earnings	22,500	
Total equity		27,500
10% loan notes	5,000	
9% preference shares, par value $1	2,500	
Total non-current liabilities		7,500
Current liabilities		5,000
Total equity and liabilities		40,000

The current ex div ordinary share price is $4.50 per share. An ordinary dividend of 35 cents per share has just been paid and dividends are expected to increase by 4% per year for the foreseeable future. The current ex div preference share price is 76.2 cents. The loan notes are secured on the existing non-current assets of Droxfol Co and are redeemable at par in eight years' time. They have a current ex interest market price of $105 per $100 loan note. Droxfol Co pays tax on profits at an annual rate of 30%.

The expansion of business is expected to increase profit before interest and tax by 12% in the first year. Droxfol Co has no overdraft.

Average sector ratios:

Financial gearing:	45%	(prior charge capital divided by equity capital on a book value basis)
Interest coverage ratio:	12 times	

Required:

(a) Calculate the current weighted average cost of capital of Droxfol Co. (9 marks)

(b) Discuss whether financial management theory suggests that Droxfol Co can reduce its weighted average cost of capital to a minimum level. (8 marks)

(c) Evaluate and comment on the effects, after one year, of the loan note issue and the expansion of business on the following ratios:
(i) interest coverage ratio;
(ii) financial gearing;
(iii) earnings per share.

Assume that the dividend growth rate of 4% is unchanged. (8 marks)

(25 marks)

2 Nedwen Co is a UK-based company which has the following expected transactions..

One month:	Expected receipt of \$240,000
One month:	Expected payment of \$140,000
Three months:	Expected receipts of \$300,000

The finance manager has collected the following information:

Spot rate (\$ per £):	1.7820 ± 0.0002
One month forward rate (\$ per £):	1.7829 ± 0.0003
Three months forward rate (\$ per £):	1.7846 ± 0.0004

Money market rates for Nedwen Co:

	Borrowing	Deposit
One year sterling interest rate:	4.9%	4.6
One year dollar interest rate:	5.4%	5.1

Assume that it is now 1 April.

Required:

(a) Discuss the differences between transaction risk, translation risk and economic risk. (6 marks)

(b) Explain how inflation rates can be used to forecast exchange rates. (6 marks)

(c) Calculate the expected sterling receipts in one month and in three months using the forward market. (3 marks)

(d) Calculate the expected sterling receipts in three months using a money-market hedge and recommend whether a forward market hedge or a money market hedge should be used. (5 marks)

(e) Discuss how sterling currency futures contracts could be used to hedge the three-month dollar receipt. (5 marks)

(25 marks)

3 Ulnad Co has annual sales revenue of \$6 million and all sales are on 30 days' credit, although customers on average take ten days more than this to pay. Contribution represents 60% of sales and the company currently has no bad debts. Accounts receivable are financed by an overdraft at an annual interest rate of 7%.

Ulnad Co plans to offer an early settlement discount of 1.5% for payment within 15 days and to extend the maximum credit offered to 60 days. The company expects that these changes will increase annual credit sales by 5%, while also leading to additional incremental costs equal to 0.5% of turnover. The discount is expected to be taken by 30% of customers, with the remaining customers taking an average of 60 days to pay.

Required:

(a) Evaluate whether the proposed changes in credit policy will increase the profitability of Ulnad Co. (6 marks)

(b) Renpec Co, a subsidiary of Ulnad Co, has set a minimum cash account balance of \$7,500. The average cost to the company of making deposits or selling investments is \$18 per transaction and the standard deviation of its cash flows was \$1,000 per day during the last year. The average interest rate on investments is 5.11%.

Determine the spread, the upper limit and the return point for the cash account of Renpec Co using the Miller-Orr model and explain the relevance of these values for the cash management of the company. (6 marks)

(c) Identify and explain the key areas of accounts receivable management. (6 marks)

(d) Discuss the key factors to be considered when formulating a working capital funding policy. (7 marks)

(25 marks)

4 Trecor Co plans to buy a new machine to meet expected demand for a new product, Product T. This machine will cost $250,000 and last for four years, at the end of which time it will be sold for $5,000. Trecor Co expects demand for Product T to be as follows:

Year	**1**	**2**	**3**	**4**
Demand (units)	35,000	40,000	50,000	25,000

The selling price for Product T is expected to be $12.00 per unit and the variable cost of production is expected to be $7.80 per unit. Incremental annual fixed production overheads of $25,000 per year will be incurred. Selling price and costs are all in current price terms.

Selling price and costs are expected to increase as follows:

	Increase
Selling price of Product T:	3% per year
Variable cost of production:	4% per year
Fixed production overheads:	6% per year

Other information

Trecor Co has a real cost of capital of 5.7% and pays tax at an annual rate of 30% one year in arrears. It can claim capital allowances on a 25% reducing balance basis. General inflation is expected to be 5% per year.

Trecor Co has a target return on capital employed of 20%. Depreciation is charged on a straight-line basis over the life of an asset.

Required:

(a) Calculate the net present value of buying the new machine and comment on your findings (work to the nearest $1,000). (13 marks)

(b) Calculate the before-tax return on capital employed (accounting rate of return) based on the average investment and comment on your findings. (5 marks)

(c) Discuss the strengths and weaknesses of internal rate of return in appraising capital investments. (7 marks)

(25 marks)

Formulae Sheet

Economic order quantity

$$= \sqrt{\frac{2C_oD}{C_H}}$$

Miller – Orr Model

$$\text{Return point} = \text{Lower limit} + (\frac{1}{3} \text{ x spread})$$

$$\text{Spread} = 3\left[\frac{\frac{3}{4} \text{ x transaction cost x variance of cash flows}}{\text{interest rate}}\right]^{\frac{1}{3}}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i(E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_0(1+g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1-T)$$

The Fisher formula

$$(1+i) = (1+r)(1+h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 \text{x} \frac{(1+h_c)}{(1+h_b)} \qquad F_0 = S_0 \text{x} \frac{(1+i_c)}{(1+i_b)}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·914	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·350	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

End of Question Paper

Answers

1 (a) Calculation of weighted average cost of capital (WACC)

Market values
Market value of equity = 5m x 4.50 = $22.5 million
Market value of preference shares = 2.5m x .0762 = $1.905 million
Market value of 10% loan notes = 5m x (105/ 100) = $5.25 million
Total market value = 22.5m + 1.905m + 5.25m = $29.655 million

Cost of equity using dividend growth model = [(35 x 1.04)/ 450] + 0.04 = 12.08%

Cost of preference shares = 100 x 9/ 76.2 = 11.81%

Annual after-tax interest payment = 10 x 0.7 = $7

Year	**Cash flow**	**$**	**10% DF**	**PV ($)**	**5% DF**	**PV ($)**
0	market value	(105)	1.000	(105)	1.000	(105)
1–8	interest	7	5.335	37.34	6.463	45.24
8	redemption	100	0.467	46.70	0.677	67.70
				(20.96)		7.94

Using interpolation, after-tax cost of loan notes = 5 + [(5 x 7.94)/ (7.94 + 20.96)] = 6.37%

WACC = [(12.08 x 22.5) + (11.81 x 1.905) + (6.37 x 5.25)]/ 29.655 = 11.05%

(b) Droxfol Co has long-term finance provided by ordinary shares, preference shares and loan notes. The rate of return required by each source of finance depends on its risk from an investor point of view, with equity (ordinary shares) being seen as the most risky and debt (in this case loan notes) seen as the least risky. Ignoring taxation, the weighted average cost of capital (WACC) would therefore be expected to decrease as equity is replaced by debt, since debt is cheaper than equity, i.e. the cost of debt is less than the cost of equity.

However, financial risk increases as equity is replaced by debt and so the cost of equity will increase as a company gears up, offsetting the effect of cheaper debt. At low and moderate levels of gearing, the before-tax cost of debt will be constant, but it will increase at high levels of gearing due to the possibility of bankruptcy. At high levels of gearing, the cost of equity will increase to reflect bankruptcy risk in addition to financial risk.

In the traditional view of capital structure, ordinary shareholders are relatively indifferent to the addition of small amounts of debt in terms of increasing financial risk and so the WACC falls as a company gears up. As gearing up continues, the cost of equity increases to include a financial risk premium and the WACC reaches a minimum value. Beyond this minimum point, the WACC increases due to the effect of increasing financial risk on the cost of equity and, at higher levels of gearing, due to the effect of increasing bankruptcy risk on both the cost of equity and the cost of debt. On this traditional view, therefore, Droxfol Co can gear up using debt and reduce its WACC to a minimum, at which point its market value (the present value of future corporate cash flows) will be maximised.

In contrast to the traditional view, continuing to ignore taxation but assuming a perfect capital market, Miller and Modigliani demonstrated that the WACC remained constant as a company geared up, with the increase in the cost of equity due to financial risk exactly balancing the decrease in the WACC caused by the lower before-tax cost of debt. Since in a prefect capital market the possibility of bankruptcy risk does not arise, the WACC is constant at all gearing levels and the market value of the company is also constant. Miller and Modigliani showed, therefore, that the market value of a company depends on its business risk alone, and not on its financial risk. On this view, therefore, Droxfol Co cannot reduce its WACC to a minimum.

When corporate tax was admitted into the analysis of Miller and Modigliani, a different picture emerged. The interest payments on debt reduced tax liability, which meant that the WACC fell as gearing increased, due to the tax shield given to profits. On this view, Droxfol Co could reduce its WACC to a minimum by taking on as much debt as possible.

However, a perfect capital market is not available in the real world and at high levels of gearing the tax shield offered by interest payments is more than offset by the effects of bankruptcy risk and other costs associated with the need to service large amounts of debt. Droxfol Co should therefore be able to reduce its WACC by gearing up, although it may be difficult to determine whether it has reached a capital structure giving a minimum WACC.

(c) (i) Interest coverage ratio
Current interest coverage ratio = 7,000/ 500 = 14 times
Increased profit before interest and tax = 7,000 x 1.12 = $7.84m
Increased interest payment = (10m x 0.09) + 0.5m = $1.4m
Interest coverage ratio after one year = 7.84/ 1.4 = 5.6 times

The current interest coverage of Droxfol Co is higher than the sector average and can be regarded as quiet safe. Following the new loan note issue, however, interest coverage is less than half of the sector average, perhaps indicating that Droxfol Co may not find it easy to meet its interest payments.

(ii) Financial gearing
This ratio is defined here as prior charge capital/equity share capital on a book value basis
Current financial gearing = 100 x (5,000 + 2,500)/ (5,000 + 22,500) = 27%
Ordinary dividend after one year = 0.35 x 5m x 1.04 = $1.82 million
Total preference dividend = 2,500 x 0.09 = $225,000

Income statement after one year

	$000	$000
Profit before interest and tax		7,840
Interest		(1,400)
Profit before tax		6,440
Income tax expense		(1,932)
Profit for the period		4,508
Preference dividends	225	
Ordinary dividends	1,820	
		(2,045)
Retained earnings		2,463

Financial gearing after one year = 100 x (15,000 + 2,500)/ (5,000 + 22,500 + 2,463) = 58%

The current financial gearing of Droxfol Co is 40% less (in relative terms) than the sector average and after the new loan note issue it is 29% more (in relative terms). This level of financial gearing may be a cause of concern for investors and the stock market. Continued annual growth of 12%, however, will reduce financial gearing over time.

(iii) Earnings per share
Current earnings per share = 100 x (4,550 – 225)/ 5,000 = 86.5 cents
Earnings per share after one year = 100 x (4,508 - 225)/ 5,000 = 85.7 cents

Earnings per share is seen as a key accounting ratio by investors and the stock market, and the decrease will not be welcomed. However, the decrease is quiet small and future growth in earnings should quickly eliminate it.

The analysis indicates that an issue of new debt has a negative effect on the company's financial position, at least initially. There are further difficulties in considering a new issue of debt. The existing non-current assets are security for the existing 10% loan notes and may not available for securing new debt, which would then need to be secured on any new non-current assets purchased. These are likely to be lower in value than the new debt and so there may be insufficient security for a new loan note issue. Redemption or refinancing would also pose a problem, with Droxfol Co needing to redeem or refinance $10 million of debt after both eight years and ten years. Ten years may therefore be too short a maturity for the new debt issue.

An equity issue should be considered and compared to an issue of debt. This could be in the form of a rights issue or an issue to new equity investors.

2 (a) Transaction risk
This is the risk arising on short-term foreign currency transactions that the actual income or cost may be different from the income or cost expected when the transaction was agreed. For example, a sale worth $10,000 when the exchange rate is $1.79 per £ has an expected sterling value is $5,587. If the dollar has depreciated against sterling to $1.84 per £ when the transaction is settled, the sterling receipt will have fallen to $5,435. Transaction risk therefore affects cash flows and for this reason most companies choose to hedge or protect themselves against transaction risk.

Translation risk
This risk arises on consolidation of financial statements prior to reporting financial results and for this reason is also known as accounting exposure. Consider an asset worth €14 million, acquired when the exchange rate was €1.4 per $. One year later, when financial statements are being prepared, the exchange rate has moved to €1.5 per $ and the balance sheet value of the asset has changed from $10 million to $9.3 million, resulting an unrealised (paper) loss of $0.7 million. Translation risk does not involve cash flows and so does not directly affect shareholder wealth. However, investor perception may be affected by the changing values of assets and liabilities, and so a company may choose to hedge translation risk through, for example, matching the currency of assets and liabilities (eg a euro-denominated asset financed by a euro-denominated loan).

Economic risk
Transaction risk is seen as the short-term manifestation of economic risk, which could be defined as the risk of the present value of a company's expected future cash flows being affected by exchange rate movements over time. It is difficult to measure economic risk, although its effects can be described, and it is also difficult to hedge against it.

(b) The law of one price suggests that identical goods selling in different countries should sell at the same price, and that exchange rates relate these identical values. This leads on to purchasing power parity theory, which suggests that changes in exchange rates over time must reflect relative changes in inflation between two countries. If purchasing power parity holds true, the expected spot rate (S_f) can be forecast from the current spot rate (S_0) by multiplying by the ratio of expected inflation rates ($(1 + i_f)/(1 + i_{UK})$) in the two counties being considered. In formula form: $S_f = S_0 (1 + i_f)/(1 + i_{UK})$.

This relationship has been found to hold in the longer-term rather than the shorter-term and so tends to be used for forecasting exchange rates several years in the future, rather than for periods of less than one year. For shorter periods, forward rates can be calculated using interest rate parity theory, which suggests that changes in exchange rates reflect differences between interest rates between countries.

(c) Forward market evaluation

Net receipt in 1 month = 240,000 – 140,000 = $100,000
Nedwen Co needs to sell dollars at an exchange rate of 1.7829 + 0.003 = $1.7832 per £
Sterling value of net receipt = 100,000/ 1.7832 = $56,079

Receipt in 3 months = $300,000
Nedwen Co needs to sell dollars at an exchange rate of 1.7846 + 0.004 = $1.7850 per £
Sterling value of receipt in 3 months = 300,000/ 1.7850 = $168,067

(d) Evaluation of money-market hedge

Expected receipt after 3 months = $300,000
Dollar interest rate over three months = 5.4/ 4 = 1.35%
Dollars to borrow now to have $300,000 liability after 3 months = 300,000/ 1.0135 = $296,004
Spot rate for selling dollars = 1.7820 + 0.0002 = $1.7822 per £
Sterling deposit from borrowed dollars at spot = 296,004/ 1.7822 = $166,089
Sterling interest rate over three months = 4.6/ 4 = 1.15%
Value in 3 months of sterling deposit = 166,089 x 1.0115 = $167,999

The forward market is marginally preferable to the money market hedge for the dollar receipt expected after 3 months.

(e) A currency futures contract is a standardised contract for the buying or selling of a specified quantity of foreign currency. It is traded on a futures exchange and settlement takes place in three-monthly cycles ending in March, June, September and December, ie a company can buy or sell September futures, December futures and so on. The price of a currency futures contract is the exchange rate for the currencies specified in the contract.

When a currency futures contract is bought or sold, the buyer or seller is required to deposit a sum of money with the exchange, called initial margin. If losses are incurred as exchange rates and hence the prices of currency futures contracts change, the buyer or seller may be called on to deposit additional funds (variation margin) with the exchange. Equally, profits are credited to the margin account on a daily basis as the contract is 'marked to market'.

Most currency futures contracts are closed out before their settlement dates by undertaking the opposite transaction to the initial futures transaction, ie if buying currency futures was the initial transaction, it is closed out by selling currency futures. A gain made on the futures transactions will offset a loss made on the currency markets and vice versa.

Nedwen Co expects to receive $300,000 in three months' time and so is concerned that sterling may appreciate (strengthen) against the dollar, since this would result in a lower sterling receipt. The company can hedge the receipt by buying sterling currency futures contracts in the US and since it is 1 April, would buy June futures contracts. In June, Nedwen Co could sell the same number of US sterling currency futures it bought in April and sell the $300,000 it received on the currency market.

3 (a) Evaluation of change in credit policy

Current average collection period = 30 + 10 = 40 days
Current accounts receivable = 6m x 40/ 365 = $657,534
Average collection period under new policy = (0.3 x 15) + (0.7 x 60) = 46.5 days
New level of credit sales = $6.3 million
Accounts receivable after policy change = 6.3 x 46.5/ 365 = $802,603
Increase in financing cost = (802,603 – 657,534) x 0.07 = $10,155

	$
Increase in financing cost	10,155
Incremental costs = 6.3m x 0.005 =	31,500
Cost of discount = 6.3m x 0.015 x 0.3 =	28,350
Increase in costs	70,005
Contribution from increased sales = 6m x 0.05 x 0.6 =	180,000
Net benefit of policy change	109,995

The proposed policy change will increase the profitability of Ulnad Co

(b) Determination of spread:
Daily interest rate = 5.11/ 365 = 0.014% per day
Variance of cash flows = 1,000 x 1,000 = $1,000,000 per day
Transaction cost = $18 per transaction

Spread = 3 x ((0.75 x transaction cost x variance)/interest rate)$^{1/3}$
= 3 x ((0.75 x 18 x 1,000,000)/ 0.00014)1/3 = 3 x 4,585.7 = $13,757

Lower limit (set by Renpec Co) = $7,500
Upper limit = 7,500 + 13,757 =$21,257
Return point = 7,500 + (13,757/ 3) = $12,086

The Miller-Orr model takes account of uncertainty in relation to receipts and payment. The cash balance of Renpec Co is allowed to vary between the lower and upper limits calculated by the model. If the lower limit is reached, an amount of cash equal to the difference between the return point and the lower limit is raised by selling short-term investments. If the upper limit is reached an amount of cash equal to the difference between the upper limit and the return point is used to buy short-term investments. The model therefore helps Renpec Co to decrease the risk of running out of cash, while avoiding the loss of profit caused by having unnecessarily high cash balances.

(c) There are four key areas of accounts receivable management: policy formulation, credit analysis, credit control and collection of amounts due.

Policy formulation
This is concerned with establishing the framework within which management of accounts receivable in an individual company takes place. The elements to be considered include establishing terms of trade, such as period of credit offered and early settlement discounts: deciding whether to charge interest on overdue accounts; determining procedures to be followed when granting credit to new customers; establishing procedures to be followed when accounts become overdue, and so on.

Credit analysis
Assessment of creditworthiness depends on the analysis of information relating to the new customer. This information is often generated by a third party and includes bank references, trade references and credit reference agency reports. The depth of credit analysis depends on the amount of credit being granted, as well as the possibility of repeat business.

Credit control
Once credit has been granted, it is important to review outstanding accounts on a regular basis so overdue accounts can be identified. This can be done, for example, by an aged receivables analysis. It is also important to ensure that administrative procedures are timely and robust, for example sending out invoices and statements of account, communicating with customers by telephone or e-mail, and maintaining account records.

Collection of amounts due
Ideally, all customers will settle within the agreed terms of trade. If this does not happen, a company needs to have in place agreed procedures for dealing with overdue accounts. These could cover logged telephone calls, personal visits, charging interest on outstanding amounts, refusing to grant further credit and, as a last resort, legal action. With any action, potential benefit should always exceed expected cost.

(d) When considering how working capital is financed, it is useful to divide assets into non-current assets, permanent current assets and fluctuating current assets. Permanent current assets represent the core level of working capital investment needed to support a given level of sales. As sales increase, this core level of working capital also increases. Fluctuating current assets represent the changes in working capital that arise in the normal course of business operations, for example when some accounts receivable are settled later than expected, or when inventory moves more slowly than planned.

The matching principle suggests that long-term finance should be used for long-term assets. Under a matching working capital funding policy, therefore, long-term finance is used for both permanent current assets and non-current assets. Short-term finance is used to cover the short-term changes in current assets represented by fluctuating current assets.

Long-term debt has a higher cost than short-term debt in normal circumstances, for example because lenders require higher compensation for lending for longer periods, or because the risk of default increases with longer lending periods. However, long-term debt is more secure from a company point of view than short-term debt since, provided interest payments are made when due and the requirements of restrictive covenants are met, terms are fixed to maturity. Short-term debt is riskier than long-term debt because, for example, an overdraft is repayable on demand and short-term debt may be renewed on less favourable terms.

A conservative working capital funding policy will use a higher proportion of long-term finance than a matching policy, thereby financing some of the fluctuating current assets from a long-term source. This will be less risky and less profitable than a matching policy, and will give rise to occasional short-term cash surpluses.

An aggressive working capital funding policy will use a lower proportion of long-term finance than a matching policy, financing some of the permanent current assets from a short-term source such as an overdraft. This will be more risky and more profitable than a matching policy.

Other factors that influence a working capital funding policy include management attitudes to risk, previous funding decisions, and organisation size. Management attitudes to risk will determine whether there is a preference for a conservative, an aggressive or a matching approach. Previous funding decisions will determine the current position being considered in policy formulation. The size of the organisation will influence its ability to access different sources of finance. A small company, for example, may be forced to adopt an aggressive working capital funding policy because it is unable to raise additional long-term finance, whether equity of debt.

4 (a) Calculation of NPV

Nominal discount rate using Fisher effect: 1.057 x 1.05 = 1.1098 ie 11%

Year	1	2	3	4	5
	$000	$000	$000	$000	$000
Sales (W1)	433	509	656	338	
Variable cost (W2)	284	338	439	228	
Contribution	149	171	217	110	
Fixed production overheads	27	28	30	32	
Net cash flow	122	143	187	78	
Tax		(37)	(43)	(56)	(23)
CA tax benefits (W3)		19	14	11	30
After-tax cash flow	122	125	158	33	7
Disposal				5	
After-tax cash flow	122	125	158	38	7
Discount factors	0.901	0.812	0.731	0.659	0.593
Present values	110	102	115	25	4

	$
PV of benefits	356,000
Investment	250,000
NPV	106,000

Since the NPV is positive, the purchase of the machine is acceptable on financial grounds.

Workings

(W1) Year	1	2	3	4
Demand (units)	35,000	40,000	50,000	25,000
Selling price ($/unit)	12.36	12.73	13.11	13.51
Sales ($/year)	432,600	509,200	655,500	337,750

(W2) Year	1	2	3	4
Demand (units)	35,000	40,000	50,000	25,000
Variable cost ($/unit)	8.11	8.44	8.77	9.12
Variable cost ($/year)	283,850	337,600	438,500	228,000

(W3) Year	Capital allowances		Tax benefits	
1	250,000 x 0.25 =	62,500	62,500 x 0.3 =	18,750
2	62,500 x 0.75 =	46,875	46,875 x 0.3 =	14,063
3	46,875 x 0.75 =	35,156	25,156 x 0.3 =	10,547
4	By difference	100,469	100,469 x 0.3 =	30,141
	250,000 – 5.000 =	245,000		73,501

(b) Calculation of before-tax return on capital employed

Total net before-tax cash flow = 122 + 143 + 187 + 78 = $530,000
Total depreciation = 250,000 – 5,000 = $245,000
Average annual accounting profit = (530 – 245)/ 4 = $71,250

Average investment = (250,000 + 5,000)/ 2 = $127,500

Return on capital employed = 100 x 71,250/ 127,500 = 56%

Given the target return on capital employed of Trecor Co is 20% and the ROCE of the investment is 56%, the purchase of the machine is recommended.

(c) One of the strengths of internal rate of return (IRR) as a method of appraising capital investments is that it is a discounted cash flow (DCF) method and so takes account of the time value of money. It also considers cash flows over the whole of the project life and is sensitive to both the amount and the timing of cash flows. It is preferred by some as it offers a relative measure of the value of a proposed investment, ie the method calculates a percentage that can be compared with the company's cost of capital, and with economic variables such as inflation rates and interest rates.

IRR has several weaknesses as a method of appraising capital investments. Since it is a relative measurement of investment worth, it does not measure the absolute increase in company value (and therefore shareholder wealth), which can be found using the net present value (NPV) method. A further problem arises when evaluating non-conventional projects (where cash flows change from positive to negative during the life of the project). IRR may offer as many IRR values as there are changes in the value of cash flows, giving rise to evaluation difficulties. There is a potential conflict between IRR and NPV in the evaluation of mutually exclusive projects, where the two methods can offer conflicting advice as which of two projects is preferable. Where there is conflict, NPV always offers the correct investment advice: IRR does not, although the advice offered can be amended by considering the IRR of the incremental project. There are therefore a number of reasons why IRR can be seen as an inferior investment appraisal method compared to its DCF alternative, NPV.

			Marks	Marks
1	**(a)**	Calculation of market values	2	
		Calculation of cost of equity	2	
		Calculation of cost of preference shares	1	
		Calculation of cost of debt	2	
		Calculation of WACC	2	
				9
	(b)	Relative costs of equity and debt	1	
		Discussion of theories of capital structure	7–8	
		Conclusion	1	
			Maximum	8
	(c)	Analysis of interest coverage ratio	2–3	
		Analysis of financial gearing	2–3	
		Analysis of earnings per share	2–3	
		Comment	2–3	
			Maximum	8
				25
2	**(a)**	Transaction risk	2	
		Translation risk	2	
		Economic risk	2	
				6
	(b)	Discussion of purchasing power parity	4–5	
		Discussion of interest rate parity	1–2	
			Maximum	6
	(c)	Netting	1	
		Sterling value of 3-month receipt	1	
		Sterling value of 1-year receipt	1	
				3
	(d)	Evaluation of money market hedge	4	
		Comment	1	
				5
	(e)	Definition of currency futures contract	1–2	
		Initial margin and variation margin	1–2	
		Buying and selling of contracts	1–2	
		Hedging the three-month receipt	1–2	
			Maximum	5
				25

			Marks	Marks
3	(a)	Increase in financing cost	2	
		Incremental costs	1	
		Cost of discount	1	
		Contribution from increased sales	1	
		Conclusion	1	
				6
	(b)	Calculation of spread	2	
		Calculation of upper limit	1	
		Calculation of return point	1	
		Explanation of findings	2	
				6
	(c)	Policy formulation	1–2	
		Credit analysis	1–2	
		Credit control	1–2	
		Collection of amounts due	1–2	
			Maximum	6
	(d)	Analysis of assets	1–2	
		Short-term and long-term debt	2–3	
		Discussion of policies	2–3	
		Other factors	1–2	
			Maximum	7
				25
4	(a)	Discount rate	1	
		Inflated sales revenue	2	
		Inflated variable cost	1	
		Inflated fixed production overheads	1	
		Taxation	2	
		Capital allowance tax benefits	3	
		Discount factors	1	
		Net present value	1	
		Comment	1	
				13
	(b)	Calculation of average annual accounting profit	2	
		Calculation of average investment	2	
		Calculation of return on capital employed	1	
				5
	(c)	Strengths of IRR	2–3	
		Weaknesses of IRR	5–6	
			Maximum	7
				25

Professional Pilot Paper – Essentials module

Professional Accountant

Paper P1

Time allowed

Reading and planning: 15 minutes
Writing: 3 hours

This paper is divided into two sections:

Section A – This ONE question is compulsory and MUST be attempted

Section B – TWO questions ONLY to be attempted

Do NOT open this paper until instructed by the supervisor.
During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.
This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

Section A – This question is compulsory and MUST be attempted

1 Chemco is a well-established listed European chemical company involved in research into, and the production of, a range of chemicals used in industries such as agrochemicals, oil and gas, paint, plastics and building materials. A strategic priority recognised by the Chemco board some time ago was to increase its international presence as a means of gaining international market share and servicing its increasingly geographically dispersed customer base. The Chemco board, which operated as a unitary structure, identified JPX as a possible acquisition target because of its good product 'fit' with Chemco and the fact that its geographical coverage would significantly strengthen Chemco's internationalisation strategy. Based outside Europe in a region of growth in the chemical industry, JPX was seen by analysts as a good opportunity for Chemco, especially as JPX's recent flotation had provided potential access to a controlling shareholding through the regional stock market where JPX operated.

When the board of Chemco met to discuss the proposed acquisition of JPX, a number of issues were tabled for discussion. Bill White, Chemco's chief executive, had overseen the research process that had identified JPX as a potential acquisition target. He was driving the process and wanted the Chemco board of directors to approve the next move, which was to begin the valuation process with a view to making an offer to JPX's shareholders. Bill said that the strategic benefits of this acquisition was in increasing overseas market share and gaining economies of scale.

While Chemco was a public company, JPX had been family owned and operated for most of its thirty-five year history. Seventy-five percent of the share capital was floated on its own country's stock exchange two years ago, but Leena Sharif, Chemco's company secretary suggested that the corporate governance requirements in JPX's country were not as rigorous as in many parts of the world. She also suggested that the family business culture was still present in JPX and pointed out that it operated a two-tier board with members of the family on the upper tier. At the last annual general meeting, observers noticed that the JPX board, mainly consisting of family members, had 'dominated discussions' and had discouraged the expression of views from the company's external shareholders. JPX had no non-executive directors and none of the board committee structure that many listed companies like Chemco had in place. Bill reported that although JPX's department heads were all directors, they were not invited to attend board meetings when strategy and management monitoring issues were being discussed. They were, he said, treated more like middle management by the upper tier of the JPX board and that important views may not be being heard when devising strategy. Leena suggested that these features made the JPX board's upper tier less externally accountable and less likely to take advice when making decisions. She said that board accountability was fundamental to public trust and that JPX's board might do well to recognise this, especially if the acquisition were to go ahead.

Chemco's finance director, Susan Brown advised caution over the whole acquisition proposal. She saw the proposal as being very risky. In addition to the uncertainties over exposure to foreign markets, she believed that Chemco would also have difficulties with integrating JPX into the Chemco culture and structure. While Chemco was fully compliant with corporate governance best practice, the country in which JPX was based had few corporate governance requirements. Manprit Randhawa, Chemco's operations director, asked Bill if he knew anything about JPX's risk exposure. Manprit suggested that the acquisition of JPX might expose Chemco to a number of risks that could not only affect the success of the proposed acquisition but also, potentially, Chemco itself. Bill replied that he would look at the risks in more detail if the Chemco board agreed to take the proposal forward to its next stage.

Finance director Susan Brown, had obtained the most recent annual report for JPX and highlighted what she considered to be an interesting, but unexplained, comment about 'negative local environmental impact' in its accounts. She asked chief executive Bill White if he could find out what the comment meant and whether JPX had any plans to make provision for any environmental impact. Bill White was able to report, based on his previous dealings with JPX, that it did not produce any voluntary environmental reporting. The Chemco board broadly supported the idea of environmental reporting although company secretary Leena Sharif recently told Bill White that she was unaware of the meaning of the terms 'environmental footprint' and 'environmental reporting' and so couldn't say whether she was supportive or not. It was agreed, however, that relevant information on JPX's environmental performance and risk would be necessary if the acquisition went ahead.

Required:

(a) Evaluate JPX's current corporate governance arrangements and explain why they are likely to be considered inadequate by the Chemco board. (10 marks)

(b) Manprit suggested that the acquisition of JPX might expose Chemco to a number of risks. Illustrating from the case as required, identify the risks that Chemco might incur in acquiring JPX and explain how risk can be assessed. (15 marks)

(c) Construct the case for JPX adopting a unitary board structure after the proposed acquisition. Your answer should include an explanation of the advantages of unitary boards and a convincing case FOR the JPX board changing to a unitary structure. (10 marks)
(Including 2 professional marks)

(d) Explain FOUR roles of non-executive directors (NEDs) and assess the specific contributions that NEDs could make to improve the governance of the JPX board. (7 marks)

(e) Write a memo to Leena Sharif defining 'environmental footprint' and briefly explaining the importance of environmental reporting for JPX. (8 marks)
(Including 2 professional marks)

(50 marks)

Section B – TWO questions ONLY to be attempted

2 In a recent case, it emerged that Frank Finn, a sales director at ABC Co, had been awarded a substantial over-inflation annual basic pay award with no apparent link to performance. When a major institutional shareholder, Swanland Investments, looked into the issue, it emerged that Mr Finn had a cross directorship with Joe Ng, an executive director of DEF Co. Mr Ng was a non-executive director of ABC and chairman of its remunerations committee. Swanland Investments argued at the annual general meeting that there was 'a problem with the independence' of Mr Ng and further, that Mr Finn's remuneration package as a sales director was considered to be poorly aligned to Swanland's interests because it was too much weighted by basic pay and contained inadequate levels of incentive.

Swanland Investments proposed that the composition of Mr Finn's remuneration package be reconsidered by the remunerations committee and that Mr Ng should not be present during the discussion. Another of the larger institutional shareholders, Hanoi House, objected to this, proposing instead that Mr Ng and Mr Finn both resign from their respective non-executive directorships as there was 'clear evidence of malpractice'. Swanland considered this too radical a step, as Mr Ng's input was, in its opinion, valuable on ABC's board.

Required:

(a) **Explain FOUR roles of a remunerations committee and how the cross directorship undermines these roles at ABC Co.** (12 marks)

(b) **Swanland Investments believed Mr Finn's remunerations package to be 'poorly aligned' to its interests. With reference to the different components of a director's remunerations package, explain how Mr Finn's remuneration might be more aligned to shareholders' interests at ABC Co.** (8 marks)

(c) **Evaluate the proposal from Hanoi House that both Mr Ng and Mr Finn be required to resign from their respective non-executive positions.** (5 marks)

(25 marks)

3 At a recent conference on corporate social responsibility, one speaker (Professor Cheung) argued that professional codes of ethics for accountants were not as useful as some have claimed because:

'they assume professional accountants to be rules-driven, when in fact most professionals are more driven by principles that guide and underpin all aspects of professional behaviour, including professional ethics.'

When quizzed from the audience about his views on the usefulness of professional codes of ethics, Professor Cheung suggested that the costs of writing, implementing, disseminating and monitoring ethical codes outweighed their usefulness. He said that as long as professional accountants personally observe the highest values of probity and integrity then there is no need for detailed codes of ethics.

Required:

(a) **Critically evaluate Professor Cheung's views on codes of professional ethics. Use examples of ethical codes, where appropriate, to illustrate your answer.** (12 marks)

(b) **With reference to Professor Cheung's comments, explain what is meant by 'integrity' and assess its importance as an underlying principle in corporate governance.** (7 marks)

(c) **Explain and contrast a deontological with a consequentialist based approach to business ethics.** (6 marks)

(25 marks)

4 As part of a review of its internal control systems, the board of FF Co, a large textiles company, has sought your advice as a senior accountant in the company.

FF's stated objective has always been to adopt the highest standards of internal control because it believes that by doing so it will not only provide shareholders with confidence in its governance but also enhance its overall reputation with all stakeholders. In recent years, however, FF's reputation for internal control has been damaged somewhat by a qualified audit statement last year (over issues of compliance with financial standards) and an unfortunate internal incident the year prior to that. This incident concerned an employee, Miss Osula, expressing concern about the compliance of one of the company's products with an international standard on fire safety. She raised the issue with her immediate manager but he said, according to Miss Osula, that it wasn't his job to report her concerns to senior management. When she failed to obtain a response herself from senior management, she decided to report the lack of compliance to the press. This significantly embarrassed the company and led to a substantial deterioration in FF's reputation.

The specifics of the above case concerned a fabric produced by FF Co, which, in order to comply with an international fire safety standard, was required to resist fire for ten minutes when in contact with a direct flame. According to Miss Osula, who was a member of the quality control staff, FF was allowing material rated at only five minutes fire resistance to be sold labelled as ten minute rated. In her statement to the press, Miss Osula said that there was a culture of carelessness in FF and that this was only one example of the way the company approached issues such as international fire safety standards.

Required:

(a) Describe how the internal control systems at FF Co differ from a 'sound' system of internal control, such as that set out in the Turnbull guidance, for example. (10 marks)

(b) Define 'reputation risk' and evaluate the potential effects of FF's poor reputation on its financial situation. (8 marks)

(c) Explain, with reference to FF as appropriate, the ethical responsibilities of a professional accountant both as an employee and as a professional. (7 marks)

(25 marks)

End of Question Paper

Answers

1 (a) JPX's current corporate governance arrangements

Inadequacy of JPX's current corporate governance arrangements

The case highlights a number of ways in which the corporate governance at JPX is inadequate. JPX's history as a privately run family business may partly explain its apparent slowness to develop the corporate governance structures and systems expected in many parts of the world. There are five ways, from the case, that JPX can be said to be inadequate in its corporate governance although these are linked. There is overlap between the points made.

In the first instance, the case mentions that there were no non-executive directors (NEDs) on the JPX board. It follows that JPX would be without the necessary balance and external expertise that NEDs can provide. Second, there is evidence of a corporate culture at JPX dominated by the members of the family. The case study notes that they dominate the upper tier of the board. This may have been acceptable when JPX was a family owned company, but as a public company floated on a stock exchange and hence accountable to external shareholders, a wider participation in board membership is necessary. Third, the two-tier board, whilst not necessarily being a problem in itself (two-tier boards work well in many circumstances), raises concern because the department heads, who are on the lower tier of the board, are excluded from strategic discussions at board level. It is likely that as line managers in the business, the departmental heads would have vital inputs to make into such discussions, especially on such issues as the implementation of strategies. It is also likely that their opinions on the viabilities of different strategic options would be of value. Fourth, it could be argued that JPX's reporting is less than ideal with, for example, its oblique reference to a 'negative local environmental impact'. However, it might be noted that ambiguity in reporting is also evident in European and American reporting. Finally, having been subject to its own country's less rigorous corporate governance requirements for all of its previous history, it is likely that adjusting to the requirements of complying with the European-centred demands of Chemco will present a challenge.

(b) Risks of the proposed acquisition

Risks that Chemco might incur in acquiring JPX.

The case describes a number of risks that Chemco could become exposed to if the acquisition was successful. Explicitly, the case highlights a possible environmental risk (the 'negative local environmental impact') that may or may not be eventually valued as a provision (depending on whether or not it is likely to result in a liability). Other risks are likely to emerge as the proposed acquisition develops. Exchange rate risks apply to any business dealing with revenue or capital flows between two or more currency zones. The case explicitly describes Chemco and JPX existing in different regions of the world. Whilst exchange rate volatility can undermine confidence in cash flow projections, it should also be borne in mind that medium term increases or decreases in exchange values can materially affect the returns on an investment (in this case, Chemco's investment in JPX). There is some market risk in Chemco's valuation of JPX stock. This could be a substantial risk because of JPX's relatively recent flotation where the market price of JPX may not have yet found its intrinsic level. In addition, it is not certain that Chemco has full knowledge of the fair price to pay for each JPX share given the issues of dealing across national borders and in valuing stock in JPX's country. All mergers and acquisitions ('integrations') are exposed to synergy risks. Whilst it is expected and hoped that every merger or acquisition will result in synergies (perhaps from scale economies as the case mentions), in practice, many integrations fail to realise any. In extreme cases, the costs arising from integration can threaten the very survival of the companies involved. Finally, there are risks associated with the bringing-together of the two board structures. Specifically, structural and cultural changes will be required at JPX to bring it in line with Chemco's. The creation of a unitary board and the increased involvement of NEDs and departmental heads may be problematic, for example, Chemco's board is likely to insist on such changes post-acquisition.

Assessment of risk

The assessment of the risk exposure of any organisation has five components. Firstly, the identity (nature and extent) of the risks facing the company should be identified (such as considering the risks involved in acquiring JPX). This may involve consulting with relevant senior managers, consultants and other stakeholders. Second, the company should decide on the categories of risk that are regarded as acceptable for the company to bear. Of course any decision to discontinue exposure to a given risk will have implications for the activities of the company and this cost will need to be considered against the benefit of the reduced risk. Third, the assessment of risk should quantify, as far as possible, the likelihood (probability) of the identified risks materialising. Risks with a high probability of occurring will attract higher levels of management attention than those with lower probabilities. Fourth, an assessment of risk will entail an examination of the company's ability to reduce the impact on the business of risks that do materialise. Consultation with affected parties (e.g. departmental heads, stakeholders, etc.) is likely to be beneficial, as information on minimising negative impact may sometimes be a matter of technical detail. Fifth and finally, risk assessment involves an understanding of the costs of operating particular controls to review and manage the related risks. These costs will include information gathering costs, management overhead, external consultancy where appropriate, etc.

(c) Unitary and two-tier board structures

Advantages of unitary board structure in general

There are arguments for and against unitary and two-tier boards. Both have their 'place' depending on business cultures, size of business and a range of other factors. In general, however, the following arguments can be put for unitary boards.

One of the main features of a unitary board is that all directors, including managing directors, departmental (or divisional) directors and NEDs all have equal legal and executive status in law. This does not mean that all are equal in terms of the organisational hierarchy, but that all are responsible and can be held accountable for board decisions. This has a number of benefits. Firstly, NEDs are empowered, being accorded equal status to executive directors. NEDs can bring not only independent scrutiny to the board, but also experience and expertise that may be of invaluable help in devising strategy and the assessment of risk. Second, board accountability is enhanced by providing a greater protection against fraud and malpractice and by holding all directors equally accountable under a 'cabinet government' arrangement. These first two benefits provide a major underpinning to the confidence that markets have in listed companies. Third, unitary board arrangements reduce the likelihood of abuse of (self-serving) power by a small number of senior directors. Small 'exclusivist' boards such as have been evident in some corporate 'scandals' are discouraged by unitary board arrangements. Fourth, the fact that the board is likely to be larger than a given tier of a two-tier board means that more viewpoints are likely to be expressed in board deliberations and discussions. In addition to enriching the intellectual strength of the board, the inclusivity of the board should mean that strategies are more robustly scrutinised before being implemented.

Relevance to JPX in particular

If the JPX acquisition was to proceed, there would be a unitary board at Chemco overseeing a two-tier board at JPX. The first specific argument for JPX adopting a unitary board would be to bring it into line with Chemco's. Chemco clearly believes in unitary board arrangements and would presumably prefer to have the benefits of unitary boards in place so as to have as much confidence as possible in JPX's governance. This may be especially important if JPX is to remain an 'arms length' or decentralised part of Chemco's international operation. Second, there is an argument for making changes at JPX in order to signal a departure from the 'old' systems when JPX was independent of the 'new' systems under Chemco's ownership. A strong way of helping to 'unfreeze' previous ways of working is to make important symbolic changes and a rearrangement of the board structure would be a good example of this. Third, it is clear that the family members who currently run JPX have a disproportionate influence on the company and its strategy (the 'family business culture'). Widening the board would, over time, change the culture of the board and reduce that influence. Fourth, a unitary board structure would empower the departmental heads at JPX whose opinions and support are likely to be important in the transition period following the acquisition.

(d) Non executive directors

Four roles of non-executive directors.

The Higgs Report (2003) in the United Kingdom helpfully described the function of non-executive directors (NEDs) in terms of four distinct roles. These were the strategy role, the scrutinising role, the risk advising role and the 'people' role. These roles may be undertaken as part of the general discussion occurring at Board meetings or more formally, through the corporate governance committee structure.

The strategy role recognises that NEDs are full members of a unitary board and thus have the right and responsibility to contribute to the strategic success of the organisation for the benefit of shareholders. In this role they may challenge any aspect of strategy they see fit, and offer advice or input to help to develop successful strategy.

In the scrutinising role, NEDs are required to hold executive colleagues to account for decisions taken and results obtained. In this respect they are required to represent the shareholders' interests against the possibility that agency issues arise to reduce shareholder value.

The risk role involves NEDs ensuring the company has an adequate system of internal controls and systems of risk management in place. This is often informed by prescribed codes (such as Turnbull) but some industries, such as chemicals, have other systems in place, some of which fall under International Organisation for Standardisation (ISO) standards.

Finally, the 'people' role involves NEDs overseeing a range of responsibilities with regard to the management of the executive members of the board. This typically involves issues on appointments and remuneration, but might also involve contractual or disciplinary issues.

Specific benefits for JPX of having NEDs

The specific benefits that NEDs could bring to JPX concern the need for a balance against excessive family influence and the prior domination of the 'family business culture'. Chemco, as JPX's new majority shareholder, is unlikely to want to retain a 'cabal' of an upper tier at JPX and the recruitment of a number of NEDs will clearly help in that regard. Second, NEDs will perform an important role in representing external shareholders' interests (as well as internal shareholders). Specifically, shareholders will include Chemco. Third, Chemco's own board discussion included Bill White's view that the exclusion of departmental heads was resulting in important views not being heard when devising strategy. This is a major potential danger to JPX and NEDs could be appointed to the board in order to ensure that future board discussions include all affected parties including the previously disenfranchised department heads.

(e) Environmental reporting.

Memorandum

From: Professional Accountant
To: Leena Sharif

Date: DD/MM/YYYY

Re: environmental issues at Chemco and JPX

1. Introduction

I have been asked to write to you on two matters of potential importance to Chemco in respect of environmental issues. The first of these is to consider the meaning of the term, 'environmental footprint' and the second is to briefly review the arguments for inviting JPX (should the acquisition proceed) to introduce environmental reporting.

2. 'Environmental footprint'

Explanation of 'environmental footprint'
The use of the term 'footprint' with regard to the environment is intended to convey a meaning similar to its use in everyday language. In the same way that humans and animals leave physical footprints that show where they have been, so organisations such as Chemco leave evidence of their operations in the environment. They operate at a net cost to the environment. The environmental footprint is an attempt to evaluate the size of Chemco's impact on the environment in three respects. Firstly, concerning the company's resource consumption where resources are defined in terms of inputs such as energy, feedstock, water, land use, etc. Second, concerning any harm to the environment brought about by pollution emissions. These include emissions of carbon and other chemicals, local emissions, spillages, etc. It is likely that as a chemical manufacturer, both of these impacts will be larger for Chemco than for some other types of business. Thirdly, the environmental footprint includes a measurement of the resource consumption and pollution emissions in terms of harm to the environment in either qualitative, quantitative or replacement terms.

3. Environmental reporting at JPX.

Arguments for environmental reporting at JPX
There are number of arguments for environmental reporting in general and others that may be specifically relevant to JPX. In general terms and firstly, I'm sure as company secretary you will recognise the importance of observing the corporate governance and reporting principles of transparency, openness, responsibility and fairness wherever possible. We should invite JPX to adopt these values should the acquisition proceed. Any deliberate concealment would clearly be counter to these principles and so 'more' rather than 'less' reporting is always beneficial. Second, it is important to present a balanced and understandable assessment of the company's position and prospects to external stakeholders. Third, it is important that JPX recognises the existence and size of its environment footprint, and reporting is a useful means if doing this. Fourth, and specifically with regard to JPX and other companies with a substantial potential environmental footprint, there is a need to explain environmental strategy to investors and other interested stakeholders (eg Chemco). Finally, there is a need to explain in more detail the 'negative local environmental impact' and an environmental report would be an ideal place for such an explanation.

Summary:

As JPX's 'environmental footprint' is potentially quite large, it is important that Chemco ensures as far as possible, that any such footprint left by JPX is known and measured. Additionally, in the interests of transparency, openness, responsibility and fairness, it is important that it is also fully reported upon for the information of both investors and other interested stakeholders.

2 (a) Remunerations committees and cross directorships

Remunerations committees
Remunerations committees comprise an important part of the standard board committee structure of good corporate governance.

The major roles of a remuneration committee are as follows. Firstly, the committee is charged with determining remunerations policy on behalf of the board and the shareholders. In this regard, they are acting on behalf of shareholders but for the benefit of both shareholders and the other members of the board. Policies will typically concern the pay scales applied to directors' packages, the proportions of different types of reward within the overall package and the periods in which performance related elements become payable.

Secondly the committee ensures that each director is fairly but responsibly rewarded for their individual contribution in terms of levels or pay and the components of each director's package. It is likely that discussions of this type will take place for each individual director and will take into account issues including market conditions, retention needs, long-term strategy and market rates for a given job.

Third, the remunerations committee reports to the shareholders on the outcomes of their decisions, usually in the corporate governance section of the annual report (usually called Report of the Remunerations Committee). This report, which is auditor reviewed, contains a breakdown of each director's remuneration and a commentary on policies applied to executive and non-executive remuneration.

Finally, where appropriate and required by statute or voluntary code, the committee is required to be seen to be compliant with relevant laws or codes of best practice. This will mean that the remunerations committee will usually be made up of non-executive members of the board and will meet at regular intervals.

Cross directorships
Cross directorships represent a threat to the efficient working of remunerations committees. A cross directorship is said to exist when two (or more) directors sit on the boards of the other. In practice, such arrangements also involve some element of cross-shareholdings which further compromises the independence of the directors involved. In most cases, each director's 'second' board appointment is likely to be non-executive. Cross directorships undermine the roles of remunerations committees in that a director deciding the salary of a colleague who, in turn, may play a part in deciding his own salary, is a clear conflict of interests. Neither director involved in the arrangement is impartial and so a temptation would exist to act in a manner other than for the benefit of the shareholders of the company on whose remunerations committee they sit. It is for this reason the cross directorships and cross shareholding arrangements are explicitly forbidden by many corporate governance codes of best practice.

(b) Mr Finn's remunerations package

Different components of directors' rewards
The components of a director's total rewards package may include any or all of the following in combination. The basic salary is not linked to performance in the short run but year-to-year changes in it may be linked to some performance measures. It is intended to recognise the basic market value of a director. A number of benefits in kind may be used which will vary by position and type of organisation, but typically include company cars, health insurance, use of health or leisure facilities, subsidised or free use of company products (if appropriate), etc. Pension contributions are paid by most responsible employers, but separate directors' schemes may be made available at higher contribution rates than other employees. Finally, various types of incentives and performance related components may be used. Short to medium term incentives such as performance-related annual bonuses will encourage a relatively short term approach to meeting agreed targets whilst long term incentives including share options can be used for longer term performance measures.

Mr Finn's remuneration package
The case mentions that, "Mr Finn's remuneration package as a sales director was considered to be poorly aligned to Swanland's interests because it was too much weighted by basic pay and contained inadequate levels of incentive."

The alignment of director and shareholder interests occurs through a careful design of the performance related components of a director's overall rewards. The strategic emphases of the business can be built into these targets and Mr Finn's position as a sales director makes this possible through incentives based on revenue or profit targets. If current priorities are for the maximisation of relatively short-run returns, annual, semi-annual or even monthly performance-related bonuses could be used. More likely at board level, however, will be a need for longer-term alignments for medium to long-term value maximisation. While Mr Finn may be given annual or even quarterly or monthly bonus payments against budget, longer-term performance can be underpinned through share options with a relevant maturity date or end-of-service payouts with agreed targets. The balance of short and longer-term performance bonuses should be carefully designed for each director with metrics within the control of the director in question.

(c) Evaluation of the proposal from Hanoi House.

The dilemma over what action to take in the light of Mr Ng and Mr Finn's cross directorship is a typical problem when deciding how to address issues of conflicts of interest. Should the situation be 'put right' at minimum cost, or should the parties in the arrangement be punished in some way as Hanoi House suggested? Swanland's more equivocal suggestion (that the remunerations committee reconsider Mr Finn's remuneration package without Mr Ng being present) may be more acceptable to some shareholders. This debate touches on the ethical issues of a pragmatic approach to some issues compared to a dogmatic approach.

For the proposal
Hanoi House's more radical proposal would have a number of potential advantages. Specifically, it could be argued that the resignation of both men from their respective NED positions would restore ABC shareholders' confidence in the remunerations committee. The appearance of probity is sometimes as important as the substance and resignations can sometimes serve to purge a problem to everybody's (except for the director in question's) benefit. The double resignation would signal a clean break in the apparently compromising relationship between Mr Finn and Mr Ng and, certainly as far as ABC was concerned, would resolve the problem decisively. It would signal the importance that ABC placed on compliance with corporate governance best practice and this, in turn, would be of comfort to shareholders and analysts concerned with the threat to the independence of ABC's remunerations committee.

Against the proposal
Hanoi House's proposal was seen as too radical for Swanland. Among its concerns was the belief that only Mr Ng's resignation from ABC's remunerations committee would be strictly necessary to diffuse the situation. Clearly Swanland saw no problem with Mr Finn's position on the ABC board in his executive capacity. Furthermore, it took a pragmatic view of Mr Ng's position as NED on ABC's board. It considered Mr Ng's input to be valuable on the ABC board and pointed out that this input would be lost if Hanoi House's proposal was put into practice. Hanoi House may therefore have been mindful of the assumed deficit of talent at senior strategic level in corporate management and accordingly, wished to retain both Mr Finn's and Mr Ng's expertise if at all possible.

3 (a) Professor Cheung's views on codes of professional ethics

Professor Cheung adopts a sceptical stance with regard to codes of ethics. There are arguments both supporting and challenging his views.

Supporting Professor Cheung's opinion

Professional codes of ethics have a number of limitations, some of which Professor Cheung referred to. Because they contain descriptions of situations that accountants might encounter, they can convey the (false) impression that professional ethics can be reduced to a set of rules contained in a code (as pointed out by Professor Cheung). This would be a mistaken impression, of course, as the need for personal integrity is also emphasised. Ethical codes do not and cannot capture all ethical circumstances and dilemmas that a professional accountant will encounter in his or her career and this reinforces the need for accountants to understand the underlying ethical principles of probity, integrity, openness, transparency and fairness. Although codes such as IFAC's are intended to apply to an international 'audience', some may argue that regional variations in cultural, social and ethical norms mean that such codes cannot capture important differences in emphasis in some parts of the world. The moral 'right' can be prescribed in every situation. Finally, professional codes of ethics are not technically enforceable in any legal manner although sanctions exist for gross breach of the code in some jurisdictions. Individual observance of ethical codes is effectively voluntary in most circumstances.

Against Professor Cheung's opinion

There are a number of arguments for codes of professional ethics that challenge Professor Cheung's views. Firstly, professional codes of ethics signal the importance, to accountants, of ethics and acting in the public interest in the professional accounting environment. They are reminded, unambiguously and in 'black and white' for example, that as with other professions, accounting exists to serve the public good and public support for the profession is likely to exist only as long as the public interest is supported over and above competing interests. The major international codes (such as IFAC) underpin national and regional cultures with internationally expected standards that, the codes insist, supersede any national ethical nuances. The IFAC (2003) code states (in clause 4), "the accountancy profession throughout the world operates in an environment with different cultures and regulatory requirements. The basic intent of the Code, however, should always be respected." The codes prescribe minimum standards of behaviour expected in given situations and give specific examples of potentially problematic areas in accounting practice. In such situations, the codes make the preferred course of action unambiguous.

A number of codes of ethics exist for professional accountants. Prominent among these is the IFAC code. This places the public interest at the heart of the ethical conduct of accountants. The ACCA code discusses ethics from within a principles-based perspective. Other countries' own professional accounting bodies have issued their own codes of ethics in the belief that they may better describe the ethical situations in those countries.

(b) Integrity

Meaning of 'integrity'

Integrity is generally understood to describe a person of high moral virtue. A person of integrity is one who observes a steadfast adherence to a strict moral or ethical code notwithstanding any other pressures on him or her to act otherwise. In professional life, integrity describes the personal ethical position of the highest standards of professionalism and probity. It is an underlying and underpinning principle of corporate governance and it is required that all those representing shareholder interests in agency relationships both possess and exercise absolute integrity at all times. To fail to do so is a breach of the agency trust relationship.

Importance of integrity in corporate governance

Integrity is important in corporate governance for several reasons. Codes of ethics do not capture all ethical situations and the importance of the virtue of the actor rather than the ethics of the action is therefore emphasised. Any profession (such as accounting) relies upon a public perception of competence and integrity and in this regard, accounting can perhaps be compared with medicine. As an underlying principle, integrity provides a basic ethical framework to guide an accountant's professional and personal life. Finally, integrity underpins the relationships that an accountant has with his or her clients, auditors and other colleagues. Trust is vital in the normal conduct of these relationships and integrity underpins this.

(c) Deontology and consequentialism

Deontological ethics

The deontological perspective can be broadly understood in terms of 'means' being more important than 'ends'. It is broadly based on Kantian (categorical imperative) ethics. The rightness of an action is judged by its intrinsic virtue and thus morality is seen as absolute and not situational. An action is right if it would, by its general adoption, be of net benefit to society. Lying, for example, is deemed to be ethically wrong because lying, if adopted in all situations, would lead to the deterioration of society.

Consequentialist ethics

The consequentialist or teleological perspective is based on utilitarian or egoist ethics meaning that the rightness of an action is judged by the quality of the outcome. From the egoist perspective, the quality of the outcome refers to the individual ("what is best for me?"). Utilitarianism measures the quality of outcome in terms of the greatest happiness of the greatest number ("what is best for the majority?"). Consequentialist ethics are therefore situational and contingent, and not absolute.

4 (a) FF plc and a 'sound' system of internal control

Features of sound control systems

The Turnbull code employs the term 'sound' to indicate that it is insufficient to simply 'have' an internal control system. They can be effective and serve the aim of corporate governance or they can be ineffective and fail to support them. In order to reinforce 'soundness' or effectiveness, systems need to possess a number of features. The Turnbull guidance described three features of a 'sound' internal control system.

Firstly, the principles of internal control should be embedded within the organisation's structures, procedures and culture. Internal control should not be seen as a stand-alone set of activities and by embedding it into the fabric of the organisation's infrastructure, awareness of internal control issues becomes everybody's business and this contributes to effectiveness.

Secondly, internal control systems should be capable of responding quickly to evolving risks to the business arising from factors within the company and to changes in the business environment. The speed of reaction is an important feature of almost all control systems (for example a servo system for vehicle brakes or the thermostat on a heating system). Any change in the risk profile or environment of the organisation will necessitate a change in the system and a failure or slowness to respond may increase the vulnerability to internal or external trauma.

Thirdly, sound internal control systems include procedures for reporting immediately to appropriate levels of management any significant control failings or weaknesses that are identified, together with details of corrective action being undertaken. Information flows to relevant levels of management capable and empowered to act on the information are essential in internal control systems. Any failure, frustration, distortion or obfuscation of information flows can compromise the system. For this reason, formal and relatively rigorous information channels are often instituted in organisations seeking to maximise the effectiveness of their internal control systems.

Shortcomings at FF plc.

The case highlights a number of ways in which the internal control at FF fell short of that expected of a 'sound' internal control system. First, and most importantly, the case suggests that the culture of FF did not support good internal control. Miss Osula made reference to, "culture of carelessness in FF" and said that the issue over the fire safety standards, "was only one example of the way the company approached issues such as international fire safety standards." While having systems in place to support sound internal control, it is also important to have a culture that also places a high priority on it. Second, there is evidence of a lack of internal control and reporting procedures at FF. Not only was the incorrect fire-rating labelling not corrected by senior management, the attempt to bring the matter to the attention of management was also not well-received.

Third, there is evidence of structural/premeditated contravention of standards (and financial standards) at FF. In addition to the fire safety issue, the case makes reference to a qualified audit statement over issues of compliance with financial standards. There is ample evidence for shareholders to question the competence of management's ability to manage the internal control systems at FF.

(b) Reputation risk

Defining reputation risk

Reputation risk is one of the categories of risk used in organisations. It was identified as a risk category by Turnbull and a number of events in various parts of the world have highlighted the importance of this risk. Reputation risk concerns any kind of deterioration in the way in which the organisation is perceived, usually, but not exclusively, from the point of view of external stakeholders. The cause of such deterioration may be due to irregular behaviour, compliance failure or similar, but in any event, the effect is an aspect of corporate behaviour below that expected by one or more stakeholder. When the 'disappointed' stakeholder has contractual power over the organisation, the cost of the reputation risk may be material.

Effects of poor reputation on financial situation

There are several potential effects of reputation risk on an affected organisation. When more than one stakeholder group has reason to question the otherwise good reputation of an organisation, the effect can be a downward spiral leading to a general lack of confidence which, in turn, can have unfortunate financial effects. In particular, however, reputation risk is likely to affect one or more of the organisation's interactions with resource providers, product buyers, investors or auditors/regulators. Resource provision (linked to resource dependency theory) may affect recruitment, financing or the ability to obtain other inputs such as (in extremis) real estate, stock or intellectual capital. Within product markets, damage to reputation can reduce confidence among customers leading to reduced sales values and volumes and, in extreme cases, boycotts. Investor confidence is important in public companies where any reputation risk is likely to be reflected in market value. Finally, auditors, representing the interests of shareholders, would have reason to exercise increased scrutiny if, say, there are problems with issues of trust in a company. It would be a similar situation if the affected organisation were in an industry subject to high levels of regulation.

FF and reputation

At FF, the sources of the potential threat to its reputation arise from a failure to meet an external standard, an issue over product confidence and a qualified audit statement. The failure to meet an external standard concerned compliance with international fire safety standards. The issue over product confidence involved selling one product falsely rated higher than the reality. These would be likely to affect customer confidence and the attitude of any fire safety accrediting body. The qualified audit statement would be likely to intensify the attention to detail paid by auditors in subsequent years.

(c) Ethical responsibilities of a professional accountant

A professional accountant has two 'directions' of responsibility: one to his or her employer and another to the highest standards of professionalism.

Responsibilities to employer

An accountant's responsibilities to his or her employer extend to acting with diligence, probity and with the highest standards of care in all situations. In addition, however, an employer might reasonably expect the accountant to observe employee confidentiality as far as possible. In most situations, this will extend to absolute discretion of all sensitive matters both during and after the period of employment. The responsibilities also include the expectation that the accountant will act in shareholders' interests as far as possible and that he or she will show loyalty within the bounds of legal and ethical good practice.

Responsibilities as a professional

In addition to an accountant's responsibilities to his or her employer, there is a further set of expectations arising from his or her membership of the accounting profession. In the first instance, professional accountants are expected to observe the letter and spirit of the law in detail and of professional ethical codes where applicable (depending on country of residence, qualifying body, etc.). In any professional or ethical situation where codes do not clearly apply, a professional accountant should apply 'principles-based' ethical standards (such as integrity and probity) such that they would be happy to account for their behaviour if so required. Finally, and in common with members of other professions, accountants are required to act in the public interest that may, in extremis, involve reporting an errant employer to the relevant authorities. This may be the situation that an accountant may find him or herself in at FF. It would clearly be unacceptable to be involved in any form of deceit and it would be the accountant's duty to help to correct such malpractice if at all possible.

1 **(a)** Up to two marks per valid point made on the inadequacy of JPX's governance
(Up to a maximum of ten in total)

(b) One mark for identifying and describing each risk to Chemco in the JPX acquisition up to a maximum of six.
Up to one mark per relevant point on assessing each risk and a further one mark for development of relevant points up to a maximum of ten.
(Up a maximum of fifteen in total)

(c) Award one mark for each relevant point made.
(i) Up to four marks for an explanation of the advantages of unitary boards
(ii) Up to five marks for the case concerning the advantages of a unitary board at JPX.
(iii) Up to two marks for the clarity and persuasiveness of the argument for change in the JPX board.
(Up to a maximum of ten in total)

d) Award one mark for each explanation of the four roles of non-executive directors up to a maximum of four marks.

Award one mark for each specific benefit of NEDs to JPX up to a maximum of four marks.
(Up to a maximum of seven marks in total)

(e) Memo to Leena Sharif.
Explaining environmental footprint – one mark for each relevant point made up to a maximum of two marks.
Explaining importance of environmental reporting – one mark for each relevant point made up to a maximum of four marks.

Up to two marks for the form of the answer (memo in which content is laid out in an orderly and informative manner).
(Up to a maximum of eight in total)

(50 marks)

2 **(a)** (i) One mark for each valid point made up to a maximum of two for demonstrating an understanding of cross directorships.
(ii) Award up to two marks for each valid point made on roles of remunerations committees up to a maximum of eight.
(iii) Award up to two marks for each valid point on undermining the roles up to a maximum of four.
(Up to a maximum of twelve marks in total)

b) One mark for each components of a director's remuneration correctly identified up to a maximum of four.
One mark for each relevant point describing how Finn's remuneration might be more aligned to shareholders' interests up to a maximum of five.
(Up to a maximum of eight marks in total)

(c) Award one mark for each point evaluating the proposal from Hanoi House:
Arguments in favour – up to three marks,
Arguments against – up to three marks.
(Up to a maximum of five marks in total).

(25 marks)

3 **(a)** Award one mark for each valid point made supporting codes of professional ethics up to a maximum of six.
Award one mark for each valid point made on limitations of codes of professional ethics up to a maximum of six.
Up to two marks for using an actual code of ethics by way of example.
(Up to a maximum of eleven marks in total)

(b) Definition of integrity – one mark for each relevant point up to a maximum of four.
Importance of integrity – one mark for each relevant point up to a maximum of four.
(Up to a maximum of seven marks in total)

(c) Explanation of deontology – one mark for each valid point up to a maximum of four marks
Explanation of consequentialism – one mark for each valid point up to a maximum of four marks
(Up to a maximum of seven marks in total)

(25 marks)

4 **(a)** Description of 'sound' control systems – up to two marks for each valid point made up to a maximum of six.
Explanation of shortcomings at FF plc – one mark for each valid point made up to a maximum of six.
(Up to a maximum of ten marks in total)

(b) Definition of 'reputation risk' – one mark for each valid point made up to a maximum of three.
Explanation of the financial effects of poor reputation – one mark for each valid point made up to a maximum of four.
Recognition of the causes of FF's reputation problems – one mark for each valid point made up to a maximum of two.
(Up to a maximum of eight marks in total)

(c) Responsibilities to employer – one mark for each valid point made up to a maximum of four.
Responsibilities to professionalism – one mark for each valid point made up to a maximum of four.
(Up to a maximum of seven marks in total)

(25 marks)

Professional Pilot Paper – Essentials module

Corporate Reporting (International)

Paper P2 (INT)

Time allowed
Reading and planning: 15 minutes
Writing: 3 hours

This paper is divided into two sections:

Section A – This ONE question is compulsory and MUST be attempted

Section B – TWO questions ONLY to be attempted

Do NOT open this paper until instructed by the supervisor.
During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.
This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

Section A – This ONE question is compulsory and MUST be attempted

1 The following draft financial statements relate to Zambeze, a public limited company:

Draft Group Balance Sheets at 30 June

	2006	2005
	$m	$m
Assets:		
Non-current assets:		
Property, plant and equipment	1,315	1,005
Goodwill	30	25
Investment in associate	270	290
	1,615	1,320
Current assets:		
Inventories	650	580
Trade receivables	610	530
Cash at bank and cash equivalents	50	140
	1,310	1,250
Total assets	2,925	2,570
Equity and liabilities:		
Share capital	100	85
Share premium account	30	15
Revaluation reserve	50	145
Retained earnings	254	250
	434	495
Minority interest	60	45
Total equity	494	540
Non-current liabilities	850	600
Current liabilities	1,581	1,430
Total liabilities	2,431	2,030
Total equity and liabilities	2,925	2,570

Draft Group Income Statement for the year ended 30 June 2006

	$m
Revenue	4,700
Cost of sales	(3,400)
Gross profit	1,300
Distribution and administrative expenses	(600)
Finance costs (interest payable)	(40)
Share of profit in associate	30
Profit before tax	690
Income tax expense (including tax on income from associate $10 million)	(210)
Profit for the period	480
Attributable to:	
Equity holders of the parent	455
Minority interest	25
	480

Draft Group Statement of Recognised Income and Expense for the year ended 30 June 2006

	$m
Foreign exchange difference of associate	(5)
Impairment losses on property, plant and equipment offset against revaluation surplus	(95)
Net expense recognised in equity	(100)
Profit for period	455
Total recognised income and expense	355

Draft Statement of changes in equity for the year ended 30 June 2006

	$m
Total recognised income and expense for the period	355
Dividends paid	(446)
New shares issued	30
Total movement during the year	(61)
Shareholders' funds at 1 July 2005	495
Shareholders' funds at 30 June 2006	434

The following relates to Zambeze:

(i) Zambeze acquired a seventy per cent holding in Damp, a public limited company, on 1 July 2005. The fair values of the net assets acquired were as follows:

	$m
Property, plant and equipment	70
Inventories and work in progress	90
	160

The purchase consideration was $100 million in cash and $25 million (discounted value) deferred consideration which is payable on 1 July 2006. The difference between the discounted value of the deferred consideration ($25 million) and the amount payable ($29 million) is included in "interest payable". Zambeze wants to set up a provision for reconstruction costs of $10 million retrospectively on the acquisition of Damp. This provision has not yet been set up.

(ii) There had been no disposals of property, plant and equipment during the year. Depreciation for the period charged in cost of sales was $60 million.

(iii) Current liabilities comprised the following items:

	2006	2005
	$m	$m
Trade payables	1,341	1,200
Interest payable	50	45
Taxation	190	185
	1,581	1,430

(iv) Non-current liabilities comprised the following:

	2006	2005
	$m	$m
Deferred consideration – purchase of Damp	29	–
Liability for the purchase of Property, plant and equipment	144	–
Loans repayable	621	555
Provision for deferred tax	30	25
Retirement benefit liability	26	20
	850	600

(v) The retirement benefit liability comprised the following:

	$m
Movement in year:	
Liability at 1 July 2005	20
Current and past service costs charged to income statement	13
Contributions paid to retirement benefit scheme	(7)
Liability 30 June 2006	26

There was no actuarial gain or loss in the year.

(vi) Goodwill was impairment tested on 30 June 2006 and any impairment was included in the financial statements for the year ended 30 June 2006.

(vii) The Finance Director has set up a company, River, through which Zambeze conducts its investment activities. Zambeze has paid $400 million to River during the year and this has been included in dividends paid. The money was invested in a specified portfolio of investments. Ninety five per cent of the profits and one hundred per cent of the losses in the specified portfolio of investments are transferred to Zambeze. An investment manager has charge of the company's investments and owns all of the share capital of River. An agreement between the investment manager and Zambeze sets out the operating guidelines and prohibits the investment manager from obtaining access to the investments for the manager's benefit. An annual transfer of the profit/loss will occur on 30 June annually and the capital will be returned in four years time. The transfer of $400 million cash occurred on 1 January 2006 but no transfer of profit/loss has yet occurred. The balance sheet of River at 30 June 2006 is as follows:

River – Balance sheet at 30 June 2006

	$m
Investment at fair value through profit or loss	390
	390
Share capital	400
Retained earnings	(10)
	390

Required:

(a) Prepare a group cash flow statement for the Zambeze Group for the year ended 30 June 2006 using the indirect method. (35 marks)

(b) Discuss the issues which would determine whether River should be consolidated by Zambeze in the group financial statements. (9 marks)

(c) Discuss briefly the importance of ethical behaviour in the preparation of financial statements and whether the creation of River could constitute unethical practice by the finance director of Zambeze. (6 marks)

Two marks are available for the quality of the discussion of the issues regarding the consolidation of River and the importance of ethical behaviour.

(50 marks)

Section B – TWO questions ONLY to be attempted

2 Electron, a public limited company, operates in the energy sector. The company has grown significantly over the last few years and is currently preparing its financial statements for the year ended 30 June 2006.

Electron buys and sells oil and currently has a number of oil trading contracts. The contracts to purchase oil are treated as non-current assets and amortised over the contracts' durations. On acceptance of a contract to sell oil, fifty per cent of the contract price is recognised immediately with the balance being recognised over the remaining life of the contract. The contracts always result in the delivery of the commodity. (4 marks)

Electron has recently constructed an ecologically efficient power station. A condition of being granted the operating licence by the government is that the power station be dismantled at the end of its life which is estimated to be 20 years. The power station cost $100 million and began production on 1 July 2005. Depreciation is charged on the power station using the straight line method. Electron has estimated at 30 June 2006, it will cost $15 million (net present value) to restore the site to its original condition using a discount rate of five per cent. Ninety-five per cent of these costs relate to the removal of the power station and five per cent relates to the damage caused through generating energy. (7 marks)

Electron has leased another power station which was relatively inefficient, to a rival company on 30 June 2006. The beneficial and legal ownership remains with Electron and in the event of one of Electron's power stations being unable to produce energy, Electron can terminate the agreement. The leased power station is being treated as an operating lease with the net present value of the income of $40 million being recognised in profit or loss. The fair value of the power station is $70 million at 30 June 2006. A deposit of $10 million was received on 30 June 2006 and it is included in the net present value calculation. (5 marks)

The company has a good relationship with its shareholders and employees. It has adopted a strategy of gradually increasing its dividend payments over the years. On 1 August 2006, the board proposed a dividend of 5c per share for the year ended 30 June 2006. The shareholders will approve the dividend along with the financial statements at the general meeting on 1 September 2006 and the dividend will be paid on 14 September 2006. The directors feel that the dividend should be accrued in the financial statements for the year ended 30 June 2006 as a "valid expectation" has been created. (3 marks)

The company granted share options to its employees on 1 July 2005. The fair value of the options at that date was $3 million. The options vest on 30 June 2008. The employees have to be employed at the end of the three year period for the options to vest and the following estimates have been made:

Estimated percentage of employees leaving during vesting period at:

Grant date 1 July 2005	5%	
30 June 2006	6%	(4 marks)
Effective communication to the directors		(2 marks)

Required:

Draft a report suitable for presentation to the directors of Electron which discusses the accounting treatment of the above transactions in the financial statements for the year ended 30 June 2006, including relevant calculations.

(25 marks)

3 The following balance sheet relates to Kesare Group, a public limited company at 30 June 2006:

	$'000
Assets:	
Non current assets:	
Property, plant, and equipment	10,000
Goodwill	6,000
Other intangible assets	5,000
Financial assets (cost)	9,000
	30,000
Trade receivables	7,000
Other receivables	4,600
Cash and cash equivalents	6,700
	18,300
Total assets	48,300
Equity and liabilities	
Share capital	9,000
Other reserves	4,500
Retained earnings	9,130
Total equity	22,630
Non-current liabilities	
Long term borrowings	10,000
Deferred tax liability	3,600
Employee benefit liability	4,000
Total non-current liabilities	17,600
Current tax liability	3,070
Trade and other payables	5,000
Total current liabilities	8,070
Total liabilities	25,670
Total equity and liabilities	48,300

The following information is relevant to the above balance sheet:

(i) The financial assets are classified as "available for sale" but are shown in the above balance sheet at their cost on 1 July 2005. The market value of the assets is $10.5 million on 30 June 2006. Taxation is payable on the sale of the assets.

(ii) The stated interest rate for the long term borrowing is 8 per cent. The loan of $10 million represents a convertible bond which has a liability component of $9.6 million and an equity component of $0.4 million. The bond was issued on 30 June 2006.

(iii) The defined benefit plan had a rule change on 1 July 2005. Kesare estimate that of the past service costs of $1 million, 40 per cent relates to vested benefits and 60 per cent relates to benefits that will vest over the next five years from that date. The past service costs have not been accounted for.

(iv) The tax bases of the assets and liabilities are the same as their carrying amounts in the balance sheet at 30 June 2006 except for the following:

(a)

	$'000
Property, plant, and equipment	2,400
Trade receivables	7,500
Other receivables	5,000
Employee benefits	5,000

(b) Other intangible assets were development costs which were all allowed for tax purposes when the cost was incurred in 2005.

(c) Trade and other payables includes an accrual for compensation to be paid to employees. This amounts to $1 million and is allowed for taxation when paid.

(v) Goodwill is not allowable for tax purposes in this jurisdiction.

(vi) Assume taxation is payable at 30%.

Required:

(a) Discuss the conceptual basis for the recognition of deferred taxation using the temporary difference approach to deferred taxation. (7 marks)

(b) Calculate the provision for deferred tax at 30 June 2006 after any necessary adjustments to the financial statements showing how the provision for deferred taxation would be dealt with in the financial statements. (Assume that any adjustments do not affect current tax. Candidates should briefly discuss the adjustments required to calculate the provision for deferred tax). (18 marks)

Two marks will be awarded for the quality of the discussion of the conceptual basis of deferred taxation in (a).

(25 marks)

4 A significant number of entities and countries around the world have adopted International Financial Reporting Standards (IFRS) as their basis for financial reporting, often regarding these as a means to improve the quality of information on corporate performance. However, while the advantages of a common set of global reporting standards are recognised, there are a number of implementation challenges at the international and national levels if the objective of an improved and harmonised reporting system is to be achieved.

Required:

(a) Discuss the implementation challenges faced by the International Accounting Standards Board (IASB) if there is to be a successful move to International Financial Reporting Standards. (18 marks)

(b) The International Accounting Standards Board recently issued Exposure Drafts of *Proposed Amendments to IFRS3 Business Combinations* and IAS27 *Consolidated and Separate Financial Statements*. The proposals radically change the basis of reporting business combinations and transactions with minority interests.

Discuss how the above exposure drafts will fundamentally affect the existing accounting practices for business combinations. (7 marks)

Two marks will be awarded for the quality of the discussion of the ideas and information.

(25 marks)

End of Question Paper

Answers

1 (a) Zambeze Group
Group Statement of Cash Flows for the year ended 30 June 2006

	$m	$m
Cash flows from operating activities:		
Net profit before taxation		690
Adjustments for:		
Share of profit in associate	(30)	
Depreciation	60	
Impairment of goodwill (Working 2)	8	
Interest expense	40	
Retirement benefit expense	13	
		91
Operating profit before working capital changes:		781
Increase in trade receivables	(80)	
Decrease in inventories (650-580-90)	20	
Increase in trade payables	141	
		81
Cash generated from operations:		862
Interest paid (Working 5)	(31)	
Income taxes paid (Working 4)	(190)	
Cash paid to retirement benefit scheme	(7)	
		(228)
Net cash from operating activities:		634
Cash flows from investing activities		
Acquisition of subsidiary	(100)	
Purchase of property, plant and equipment (Working 1)	(251)	
Dividends received from Associate (Working 3)	35	
Investment in River	(400)	
Net cash used in investing activities		(716)
Cash flows from financing activities:		
Proceeds from issue of share capital	30	
Increase in long-term borrowings	66	
Dividends paid (Working 6)	(46)	
Minority interest dividends (Working 2)	(58)	
Net cash used in financing activities		(8)
Net decrease in cash and cash equivalents		(90)
Cash and cash equivalents at beginning of period		140
Cash and cash equivalents at the end of period		50

Working 1

	$m
Tangible non-current assets	
Balance at 1 July 2005	1,005
Impairment losses	(95)
Depreciation	(60)
Purchases (by deduction)	395
Acquisition – Damp	70
Closing balance	1,315

Cash flow is $395 million minus the liability for Property, plant and equipment of $144 million, ie $251 million.

Working 2

	$m
Purchase of subsidiary:	
Net assets acquired	160
Group's share of net assets (70%)	112
Goodwill	13
Purchase consideration (100+25)	125
Goodwill:	
Balance at 1 July 2005	25
Goodwill on subsidiary	13
Impairment	(8)
Balance at 30 June 2006	30
Minority interest:	
Balance at 1 July 2005	45
Acquisition of Damp (160 x 30%)	48
Profit for year	25
Dividend	(58)
Balance at 30 June 2006	60

Working 3

	$m
Dividend from associate:	
Balance at 1 July 2005	290
Income (net of tax) (30-10)	20
Foreign exchange loss	(5)
Dividends received (difference)	(35)
Balance at 30 June 2006	270

Working 4

		$m	$m
Taxation:			
Balance at 1 July 2005	Income tax		185
	Deferred tax		25
Income statements (210–10)			200
Tax paid (difference)			(190)
Balance at 30 June 2006	Income tax	190	
	Deferred tax	30	
			220

Working 5

	$m
Interest paid:	
Balance at 1 July 2005	45
Income statement	40
Unwinding of discount on purchase	(4)
Cash paid (difference)	(31)
Closing balance at 30 June 2006	50

Working 6

The cash payment to River should be shown as "investing activities" of $400 million and the dividend paid will then be $(446-400) million, ie $46 million.

(b) The definition of "control" underpins the definition of the parent and subsidiary relationship. IAS27 *Consolidated and separate financial statements* states that control is presumed when the parent acquires more than half of the voting rights of the enterprise. Even when more than one half of the voting rights is not acquired, control may be evidenced by power (IAS27, para 13)

(i) over more than one half of the voting rights by virtue of an agreement with other investors; or
(ii) to govern the financial and operating policies of the other enterprise under a statute or an agreement; or
(iii) to appoint or remove the majority of the members of the board of directors; or
(iv) to cast the majority of votes at a meeting of the board of directors.

IAS27 emphasises that the reference to power in the definition of "control" means the ability to do or affect something. As a result an entity has control over another entity when it has the ability to exercise that power, regardless of whether control is actively demonstrated or passive in nature. Further SIC12, *Consolidation – Special Purpose Entities* says that special purpose entities (SPEs) should be consolidated where the substance of the relationship indicates that the SPE is controlled by the reporting enterprise. This may arise even where the activities of the SPE are predetermined or whether the majority of voting or equity are not held by the reporting enterprise.

Under IAS27 control of an entity comprises the ability to control the entity's decision making with a view to obtaining benefits from the entity. The ability to control decision making alone is not sufficient to establish control for accounting purposes but must be accompanied by the objective of obtaining benefits from the entity's activities. If a company obtains the benefits of ownership, is exposed to the risks of ownership, and can exercise decision making powers to obtain those benefits, then the company must control the third party.

Zambeze should consolidate River as Zambeze controls the it through the operating guidelines. Zambeze also receives 95% of the profits and suffers all the losses of River. The guidelines were set up when River was formed and, therefore, the company was set up as a vehicle with the objective of keeping certain transactions off the balance sheet of Zambeze. The investment manager manages the investments of River within the guidelines and incurs no risk and receives 5% of the profits for the management services.

(c) Ethics in accounting is of utmost importance to accounting professionals and those who rely on their services. Accounting professionals know that people who use their services, especially decision makers using financial statements, expect them to be highly competent, reliable, and objective. Those who work in the field of accounting must not only be well qualified but must also possess a high degree of professional integrity. A professional's good reputation is one of his or her most important assets.

There is a very fine line between acceptable accounting practice and management's deliberate misrepresentation in the financial statements. The financial statements must meet the following criteria:

(i) Technical compliance: A transaction must be recorded in accordance with generally accepted accounting principles (GAAP).
(ii) Economic substance: The resulting financial statements must represent the economic substance of the event that has occurred.
(iii) Full disclosure and transparency: Sufficient disclosure must be made so that the effects of transactions are transparent to the reader of the financial statements.

In the case of River it could be argued that the first criterion may be met because the transaction is apparently recorded in technical compliance with IFRS, but technical compliance alone is not sufficient. The second criterion is not met because the transaction as recorded does not reflect the economic substance of the event that has occurred.

Accounting plays a critical function in society. Accounting numbers affect human behaviour especially when it affects compensation, and to deliberately mask the nature of accounting transactions could be deemed to be unethical behaviour.

River was set up with the express purpose of keeping its activities off the balance sheet. The Finance Director has an ethical responsibility to the shareholders of Zambeze and society not to mask the true nature of the transactions with this entity. Further, if the transaction has been authorised by the Finance Director without the authority or knowledge of the Board of Directors, then a further ethical issue arises.Showing the transfer of funds as a dividend paid is unethical and possibly illegal in the jurisdiction. The transfer should not be hidden and River should be consolidated.

2 Report to directors of Electron

Terms of reference
This report sets out the nature of the accounting treatment and concerns regarding the following matters:

- Oil contracts
- Power station
- Operating leases
- Proposed dividend
- Share options.

Oil Contracts

The accounting policy adopted for the agreements relating to the oil contracts raises a number of concerns. The revenue recognition policy currently used is inflating revenue in the first year of the contract with 50% of the revenue being recognised, but a smaller proportion of the costs are recognised in the form of depreciation. Over the life of the contract, costs and revenues are equally matched but in the short term there is a bias towards a more immediate recognition of revenue against a straight line cost deferral policy. Additionally oil sales result in revenue whilst purchases of oil result in a tangible non-current asset. IAS18 *Revenue* states that revenue and expenses that relate to the same transaction or event should be recognised simultaneously and the "Framework" says that the "measurement and display of the financial effect of like transactions must be carried out in a consistent way". Accounting policies should provide a framework to ensure that this occurs. The current accounting practice seems to be out of line with IAS18 and the *Framework*.

However, the election of the company to use some form of deferral policy for its agreements is to be commended as it attempts to bring its revenue recognition policy in line with the length of the agreements. The main problem is the lack of a detailed accounting standard on revenue recognition. The result is the current lack of consistency in accounting for long-term agreements. However, it may be advisable to adopt a deferral policy in terms of this type of revenue. The contracts always result in the delivery of the oil in the normal course of business and are not, therefore, accounted for as financial instruments as they qualify as normal sale and purchase contracts.

Power Station

Under IAS37 *Provisions, Contingent Liabilities and Contingent Assets*, a provision should be made at the balance sheet date for the discounted cost of the removal of the power station because of the following reasons:

(i) the installation of the power station creates an obligating event
(ii) the operating licence creates a legal obligation which is likely to occur
(iii) the costs of removal will have to be incurred irrespective of the future operations of the company and cannot be avoided
(iv) a transfer of economic benefits (ie the costs of removal) will be required to settle the obligation
(v) a reasonable estimate of the obligation can be made although it is difficult to estimate a cost which will be incurred in twenty years time (IAS 37 says that only in exceptional circumstances will it not be possible to make some estimate of the obligation)

The costs to be incurred will be treated as part of the cost of the facility to be depreciated over its production life. However, the costs relating to the damage caused by the generation of energy should not be included in the provision, until the power is generated which in this case would be 5% of the total discounted provision. The accounting for the provision is shown in Appendix 1.

Operating Leases

SIC27 *Evaluating the substance of transactions involving the legal form of a lease* considers whether a leasing agreement meets the definition of a lease in IAS17 *Leases* and how a company should account for any fee that it might receive. A lease is classified as a finance lease if it transfers substantially all the risks and rewards "incident" to ownership. All other leases are classified as operating leases. In this case, the beneficial and legal ownership remains with Electron and Electron can make use of the power station if it so wishes. Also for a lease asset to be a finance lease the present value of the minimum lease payments should be substantially all of the fair value of the leased asset. In this case this amounts to 57.1% ($40 million ÷ $70 million) which does not constitute "substantially all". Thus there does not seem to be any issue over the classification of the lease as an operating lease. The immediate recognition as income of the future benefit at net present value is a little more problematical. IAS17 says that lease income from operating leases should be recognised on a straight line basis over the lease term unless another systematic basis is more representative. If a fee is received as an "up front" cash payment then IAS18 *Revenue* (para 20) and SIC27 should be applied. If there is future involvement required to earn the fee, or there are retained risks or risk of the repayment of the fee, or any restrictions on the lessor's use of the asset, then immediate recognition is inappropriate. The present policy of recognising the total lease income as if it were immediate income which it is not, would be difficult to justify. Similarly, as regards the deposit received, revenue should only be recognised when there is performance of the contract. Thus as there has been no performance under the contract, no revenue should be accrued in the period.

Proposed dividend

The dividend was proposed after the balance sheet date and the company, therefore, did not have a liability at the balance sheet date. No provision for the dividend should be recognised. The approval by the directors and the shareholders are enough to create a valid expectation that the payment will be made and give rise to an obligation. However, this occurred after the current year end and, therefore, will be charged against the profits for the year ending 30 June 2007.

The existence of a good record of dividend payments and an established dividend policy does not create a valid expectation or an obligation. However, the proposed dividend will be disclosed in the notes to the financial statements as the directors approved it prior to the authorisation of the financial statements.

Share options

Equity-settled transactions with employees would normally be expensed on the basis of their fair value at the grant date. Fair value should be based on market prices wherever possible. Many shares and share options will not be traded on an active market. In this case, valuation techniques, such as the option pricing model, would be used. IFRS2's objective for equity-based transactions with employees is to determine and recognise compensation costs over the period in which the services are rendered. In this case, the company has granted to employees share options that vest in three years' time on the condition that they remain in the entity's employ for that period. These steps will be taken:

(i) the fair value of the options will be determined at the date on which they were granted
(ii) this fair value will be charged to the income statement equally over the three year vesting period with adjustments made at each accounting date to reflect the best estimate of the number of options that eventually will vest

Shareholders' equity will be increased by an amount equal to the income statement charge. The charge in the income statement reflects the number of options that are likely to vest, not the number of options granted or the number of options exercised. If employees decide not to exercise their options because the share price is lower than the exercise price, then no adjustment is made to the income statement. Many employee share option schemes contain conditions that must be met before the employee becomes entitled to the shares or options. These are called vesting conditions and could require, for example, an increase in profit or growth in the entity's share price before the shares vest. In this case the vesting condition is the employment condition. $940,000 ($3 million x 94% x 1/3) will be charged in the income statement and to equity at 30 June 2006.

Recommendations and conclusion

The above report sets out the recommendations regarding the accounting treatment of the items specified. It is imperative that the recommendations are followed as non-compliance with a single IFRS constitutes a failure to follow International Financial Reporting Standards for reporting purposes.

Appendix 1

	$m	$m
Present value of obligation at 1 July 2005 (15÷1.05)	14.3	
Provision for decommissioning (95% x 14.3)	13.6	
Provision for damage through extraction (5% x 14.3)		0.7

Balance Sheet at 30 June 2006

	$m	$m
Tangible non current assets:		
Cost of power station	100	
Provision for decommissioning	13.6	
	113.6	
less depreciation (113.6÷20 years)	(5.7)	
Carrying value	107.9	
Other provisions:		
Provision for decommissioning 1 July 2005	13.6	
Unwinding of discount (13.6x5%)	0.7	
		14.3
Provision for damage (0.7÷20 years)		0.1
		14.4

Income Statement

	$m
Depreciation	5.7
Provision for damage	0.1
Unwinding of discount (finance cost)	0.7

A simple straight line basis has been used to calculate the required provision for damage. A more complex method could be used whereby the present value of the expected cost of the provision is provided for over 20 years and the discount thereon is unwound over its life.

3 (a) Under IFRS, an asset or liability is recognised if it meets the definition of such in the Framework document. The definitions refer to the right to receive or the obligation to transfer economic benefits as a result of a past event. The accounting model used to account for deferred tax is based on the premise that the tax effects of transactions should be recognised in the same period as the transactions themselves. The reality is, however, that tax is paid in accordance with tax legislation when it becomes a legal liability. There is an argument, therefore, that deferred tax is neither asset nor liability.

The temporary difference approach is based on the assumption that an asset will ultimately be recovered or realised by a cash inflow which will enter into the determination of future taxable profits. Thus the tax payable on the realisation of the asset should be provided for. It is argued that it would be inconsistent to represent that the asset can be recovered at its balance sheet value whilst ignoring the tax consequences.

Similarly for a liability carried in the balance sheet, there is an implicit assumption that the liability will ultimately be settled by a cash outflow. The outflow will enter into the determination of tax profits and any tax deduction allowable will effectively be an asset. As above, it would be inconsistent to recognise the liability whilst ignoring the tax consequences of its recognition.

Conceptually there is a weakness in this approach as only one of the liabilities that is tax, is being provided for and not other costs which will be incurred, such as overhead costs. The principal issue in accounting for deferred tax is how to account for the future tax consequences of the future recovery or settlement of the carrying amounts of the assets and liabilities.

(b)

	$'000	Adjustment to financial statements $'000	Tax base $'000	Temporary difference $'000
Property plant, and equipment	10,000		2,400	7,600
Goodwill	6,000		6,000	
Other intangible assets	5,000		0	5,000
Financial assets (cost)	9,000	1,500	9,000	1,500
Total non-current assets	30,000			
Trade receivables	7,000		7,500	(500)
Other receivables	4,600		5,000	(400)
Cash and cash equivalents	6,700		6,700	–
Total current assets	18,300			
Total assets	48,300			
Long term borrowings	10,000	(400)	10,000	400
Deferred tax liability	3,600		3,600	–
Employee benefits	4,000	520	5,000	480
Current tax liability	3,070		3,070	–
Trade and other payables	5,000		4,000	(1,000)
Total liabilities	25,670			13,080
Share capital	9,000			–
Other reserves	4,500	1,500		
		400		
Retained earnings	9,130	(520)		
Total equity	22,630			

	$000
Deferred tax liability 14,980 @ 30%	4,494
Deferred tax asset (1,900) @ 30%	(570)
Net deferred tax liability 13,080 @ 30%	3,924
Less existing liability	(3,600)
Adjustment to deferred tax	(324)

(i) The available for sale investments should be valued at fair value with the increase going to equity ($1.5 million).
(ii) The bond should be split into its equity and liability elements as per IAS39.
(iii) The defined benefit plan should recognise 40% of $1 million + (60% of $1 million ÷ 5) ie $520,000 as an increase in the liability. Retained earnings will be charged with the same amount.
(iv) As the development costs have been allowed for tax already, it will have a tax base of zero. Goodwill is measured as a residual and, therefore, the impact is not measured under IAS12.
(v) The accrual for compensation will not be allowed until a later period and, therefore, will reduce the tax base relating to trade and other payables.

4 (a) International Financial Reporting Standards (IFRS) were initially developed for the preparation of group accounts of listed companies. The use of IFRS is growing such that in some countries that are building or improving their accounting regulatory framework, IFRS based corporate reports are deemed to be more reliable and relevant than local GAAP reports. In many of these countries IFRS are the statutory requirement for legal entities and, therefore, an implementation issue that has arisen is that the national law has to be reconciled with the requirements of IFRS.

Another implementation issue relates to small and medium-sized enterprises (SMEs) in terms of whether a separate set of standards should be developed and what should be the underlying conceptual and methodological basis for such standards. Effective implementation requires continuous interaction between the International Accounting Standards Board (IASB) and national regulators. The IASB has issued a draft Memorandum of Understanding on the role of Accounting Standard Setters and their relationship with the IASB. It identifies responsibilities that the IASB and other standard setters should adopt to facilitate the ongoing adoption of or convergence with IFRS.

With the increase in the number of entities applying IFRS, the demand for implementation guidance is growing. The International Financial Reporting Interpretations Committee (IFRIC) has been given the task of meeting this demand but there may be a need for additional coping mechanisms as a limited number of interpretations have been issued since the inception of IFRIC.

Variations in translation of IFRS could introduce inconsistency. In some countries the capacity for highly technical translation is low and there may be a conflict with existing national terminology and legislation. Additionally, time lags in the local "endorsement" process and in translating new IFRS could mean that financial reports may not be consistent with the latest body of standards. Additionally the successful implementation of IFRS will depend upon the robustness of the local regulatory framework. Effective corporate governance practices, high quality auditing standards and practices, and effective enforcement or oversight mechanisms will be required to underpin the IFRs. Often endorsement of the standards is required as part of the implementation process. For example, in the European Union, after IFRS have been issued by the IASB, they must go through an endorsement process before companies listed in the European Union are required to apply them. This process could create standards that differ from those of the IASB.

Implementation of IFRS can have implications for a number of legislative areas. The more complex the regulatory framework, the more problems will arise. There can be tax, price control and company law implications, and certain sectors, such as banking and insurance, may be subject to additional regulation that may require special reporting requirements. Entities may find that they are in breach of existing covenants with lenders where the provision of funding is based on national GAAP ratios. Similarly corporate law may set out the requirements on distribution of dividends and unless the necessary corporate law amendments are made then dividend distributions would be based on national GAAP which might create confusion.

An international mechanism for the co-ordination of enforcement of IFRS is required. IOSCO provides an infrastructure for enforcement with respect to publicly listed companies. IOSCO has put forward proposals for the regulatory interpretation and enforcement of IFRS. On a more local level, the European Union has established the Committee of European Securities Regulators whose role is to improve co-ordination among securities regulators and ensure implementation of legislation in the European Union.

The complex nature of IFRS and the sheer volume of standards make the task of implementation difficult. The standards are deemed to be "principles based" and this may lead to inconsistencies of application, particularly in countries without a critical mass of experienced accountants. Most accountants will have been trained to apply domestic accounting standards, and where there are options in IFRS, then it is likely that the accounting practice closest to their National GAAP will be chosen. Similarly IFRSs utilise fair value measurement extensively and market information is required to more accurately reflect the value. The nature of this market information will vary around the world. If market information is not available, an alternative source can be obtained by simulating a hypothetical market or by using mathematical modelling. Experience of such techniques will vary worldwide, and this experience will be variable in such areas as actuarial estimation, impairment testing, and valuing share based payments. The concepts set out in IFRS may be new to some accounting professionals and may be difficult to grasp.

(b) Under current accounting practice the objective of acquisition accounting is to reflect the cost of the acquisition. To the extent to which it is not represented by identifiable assets and liabilities (measured at their fair value), goodwill arises and is reported in the financial statements. These exposure drafts adopt a different perspective and require the financial statements to reflect the fair value of the acquired business. The recognition of the acquired business at fair value will mean that any existing interest owned by the acquirer before it gained control will be remeasured at fair value at the date of acquisition with any gain or loss recognised in the income statement.

The proposals treat the group as a single economic entity and any outside equity interest in a subsidiary is treated as part of the overall ownership interest in the group. As a consequence, transactions with minority shareholders are to be treated as equity transactions. No gain or loss will be recognised in the income statement. Accounting for business combinations has to date been based on the "parent entity" concept where the extent of non-controlling interests and transactions with non-controlling interests are separately identified in the primary financial statements.

It is also proposed that goodwill is to be recognised in full even if control is less than 100%. IFRS3 currently requires that goodwill arising on acquisition should only be recognised with respect to the part of the subsidiary undertaking that is attributable to the interest held by the parent entity.

Costs incurred in connection with an acquisition are not to be accounted for as part of the cost of the investment but will be charged in the income statement. There will also be changes to the way in which some assets and liabilities acquired in a business combination are recognised and measured. The draft IFRS requires assets and liabilities acquired to be measured and recognised at fair value at the acquisition date. Currently estimated fair values are used and guidance was given as to how to measure 'fair value' in the current standard. This guidance often resulted in the measurement of assets and liabilities in a manner which was inconsistent with fair value objectives.

1	**(a)**	Operating activities		6
		Retirement benefit		3
		Associate		3
		Subsidiary treatment		4
		Property, plant and equipment		3
		Goodwill		2
		Minority interest		3
		Taxation		3
		Dividend paid		3
		Interest		2
		River		2
		Issue of shares		1
				35
	(b)	Issues		9
	(c)	Ethical discussion		3
		River		3
			AVAILABLE/MAXIMUM	50
2	Oil contracts			4
	Power station			7
	Operating leases			5
	Proposed dividend			3
	Share options			4
	Effective communnication			2
			AVAILABLE/MAXIMUM	25
3	**(a)**	Quality of discussion		2
		Framework		1
		Temporary difference		2
		Liability		1
		Weakness		1
				7
	(b)	Adjustments:	Available for sale assets	2
			Convertible bond	2
			Defined benefit plan	2
			Property, plant and equipment	1
		Deferred tax:	Goodwill	1
			Other intangibles	1
			Financial assets	1
			Trade receivables	1
			Other receivables	1
			Long-term borrowings	1
			Employee Benefits	1
			Trade payables	2
		Calculation		3
			AVAILABLE	19
			MAXIMUM	18
			AVAILABLE	26
			MAXIMUM	25
4	**(a)**	Subjective		18
	(b)	Subjective		7
			AVAILABLE/MAXIMUM	25

Professional Pilot Paper – Essentials module

Business Analysis

Time allowed
Reading and planning: 15 minutes
Writing: 3 hours

This paper is divided into two sections:

Section A – This ONE question is compulsory and MUST be attempted

Section B – TWO questions ONLY to be attempted

Do NOT open this paper until instructed by the supervisor.
During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.
This question paper must not be removed from the examination hall.

Paper P3

The Association of Chartered Certified Accountants

Section A – The ONE question in this section is compulsory and MUST be attempted.

The following information should be used when answering question 1.

The case study of this Business Analysis pilot paper is based on the one examined in Paper 3.5 – Strategic Business Planning and Development in June 2004. Slight amendments have been made to the scenario, questions and answers to reflect the Business Analysis syllabus and emphasis.

1 Introduction

Network Management Systems (NMS) is a privately owned hi-tech business set up in a location near London in 1993. NMS is the brainchild of a Canadian computer engineer, Ray Edwards. Ray is a classic hi-tech entrepreneur, constantly searching for ways to exploit technological opportunities and unafraid to take the risks associated with high technology start-ups. NMS's first product was a digital error detection box able to 'listen' to computer signals and detect faults. The original box, designed by Ray, was built on his kitchen table and manufactured in a garage. Ray is a flamboyant character and a committed entrepreneur. In his words an entrepreneur is "someone willing to work 18 hours a day for themselves ... to avoid working eight hours a day for someone else!"

Structure of the business and key product areas

By 2006 NMS employed 75 full time employees in a new, purpose built factory and office unit. These employees were a mix of technically qualified engineers working in research and development (R&D), factory staff manufacturing and assembling the products and a small sales and service support team. In 2006, NMS had three distinct product/service areas.

One of the three products NMS produced was data communication components which it sold directly to original equipment manufacturers (OEMs) that used these components in their hardware. Both the OEMs and their customers were predominantly large international companies. NMS had established a good reputation for the quality and performance of its components, which were also competitively priced. However, NMS had less than 1% share of the UK market in this sector and faced competition from more than twenty suppliers, most of who also competed internationally. Furthermore, one of NMS's OEM customers accounted for 40% of its sales. The European market for data communications equipment had increased from $3.3 billion in 1999 to $8.0 billion in 2006. Forecasts for 2007 and beyond, predict growth from increased sales to currently installed networks rather than from the installation of new networks. The maturity of the technology means that product lifecycles are becoming shorter. Success comes from producing large volumes of relatively low priced reliable components. However, all new components have to be approved by the relevant government approval body in each country being supplied. Approval for new data communication equipment is both costly and time consuming.

NMS's second product area was network management systems – hence the name of the company. Fault detection systems were supplied directly to a small number of large end users such as banks, public utility providers and global manufacturers. NMS recognised the unique configuration of each customer and so it customised its product to meet specific needs and requirements. They have pioneered a "modular building block" design, which allows the customer to adapt standard system modules to fit their exact networking requirements. NMS products focused on solving network management problems and the success of its products was reflected in the award of the prestigious Government Award for Technology for "technological innovation in the prevention of computer data communication downtime". This was recognition of the excellence of the R&D engineers who developed the software and related hardware. It further enhanced NMS's reputation and enabled it to become a successful niche player in this low volume market with gross margins in excess of 40%. NMS only faces two or three competitors in a specialist market where there is no need to gain government approval for new products and systems.

Finally, the complexity of NMS products means that technical support is a third key business area. NMS has established a reputation for excellent technical support, reflecting Ray's continuing concern with customer care. However, it is increasingly difficult and costly to maintain this support because the company lacks a national network. All technical support is provided from its headquarters. This contrasts with the national and international distributed service structure operated by its large, international competitors.

Emerging problems

NMS's growth has made Ray increasingly concerned about the ability of NMS to identify market trends, scan its competitive environment and create marketing strategies and plans. NMS's market and sales planning only covers the year ahead. Larger competitors invest heavily in market research analysis and customer relationship marketing. Business-to-business marketing is becoming an increasingly complex and sophisticated activity in this sector.

Accurate sales forecasting is also a key input into production planning and scheduling. NMS manufactures 40% of the components used in its products. The rest of the components, including semiconductors and microprocessors, are bought in from global suppliers. Serious production problems result from periodic component shortages, creating significant delays in manufacturing, assembly, and customer deliveries. Furthermore, the growth of NMS has outstripped the largely manual control systems designed to support its production and sales operation.

Ray is acutely aware of his key role as founder and chairman of the firm. He is also finding the skills and attributes necessary for founding and growing the business are not appropriate in a mature business. He is heavily reliant on his extrovert personality and his ability to muddle through with informal, flexible systems. The limitation of this approach is now beginning to show. He is finding it increasingly difficult to cope with the day-to-day demands of running the business while at the same time planning its future. Functional departments in the shape of sales and marketing, technical (R&D), manufacturing and administration are in place but strategic planning, such as there is, is very much his responsibility.

Recruitment of high calibre staff is also a problem – NMS's small size and location means that it struggles to attract the key personnel necessary for future growth. Ray feels pressure on him to either develop the necessary skills himself, or to develop the right people with the right skills. In Ray's words, starting a business is like "building your own airplane and then teaching yourself how to fly".

One particular skill in short supply is the financial capability of dealing with growth. His negotiations with bankers and other financial intermediaries have become increasingly difficult and time consuming. The financial control information required to support growth and, more recently, to ensure survival is often inadequate. However, 2006 had started well, with NMS approached as a target for a possible acquisition by a major data communications company. The opportunity to realise some of the equity in the business had considerable appeal. Unfortunately, while protracted negotiations were taking place, a downturn in the global economy occured. Orders for NMS's products fell and the banks and venture capitalists supporting NMS through overdraft and long-term investment became much less sympathetic. The final insult occurred when Ray was approached by a venture capitalist with a management buyout proposal put together with NMS's financial director and sales manager. The value placed on the business was a derisory £50K. Ray was angry and hurt by the size of the offer and also at the disloyalty of his senior staff in seeking to buy the business. To make matters worse the uncertainty over the future of the business has led to a number of key members of staff deciding to leave the company. The financial director and sales manager are still both in post, but their future plans are uncertain. Financial data for NMS is presented in Table 1.

Ray's future at NMS

Ray is currently considering his future at NMS. He has identified three main exit options. The first is to personally lead the company out of its current problems, which he largely attributes to global economic slowdown, and to launch the business on the stock exchange as soon as its economic position improves. His second option is to sell the business for a figure which more accurately reflects its real value and to walk away and reflect on his future. His final option is to seek acquisition by one of his large customers (or competitors) and so become part of a much larger organisation. In such circumstances he would offer to stay on and develop NMS within the structures imposed by a parent organisation. By nature a fighter, the recent uncertainties over ownership and gloomy forecasts for the global economy have made him seriously reflect on his own priorities. His hands-on approach and involvement with all aspects of the business seems increasingly inappropriate for handling the problems of a hi-tech business such as NMS.

Table 1: Financial data for Network Management Systems

	2004	2005	2006	2007 (forecast)
Sales	**£'000**	**£'000**	**£'000**	**£'000**
UK sales	4,500	6,300	6,930	6,235
Export sales	300	500	650	520
Total sales	4,800	6,800	7,580	6,755
Cost of sales	2,640	3,770	4,550	4,320
Gross margin	2,160	3,030	3,030	2,435
Expenses				
Administration	500	630	700	665
Distribution	715	940	945	885
Marketing	50	60	70	70
R&D	495	590	870	690
Overheads	200	280	320	325
Operating profit	200	530	125	-200
Sales Interest paid	25	120	150	165
Net profit	175	410	-25	-365
Financing				
Long-term liabilities	160	750	1,000	1,100
Share capital and reserves	375	605	600	575
Other information				
Employees	50	60	75	60
% of orders late	5	7	10	6
Order book	4,725	4,150	3,150	2,500

Required:

(a) Assess the macro-environment of NMS by undertaking a PESTEL analysis. (10 marks)

(b) Using appropriate models and financial and quantitative data from the scenario, provide an environmental and financial analysis of NMS, highlighting problem areas. (25 marks)
(Including 4 professional marks)

(c) Ray is considering three main exit options from the business as it currently exists. Assess each of the three identified exit options in terms of their ability to solve the problems highlighted in your analysis and in terms of Ray's future role in the business. (15 marks)

(50 marks)

Section B – TWO questions ONLY to be attempted

2 The Environment Management Society (EMS) was established in 1999 by environment practitioners who felt that environmental management and audit should have its own qualification. EMS has its own Board who report to a Council of eight members. Policy is made by the Board and ratified by Council. EMS is registered as a private limited entity.

EMS employs staff to administer its qualification and to provide services to its members. The qualification began as one certificate, developed by the original founding members of the Society. It has since been developed, by members and officers of the EMS, into a four certificate scheme leading to a Diploma. EMS employs a full-time chief examiner who is responsible for setting the certificate examinations which take place monthly in training centres throughout the country. No examinations are currently held in other countries.

If candidates pass all four papers they can undertake an oral Diploma examination. If they pass this oral they are eligible to become members. All examinations are open-book one hour examinations, preceded by 15 minutes reading time. At a recent meeting, EMS Council rejected the concept of computer-based assessment. They felt that competence in this area was best assessed by written examination answers.

Candidate numbers for the qualification have fallen dramatically in the last two years. The Board of EMS has concluded that this drop reflects the maturing marketplace in the country. Many people who were practitioners in environmental management and audit when the qualification was introduced have now gained their Diploma. The stream of new candidates and hence members is relatively small.

Consequently, the EMS Board has suggested that they should now look to attract international candidates and it has targeted countries where environmental management and audit is becoming more important. It is now formulating a strategy to launch the qualification in India, China and Russia.

However, any strategy has to recognise that both the EMS Board and the Council are very cautious and notably risk-averse. EMS is only confident about its technical capability within a restricted definition of environmental management and audit. Attempts to look at complementary qualification areas (such as soil and water conservation) have been swiftly rejected by Council as being non-core areas and therefore outside the scope of their expertise.

Required:

Internal development, acquisitions and strategic alliances are three development methods by which an organisation's strategic direction can be pursued.

(a) Explain the principles of internal development and discuss how appropriate this development method is to EMS. (8 marks)

(b) Explain the principles of acquisitions and discuss how appropriate this development method is to EMS. (8 marks)

(c) Explain the principles of strategic alliances and discuss how appropriate this development method is to EMS. (9 marks)

(25 marks)

3 CCT Computer Systems plc specialises in the development and implementation of software for the logistics industry. After experiencing a number of years of growth and profitability the company is continuing to report growth in turnover but, for the last five quarters, it has also reported small losses. An investigation into this has revealed that costs have risen greatly in systems development and support and consequently margins have been eroded in recently completed projects. It appears that this trend is going to continue. Many people within the company attribute this worsening financial performance to a perceived reduction in software quality. Here are three testimonies received during the investigation

Amelia Platt: Software Development Manager CCT Computer Systems plc
"You have to remember that the original logistics system was developed by Ilya Borisova (the founder of CCT) and three of his friends from university days. They did not build the software with expansion or maintenance in mind. Also, it is difficult to know what some of the programs actually do, so making changes is a nightmare. Programmers make changes to program code without really knowing what the knock-on effect will be."

Tony Osunda: General Manager QANDO logistics – a major customer
"We feel that the last project was most unsatisfactory. We specified our requirements very carefully but the delivered system did not work the way we wanted. We found it cumbersome to use and key areas of functionality were either wrong or missing altogether. After implementation, we asked for a number of changes so that the system would work as it should. We were originally asked to pay for these changes but we pointed out that they weren't really changes – they were things we had asked for all along. Eventually, CCT backed down and so we got the changes for free. The system works fine now, but it has been delivered late and we are still seeking compensation for this.

Carlos Theroux: One of the original programmers of the CCT logistics software solution: Now lead programmer CCT Computer Systems plc
"It is no fun here anymore. When we were smaller we could all dive in and solve the problems. When I joined we had three programmers, now we have one hundred and thirty. What do they all do? There is no work ethic. We all used to stay over until we got the problem solved. Now there is documentation, documentation and documentation. We have now adopted a formal project management method, more documentation! I am not sure this place suits me anymore."

Required:

(a) A perceived reduction in software quality is blamed by many people for the decline in profitability at CCT. Discuss the importance and characteristics of software quality and explain how each of these characteristics might be measured. (10 marks)

(b) Explain the levels within the Capability Maturity Model Integration (CMMI) process and discuss their implications for CCT. (15 marks)

(25 marks)

4 DRB Electronic Services operates in a high labour cost environment in Western Europe and imports electronic products from the Republic of Korea. It re-brands and re-packages them as DRB products and then sells them to business and domestic customers in the local geographical region. Its only current source of supply is ISAS electronics based in a factory on the outskirts of Seoul, the capital of the Republic of Korea. DRB regularly places orders for ISAS products through the ISAS web-site and pays for them by credit card. As soon as the payment is confirmed ISAS automatically e-mails DRB a confirmation of order, an order reference number and likely shipping date. When the order is actually despatched, ISAS send DRB a notice of despatch e-mail and a container reference number. ISAS currently organises all the shipping of the products. The products are sent in containers and then trans-shipped to EIF, the logistics company used by ISAS to distribute its products. EIF then delivers the products to the DRB factory. Once they arrive, they are quality inspected and products that pass the inspection are re-branded as DRB products (by adding appropriate logos) and packaged in specially fabricated DRB boxes. These products are then stored ready for sale. All customer sales are from stock. Products that fail the inspection are returned to ISAS.

Currently 60% of sales are made to domestic customers and 40% to business customers. Most domestic customers pick up their products from DRB and set them up themselves. In contrast, most business customers ask DRB to set up the electronic equipment at their offices, for which DRB makes a small charge. DRB currently advertises its products in local and regional newspapers. DRB also has a web site which provides product details. Potential customers can enquire about the specification and availability of products through an e-mail facility in the web site. DRB then e-mails an appropriate response directly to the person making the enquiry. Payment for products cannot currently be made through the web site.

Feedback from existing customers suggests that they particularly value the installation and support offered by the company. The company employs specialist technicians who (for a fee) will install equipment in both homes and offices. They will also come out and troubleshoot problems with equipment that is still under warranty. DRB also offer a helpline and a back to base facility for customers whose products are out of warranty. Feedback from current customers suggests that this support is highly valued. One commented that "it contrasts favourably with your large customers who offer support through impersonal off-shore call centres and a time-consuming returns policy". Customers can also pay for technicians to come on-site to sort out problems with out-of-warranty equipment.

DRB now plans to increase their product range and market share. It plans to grow from its current turnover of £5m per annum to £12m per annum in two years time. Dilip Masood, the owner of DRB, believes that DRB must change its business model if it is to achieve this growth. He believes that these changes will also have to tackle problems associated with

– Missing, or potentially missing shipments. Shipments can only be tracked through contacting the shipment account holder, ISAS, and on occasions they have been reluctant or unable to help. The trans-shipment to EIF has also caused problems and this has usually been identified as the point where goods have been lost. ISAS does not appear to be able to reliably track the relationship between the container shipment and the Waybills used in the EIF system.
– The likely delivery dates of orders, the progress of orders and the progress of shipments is poorly specified and monitored. Hence deliveries are relatively unpredictable and this can cause congestion problems in the delivery bay.

Dilip also recognises that growth will mean that the company has to sell more products outside its region and the technical installation and support so valued by local customers will be difficult to maintain. He is also adamant that DRB will continue to import only fully configured products. It is not interested in importing components and assembling them. DRB also does not wish to build or invest in assembly plants overseas or to commit to a long-term contract with one supplier.

Required:

(a) Draw the primary activities of DRB on a value chain. Comment on the significance of each of these activities and the value that they offer to customers. (9 marks)

(b) Explain how DRB might re-structure its upstream supply chain to achieve the growth required by DRB and to tackle the problems that Dilip Masood has identified. (10 marks)

(c) Explain how DRB might re-structure its downstream supply chain to achieve the growth required. (6 marks)

(25 marks)

End of Question Paper

Answers

At the Professional level it is not always possible to publish a suggested answer which is fully comprehensive. Credit will be given to candidates for points not included in the suggested answers but which nevertheless, are relevant to the questions.

The suggested answers presented below give more detail than would be expected from a candidate under examination conditions. The answers are intended to provide guidance on the approach required from candidates, and on the range and depth of knowledge, which could be written by an excellent candidate.

1 **(a)** The PESTEL framework may be used to explore the macro-environmental influences that might affect an organisation. There are six main influences in the framework: political, economic, social, technological, environmental and legal. However, these types are inter-linked and so, for example, political developments and environmental requirements are often implemented through enacting legislation. Candidates will be given credit for defining the main macro-environmental influences that affect NMS, rather than the classification of these influences into the PESTEL framework.

Political – NMS is situated in a country with a relatively stable political system. Like many industrialised countries, all political parties in this country appear to value and promote technology. Tax incentives and grants are often given to companies to invest in technology and research and development. These incentives are not only available to NMS, but also (in the United Kingdom) to their customers. This has helped fuel the growth in the data communications market and although evidence suggests that this growth is tailing off, investment is still significant. Government itself is a major investor in communications technology, often using such investments to facilitate economic growth in this sector. However, most governments are also anxious to set standards that any company supplying equipment that links into the national telecommunications network have to meet. There is evidence of government control in the shape of the approvals process. This may arise from fears about technical reliability and compatibility but it may also be designed to hinder competition from foreign suppliers. Finally, government may promote the recognition of technology through an awards scheme. NMS has received such recognition through a Government Award for Technology.

Economic – again a significant factor, in that the stage in the economic or business cycle can clearly affect buying decisions. The case study suggests that 2006 has seen a slight downturn in the UK and international economy and a consequent slowing down in large customers' commitment to long-term investment. The bad news is that customers can postpone such investment. The good news is that if innovation creates products and systems that bring cost and communication advantages to customers then eventually they will have to invest in them. Wage rates remain high in the United Kingdom and NMS may wish to re-consider their commitment to manufacturing 40% of their components in the United Kingdom. Labour costs (allied to compliance costs – see below) and legal obligations makes manufacturing in the UK extremely expensive. It is likely that many of their competitors source 100% of their components abroad and only assemble their products in the UK.

Social – communication and information exchange will continue to increase with consequent implications for companies supplying the products and systems to meet these growing needs. All evidence suggests that the social use of services on such networks will increase. Hence, although demand appears to be dropping off, new social uses for telecommunication networks might spark off a new wave of economic investment.

Technological – clearly a significant factor in shaping the life cycles of existing products and the introduction of new ones. The hi-tech sector is extremely innovative, with new and improved technologies constantly emerging. NMS must scan the marketplace for such technologies and identify how such they might affect the future of their products. NMS must also consider how such emergent technologies might be used in their own products.

Environmental issues – continue to have an impact on organisations. Organisations are encouraged by politicians and by legislation to reduce their emissions and improve their re-cycling. The cost of disposal of raw materials is also increasing. There is no direct evidence of such issues in the case study scenario. However, as a manufacturing company in the United Kingdom it is highly likely that NMS will be affected by such factors.

Legal – NMS operates in a country where there are many laws defining employer responsibilities and employee rights. It is likely that regulation will continue and the NMS will, like all organisations working in the European Union (EU), have to evaluate the benefits and cost of working within such legal structures. Some organisations seek to gain advantage by moving to countries where regulation is more lax and hence avoid the compliance costs incurred by their competitors. The case study scenario suggests that NMS has significant international competitors. It is likely that some of these will be based in countries where legislative requirements are less onerous.

(b) Michael Porter provides, through his five forces model, a useful means of analysing the competitive environment. Analysis suggests the following key factors are shaping this environment.

Bargaining power of buyers
There is evidence that large industrial customers are becoming more cost conscious and this is likely to lead to increased price negotiation with their suppliers. At the same time customers are placing a premium on quality and service. Data communications products are becoming important in virtually every area of large organisations, causing greater sensitivity to price, quality and reliability. The end users of this equipment are becoming less technically proficient and more demanding, particularly in their unwillingness to adopt products that are difficult to use.

The supplying industry is relatively fragmented and so buyers have a wide choice and can compare competitors and exert buyer power on them. Information on NMS and their competitors' products and services is easily available to potential buyers. Buyer power is therefore likely to become more significant – particularly in view of the downturn in the global economy.

It is important to recognise that NMS is competing in two discrete markets. Firstly, data communications components, where with a 1% market share, they are at best a marginal supplier. The customers are OEMs who are large industrial buyers with the ability to demand a testing combination of low prices, high quality and reliability. This is expected both in terms of component performance and even more significantly, in view of recent manufacturing and assembly problems, guaranteed delivery. A combination of circumstances suggests that OEM's have significant bargaining power in this market. The OEM who accounts for 40% on the company's current sales is in a particularly strong position.

In the second market, where network management systems are supplied to large end users, buyers appear to have less bargaining power. NMS is a significant supplier in this market place with only two or three competitors. NMS is catering for each customer's specific network needs and so each solution is to some degree a bespoke solution. This makes it much harder for buyers to compare the prices of potential suppliers, particularly given the modular design of the NMS product. Furthermore, this product represents a relatively small part of the overall cost of the end user's investment in information and communication systems. This is also likely to make such products less price sensitive and hence provides an opportunity to generate good margins.

Bargaining Power of Suppliers

Evidence from the information provided gives no real insight into the bargaining power of suppliers but the purchase of components such as semiconductors and microprocessors is likely to be from major global companies such as Intel and, as a consequence, supplier power may be very significant. NMS, as a small company, will not have the power to exert buyer pressure on its suppliers, either in terms of price or delivery. Such components form 60% of current product production and problems over deliveries and scheduling are having significant impact on the company's ability to meet customer deadlines. Clearly an audit needs to be made of supplier performance and the opportunity, or otherwise, for NMS to concentrate on suppliers able to deliver on time. However, for a small company like NMS, the supplier is in an excellent bargaining position.

Threats from New Entrants

NMS is operating in an industry where the costs of entry are significant because it is capital and knowledge intensive. NMS has shown there is a place for smaller innovative companies able to identify specialist market niches. Economies of scale compel new entrants to enter at significant output levels or suffer a cost disadvantage. The products are complex and there is likely to be a significant learning curve with costs only falling as volume builds up over time. Large international customers (such as OEMs, banks, public utilities) are likely to be cautious in moving to new suppliers.

The need for government approval of new data communications equipment creates a process that is both lengthy and expensive and this creates a significant barrier to entry. New entrants may be discouraged by the considerable uncertainty surrounding the industry – both in terms of technology, user acceptance and the R&D investment necessary to create components and systems compatible with the OEM's equipment and end user systems. Furthermore, the need to offer comprehensive support, although something of a problem to a small company such as NMS, does also create a significant barrier to new entrants.

Evidence suggests that market knowledge as an input into product design and delivery is becoming more critical and NMS's ability to create a recognised brand with its end users is creating a competitive advantage. Finally, the barriers to exit from the industry in the shape of knowledge, skills and assets which are very industry specific also reduces the attractiveness of the market place to new entrants.

Rivalry among Competitors

Very different levels of competition are being experienced in the two market places NMS is operating in. Unfortunately the financial data given does not separate out the results from each market but it is clear that the high-volume, low-margin component business offers intense competition with buyers who are able to use their size to extract favourable prices. The ability of NMS to generate better market share and margins through product innovation in this market seems highly unlikely.

Intensity of rivalry in the network management systems market is significantly less because there are only two or three competitors in this specialist market. NMS is dealing with a small number of large end users and designing products specific to their needs. In Porter's terms, NMS are adopting a focused differentiation strategy. In these low-volume, high-margin markets the emphasis has to be on increasing the volume side of the business, but at the same time making sure they have the resources to handle new customers.

Threats from Substitutes

High-tech industries are, almost by their very nature, prone to new technologies emerging that threaten and then eventually replace the established technology. Hence it is important that companies in the industry have scanning systems in place to warn of such threats. NMS will need to ensure that it has innovative new products under development which incorporate any significant technological change. There is evidence that suggests that large successful, high-tech companies are particularly vulnerable to ignoring the challenge coming from disruptive new technologies. However, NMS being small may have a competitive advantage in its ability to respond quickly and flexibly to such change.

Financial Analysis

The significant slowdown in sales growth and its predicted decline in 2007 is a major cause for concern. The extent to which this is externally determined through the economic downturn, as opposed to internal management, product and sales force failings is difficult to determine. It would be useful to compare the performance of NMS with its competitors and the market place as a whole. Export sales continue to form less than 10% of total sales and this is worrying for a company operating in a global industry. It appears from the 2007 forecast, which predicts a more significant decline in export sales than home sales that nothing is being done to address this. Equally concerning is the upward drift in the cost of sales over the 2004–2006 period. Evidence from the case suggests that supplier performance and consequent production scheduling problems needs to be investigated. The inevitable result of these revenue and cost trends is a falling gross margin.

Expenses do not seem to have been controlled, increasing at a faster rate than turnover. The impact of this on net profit is all too obvious. Failure to control expenses in a period of reduced growth suggests poor management control systems and inadequate management response. The forecast for 2007 suggests an increase in overhead expenses despite the decline in sales.

Commitment to research and development (R&D) in a hi-tech business is crucial to continued product innovation and NMS have maintained an R&D:Total sales ratio of 10% or more each year. However, R&D is notoriously difficult to predict in terms of its success and the timing of breakthroughs. The commitment of NMS should be applauded, but funding it from borrowing, as is increasingly occurring, could explain some of the problems the company is having with the banks and other financial intermediaries. Again, not untypical in a hi-tech business, there is little spending on marketing, perhaps because the company is under the impression that the products sell themselves. However, NMS could point out that the marketing spend was also relatively low at a time that they were relatively successful.

Perhaps one of the most worrying performance features is the slowing down in new business being generated. In 2004 unfulfilled orders virtually matched total sales but the forecast for 2007 sees that key ratio fall to barely one-third of total sales. This issue clearly has to be addressed.

Finally, in terms of measuring performance, the balanced scorecard could be used to good effect. Financially, the current position does not augur well – growth in turnover is slowing down, profitability is falling, the debt ratio is high and stock levels are worrying.

Customer measures are mixed – the company's products are well regarded but production scheduling problems are leading to increasing waiting time for customers. Market share in data communications is small and measuring the market share in network management systems is difficult because of the bespoke nature of the product. Technical support to customers is perceived as a key business area and NMS still has an excellent reputation for customer care.

There is a mixture of signals in terms of the progress being made with internal processes. Products are innovative and the ability to tailor the network management system means that end user needs are met. However, operational and management control processes appear weak – flexible but informal. Operations have a need for more sophisticated planning and scheduling systems and although post-sales performance in the shape of technical support looks good, this appears to be expensive to maintain.

Finally, from the perspective of learning/innovation, NMS has recognised the need to grow people in order to develop the business, but seems unable to recruit and retain the right calibre of people. Failure to do so will prevent Ray from being able to delegate to subordinates and focus his energies on the strategic threats to the survival of the company. Evidence suggests that a number of key personnel have left the company, hopefully not the innovative R&D engineers who gained the company its Government Award for Technology.

(c) The decision of the founding owner-manager to leave the business is clearly a critical one, particularly in terms of a company such as NMS where the value of the business is very much linked to the founder's vision.

Any exit strategy must be carefully planned so as to not jeopardise the future of the business. In the strategy literature, considerable attention is paid to the entry barriers that do or do not discourage the entrance of new competitors. Exit barriers receive far less attention but are very relevant to an owner-manager such as Ray looking to leave the business as a going/growing concern and realising a return on their personal investment – financial and emotional – in the business. As identified above there are barriers to entry into the industry but unfortunately for Ray there are significant barriers to exit as well – exit in this case referring to him rather than the business. The assets of the business are not easily put to alternative use. Alternative markets for the company's products are difficult to find. Above all in knowledge based, R&D intensive businesses such as NMS, these less tangible assets are very specific to the products, markets and customers that the firm currently has.

Johnson, Scholes and Whittington offer what is now regarded as the classic framework for choosing between strategic options or in their terms determining the 'success criteria' of suitability, acceptability and feasibility in choosing between options. Using their language – 'suitability is concerned with whether a strategy addresses the circumstances in which a company is operating (its environment, its resources/competences and the expectations of its stakeholders) – the strategic position or rationale of a strategy and whether it makes sense'. Alternative options can be ranked, decision trees drawn up or scenarios used to compare the relative suitability of each option in achieving a desired position. 'Acceptability is concerned with the expected performance outcomes of a strategy', where acceptability is measured against the rewards, risk and anticipated stakeholder reactions to the chosen option. 'Feasibility is concerned with whether the organisation has the resources and competencies to deliver a strategy' – and in particular the funding flows and resource deployment capabilities associated with each option.

The three identified exit strategies and an assessment of each option against the three success criteria is given below. Comparing the three options shows the inevitable uncertainties and trade-offs associated with having to make a choice. Ray will face an opportunity cost (the value of the best alternative option not chosen) whichever option he chooses. Such choices are particularly hard in the owner-managed business where there is a need to reconcile personal goals with the well-being of the business. Essentially Ray faces a difficult choice as to when he leaves the business and his degree of involvement in helping solve its current problems – is his presence a cost or benefit to the business?

Option 1: Turnaround and going public Suitability
This is clearly an ambitious long-term strategy, which will require significant time and effort to turn the company round. It is difficult to see who else could achieve this, other than Ray, and the retention of Ray's know-how may be crucial to success. Ray will need to address how he transfers that knowledge to key managers in the business.

Acceptability
This appears to be a relatively high risk and return option, which prolongs Ray's role in the business. The reactions of customers may be favourable, the reactions of the bank and venture capitalist less so, particularly as Ray has no track record in this area. He has no experience of floating a company on a stock exchange and of meeting shareholder expectations.

Feasibility
The willingness of the financial agencies to provide the necessary funding to support the recovery is open to question and may be a function of developing a coherent recovery plan including a phased withdrawal of Ray and the identification of able managers to succeed him.

Option 2: Outright sale
Suitability
This option depends on the ability to identify a suitable buyer able to put in the necessary resources to turn the company round. Selling out is not really a strategy for recovery, as it does not address the initial strategic problems identified in the analysis. It just transfers the problems to someone else.

Acceptability
This can be seen as a medium risk-low return option, but one which allows Ray to make a reasonably swift and clean exit from the business. The reaction of Ray's customers will be crucial to the success of this strategy. Given Ray's recognition of his management limitations in a mature company, banks and other financial stakeholders might find this approach very acceptable.

Feasibility
This depends on the ability to obtain a fair price for the business and for the new owners to have the necessary funds to carry out the necessary changes to NMS and the necessary resources to cope with Ray's departure from the firm. Failure to find a buyer may mean this is not the short-term solution that Ray is looking for. The (low) valuation of their companies is always an issue for entrepreneurs. Perhaps this is what was behind the protracted negotiations with a potential suitor in 2006?

Option 3: Friendly acquisition
Suitability
The support and resources of a large customer (or competitor) company may be just what NMS needs. Ray's expertise and technical knowledge could be useful to the new holding company and so he could therefore be retained in this business for an agreed length of time. This option should address the identified weaknesses regarding staff, systems and structure if the acquisition is properly implemented.

Acceptability
This is likely to be a medium risk and return strategy with any price premium for NMS dependent on the value placed on Ray's continued contribution. Its acceptability to Ray depends on his willingness to give up control. It is likely to find favour with the financial stakeholders. The problem may be Ray's ability to work in a corporate structure, particularly in the light of his declaration that an entrepreneur is "someone willing to work 18 hours a day for themselves.… to avoid working eight hours a day for someone else!"

Feasibility
Funding issues should not be a problem given the resources of the acquirer. The key problem will be in integrating Ray and the firm into a large company environment.

Clearly this is a complex set of options for Ray to consider, and it requires him to be clear about his personal goals and objectives and how far any strategy is either helped or hindered by his presence in the firm. Each option will have a different timescale for achieving Ray's goal of exiting from the business.

2 Context

The decline in the number of people taking the qualification appears to be a reflection of the maturity of the marketplace. The large pool of unqualified environmental managers and auditors that existed when the qualification was launched has now been exploited. There are now fewer candidates taking the examinations and fewer members joining the EMS. The organisation's response to this has been to look for international markets where it can promote the qualifications it currently offers. It hopes to find large pools of unqualified environmental managers and auditors in these markets.

The scenario suggests that EMS currently has relatively limited strategic ambitions. There is no evidence that EMS plans to develop new qualifications outside its current portfolio. Indeed, attempts to look at complementary qualifications (such as soil and water conservation) have been rejected by Council. Hence, expansion into new strategic business markets does not appear to be an option.

Strategy Development

(a) Internal development
Internal development takes place when strategies are developed by building on or developing the organisation's own capabilities. It is often termed organic growth. This is how EMS has operated up to now. The original certificates were developed by the founders of the Society. Since then, additional certificates have been added and the Diploma programme developed at the instigation of members and officers of the Society.

In many ways this type of organic growth is particularly suited to the configuration of the organisation, one where there is a risk-averse and cautious culture. The organic approach spreads cost and risk over time and growth is much easier to control and manage. However, growth can be slow and indeed, as in the case of EMS, may have ceased altogether. Growth is also restricted by the breadth of the organisation's capabilities. For example, EMS has not been able to develop (or indeed even consider developing) any products outside of its fairly restricted product range. Furthermore, although internal development may be a reasonable strategy for developing a home market it maybe an inappropriate strategy for breaking into new market places and territories. This is particularly true when, as it appears in the case of the EMS, internal resources have no previous experience of developing products in overseas markets.

In summary, internal growth has been the method of strategy development at EMS up to now, based on a strategic direction of consolidation and market penetration. There is no evidence that EMS is considering developing new products to arrest the fall in qualification numbers. However, the Board has suggested developing new markets for the current qualification range and India, China and Russia have been identified as potential targets. It seems unlikely that internal development will be an appropriate method of pursuing this strategic direction.

(b) Mergers and Acquisitions

A strategy of acquisition is one where one organisation (such as EMS) takes ownership of other existing organisations in the target countries. One of the most compelling reasons for acquisition is the speed it allows an organisation to enter a new product or market area. EMS might look to acquire organisations already offering certification in its target markets. These organisations would then become the mechanism for launching EMS qualifications into these markets. In addition, it is likely that these organisations will have qualifications that the EMS does not currently offer. These qualifications could then be offered, if appropriate,in EMS's home market. This arrangement would provide EMS with the opportunity to quickly offer its core competences into its target markets, as well as gaining new competencies which it could exploit at home.

However, acquisitions usually require considerable expenditure at some point in time and evidence suggests that there is a high risk that they will not deliver the returns that they promised. It is unlikely that the EMS will have enough money to fund such acquisitions and its status as a private limited entity means that it cannot currently access the markets to fund such growth. Any acquisitions will have to be funded from its cash reserves or from private equity investment groups. Furthermore, acquisitions also bring political and cultural issues which evidence suggests the organisation would have difficulty with. Under achievement in mergers and acquisitions often results from problems of cultural fit. This can be particularly problematic with international acquisitions, which is exactly the type of acquisition under consideration here. So, although acquisitions are a popular way of fuelling growth it is unlikely that EMS will have either the cash or the cultural will to pursue this method of strategy development. There is no evidence that EMS has any expertise in acquiring organisations in it home market and so such acquisitions overseas would be extremely risky.

(c) Strategic Alliances

A strategic alliance takes place when two or more organisations share resources and activities to pursue a particular strategy. This approach has become increasingly popular for a number of reasons. In the context of EMS it would allow the organisation to enter into a marketplace without the large financial outlay of acquiring a local organisation. Furthermore, it would avoid the cultural dislocation of either acquiring or merging with another organisation. The motive for the alliance would be co-specialisation with each partner concentrating on the activities that best match their capabilities. Johnson, Scholes and Whittington suggest that co-specialisation alliances "are used to enter new geographic markets where an organisation needs local knowledge and expertise". This fits the EMS requirement exactly.

The exact nature of the alliance would require much thought and indeed different types of alliance might be forged in the three markets targeted by EMS. A joint venture is where a new organisation is set up jointly owned by the parents. This is a formal alliance and will obviously take some time to establish. EMS will have to contribute cost and resources to the newly established company, but such costs and resources should be much less than those incurred in an acquisition. However, joint ventures take time to establish and it may be not be an option if EMS wants to quickly move into a target marketplace to speedily arrest its falling numbers. A licence agreement could be an alternative where EMS licenses the use of its qualification in the target market. This could be organised in a number of ways. For example, a local organisation could market the EMS qualification as its own and pay EMS a fee for each issued certificate and diploma. Alternatively, the qualification may be marketed by the local organisation as an EMS qualification and EMS pays this organisation a licence fee for every certificate and diploma it issues in that country. This requires less commitment from EMS but it is likely to bring in less financial returns, with less control over how the qualification is marketed. Furthermore, if the qualification is successful, there is the risk that the local organisation will develop its own alternative so that it gains all the income from the transaction, not just a percentage of the transaction fee.

At first sight, the strategic alliance appears very appropriate to EMS's current situation. The licensing approach is particularly attractive because it seems to offer very quick access to new markets without any great financial commitment and without any cultural upheaval within EMS itself. However, the uptake of the qualification is unpredictable and the marketing and promotion of the qualification is outside the control of EMS. EMS may find this difficult to accept. Furthermore, the EMS will only be receiving a fraction of the income and so it must ensure that this fraction is sufficient to fuel growth expectations and service the newly qualified members in other countries. Finally, there is often a paradox in organisations where internal development has been the strategic method adopted so far. An organisation used to internal development and control often finds it difficult to trust partners in an alliance. Yet trust and cooperation is probably the most important ingredient of making such strategic alliances work.

3 (a) Software quality is notoriously difficult to define, but at least four issues deserve consideration.

Conformity to requirements

This is concerned with the software performing business functions correctly. It does what the user expects it to do and does not do what it is not expected to do. This issue is about meeting expectations. The conformity to requirements might be measured by the number of change requests submitted immediately after the system has gone live. If the system performs to requirements then there should be very few change requests until the system has been in operation for some time. Evidence at CCT suggests that this is a major issue. These problems are highlighted by Tony Osunda. He states that "the delivered system did not work the way we wanted" and that "key areas of functionality were either wrong or missing altogether". The fact that changes were subsequently made for free indicates why margins are falling. Doing these would have significantly eroded into the projected profitability of the project.

Reliability

The software behaves consistently and reliably and so is available for the user. The reliability of software can be measured by availability and downtime. Indeed, reliability is often defined within service level agreements (SLAs). For example; the software must be available for 99% of the agreed service time, where service time is defined as 07.00 – 22.00, Monday to Friday. Reliability is relatively easy to measure because it concerns the availability of the software. There is no evidence at CCT that their software has reliability problems.

Usability

The ease of use of software is a major issue in software delivery and e-business development. The usability of software may be assessed in a number of ways. For example;

- By logging the nature and number of calls to a HELP desk. This should be relatively low if the software is easy to use.
- By observing users actually using the software and recording the problems and difficulties they encounter.
- By using questionnaires to ask users how easy they have found the system to use.

There is some evidence that CCT software has usability problems. Crispin Peters-Ward stated that "We found (the system) cumbersome to use."

Degree of excellence

The software should exhibit elements of good build, such as maintainability, flexibility and expandability. This software quality is about long-term design potential. This is quite difficult to measure. However, there are technical measures which allow the modularity of the software to be assessed. If the modularity of the software is low then the software is likely to be easy to maintain and test. There is evidence that the CCT software has long-term design problems. Amelia Platt comments that the software was not built "with expansion in mind. Also, it is difficult to know what some of the programs actually do, so making changes is a nightmare. Programmers make changes to program code without really knowing what the knock-on effect will be." There are now one hundred and thirty programmers in the company. It is unlikely that they all understand how the software has been constructed. Hence, there is ample opportunity for introducing faults into the system.

Software quality is extremely important to end users. Users expect systems to perform functions correctly and reliably. They expect systems to be easy to use. Failure to fulfil these expectations may lead to frustration with the product, inefficient use of systems and the under-performance of organisations. In the extreme it may lead to organisational collapse and, where safety-critical software fails, to loss of life. The elements of product quality (degree of excellence) may not be immediately obvious to an end user. However, high maintenance costs become very clear to organisations over time, as they increasingly consume a company's operational budget.

(b) The Capability Maturity Model Integration (CMMI) is a process improvement approach that provides organisations with the essential elements of effective processes. It can be used to guide process improvement across a project, a division, or an entire organisation. It has five levels of capability. Organisations are encouraged to move up the levels and to eventually achieve capability level 5. A successful appraisal at this level would assist CCT in delivering quality software as well as publicly demonstrating their competence to do so. Many customers mandate that suppliers should be at a certain level in the CMMI assessment.

Capability level 0 is where there is an incomplete process which is either not performed at all or is partially performed. One or more of the specific goals of the process area are not satisfied. There is no evidence of such a process at CCT. Capability Level 1 is defined as performed. A performed process is a process that satisfies all of the specific goals of a process area such as software development. At this level the processes are performed informally, without following a documented process description or plan. The rigour with which these practices are performed depends on the individuals managing and performing the work and the quality of the outcomes may vary considerably. Successful outcomes for an organisation operating at level 1 depend upon the heroic efforts of individuals. Carlos Theroux alludes to these days at CCT; "when we were smaller we could all dive in and solve the problems. We all used to stay over until we got the problem solved".

A capability level 2 process is characterized as a managed process. A managed process is a performed (capability level 1) process that is also planned and executed in accordance with a defined procedure. A critical distinction between a performed process and a managed process is the extent to which the process is actually managed! A managed process is planned (the plan may be part of a more encompassing plan) and the performance of the process is managed against the plan. Corrective actions are taken when the actual results and performance deviate significantly from the plan. A managed process achieves the objectives of the plan and is documented as a standard for consistent performance. Carlos Theroux has alluded to the introduction of a project management methodology and its adoption will assist CCT to achieve capability level 2.

A capability level 3 process is characterized as a "defined process." A defined process is a managed (capability level 2) process that is tailored from the organisation's set of standard processes according to the organisation's tailoring guidelines.

It contributes work products, measures, and other process-improvement information to the organisational process. A critical distinction between a managed process and a defined process is the scope of the process descriptions, standards, and procedures. In software terms, capability level 3 is achieved when a defined engineering process is in place so that the process of software development (not just its management) is consistent and standard. At this level of capability, the organisation is interested in deploying standard processes that are proven and that therefore take less time and money than continually writing and deploying new processes. Another critical distinction is that a defined process is described in more detail and performed more rigorously than a managed process. CCT does not appear to be at this level at the moment. It could be argued that the problems in requirements functionality highlighted by Tony Osunda would not happen in a defined process.

A capability level 4 process is characterized as a "quantitatively managed process." A quantitatively managed process is a defined (capability level 3) process that is controlled using statistical and other quantitative techniques. Quantitative objectives for quality and process performance are established and used as criteria in managing the process. The quality and process performance are understood in statistical terms and are managed throughout the life of the process. A critical distinction between a defined process and a quantitatively managed process is the predictability of the process performance. A defined process only provides qualitative predictability. Clearly, CCT is not at this level yet. However, statistical analysis of faults, perhaps using Six Sigma principles, could deliver important quality improvements. The measurement of quality is fundamental to this level. Hence, the organisation must consider some of the issues raised in the answer to part a) of this question.

A capability level 5 process is characterized as an "optimizing process." An optimizing process is a quantitatively managed (capability level 4) process that is changed and adapted to meet relevant current and projected business objectives. An optimizing process focuses on continually improving the process performance through both incremental and innovative technological improvements. A critical distinction between a quantitatively managed process and an optimizing process is that the optimizing process is continuously improved by addressing common causes of process variation. In a process that is optimized, common causes of process variation are addressed by changing that process. The process of continuous process improvement through quantitative feedback from the process itself is clearly not happening in CCT at present.

4 (a) A simple value chain of the primary activities of DRB is shown below.

Handling and storing inbound fully configured equipment Quality inspection	Re-branding of products Re-packaging of products	Customer collection Technician delivery and installation	Local advertising Web based enquiries	On-site technical support Back to base support
Inbound logistics	**Operations**	**Outbound Logistics**	**Marketing and sales**	**Service**

Comments about value might include:
Inbound logistics: Excellent quality assurance is required in inbound logistics. This is essential for pre-configured equipment where customers have high expectations of reliability. As well as contributing to customer satisfaction, high quality also reduces service costs.

Operations: This is a relatively small component in the DRB value chain and actually adds little value to the customer. It is also being undertaken in a relatively high cost country. DRB might wish to re-visit the current arrangement.

Outbound logistics: Customer feedback shows that this is greatly valued. Products can be picked up from stock and delivery and installation is provided if required. Most of the company's larger competitors cannot offer this service. However, it is unlikely that this value can be retained when DRB begins to increasingly supply outside the geographical region it is in.

Marketing and sales: This is very low-key at DRB and will have to be developed if the company is to deliver the proposed growth. The limited functionality of the web site offers little value to customers.

Service: Customer feedback shows that this is greatly valued. Most of the company's competitors cannot offer this level of service. They offer support from off-shore call centres and a returns policy that is both time consuming to undertake and slow in rectification. However, it is unlikely that this value can be retained when DRB begins to increasingly supply outside the geographical region it is in.

(b) DRB has already gained efficiencies by procuring products through the supplier's web-site. However, the web site has restricted functionality. When DRB places the order it is not informed of the expected delivery date until it receives the confirmation e-mail from ISAS. It is also unable to track the status of their order and so it is only when it receives a despatch email from ISAS that it knows that it is on its way. Because DRB is not the owner of the shipment, it is unable to track the delivery and so the physical arrival of the goods cannot be easily predicted. On occasions where shipments have appeared to have been lost, DRB has had to ask ISAS to track the shipment and report on its status. This has not been very satisfactory and the problem has been exacerbated by having two shippers involved. ISAS has not been able to reliably track the transhipment of goods from their shipper to EIF, the logistics company used to distribute their products in the country. Some shipments have been lost and it is time-consuming to track and follow-up shipments which are causing concern. Finally, because DRB has no long term contract with ISAS, it has to pay when it places the order through a credit card transaction on the ISAS website.

DRB has stated that it wishes to continue importing fully configured products. It is not interested in importing components and assembling them. It also does not wish to build or invest in assembly plants in other countries. However, it may wish to consider the following changes to its upstream supply chain:

- Seek to identify a wider range of suppliers and so trade through other sell-side web sites. Clearly there are costs associated with this. Suppliers have to be identified and evaluated and financial and trading arrangements have to be established. However, it removes the risk of single-sourcing and other suppliers may have better systems in place to support order and delivery tracking.
- Seek to identify suppliers who are willing and able to re-brand and package their products with DRB material at the production plant. This should reduce DRB costs as this is currently undertaken in a country where wage rates are high.
- Re-consider the decision not to negotiate long-term contracts with suppliers (including ISAS) and so explore the possibility of more favourable payment terms. DRB has avoided long-term contracts up to now. It may also not be possible to enter into such contracts if DRB begins to trade with a number of suppliers.
- Seek to identify suppliers (including ISAS) who are able to provide information about delivery dates prior to purchase and who are able to provide internet-based order tracking systems to their customers. This should allow much better planning.
- Consider replacing the two supplier shippers with a contracted logistics company which will collect the goods from the supplier and transport the goods directly to DRB. This should reduce physical transhipment problems and allow seamless monitoring of the progress of the order from despatch to arrival. It will also allow DRB to plan for the arrival of goods and to schedule its re-packaging.

DRB might also wish to consider two other procurement models; buy-side and the independent marketplace.

In the buy-side model DRB would use its web site to invite potential suppliers to bid for contract requirements posted on the site. This places the onus on suppliers to spend time completing details and making commitments. It should also attract a much wider range of suppliers than would have been possible through DRB searching sell-side sites for potential suppliers. Unfortunately, it is unlikely that DRB is large enough to host such a model. However, it may wish to prototype it to see if it is viable and whether it uncovers potential suppliers who have not been found in sell-side web sites searches.

In the independent marketplace model, DRB places its requirements on an intermediary web site. These are essentially B2B electronic marketplaces which allow, on the one hand, potential customers to search products being offered by suppliers and, on the other hand, customers to place their requirements and be contacted by potential suppliers. Such marketplaces promise greater supplier choice with reduced costs. They also provide an opportunity for aggregation where smaller organisations (such as DRB) can get together with companies that have the same requirement to place larger orders to gain cheaper prices and better purchasing terms. It is also likely that such marketplaces will increasingly offer algorithms that automatically match customers and suppliers, so reducing the search costs associated with the sell-side model. The independent marketplace model may be a useful approach for DRB. Many of the suppliers participating in these marketplaces are electronics companies.

(c) DRB's downstream supply chain is also very simple at the moment. It has a web-site that shows information about DRB products. Customers can make enquiries about the specification and availability of these products through an e-mail facility. Conventional marketing is undertaken through local advertising and buyers either collect their products or they are delivered and installed by a specialist group of technicians. DRB could tune its downstream supply chain by using many of the approaches mentioned in the previous section. For example:

- Developing the web site so that it not only shows products but also product availability. Customers would be able to place orders and pay for them securely over the web site. The site could be integrated with a logistics system so that orders and deliveries can be tracked by the customer. DRB must recognise that most of its competitors already have such systems. However, DRB will have to put a similar system in place to be able to support its growth plans.
- Participating in independent marketplace web sites as a supplier. DRB may also be able to exploit aggregation by combining with other suppliers in consortia to bid for large contracts.
- DRB may also consider participating in B2C marketplaces such as e-bay. Many organisations use this as their route to market for commodity products.

DRB may also wish to consider replacing its sales from stock approach with sales from order. In the current approach, DRB purchases products in advance and re-packages and stores these products before selling them to customers. This leads to very quick order fulfilment but high storage and financing costs. These costs will become greater if the planned growth occurs. DRB may wish to consider offering products on its website at a discount but with specified delivery terms. This would allow the company to supply to order rather than supply from stock.

1 **(a)** 1 mark for identifying an appropriate macro-environmental influence in each of the PESTEL areas – even if it is justifying the lack of influence. A further 4 marks are available for given credit to candidates who have extended their argument in selected areas of the framework. It must be accepted that each area of the PESTEL will have a differential effect. (10 marks).

(b) 1 mark for each relevant point made in the competitive analysis of NMS (up to a maximum of 12 marks) and 1 mark for each relevant point made in the financial analysis of NMS (up to a maximum of 9 marks). A further 4 professional marks are available for such aspects as the structure, presentation and logical flow of the answer. (25 marks)

(c) 1 mark for each relevant point up to a maximum of 5 marks for each of the three exit strategies. (15 marks)

(50 marks)

2 The question asks for principles and suitability.

1 mark for each relevant point up to a maximum of 8 marks for internal development. There is a maximum of 4 marks for points relating to principles. (8 marks)

1 mark for each relevant point up to a maximum of 8 marks for acquisitions. There is a maximum of 4 marks for points relating to principles. (8 marks)

1 mark for each relevant point up to a maximum of 9 marks for strategic alliances. There is a maximum of 5 marks for points relating to principles. (9 marks)

(25 marks)

3 **(a)** 1 mark for each relevant point up to a maximum of 5 marks for identifying and discussing software quality. 1 mark for each relevant point up to a maximum of 5 marks for identifying appropriate measures. (10 marks)

(b) 1 mark for each relevant point up to a maximum of 2 marks for introducing the CMMI concept. 1 mark for each relevant point up to a maximum of 2 marks for a description of each capability level (five levels)

1 mark for each relevant point up to a maximum 3 marks for applying CMMI to the CCT scenario. (15 marks)

(25 marks)

4 **(a)** 1 mark for each relevant point up to a maximum of 3 marks for the value chain
1 mark for each relevant point up to a maximum of 6 marks for the significance and value of the primary activities. (9 marks)

(b) 1 mark for each relevant point up to a maximum of 6 marks for identifying upstream changes.

1 mark for each relevant point up to a maximum of 4 marks for identifying how these changes address problems experienced by DRB. (10 marks)

(c) 1 mark for each relevant point up to a maximum of 6 marks for identifying upstream changes. (6 marks)

(25 marks)

Professional Pilot Paper – Options module

Advanced Financial Management

Time allowed

Reading and planning:	15 minutes
Writing:	3 hours

This paper is divided into two sections:

Section A – BOTH questions are compulsory and MUST be attempted

Section B – TWO questions ONLY to be attempted

Do NOT open this paper until instructed by the supervisor.
During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.
This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

Paper P4

Section A: BOTH questions are compulsory and MUST be attempted

1 You are the chief financial officer of Fly4000 a large company in the airline and travel business whose principal market base is in Europe and the Middle East. Its principal hub is a major Northern European airport and Fly4000 has a small holiday business through its partnership with a number of independent tour operators. It has a good reputation as a business carrier within its European market, earned through very high standards of punctuality and service. Following the recent disinvestment of associated interests and a joint venture, it has cash reserves of $860 million.

FliHi is a smaller airline which also has its centre of operations at the same airport as Fly4000. It has, since it was founded in 1988, developed a strong transatlantic business as well as a substantial position in the long and medium haul holiday market. In the year to 31 December 2005 its reported turnover was in $1.7 billion and its profit after tax for the financial year was $50 million. The company's net assets are $120 million and it has $150 million of long term loans on its balance sheet. It has recently expanded its fleet of wide bodied jets suitable for its expanding holiday business and has orders placed for the new Airbus 380 super-Jumbo to supplement its long haul fleet. FliHi has route licenses to New York and six other major US cities.

FliHi's cash flow statement for the current and preceding year is as follows:

FliHi Consolidated Cash Flow Statement (extract)
For the year ended 31 December 2005

	31 December 2005		31 December 2004	
	$m	$m	$m	$m
Net cash inflow from operating activities		210.0		95.0
Return on investment and servicing of finance				
Interest received	12.0		6.0	
Interest paid	(4.0)		(3.0)	
Interest element on finance leases	(6.5)		(4.0)	
		1.5		(1.0)
Taxation		(4.1)		(0.2)
Capital Expenditure		(120.2)		(75.0)
Acquisitions and disposals				
Proceeds from the sale of interest in joint ventures		10.0		15.0
Cash inflow before management of Liquid resources and financing		97.2		33.8
Management of liquid resources				
Decrease/(increase) in short term deposits		35.5		(32.2)
Financing				
Repayment of secured loans		(31.0)		(25.0)
Increase/(decrease) in cash for the year		101.7		(23.4)

There is no other airline of comparable size and business mix to Fly4000 although analysts regard Rover Airways as a useful comparator. The statement below contains market data relating to Rover Airways:

Key Fundamentals

Forward P/E*	11.00	Dividend Yield	0.00
Price to Book value of equity	1.25	1Yr Total Return (%)**	25.07
Price To Cash Flow	3.00	Beta**	2.00
1Yr Sales Growth	-1.67	1Yr EPS Growth	80.50

** Equity Market Cap £3bn

You also note the following:

The current risk-free rate is 4.5 per cent and the equity risk premium is estimated at 3.5 percent. The prevailing share price for Rover Airways is 290¢ per share and its P/E ratio is 10. The corporation tax rate for both companies is 30 per cent.

The gearing ratio for Rover Airways, expressed as total debt to total capital (debt plus equity), is 60 per cent and as total debt to equity is 150 per cent.

You may assume that:

1 FliHi has undertaken a consistent programme of reinvestment
2 The debt in both companies is not expected to be sensitive to market risk.

There has been considerable consolidation in the airline industry and you are advising your board of directors of Fly4000 on the value of FliHi as a potential target for acquisition. It is anticipated that over the longer term the domestic airline industry will settle down to a rate of growth in line with GDP growth in the European economy which stands at 4 per cent per annum (nominal). However, the current rates of growth for this company are likely to be sustained for the next five years before reverting to the GDP growth rate from the sixth year forward.

Required:

(a) Estimate the current cost of equity capital for FliHi using the Capital Asset Pricing Model, making notes on any assumptions that you have made. (9 marks)

(b) Estimate the expected growth rate of Flihi using the current rate of retention of free cash flow and your estimate of the required rate of return on equity for each of the next six years. Make notes on any assumptions you have made. (6 marks)

(c) Estimate the value of Flihi on the basis of its expected free cash flow to equity, explaining the limitations of the methods you have used. (7 marks)

(d) Write a brief report outlining the considerations your colleagues on the board of Fly4000 might bear in mind when contemplating this acquisition. (8 marks)

(30 marks)

2 You are the finance director of Sydonics Engineering and expect that a bid to build a new plant in Southern France may be accepted in three months time. If the contract is accepted, an immediate capital spend of €150million will be required in three months and the company will receive a €75million grant from the European Development Fund in nine months time. The current Euro/sterling exchange rate is EUR 0.6900 to the pound.

Three month and nine month Euro LIBOR is 2.76563 per cent and 3.05194 per cent respectively. The three and nine month sterling LIBOR is 4.62313 per cent and 4.73031 per cent respectively. You have decided to hedge the exchange rate risk by the purchase of EUR/STERLING at-the-money options which have a contract size of 100,000 Euros. The monthly volatility of the Euro against sterling is 6.35 per cent. At the current exchange rate, the project has a net present value of £25 million at the company's cost of capital of 8.5 per cent.

The board of directors are concerned about the use of derivatives in managing the firm's treasury operations. They argue that the diversity of the firm's interests in Europe, the UK and the United States means that such hedging transactions are unnecessary.

Required:

(a) Prepare a memorandum, to be considered at the next board meeting, which summarises the arguments for and against foreign currency risk hedging and recommends a general policy concerning the hedging of foreign exchange risk. (10 marks)
(Including 2 professional marks)

(b) Prepare a short report justifying your use of derivatives to minimise the firm's exposure to foreign exchange risk. Your report should contain:

(i) The likely option price for an at-the-money option, stating the circumstances in which the option would be exercised. You should use the Grabbe variant of the Black-Scholes model for both transactions, adjusted on the basis that deposits generate a rate of return of LIBOR. (10 marks)

(ii) A calculation of the number of contracts that would be required to eliminate the exchange rate risk and the cost of establishing a hedge to cover the likely foreign currency exposure. (4 marks)

(iii) A summary of the issues the board should bear in mind when reviewing a hedging proposal such as this, taking into account the limitations of the modelling methods employed and the balance of risk to which the firm will still be exposed to when the position is hedged. (6 marks)

(30 marks)

Section B: TWO questions ONLY to be attempted

3 The board of directors of Jonas Chemical Systems Limited has used payback for many years as an initial selection tool to identify projects for subsequent and more detailed analysis by its financial investment team. The firm's capital projects are characterised by relatively long investment periods and even longer recovery phases. Unfortunately, for a variety of reasons, the cash flows towards the end of each project tend to be very low or indeed sometimes negative. As the company's new chief financial officer (CFO), you are concerned about the use of payback in this context and would favour a more thorough pre-evaluation of each capital investment proposal before it is submitted for detailed planning and approval. You recognise that many board members like the provision of a payback figure as this, they argue, gives them a clear idea as to when the project can be expected to recover its initial capital investment.

All capital projects must be submitted to the board for initial approval before the financial investment team begins its detailed review. At the initial stage the board sees the project's summarised cash flows, a supporting business case and an assessment of the project payback and accounting rate of return.

A recent capital investment proposal, which has passed to the implementation stage after much discussion at board level, had summarised cash flows and other information as follows:

Distillation Plant at the Gulf Refining Centre

	Investment Phase		Recovery Phase	
	Cash flow (tax adjusted, nominal) $m	Cumulative Cash Flow $m	Cash flow (tax adjusted, nominal) $m	Cumulative Cash Flow $m
01 January 2006	(9.50)	(9.50)		
31 December 2006	(5.75)	(15.25)		
31 December 2007	(3.00)	(18.25)		
31 December 2008			4.5	(13.75)
31 December 2009			6.40	(7.35)
31 December 2010			7.25	(0.10)
31 December 2011			6.50	6.40
31 December 2012			5.50	11.90
31 December 2013			4.00	15.90
31 December 2014			(2.00)	13.90
31 December 2015			(5.00)	8.90

Cost of Capital	8%
Expected net present value ($m)	1.964
Net present value volatility ($m)	1.02
Internal rate of return	11.0%
Payback (years)	5.015

The normal financial rules are that a project should only be considered if it has a payback period of less than five years. In this case the project was passed to detail review by the financial investment team who, on your instruction, have undertaken a financial simulation of the project's net present value to generate the expected value and volatility as shown above. The board minute of the discussion relating to the project's preliminary approval was as follows:

31 May 2005 Agenda Item 6
New capital projects – preliminary approvals

Outline consideration was given to the construction of a new distillation facility at the Gulf Refining Centre which is regarded as a key strategic component of the company's manufacturing capability. The cash flow projections had been prepared in accordance with existing guidelines and there was some uncertainty with respect to capital build and future profitability. Mrs Chua (chief financial officer) had given approval for the project to come to the board given its strategic importance and the closeness of the payback estimate to the company's barrier for long term capital investment of five years. Mr Lazar (non-executive director) suggested that they would need more information about the impact of risk upon the project's outcome before giving final approval. Mr Bright (operations director) agreed but asked why the board needed to consider capital proposals twice. The board was of the view that what was needed was clearer information about each proposal and the risks to which they were exposed. The chair requested the CFO to provide a review of the company's capital approval procedures to include better assessment of the firm's financial exposure. The revised guidelines should include procedures for both the preliminary and final approval stages. Approved (Action CFO to report)

Required:

(a) **Prepare a paper for the next board meeting, recommending procedures for the assessment of capital investment projects. Your paper should make proposals about the involvement of the board at a preliminary stage and the information that should be provided to inform their decision. You should also provide an assessment of the alternative appraisal methods.** (8 marks)

(b) **Using the appraisal methods you have recommended in (a), prepare a paper outlining the case for the acceptance of the project to build a distillation facility at the Gulf plant with an assessment of the company's likely value at risk. You are not required to undertake an assessment of the impact of the project upon the firm's financial accounts.** (12 marks)
(Including 2 professional marks)

(20 marks)

4 You are the chief financial officer of a multinational company in the Do-It-Yourself (DIY) retail business based in the United States. Your company is considering a major expansion into the rapidly developing China market where one of your competitors has already established a presence with three stores, one in Beijing and two in Shanghai. After conducting local market research and a personal review, you are convinced that, although your competitor has successfully opened a new market in those cities, the demand is considerably greater than its ability to supply. Your overseas operations group report that they can open the appropriate supply chains and that, unlike the competition, you will be able to get a greater variety of goods onto the shelves and maintain supply at competitive prices.

Your assessment is that the company will need to raise the equivalent of $380 million of new finance over 10 years for this venture, of which $80 million could come from the company's existing liquid reserves. You have completed your review of the financial merits of the case and the project offers a rate of return in excess of 80 per cent. The company's current credit rating is assessed at AA–. Its total market capitalisation is $3.5bn, which includes a ten year syndicated loan of $0.5 billion due for retirement in three years. The balance of the firm's capital is in the form of common stock (ordinary shares) trading on the New York and Hong Kong markets.

You wish to undertake a preliminary review of the options for financing this project. Your assessment is that borrowing the money is a possibility but that the increase in gearing would drop your credit rating to A+. You believe that the likelihood of that happening is 60 per cent, with a further 40 per cent chance that the company's rating could fall to A. The company's existing weighted average cost of capital (tax adjusted at the company's average corporation tax rate of 30 per cent) is 6.8 per cent. The current nominal yield curve and credit spreads for the retail sector are shown below:

Exhibit 1: 30 year yield curve

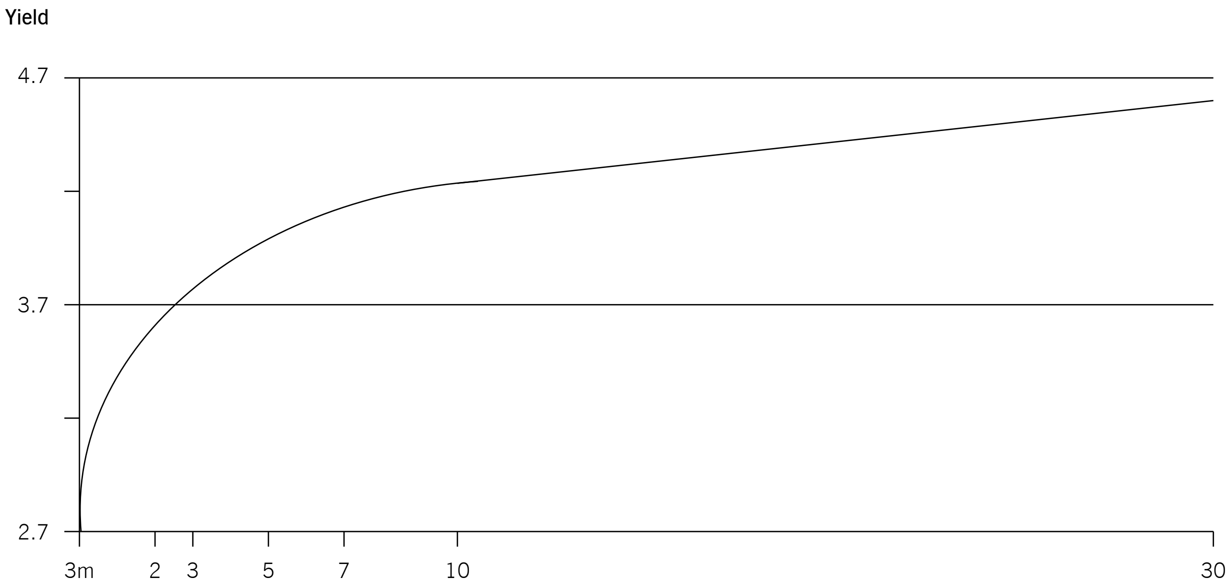


Exhibit 2: Yield spreads for retail sector (in basis points)

Rating	1yr	2yr	3yr	5yr	7yr	10yr	30yr
Aaa/AAA	4	8	12	18	20	30	50
Aa1/AA+	8	12	20	30	32	35	60
Aa2/AA	15	24	30	34	40	50	65
Aa3/AA–	24	35	40	45	54	56	78
A1/A+	28	37	44	55	60	70	82
A2/A	55	65	75	85	95	107	120

Required:

(a) Estimate the expected cost of capital for this project on the assumption that the additional finance is raised through a bond issue in the US market. (10 marks)

(b) Draft a brief report for the board which outlines the alternative sources of finance that are potentially available for this project. Include, in your report, a brief discussion of the advantages and disadvantages and the likely impact of each alternative source upon the firm's cost of capital. (10 marks)

(Including 2 professional marks)

(20 marks)

5 You have been appointed as the chief financial officer of a multimedia company which is financed by private equity. There is considerable public interest in the company and it continues a very rapid rate of growth under the leadership of its dynamic founder and chief executive officer, Martin Pickle. Martin Pickle owns over 30 per cent of the company's equity and has also loaned the business substantial sums to sustain its overseas development. The balance of the other investors consist of some small shareholdings held by current and past employees and the remainder is in the hands of a private equity company which is represented by two directors on the board.

You enjoy a substantial salary and package of other benefits. Your role description gives you overall responsibility to the board for the financial direction of the company, the management of its financial resources, direction and oversight of its internal control systems and responsibility for its risk management. After two months in the job you are called to a meeting with Martin Pickle and the company's non-executive chairman. In that time you have made significant progress in improving the financial controls of the business and the current year end, which is three weeks away, looks very promising. The company's underlying earnings growth promises to be in excess of 20 per cent and its cash generation is strong. The CEO tells you that he would like you to put together a plan to take the company to full listing as a first step to him undertaking a substantial reduction in his financial stake in the business. He tells you that this discussion must be confidential, as he expects that the market would react adversely to the news. However, he would like to see what could be done to make sure that the year end figures are as strong as possible. Given your performance, he also tell you that they would like to offer you a substantial incentive in the form of share options.

Required:

(a) Prepare a board paper, describing the procedure for obtaining a listing on an international stock exchange such as the London or New York Stock Exchange. (6 marks)

(b) Prepare a briefing note, itemising the advantages and disadvantages of such a step for a medium-sized company. (6 marks)
(Including 2 professional marks)

(c) Discuss any ethical considerations or concerns you may have concerning this proposed course of action. (8 marks)

(20 marks)

Formula Sheet

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1-T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i(E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_0(1+g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1-T)$$

The Fisher formula

$$(1+i) = (1+r)(1+h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1+h_c)}{(1+h_b)} \qquad F_0 = S_0 x \frac{(1+i_c)}{(1+i_b)}$$

The Black Scholes Option Pricing Model	The FOREX modified Black and Scholes option pricing model
$c=P_aN(d_1)-P_eN(d_2)e^{-rt}$ Where: $d_1=\dfrac{\ln(P_a/P_e)+(r+0.5s^2)t}{s\sqrt{t}}$ $d_2=d_1-s\sqrt{t}$	$c=e^{-rt}\ F_0N(d_1)-XN(d_2)$ Or $p=e^{-rt}\ XN(-d_2)-F_0N(-d_1)$ Where: $d_1=\dfrac{1n(F_0/X)+s^2T/2}{s\sqrt{T}}$ and $d_2=d_1-s\sqrt{T}$

The Put Call Parity relationship

$$p=c-P_a+P_ee^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·914	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·350	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2703	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d_i)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

End of Question Paper

Answers

1 (a) The cost of equity capital is derived from the Capital Asset Pricing Model but given this is an unquoted company a proxy must be taken for the company's beta and regeared to reflect the different financial risk exposure of Fly4000.

Ideally, regearing beta requires an estimate of the market gearing for both companies. In the absence of that the book gearing can be used. However, the presence of corporation tax means that we need the values for both the debt and equity in Rover Airways.

$$BV(equity) = \frac{\$3bn}{1.25} = \$2.4bn$$

$$Gearing = \frac{BV(debt)}{BV(equity)}$$

$$BV(debt) = BV(equity)xgearing$$

$$BV(debt) = \$2.4bn\text{x}1.5 = \$3.6bn$$

Using the formula for the asset beta where debt carries zero market risk:

$$\beta_A = \beta_e x(1–W_d)$$

where

$$W_d = \frac{BV_d x(1–T)}{BV_e+BV_d x(1–T)}$$

$$W_d = \frac{3.6\text{x}(0.7)}{2.4+3.6\text{x}(0.7)}$$

$$W_d = 0.5122$$

$$\beta_A = 2.0\text{x}(1–0.5122)$$

$$\beta_A = 0.9756$$

This is the asset beta for Rover Airways. We can now regear the beta to that for FliHI as follows:

Calculate the tax adjusted gearing ratio for FliHi.

$$W_d = \frac{BV_d x(1–T)}{BV_e+BV_d x(1–T)}$$

$$W_d = \frac{150\text{x}(0.7)}{120+150\text{x}(0.7)}$$

$$W_d = 0.4667$$

$$\beta_e = \frac{\beta_a}{(1–W_d)}$$

$$\beta_e = \frac{0.9756}{(1–0.4667)}$$

$$\beta_e = 1.8294$$

This is the estimated equity beta for FliHi which, when applied to the CAPM, gives an expected rate of return as follows:

$$E(r_e) = R_F+\beta_e xERP$$
$$E(r_e) = 0.045+1.8294\text{x}0.035$$
$$E(r_e) = 0.045+1.8294\text{x}0.035$$
$$E(r_e) = 0.1090(=10.90\%)$$

The equity cost of capital for FliHi is therefore approximately 10.90 per cent.

The modelling of the equity cost of capital has embedded within it the assumptions implicit in the CAPM that:
- Investors are mean variance efficient
- Markets are frictionless
- Expectations are homogenous and,
- There is a risk free asset

However, of more practical significance we have also assumed that:

- The underlying exposure to market risk is the same for both companies (this is questionable given the differences in the markets in which they operate).
- That the book gearing ratio is a reasonable approximation to the market gearing ratio. The use of book values, can seriously distort the cost of capital that is calculated converting it into a measure of the average cost of capital in the firm's historical gearing ratio rather than in the ratio of the current capitalised values of the firm's equity and debt.
- That FliHi Ltd does not carry a size and default premium on its cost of capital. Default and size premia can be included through the use of such variants on the standard CAPM as the Fama and French 3 factor model which incorporates these elements of risk.

(b) Gordon's approximation requires a retention ratio which can be derived from the cash flow statement. The free cash flow to equity (before reinvestment) is defined as operating cash flow less interest and tax:

For 2005 the FCFE is as follows:

FCFE = operating cash flow – net interest paid – tax
FCFE ($m) = 210 + 1.5 – 4.1 = $207.4 million

In the current year $120.2m was reinvested. This implies a retention ratio (b) of:

$$b = \frac{reinvestment}{FCFE}$$

$$b = \frac{120.2}{207.4}$$

$$b = 0.58$$

Gordon's approximation was originally developed to measure the growth in earnings assuming a given retention ratio and rate of return. We can apply the same logic to the free cash flow model but here we are looking at the rate of cash generation by the business on new capital investment. The current rate of return is, in principle, the internal rate of return on the current business portfolio. If we assume that the business is highly competitive then the internal rate of return will be close to the company's equity cost of capital. Growth is therefore expected to be:

$g = bxr_e$
$g = 0.58x0.1090$
$g = 0.06322(=6.322\%)$

If we use the company's current rate of return on equity from the accounts we would have:

$$ROE = \frac{\text{net profit}}{\text{equity employed (net assets)}}$$

$$ROE = \frac{50}{120} = 42\%$$

This would suggest a rate of growth of 24.2 per cent which is unlikely in this industry.

On the basis of a growth rate of 6.322 per cent and given that the year six growth rate and forward will be 4 per cent, the pattern of growth we anticipate is therefore:

Year	**1**	**2**	**3**	**4**	**5**	**6**
Growth rate	6.322%	6.322%	6.322%	6.322%	6.322%	4.00%

The assumptions here are embedded within the method of measuring growth. Gordon's growth approximation will give the next year value for the FCFE for the business on the assumption that the cost of capital is achieved and no more. We have also assumed that the current figures for cash generation and reinvestment are typical and likely to be replicated over the near term. In this context we would note the significant increase in operating cash flow from 2004 and question whether this was sustainable.

(c) Using the free cash flow to equity net of reinvestment we have the free cash flow which is, in principle, distributable. We build a valuation model expanding this free cash flow through the next five years. From year six forward the rate of growth is a perpetuity and we use the free cash flow analogue of the dividend growth model to estimate the value at year six.

Step 1: take the growth rates as projected and estimate the future free cash flow to equity taking ($210m – $120.2m=$87.2m) as the starting point.
Step 2 discount these projected values at the cost of equity capital (10.9%) to give a present value of $384.89million.
Step 3 using the formula:

$$V_e = \frac{FCFE_0(1+g)}{r_e - g}$$

Calculate the value of the growing perpetuity at the end of year 6 (note the timing of the year is important) using the expected FCFE in year 5. This gives a value at year 5 of $1,785.73.

Step 4: discount this at 10.9 per cent to give a present value of the residual term of $1,064.53

Step 5: add the two present values to give a valuation of the firm's equity at $1,449.42 million

Year		2006	2007	2008	2009	2010	2011
Growth		6.32%	6.32%	6.32%	6.32%	6.32%	4.00%
FCFE (2005)=$87.2m		92.71	98.57	104.81	111.43	118.48	
Discount at 10.9 per cent		83.60	80.15	76.84	73.67	70.63	
PV of year 1–6		$384.89					
PV of perpetuity at 2011						$1,785.73	
PV of perpetuity at 2005	$1,064.53						
Present value of the firm's equity	$1,449.42						

The limitations of the method is that we assume:

- The current operating cash flows are sustainable
- The constant patterns of growth of operating cash flow will be achieved as specified.
- The rate of return required by investors is constant throughout the life of the business
- The business has an indefinite life beyond 2011.

These assumptions are unlikely to hold in practice and it should be noted that where the rate of growth (4%) is relatively low compared with the cost of equity that we would not expect the perpetuity to be a good approximation of residual value. It might be better to seek a likely break up value from the accounts as the residual value of the business. If we take the company's net asset figure and extrapolate forward at the rate of growth as shown above we obtain a figure of $169.55 million in 2011 which has a present value of $91.14 million. This would put a value on the business of $476.03 million. This incidentally gives a closer approximation to the market valuation if we apply the Rover Airlines P/E ratio to FliHi's net profit figure:

Value = benchmark P/E x FliHi Earnings
= 11.0 x $50million
= $550 million

(d) To whomsoever it may concern:

The proposed acquisition of FliHi represents a substantial capital investment for your airline. However, there are a number of issues which you might wish to consider before making a bid. These issues I have separated into synergies, risk exposure, future options, financing and valuation.

Synergies: From the perspective of your respective markets there would appear to be considerable advantage in integration. From the synergistic perspective these can be categorised as:

Revenue synergies: is there likely to be an enhancement in your ability to capture market share in a way that will add shareholder value. Simply acquiring the business as it stands will not be sufficient as investors can achieve the same at lower cost by diversification. Synergies only arise if a market opportunity presents itself which would not exist if both firms remain independent. One example would be where the domestic and European service can be used as a feeder system for an expanded long haul business from your principal airport and centre of operations.

Cost synergies: are there opportunities to save cost through more efficient operations? Economies of scale and scope are available in the airline business in the areas of in-flight catering, fuel supplies, maintenance and ticketing. The larger fleet size would also present operational opportunities.

Financial synergies: would the company have greater opportunities in the domestic and international capital market to acquire finance at more favourable rates and under better conditions.

Risk exposure: the larger operation would not necessarily improve the firm's exposure to market risk and indeed is likely to leave it unchanged as we would expect the underlying asset beta of both firms to be the same. There are a number of other risk areas that could be improved: operational risk may be mitigated by the firm's increased ability to hedge its operations (see the notes on the real options available below). Other risk effects include: economic, political, transactions and translation. Some of these are minimised (transactions) largely because your business is principally in the domestic market although this may change if you decide, for example, to develop your European network as a feeder system to your hub.

Future options: an acquisition of this type can create real options to expand, redeploy and exchange resources which add value to the proposition not easily captured with conventional valuation procedures. A real option is a claim upon some future course of action which can be exercised at your discretion. The availability of the new Airbus 380 offers potential both within the long haul business but also to medium haul holiday destinations at peak seasons. Access to your fleet of short to medium range aircraft offers the possibility of opening the European market to your long haul business. When and how you exercise these real options depends on circumstances at the time but paradoxically the more uncertain the underlying business the greater the value that attaches to this flexibility.

Financing: an acquisition of this type would require substantial extra financing. FlHi would appear to have a high level of off balance sheet value partly because of the scale of their operational leasing of aircraft but more significantly because of their business name and the quality of their operations. A substantial sum is likely to be paid for the goodwill of this business which suggests that this may not be a proposition that would be attractive to the debt market. Your own substantial cash reserves and the level of retained earnings suggest that this may be the route to financing this acquisition through a cash offer plus shares.

Valuation: we estimate the value of FliHi based upon its current cash flow generation to be of the order of $1.450 billion. Using market multiples a lower figure of $550million is obtained. The key point of this valuation process is to determine the lowest likely figure that the owners of FliHi would be prepared to accept. Our judgement is that the figure is likely to be closer to the upper end of this range. The free cash flow model relies upon our best forecast of future cash flow and reinvestment within the business. We believe that the owners of FliHi would have access to similar advice. The key question now to resolve is what would be the value of FliHi to your company. This has most of the characteristics of a type 2 acquisitions where the financial risk of the business is likely to be disturbed. For this reason we would need to value your current business using available market data and revalue it on the basis that the bid goes ahead using your preferred financing package. The potential increase in the value of your firm will reveal the potential control premium at any proposed offer price that may be decided upon.

2 (a) Sydonics Engineering
Memorandum

Our FOREX risk exposure is primarily driven by our European and US business and the variability of the Sterling/Euro and Sterling/Dollar exchange rates. The volatilities of both rates are of the order of 20 per cent (annualised) which indicates significant Value at Risk in any forward commitment to either currency. There are arguments for and against the use of derivative contracts to manage this transactions risk exposure.

In principal, nothing is added to the value of the firm if we attempt to do something which the investors can easily achieve, possibly, at lower cost. If the capital markets are perfect then investors should be indifferent to firm specific risk (which they can diversify away) and will only be concerned about the market driven risks as reflected in the firm's beta value. Arguably investors can diversify away the forex risk exposure within their portfolio much more efficiently and at lower cost than the company can through hedging. Hedging also brings costs: there are the direct costs of the treasury management function and the indirect costs of developing the in-house expertise required to assess hedging alternatives. There are also compliance costs in that any imperfect hedging agreement must be valued and shown in the accounts. Finally, hedging through derivative contracts can be avoided by the creation of internal hedging arrangements whereby finance is raised in the country of operations and hence borrowing costs are currency matched with the revenue streams.

On the other hand, the market perfection argument can be turned on its head. In as far as hedging is a means of reducing the firm's exposure to exchange rate volatility (a market wide phenomenon), then its impact will be to reduce the firm's beta and thus its cost of capital. This is a general argument for hedging but does not necessarily imply that we should use the derivative markets to manage our exposure to exchange rate risk. The empirical evidence on practice in industry is surprisingly sparse although Geczy, Minton and Schrand, (1997) found that 41 per cent of their sample of 370 US firms actively used derivative instruments to manage their forex risk. The benefits of hedging through the use of derivatives is that, with care, risk exposure can be tightly controlled although the use of exchange traded derivatives still leaves a residual 'basis risk' because of differences between the closeout rates and the underlying rates of exchange. Basis risk can be avoided through the use of OTC agreements wherever possible.

Hedging FOREX risk using derivatives can be expensive especially, as in this case, when the exposure is uncertain. Where the exposure is certain the use of futures or forward contracts can eliminate a large element of uncertainty at much lower cost. Any policy must therefore address the following issues:
- What is the magnitude of the risk exposure (in this case the very high volatility and long term exposure creates a very high hedging cost). Value at Risk (VaR) may be an appropriate method for measuring the likely financial exposure.
- The materiality of the exposure in terms of the magnitude of the sums involved.
- To what extent can the risk be mitigated by matching agreements (borrowing in the counter currency to mitigate CAPEX for example)?
- To what extent has the exposure crystallised? If it is uncertain FOREX options allow the hedging of the downside risk but at a high cost.

A policy would then lay down the principles that should be followed to cover the following:
- Risk assessment – an assessment of the likelihood and impact of any given risk upon the financial position of the firm. Derivative positions can be highly geared and the firm may be exposed to very high liabilities under certain exchange rate and/or interest rate conditions. It is recommended that derivatives should only be used for the management of specific risks and that no speculative or uncovered position should be taken.
- Cost of hedging – measured not only in terms of the direct costs involved but also in the use of scarce management time in establishing the positions and operating the internal control procedures appropriate where derivatives are used as a means of hedging risk. It is recommended that hedging costs should be minimised to an agreed percentage of the Value at Risk through the unhedged position.
- Contract and approval procedures – where OTC products are purchased and specific contracts are raised then the firm needs to establish policies with respect to the legal aspects of the contracting process. With both OTC and exchange traded products the firm should also establish an approval process with clear lines of responsibility and sign off on contracts up to and including board level. It is recommended that the board appoint a risk management committee to review and monitor all hedging contracts where the Value at Risk is in excess of an agreed amount.
- Hedge monitoring – policy needs to be established as to the monitoring of derivative positions and the conditions under which any given position will be reversed. It is recommended that the risk management committee actively monitor all open positions.

(b) **This part of the question focuses on the use of options for foreign exchange hedging and deploys the Grabbe (1983) variant of the Black Scholes model.**

The analytics for the question are shown in the tables below:

The price of the 'at the money' options are as follows:

	3 months	**9 months**
Sterling Euro Spot	0.6900	0.6900
Sterling Euro (indirect)	1.4493	1.4493
Euro Libor	2.7656	3.0519
Sterling Libor	4.6231	4.7303
Sterling Euro forward (indirect)	1.4426	1.4317
Sterling Euro forward (direct)	0.6932	0.6985
Annual volatility of £/Euro	0.2200	0.2200
D1	0.0968	0.1595
D2	-0.0132	-0.0310
N(d1)	0.5386	0.4367
N(d2)	0.4948	0.5124
3 month call and 9 month put price (pence per Euro)	3.1581	4.6853
(ie the price of a call or put to buy or sell one Euro at spot		
Contract value (euro equivalent)	3158	4685

The values for d_1 and d_2 have been calculated as follows:

$$d_1 = \frac{\left(\ln\left(\frac{F}{S}\right) + \sigma^2 \frac{T}{2}\right)}{\sigma\sqrt{T}}$$

$$d_1 = \frac{\left(\ln\left(\frac{0.6932}{0.6900}\right) + 0.22^2 \frac{0.25}{2}\right)}{0.22\sqrt{0.25}}$$

$d_1 = 0.0968$

$d_2 = d_1 - \sigma\sqrt{T}$

$d_2 = 0.0968 - 0.22\sqrt{0.25}$

$d_2 = -0.0132$

Where F and S are the forward and spot rates respectively (note the forward must have the same maturity as the option), σ is the volatility, T is the time to maturity.

$N(d_1)$ and $N(d_2)$ are derived from the supplied tables for the normal density function for situations where $N(x) \geq 0$ and $N(x) \leq 0$.

The value of the currency call and the currency put are as follows:

$c = e^{-rT}\,[FN(d_1) - SN(d_2)]$

$c = e^{-0.046231 \times 0.25}\,[0.6932 \times 0.5386 - 0.6900 \times 0.4948]$

$c = 3.1581\,pence$

and

$p = e^{-rT}\,[SN(-d_2) - FN(-d_1)]$

$p = e^{-0.047303 \times 0.75}\,[0.6900 \times 0.5124 - 0.6985 \times 0.4367]$

$p = 4.6853\,pence$

The call should be exercised if the exchange rate rises above 0.6900 (thus making the sterling equivalent more expensive) and the nine month put should be exercised if the spot should be below 0.6900 at the exercise date.

The key points here are to note that the rates into the formula must all be direct, the volatility and interest rates are employed on an annual basis (they have been quoted as such in the question).

Candidates should also be aware of the money market conventions for quoting exchange rates that the base currency is shown first and the counter currency second. They should be sufficiently familiar with the relative values of the principal currencies to identify whether the quote is direct to indirect.

(iii) The hedge ratio (N(d1) and (N(-d1)) reveals the inverse of the number of option contracts we require to hedge a one euro exposure. Therefore the number of contracts we will require to hedge the exposures are as follows:

	3 months	9 months
Number of contracts	2,785	3,435
Cost of hedge	8,795,723	16,094,798
As percentage of value	0.058638	0.214597

(iv) The issues to be borne in mind are:
- Hedging with options eliminates downside risk (unlike futures) and are particularly useful when the exposure is uncertain.
- The cost of this type of hedge can be very high (especially for the long dated put) although the company may wish to reduce the cost by purchasing out of the money options. This will not eliminate the downside risk completely but will allow them to hedge to a known exposure.
- An alternative approach would be to hedge the three month exposure which is where the option is most valuable given the uncertainty over whether the bid will be accepted and then, if it is accepted, to enter into a future contract at that date to lock in the prevailing spot rate. Alternatively, purchasing the put option may be held back until the contract is won.
- Given the set contract sizes it is not possible to create a perfect hedge. The position would need continual monitoring and adjustment to offset gamma risk which is likely to be high for near-the-money options.
- There is timing risk given that currency options are quoted as Europeans. Early sale of the option if the requirement materialises early will create basis risk, if the requirement materialises late the residual time delay will be unhedged.

3 **(a)** Board Paper Presenting Proposed Procedures for Large CAPEX.

This paper proposes revised guidelines for the Board approval of large (in excess of $10,000) capital investment projects. The current two stage process of preliminary and final approval serves an important role in ensuring that any initial concerns of the Board in terms of strategic fit and risk are brought to the attention of the Financial Appraisal Team. The two stage process would consider:

Stage 1:
Business proposal including assessment of strategic requirement, business fit and identified risks.

Outline financial appraisal to include capital requirement, mode of financing, expected net present value, modified internal rate of return and project duration.

It is recommended that conventional payback is dropped because it ignores the cost of finance and the magnitude of post payback cash flows. Duration is recommended as this measures the time required to recover half of the project value.

Stage 2:
- A proposed business plan must be presented giving the business case with an assessment of strategic benefits, risks, finalised capital spend and capital source.
- A value impact assessment giving an NPV calculation supported by a calculation of the project value at risk. The net present value of the project represents our best estimate of the likely impact of the investment on the value of the firm. This is the key statistic from the capital market perspective in that, unless we are assured that the project NPV is positive, the investment will reduce and not enhance the value of the firm. This net present value calculation should be supported by a modified internal rate of return which measures the additional economic return of the project over the firm's cost of capital where intermediate cash flows are reinvested at that cost of capital. In a highly competitive business the reinvestment assumption implicit in the MIRR is more realistic that that assumed with IRR where intermediate cash flows are assumed to be reinvested at the IRR. This may be satisfactory for near-the-money projects but is far less satisfactory for projects which offer high levels of value addition to the firm.
- An accounting impact assessment including the differential rate of return on capital employed and a short term liquidity assessment. Although positive NPV projects are value enhancing they may not do so in ways that are readily apparent in the financial reports. To manage investor expectations effectively the firm needs to be aware of the impact of the project on the firm's reported profitability and this is most accurately reflected by the differential rate of return measure. Accounting rate of return as normally calculated does not examine the impact of the project on the financial position of the firm but is restricted to the rate of return the investment offers on the average capital employed.
- An assessment of the project duration. This project, for example, reveals a duration of 4.46 years which is the mean time over which half of the project value is recovered. This is more useful than the other liquidity based measures especially when used as a relative as opposed to an absolute measure of the cash recovery. Cash recovery assumes that the future project cash flows are achieved at a constant rate over the life of the project.

(b) The proposed business case concludes that this is a key strategic investment for the firm to maintain operating capacity at the Gulf Plant. The financial assessment is as detailed above (excluding an assessment of the impact of the project on the financial reports of the firm).

(i) The net present value of this project is calculated using a discount rate of 8 per cent and gives a value of $1.964 million. The volatility attaching to the net present value of $1.02 million indicates that there is (z) standard deviations between the expected net present value and zero as follows:

$$z = \frac{1.964 – 0}{1.02} = 1.9255$$

This suggests that this project has a 97.3 per cent probability that it will have a positive net present value or conversely a 2.7 per cent probability of a negative net present value (these probabilities are taken from the normal density function tables supplied).

The project value at risk relies upon an assessment of the number of years that the project cash flow is at risk (10), the annual volatility and the confidence level required by the firm. The formula for project VaR is:

$$\text{projectVaR} = N(0.95)s\sqrt{T}$$
$$\text{projectVaR} = 1.645 \text{x} 1.02 \text{x} 3.162 = \$5.3\text{million}$$

This assumes a 95 per cent confidence level, at 99 per cent the project VaR is $7.51 million. This value reflects the fact that the capital invested is at risk for ten years and assumes that the volatility of the project is fairly represented by the volatility of its net present value.

(ii) Project Return

The internal rate of return is shown as 11.01 per cent. The Modified Internal Rate of Return is calculated by (i) projecting forward the cash flows in the recovery stage of the project at 8 per cent to future value of $41.798 million and (ii) discounting back the investment phase cash flows to give a present value of the investment of $17.396 million.

The Modified Internal Rate of Return is therefore:

$$\text{MIRR} = \sqrt[10]{\frac{41.798}{17.396}} - 1$$
$$\text{MIRR} = 9.16\%$$

This rate suggests that the margin on the cost of capital is rather small with only a 1.16 per cent premium for the strategic and competitive advantage implied by this project.

(iii) Project Liquidity

With a present value of the recovery phase of $19.6931 million and of the investment phase of $17.3961 million this suggests that the project will have a recovery period of:

$$\textit{recovery} = 2 + \frac{17.396}{19.361} \text{ x } 8 = 9.188 \textit{ years}$$

In practice the actual recovery is shorter than this because the expected cash in flows occur earlier rather than later during the recovery phase of the project.

The project duration is calculated by multiplying the proportion of cash recovered in each year (discounted recovery cash flow/present value of the recovery phase) by the relevant year number from project commencement. The sum of the weighted years gives the project duration.

Year		**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Discounted cash flow (recovery) ($m)		3.5722	4.7042	4.9342	4.0961	3.2092	2.1611	-1.0005	-2.316
Present value of recovery phase	19.3606								
duration of recovery phase									
proportion of CF recovered		0.1845	0.2430	0.2549	0.2116	0.1658	0.1116	-0.0517	-0.1196
weighted years		0.5535	0.9719	1.2743	1.2694	1.1603	0.8930	-0.4651	-1.1962
project duration (Years)	4.46								

The project duration reveals that the project is more highly cash generative in the early years notwithstanding the two year investment phase.

In summary, the analysis confirms that this project if financially viable, it will be value adding to the firm although there is substantial value at risk given the volatility of the net present value quoted. In terms of return the premium over the firm's hurdle rate is small at 1.16 per cent and any significant deterioration in the firms cost of capital would be very damaging to the value of this project. The liquidity statistics reveal that the bulk of the project's cash returns are promised in the early part of the recovery phase and that half the value invested in the project should be recovered by year five. Taking this into account acceptance is recommended to the board.

4 **(a)** Calculation of the expected WACC

A preliminary view suggests that the increased cost of debt is more than offset by the impact of the tax shield. The steps in the calculation are to estimate the cost of debt before and after the new issue. The existing cost of equity is calculated from the WACC and the ungeared equity cost calculated using M&M. The equity is then regeared to the new level assuming the higher level of gearing but not assuming any increase in the cost of debt through default or term structure. We then use the increased cost of debt to calculate the revised WACC. The analytics are as below:

Current WACC	**6.80%**			
	D/E	**D/(D+E)**		
Current gearing	0.1667	0.1429		
New gearing	0.2667	0.2105		
		risk free	**spread**	**Total**
Current yield on debt		0.03450	0.00400	0.03850
New yield on debt	3 years	0.03450	0.00440	0.03890
spread = 0.6x70 basis points (bp) + 0.4x107bp = 84.8bp	10 years	0.04200	0.00848	0.05048
Combined rate	**MVd**	**Rd**		
market value of 3 year debt	0.5	0.03890	0.02431	
market value of new debt	0.3	0.05048	0.01893	
Total market value of debt and combined rate	0.8		0.04324	
Existing cost of equity	7.48%			
Calculate ungeared cost of equity	7.11%			
Calculate regeared cost of equity (keeping cost of debt constant)	7.72%			
Calculate new weighted average cost of capital	6.73%			

The existing cost of equity is calculated by rearranging the WACC as follows:

$$r_e = \frac{wacc - w_d r_d (1-T)}{(1-w_d)}$$

$$r_e = \frac{6.8\% - 0.1429x3.85\%x0.7}{(1-0.1429)}$$

$$r_e = 7.48\%$$

The ungeared equity cost of capital (r_e^1) is discovered from Modigliani and Miller Proposition 2:

$$r_e = r_e^1 + (r_e^1 - r_d)\frac{D}{E}(1-T)$$

Rearranging and substituting:

$$r_e = r_e^1 + r_e^1 \frac{D}{E}(1-T) - r_d \frac{D}{E}(1-T)$$

$$r_e^1 = \frac{r_e + r_d \frac{D}{E}(1-T)}{1 + \frac{D}{E}(1-T)}$$

$$r_e^1 = \frac{7.48\% + 3.85\%x0.1667x0.7}{1+0.1667x0.7}$$

$$r_e^1 = 7.11\%$$

The regeared cost of equity capital assuming that the cost of debt remains unchanged is given by again using proposition 2:

$$r_e = r_e^1 + (r_e^1 - r_d)\frac{D}{E}(1-T)$$

$$r_e = 7.11\% + (7.11\% - 3.850\%)x0.2667x0.7$$

$$r_e = 7.72\%$$

This assumes that the equity cost of capital is unaffected by the change in the level of default risk. This is a reasonable assumption at modest levels of gearing but would not be expected to hold at very high gearing levels.

Finally the new weighted average costs of capital is calculated using the revised equity cost and the revised debt cost as follows:

$$wacc=(1-w_d)r_e+w_d r_d(1-T)$$

$$wacc=(1-0.2105)x7.72\%+0.2105x4.324\%x0.7$$

$$wacc=6.73\%$$

This demonstrates a less than 10 basis point fall in the weighted average cost of capital.

(b) Paper on the alternative sources of capital

For a company in this position the following sources of finance suggest themselves:

Sale and lease back of existing assets
US debt financed through a further bond issue
Debt raised on the Chinese market
Equity finance by rights or new issue

The choice of financing is partly down to the cost and availability of the various sources and partly down to the method the company chooses to hedge its FOREX exposure.

If we ignore foreign exchange considerations for a moment, pecking order theory suggests that debt should be preferred to equity and the weighted average cost of capital calculation suggests that the firm should increase its gearing to capture further tax shield effects which are not currently being offset by increased default risk (static trade off theory). However, issue costs may be expensive and the company may seek to raise finance by sale and lease back of existing assets. There are implications for reporting under FASB 13 depending upon whether the leases are financing or operating leases. Raising $300 million of debt by a bond issue is at the low end of the scale for new debt issues of this type although it may be possible that a syndicated issue where a number of companies of similar credit rating are joined by a lead bank could be arranged. It is to be expected that the costs of the issue will be high in terms of commissions and underwriting fees.

Raising finance directly in China has been eased considerably with recent changes in the rules of the Chinese Securities Regulatory Commission opening better access of foreign firms to the Chinese bond and equity markets. However, the entry of China into the WTO in 2002 is still feeding through the economy as tariff barriers and other constraints are removed. This process of liberalisation is likely to continue accelerating although, as with any emerging market, there are risks associated with inward investment and capital entry. These risks may be sufficient to raise the risk assessment against this company and as a result the benign implications of increased gearing outlined above may not be realised in practice.

The problem of hedging the foreign exchange exposure can be partly solved by borrowing directly in China and using the income flows from the new venture to finance the interest charges and capital repayments. Because the borrowing and the income flows are in the same currency transactions exposure is largely eliminated although any appreciation in the Chinese currency would increase the dollar value of the translated debt in the firm's balance sheet. If the borrowing is used to purchase matching assets in China then the translation risk is mitigated along with the transaction risk. However, if the assets are not owned but leased or rented then translation effects will impact upon the balance sheet and may be misread by the market. A second alternative would be to raise finance in the US and then engage in a currency swap for a ten year term. The effect of this would be to lock in the current exchange rate for the duration of the borrowing. However, finding a swap of this type would entail the services of a financial institution specialising in bringing appropriate counter-parties together. Such derivative arrangements have been mis-sold in the past with disastrous leveraging effects built into the contract.

5 (a) Normally, obtaining a listing consists of three steps: legal, regulatory and compliance. In the UK, as in many other jurisdictions a company must ensure that it is entitled to issue shares to the public as opposed to an issue by private treaty. In the UK a firm seeking listing must register as a public limited company. This entails a change in its memorandum and articles agreed by the existing members at a special meeting of the company.

The company must then meet the regulatory requirements of the Listing Agency which, in the UK, is part of the Financial Services Authority (FSA). These requirements impose a minimum size restriction on the company and other conditions concerning length of time trading. Once these requirements are satisfied the company is then placed on an official list and is allowed to make a public offering of its shares.

Once the company is on the official list it must then seek the approval of the Stock Exchange for its shares to be traded. In principal it is open to any company to seek a listing on any exchange where shares are traded. The London Exchange imposes strict requirements and invariably the applicant company will need the services of a sponsoring firm that specialises in this type of work.

(b) The advantages of seeking a public listing are that it opens the capital market to the firm. It offers the company access to equity capital from both institutional and private investors and the sums that can be raised are usually much greater than can be obtained through private equity sources. The presence of the firm as a listed company on a major exchange also enhances its credibility as investors and the general public are aware that by doing so it has opened itself to a much higher degree of public scrutiny than is the case for a firm that is privately financed. The disadvantages are significant. A distributed shareholding does place the firm in the market for corporate control increasing the likelihood that the firm will be subject to a takeover bid. There is also a much more public level of scrutiny with a range of disclosure requirements. Financial accounts must be prepared in accordance with IFRS or FASB and with the relevant GAAP as well as the Companies Acts. Under the rules of the London

Stock Exchange companies must also comply with the governance requirements of the Combined Code and also have in place an effective and ongoing business planning process. Much of this may be regarded as desirable within a privately owned company but the requirements to comply or explain imposed on a public company can impose a significant regulatory burden and exposure to critical comment.

(c) There is an ethical dimension to the request made by Martin Pickles. He is of course entitled to acquire or dispose of his equity claim as he sees fit but his position as a large shareholder does impose on him certain duties with respect to the other shareholders. He should not undertake any action which is prejudicial to them and in this case making any move towards listed status would require their consent. It may well be that the private equity firm involved has in mind its own exit strategy and that his proposed course of action would be acceptable to them. If the decision was made to go public his own intentions would be a material factor in the valuation of the firm and the offer price made to subscribers. An immediate intention to divest would need to be disclosed. There would appear to be nothing wrong at this stage with asking the CFO to investigate the matter on a confidential basis although the request that he or she should seek to enhance the earnings of the business should be resisted in as far as it represents an instruction to engage in earnings manipulation beyond that required to present a true and fair view of the affairs of the business.

Earnings management techniques whereby revenues and costs are accelerated/ decelerated to achieve desired earnings figures are severely limited by GAAP and in the US for example could lead to arraignment under the Sarbanes Oxley Act. The proposal that the CFO would be offered share options adds a veneer of impropriatery to this discussion. He or she is in a difficult position but does need to make clear that he or she must act to preserve the interests of all the shareholders and all the directors. An invitation to participate in a share option scheme is a fairly crude attempt to win support for the proposed course of action (as the shares are not yet quoted) and should be resisted.

1 30 marks distributed over four sections. Key numbers presented in the analysis must be contextualised and justified.

(a) Estimate the current cost of equity capital for FliHi using the Capital Asset Pricing Model making notes on any assumptions that you have made. (9 marks)

Calculation of the asset beta for Rover Airways at 0.9756	2
Regear for FliHi to 1.8294.	1
Calculate FliHI's cost of equity at 10.90 per cent	2
Notes on the assumptions relating to the CAPM	2
Notes on the assumptions of more practical significance	2

(b) Estimate the expected growth rate of this company using the current rate of retention of Free Cash Flow and your estimate of the required rate of return on equity for each of the next seven years. Make notes on any assumptions you have made. (6 marks)

Calculation of the retention ratio as specified in the question as 0.58	2
Estimate of the growth for the next six years (justifying the return on equity chosen)	2
Assumptions embedded within the calculation of growth and Gordon's approximation	2

(c) Value this company on the basis of its expected Free Cash Flow to Equity explaining the limitations of the methods you have used. (7 marks)

Calculation and projection of the free cash flow to equity with explanations	2
Discount these values at the rate of return on equity	2
Calculate the present value of the perpetuity at 2011 with explanations	2
Calculate the present value of the firm's equity	1

(d) Write a brief report outlining the considerations your colleagues on the Board of Fly4000 might bear in mind when contemplating this acquisition. (8 marks)

Discussion of synergies and their capture	2
Examination of the risk exposure and the potential real options	3
Review of the financing options	2
Summary of valuation and recommendation of the next steps to the board of Fly4000	1

2 30 marks distributed over four sections.

(a) Prepare a memorandum, to be considered at the next board meeting, which summarises the arguments for and against forex risk hedging and recommends a general policy concerning the hedging of foreign exchange risk. (10 marks)

Summary of the principle arguments for and against hedging with specific reference to the market perfection and reduction of cost of capital arguments.	4
Clear policy recommendations focusing risk assessment, cost management, contracts and approvals, and monitoring.	4
Quality of the memorandum assessed in terms of clarity, argumentation and persuasiveness.	2

(b) Prepare a short report justifying your use of derivatives to minimise the firm's exposure to foreign exchange risk. Your report should contain:

(iv) The likely option price for an at the money option stating the circumstances in which the option would be exercised (you should use the Grabbe variant of the Black-Scholes model for both transactions adjusted on the basis that deposits generate a rate of return of LIBOR). (10 marks)

Correct calculation of d1 and d2 using the forward and spot rates as specified	5
Calculation of N(x) from the tables given	1
Correct calculation of the currency call	2
Correct calculation of the currency put	2

(v) A calculation of the number of contracts that would be required to eliminate the exchange rate risk and the cost of establishing a hedge to cover the likely FOREX exposure. (4 marks)

Calculation of the number of contracts for the 3 month hedge	2
Calculation of the number of contracts for the 9 month hedge	2

(vi) A summary of the issues the board should bear in mind when reviewing a hedging proposal such as this taking into account the limitations of the modelling methods employed and the balance of risk to which the firm will still be exposed when the position is hedged. (6 marks)

Cost of the hedge and identification of alternatives	2
Problems of establishing a perfect hedge (contract size)	2
Understanding demonstrated of the nature of basis risk and how it is influenced by timing.	2

3 (a) Prepare a paper for the next Board meeting recommending procedures for the assessment of capital investment projects. Your paper should make proposals about the involvement of the Board at a preliminary stage and the information that should be provided to inform their decision. You should also provide an assessment of the alternative appraisal methods. (8 marks)

Clear definition of a two stage process for Board involvement in capital expenditure decisions	2
Recommendation for the stage 1 appraisal procedure and metrics focusing on the role of payback and viable alternatives	3
Stage 2 appraisal focusing on the business plan, value and accounting impact and cash recovery.	3

(b) Using the appraisal methods you have recommended in (a) prepare a paper outlining the case for acceptance of the project to build a distillation facility at the Gulf plant with an assessment of the company's likely value at risk. You are not required to undertake an assessment of the impact of the project upon the firm's financial accounts. (12 marks)

Calculation of the project VAR and assessment of its significance	4
Estimation of the potential value impact using MIRR and the assumptions that underpin it.	3
Estimation of the potential cash recovery using procedures recommended in a)	3
Quality and persuasiveness of the written report	2

4 (a) Estimate the expected cost of capital for this project on the assumption that the additional finance is raised through a bond issue in the US market. (10 marks)

Estimation of the current cost of debt capital at 4.324 per cent	3
Calculation of the existing cost of equity capital at 7.48 per cent	2
Ungearing and regearing the cost of equity capital using M&M proposition 2	3
Calculation of the revised weighted average cost of capital and comment thereon	2

(b) Draft a brief report for the board outlining the alternative sources of finance that are potentially available for this project including a brief discussion of their advantages and disadvantages and the likely impact upon the firm's cost of capital of each of the alternatives that you consider. (10 marks)

Note of the theoretical issues in the selection of finance source (M&M, pecking order theory)	2
Clear description of the potential sources of capital within the context of the Chinese economy, regulation and capital market	2
Evaluation of the likely advantages and disadvantages of the principal sources of finance	2
Discussion of the risk management strategies available	2
Professional marks	2

5 (a) Prepare a board paper describing the procedure for obtaining a listing on an international stock exchange such as the London Stock Exchange. (6 marks)

Outline of the three step procedure: registration, listing and admission to trading (2 marks for each step)	6

(b) Prepare a briefing note itemising the advantages and disadvantages of such a step for a medium sized company. (6 marks)

Note of the advantages: capital market access, reputation effects	2
Note of the disadvantages: compliance costs, vulnerability to takeover, public scrutiny	2
Well written briefing note weighing the advantages and disadvantages and focusing on the judgements that the board would be required to make	2

(c) Discuss any ethical considerations or concerns you may have concerning this proposed course of action. (8 marks)

Identification of the principal ethical issues involved	2
Note on the issue of transparency and the protection of minority rights	2
Discussion of alternative ways that the CFO could proceed and the ethical implications of each	2
Commentary on the ethical issues involved in earnings management	2

Professional Pilot Paper – Options module

Advanced Performance Management

Time allowed
Reading and planning: 15 minutes
Writing: 3 hours

This paper is divided into two sections:

Section A – BOTH questions are compulsory and MUST be attempted

Section B – TWO questions ONLY to be attempted

Do NOT open this paper until instructed by the supervisor.
During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.
This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

Paper P5

Section A: BOTH questions are compulsory and MUST be attempted

1 The Westamber Hospital ('Westamber'), which is partially government-funded, specialises in the provision of ear, nose and throat operations for patients in Zonderland. Its mission statement states that the hospital 'is committed to providing high quality healthcare to all patients'. Westamber provides treatment to private fee-paying patients as well as to patients who are funded by the government.

Relevant operating data for Westamber for the year ended 30 June 2006 is as follows:

(1) The budgeted mix of operations

Type of operation	% of total operations
Ear	30
Nose	30
Throat	40

(2) Fees (budget and actual) payable to Westamber in respect of each patient who received treatment from the hospital

Type of operation:	Fee payable by private patients ($)	Fee payable by government ($)
Ear	3,000	2,000
Nose	4,000	3,000
Throat	5,000	4,000

It was budgeted that 50% of patients (for each type of operation) would have the cost of their operations funded by the government because under existing legislation they earned what the government defined as a low income.

(3) Budgeted costs for the year based on 100% capacity utilisation

	$000	Variable cost (%)	Fixed cost (%)
Surgical	35,400	25	75
Nursing	8,000	30	70
Depreciation	1,700	–	100
Administration	3,250	–	100
Sundry	5,750	20	80

Variable surgical costs include a total amount of $1,000,000 in respect of operations undertaken on an emergency basis.

(4) Actual costs incurred during the year

	Variable costs ($000)	Fixed costs ($000)
Surgical	8,284	26,550
Nursing	2,224	5,600
Depreciation		1,700
Administration		3,412
Sundry	1,116	4,912

Note: (i) $800,000 of the variable surgical costs related to the provision of emergency operations.
(ii) The proportion of emergency operations as a percentage of total operations was as per budget.

(5) Westamber had no loan finance during the year.

(6) A recently qualified accountant employed by Westamber has stated that "it is obvious that the mix of government to private patients mix is the key determinant of profitability. Next year it looks as if demand for total operations will exceed our available capacity and therefore we should give priority to private fee-paying patients as we receive more fees from them for each type of operation. It is as simple as that since there aren't any ethical issues to be considered".

(7) Other statistics relating to Westamber (all stated on an ACTUAL basis):

Capacity utilisation (%):	80%
Patient mix (%) for each type of operation:	
Government-funded patients	75%
Privately-funded patients	25%
Operation mix (%):	
Ear	35%
Nose	30%
Throat	35%

Eastgreen Hospital

Eastgreen Hospital ('Eastgreen'), is a privately owned hospital which also specialises in the provision of ear, nose and throat operations. All of its patients are responsible for the payment of their own fees. Eastgreen does not undertake operations on an emergency basis.

The summary income statement for Eastgreen on an actual basis was as follows:

	$000
Fee income	36,000
Costs:	
Surgery & nursing	25,000
Depreciation	3,400
Loan interest	500
Administration and sundry	5,100
Total costs	34,000
Net profit	2,000

(i) Eastgreen operates comparable accounting policies to those of Westamber.

(ii) The income of Eastgreen is derived from the provision of an annual healthcare scheme. Each patient pays $100 per month under a fixed term contract of three years. All contracts were renewed on 1 July 2005. There were 30,000 contracts in existence throughout the year. Note: Contracts can only be entered into on 1 July in each year.

Each hospital is comprised of 15 wards, each of which can accommodate eight patients. The average patient stay in both hospitals was three days. Each hospital is open for 365 days per annum.

Required:

(a) Prepare a statement, in columnar format, which shows comparable actual and budgeted results for Westamber for the year ended 30 June 2006. (14 marks)
(Including 2 professional marks)

(b) Explain FOUR reasons why it may be inappropriate to make a direct comparison of the financial performance of the Westamber and Eastgreen hospitals on the basis of the information provided. (6 marks)

(c) Using only information contained in the question make THREE adjustments to the income statements you have prepared in your answer to (a) that you consider would assist in the development of a more appropriate comparison of the financial performance of Westamber and Eastgreen hospitals. (6 marks)

(d) Discuss the statement of Westamber's recently qualified accountant including comments on the ethical implications of the statement. (3 marks)

(e) Excluding the number of complaints by patients, state FOUR performance measures that may be used in order to assess the surgical quality provided by a hospital indicating how each measure may be assessed. (6 marks)

(35 marks)

2 Bettaserve Limited has identified and defined a market in which it wishes to operate. This will provide a 'gold standard' focus for an existing range of services. Bettaserve plc has identified a number of key competitors and intends to focus on close co-operation with its customers in providing services to meet their specific design and quality requirements. Efforts will be made to improve the effectiveness of all aspects of the cycle from service design to after-sales service to customers. This will require inputs from a number of departments in the achievement of the specific goals of the 'gold standard' range of services. Efforts will be made to improve productivity in conjunction with increased flexibility of methods.

An analysis of financial and non-financial data relating to the 'gold standard' proposal for each of the years 2007, 2008 and 2009 is shown below.

Required:

(a) Prepare an analysis (both quantitative and discursive) of the 'gold standard' proposal for the period 2007 to 2009. You should use the information provided in the question, together with the data in Schedule 1 below. Your analysis should include the following:

(i) A definition of corporate 'vision or mission' and consideration of how the proposal may be seen as identifying and illustrating a specific sub-set of this 'vision or mission'. (5 marks)

(ii) Discussion and, where possible, quantification of the proposal in both marketing and financial terms. (5 marks)

(iii) Discussion of the external effectiveness of the proposal in the context of ways in which each of Quality and Delivery are expected to affect customer satisfaction and hence the marketing of the product. (5 marks)

(iv) Discussion of the internal efficiency of the proposal in the context of ways in which the management of each of Cycle Time and Waste are expected to affect productivity and hence the financial aspects of the proposal. (5 marks)

(b) Discuss the links, both vertical and horizontal, of the performance measures investigated in (a). The discussion should include comment on the hierarchy and inter-relationships between the measures, including internal and external aspects of the expected trends in performance.

(Note: a diagram may be used to illustrate the links, together with relevant discussion). (5 marks)
(Including 2 professional marks)

Schedule 1
'Gold Standard' proposal – estimated statistics

	2007	2008	2009
Total market size ($m)	240	250	260
Bettaserve plc – sales ($m)	30	36	40
Bettaserve plc – total costs ($m)	28.2	25.448	25.1
Bettaserve plc – sundry statistics:			
Services achieving design quality standards (%) and accepted without further rectification	95	97	98
Rectification claims from customers ($m)	0.9	0.54	0.2
Cost of after sales rectification service ($m)	3	2.5	2
Sales meeting planned completion dates (%)	90	95	99
Average cycle time: (customer enquiry to service finalisation) (weeks)	6	5.5	5
Service enquiries not taken up by customers (% of enquiries)	7.50	5.00	2.50
Idle capacity of service personnel (%)	10	6	2
Analysis of total cost:	**$000**	**$000**	**$000**
target cost – variable	12,000	14,400	16,000
target cost – fixed	4,000	4,000	5,000
Internal failure costs	3,200	1,840	1,050
external failure costs	4,000	2,208	1,050
appraisal costs	1,000	1,000	1,000
prevention costs	4,000	2,000	1,000
Total cost	28.200	25,448	25,100

(25 marks)

Section B: TWO questions ONLY to be attempted

3 (a) The Creative Division (CD) of Unique Components Ltd produces wooden components that it both sells to external customers and transfers to other divisions within its own group of companies. The production involves the preparation of timber, cutting the timber into shapes and the assembly of the shapes into components.

The total component cost for component A has been estimated as $41.21 per unit. Selling prices to external customers have been set by adding a mark-up of 35% to total estimated component cost.

Required:

Discuss the application and acceptability of each of the following transfer price bases at which component A may be offered by CD to other divisions within the same group of companies:

(i) External selling price and adjusted selling price;

(ii) Marginal cost marginal cost plus an annual lump sum; and

(iii) Dual pricing.

Your answer should incorporate illustrative values ($) for each transfer price using data provided above and additional data of your choice. (10 marks)

(b) A redesign of component A is being considered that is likely to result in changes in the quantity of timber and number of cuts, in the shaping process that will be required. A data-table analysis has been prepared to monitor the effect on unit cost for component A of a range of values for such changes. In addition, a set of subjective probabilities have been assigned to the likelihood of (i) the timber required and (ii) the number of cuts required, being at the levels shown in the data-table analysis. A matrix has been constructed showing the combined probability for each possible combination of changes of timber and number of cuts. The data-table analysis and combined probability matrix are as follows:

Data-table of values of total component cost for component A per unit ($) for a range of values of number of cuts in shaping and timber required (square metres)

Timber (square metres)	Number of cuts				
	25	30	35	40	50
0.8	47.15	47.69	48.15	48.55	49.21
0.7	43.50	44.04	44.50	44.90	45.56
0.6	39.81	40.34	40.81	41.21	41.87
0.5	36.07	36.61	37.07	37.47	38.13
0.4	32.28	32.81	33.28	33.68	34.34

Combined probability matrix showing combined probability values for a range of values of number of cuts in shaping and timber required (square metres)

Timber (square metres)		Number of cuts				
		25	30	35	40	50
	Prob.	0.2	0.3	0.3	0.1	0.1
0.8	0.1	0.02	0.03	0.03	0.01	0.01
0.7	0.2	0.04	0.06	0.06	0.02	0.02
0.6	0.2	0.04	0.06	0.06	0.02	0.02
0.5	0.4	0.08	0.12	0.12	0.04	0.04
0.4	0.1	0.02	0.03	0.03	0.01	0.01

Note: The expected value of unit cost, based on above data-table and combined probability matrix is $39.84.

You may assume that management attitudes vary as follows:

(i) Some of the management team are in favour of change provided that a reduction of at least 12% from the existing total unit cost is achieved;

(ii) Others in the management team are not in favour of change if it might lead to an increase in total unit cost from the current level of $41.21; and

(iii) The remainder of the management team are of the view that they are willing to consider the re-design change if the expected value (EV) solution is less than the current value of total unit cost.

Required:

Discuss the impact of the possible changes in the quantity of timber and number of cuts in the Shaping process caused by the re-design of component A on the total cost per unit of component A.

You should incorporate an analysis of statistics from the data-table and probability information contained in the model into your discussion with specific reference to the impact of management attitude to risk when deciding whether or not to change from the existing quantity of timber and number of cuts for component A.

(10 marks)

(20 marks)

4 The Success Education Centre (SEC), which commenced trading in 2003, provides tuition for students preparing for accountancy examinations in Homeland. In 2005, SEC established a similar semi-autonomous operation in the neighbouring country of Awayland. Divisional managers have no control over acquisition and financing policy with regard to operations under their control.

Financial data (all stated on an actual basis) in respect of the two divisions for the two years ended 30 November 2006 and 2007 are as follows:

Income statement		2006			2007	
	Homeland	Awayland	Combined	Homeland	Awayland	Combined
	$000	$000	$000	$000	$000	$000
Revenue	4,500	1,000	5,500	5,000	1,300	6,300
Salaries	1,500	600	2,100	1,575	630	2,205
Tuition materials & consumables	500	150	650	510	155	665
Other operating costs	1,000	300	1,300	1,040	300	1,340
	3,000	1,050	4,050	3,125	1,085	4,210
Marketing	250	75	325	300	100	400
Interest (Group)			150			125
Depreciation and amortisation	350	50	400	350	100	450
	600	125	875	650	200	975
	3,600	1,175	4,925	3,775	1,285	5,185
Profit	900	(175)	575	1,225	15	1,115

Summary Balance Sheets						
		2006			2007	
Non- current Assets	2,750	250	3,000	2,750	500	3,250
Net Current Assets	750	150	900	1,315	200	1,515
	3,500	400	3,900	4,065	700	4,765
10% Loan stock			1,500			1,250
			2,400			3,515
Capital and Reserves			2,400			3,515

Required:

(a) Provide an assessment of the financial performance of SEC and of the respective contributions of the operations in Homeland and Awayland during the two years ended 30 November 2007. (8 marks)

(b) Discuss FOUR items of additional information that would be required in order to provide a more comprehensive assessment of the financial performance of each operation. (4 marks)

(c) Discuss FOUR factors that should be taken into consideration when assessing the comparative financial performance of the two operations. (4 marks)

(d) Discuss FOUR advantages of using Earnings Before Interest, Taxation, Depreciation and Amortisation (EBITDA) as a measure of financial performance. (4 marks)

(20 marks)

5 Budgeting may be viewed as a relevant technique in facilitating the assessment of business performance from initial planning to actual results. It will be necessary, however, to consider how to overcome factors that may limit its effectiveness.

Required:

Critically discuss the arguments for the use of budgeting in the implementation of FOUR aspects of the performance cycle. (8 marks)

Highlight THREE advantages that may be claimed for the use of activity based budgeting rather than a traditional incremental budgeting system. (6 marks)

Suggest FOUR reasons why advocates of a 'Beyond Budgeting' philosophy may not regard a major annual budget preparation exercise as an effective use of resources. (6 marks)

(20 marks)

End of Question Paper

Answers

1 (a) Westamber Hospital

Income statement for the year ended 30 June 2006

	Budget £000	Actual £000
Revenue:		
Private patients:		
Ear	5,256	3,066
Nose	7,008	3,504
Throat	11,680	5,110
	23,944	11,680
Government patients:		
Ear	3,504	6,132
Nose	5,256	7,884
Throat	9,344	12,264
	18,104	26,280
Total revenue	42,048	37,960
Variable costs:		
Surgery	7,080	8,284
Nursing	1,920	2,224
Sundry	920	1,116
Total variable costs	9,920	11624
Contribution	32,128	26,336
Fixed costs:		
Surgery	26,550	26,550
Nursing	5,600	5,600
Depreciation	1,700	1,700
Administration	3,250	3,412
Sundry	4,600	4,912
Total fixed costs	41,700	42,174
Net Loss	(9,572)	(15,838)

(b) (i) The hospitals have differing objectives. Eastgreen is a profit-seeking organisation whereas Westamber is, in part, a not-for-profit organisation.

(ii) The hospitals have different fee structures. Westamber undertakes the treatment of government-funded patients and receives a lower fee in respect of such operations.

(iii) The level of operating costs differs as evidenced by the fact that annual depreciation in Eastgreen is 100% greater than Westamber.

(iv) Eastgreen is partially funded by loan finance as evidenced by the £500,000 of loan interest charged to its profit and loss account during the year whereas Westamber hasn't any loan finance in its capital structure.

N.B: Other reasonable explanations would be acceptable.

(c) Adjustments:

	Westamber 2007 Budget £000	Westamber 2007 Actual £000	Eastgreen 2007 Actual £000
Original Profit /(Loss)	(9,572)	(15,838)	2,000
Attributable income – subsidised operations	5,840	8,760	
Cost of emergency operations	1,000	800	
Loan interest adjustment			500
Operating profit / (loss) after adjustments	(2,732)	(6,278)	2,500

Note:
Attributable income (budget) = (Number of government funded patients = (14,600 x 80%) = 11,680 x 50% = 5,840 x £1,000 = £5,840,000.

Attributable income (actual) = (Number of government funded patients = 14,600 x 80%) = 11,680 x 75% = 8,760 x £1,000 = £8,760,000.

(d) The statement of the recently qualified accountant is correct insofar as the fees received from private paying patients are higher than those received in respect of government funded patients. However, there is an ethical issue in that government funded patients require medical treatment and that fact should always be considered especially since Westamber is a government-funded hospital. The mission statement of the hospital states that it 'is committed to providing high quality healthcare to all patients' and therefore it should not give priority treatment to private fee-paying patients.

(e) The following performance measures could be used to assess the quality of service provided by the management of either hospital:

(i) The time spent waiting for non-emergency operations which could be measured by reference to the time elapsed from the date when an operation was deemed necessary until it was actually performed;
(ii) The number of successful operations as a percentage of total operations performed which could be measured by the number of remedial operations undertaken;
(iii) The percentage of total operations performed in accordance with agreed schedules which could be measured by reference to agreed operation schedules;
(iv) The standards of cleanliness and hygiene maintained which could be measured by observation;
(v) The staff: patient ratio which could be measured by reference to personnel and patient records; and
(vi) The responsiveness of staff to requests of patients which could be measured via a patient survey.

NB: Only four performance measures were required and alternative appropriate performance measures would be acceptable.

2 (a) (i) Corporate vision may be seen as looking forward through the defining of markets and the basis on which the company will compete. Bettaserve plc has defined the 'gold standard' proposal for one of its product ranges as a specific market opportunity. It envisages competing through the identification of key competitors and by close co-operation with its customers in providing services to meet their specific design and quality standards. The corporate vision is seen as being achieved through a focus on internal efficiency and external effectiveness. The 'gold standard' proposal may be seen as illustrating a specific sub-set of the corporate mission since it:

– has its own distinct business concept and mission – the 'gold standard' focus;
– has identified the key competitors; and
– is a suitable area for the management of its own strategies – close co-operation with customers and the provision of services to meet their design requirements.

(ii) The 'gold standard' proposal may be measured in both marketing and financial terms. Will it achieve market growth and an improved market position? The projected sales (£m) in schedule 1 shows growth of 20% in 2008 (£36m/£30m) and a further 11.1 % in 2009 (£40m/£36m). In addition, market position is anticipated to improve, with a market share of 12.5%, 14.4% and 15.4% in years 2007, 2008 and 2009 respectively (eg 2007 = £30m/£240m).

The net profit/ sales percentage is also expected to increase each year. The figures are 6%, 29.3% and 37.25% for 2007, 2008 and 2009 respectively (eg 2007 = £1.8m/£30m). The profit increase is partly linked to the projected fall in quality costs, both costs of conformance (appraisal and prevention) and costs of non-conformance (internal and external failure) as shown in Schedule 1. It is also linked to the increase in volume of business as fixed costs have a reduced effect.

(iii) The marketing success of the proposal is linked to the achievement of customer satisfaction. The success will require an efficient business operating system for all aspects of the cycle from service design to after sales service to customers. Improved quality and delivery should lead to improved customer satisfaction. Schedule 1 shows a number of quantitative measures of the expected measurement of these factors:

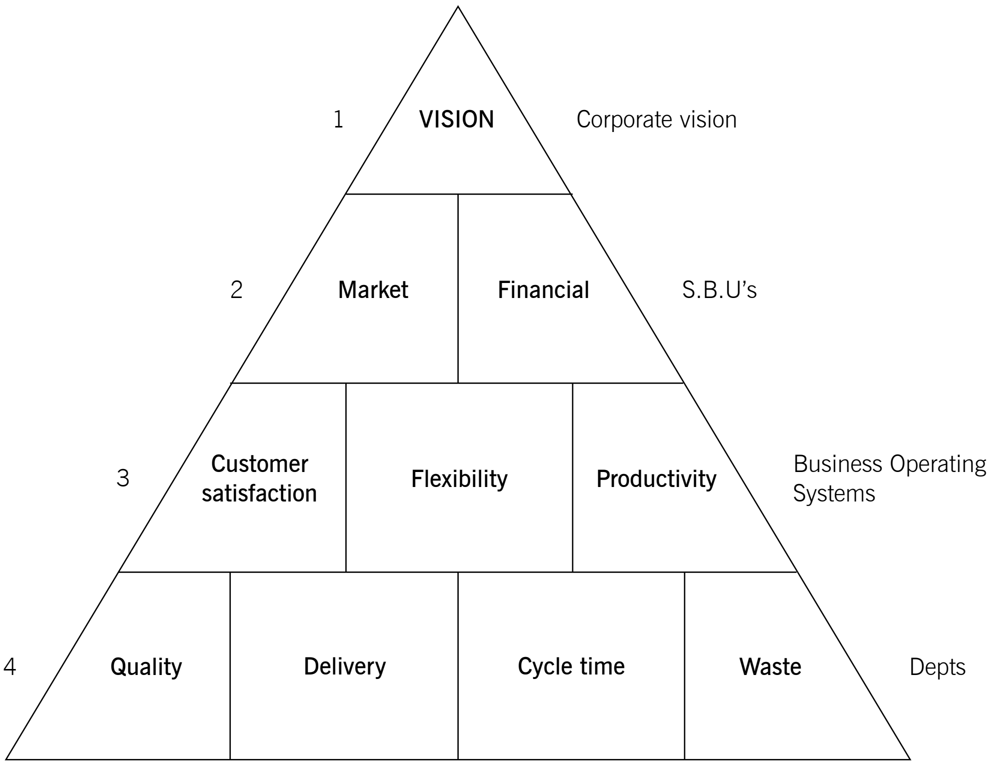
– Quality is expected to improve. The percentage of services achieving design quality standards is expected to rise from 95% to 98% between 2007 and 2009. In the same period, rectification claims from customers for faulty work should fall from £0.9m to £0.2m and the cost of after sales rectification service should fall from £3m to £2m.
– Delivery efficiency improvement may be measured in terms of the increase in the percentage of sales expected to meet planned delivery dates. This percentage rises from 90% in 2007 to 99% in 2009.

(iv) The financial success of the proposal is linked to the achievement of high productivity. This should be helped through reduced cycle time and decreased levels of waste. Once again Schedule 1 shows a number of quantitative measures of these factors:

– The average total cycle time from customer enquiry to delivery should fall from 6 weeks in 2007 to 5 weeks in 2009. This indicates both internal efficiency and external effectiveness.
– Waste in the form of idle capacity of service personnel is expected to fall from 10% to 2% between 2007 and 2009. Also, service enquiries not taken up by customers, is expected to fall from 7.5% of enquiries in 2007 to 2.5% of enquiries in 2009. These are both examples of ways in which improved productivity may be measured. Both will be linked to the prevention and appraisal costs, which are intended to reduce the level of internal and external failure costs.

(b) The analysis of the 'gold standard' proposal shows a hierarchy of performance measures. The performance pyramid shown below indicates how strategies to assist in the achievement of corporate vision may be cascaded down through a number of levels. The analysis discussed and evaluated in section (a) consists of a number of interrelated areas of focus. The marketing and financial success of the proposal is the initial focus for the achievement of corporate vision. Marketing and financial strategies must be formulated and inter-related. They must be linked to the achievement of customer satisfaction and high productivity at the next level in the hierarchy. Increased flexibility of methods should also be aimed for. This should help (internally) in achieving improved productivity and also (externally) in an improved level of customer satisfaction. High quality standards will improve customer satisfaction and in turn will assist in market retention and growth.

As discussed in part (a), customer satisfaction may be achieved through a more detailed focus on improved quality and delivery. Productivity may be improved through reductions in service cycle times and waste elements.



3 **(a)** **(i)** The existing external selling price will be £41.21 + 35% mark-up = £55.63. We may assume that at this price Creative Division is able to obtain a market for all of its production capacity. If some units are transferred to other divisions within the same group, the opportunity cost to Creative Division is the external sales value foregone. However, it is possible that Creative Division has costs that will not apply to inter-divisional transfers such as packaging and negotiating costs. For example, if such costs were £6 per unit, then a transfer price of £49.63 would leave Creative Division with the same reported profit. This adjusted selling price would enable the management at the receiving division(s) to make a decision about transfers from Creative Division rather than from external suppliers, on a basis that would lead to group profit-maximising decisions (other factors being equal).

(ii) If Creative Division has some spare capacity for which no external business is available, it may be asked to offer component A at marginal cost. Assume that this is £35 per unit. Once again, management at the receiving division(s) could make a decision about transfers from Creative Division rather than from external suppliers, on a basis that would lead to group profit maximising decisions (other factors being equal). It may be decided as part of Group policy to allow transfers to be made on the basis of marginal cost + a lump sum to allow for a share of the fixed costs of Creative Division. The size of this fixed sum would have to be agreed between management at Creative Division and each receiving division.

(iii) A dual pricing system may be used as part of Group accounting policy. In this case, Creative Division may be allowed to use the external price (£55.63) for its profit reporting. It would, however, offer to transfer at marginal cost (£35.00) if spare capacity existed. Unless an external source was available at less than marginal cost, the receiving division would buy from Creative Division. A group profit adjustment would be made on consolidation of profits at the year-end.

(b) A number of points may be raised, by examining the data-table analysis, and the combined probability matrix provided. The data- table shows the range of values of product unit cost for product A for a range of values of number of cut in Shaping AND quantity of timber (square metres) required. We can check the current value of product unit cost of £41.21 which is the value in the data-table where the number of cuts per unit in Shaping is 40 and the timber required is 0.60 square metres.

An analysis of the management team attitudes may be viewed as follows:

(i) A fall of 12% from the current level would result in a unit cost of £41.21 x 88% = £36.26. However, the combined probability of this cost level being achieved is only 18% (this can be abstracted from the probability matrix). This might, therefore, be seen as a 'risk seeking' stance if management decide to proceed with the re-design.

(ii) Other members of the management team are not willing to proceed with the re-design if it might lead to a cost increase from the current level. There is a 32% combined probability that the changes could result in a unit cost greater than the current level of £41.21. But there is also a 66% likelihood that the unit cost of product A could be less than the current level. This is a 'risk averse' stance since management are not swayed by the 66% likelihood that unit costs may fall.

(iii) The expected value solution (£39.84) is the weighted average view i.e. the sum of each possible value of unit cost x the combined probability of each occurring. This may be viewed as a 'risk neutral' view of the likely unit cost. In this case since it is less than the current value of £41.21 management would proceed with the redesign of product A.

4 (a)

	2006 Homeland	Awayland	Group	2007 Homeland	Awayland	Group
% growth in sales revenue				11.1%	30%	14.5%
Sales margin before interest (%)	20	(17.5)	13.2	24.5	1.2	19.7
Return on capital employed (%)			18.6			26.0
Earnings before interest, depreciation and amortisation (£000)			1,125			1,690
Fixed asset turnover ratio	1.6	4.0	1.8	1.8	2.4	1.9
Debt: Equity ratio			62.5			35.6
Gearing ratio			38.4			26.2

Sales revenue

The turnover in Homeland increased by 11.1% whereas the turnover in Awayland increased by 30% which is excellent bearing in mind that operations only commenced in 2005. The overall growth in turnover achieved during 2007 amounted to a healthy 14.5%.

Profits

The operation in Homeland has achieved an increase of 36% in net profit which is an excellent result given the operation only commenced during 2003. The operation in Awayland made a very small profit of £15,000 in 2007 compared with a loss of £175,000 in 2006. The overall profit of SEC has increased from £575,000 to £1,115,000, an increase of 93.9%. Non-operating costs have increased from £475,000 (2006) to £525,000 (2007), an increase of 10.5%. It is worth noting that interest payable has fallen by £25 million which is a direct result of the repayment of £250,000 of loan stock. The increased amount of marketing expenditure has enabled both operations to achieve substantial growth in turnover. EBITDA rose from £1,125 million to £1,690 million.

Costs

Tuition materials and consumables costs have only increased by 2% and 3.3% respectively in Homeland and Awayland. Bearing in mind that turnover of each operations has increased substantially then it is highly probable that SEC are benefiting from economies of scale that exist with regard to the provision of tuition materials and consumables. Salaries have increased by 5% in both Homeland and Awayland. Other operating expenses have increased by 4% in Homeland and remained static in Awayland which shows excellent cost control.

Fixed Asset utilisation

The 2007 utilisation ratios of Homeland and the overall business remain at a similar level to those of 2006 with the exception of that of Awayland which has fallen from 4 times to 2.4 times. However, this is acceptable given that operations in Awayland have only been recently established. It might well be the case that, for example, recently acquired buildings may not yet have been brought fully into use or perhaps were acquired towards the end of 2007. Awayland is clearly in a rapid-growth phase hence the need for such investments in fixed assets.

(b) It would be useful to have data relating to 2005 in order to observe a three year trend for Homeland and the full picture of Awayland. This would enable a much better assessment of current performance and the identification of significant factors that have arisen during the past four years.

It would be extremely useful to have competitor information in order to assess relative market share and establish how they are performing in the Homeland and Awayland markets compared with SEC.

It is clear that long-term borrowing has decreased during 2007 and that SEC has sufficient cash flow to be repaying loan stock. However, it would be useful to have a detailed breakdown of the working capital of each operation in order to confirm this.

It would also be useful to have future market and financial projections in respect of operations in Homeland and Awayland which should reflect the actual results achieved in 2006 and 2007.

(c) The following factors may need to be taken into account in an assessment of the comparative financial performance of the two divisions.
– The size of each market
– The number of competitors in each market
– The different types of service provision e.g. frequency and modes of course delivery, available from competitors
– The strength of the SEC brand
– The availability of resources within each country, in particular, suitably qualified lecturers.

(d)
– EBITDA is easy to calculate and understand.

– The use of EBITDA (earnings before interest, taxation, depreciation and amortisation) will focus management attention on cash flow from operations and hence is a measure of underlying performance.

– Whilst taxation and interest payable remain important considerations in essence they represent distributions to the government (taxation) and a charge for financing. Neither taxation nor interest payable is relevant to the underlying success of the business of SEC.

– EBITDA is a useful measure of the managerial performance in situations like that of SEC where managers have no control over acquisition and financing policy since it excludes costs associated with assets (depreciation and goodwill) and debt finance (interest).

5 **(a)** Budgeting may be viewed as of use in planning, co-ordination, control, motivation and performance evaluation.

As a **planning aid**, the budgeting process allows for the quantification of the business plan. Alternative planning scenarios may be examined and a "what-if" analysis applied. This feed-forward view will enable a proposed plan to be compared with the level of achievement that is required in order to provide the level of return required by the organisation. If necessary amendments can be made in order that the agreed plan will achieve the required level of return.

It may be argued that the identification and quantification of factors such as customer satisfaction may limit the level of accuracy achieved.

The **co-ordination** of business activities will be aided through the budgeting process. Areas of imbalance, for example between production capacity available and that required to satisfy demand, may be identified and investigated. The co-ordination process should also avoid individual members of management making planning that are sub-optimal for the business as a whole.

The achievement of co-ordination benefits may be diminished because of factors such as lack of adequate communication, both internally between management members and externally through inadequate links with suppliers.

The **control** of business activities may be aided through the comparison of actual results against the budget plan. Any differences may be investigated and corrective action taken.

This process may not be effective because of factors such as the type of budgeting system in use or the lack of management expertise in the interpretation of the information. For example, is actual data compared against a suitably flexed budget?

The budget should act as a **motivating** device. This should be enhanced through the feeling of involvement which participation in the budgeting process will promote. Management is more likely to identify and work toward achieving, targets that has agreed in advance. It is possible however, that management may view the budget as a pressure device in trying to get them to achieve a level of performance that they do not see as achievable.

Budgets may be used a base against which to measure actual **performance**. The measures may be quantitative in both monetary and non-monetary terms. Examples might be the monitoring of cash flow or the percentage of material losses incurred. The trend of variances between budget and actual may be monitored in order to help identify whether an 'in control' or 'out of control' situation exists.

The usefulness of the measures may be limited through factors such as lack of relevant information and/or management style and attitudes.
(Alternative relevant uses and comments would be accepted.)

(b) Advantages claimed for the use of activity based budgeting include the following:
– Resource allocation is linked to a strategic plan for the future, prepared after considering alternative strategies. Traditional budgets tend to focus on resources and inputs rather than on objectives and alternatives.
– New high priority activities are encouraged, rather than focusing on the existing planning model. Activity based budgeting focuses on activities. This allows the identification of the cost of each activity. It also allows the ranking of activities where financial constraints limit the range of activities that may be achieved.
– There is more focus on efficiency and effectiveness and the alternative methods by which they may be achieved. Activity based budgeting assists in the operation of a total quality philosophy.
– It avoids arbitrary cuts in specific budget areas in order to meet the overall financial targets. Non-value added activities may be identified as those which should be eliminated.
– It tends to increase management commitment to the budget process. This should be achieved since the activity analysis enables management to focus on the objectives of each activity. Identification of primary and secondary activities and non-value added activities should also help in motivating management in activity planning and control.

The effectiveness of activity based budgeting may be limited because of its complexity and its acceptance by management. For example accurate identification of activities and the cost drivers which determine the level of resources required for each activity may be difficult to achieve.

(c) Current research on budgeting indicates that some organisations claim that they have abandoned the major annual budget preparation exercise ('Beyond Budgeting' – Hope & Fraser (2003). It has been argued that a number of adverse impacts result from the budget. Examples of such impact are:

- Annual budgeting adds little value and takes up too much valuable management time.
- Too heavy reliance on budgetary control in managing performance has an adverse impact on management behaviour.
- The use of budgeting as a base for communicating corporate goals, setting objectives, assisting continuous improvement, etc. is seen as contrary to its original purpose as a financial control mechanism.
- Most budgets are not based on a rational causal model of resource consumption and are, therefore, of little use in determining strategy.
- The process has insufficient external focus from which to derive targets or benchmarks.
- The argument may be put that increased focus on knowledge or intellectual capital through competent managers, skilled workforce, effective systems, loyal customers and strong brands is more likely to yield improved business effectiveness.

(Alternative relevant uses and comments would be accepted in all parts of the answer).

			Marks	**Marks**
1	**(a)**	Revenue calculations:		
		Private patients	3	
		Government patients	3	
		Variable costs	3	
		Fixed costs	2	
		Activity level (80%)	2	
		Profit/(Loss)	1	
		Professional marks	2	(maximum) 14
	(b)	Reason/explanation (4 x 1.5)	6	6
	(c)	Adjustments (3 x 2)	6	6
	(d)	Comments(on merit) (3 x 1)	3	3
	(e)	Measures/assessment (4 x 1.5)	6	6
				35
2	**(a)**	**(i)** Comments (on merit)	3 x 2	maximum 5
		(ii) Comments (on merit)	3 x 2	maximum 5
		(iii) Comments (on merit)	3 x 2	maximum 5
		(iv) Comments (on merit)	3 x 2	maximum 5
	(b)	Comments (on merit)	3	
		Professional marks	2	5
				25
3	**(a)**	Comments (on merit): External selling price	4	
		Marginal cost	4	
		Dual pricing	4	(maximum) 10
	(b)	Explanation	6	
		Calculations	6	(maximum) 10
				20
4	**(a)**	Comments (on merit) & calculations:	10	(maximum) 8
	(b)	Items of information	4 x 1	4
	(c)	Factors to be considered	4 x 1	4
	(d)	Advantages of EBITDA	4 x 1	4
				20
5	**(a)**	Four uses of budgeting	4 x 2	8
	(b)	Arguments for ABB	3 x 2	6
	(c)	Reasons	4 x 1.5	6
				20

Professional Pilot Paper – Options module

Advanced Taxation (United Kingdom)

Paper P6 (UK)

Time allowed
Reading and planning: 15 minutes
Writing: 3 hours

This paper is divided into two sections:

Section A – BOTH questions are compulsory and MUST be attempted

Section B – TWO questions ONLY to be attempted

Do NOT open this paper until instructed by the supervisor.
During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.
This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

The following tax rates and allowances are to be used in answering the questions:

Tutorial note
This pilot paper has been written as though being examined in June 2007, using the rates and allowances from the Finance Act 2006.

Income Tax

		%
Starting rate	£1 – £2,150	10
Basic rate	£2,151 – £33,300	22
Higher rate	£33,301 and above	40

Personal Allowance

Personal allowance	£5,035
Personal allowance aged 65 to 74	£7,280
Personal allowance aged 75 and over	£7,420
Income limit for age related allowances	£20,100

Car Benefit Percentage

The base level of CO_2 emissions is 140 grams per kilometre.

Car Fuel Benefit

The base figure for calculating the car fuel benefit is £14,400.

Pension Scheme Limits

Annual allowance	£215,000
Lifetime allowance	£1,500,000

The maximum contribution that can qualify for tax relief without any earnings is £3,600.

Authorised Mileage Allowances

All cars:

Up to 10,000 miles	40p
Over 10,000 miles	25p

Capital Allowances

	%
Plant and machinery	
Writing-down allowance	25
First-year allowance – Plant and machinery	40
– Low emission motor cars (CO_2 emissions of not more than 120 grams per kilometre) (17 April 2002 to 31 March 2008)	100

For small businesses only: the rate of plant and machinery first-year allowance is increased to 50% for the periods from 1 April 2004 to 31 March 2005 (6 April 2004 to 5 April 2005 for unincorporated businesses) and 1 April 2006 to 31 March 2007 (6 April 2006 to 5 April 2007 for unincorporated businesses).

Long-life assets

Writing-down allowance	6

Industrial buildings

Writing-down allowance	4

Corporation Tax

Financial year	2004	2005	2006
Starting rate	nil	nil	–
Small companies rate	19%	19%	19%
Full rate	30%	30%	30%
Starting rate lower limit	10,000	10,000	–
Starting rate upper limit	50,000	50,000	–
Lower limit	300,000	300,000	300,000
Upper limit	1,500,000	1,500,000	1,500,000
Marginal relief fraction			
Starting rate	19/400	19/400	–
Small companies rate	11/400	11/400	11/400

Marginal Relief

(M – P) x I/P x Marginal relief fraction

Value Added Tax

	£
Registration limit	61,000
Deregistration limit	59,000

Inheritance Tax

First £285,000	Nil
Excess	40%

Capital Gains Tax: Annual Exemption

Individuals	£8,800

Capital Gains Tax: Taper Relief

Complete years after 5 April 1998 for which asset held	Gains on business assets	Gains on non-business assets
1	50%	100%
2	25%	100%
3	25%	95%
4	25%	90%
5	25%	85%
6	25%	80%
7	25%	75%
8	25%	70%
9	25%	65%
10	25%	60%

National Insurance Contributions
(Not contracted out rates)

		%
Class 1 Employee	£1 – £5,035 per year	Nil
	£5,036 – £33,540 per year	11.0
	£33,541 and above per year	1.0
Class 1 Employer	£1 – £5,035 per year	Nil
	£5,036 and above per year	12.8
Class 1A		12.8
Class 2	£2.10 per week	
Class 4	£1 – £5,035 per year	Nil
	£5,036 – £33,540 per year	8.0
	£33,541 and above per year	1.0

Rates of Interest

Official rate of interest:	5.0%
Rate of interest on underpaid tax:	6.5% (assumed)
Rate of interest on overpaid tax:	2.25% (assumed)

Stamp Duty and Stamp Duty Land Tax

Ad Valorem Duty	**Rate**
Residential property:	
£125,000 or less (1)	Nil
£125,001 to £250,000	1%
£250,001 to £500,000	3%
£500,001 or above	4%

(1) for non residential property, the nil rate is extended to £150,000

Shares	0.5%
Fixed duty	£5

Calculations and workings need only be made to the nearest £. All apportionments may be made to the nearest month. All workings should be shown.

Section A: BOTH questions are compulsory and MUST be attempted

1 Hutt plc has owned the whole of the ordinary share capital of Rainbow Ltd and Coronet Ltd since 1998. All three companies are resident in the UK. Their results for the year ended 31 March 2007 are as follows:

	Hutt plc	Rainbow Ltd	Coronet Ltd
	£	£	£
Taxable trading profit/(loss)	(105,000)	800,000	63,000
Capital gain	144,000	–	–
Rental income	65,000	–	–
UK bank interest receivable	2,000	57,000	18,000

Hutt plc's rental income of £65,000 per annum arises in respect of Hutt Tower, an office building acquired on 1 April 2006.

In the year ended 31 March 2006 Hutt plc had a trading profit of £735,000, UK bank interest receivable of £2,000 and a capital loss of £98,000, which was carried forward as at 31 March 2006.

Hutt plc and Coronet Ltd both carry on trades in the UK. Rainbow Ltd conducts both its manufacturing and trading activities wholly in the country of Prismovia. The system of corporation tax in Prismovia is mainly the same as that in the UK although the rate of corporation tax is 28%. There is no double taxation agreement between the UK and Prismovia.

Hutt plc has agreed that it will purchase the whole of the share capital of Lucia Ltd, a UK resident engineering component manufacturing company, on 1 July 2007 for £130,000.

Hutt plc will need to take out a loan to finance the purchase of Lucia Ltd. The company intends to borrow £190,000 from BHC Bank Ltd on 1 July 2007. BHC Bank Ltd will charge Hutt plc a £1,400 loan arrangement fee and interest at 7.25% per annum. Hutt plc only needs £130,000 of the loan to buy the share capital of Lucia Ltd and intends to use the balance of the loan as follows: £45,000 to carry out repairs to Hutt Tower; and the remainder to help fund the company's ongoing working capital requirements.

Lucia Ltd is a UK resident company. The scale of its activities in the last few years has been very small and it has made tax adjusted trading losses. As at 31 March 2007 Lucia Ltd has trading losses carried forward of £186,000. The company's activities from 1 April 2007 to 30 June 2007 are expected to be negligible and any profit or loss in that period can be ignored. Because of the small scale of its activities Lucia Ltd has not been registered for value added tax (VAT) since March 2006. In arriving at the purchase price for the company, the owners of Lucia Ltd have valued the company's trading losses at £35,340 (£186,000 at 19%), as Lucia Ltd has always been a small company.

On the purchase of Lucia Ltd, Hutt plc has plans to return the company to profitability and the budgeted turnover of Lucia Ltd for the nine months ended 31 March 2008 is as set out below. All amounts relate to the sales of engineering components and are stated exclusive of VAT. It can be assumed that all categories of turnover will accrue evenly over the period.

		£
UK customers:	– VAT registered	85,000
	– non-VAT registered	25,000
European Union customers:	– VAT registered	315,000
	– non-VAT registered	70,000
Other non-UK customers		180,000
		675,000

Lucia Ltd will incur input VAT of £7,800 per month from 1 July 2007 in respect of purchases from UK businesses. It will also purchase raw materials from Dabet Gmbh for £17,000 in November 2007. Dabet Gmbh is resident and registered for VAT in Germany.

Lucia Ltd owns a factory that was built in May 1971 at a cost of £210,000. The factory was acquired by Lucia Ltd on 30 June 2003, for £270,000. It can be assumed that the factory's current value of £80,000 will not change in the foreseeable future. On 1 January 2008, Lucia Ltd will sell this factory and take out a short lease on a new, larger one. The indexation allowance applicable to the period June 2003 to January 2008 can be assumed to be £27,000.

It is proposed that an office building owned by Coronet Ltd be sold to Lucia Ltd in May 2008 at its market value. This building will then be sold on by Lucia Ltd, to Vac Ltd, an unconnected third party in June 2008, giving rise to a capital gain of £92,000. The intention is that this gain will be reduced by the capital loss arising on the sale of the factory.

Required:

(a) Describe and evaluate the options available in respect of the trading losses of Hutt plc for the year ended 31 March 2007. Your answer should include a recommendation on the most tax efficient use of these losses, together with details of and time limits for any elections or claims that would need to be submitted, assuming that the losses are to be used as soon as possible and are not to be carried forward. (13 marks)

(b) Prepare a report for the management of Hutt plc concerning the acquisition of Lucia Ltd. The report should be in three sections, addressing the three sets of issues set out below, and should, where appropriate, include supporting calculations.

(i) The purchase price
Comment on the valuation placed on Lucia Ltd's trading losses, by the owners of Lucia Ltd.

Provide an explanation of the tax treatment of the loan arrangement fee and the interest payable on the loan of £190,000, assuming that Hutt plc continues to have bank interest receivable, in the year ended 31 March 2008, of £2,000. (9 marks)

(ii) VAT issues
Provide an explanation of the date by which Lucia Ltd will be required to register for VAT in the UK and any other relevant points in respect of registration.

Provide a calculation of the VAT payable by, or repayable to, Lucia Ltd in respect of the period from registration to 31 March 2008.

With reference only to the facts in the question, suggest ONE disadvantage of Lucia Ltd entering into a group VAT registration with Hutt plc. (6 marks)

(iii) The office building
Advise on the tax implications of the proposed sale of the office building by Coronet Ltd to Lucia Ltd in May 2008. Your answer should consider all relevant taxes.

Evaluate the proposed strategy to reduce the capital gain arising on the sale of the office building by offsetting the capital loss on the sale of the factory, on the assumption that both Lucia Ltd and Coronet Ltd will pay corporation tax at the rate of 30%, for the year ended 31 March 2009. (9 marks)

Appropriateness of the format and presentation of the report and the effectiveness with which its advice is communicated. (2 marks)

You may assume that the tax rates and allowances for the financial year to 31 March 2007 and for the tax year 2006/07 will continue to apply for the foreseeable future.

(39 marks)

2 Your manager has had a meeting with Pilar Mareno, a self-employed consultant, and has sent you a copy of the following memorandum.

To	The files
From	Tax manager
Date	31 May 2007
Subject	Pilar Mareno – Business expansion

Pilar Mareno (PM) has been offered a contract with DWM plc, initially for two years, which will result in fees of £80,000 plus VAT per annum.

In order to service this contract, PM would have to take on additional help in the form of either a part-time employee for two days a week, or the services of a self-employed contractor for 100 days per year. She would also have to acquire a van, which would be used wholly for business purposes. PM has decided that she will only enter into the contract if it generates at least an additional £15,000 per annum, on average, for the family after all costs and taxes.

PM's annual profitability and the profit generated by the contract (before taking into account the costs of the part-time employee/contractor and the van) are summarised below.

	Existing business	New contract
	£	£
Sales	210,000	80,000
Less: Materials, wages and overheads	(120,000)	(35,000)
Profit per accounts and taxable profit	90,000	45,000

Supplies made under the contract will be 65% standard rated and 35% exempt for value added tax (VAT) purposes; this is the same as for PM's existing business. £31,500 of the costs incurred in relation to the contract will be subject to VAT at the standard rate. The equivalent figure for PM's existing business is £100,000.

PM has identified Max Wallen (MW) as a possible self-employed contractor. MW would charge £75 per day plus VAT for a contract of 100 days per year, with a rate of £25 per day plus VAT in respect of any days when he is ill (up to a maximum of 8 days per year). PM has a spare copy of the specialist software that MW would need but MW would use his own laptop computer.

Alternatively, PM could employ her husband, Alec (AM), paying him a gross annual salary of £7,600. AM would have to give up his current full time job, but would expect to do other part-time employed work earning a further £10,000 (gross) per annum.

PM estimates that a second hand van will cost £7,800 plus VAT or alternatively, a van could be leased for £300 plus VAT per month. We can assume that if the van is purchased, it will be sold at the end of the two year contract for £2,500 plus VAT.

Tax manager

An extract from an email from your manager is set out below.

Please prepare a memorandum for me, incorporating the following:

1 Calculations to demonstrate whether or not Pilar's desired annual after tax income from the new contract will be achievable depending on:
   – whether she leases or buys the van; and
   – whether she employs Alec or uses Max Wallen.

   You may find it easier to:

   (i) work out the after tax cost of buying or leasing the van. (When calculating the annual cost of the van, assume that the total cost can be averaged over the two years of the contract.)

   and then to consider:

   (ii) the after tax income depending on whether Alec is employed or the self-employed contractor, Max, is used.

2 A rationale for the approach you have taken and a summary of your findings.
3 Any other issues we should be considering in respect of Pilar employing Alec, including any alternative to employment.
4 It seems to me that HM Revenue and Customs may be able to successfully contend that Max Wallen would be an employee, rather than a self-employed contractor. Prepare your figures on the basis that he is self-employed but include a list of factors in your memorandum, based on the information we have, that would indicate either employed or self-employed status.

Take some time to think about your approach to this before you start. Also, as always when working on Pilar's affairs, watch out for the VAT as it can get quite tricky. I suspect the VAT will affect the costs incurred so you'll need to address VAT first. Pilar's estimate of the profit on the contract will have ignored these complications.

Tax manager

You have extracted the following further information from Pilar Mareno's client file.
– None of Pilar's VAT inputs is directly attributable to either standard rated or exempt supplies.
– Alec has worked for a UK bank for many years and is currently paid an annual salary of £17,000.
– The couple have no sources of income other than those set out above.

Required:

Prepare the memorandum requested by your manager.

Marks are available for the four components of the memorandum as follows:

1. Relevant calculations. (16 marks)

2. Rationale for the approach taken and summary of findings. (2 marks)

3. Other issues in respect of Pilar employing Alec, together with any suggestions as to an alternative to employment. (2 marks)

4. The employment status of Max Wallen. (3 marks)

Appropriateness of the format and presentation of the memorandum and the effectiveness with which the information is communicated. (2 marks)

You may assume that the rates and allowances for the tax year 2006/07 will continue to apply for the foreseeable future.

(25 marks)

Section B: TWO questions ONLY to be attempted

3 Stanley Beech, a self-employed landscape gardener, intends to transfer his business to Landscape Ltd, a company formed for this purpose.

The following information has been extracted from client files and from meetings with Stanley.

Stanley:
- Acquired a storage building for £46,000 on 1 July 1998 and began trading.
- Has no other sources of income.
- Has capital losses brought forward from 2002/03 of £11,400.

The whole of the business is to be transferred to Landscape Ltd on 1 September 2007:
- The market value of the assets to be transferred is £118,000.
- The assets include the storage building and goodwill, valued at £87,000 and £24,000 respectively, and various small pieces of equipment and consumable stores.
- Landscape Ltd will issue 5,000 £1 ordinary shares as consideration for the transfer.

Advice given to Stanley in respect of the sale of the business:
- "No capital gains tax will arise on the transfer of your business to the company."
- "You should take approximately 30% of the payment from Landscape Ltd in shares with the balance left on a loan account payable to you by the company, such that you can receive a cash payment in the future."

Advice given to Stanley in respect of his annual remuneration from Landscape Ltd:
- "The payment of a dividend of £21,000 is more tax efficient than paying a salary bonus of £21,000 as you will pay income tax at only 25% on the dividend received, whereas you would pay income tax at 40% on a salary bonus. The dividend also avoids the need to pay national insurance contributions."
- "There is no tax in respect of an interest free loan from an employer of less than £5,000."
- "The provision of a company car is tax neutral as the cost of providing it is deductible in the corporation tax computation."

Stanley's proposed remuneration package from Landscape Ltd:
- An annual salary of £40,000 and an annual dividend of approximately £21,000.
- On 1 December 2007 an interest free loan of £3,600, which he intends to repay in two years time.
- A company car with a cost when new of £11,400. The only costs incurred by the company in respect of this car will be lease rentals of £300 per month and business fuel of £100 per month.
- The annual employment income benefit in respect of the car is to be taken as £3,420.

Landscape Ltd:
- Will prepare accounts to 31 March each year.
- Will pay corporation tax at the rate of 19%.

Required:

(a) (i) Explain why there would be no capital gains tax liability on the transfer of Stanley's business to Landscape Ltd in exchange for shares. Calculate the maximum loan account balance that Stanley could receive without giving rise to a capital gains tax liability and state the resulting capital gains tax base cost of the shares. (8 marks)

(ii) Explain the benefit to Stanley of taking part of the payment for the sale of his business in the form of a loan account, which is to be paid out in cash at some time in the future. (1 mark)

(b) Comment on the accuracy and completeness of the advice received by Stanley in respect of his remuneration package. Supporting calculations are only required in respect of the company car. (9 marks)

Ignore value added tax (VAT) in answering this question.

You may assume that the rates and allowances for the financial year to 31 March 2007 and the tax year 2006/07 will continue to apply for the foreseeable future.

(18 marks)

4 Mahia Ltd is an unquoted, UK resident trading company formed in May 2000. One of its shareholders, Claus Rowen, intends to sell his shares back to Mahia Ltd on 31 July 2007. Another shareholder, Maude Brooke, intends to give some of her shares to her daughter, Tessa.

The following information has been extracted from client files and from meetings with the shareholders.

Mahia Ltd:

– In May 2000 the company issued 40,000 shares at £3.40 per share as follows:

Claus Rowen	16,000
Charlotte Forde	12,000
Olaf Berne	12,000

– Olaf sold his 12,000 shares to Maude Brooke on 1 October 2005 when they were worth £154,000.

Claus and Charlotte:

– Have always lived in the UK.
– Are higher rate taxpayers who use their capital gains tax annual exemption every year.

Maude:

– Was born in the UK, but moved to Canada on 1 April 2003 with her daughter, Tessa.
– Has not visited the UK since leaving for Canada, but will return to the UK permanently in December 2012.
– Is employed in Canada with an annual salary equivalent to £70,000.

Sale of shares by Claus:

– Charlotte and Maude want to expand the company's activities in the UK but Claus does not. The shareholders have been arguing over this matter for almost a year.
– In order to enable the company to prosper, Claus has agreed to sell his shares to the company on 31 July 2007.

Gift of shares by Maude:

– Maude will gift 4,000 shares in Mahia Ltd to her daughter, Tessa, on either 1 August 2007 or 1 June 2008.
– She will delay the gift until 1 June 2008 (Tessa's wedding day) if this reduces the total tax due.
– The tax due in Canada will be the same regardless of the date of the gift.
– She has made no previous transfers of value for UK inheritance tax purposes.
– For the purposes of this gift, you should assume that Maude will die on 31 December 2011.

Market values of shares in Mahia Ltd on all relevant dates are to be taken as:

Size of shareholding	Market value per share
%	£
< 25	10.20
25 – 35	14.40
> 35	38.60

Market values of the assets of Mahia Ltd on all relevant dates are to be taken as:

	£
Land and buildings used within the trade	1,400,000
Three machines of equal value used within the trade	15,000
Motor cars used by employees	45,000
Quoted shares	42,000
Inventory, trade receivables and cash	145,000

Required:

(a) Advise Claus on the tax treatment of the proceeds he will receive in respect of the sale of his shares to Mahia Ltd. Prepare a calculation of the net (after tax) proceeds from the sale based on your conclusions. (8 marks)

(b) Advise Maude on the UK tax consequences of gifting the shares to Tessa and prepare computations to determine on which of the two dates the gift should be made, if the total UK tax due on the gift is to be minimised. Your answer should consider all relevant taxes. (10 marks)

You may assume that the rates and allowances for the tax year 2006/07 will continue to apply for the foreseeable future.

(18 marks)

5 Vikram Bridge has been made redundant by Bart Industries Ltd, a company based in Birmingham. He intends to move to Scotland to start a new job with Dreamz Technology Ltd.

The following information has been extracted from client files and from meetings with Vikram.

Vikram Bridge:
– Is unmarried, but has been living with Alice Tate since 1996. The couple have four young children.
– Receives dividends of approximately £7,800 each year and makes annual capital gains of approximately £1,200 in respect of shares inherited from his mother.
– The couple have no sources of income other than Vikram's employment income and the £7,800 of dividends.

Made redundant by Bart Industries Ltd on 28 February 2007:
– Vikram's employment contract entitled him to two months' notice or two months salary in lieu of notice. On 28 February 2007 the company paid him his salary for the two-month period of £4,700, and asked him to leave immediately.
– On 30 April 2007 the company paid him a further £1,300 in respect of statutory redundancy, together with a non-contractual lump sum of £14,500, as a gesture of goodwill.

Job with Dreamz Technology Ltd:
– Starts on 1 October 2007 with an annual salary of £38,500.
– The company will contribute £9,400 in October 2007 towards Vikram's costs of moving to Scotland.
– In November 2008, the company will issue free shares to all of its employees. Vikram will be issued with 200 shares, expected to be worth approximately £2,750.

Moving house:
– Vikram's house in Birmingham is fairly small; he intends to buy a much larger one in Glasgow.
– The cost of moving to Glasgow, including the stamp duty land tax in respect of the purchase of his new house, will be approximately £12,500.
– To finance the purchase of the house in Glasgow Vikram will sell a house he owns in Wales, in August 2007.

House in Wales:
– Was given to Vikram by his mother on 1 September 1999, when it was worth £145,000.
– Vikram's mother continued to live in the house until her death on 1 May 2007, when she left the whole of her estate to Vikram.
– At the time of her death the house had severe structural problems and was valued at £140,000.
– Vikram has subsequently spent £18,000 improving the property and expects to be able to sell it for £195,000.
– Vikram is keen to reduce the tax payable on the sale of the house and is willing to transfer the house, or part of it, to Alice prior to the sale if that would help.

Required:

Prepare explanations, including supporting calculations where appropriate, of the following issues suitable for inclusion in a letter to Vikram.

(a) The capital gains tax payable on the sale of the house in Wales in August 2007, together with the potential effect of transferring the house, or part of it, to Alice prior to the sale, and any other advice you consider helpful. (7 marks)

(b) The inheritance tax implications in respect of the house in Wales on the death of Vikram's mother. (2 marks)

(c) The income tax treatment of the receipt by Vikram of the shares in Dreamz Technology Ltd. (3 marks)

(d) How Vikram's job with Dreamz Technology Ltd will affect the amount and date of payment of the income tax due on his dividend income for 2009/10 and future years. (6 marks)

Ignore national insurance contributions in answering this question.

You may assume that the rates and allowances for the tax year 2006/07 will continue to apply for the foreseeable future.

(18 marks)

End of Question paper

Answers

1 (a) Options available in respect of the trading losses of Hutt plc of £105,000

(i) Within Hutt plc

The loss can be offset against the profits chargeable to corporation tax of Hutt plc for the year ended 31 March 2007.

	£
Capital gain	144,000
Less: capital loss brought forward	(98,000)
	46,000
Rental income	65,000
Interest income	2,000
Profits chargeable to corporation tax	113,000

Hutt plc, Rainbow Ltd and Coronet Ltd are associated as Hutt plc controls the other two companies. As a result, the small companies rate lower limit for the purposes of determining the rate of corporation tax is reduced from £300,000 to £100,000. Accordingly, Hutt plc will pay corporation tax at 30% less marginal relief. This means that the first £100,000 of the company's profits will be taxed at 19% and the final £13,000 at the marginal rate of 32¾%.

A current period offset has to be made before losses can be carried back to the previous twelve months. The trading loss for the year ended 31 March 2007 is less than the profits chargeable to corporation tax and therefore a claim to carry back the losses cannot be made.

(ii) Group relief

Hutt plc, Rainbow Ltd and Coronet Ltd are in a group for group relief purposes as Hutt plc controls at least 75% of the other two companies. Any amount of the loss can be surrendered to each of the two subsidiary companies in order to reduce their profits chargeable to corporation tax. The maximum surrender is the profits chargeable to corporation tax of the recipient company.

Coronet Ltd has profits chargeable to corporation tax of £81,000 (£63,000 + £18,000). As stated above, due to the number of associates, the small companies rate lower limit is reduced to £100,000 (£300,000 x □). Accordingly, Coronet Ltd will pay tax at 19%.

The profits chargeable to corporation tax of Rainbow Ltd exceed £500,000 (£1,500,000 x □) and therefore, the company will pay UK corporation tax at the rate of 30%.

However, Rainbow Ltd has a permanent establishment in Prismovia as it manufactures and trades in that country. The profits arising in Prismovia will be taxed in that country at 28%. Double tax relief will be available in the UK in respect of the Prismovian tax suffered, up to a maximum of the UK tax on the Prismovian profits; any surrender to Rainbow Ltd must ensure that relief for the foreign tax suffered is not lost.

The maximum surrender that can be made to Rainbow Ltd whilst preserving relief for the foreign tax is calculated as follows.

	£
Trading profit ((£800,000 x 2%) / 30%)	53,333
Interest income	57,000
	110,333

(iii) Recommendations

In order to maximise the tax saved the losses should be offset against the profits taxed at 32¾% in Hutt plc and the profits taxed at 30% in Rainbow Ltd whilst preserving the relief for the foreign tax suffered.

Accordingly, £13,000 of the losses should be offset against the profits chargeable to corporation tax in Hutt plc with the balance of £92,000 (£105,000 – £13,000) surrendered to Rainbow Ltd. This is less than £110,333, and therefore, preserves relief for all of the foreign tax.

When making a claim to offset a company's trading loss against its total profits, it is not possible to specify the amount to be offset; all of the losses available will be offset subject to the level of taxable profits. Accordingly, in order to achieve the desired result, the two claims must be made in the following order.

1. An election to surrender losses of £92,000 to Rainbow Ltd. This must be made by 31 March 2009, i.e. within one year of the filing date of the claimant company's tax return. Both Rainbow Ltd and Hutt plc must elect.
2. An election to offset the remaining losses (£13,000) against the total profits of Hutt plc should be submitted by the same date, i.e. within two years of the end of the period in which the loss was made.

Tutorial note

The tax computation of Rainbow Ltd for the year ended 31 March 2007 following the group relief claim is set out below. Group relief of £57,000 is offset against the interest income with the balance of £35,000 being offset against the trading profit in order to maximise the double tax relief.

	£
Trading profit (£800,000 – £35,000)	*765,000*
Interest income (£57,000 – £57,000)	*–*
Profits chargeable to corporation tax	*765,000*
Corporation tax @ 30%	*229,500*
Less Double tax relief (£800,000 x 28%)	*(224,000)*
Corporation tax payable	*5,500*

(b) Report to the management of Hutt plc

To The management of Hutt plc
From Tax advisers
Date 1 June 2007
Subject The acquisition of Lucia Ltd

(i) The purchase price

Valuation of the trading losses in Lucia Ltd

Lucia Ltd has no profits in the year ended 31 March 2007 or the previous year against which to offset the losses.

The trading losses arose before Lucia Ltd joined the Hutt plc group, and therefore, they cannot be surrendered to any of the group members.

The losses cannot be carried forward as there will be a change of ownership of Lucia Ltd after its activities have become negligible. Losses arising prior to the change of ownership cannot be offset against profits arising once the trade has been revived.

The losses cannot be used, and therefore, they have no value.

Loan from BHC Bank

Hutt plc is to enter into a loan relationship with BHC Bank. Any amounts charged to the company's profit and loss account in respect of the relationship are allowable deductions for tax purposes. Accordingly, a tax deduction is available for the interest and the loan arrangement fee on the accruals basis.

On the assumption that the loan arrangement fee is charged to the profit and loss account in full in the year ended 31 March 2008, the total amount charged in the accounts will be £11,731 (£1,400 + (£190,000 x 7.25% x 9/12)). The income from which this amount can be deducted in the corporation tax computation depends on the use made of the finance obtained.

	Finance		**Allowable cost**
	£		**£**
For the purpose of investments:			
Acquisition of Lucia Ltd	130,000		
Repairs to Hutt Tower	45,000		
	175,000	175/190 x £11,731	10,805
For the purpose of the trade:			
Working capital requirements	15,000	15/190 x £11,731	926
Total finance obtained	190,000		11,731

Where the finance has been used for trading purposes, the cost of £926 is deductible in arriving at Hutt plc's taxable trading income.

Where the finance has been used for non-trading purposes, the cost of £10,805 is deductible from Hutt plc's interest income in respect of loan relationships. This results in a deficit, or loss, of £8,805 (£10,805 – £2,000) in the year ended 31 March 2008.

The deficit can be:
- Offset against other income and gains of Hutt plc of the same accounting period.
- Offset against the interest income of Hutt plc of the previous 12 months.
- Surrendered as group relief to companies within the group relief group.
- Carried forward and offset against future non-trading income and gains.

The most tax efficient use of the deficit will depend on the level of profits in Hutt plc and the other group companies in the year ended 31 March 2008.

(ii) VAT issues

Registration

All the supplies made by Lucia Ltd are taxable supplies for the purposes of VAT. The company must register for VAT:

- If its taxable supplies in the previous 12 months exceed £61,000; or
- If its taxable supplies in the next 30 days are expected to exceed £61,000.

It is anticipated that the company's supplies in the nine months ended 31 March 2008 will be £675,000 and that these supplies will accrue evenly over the period. This amounts to supplies of £75,000 per month. Accordingly, Lucia Ltd must register with effect from 1 July 2007 and must notify HMRC by 30 July 2007.

Lucia Ltd intends to make supplies to non-VAT registered customers in the European Union (EU). If Lucia Ltd is responsible for the delivery of the goods it should be aware that once its supplies in any one particular member state exceed that state's 'distance selling' threshold, it may be required to register for VAT in that state.

VAT in respect of the nine months ended 31 March 2008

	£
Output tax	
UK customers – VAT registered (£85,000 x 17½%)	14,875
UK customers – non-VAT registered (£25,000 x 17½%)	4,375
EU customers – VAT registered – zero-rated	–
EU customers – non-VAT registered (£70,000 x 17½%)	12,250
Other non-UK customers – zero-rated	–
Acquisition from Dabet Gmbh (£17,000 x 17½%)	2,975
	34,475
Input tax	
In respect of purchases from UK businesses (9 x £7,800)	70,200
Acquisition from Dabet Gmbh	2,975
	73,175
Repayment of VAT due (£73,175 – £34,475)	38,700

Disadvantage of entering into a group VAT registration

Lucia Ltd makes mainly zero-rated supplies and is in a VAT repayment position. It can improve its cash flow position by accounting for VAT monthly and receiving monthly repayments of VAT. It would not be in a position to do this if it were to register in a VAT group.

Under a group registration, the group's representative member will account for VAT payable to HMRC on behalf of all group companies. It may be some time before Lucia Ltd's accounting system is aligned with that of Hutt plc. The existence of two different systems may create administrative difficulties in preparing a group VAT return.

Note – Only one of the above disadvantages was required

(iii) The office building

Tax implications of the sale of the office building from Coronet Ltd to Lucia Ltd

Corporation tax

At the time of the transfer, Coronet Ltd and Lucia Ltd will be in a capital gains group as they will both be 75% subsidiaries of Hutt plc. Therefore the transfer of the office building will be deemed to occur at no gain, no loss. Lucia Ltd will have a capital gains tax base cost in the building equal to the cost to Coronet Ltd plus indexation allowance up to the date of the transfer.

Value added tax (VAT)

The transfer will be outside the scope of VAT if the two companies are in a VAT group.

If the two companies are registered separately, the treatment depends on whether or not Coronet Ltd has opted to tax the building. If it has, then the transfer to Lucia Ltd will be standard rated and VAT must be charged. If it has not, the transfer will be an exempt supply.

Stamp duty land tax

There will be no stamp duty land tax on the transfer as both companies are 75% subsidiaries of Hutt plc.

Relief of the gain on the sale of the office building to Vac Ltd

The loss arising on the sale of the factory will be £190,000 (£270,000 - £80,000). Indexation allowance is not available to increase a loss.

Lucia Ltd acquired the factory before it joined the Hutt plc group. Accordingly, the factory is a pre-entry asset and that part of the loss that arose prior to 1 July 2007 is restricted in use. In particular, it cannot be offset against gains arising in other companies in the Hutt plc group or gains on assets transferred from other group members on a no gain no loss basis.

As at 1 January 2008, Lucia Ltd will have owned the factory for four and a half years, of which four years are outside of the Hutt plc group. The pre-entry element of the loss is £168,889 (£190,000 x 4/4.5).

The pre-entry element of the loss could be computed by reference to the market value of the building at the time Hutt plc acquires Lucia Ltd. However this would not be advantageous in this case as the whole of the loss would then be a pre-entry loss.

The balance of the loss of £21,111 can be offset against the gain on the office building. Based on a corporation tax rate of 30%, this will save tax of £6,333.

There is no need to actually transfer the office building to Lucia Ltd in order to relieve the gain in this way. Coronet Ltd and Lucia Ltd can simply elect to treat the gain as if it has been made by Lucia Ltd. The election must be submitted by 31 March 2011, ie within two years of the end of the accounting period in which the disposal of the office building occurs.

2 To The files
From Tax assistant
Date 1 June 2007
Subject Pilar Mareno - Business expansion

This memorandum considers the implications of Pilar Mareno (PM) accepting the DWM plc contract.

Rationale and approach
PM has decided to accept the contract if it generates at least £15,000 per annum on average for the family after all costs and taxes.

PM will either employ her husband, Alec, or use the services of Max Wallen, and will either buy or lease a van. However, it can be seen from workings 3 and 4 that it is cheaper to buy rather than lease the van, and therefore, there are only two options to consider.

- Employ Alec and buy a van – Appendix 1
- Use Max Wallen and buy a van – Appendix 2

Summary of findings
The contract generates sufficient after tax income whether PM buys a van and employs Alec or uses Max Wallen. However, the issues raised below in relation to PM employing Alec should be considered before a decision is made.

Issues in respect of Pilar employing Alec

1. Alec has worked for a UK bank for many years. It is risky to give up an apparently secure job in exchange for a two year contract requiring two days work a week and other, as yet unidentified, part-time work.

   Accordingly, Alec should obtain advice as regards his personal situation. If we are asked to provide this advice we must recognise that Pilar and Alec would be two separate clients. The work would have to be managed in such a way as to ensure that we do not allow the interests of Pilar to adversely affect those of Alec or vice versa.

2. PM and Alec should consider forming a partnership. This would reduce national insurance contributions as Alec would only pay 8% on his share of the profit plus class 2 at £2.10 per week whereas the cost of employer and employee class 1 contributions where Alec is an employee is 12.8% and 11% respectively.

   Alec's profit share could be more than £7,600. This would enable income currently taxed at 40% in PM's hands to be taxed at 22% in Alec's hands. However, this saving in income tax would be offset by increased national insurance costs as the national insurance on PM's marginal income is only 1% whereas Alec would pay 8%.

Employment status of Max Wallen
Max's employment status will be determined by reference to all of the facts surrounding his agreement with PM.

Factors indicating employee status
1. It appears that Max has to do the work himself and cannot use a substitute.
2. Max is to be paid by the day rather than by reference to the performance of particular tasks.
3. Max is to be paid for the days when he is sick.
4. Max is to be provided with the specialist software he needs to do the work.

Factors indicating self-employed status
1. Max provides his own laptop computer.

Tax assistant

Tutorial Note

There is insufficient information provided regarding other factors, such as the level of control over Max's work, to justify their inclusion within the terms of the brief provided.

Appendix 1 – Employ Alec and buy a van

	£
Profit on contract	45,000
Irrecoverable VAT due to partial exemption (W1)	(8,054)
Salary paid to Alec	(7,600)
Class 1 secondary NIC re Alec ((£7,600 – £5,035) x 12.8%)	(328)
	29,018
Income tax and class 4 NIC due (£29,018 x (40% + 1%))	(11,897)
	17,121
Increase in Alec's income (W2)	402
Purchase of van (less than cost of leasing van) (W3 and W4)	(1,704)
Income of family after all taxes	15,819

Tutorial Note:
The salary paid to Alec is a cost as far as Pilar is concerned. The effect of the salary on Alec's income is calculated in working 2, below.

Appendix 2 – Use Max Wallen and buy a van

	£
Profit on contract	45,000
Irrecoverable VAT due to partial exemption (W1)	(8,054)
Fees paid to Max Wallen (100 x £75)	(7,500)
Irrecoverable VAT on fees (£7,500 x 17½% x 35%))	(459)
	28,987
Income tax and class 4 NIC due (£28,987 x (40% + 1%))	(11,885)
	17,102
Purchase of van (less than cost of leasing van) (W3 and W4)	(1,704)
Income of family after all taxes	15,398

Workings

(1) Irrecoverable VAT due to partial exemption

	£
Without the new contract:	
In respect of the existing business (£100,000 x 17½% x 35%)	6,125

This is below the annual de minimis limit of £7,500 (£625 x 12) and is fully recoverable.

	£
With the new contract:	
In respect of the existing business (as above)	6,125
In respect of the costs of the DWM contract (£31,500 x 17½% x 35%)	1,929
	8,054

This exceeds the annual de minimis limit and is irrecoverable.

Tutorial Note
Pilar's taxable turnover is not affected by the sale of the van as it is a capital asset.

(2) Increase in Alec's income

	£
Increase in gross salary ((£7,600 + £10,000) – £17,000)	600
Less income tax and NIC (£600 x (22% + 11%))	(198)
Increase in after tax income	402

Tutorial Note
At the margin, Alec pays income tax at the basic rate of 22% and NIC at 11%.

(3) Cost of purchasing van

	£
Net cost (£7,800 – £2,500) for two year period	5,300
Income tax and class 4 NIC saved (£5,300 x (40% + 1%))	(2,173)
Irrecoverable VAT (£7,800 x 17½% x 35%)	478
Income tax and class 4 NIC saved (£478 x (40% + 1%))	(196)
	3,409
Average cost per year (£3,409 x ½)	1,704

(4) **Cost of leasing van (per year)**

	£
Lease rentals (£300 x 12)	3,600
Income tax and class 4 NIC saved (£3,600 x (40% + 1%))	(1,476)
Irrecoverable VAT (£3,600 x 17½% x 35%)	220
Income tax and class 4 NIC saved (£220 x (40% + 1%))	(90)
	2,254

3 (a) Use of a loan account

(i) The split of consideration between the shares and loan account

Where all of the assets of Stanley's business are transferred to Landscape Ltd as a going concern wholly in exchange for shares, any capital gains arising are relieved via incorporation relief such that no capital gains tax liability arises.

However, where part of the payment received from the company is in the form of a loan account, Stanley will have chargeable gains as set out below. For Stanley to have no liability to capital gains tax in 2007/08, his chargeable gains must equal the annual exemption of £8,800.

	£
Gain on building (£87,000 – £46,000)	41,000
Gain on goodwill	24,000
	65,000
Gains after incorporation relief:	
$£65,000 \times \dfrac{\text{Value of the loan account}}{£118,000}$	y
Less: Capital losses brought forward	(11,400)
	z
Taper relief – business assets owned for at least two years	x 25%
Chargeable gains	8,800

Gains after incorporation relief, y, must equal £46,600 ((£8,800 x 4) + £11,400).

The value of the loan account needs to be £84,597 (£46,600 x £118,000/£65,000) such that the gains after incorporation relief are £46,600 (£65,000 x £84,597/£118,000).

The shares will have a capital gains tax base cost of £15,003 computed as follows.

	£
Market value of assets transferred to Landscape Ltd	118,000
Less Consideration left on loan account	(84,597)
	33,403
Incorporation relief:	
$£65,000 \times \dfrac{£33,403}{£118,000}$	(18,400)
	15,003

(ii) The benefit of using a loan account

The loan account crystallises capital gains at the time of incorporation without giving rise to a tax liability due to the availability of capital losses, taper relief and the annual exemption. This reduces the gains deferred against the base cost of the shares in Landscape Ltd from £65,000 to £18,400 such that any future gains on the disposal of the shares will be smaller. Stanley can extract £84,597 from Landscape Ltd in the future with no 'tax cost', by having the loan repaid.

(b) Advice on Stanley's remuneration package

(i) Dividend

The advice in respect of the dividend is accurate but not complete as it ignores the cost to Landscape Ltd. Because Stanley owns Landscape Ltd, he must consider the effect on the company's position as well as his own.

Dividends are not tax deductible. The profits paid out as a dividend to Stanley will have been subject to corporation tax at 19%. On the other hand, Landscape Ltd will obtain a tax deduction at 19% for a salary bonus together with the related national insurance contributions.

There will be an overall tax saving from paying a dividend as opposed to a salary bonus. However the benefit will not be as great as suggested by the advice that Stanley has received due to the different treatment of the two payments in the company.

(ii) Interest free loan

The advice in respect of the loan is again accurate but not complete. The loan will not give rise to an employment income benefit as it is for not more than £5,000, but the advice again ignores the position of the company.

As it is controlled by Stanley, Landscape Ltd will be a close company. Accordingly, the loan to Stanley is a loan to a participator in a close company, and as Stanley owns more than 5% of the company's share capital there is no de minimis in this case.

Thus, Landscape Ltd must pay an amount equal to 25% of the loan (£900) to HMRC. The payment will be due on 1 January 2009, i.e. nine months and one day after the end of the accounting period in which the loan is made.

When the loan is repaid by Stanley, Landscape Ltd may reclaim the £900. The repayment by HMRC will be made nine months and one day after the end of the accounting period in which the loan is repaid.

(iii) Company car

The advice in respect of the company car is not correct because of the difference in the tax rates applying to the company and to Stanley, and the liability to Class 1A national insurance contributions.

	£
Tax cost of providing car:	
Class 1A national insurance contributions	
£3,420 x 12.8%	438
Income tax on benefit (£3,420 x 40%)	1,368
	1,806
Tax saved:	
Cost of providing car (£400 x 12)	4,800
Class 1A national insurance contributions	438
	5,238
Corporation tax @ 19%	995
Net tax cost (£1,806 – £995)	811

4 (a) Sale of shares in Mahia Ltd

The proceeds received on a purchase by a company of its own shares are subject to either income tax or capital gains tax depending on the circumstances.

The normal assumption on a purchase of own shares by a company is that any payment you receive for the shares, over and above the amount originally subscribed for them, would be an income distribution, and treated in the same way as a payment of a dividend. The net amount received, less the amount originally subscribed, would be grossed up by 100/90 and included in your taxable income.

Alternatively, where the transaction satisfies the conditions set out below, the proceeds are treated as capital proceeds giving rise to a capital gain. Your proposed sale of shares to Mahia Ltd satisfies these conditions and will therefore give rise to a capital gain.

- Mahia Ltd is an unquoted trading company.
- The purchase of shares is for the benefit of the company's trade as the disagreement between you and your sisters is having an adverse effect on the company's trade.
- You are resident and ordinarily resident in the UK.
- You have owned the shares for more than five years.
- You are selling all of your shares such that your holding is reduced by at least 25% and you will own less than 30% of Mahia Ltd following the sale.
- The purchase is not part of a scheme designed to avoid tax.

Advance clearance can be obtained from HM Revenue and Customs, to confirm that the capital treatment applies to a purchase of own shares.

The capital gains tax arising on the sale and the net cash proceeds after tax will be:

	£
Shares sold (40% x 40,000)	16,000
Proceeds (16,000 x £38.60)	617,600
Less: Cost (16,000 x £3.40)	(54,400)
	563,200
Taper relief	
Business asset owned for more than two years – 75% relief	(422,400)
	140,800
Capital gains tax at 40%	56,320
Proceeds after tax (£617,600 – £56,320)	561,280

Tutorial note
Mahia Ltd is a trading company such that its shares are business assets for the purposes of taper relief despite the fact that it owns investments in quoted companies. This is because its non-trading activities are no more than 20% of its overall activities.

(b) Gift to Tessa

Capital gains tax (CGT)

Maude lives in Canada and is non-UK resident and not-ordinarily resident. In addition, she is not a temporary non-resident for the purposes of capital gains tax as her stay in Canada will be for more than five years.

Accordingly, there will be no UK CGT on the gift of the shares to Tessa.

Even if Maude were a temporary non-resident, there would be no capital gains tax on the gift of the shares as she acquired them after she left the UK.

Inheritance tax (IHT)

As the shares are situated in the UK, UK IHT will be due on any transfers of value concerning them, regardless of the domicile of the transferor. Therefore, we do not need to consider Maude's domicile.

The gift by Maude to Tessa will be a potentially exempt transfer (PET) and no IHT will be payable. In addition, if Maude were to survive seven years from the date of the gift, there would be no IHT to pay on death. However, the question asks us to assume that Maude will die on 31 December 2011. As this date is within seven years of the proposed dates of the gift, there would be a potential liability to IHT on death for each proposed date as follows:

Gift on 1 August 2007

	£
Value of shares before gift (12,000 x £38.60 (50% holding))	463,200
Value of shares after gift (8,000 x £14.40 (33.3% holding))	(115,200)
Fall in value	348,000
No BPR as Maude has not owned the shares for two years	
Annual exemptions for 2007/08 and 2006/07	(6,000)
	342,000
IHT (40% x (£342,000 – £285,000))	22,800
IHT after taper relief (4 to 5 years) (£22,800 x 60%)	13,680

Tutorial Note
On 1 August 2007 Mahia Ltd will have 24,000 issued shares as the shares sold by Claus to the company will have been cancelled.

Double tax relief may be available to reduce this UK liability, in respect of any inheritance taxes payable in Canada.

Gift on 1 June 2008

	£
Fall in value (as above)	348,000
Business property relief (BPR)	
$£348{,}000 \times \dfrac{£1{,}605{,}000\ (£1{,}400{,}000 + £15{,}000 + £45{,}000 + £145{,}000)}{£1{,}647{,}000\ (£1{,}605{,}000 + £42{,}000)}$	(339,126)
	8,874
Marriage exemption	(5,000)
Annual exemptions for 2008/09 and 2007/08 (part only)	(3,874)
	0

Maude should make the gift on 1 June 2008 as this produces a nil IHT liability due to the availability of BPR. This presupposes that Tessa will continue to own the shares or replacement business property up to the date of Maude's death on 31 December 2011, and so preserve the entitlement to BPR.

Stamp duty
As the transfer of shares is made by way of gift, i.e. for no consideration, no stamp duty is payable.

5 (a) Capital gains tax payable on the sale of the house in Wales

Your taxable capital gain on the sale of the Welsh property will be computed as follows.

	£
Proceeds in August 2007	195,000
Less: Cost (market value as at 1 September 1999)	(145,000)
Enhancement expenditure	(18,000)
	32,000
Taper relief (£32,000 x 75%)	24,000
(non-business asset held for seven years)	
Less: Annual exemption (£8,800 – £1,200)	(7,600)
Taxable capital gain	16,400

Giving the house or part of it to Alice prior to the sale will not reduce the gain as you and Alice are not married. If you make a gift to Alice a capital gain will arise by reference to the market value of the property in exactly the same way as if you had sold the property to an unconnected third party. The gain on such a gift cannot be deferred as the house is not a business asset.

The basic rate band remaining after taxing your income in 2007/08 is as set out below.

When reviewing the computation please note that you do not have any taxable income from Bart Industries Ltd in 2007/08; the payments you received on being made redundant are taxed as follows.
- The payment in lieu of notice of £4,700 is taxed in 2006/07, the year of receipt.
- Statutory redundancy pay is not taxable.
- A non-contractual lump sum up to a maximum of £30,000 is not subject to income tax.

The relocation costs paid by Dreamz Technology Ltd are exempt from income tax up to a maximum of £8,000.

	£
Employment income – Dreamz Technology Ltd	
Salary (£38,500 x 6/12)	19,250
Removal costs (£9,400 – £8,000)	1,400
Dividend income (£7,800 x 10/9)	8,667
	29,317
Less: Personal allowance	(5,035)
Taxable income	24,282
Basic rate band	33,300
Basic rate band remaining	9,018

The computation of your capital gains tax liability is thus:

Capital gains tax:

£		£
9,018	@ 20%	1,804
7,382	@ 40%	2,953
		4,757

An additional year of taper relief would be available if you were to delay the sale until after 1 September 2007. This would reduce the tax due by £640 (£32,000 x 5% x 40%).

(b) Inheritance tax due in respect of the house in Wales

Usually, where a gift is made to an individual more than seven years prior to the donor's death, as in the case of your mother's gift of the house to you, there are no inheritance tax (IHT) implications on the death of the donor. However, because your mother continued to live in the house after she gave it to you, the gift will be taxed under the rules applying to 'gifts with reservation of benefit'.

In these circumstances, HM Revenue and Customs will ignore the original gift as, although the asset was gifted, your mother continued to use it as if it were her own. Therefore, the house will be included in your mother's death estate for IHT purposes at its market value at the date of her death, ie £140,000.

(c) Shares in Dreamz Technology Ltd

The income tax treatment of the issue to you of shares in Dreamz Technology Ltd depends on whether the shares are issued via an approved share incentive plan or not.

Where there is no share incentive plan, the market value of the shares received (£2,750) will be taxable as employment income in 2008/09, i.e. the year in which you receive them.

If there is a share incentive plan approved by HM Revenue and Customs then an employer can give shares to its employees, up to a maximum value of £3,000 per employee per year, with no income tax consequences. However, the shares must be kept within the plan for a stipulated period and income tax will be charged if they are withdrawn within five years.

If you withdraw the shares from the plan within three years, income tax will be charged on their value at the time of withdrawal. If you withdraw them more than three years but within five years, income tax will be charged on the lower of their value when you acquired them and their value at the time of withdrawal.

(d) Amount of income tax on dividend income

When you worked for Bart Industries Ltd you were not a higher rate taxpayer as your taxable income was less than £33,300, as set out below. Accordingly, your dividend income was taxed at 10% with a 10% tax credit such that there was no income tax payable.

	£
Employment income (£4,700 x ½ x 12)	28,200
Dividend income (£7,800 x 10/9)	8,667
	36,867
Less Personal allowance	(5,035)
Taxable income	31,832

In 2009/10 your annual salary from Dreamz Technology Ltd less the income tax personal allowance is £33,465 (£38,500 – £5,035). As this exceeds £33,300, all of your dividend income will fall into the higher rate tax band such that it is taxed at 32½% less a 10% tax credit. This gives rise to income tax payable on the dividend income of £1,950 (£8,667 x 22½%).

Date of payment of income tax on dividend income

The tax due in respect of your dividend income must be paid on 31 January after the end of the tax year (i.e. on 31 January 2011 for 2009/10) under self-assessment. You do not have to pay the tax earlier than this by instalments as the amount due is less than 20% of your total annual income tax liability as set out below. The income tax on your employment income from Dreamz Technology Ltd will continue to be collected under the PAYE system.

		£
Taxable employment income (£38,500 – £5,035)		33,465
Income tax:		
£		
2,150	@ 10%	215
31,150	@ 22%	6,853
165	@ 40%	66
Income tax liability on employment income		7,134
Income tax liability on dividend income (£8,667 x 32½%)		2,817
Total annual income tax liability		9,951
Less: PAYE (equal to liability on employment income)		(7,134)
Tax credit on dividend income (£8,667 x 10%)		(867)
Income tax payable via self-assessment		1,950
Threshold for payments by instalments (£9,951 x 20%)		1,990

	Available	Max
1 The Hutt plc group		
(a) Hutt plc trading losses		
Within Hutt plc		
Current year offset	0.5	
Available profits	1	
Application of the small companies rate limits	1	
Effective rate of tax/relief	1	
No carry back opportunity	0.5	
Group relief		
Relevant companies	0.5	
Available relief	0.5	
Coronet Ltd:		
Available profits	0.5	
Effective rate of tax	1	
Rainbow Ltd:		
Effective rate of UK tax	0.5	
Tax position in Prismovia	1	
Effect of DTR	2	
Recommendation		
Identify correct objective	1	
Hutt plc – profits at 32¾%	0.5	
Rainbow Ltd – the balance	0.5	
Order of elections	1	
Group relief election – both companies/time limit	1	
Current year offset election/time limit	1	
Total for (a)	15	13
(b) (i) The purchase price		
Trading losses:		
No current relief in Lucia Ltd	0.5	
No group relief with reason	1	
No carry forward with reasons	1.5	
Conclusion	0.5	
Loan from BHC Bank		
Tax deduction per accounts treatment	1	
Total amount allowable in the period	0.5	
Amount relating to trading purpose	1	
Amount relating to non-trading purpose	2	
Uses of deficit	2	
Recommendation	0.5	
Total for (b) (i)	10½	9
(ii) VAT issues		
Registration		
Historic and future limits	1	
Registration and notification dates	1	
Distance selling thresholds	0.5	
Calculation		
Output tax	2.5	
Input tax	1	
Disadvantage of group VAT registration – either of		
Lucia Ltd in repayment position; or administrative difficulties	1	
Total for (b) (ii)	7	6

	Available	Max
(iii) **The office building**		
Sale from Coronet Ltd to Lucia Ltd		
Capital gain		
CGT group	0.5	
Consequences	1	
VAT		
If group registration	0.5	
If no group registration	1.5	
Stamp duty land tax	1	
Sale of building to Vac Ltd		
Loss on sale – no IA	0.5	
Pre-entry asset		
Identify	0.5	
Consequences	1	
Calculation of post-entry loss/tax saving	1	
Use of market value	0.5	
Election re notional transfer – availability	1	
Both companies and time limit	1	
Total for (b) (iii)	10	9
Format and style		
Appropriate style and presentation	1	
Effectiveness of communication	1	
Total for format and style	2	2
Total for Q1	**44½**	**39**

2 Pilar Moreno

	Available	Max
(1) **Calculations**		
Employ Alec:		
Net profit of contract	0.5	
Alec's salary and class 1 secondary NIC	1.5	
Irrecoverable VAT/purchase of van	0.5	
Tax and NIC saved	0.5	
Increase in Alec's income:		
Identification of issue	1	
Calculation	1.5	
Use Max:		
Fees paid	0.5	
Irrecoverable VAT on fees	0.5	
Tax and NIC saved	0.5	
Supporting calculations		
Irrecoverable VAT:		
Identification of issue	1	
Current partial exemption position	1	
Application of de minimis	1	
Irrecoverable amount with new contract	1	
Purchase of van:		
Net cost	0.5	
Irrecoverable VAT	1	
Tax and NIC saved	1	
Cost per year	0.5	
Leasing van		
Rentals	0.5	
Irrecoverable VAT	1	
Tax and NIC saved	1	
Total for (1)	16½	16
(2) **Rationale and summary**		
Reference to Pilar's income criterion	1	
Conclusion re van and implications	1	
Summary of findings	1	
Total for (2)	3	2

		Available	Max
(3)	**Employment of Alec**		
	Secure job, short-term contract	1.5	
	Use of partnership	2	
	Alec would be a separate client from Pilar	1	
	Total for (3)	4½	2
(4)	**Employment status of Max**		
	Depends on all of the facts	0.5	
	Each valid factor – ½ mark (max 5 factors)	2.5	
	Total for (4)	3	3
Format and style			
Appropriate style and presentation		1	
Effectiveness of communication		1	
Total for format and style		2	2
Total for Q2		**28**	**25**

3 Stanley

			Available	Max
(a)	(i)	**Split of consideration**		
		Incorporation relief – 3 conditions	1.5	
		Amount of future cash payment:		
		Rationale – gains to equal annual exemption	1	
		Gains on transfer of business	1	
		Gains after incorporation relief:		
		Incorporation relief	1	
		Capital loss and taper relief	1.5	
		Calculation of gains after incorporation relief	0.5	
		Solving to find value of the loan account	1	
		CGT base cost of shares:		
		Value of assets transferred for shares	0.5	
		Incorporation relief	1	
	(ii)	**Benefit of using a loan account**		
		Capital gains	1	
		Extract funds with no tax cost	0.5	
	Total for (a)		10½	9
(b)	**Advice on remuneration package**			
	Dividend			
		Advice is correct but incomplete with reason	1	
		CT position re dividend	0.5	
		CT position re bonus	0.5	
		Conclusion with reason	1	
	Interest free loan			
		Advice is correct but incomplete with reason	1	
		Close company	0.5	
		Loan to a participator and reason	1	
		Tax due /when	1	
		Repayment position	0.5	
	Company car			
		The advice is not correct with reason	1	
		Calculation		
		Tax cost	1	
		Tax saving	1	
	Total for (b)		10	9
Total for Q3			**20½**	**18**

		Available	Max
4	**Mahia Ltd**		
(a)	**Sale of shares by Claus**		
	Purchase of own shares		
	Identify and distinguish between the two possible treatments	1	
	CGT treatment applies	1	
	Reasons why:		
	Unquoted trading company	0.5	
	Resident and ordinarily resident	0.5	
	Owned for more than 5 years	0.5	
	Not part of a scheme to avoid tax	0.5	
	For benefit of company's trade with reason	1	
	Reduction in holding criteria	1	
	Availability of advance clearance	1	
	Calculation		
	Gain before taper relief	1	
	Taper relief	1	
	Net of tax proceeds	0.5	
	Total for (a)	9½	8
(b)	**Gift to Tessa**		
	CGT		
	No CGT due	0.5	
	Reasons why:		
	Not resident or ordinarily resident	0.5	
	Asset acquired after becoming resident abroad	0.5	
	Not temporarily non-resident	0.5	
	IHT		
	IHT applies, shares are UK property	0.5	
	Gift on 1 August 2007		
	Fall in value	1	
	No BPR with reason	1	
	Chargeable transfer (2 x annual exemption)	0.5	
	Taper relief available	0.5	
	Calculation of tax due	0.5	
	Reference to DTR	0.5	
	Gift on 1 June 2008		
	Assumption re Tessa's continued ownership	1	
	BPR	1	
	Marriage and annual exemptions	1	
	Advice	1	
	Stamp duty		
	Not applicable, gift	0.5	
	Total for (b)	11	10
	Total for Q4	**20½**	**18**

			Available	Max
5	**(a)**	**Taxable capital gain on the sale of the house**		
		Computation of capital gain		
		Untapered gain	0.5	
		Taper relief	1	
		Annual exemption	0.5	
		Effect of gift to Alice	1	
		Computation of basic rate band remaining	2	
		Treatment of payments on redundancy	1	
		Capital gains tax payable	1	
		Advice to delay sale	1	
		Total for (a)	8	7
	(b)	**Inheritance tax due in respect of the house**		
		Gift more than seven years prior to death	0.5	
		Gift with reservation rules apply	0.5	
		Consequences	1	
		Total for (b)	2	2
	(c)	**Shares in Dreamz Technology Ltd**		
		Identify two possible treatments	0.5	
		Treatment if no share incentive plan	1	
		Exemption under share incentive plan	1	
		Withdrawal from plan within five year	1	
		Total for (c)	3½	3
	(d)	**Amount of income tax on dividend income**		
		Tax position whilst working for Bart Industries Ltd		
		No tax payable on dividends	1	
		Computation	1	
		Tax position whilst working for Dreamz Technology Ltd	1.5	
		Date of payment of income tax on dividend income		
		Due date with reason	1.5	
		Computation	2.5	
		Total for (d)	7.5	6
	Total for Q5		**21**	**18**

Professional Pilot Paper – Options module

Advanced Audit and Assurance (International)

Paper P7 (INT)

Time allowed
Reading and planning: 15 minutes
Writing: 3 hours

This paper is divided into two sections:

Section A – BOTH questions are compulsory and MUST be attempted

Section B – TWO questions ONLY to be attempted

Do NOT open this paper until instructed by the supervisor.
During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.
This question paper must not be removed from the examination hall.

The Association of Chartered Certified Accountants

Note to attribute past questions and answers to the pilot paper
A selection of past scenarios, requirements, and parts thereof, have been used in presenting this Pilot Paper. Answers have been rewritten, technically updated or otherwise amended as necessary.

1 (a) and (b) J02 Q1
(c) D02 Q4 (a)
(d) D05 Q6 (c)

3 (a)–(d) D01 Q2 (a)–(c) and (e)
(e) D04 Q5 (c)

4 (d) D05 Q4 (b) (ii)

5 (a) J05 Q6 (b)
(b)–(d) D05 Q5

Section A – BOTH questions are compulsory and MUST be attempted

1 You are an audit manager in Ribi & Co, a firm of Chartered Certified Accountants. One of your audit clients Beeski Co provides satellite broadcasting services in a rapidly growing market.

In November 2005 Beeski purchased Xstatic Co, a competitor group of companies. Significant revenue, cost and capital expenditure synergies are expected as the operations of Beeski and Xstatic are being combined into one group of companies.

The following financial and operating information consolidates the results of the enlarged Beeski group:

	Year end 30 September	
	2006 (Estimated)	2005 (Actual)
	$m	$m
Revenue	6,827	4,404
Cost of sales	(3,109)	(1,991)
Distribution costs and administrative expenses	(2,866)	(1,700)
Research and development costs	(25)	(22)
Depreciation and amortisation	(927)	(661)
Interest expense	(266)	(202)
Loss before taxation	(366)	(172)
Customers	14·9m	7·6m
Average revenue per customer (ARPC)	$437	$556

In August 2006 Beeski purchased MTbox Co, a large cable communications provider in India, where your firm has no representation. The financial statements of MTbox for the year ending 30 September 2006 will continue to be audited by a local firm of Chartered Certified Accountants. MTbox's activities have not been reflected in the above estimated results of the group. Beeski is committed to introducing its corporate image into India.

In order to sustain growth, significant costs are expected to be incurred as operations are expanded, networks upgraded and new products and services introduced.

Required:

(a) Identify and describe the principal business risks for the Beeski group. (9 marks)

(b) Explain what effect the acquisitions will have on the planning of Ribi & Co's audit of the consolidated financial statements of Beeski Co for the year ending 30 September 2006. (10 marks)

(c) Explain the role of 'support letters' (also called 'comfort letters') as evidence in the audit of financial statements. (6 marks)

(d) Discuss how 'horizontal groups' (ie non-consolidated entities under common control) affect the scope of an audit and the audit work undertaken. (5 marks)

(30 marks)

2 You have been asked to carry out an investigation by the management of Xzibit Co. One of the company's subsidiaries, Efex Engineering Co, has been making losses for the past year. Xzibit's management is concerned about the accuracy of Efex Engineering's most recent quarter's management accounts.

The summarised income statements for the last three quarters are as follows:

Quarter to	30 June 2006	31 March 2006	31 December 2005
	$000	$000	$000
Revenue	429	334	343
Opening inventory	180	163	203
Materials	318	251	200
Direct wages	62	54	74
	560	468	477
Less: Closing inventory	(162)	(180)	(163)
Cost of goods sold	398	288	314
Gross profit	31	46	29
Less: Overheads	(63)	(75)	(82)
Net loss	(32)	(29)	(53)
Gross profit (%)	7·2%	13·8%	8·5%
Materials (% of revenue)	78·3%	70·0%	70·0%
Labour (% of revenue)	14·5%	16·2%	21·6%

Xzibit's management board believes that the high material consumption as a percentage of revenue for the quarter to 30 June 2006 is due to one or more of the following factors:
(1) under-counting or under-valuation of closing inventory;
(2) excessive consumption or wastage of materials;
(3) material being stolen by employees or other individuals.

Efex Engineering has a small number of large customers and manufactures its products to each customer's specification. The selling price of the product is determined by:
(1) estimating the cost of materials;
(2) estimating the labour cost;
(3) adding a mark-up to cover overheads and provide a normal profit.

The estimated costs are not compared with actual costs. Although it is possible to analyse purchase invoices for materials between customers' orders this analysis has not been done.

A physical inventory count is carried out at the end of each quarter. Items of inventory are entered on stocksheets and valued manually. The company does not maintain perpetual inventory records and a full physical count is to be carried out at the financial year end, 30 September 2006.

The direct labour cost included in the inventory valuation is small and should be assumed to be constant at the end of each quarter. Historically, the cost of materials consumed has been about 70% of revenue.

The management accounts to 31 March 2006 are to be assumed to be correct.

Required:

(a) Define 'forensic auditing' and describe its application to fraud investigations. (5 marks)

(b) Identify and describe the matters that you should consider and the procedures you should carry out in order to plan an investigation of Efex Engineering Co's losses. (10 marks)

(c) (i) Explain the matters you should consider to determine whether closing inventory at 30 June 2006 is undervalued; and
(ii) Describe the tests you should plan to perform to quantify the amount of any undervaluation. (8 marks)

(d) (i) Identify and explain the possible reasons for the apparent high materials consumption in the quarter ended 30 June 2006; and
(ii) Describe the tests you should plan to perform to determine whether materials consumption, as shown in the management accounts, is correct. (7 marks)

(30 marks)

Section B – TWO questions ONLY to be attempted

3 You are a manager in Ingot & Co, a firm of Chartered Certified Accountants, with specific responsibility for the quality of audits. Ingot was appointed auditor of Argenta Co, a provider of waste management services, in July 2006. You have just visited the audit team at Argenta's head office. The audit team is comprised of an accountant in charge (AIC), an audit senior and two trainees.

Argenta's draft accounts for the year ended 30 June 2006 show revenue of \$11·6 million (2005 – \$8·1 million) and total assets of \$3·6 million (2005 – \$2·5 million). During your visit, a review of the audit working papers revealed the following:

(a) On the audit planning checklist, the audit senior has crossed through the analytical procedures section and written 'not applicable – new client'. The audit planning checklist has not been signed off as having been reviewed. (4 marks)

(b) The AIC last visited Argenta's office when the final audit commenced two weeks ago on 1 August. The senior has since completed the audit of tangible non-current assets (including property and service equipment) which amount to \$0·6 million as at 30 June 2006 (2005 – \$0·6 million). The AIC spends most of his time working from Ingot's office and is currently allocated to three other assignments as well as Argenta's audit. (4 marks)

(c) At 30 June 2006 trade receivables amounted to \$2·1 million (2005 – \$0·9 million). One of the trainees has just finished sending out first requests for direct confirmation of customers' balances as at the balance sheet date. (4 marks)

(d) The other trainee has been assigned to the audit of the consumable supplies that comprise inventory amounting to \$88,000 (2005 – \$53,000). The trainee has carried out tests of controls over the perpetual inventory records and confirmed the 'roll-back' of a sample of current quantities to book quantities as at the year end. (3 marks)

(e) The AIC has noted the following matter for your attention. The financial statements to 30 June 2005 disclosed, as unquantifiable, a contingent liability for pending litigation. However, the AIC has seen a letter confirming that the matter was settled out of court for \$0.45 million on 14 September 2005. The auditor's report on the financial statements for the year ended 30 June 2005 was unmodified and signed on 19 September 2005. The AIC believes that Argenta's management is not aware of the error and has not brought it to their attention. (5 marks)

Required:

Identify and comment on the implications of these findings for Ingot & Co's quality control policies and procedures.

Note: The mark allocation is shown against each of the five issues.

(20 marks)

4 You are the manager responsible for four audit clients of Axis & Co, a firm of Chartered Certified Accountants. The year end in each case is 30 June 2006.

You are currently reviewing the audit working paper files and the audit seniors' recommendations for the auditors' reports. Details are as follows:

(a) Mantis Co is a subsidiary of Cube Co. Serious going concern problems have been noted during this year's audit. Mantis will be unable to trade for the foreseeable future unless it continues to receive financial support from the parent company. Mantis has received a letter of support ('comfort letter') from Cube Co.

The audit senior has suggested that, due to the seriousness of the situation, the audit opinion must at least be qualified 'except for'. (5 marks)

(b) Lorenze Co has changed its accounting policy for goodwill during the year from amortisation over its estimated useful life to annual impairment testing. No disclosure of this change has been given in the financial statements. The carrying amount of goodwill in the balance sheet as at 30 June 2006 is the same as at 30 June 2005 as management's impairment test show that it is not impaired.

The audit senior has concluded that a qualification is not required but suggests that attention can be drawn to the change by way of an emphasis of matter paragraph. (6 marks)

(c) The directors' report of Abrupt Co states that investment property rental forms a major part of revenue. However, a note to the financial statements shows that property rental represents only 1·6% of total revenue for the year. The audit senior is satisfied that the revenue figures are correct.

The audit senior has noted that an unqualified opinion should be given as the audit opinion does not extend to the directors' report. (4 marks)

(d) Audit work on the after-date bank transactions of Jingle Co has identified a transfer of cash from Bell Co. The audit senior assigned to the audit of Jingle has documented that Jingle's finance director explained that Bell commenced trading on 7 July 2006, after being set up as a wholly-owned foreign subsidiary of Jingle.

The audit senior has noted that although no other evidence has been obtained an unmodified opinion is appropriate because the matter does not impact on the current year's financial statements. (5 marks)

Required:

For each situation, comment on the suitability or otherwise of the audit senior's proposals for the auditors' reports. Where you disagree, indicate what audit modification (if any) should be given instead.

Note: The mark allocation is shown against each of the four issues.

(20 marks)

5 (a) Comment on the need for ethical guidance for accountants on money laundering. (5 marks)

(b) You are senior manager in Dedza & Co, a firm of Chartered Certified Accountants. Recently, you have been assigned specific responsibility for undertaking annual reviews of existing clients. The following situations have arisen in connection with three clients:

(i) Dedza was appointed auditor and tax advisor to Kora Co last year and has recently issued an unmodified opinion on the financial statements for the year ended 31 March 2006. To your surprise, the tax authority has just launched an investigation into the affairs of Kora on suspicion of underdeclaring income. (7 marks)

(ii) The chief executive of Xalam Co, an exporter of specialist equipment, has asked for advice on the accounting treatment and disclosure of payments being made for security consultancy services. The payments, which aim to ensure that consignments are not impounded in the destination country of a major customer, may be material to the financial statements for the year ending 31 December 2006. Xalam does not treat these payments as tax deductible. (4 marks)

(iii) Your firm has provided financial advice to the Pholey family for many years and this has sometimes involved your firm in carrying out transactions on their behalf. The eldest son, Esau, is to take up a position as a senior government official to a foreign country next month. (4 marks)

Required:

Identify and comment on the ethical and other professional issues raised by each of these matters and state what action, if any, Dedza & Co should now take. (15 marks)

Note: The mark allocation is shown against each of the three situations.

(20 marks)

End of Question Paper

Answers

Tutorial note: These model answers are considerably longer and more detailed than would be expected from any candidate in the examination. They should be used as a guide to the form, style and technical standard (but not length) of answer which candidates should aim to achieve. However, these answers may not include all valid points mentioned by a candidate – credit will be given to candidates mentioning such points.

1 Beeski Co

(a) Principal business risks

Tutorial note: *The requirement to 'identify and describe' suggests that although marks will be awarded for the mere identification of risks from the scenario, those risks must be described (as illustrated below).*

Communications industry
- Rapid and new technological developments in the industry, providing faster data transmission and increasingly interactive capabilities, will render certain existing products and services obsolete.
- Beeski cannot predict how emerging and future technologies (eg 'Bluetooth') will affect demand for its services.

Competition
- Although Beeski may have reduced competition in the short-term (by having acquired a competitor), the communications market is still expanding. Increasing competition from other existing and new competitors offering new technologies could:
  - affect Beeski's ability to attract and retain customers
  - reduce Beeski's share of new and existing customers
  - force Beeski to reduce prices.
- The cost (and revenue-generating capabilities) of new technologies tends to fall significantly and relatively quickly (eg mobile phone technology is available in disposable form).

Integration
- Combining two groups which have previously operated independently (and competitively against each other) is likely to result in disruption.
- Potential difficulties may be encountered in seeking to retain customers and key personnel.
- The anticipated 'significant synergies' (in revenue, cost and capital expenditure) may have been optimistic. If they do not materialise to the extent predicted, Beeski's operational activities, financial condition and future prospects are likely to be adversely affected.
- Beeski may have difficulty in adapting its corporate image to the culture of the Indian network.

Operating losses
- Loss before taxation has more than doubled (increased by 113%). If Xstatic was making significant losses before it was acquired by Beeski those losses may have been expected to continue in the short-term. Although the groups operations are being combined and synergies are expected, recurring losses will clearly threaten the new group's operational existence as a going concern.

Falling ARPC
- ARPC, a key performance indicator, has fallen by more than 20% ((437-556/556 = 21.4%). This is likely to reflect falling tariffs in a competitive market.
- Although the number of customers has nearly doubled (increased by 96%), revenue has increased by only 55%. It seems unlikely that such a growth in customer base can be maintained, therefore the reduction in tariffs could result in falling revenues.
- Some (if not all) of the growth, is due to the acquisition of Xstatic. The fall in ARPC may indicate that Xstatic's ARPC (now absorbed into the enlarged Beeski group) is substantially less than that of Beeski. If Xstatic's tariffs were lower than Beeski's because it was offering a lower level of service it may be difficult for Beeski to increase them albeit for an enhanced service.

Sustaining growth
- Growth may not be sustainable as further expansion will incur significant costs and investment which must be financed.
- The significant costs expected to be incurred in upgrading networks may not be recouped if additional revenues are insufficient. Failure to maintain existing networks is likely to result in a loss of customers and market share.
- If Beeski's financial resources are insufficient to meet the operating losses it may need to issue equity and/or increase its debt. Possible adverse consequences of increasing indebtedness include:
  - high debt-service costs;
  - operating and financial restrictions being imposed by lenders;
  - difficulty in obtaining further finance in the future;
  - being unable to take advantage of business opportunities;
  - reduction in credit ratings.

Tutorial note: *Although there are relatively explicit pointers to the above business risks in the scenario, marks will also be awarded for other risks which are perhaps more implicit (as illustrated below).*

Countries of operation
- Operations have been expanded from European countries to India. Beeski's inexperience of economic and legal developments in India may impair the investment in MTbox.

Foreign exchange rates
- Beeski transacts business in several countries and foreign exchange rate fluctuations could have a material adverse affect on operating results.

Highly regulated market
- Network operations could be adversely affected by changes in the laws, regulations or government policies which regulate the industry.
- Difficulties in obtaining approvals for the erection and operation of transmitters could have an adverse effect on the extent, quality and capacity of Beeski's network coverage.
- Allegations of health risks (eg associated with radio waves from transmitter masts and mobile handsets) could reduce customer demand and increase exposure to potential litigation.

Tutorial note: *Candidates are not expected to have knowledge of industry-related complexities (eg of licensing, subsidies and network recharging) – however, appropriate marks would be awarded for comments on such business risks arising.*

(b) **Impact of acquisition on planning**

Tutorial note: *Note that the context here is that of the principal auditor's planning of a group audit.*

Group structure
The new group structure must be ascertained to identify the entities that should be consolidated into the group financial statements of Beeski for the year ending 30 September 2006.

Materiality assessment
Preliminary materiality will be much higher, in monetary terms, than in the prior year. For example, if a % of revenue is a determinant of preliminary materiality, it will increase by 55% (based on estimate).

Tutorial note: *'Profit' is not a suitable criterion as group is loss-making.*

The materiality of each subsidiary should be assessed, in terms of the enlarged group as at the planning stage. For example, any subsidiary contributing more than 10% of the group's assets and revenue (but not result) is material and less than 5% (say) is not. This will identify, for example:
- those entities requiring an audit visit by the principal auditor; and
- those for which analytical procedures may suffice.

If MTbox is particularly material to the group, Ribi may plan (provisionally) to visit MTbox's auditors to discuss any problems shown to arise in their audit work summary (see group instructions below).

Goodwill arising
The audit plan should draw attention to the need to audit the amount of goodwill arising on the acquisitions and management's impairment test at the balance sheet date.

The assets and liabilities of Xstatic and MTbox, at fair value to the group, will be combined on a line-by-line basis and any goodwill arising recognised.

The calculation of the amount attributed to goodwill must be agreed to be the excess of the cost of the acquisition over the fair value of the identifiable assets and liabilities existing at the date of acquisition (Xstatic – November 2005, MTbox – August 2006).

Significant non-current assets such as properties are likely to have been independently valued prior to the acquisition. It may be appropriate to plan to place reliance on the work of quantity surveyors or other property valuers.

Group (related party) transactions and balances
A list of all the companies in the group (including any associated companies) should be included in group audit instructions to ensure that intra-group transactions and balances (and any unrealised profits and losses on transactions with associated companies) are identified for elimination on consolidation.

It should be confirmed at the planning stage that inter-company transactions are identified as such in the accounting systems of all Beeski companies and that inter-company balances are regularly reconciled. (Problems are likely to arise if new inter-company balances are not identified/reconciled. In particular, exchange differences are to be expected.)

On analytical procedures
Having brought in the operations of a group of companies (Xstatic) with similar activities may extend the scope of analytical procedures available. This could have the effect of increasing audit efficiency.

MTbox – on income statement
The effective date of the acquisition of MTbox may be so late in the financial year (only four to eight weeks, say, before the year end) that it is possible that its post-acquisition results are not material to the consolidated income statement.

Other auditors
Other auditors will include:
– any affiliates of Ribi in any of the countries in which Beeski (as combined with Xstatic) operates; and
– unrelated auditors (including those of MTbox).

Ribi will plan to use the work of MTbox's auditors who are Chartered Certified Accountants. Their competence and independence should be assessed (eg through information obtained from a questionnaire and evidence of their work).

A letter of introduction should be sent to the unrelated auditors, with Beeski's permission, as soon as possible (if not already done) requesting their co-operation in providing specified information within a given timescale.

Group instructions will need to be sent to affiliated and unrelated auditors containing:
– proforma statements;
– a list of group and associated companies;
– a statement of group accounting policies (see below);
– the timetable for the preparation of the group accounts (see below);
– a request for copies of management letters;
– an audit work summary questionnaire or checklist;
– contact details (of senior members of Ribi's audit team).

Accounting policies (Xstatic & MTbox)
Whilst it is likely that Xstatic has the same accounting policies as Beeski (because, as a competitor, it operates in the same jurisdictions) MTbox may have material accounting policies which do not comply with the rest of the group. Ribi may request that MTbox's auditors calculate the effect of any non-compliance with a group accounting policy for adjustment on consolidation.

Timetable
The timetable for the preparation of Beeski's consolidated financial statements should be agreed with management as soon as possible. Key dates should be planned for:
– agreement of inter-company balances and transactions;
– submission of proforma statements to Ribi;
– completion of the consolidation package;
– tax review of group accounts;
– completion of audit fieldwork by other auditors ;
– subsequent events review;
– final clearance on accounts of subsidiaries;
– Ribi's final clearance of consolidated financial statements.

Tutorial note: *The order of dates is illustrative rather than prescriptive.*

(c) 'Support letters'
Tutorial note: Although there are different types and uses of such letters (eg for registering a prospectus), the only reference to them in the P7 Syllabus and Study Guide is in the context of group audits.

Consolidated financial statements are prepared on a going concern basis when a group, as a single entity, is considered to be a going concern. However, the going concern basis may only be appropriate for certain separate legal entities (eg subsidiaries) because the parent undertaking (or a fellow subsidiary) is able and willing to provide support. Many banks routinely require a letter of reassurance from a parent company stating that the parent would financially or otherwise support a subsidiary with cashflow or other operational problems.

As audit evidence:
- Formal confirmation of the support will be sought in the form of a letter of support or 'comfort letter' confirming the parent company's intention to keep the subsidiary in operational existence (or otherwise meet its obligations as they fall due).
- The letter of support should normally be approved by a board minute of the parent company (or by an individual with authority granted by a board minute).
- The ability of the parent to support the company should also be confirmed, for example, by examining the group's cash flow forecast.
- The period of support may be limited (eg to one year from the date of the letter or until the date of disposal of the subsidiary). Sufficient other evidence concerning the appropriateness of the going concern assumption must therefore be obtained where a later repayment of material debts is foreseen.
- The fact of support and the period to which it is restricted should be noted in the financial statements of the subsidiary.

(d) 'Horizontal groups'
In general, the scope of a statutory audit should be as necessary to form an audit opinion (ie unlimited) and the nature, timing and extent of audit procedures (ie the audit work undertaken) should be as necessary to implement the overall audit plan.

Horizontal groups of entities under common control were a significant feature of the Enron and Parmalat business empires. Such business empires increase audit risk as fraud is often disguised through labyrinthine group structures. Hence auditors need to understand and confirm the economic purpose of entities within business empires (as well as special purpose entities (SPEs) and non-trading entities).

Horizontal groups fall outside the requirement for the preparation of group accounts so it is not only finance that is off-balance sheet when controlled entities are excluded from consolidated financial statements.

In the absence of consolidated financial statements, users of accounts of entities in horizontal groups have to rely on the disclosure of related party transactions and control relationships for information about transactions and arrangements with other group entities. Difficulties faced by auditors include:
– failing to detect related party transactions and control relationships;
– not understanding the substance of transactions with entities under common control;
– excessively creative tax planning;
– the implications of transfer pricing (eg failure to identify profits unrealised at the business empire level);
– a lack of access to relevant confidential information held by others;
– relying on representations made in good faith by those whom the auditors believe manage the company when control rests elsewhere.

Audit work is inevitably increased if an auditor is put upon inquiry to investigate dubious transactions and arrangements. However, the complexity of business empires across multiple jurisdictions with different auditors may deter auditors from liaising with other auditors (especially where legal or professional confidentiality considerations prevent this).

2 Efex Engineering Co

(a) 'Forensic auditing'

Definition
The process of gathering, analysing and reporting on data, in a pre-defined context, for the purpose of finding facts and/or evidence in the context of financial/legal disputes and/or irregularities and giving preventative advice in this area.

Tutorial note: *Credit will be awarded for any definition that covers the key components: An 'audit' is an examination (eg of financial statements) and 'forensic' means used in connection with courts of law. Forensic auditing may be defined as 'applying auditing skills to situations that have legal consequences'.*

Application to fraud investigation
As a fraud is an example of an irregularity, a fraud investigation is just one of many applications of forensic auditing, where evidence about a suspected fraud is gathered that could be presented in a court of law. The pre-defined objective of a fraud audit is:
– to prove or disprove the suspicions;
  and, if proven,
– to identify the persons involved;
– to provide evidence for appropriate action, possibly criminal proceedings.

As well as being 'reactive', forensic auditing can be 'proactive' by being preventative. That is, the techniques of forensic auditing can be used to identify risks of fraud with a view to managing those risks to an acceptable level.

(b) Prior to commencement of the investigation

Tutorial note: *The phrase 'matters … and … procedures' is used to encourage candidates to think more widely than just 'considerations' or just 'actions. A possible structure for this answer could be under two separate headings: 'matters' and 'procedures'. However, many matters could be phrased as procedures (and vice versa). For example, a matter would be 'the terms of reference' and the procedure 'to obtain and clarify the TOR'. Candidates should note that a tabular/columnar answer is NOT appropriate as any attempt to match matters and procedures is likely to result in repetition of the same point (differently phrased).*

- Discuss the assignment with Xzibit's management to determine the purpose, nature and scope of the investigation. In particular, discuss whether any irregularity (theft/fraud) is suspected and, if so, whether evidence gathered will be used:
  – in criminal proceedings;
  – in support of an insurance claim.
- Obtain clarification of terms of reference (TOR) in writing from Xzibit's management.
- The TOR should give the investigating team full access to any aspect of Efex Engineering's operations relevant to their investigation.
- Investigation will involve consideration of:
  – possible understatement of inventory value at 30 June 2006;
  – high material consumption for the quarter ended 30 June 2006.
- Determine the level of experience of staff required for the investigation and the number of staff of each grade.
- The availability of suitable staff may affect the proposed start of the investigation. Alternatively, the timing of other assignments may have to be rescheduled to allow this investigation to be started immediately.
- Xzibit's management will presumably want the investigation completed before the next inventory count (at 30 September 2006) to know if the findings have any implications for the conduct of the count and the determination of year-end inventory.
- The investigation may have been commissioned to give credence to the period-end's accounts. The investigation may therefore be of the nature of a limited audit.

- Produce a budget of expected hours, grades of staff and costs. Agree the anticipated investigative fee with Xzibit's management.
- The depth of the investigation will depend on matters such as:
  – the extent of reliance expected to be placed on the investigation report;
  – whether the report is for Xzibit's internal use only or is it likely to be circulated to bankers and/or shareholders.
- The type of assurance (eg 'negative', reasonable) is likely to have a bearing on:
  – any caveats in the report;
  – the level of risk/potential liability for any errors in conclusions given in the final report;
  – the level of necessary detailed testing required (even if an audit is not requested).
- An engagement letter must be drafted and Xzibit's management must agree to its terms in writing before any investigative work can begin. The letter of engagement should include:
  – details of work to be carried out;
  – likely timescale;
  – basis of determining fee;
  – the reliance that can be placed on the final report and results of the investigation;
  – the extent of responsibilities agreed;
  – any indemnity agreed;
  – the information to be supplied as a basis for the investigation; and
  – any areas specifically excluded.
- Assess the appropriateness of an exclusion clause; for example: 'CONFIDENTIAL – this report has been prepared for the private use of Xzibit only and on condition that it must not be disclosed to any other person without the written consent of the preparing accountant'.

(c) (i) Inventory undervaluation – matters to consider

Physical inventory count

- Inventory will be undervalued at 30 June 2006 if all inventory is not counted. The investigation should consider the adequacy of quarterly physical count procedures. For example, whether or not:
  – all items are marked when counted;
  – management carries out test checks;
  – stocksheets are pre-numbered and prepared in ink;
  – a complete set of stocksheets is available covering all categories of inventory;
  – Efex Engineering's management uses the stocksheets to produce the inventory value.

Tutorial note: *Inventory will not be undervalued if it does not exist (eg because it has been stolen). Theft would be reflected in higher than normal materials consumption (see (d)).*

Cutoff

- Inventory will be undervalued at 30 June 2006 if:
  – any goods set aside for sale in July were excluded from the count;
  – a liability was recognised at 30 June 2006 for goods that were excluded from inventory (eg in transit from the supplier);
  – production did not cease during the physical count and raw materials being transferred between warehouse and production were omitted from inventory.

Scrap materials

- Inventory will be undervalued if any scrap from materials used in production that has a value (eg because it can be recycled) is excluded. Inventory may be undervalued compared with the previous quarter if there is any change in Efex's scrap/wastage policy (eg if previously it was valued in inventory but now it is excluded).
- If production problems increased wastage in the last period this would account for the lower value of inventory and higher materials consumption.

(ii) Tests to quantify the amount of any undervaluation

Tutorial note: *Any tests directed at quantifying an overstatement and/or instead of understatement will not be awarded credit.*

Physical count

- Inspect the warehouse/factory areas to identify high value inventory items and confirm their inclusion on the stocksheets at 30 June 2006 (or otherwise vouch to a delivery note raised after that date).
- Recast all additions and recalculate all extensions on the stocksheets to confirm that there have been no omissions, transposition errors or other computational discrepancies that would account for an undervaluation.

Cutoff

- Ascertain the last delivery notes and despatch notes recorded prior to counting and trace to purchase/sales invoices to confirm that an accurate cutoff has been applied in determining the results for the quarter to 30 June 2006 and the inventory balance at that date.
- Trace any large value purchases in June to the 30 June stocksheets. If not on the stocksheets inquire of management whether they are included in production (or sold). Verify by tracing to production records, goods despatch notes, etc.

Analytical procedures

- Compare large volume/high value items on stocksheets at 31 March with those at 30 June to identify any that might have been omitted (or substantially decreased). Inquire of management if any items so identified have been completely used in production (but not replaced), scrapped or excluded from the count (eg if obsolete). Any inventory excluded should be counted and quantified.
- Compare inventory categories for 30 June against previous quarters. Inventory value at 30 June is 10% less than at 31 March, though revenue is 28% higher. An increase in inventory might have been expected to support increased revenue if there is a general increase in trading activity. (Alternatively, a decrease in inventory may reflect difficulties in obtaining supplies/maintaining inventory levels if demand has increased).

Scrap materials

- Make inquiries of Efex Engineering's warehouse and production officials regarding the company's scrap/wastage policy and any records that are kept.
- Review production records on a month-on-month basis and discuss with the factory manager whether any production problems have increased wastage in the quarter to 30 June 2006.

Pricing test

- Raw materials – select a sample of high value items from the 31 March 2006 inventory valuation and confirm that any unit price reductions as shown by the 30 June 2006 valuation are appropriate (eg vouch lower unit price to recent purchase invoices or write down to net realisable value).
- WIP and finished goods – agree a sample of unit prices to costing records (eg batch costings). Recalculate unit prices on a sample basis and vouch make-up to invoices/payroll records, etc.

(d) (i) High materials consumption – matters to consider

Tutorial note: *Materials consumption has increased from 70% of revenue to 78%. There could be valid business reasons for this (eg there could be an abnormally high level of wastage) or accounting errors that result in overstatement of materials.*

Cutoff

- Raw material purchases: Materials consumption will be overstated if goods delivered after the quarter-end have been included (incorrectly) in purchases to 30 June 2006 although excluded (correctly) from the June count.
- Revenue: Materials consumption will be overstated as a percentage of revenue if revenue is understated (eg if goods sold before 30 June 2006 are recorded in the next quarter).

Losses

- Materials consumption will be higher than normal if there is an abnormally high level of raw materials scrapped or wasted during the production process. This could be due to inferior quality raw materials or technical problems with the manufacturing process.
- Materials consumption will also be overstated if raw materials recorded as being used in production are stolen.

Obsolete or redundant inventory

- Materials consumption will appear higher if inventory at 30 June 2006 is lower. For example, if slow-moving, damaged or obsolete inventory identified at the count was excluded or written-down (although included in the previous quarter's inventory valuation).

Individual contracts

- Materials consumption will be higher if the increase in revenue is attributable to a small number of large contracts for which substantial discounts have been negotiated.
- Materials consumption will be higher if the cost of materials on customers' specifications has been underestimated in the determination of selling prices.

Purchasing

- Materials consumed will increase if Efex Engineering has changed to a more expensive supplier in the quarter to 30 June 2006.

(ii) High materials consumption – tests

Cutoff

- Purchases: Select a sample of invoices included in purchases to 30 June 2006 and match to goods received notes to confirm receipt at 30 June 2006 and hence inclusion in inventory at that date.
- Revenue: Inspect despatch notes raised on or shortly before 30 June 2006 and trace goods sold to invoices raised on or before 30 June 2006.

Scrap

- Inquire of production/factory and warehouse officials the reasons for scrap and wastage and how normal levels are determined.
- Inspect records of materials wastage and confirm the authorisation for scrapping materials and/or reissuing replacement materials to the production process.
- Physically inspect scrap, if any, to confirm that its condition renders it unsuitable for manufacture (and hence confirm its exclusion from inventory at 30 June 2006).
- Review credit notes received after 30 June 2006 to identify materials returned (eg of inferior quality).

Obsolete or redundant inventory

- Inspect the stocksheets at 30 June 2006 for goods identified as obsolete, damaged, etc and compare with the level (and value) of the same items identified at the previous quarter's count.

Individual contracts

- Compare discounts given on new contracts with normal discount levels and confirm the authority of the person approving discounts.
- Calculate actual material cost as a percentage of revenue on individual major contracts and compare with the 70% benchmark.

Tests of controls

- Purchases: Inspect goods received notes to confirm that raw materials are being checked for quality and quantity upon receipt. Inspect invoices recorded to confirm that goods have been received (as evidenced by a goods received note).
  - Review goods returns recorded on pre-numbered goods return notes and confirm matched to subsequent credit notes received.
  - Observe gate controls and other physical security over inventory and review the segregation of duties that seek to prevent or detect theft of inventory.
- Sales: Review goods despatch notes and confirm matching to sales invoices that have been raised promptly and recorded on a timely basis.
- Sales returns: Review credit notes for authorisation and matching to goods returns notes.

3 Ingot & Co

Tutorial note: *Note that as well as the 20 marks for addressing five matters, there are also 'pervasive' issues which can be brought out as overall conclusions on QC policies and procedures at the level of the audit firm. Remember, it is a professional skill to recognise causes and effects or other linkages between the findings.*

(a) Analytical procedures

Applying analytical procedures at the planning stage, to assist in understanding the business and in identifying areas of potential risk, is an auditing standard and therefore mandatory. Analytical procedures should have been performed (eg comparing the draft accounts to 30 June 2006 with prior year financial statements).

The audit senior may have insufficient knowledge of the waste management service industry to assess potential risks. In particular, Argenta may be exposed to risks resulting in unrecorded liabilities (both actual and contingent) if claims are made against the company in respect of breaches of health and safety legislation or its licence to operate.

The audit has been inadequately planned and audit work has commenced before the audit plan has been reviewed by the AIC. The audit may not be carried out effectively and efficiently.

Tutorial note: *An alternative stance might be that the audit senior did in fact perform the analytical procedures but was careless in completion of the audit planning checklist. This would have quality control implications in that the checklists cannot be relied on by the reviewer.*

(b) AIC's assignments

The senior has performed work on tangible non-current assets which is a less material (17% of total assets) audit area than trade receivables (58% of total assets) which has been assigned to an audit trainee. Non-current assets also appear to be a lower risk audit area than trade receivables because the carrying amount of non-current assets is comparable with the prior year ($0.6m at both year ends), whereas trade receivables have more than doubled (from $0.9m to $2.1m). This corroborates the implications of (a).

The audit is being inadequately supervised as work has been delegated inappropriately. It appears that Ingot & Co does not have sufficient audit staff with relevant competencies to meet its supervisory needs.

(c) Direct confirmation

It is usual for direct confirmation of customers' balances to be obtained where trade receivables are material and it is reasonable to expect customers to respond. However, it is already six weeks after the balance sheet date and, although trade receivables are clearly material (58% of total assets), an alternative approach may be more efficient (and cost effective). For example, monitoring of after-date cash will provide evidence about the collectibility of receivables (as well as corroborate their existence).

Tutorial note: *Ingot was only appointed in July and the audit started two weeks ago on 1 August.*

This may be a further consequence of the audit having been inadequately planned.

Alternatively, supervision and monitoring of the audit may be inadequate. For example, if the audit trainee did not understand the alternative approach but mechanically followed circularisation procedures.

(d) Inventory

Inventory is relatively immaterial from an auditing perspective, being less than 2.4% of total assets (2005 – 2.1%). Although it therefore seems appropriate that a trainee should be auditing it, the audit approach appears highly inefficient. Such in-depth testing (of controls and details) on an immaterial area provides further evidence that the audit has been inadequately planned.

Again, it may be due to a lack of monitoring of a mechanical approach being adopted by a trainee.

This also demonstrates a lack of knowledge and understanding about Argenta's business – the company has no stock-in-trade, only consumables used in the supply of services.

(e) Prior period error

It appears that the subsequent events review was inadequate in that an adjusting event (the out-of-court settlement) was not taken account of. This resulted in material error in the financial statements to 30 June 2005 as the provision for $0.45 million which should have been made represented 12.5% of total assets at that date.

The AIC has not taken any account of the implications of this evidence for the conduct of the audit as the overall audit strategy and audit plan should have been reconsidered. For example:
– the oversight in the subsequent events review may not have been isolated and there could be other errors in opening balances (eg if an impairment was not recognised);
– there may be doubts about the reliability of managements' representations if it confirmed the litigation to be pending and/or asserted that there were no post balance sheet events to be taken account of.

The error has implications for the quality of the prior period's audit that may now require that additional work be carried out on opening balances and comparatives.

As the matter is material it warrants a prior period adjustment (IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*). If this is not made Argenta's financial statements for the year ended 30 June 2006 will be materially misstated with respect to the current year and comparatives – because the expense of the out-of-court settlement should be attributed to the prior period and not to the current year's net profit or loss.

The need for additional work may have a consequential effect on the current year's time/fee/staff budgets.

The error should have been brought to the attention of Argenta's management when it was discovered, so that a prior year adjustment could be made. If the AIC did not feel competent to raise the matter with the client he should have discussed it immediately with the audit manager and not merely left it as a file note.

QC policies procedures at audit firm level/Conclusions

That the audit is not being conducted in accordance with ISAs (eg 300 *Planning an Audit of Financial Statements*, 315 *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement* and 520 *Analytical Procedures*) means that Ingot's quality control policies and procedures are not established and/or are not being communicated to personnel.

That audit work is being assigned to personnel with insufficient technical training and proficiency indicates weaknesses in procedures for hiring and/or training of personnel.

That there is insufficient direction, supervision and review of work at all levels to provide reasonable assurance that audit work is of an acceptable standard suggests a lack of resources.

Procedures for the acceptance of clients appear to be inadequate as the audit is being conducted so inefficiently (ie audit work is inappropriate and/or not cost-effective). In deciding whether or not to accept the audit of Argenta, Ingot should have considered whether it had the ability to serve the client properly. The partner responsible for accepting the engagement does not appear to have evaluated the firm's (lack of) knowledge of the industry.

The staffing of the audit of Argenta should be reviewed and a more experienced person assigned to its completion and overall review.

4 Axis & Co

(a) Mantis Co

If a letter of support had **not** been received, then a qualified opinion on the grounds of **disagreement** (about the appropriateness of the going concern presumption) would be required. As the matter is likely to be pervasive an adverse opinion would be appropriate (ISA 570 *Going Concern*).

However, the company has received a letter of support from its parent company to the effect that it will enable Mantis to continue trading. If this evidence (together with other evidence such as management's representations) is considered to be **sufficient** to support the appropriateness of the going concern presumption, a qualified opinion will not be necessary provided that the support is **adequately** disclosed in a note to the financial statements. If the evidence is sufficient, but the disclosure **inadequate**, an 'except for' opinion would be required.

If the letter of support does not provide sufficient evidence (eg if there are doubts about Cube's ability to provide the required finance), the significant uncertainty arising should be disclosed in an emphasis of matter paragraph in the auditor's report. This would not result in a qualified opinion (unless the disclosure relating to it were considered inadequate).

Conclusion
The audit senior's proposal is unsuitable. The auditor's report should be unmodified (assuming that disclosures are adequate).

(b) Lorenze Co

In order to show fair presentation, in all material respects, the financial statements of an entity should contain not only accurate figures, but also sufficient disclosure in relation to those figures in order to allow the user to understand them. As required by IAS 1 *Presentation of Financial Statements*, items should be treated on a consistent basis from year to year. If this is not the case, then any change, together with the financial impact of this change, will need to be disclosed in a note to the financial statements.

Failure to disclose the reasons for change in policy (ie to comply with IFRS 3 *Business Combinations*) and its effects (eg the lack of annual amortisation) means that the financial statements do not comply with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*. A qualified opinion is therefore required on the grounds of disagreement on disclosure (IAS 1 and IAS 8). Assuming the matter to be material (but clearly not pervasive), an 'except for' opinion should be expressed.

The main purpose of an emphasis of matter paragraph is to describe a matter of significant uncertainty which has been taken into account in forming the audit opinion – it does not qualify that opinion. Such a paragraph highlights a note in the financial statements that more extensively discusses the matter. An emphasis of matter paragraph cannot therefore be used to 'make good' a lack of disclosure.

IFRS 3 also requires disclosure of a reconciliation of the carrying amount of goodwill at the beginning and end of the year. This should show no movement for the year ended 30 June 2006.

Conclusion
The audit senior's proposal is unsuitable. Unless all aspects of the change (including reason and effect) are adequately disclosed an 'except for' qualification will be required on the grounds of disagreement.

(c) Abrupt Co

The audit opinion states whether the financial statements:
- are presented fairly, in all material respects (or give a true and fair view) in accordance with the financial reporting framework; and
- comply with statutory requirements (where appropriate).

The directors' report is not a part of financial statements prepared under International Financial Reporting Standards (IFRS). However, auditors have a professional responsibility to read other information in documents containing audited financial statements (eg the directors' report in an annual report) to identify material inconsistencies with the audited financial statements (or material misstatements of fact).

A material inconsistency exists when other information contradicts information contained in the audited financial statements. Clearly, 'major' is inconsistent with 1.6%.

If the inconsistency is resolved (eg because the directors' report is corrected to state '… major part of **other** income…') an unmodified auditor's report will be given.

If the inconsistency is not resolved, the audit opinion on the financial statements cannot be qualified (because the inconsistency is in the directors' report). In this case, an emphasis of matter paragraph may be used to report on this matter that does not affect the financial statements (ISA 700 *The Independent Auditor's Report on a Complete Set of General Purpose Financial Statements*).

Conclusion
An unqualified opinion on the financial statements is appropriate. If, however, the inconsistency is not resolved, it should be reported in a separate emphasis of matter paragraph, after the opinion paragraph.

(d) Jingle Co

The cash transfer is a non-adjusting post balance sheet event. It indicates that Bell was trading after the balance sheet date. However, that does not preclude Bell having commenced trading before the year end.

The finance director's oral representation is wholly insufficient evidence with regard to the existence (or otherwise) of Bell at 30 June 2006. If it existed at the balance sheet date its financial statements should have been consolidated (unless immaterial).

The lack of evidence that might reasonably be expected to be available (eg legal papers, registration payments, etc) suggests a limitation on the scope of the audit. If such evidence has been sought but not obtained then the limitation is imposed by the entity (rather than by circumstances).

Whilst the transaction itself may be immaterial, the information concerning the existence of Bell may be material to users and should therefore be disclosed (as a non-adjusting event). The absence of such disclosure, if the auditor considered necessary, would result in a qualified 'except for', opinion.

Tutorial note: *Any matter that is considered sufficiently material to be worthy of disclosure as a non-adjusting event must result in such a qualified opinion if the disclosure is not made.*

If Bell existed at the balance sheet date and had material assets and liabilities then its non-consolidation would have a pervasive effect. This would warrant an adverse opinion.

Also, the nature of the limitation (being imposed by the entity) could have a pervasive effect if the auditor is suspicious that other audit evidence has been withheld. In this case the auditor should disclaim an opinion.

Conclusion
Additional evidence is required to support an unqualified opinion. If this were not forthcoming a disclaimer may be appropriate.

5 Dedza & Co

(a) Need for ethical guidance

- Accountants (firms and individuals) working in a country that criminalises money laundering are required to comply with anti-money laundering legislation and failure to do so can lead to severe penalties. Guidance is needed because:
  - legal requirements are onerous;
  - money laundering is widely defined; and
  - accountants may otherwise be used, unwittingly, to launder criminal funds.
- Accountants need ethical guidance on matters where there is conflict between legal responsibilities and professional responsibilities. In particular, professional accountants are bound by a duty of confidentiality to their clients. Guidance is needed to explain:
  - how statutory provisions give protection against criminal action for members in respect of their confidentiality requirements;
  - when client confidentiality over-ride provisions are available.
- Further guidance is needed to explain the interaction between accountants responsibilities to report money laundering offences and other reporting responsibilities, for example:
  - reporting to regulators;
  - auditor's reports on financial statements (ISA 700);
  - reports to those charged with governance (ISA 260);
  - reporting misconduct by members of the same body.
- Professional accountants are required to communicate with each other when there is a change in professional appointment (ie 'professional etiquette'). Additional ethical guidance is needed on how to respond to a 'clearance' letter where a report of suspicion has been made (or is being contemplated) in respect of the client in question.

  Tutorial note: *Although the term 'professional clearance' is widely used, remember that there is no 'clearance' that the incumbent accountant can give or withhold.*

- Ethical guidance is needed to make accountants working in countries that do not criminalise money laundering aware of how anti-money laundering legislation may nevertheless affect them. Such accountants may commit an offence if, for example, they conduct limited assignments or have meetings in a country having anti-money laundering legislation (eg UK, Ireland, Singapore, Australia and the United States).

(b) Annual reviews of existing clients

(i) Tax investigation

- Kora is a relatively new client. Before accepting the assignment(s) Dedza should have carried out customer due diligence (CDD). Dedza should therefore have a sufficient knowledge and understanding of Kora to be aware of any suspicions that the tax authority might have.
- As the investigation has come as a surprise it is possible that, for example:
  - the tax authorities suspicions are unfounded;
  - Dedza has failed to recognise suspicious circumstances.

Tutorial note: *In either case, Dedza should now review relevant procedures.*

- Dedza should review any communication from the predecessor auditor obtained in response to its 'professional inquiry' (for any professional reasons why the appointment should not be accepted).
- A quality control for new audits is that the audit opinion should be subject to a second partner review before it is issued. It should be considered now whether or not such a review took place. If it did, then it should be sufficiently well documented to evidence that the review was thorough and not a mere formality.
- Criminal property includes the proceeds of tax evasion. If Kora is found to be guilty of under-declaring income that is a money laundering offence.
- Dedza's reputational risk will be increased if implicated because it knew (or ought to have known) about Kora's activities. (Dedza may also be liable if found to have been negligent in failing to detect any material misstatement arising in the 31 March 2006 financial statements.)
- Kora's audit working paper files and tax returns should be reviewed for any suspicion of fraud being committed by Kora or error overlooked by Dedza. Tax advisory work should have been undertaken and/or reviewed by a manager/partner not involved in the audit work.

- As tax advisor, Dedza could soon be making disclosures of misstatements to the tax authorities on behalf of Kora. Dedza should encourage Kora to make necessary disclosure voluntarily.
- If Dedza finds reasonable grounds to know or suspect that potential disclosures to the tax authorities relate to criminal conduct, then a suspicious transaction report (STR) should be made to the financial intelligence unit (FIU) also.

Tutorial note: *Though not the main issue credit will be awarded for other ethical issues such as the potential self-interest/ self-review threat arising from the provision of other services.*

(ii) Advice on payments

- As compared with (i) there is no obvious tax issue. Xalam is not overstating expenditure for tax purposes.
- Dedza should consider its knowledge of import duties, etc in the destination country before recommending a course of action to Xalam.
- The payments being made for security consultancy services may amount to a bribe. Corruption and bribery (and extortion) are designated categories of money laundering offence under The Forty Recommendations of the Financial Action Task Force on Money Laundering (FATF).

If this is a bribe:

- Xalam clearly benefits from the payments as it receives income from the contract with the major customer. This is criminal property and possession of it is a money laundering offence
- Dedza should consider the seriousness of the disclosure made by the chief executive in the context of domestic law.
- Dedza may be guilty of a money laundering offence if the matter is not reported. If a report to the FIU is considered necessary Dedza should encourage Xalam to make voluntary disclosure. If Xalam does not, Dedza will not be in breach of client confidentiality for reporting knowledge of a suspicious transaction.

Tutorial note: *Making a report takes precedence over client confidentiality.*

(iii) Financial advisor

- Customer due diligence (CDD) and record-keeping measures apply to designated non-financial businesses and professions (such as Dedza) who prepare for or carry out certain transactions on behalf of their clients.
- Esau is a 'politically exposed person' ('PEP' ie an individual who is to be entrusted with prominent public functions in a foreign country).
- Dedza's business relationships with Pholey therefore involve reputational risks similar to those with Esau. In addition to performing normal due diligence measures Dedza should:
  - have risk management systems to have determined that Esau is a PEP;
  - obtain senior partner approval for maintaining business relationships with such customers;
  - take reasonable measures to establish the source of wealth and source of funds;
  - conduct enhanced ongoing monitoring of the business relationship.
- Dedza can choose to decline to act for Pholey and/or Esau (if asked).
- If the business relationship is to be continued senior partner approval should be obtained for any transactions carried out on Pholey's behalf in future.

Tutorial note: *The Pholey family is not described as an audit client therefore no familiarity threat arises in relation to an audit (the family may not have any involvement in entities requiring an audit).*

Marks must only be awarded for points relevant to answering the question set. Unless otherwise indicated, marks should not be awarded for restating the facts of the question.

For most questions you should award ½ a mark for a point of knowledge, increased to 1 mark for the application of knowledge and 1½ marks for a point demonstrating the higher skill expected in the professional level.

The model answers are indicative of the breadth and depth of possible answer points, but may not be not exhaustive.

Most questions require candidates to include a range of points in their answer, so an answer which concentrates on one (or a few) points should normally be expected to result in a lower mark than one which considers a range of points.

In awarding the mark to each part of the question you should consider whether the standard of the candidate's answer is above or below the pass grade. If it is of pass standard it should be awarded a mark of 50% or more, and it should be awarded less than 50% if it does not achieve a pass standard. When you have completed marking a question you should consider whether the total mark is fair.

Finally, in awarding the mark to each question you should consider the pass/fail assessment criteria:
– Adequacy of answer plan
– Structured answer
– Inclusion of significant facts
– Information given not repeated
– Relevant content
– Inferences made
– Commercial awareness
– Higher skills demonstrated
– Professional commentary

In general, the more of these you can assess in the affirmative, the higher the mark awarded should be. If you decide the total mark is not a proper reflection of the standard of the candidate's answer, you should review the candidate's answer and adjust marks, where appropriate, so that the total mark awarded is fair.

Marks

1 (a) Principal business risks

Generally *½ mark* each risk identified and up to *1½ marks* for a (good) description — max 9

Ideas

- technological obsolescence (communications industry)
- competition
- integration (operations, cultures)
- operating losses
- falling ARPC (key performance indicator)
- sustaining growth
- exchange rate fluctuations
- market regulation

(b) Impact on planning of audit

Generally *1 mark* each point contributing to an explanation to a maximum 3 marks each impact — max 10

Impact ideas

- group structure
- materiality assessment (NOT on profit)
- goodwill arising (amount/amortisation)
- group (related party) transactions and balances
- on analytical procedures
- MTbox on income statement
- other auditors
  - ACCA/competent/independent
  - introductory/co-operation letter
- group instructions
- accounting policies (Xstatic & MTbox)
- timetable

Note: Two professional marks are included

(c) 'Support letters'

Generally *1 mark* each point contributing to an explanation of their role as audit evidence — max 6

Ideas

- Consolidated FS vs entity FS
- Bank requirement/routine
- Going concern basis
- Support by whom?
- For how long?
- Formal confirmation of *intent*
- Approved by board
- Need for evidence of *ability*

(d) 'Horizontal groups'

Generally *1* mark each point contributing to a discussion — max 5

Ideas

- 'business empires'
- development (as off-balance sheet vehicles)
- increased audit risk – related party/confidentiality issues
- complex fraud risk factor
- reliance on management representation

30

Marks

2 (a) 'Forensic auditing'

Generally *1 – ½ mark* each point — max 5

Ideas Definition • eg of Institut des Fraud Auditeurs de Fraude (IFA-IAF) • audit (examination) + forensic (legal) Application to fraud investigation • irregular nature of fraud • objective(s) • reactive vs proactive (preventative)

(b) Prior to commencing investigation

Generally *1 mark* each matter/procedure — max 10

Ideas
Matters
• Terms of reference (obtaining is a procedure)
• Purpose/scope of investigation
  – possible understatement of inventory at 30/6
  – high material consumption in quarter to 30/6
  – to give credence to y/e amount (next quarter to 30/9)
• Scope of access to records relevant to the investigation (any restriction?)/Information to be supplied
• Staffing – level/experience/number/availability/other client commitments
• Degree of reliance to be placed on report
 	
By whom? – insurer?
• Timeframe – before next (= annual) physical count
• Form of report required – Any caveats?
 	
Procedures
• Discuss assignment with directors – responsibilities etc
• Obtain engagement letter (terms are a matter)
• Agree investigative fee
Note: two professional marks are included

Tutorial note: There is no maximum to be awarded for each of matters and procedures as answer points about matters may be constructed as procedures (and vice versa). Marks should be awarded for either/or (not both).

(c) Inventory undervaluation

Generally up to *1½ marks* each matter explained

1 mark each test — max 8

Ideas
(i) matters
  • omission from count
  • cut-off
  • scrap/waste etc
 	
(ii) tests
  • physical inspection
  • arithmetic checks
  • cut-off tests
  • analytical procedures
  • tests on production records/pricing

Tutorial note: Tests must address *under*statement of stock at 30 June.

Marks

(d) **High materials consumption**
Generally up to *1½ marks* each matter explained
1 mark each test — max 7

Ideas (i) matters • cut-off • losses • obsolescence etc • major contracts • change of supplier (ii) tests • physical inspection • arithmetic checks • cut-off tests • tests of control

Tutorial note: Matters must address *over*statement of materials consumption in the quarter to 30 June.

30

Marks

3 **Implications of findings**
Generally up to *1½ marks* each (good) implication

Specific finding ideas • relevant ISAs (a) APs mandatory at planning stage (520) (e) subsequent events (560) • materiality (ISA 320) (b) non-current assets 17% (c) receivables 58% (d) inventory 2.4% (e) prior period error 12.5% • inappropriate procedures? inventory 'roll back' (immaterial) • inappropriate timing external confirmations (ISA 505) – too late? **QC at audit firm level ideas/Conclusions** • professional behaviour • skills and competence • assignment/delegation • consultation • acceptance of clients • monitoring

(a)	max 4
(b)	max 4
(c)	max 4
(d)	max 3
(e)	max 5
Professional skills	max 4
	Max 20

Marks

4 Auditors' reports proposals

Generally *1 mark* each comment on suitability and *1 mark* each conclusion (alternative, if any)

Ideas

(a) Going concern (ISA 570 reporting implications)
(b) Change in accounting policy – inadequate disclosure
(c) 'Other information' (ISA 720)
(b) Subsequent event (ISA 560)

- Disagreement vs limitation
- Material vs pervasive
- Statutory/professional requirements
- Relevant IFRSs (IASs 1, 8, 36, IFRS 3)
- Disclosure (adequate?) ==> disagreement
- Evidence (sufficient?) ==> limitation
- Validity of senior's argument/justification
- Alternative proposal ==> Conclusion

(a)	max 5
(b)	max 6
(c)	max 4
(d)	max 5
	20

5 (a) Need for ethical guidance for accountants

Generally *1 mark* a point up to max 5

> **Ideas (illustrative)**
> - Legal responsibilities
> - Risk of offence
> - Confidentiality
> - Other reporting responsibilities
> - Professional etiquette
> - Accountants working in other jurisdictions

(b) Ethical and other professional issues

Generally ½ *mark* each issue identified + *1 mark* each comment/action

> **Ideas**
>
> (i) Tax investigation
> - new client (relatively) – CDD
> - 'professional etiquette' – change in professional appointment
> - quality control eg second review
> - criminal property includes proceeds of tax evasion
> - money laundering offence?
> - suspicion of fraud (intent) vs error in incorrect tax returns
> - disclosure by Dedza vs voluntary (confidentiality)
> - need for STR
>
> (ii) Advice on payments
> - not a tax issue
> - corruption and bribery/extortion – designated categories of offence
> - clear intent
> - seriousness in context of domestic laws
> - need to report to FIU?
>
> (iii) Financial advisor
> - designated non-financial profession
> - customer due diligence/record keeping
> - politically exposed person (PEP)
> - reputational risk
> - additional measures
> - refusal to act

(a)	max 7
(b)	max 4
(c)	max 4
	15
	20