

FOUNDATIONS IN ACCOUNTANCY

Managing Costs and Finance

Specimen Exam applicable from June 2014

Time allowed: 2 hours


ALL 50 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

Paper MA2

The ACCA logo consists of the letters 'ACCA' in a bold, white, sans-serif font, centered within a solid black square.

ALL 50 questions are compulsory and MUST be attempted

Please use the space provided on the inside cover of the Candidate Answer Booklet to indicate your chosen answer to each multiple choice question.
Each question is worth 2 marks.

1 Which costing method would be MOST suitable for an accountancy firm?

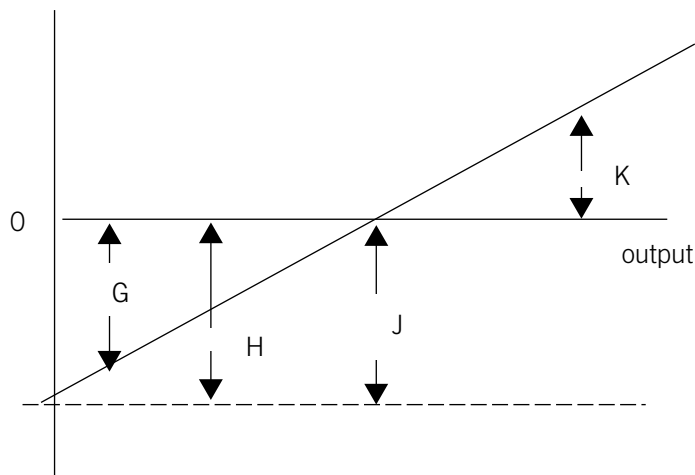
- A Contract costing
- B Job costing
- C Batch costing
- D Process costing

2 Which of the following statements, about establishing the trend of a time series, is/are TRUE?

- (1) Where the time series is approximately linear, the line of best fit can be estimated on a scatter graph
- (2) Where the time series is not approximately linear, moving averages can be calculated

- A 1 only
- B 2 only
- C Both 1 and 2
- D Neither 1 nor 2

3 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

4 The following is a list of statements relating to terms used in process costing.

Which TWO items in the following list relate to the term 'by product'?

- (1) Has low sales value relative to joint products
- (2) Accounted for by crediting the net realisable value to the work-in-progress account
- (3) Equivalent units of output are less than the actual good units of output
- (4) Charged with a share of joint production costs

- A** 1 and 2
- B** 1 and 3
- C** 2 and 4
- D** 3 and 4

5 The following data are available for product X.

	Period Budget	Period Actual
Sales units	<u>5,000</u>	<u>5,200</u>
	\$	\$
Sales revenue	50,000	57,200*
Manufacturing cost	30,000	31,200

What is the sales price variance?

- A** \$5,200 adverse
- B** \$5,000 favourable
- C** \$5,200 favourable
- D** \$7,200 favourable

6 A company orders a particular raw material in order quantities of 250 units. No safety inventory is held, the inventory holding cost is \$3 per unit per annum and the annual demand is 2,500 units.

What is the total annual inventory holding cost of the material?

- A** \$375
- B** \$750
- C** \$3,750
- D** \$7,500

7 A company has two production cost centres, Cutting and Finishing.

The overheads and operating hours for the two cost centres are:

Cutting:	\$210,000	60,000 machine hours	4,000 labour hours
Finishing:	\$200,000	5,000 machine hours	14,000 labour hours

From the information given what should be the basis for overhead absorption?

- A** Both cost centres should be based on machine hours
- B** Both cost centres should be based on labour hours
- C** Based on machine hours for Cutting and labour hours for Finishing
- D** Based on labour hours for Cutting and machine hours for Finishing

- 8** A company uses the production units method to depreciate the machinery in its factory. A machine that cost \$166,200 has an estimated residual value of \$5,000 at the end of its six-year useful operating life.
- Output from the machine is estimated as 124,000 units over the six years. 15% of the total output will be manufactured in each of Years 1, 2 and 3 with 20% of the total in Years 4 and 5.

What is the total depreciation of the machine in Year 4?

- A** \$33,240
- B** \$32,240
- C** \$37,929
- D** \$39,106

- 9** 12,000 kg of materials, costing \$86,090, were input to a manufacturing process in a period during which conversion costs totalled \$39,320. Losses in the period were 960 kg with no saleable value. The normal loss is 10% of input.

What was the total manufacturing cost per kg of expected output (to two decimal places of \$)?

- A** \$9.68
- B** \$10.45
- C** \$11.36
- D** \$11.61

- 10** Which of the following may be included in the cost accounts but would be excluded from the financial accounts?

- A** Depreciation of equipment
- B** Distribution expenses
- C** Factory manager's salary
- D** Notional rent

- 11** A company is evaluating a project that requires 400 kg of raw material X. The company has 150 kg of X in stock that was 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** \$21,200
- B** \$21,500
- C** \$19,250
- D** \$13,250

12 Dipton have apportioned their indirect costs as shown below:

	DEPT A	DEPT B	DEPT C	DEPT D
Rent and rates (\$)	10,000	15,000	45,000	12,500
Heat and lighting (\$)	15,000	25,000	25,000	20,000
Administration (\$)	15,000	35,000	35,000	35,000
Premises insurance (\$)	20,000	15,000	15,000	12,500
Total (\$)	60,000	90,000	120,000	80,000
Hours worked:				
Direct labour	10,000	15,000	12,500	10,000
Machine	5,000	20,000	15,000	12,500

If direct labour hours are used to absorb the indirect costs, which department will have the highest hourly absorption rate?

- A Department A
- B Department B
- C Department C
- D Department D

13 Two statements follow about the purpose of an email system:

1. The purpose of an email system is to send and receive data a computer can work with.
2. The purpose of an email system is to send and receive messages quickly and cheaply.

Are the statements true or false?

- A Both statements are false
- B Both statements are true
- C Statement 1 is false and Statement 2 is true
- D Statement 1 is true and Statement 2 is false

14 In a transport business, unit costs are calculated per tonne/kilometre. The following data is available:

Average load (tonnes)	Average distance (kilometres)	Number of journeys
4	40	10
5	60	12
6	65	8

Total costs were \$34,295.

What was the cost per tonne/kilometre (to two decimal places of \$)?

- A \$0.46
- B \$1.34
- C \$4.12
- D \$13.86

15 Which of the following are objectives of cash budgeting?

- (1) To anticipate cash shortages and surpluses
- (2) To enable necessary funds to be made available
- (3) To monitor trade receivables

- A** 1 and 2 only
- B** 1 and 3 only
- C** 2 and 3 only
- D** 1, 2 and 3

16 Which of the following describes a flexible budget?

- A** A budget that is adjusted to the actual level of activity achieved
- B** A budget that can be varied by any circumstances
- C** A budget that is adjusted for inflation
- D** A budget to allow new product development

17 Which of the following formulae can be used for calculating labour efficiency ratio?

- A** Actual hours ÷ standard hours of actual output
- B** Budgeted hours ÷ actual hours
- C** Standard hours of actual output ÷ actual hours
- D** Standard hours of actual output ÷ budgeted hours

18 In Year 1 a company incurred the following indirect costs:

Heat and lighting	\$35,000
Rent and rates	\$45,000

These costs are apportioned to Department A and Department B on the basis of floor area occupied. A occupies 10,000 square metres and B occupies 5,000 square metres. In Year 2 the indirect costs will rise by 20% and the size of the building will be increased by one third. Department C will occupy the new area.

In Year 2 how much of the indirect costs will be apportioned to Department B?

- A** \$20,000
- B** \$24,000
- C** \$32,000
- D** \$48,000

19 Which of the following items are treated differently in cash accounting compared with accruals accounting?

- (1) Depreciation
- (2) Sales income
- (3) Expenditure on materials

- A** 1 only
- B** 1 and 2 only
- C** 2 and 3 only
- D** 1, 2 and 3

20 A hotel had total costs of \$1,500,000 for a period. There were a total of 120,000 occupied bed-nights in the period.

What is the cost per service unit (to two decimal places)?

- A \$0.08
- B \$3.42
- C \$12.50
- D \$29.20

21 Which TWO of the following tasks related to cash handling need to be separated (i.e. the same employee cannot perform both tasks), in order to prevent fraud from being committed and concealed?

- (1) Access to liquid assets
- (2) Filing of procedures
- (3) Investment of surplus funds
- (4) Recording of transactions

- A 1 and 3
- B 1 and 4
- C 2 and 4
- D 3 and 4

22 A company manufactures a single product which is sold for \$70.00 per unit. Unit costs are

	\$/Unit
Variable production	29.50
Fixed production	21.00
Variable selling	4.80
Fixed selling	9.00

20,000 units of the product were manufactured in a period during which 19,700 units were sold.

Using marginal costing, what was the total contribution made in the period?

- A \$703,290
- B \$714,000
- C \$384,150
- D \$390,000

23 A company planned to produce 4,000 units of Product X during a particular year and budgeted its fixed production overheads for the year at \$20,000. During the year it actually produced 4,200 units of Product X and it incurred fixed production overheads of \$21,840. A predetermined fixed production overhead absorption rate per unit is applied.

Which of the following statements is true?

- A Fixed overheads were under-absorbed by \$840
- B Fixed overheads were over-absorbed by \$840
- C Fixed overheads were over-absorbed by \$1,000
- D Fixed overheads were under-absorbed by \$1,840

24 A firm has discovered that the cost of a raw material will increase.

If nothing else changes what is the effect of this on margin of safety and breakeven point?

- A The margin of safety will decrease and the breakeven point will increase
- B The margin of safety will increase and the breakeven point will increase
- C The margin of safety will decrease and the breakeven point will decrease
- D The margin of safety will increase and the breakeven point will decrease

25 Which of the following unbudgeted events could lead to a favourable cash flow variance?

- A Extended credit given to customers
- B Reduced depreciation charges
- C Extended credit given by suppliers
- D Taking advantage of early settlement discounts offered by suppliers

26 The cost accountant in a factory has set out the following summary data for the last two periods:

	Period 1	Period 2
Total production costs (\$)	47,328	51,652
Output (units)	2,400	2,900

What is the BEST estimate of the variable production costs per unit of output (to two decimal places)?

- A \$17.81
- B \$19.72
- C \$18.68
- D \$ 8.65

27 The occupancy rates for a hotel over a two year period are shown below:

	Year 1				Year 2			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
Percentage of bedrooms occupied	60%	75%	90%	60%	65%	85%	95%	55%

Which of the following statements is correct?

- A The occupancy rate for Year 1 is higher than Year 2 for quarters 3 and 4
- B The occupancy rate for Year 2 is higher than Year 1 for quarters 1, 2 and 3
- C The occupancy rate for Year 2 is higher than Year 1 for all four quarters
- D The occupancy rate for Year 1 is higher than Year 2 for quarters 1, 2 and 3

28 The following information relates to Product X for Month 1:

Opening inventory	Nil
Production	900 units
Sales	800 units

If marginal costing rather than absorption costing is used what is the effect on profit and inventory valuation?

- A Profit higher Inventory valuation higher
- B Profit higher Inventory valuation lower
- C Profit lower Inventory valuation higher
- D Profit lower Inventory valuation lower

29 All sales of a company are on credit. Budgets for a period include:

Sales	\$724,000
Opening trade receivables	\$206,900
Closing trade receivables	\$241,600

\$4,360 of the opening trade receivables are budgeted to be written off as bad debts during the period.

What are the budgeted cash receipts from sales in the period?

- A \$684,940
- B \$689,300
- C \$754,340
- D \$758,700

30 The following cost details relate to a single product manufactured by Business X:

	Per Unit
Direct materials (5 kg)	\$30
Direct labour (11 hours)	\$77
Production overheads	\$45

During the next period direct labour will be restricted to 340,000 hours and only 140,000 kg of material will be available. Demand is expected to be 30,000 units.

What will be the limiting factor for the next period?

- A Material only
- B Labour only
- C Material and labour
- D Neither material nor labour

31 A company has calculated that its production volume ratio is 103.5% and that its efficiency ratio is 90.0%.

What is the capacity utilisation ratio (to the nearest whole number)?

- A 115
- B 93
- C 194
- D 94

32 **When is the breakeven point achieved?**

- A When the level of contribution is equal to total costs
- B When the total variable costs are equal to total contributions
- C When the total variable costs are equal to total fixed costs
- D When the total contribution is equal to total fixed costs

33 Which TWO of the following statements relating to relevant cost concepts in decision making are correct?

- (1) Materials can never have an opportunity cost whereas labour can
- (2) The annual depreciation charge is not a relevant cost
- (3) Fixed costs would have a relevant cost element if a decision causes a change in their total expenditure
- (4) Materials already held in inventory never contribute to relevant cost

- A** 1 and 3
- B** 1 and 4
- C** 2 and 3
- D** 3 and 4

34 The following data relates to a raw material:

Date		Units	Unit Price \$	Value \$
1 Jan	Balance b/f	100	5.00	500.00
3 Mar	Issue	40		
4 Jun	Receipt	50	5.50	275.00
6 Jun	Receipt	50	6.00	300.00
9 Sept	Issue	70		

If the LIFO method of pricing is used, what is the value of the issue on 9 September?

- A** \$350
- B** \$395
- C** \$410
- D** \$420

35 A firm with a cost of capital of 12% per annum is considering investing \$20,000 now in order to receive 10 annual sums of \$4,000 (commencing in one year's time). The annuity factor for 12% over 10 years is 5.65.

What is the net present value of the investment?

- A** \$2,600 positive
- B** \$2,600 negative
- C** \$20,000 positive
- D** \$22,600 positive

36 A company operates a piecework payment scheme. Workers receive \$0.60 for each unit produced. However the company guarantees that each worker will receive at least \$45 per day.

Shown below is the number of units produced by worker A during a recent week:

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Units produced	90	70	75	60	90

What are worker A's earnings for the week?

- A** \$225
- B** \$243
- C** \$231
- D** \$456

37 An investment made now would yield \$15,972 in three years if compound interest is earned at an annual rate of 10%.

What is the amount of the investment now?

- A** \$12,000
- B** \$13,200
- C** \$10,909.10
- D** \$11,643.59

38 A company manufactures and sells four products. Sales demand cannot be met owing to a shortage of skilled labour. Details of the four products are:

	Product A	Product B	Product C	Product D
Sales demand (units)	1,500	2,000	1,800	1,900
Contribution (\$/unit)	2.80	2.60	1.90	2.40
Contribution/sales (%)	30	40	50	45
Skilled labour (hours/unit)	1.4	1.2	0.9	1.0

In what order should the products be made in order to maximise profit?

- A** Product A, Product B, Product D, Product C
- B** Product B, Product D, Product C, Product A
- C** Product C, Product D, Product B, Product A
- D** Product D, Product B, Product C, Product A

39 What is an investment centre?

- A** Part of a business involved in financial services
- B** Part of a business that utilises equipment and machinery
- C** Part of a business where management are responsible both for revenues and for operating costs
- D** Part of a business where management are responsible for decisions regarding the purchase of non-current assets

40 When communicating written information, which of the following determine(s) the choice of method used?

- (1) Comparative cost
- (2) Degree of confidentiality
- (3) Speed of delivery

- A** 1 only
- B** 3 only
- C** 1 and 2 only
- D** 1, 2 and 3

41 Which of the following would appear as an item in a cash budget?

- (1) Depreciation of a non-current asset
- (2) Loss on sale of a non-current asset
- (3) Payment for the purchase of a non-current asset

- A** 3 only
- B** 1 and 2 only
- C** 2 and 3 only
- D** 1, 2 and 3

42 In an interlocking accounting system what would be the entry in the cost accounts to record the charging of indirect production labour costs?

	Debit	Credit
A	Cost ledger control	Production overhead
B	Production overhead	Wages
C	Wages	Financial ledger control
D	Work-in-progress	Wages

43 A company manufactures a single product. Unit costs are:

	\$/Unit
Variable production	14.75
Fixed production	8.10
Variable selling	2.40
Fixed selling	5.35

400,000 units of the product were manufactured in a period, during which 394,000 units were sold. There was no inventory of the product at the beginning of the period.

Using marginal costing, what is the total value of the finished goods inventory at the end of the period?

- A** \$88,500
- B** \$102,900
- C** \$137,100
- D** \$183,600

44 Ordering lead times and weekly usage of a raw material are:

	Lead time	Weekly usage
Minimum	2 weeks	400 kg
Maximum	3 weeks	500 kg
Average	2½ weeks	450 kg

The economic order quantity of the material is 1,800 kg and the reorder level is 1,500 kg.

What is the minimum inventory control level?

- A** 300 kg
- B** 375 kg
- C** 675 kg
- D** 700 kg

45 Which of the following is NOT a feature of certificates of deposit?

- A** Fixed term
- B** Issued by a bank
- C** Non-negotiable
- D** Specified interest rate

46 Which of the following describes the margin of safety?

- A** The total sales units up to break-even sales volume
- B** The difference in units between the expected sales volume and the break-even sales volume
- C** The difference between sales value and variable costs
- D** The difference between total costs and the fixed costs at break-even sales volume

47 Which of the following statements explain how a cash budget can be used as a mechanism for control?

- (1) Actual cash flows can be compared with budgeted cash flows to reveal variations from what was expected
- (2) Cash budgets can be revised on a regular basis for forecasting purposes

- A** 1 only
- B** 2 only
- C** Both 1 and 2
- D** Neither 1 nor 2

48 In the manufacture of Chemical X there is a normal loss of 10% of the material input into the process. 340 litres of Chemical X were manufactured in a period during which there was an abnormal loss of 5% of the material input into the process.

How many litres of material were input into the process during the period?

- A** \$378
- B** \$289
- C** \$306
- D** \$400

49 The following information has been extracted from the records of a firm:

	Production department		
	Budget	Result	Variance
Direct materials	\$1,231	\$1,648	\$427 Adv
Direct labour	\$2,156	\$1,972	\$184 Fav
Direct expenses	\$125	\$142	\$17 Adv

Consider the following statements:

- (1) Overtime premium of direct labour caused direct expenses to increase
- (2) Lower skilled direct labour was used causing increased usage of direct materials
- (3) Higher quality of direct labour and materials were used enabling fewer direct labour hours to be required
- (4) Higher skilled direct labour was used enabling less direct material to be used

Which of the statements are consistent with the variances shown?

- A** 2 and 3 only
- B** 3 and 4 only
- C** 1, 2 and 4 only
- D** 1, 2, 3 and 4

50 Which TWO of the following are usually treasury functions?

- (1) Credit control
- (2) Currency management
- (3) Debt collection
- (4) Investment of surplus funds

- A** 1 and 3
- B** 1 and 4
- C** 2 and 3
- D** 2 and 4

(100 marks)

End of Question Paper

Answers

- 1 **B**
- 2 **C**
- 3 **C**
- 4 **A**
- 5 **C**
 $\$57,200 - (5,200 \times \$50,000 \div 5,000 \text{ units}) = \$5,200 \text{ favourable}$
- 6 **A**
 $(250/2) \times 3 = \$375$
- 7 **C**
- 8 **B**
 $(166,200 - 5000) \times 20\% = \$32,240$
- 9 **D**
Expected output: $(12,000 \times 90\%) = 10,800 \text{ units}$
Total costs: $(86,090 + 39,320) = \$125,410$
Cost per kg of expected output: $(125,410/10,800) = \$11.61$
- 10 **D**
- 11 **C**
Relevant costs: $(150 \text{ kg at opportunity cost of sale of } \$40) + (250 \text{ at } \$53) = \$19,250$
- 12 **C**
Product C absorbed overheads: $(120,000/12,500) = 9.6$
- 13 **B**
- 14 **C**
 $34,295 / ((4 \times 40 \times 10) + (5 \times 60 \times 12) + (6 \times 65 \times 8)) = \4.12
- 15 **A**
- 16 **A**
- 17 **C**
- 18 **B**
Indirect costs in year 2: $(35,000 + 45,000) \times 1.20 = \$96,000$
Total area in year 2: $(15,000 \times 1.33) = 20,000$
Proportion of B: $(5,000/20,000) = 0.25$
Cost apportioned to B: $(96,000 \times 0.25) = \$24,000$
- 19 **D**
- 20 **C**
 $(1,500,000/120,000) = \$12.50$
- 21 **B**
- 22 **A**
Contribution per unit: $70 - (29.50 + 4.80) = \$35.7$
Total contribution: $(19,700 \times 35.7) = \$703,290$
- 23 **A**
Overhead absorption rate: $(20,000/4,000) = \$5$
Absorbed overheads: $(5 \times 4,200) = \$21,000$
Under absorbed: $(21,000 - 21,840) = \$840$
- 24 **A**
- 25 **C**
- 26 **D**
Using high low method: $(51,652 - 47,328)/(2,900 - 2,400) = \8.65
- 27 **B**
- 28 **D**
- 29 **A**
 $(724,000 + 206,900 - 4,360 - 241,600) = \$684,940$
- 30 **A**
Direct materials: $(5 \text{ kg} \times 30,000) = 150,000 \text{ kg}$, available only 140,000 kg
Direct labour: $(11 \text{ hrs} \times 30,000) = 330,000 \text{ hrs}$, available 340,000 hrs

31 A

Activity ratio = Efficiency ratio x Capacity ratio
 $(103 \cdot 5 / 90) \cdot 100$

32 D

33 C

34 C

$(50 \text{ units at } \$6) + (20 \text{ units at } \$5 \cdot 50) = \$410$

35 A

$\$20,000 - (\$4,000 \times 5 \cdot 65) = \$2,600$

36 B

Number of units per day equivalent to guaranteed minimum daily wage: $45 / 0 \cdot 6 = 75$
Received Mon, Wed and Friday: $(90 + 75 + 90) \cdot 0 \cdot 6 = \153
Tuesday and Thursday received a minimum of $\$45 = \90
Total earnings: $(153 + 90) = \$243$

37 A

$\$15,972 / 1 \cdot 1^3 = \$12,000$

38 D

	A	B	C	D
Contribution per skilled labour:	2 (2·8/1·4)	2·17	2·11	2·4
Ranking	4	2	3	1

39 D

40 D

41 A

42 B

43 A

$(400,000 \text{ kg} - 394,000 \text{ kg}) \cdot \$14 \cdot 75 = \$88,500$

44 B

Reorder level – (average lead-time * average usage)
 $1,500 - (2 \cdot 5 \cdot 450) = 375 \text{ kg}$

45 C

46 B

47 A

48 D

Good output: $(100\% - 10\% - 5\%) = 85\%$
Input into the process: $340 / 85 = 400 \text{ kg}$

49 A

50 D