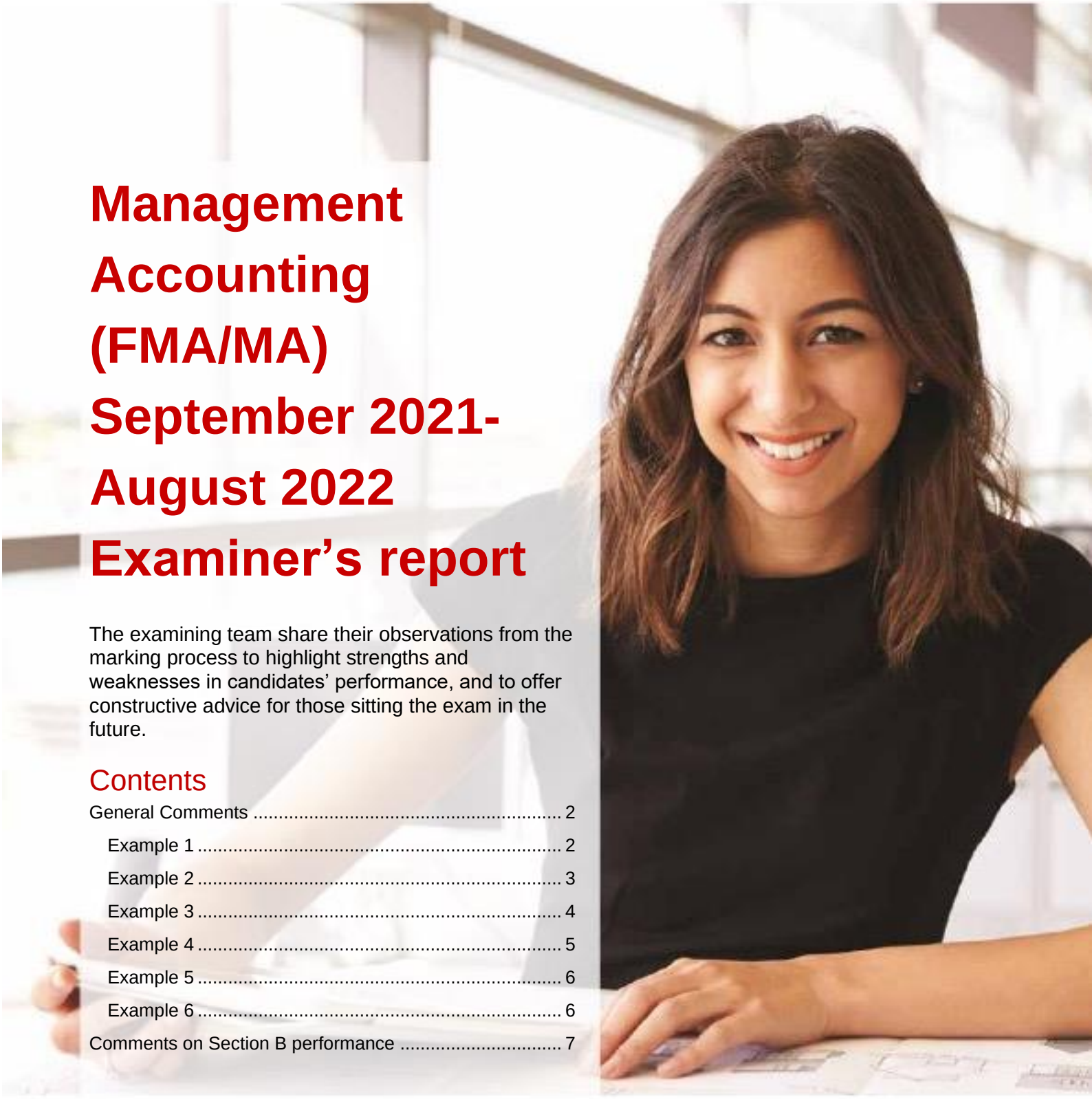

Management Accounting (FMA/MA) September 2021-August 2022 Examiner's report

The examining team share their observations from the marking process to highlight strengths and weaknesses in candidates' performance, and to offer constructive advice for those sitting the exam in the future.

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General Comments

The intention of this report is that, when considered in conjunction with previous reports, candidates at future sittings will have a resource which maximises their chance of success. The most effective way to use these reports is to consider both the technical content of each question, and the approach to answering the question – noting that different question types will require slightly different approaches.

The examination consists of two sections. Section A of the paper contains 35 objective test questions – each worth 2 marks, and section B contains 3 MTQs worth ten marks each. All questions are compulsory. The paper is a two-hour examination. A pilot paper reflecting this structure is available on the ACCA website together with several MTQs. Calculation questions account for approximately one half of questions in both Section A and Section B. Candidates' performance on calculation questions is normally worse than on narrative questions.

Example 1

An investment of $78,000 is made immediately. The investment will produce an annual net income of $5,000 in perpetuity starting in one year's time. The discount rate on the investment is 5%.

What is the net present value of the investment?

To answer this question, candidates need to know the formula to calculate the present value of a perpetuity, how to apply it and how to calculate an NPV.

The formula for the present value of a perpetuity is not given on the examination formula sheet, but it is very simple. The present value of a perpetuity that commences in one period's time is

Cashflow per period/interest rate per period.

In this case the present value of the perpetuity is $5,000/0.05 = $100,000.

The net present value is therefore $100,000 - $78,000 = $22,000.

The most common error in answering this question is to correctly calculate the present value of the perpetuity, but to forget to subtract the cost of the initial investment. Simple calculation errors like this are common in fill in the blank questions and candidates are urged to double check their workings and to ensure that they have answered the full question.

Candidates should also note the significance of the statement that the perpetuity starts in one year's time. If for example the perpetuity commenced immediately it would be worth

$5,000 + $5,000/0.05 = $105,000.

On the other hand, if the perpetuity did not start until two years' time, then the value of the perpetuity would need to be discounted by one period (because it starts one year later than the formula assumes) and would be worth

($5,000/0.05) x 1/1.05 = $95,238

or using present value tables

($5,000/0.05) x present value factor for one period at 5% = ($5,000/0.05) x 0.952 = $95,200

Example 2

For each of the following Hopwood styles of performance evaluation what are the expected consequences for personal relationships within a responsibility centre?

	Good relationships	Poor relationships
1. Budget constrained style		
2. Non-accounting style		

In his research Hopwood identified three management styles of performance evaluation. Under the budget constrained style managers were totally reliant on the comparison of actual results to budget targets in assessing the performance of subordinates. Hopwood observed that this commonly resulted in bad relationships between manager and subordinate because of the adversarial relationship it engendered, and the pressure felt by subordinates. It also tended to cause poor relationships between subordinates as budget pressure often resulted in one subordinate trying to pass blame for failure on to other subordinates.

The second style identified by Hopwood was the Profit-conscious. Under this approach actual results were compared to budget targets when assessing subordinate performance, but managers were prepared to accept that achievement of budget was not the only feature of good performance. For example, they at times accepted that it was in the interest of the organisation not to achieve short term budgets. An example of this would be the “spend now to save cost in later periods” type argument. This generally improved manager subordinate relations as subordinates felt that their managers were prepared to “listen to reason”.

The third style observed by Hopwood was non-accounting style. Under this approach little reliance was placed upon accounting data in evaluating performance. Subordinates were assessed on “their perceived ability to get things done”. Examples included the successful introduction of new working practices and the fostering of teamwork. Under this approach subordinates were not under budget pressure and tended to have good relationships with colleagues and superiors.

Given these findings the correct answer is that a budget-constrained style generally leads to bad relationships with colleagues and superiors, whereas a non-accounting style leads to good relationships.

Example 3

What is the probability that an observation for a normally distributed variable will be greater than 1.24 standard deviations above the mean (to two decimal places)?

1. **0.89**
2. **0.39**
3. **0.11**
4. **0.61**

If a variable is normally distributed its probability distribution will follow a symmetrical bell shape. Standard normal distribution tables are provided in the examination and if candidates read the introductory sentence of the tables, they will be instructed on how to answer this question, “To find the area under the normal curve between the mean and a point Z standard deviations above the mean, use the table below”.

The first step is to find the entry in the table for 1.24 standard deviations. This is done by selecting the figure at the intersection of the row for 1.2 standard deviations, and the column for 0.4 standard deviations. (1.2 + 0.04 =1.24). This tells us that the area under the normal curve (the probability) between the mean and a point 1.24 standard deviations above the mean is 0.3925 (or 39.25%).

The question asks for the probability of an observation being ***greater*** than 1.24 standard deviations from the mean. Because the normal distribution is symmetrical the area under the curve both above and below the mean is 0.5. If 0.3925 is between the mean and 1.24 standard deviations above the mean then the area above 1.24 standard deviations must be 0.5 – 0.3925 = 0.1075 or 0.11 to two decimal places, which is answer 3.

The distractors represent areas under different sections of the curve. It is worth working through these distractors as they represent other questions that could be asked on standard normal distribution tables.

0.89 represents the probability of an observation being greater than 1.24 standard deviations below the mean. (0.5 + 0.39)

0.61 represents the probability of an observation being either below the mean or higher than 1.24 standard deviations higher than the mean (0.5 + (0.5 – 0.39) = 0.61.

0.39 represents the probability of the observation being between the mean and a point 1.24 standard deviations above the mean.

Example 4

Pelykan Holiday Co sells package holidays to holiday makers. It books and pays for 50 seats on an airline each week at a cost of $120 per seat. Each seat sold generates a contribution (before deducting the cost of the airline seat) of $300. The forecast weekly demand for the holidays is shown in the table below:

Demand for the holidays	Probability
20	0.10
30	0.25
40	0.30
50	0.35

What would be the expected profit per week?

1. **$5,700**
2. **$11,700**
3. **$7,020**
4. **$9,000**

The correct answer is $300 x (20 x 0.10 + 30 x 0.25 + 40 x 0.3 + 50 x 0.35) – (50 x $120)

= $11,700 – $6,000 = $5,700

Candidates who selected alternative 2 made the mistake of failing to deduct the cost of the 50 seats per week. A very common error in answering multiple choice questions is failing to complete the entire calculation. In this case, candidates would have correctly calculated the expected contribution before flight costs ($11,700) and selected alternative 2. Candidates should always check they have completed the entire calculation before selecting their answer.

Candidates who selected alternative 3 made the mistake of treating flight costs as a cost that varies with the number of holidays sold. They correctly calculated the expected number of flights (20 x 0.10 + 30 x 0.25 + 40 x 0.3 + 50 x 0.35 = 39). They then multiplied this by the contribution per holiday less the flight cost (39 x (300-120) = $7,020. Their mistake was to assume that the cost of an airline seat was only payable if the seat was used. What the question tells us is “It books and pays for 50 seats on an airline each week at a cost of $120 per seat”. This means that no matter how many holidays the Pelykan sells, it has to pay for 50 seats per week. So for example in a week when only 20 holidays are sold, Pelykan would still have to pay for 50 seats on the airline. Because of this the 50 airline seats are a fixed cost per week of 50 x $120 = $6,000.

Finally, candidates who selected alternative 4 ignored the expected demand figures and assumed that 50 holidays would be sold every week, yielding a profit of 50 x ($300 - $120) = $9,000.

Example 5

Which TWO of the following are examples of inventory holding costs?

1. **Interest on capital**
2. **Losses from obsolescence**
3. **Carriage inwards**
4. **Cost of telephone calls to place order**

Candidates who have studied the economic order quantity (EOQ) model should recall that the costs of managing inventory are usually split into holding cost and ordering cost. Holding costs are those which vary with average inventory levels carried and ordering costs are those which vary with the number of orders placed.

Option 1: The cost of the capital used by the business is the rate of return required by the providers of capital, or if capital is in short supply the opportunity cost of its best alternative use. Money invested in inventory has a cost and is a holding cost of inventory.

Option 2: The longer goods remain in inventory the greater the chance of their losing value due to obsolescence. Long holding periods cause high inventory levels. Obsolescence is a holding cost of inventory.

Option 3: Carriage inwards is a cost of delivery and will usually vary with the number of orders placed. Carriage inwards is an ordering cost.

Option 4: Cost of telephone calls to place order will vary with the number of orders placed. The cost of telephone costs to place an order is an ordering cost.

Example 6

Fixed overheads were absorbed last month using a rate of $5.00 per labour hour. Budgeted labour hours were 22,000 and actual labour hours were 24,000. The fixed overhead expenditure variance was $6,000 adverse.

What was the actual cost of fixed overheads for the month?

1. $116,000
2. $104,000
3. $126,000
4. $114,000

If budgeted labour hours are 22,000 and the fixed overhead absorption rate is $5.00 per labour hour, then budgeted fixed overheads are $110,000 for the month. If the expenditure variance was $6,000 adverse actual overhead expenditure must have been higher than budgeted. This means that actual fixed overhead expenditure must be $110,000 +$6,000 = $116,000, option 1.

Candidates who selected option 2 performed similar calculations but erroneously subtracted the adverse expenditure variance from budgeted overheads. ($110,000 - $6,000 = $104,000)

Candidates who selected option 3 added the expenditure variance to absorbed overheads instead of budgeted overheads. (24,000 labour hours x $5.00) + $6,000 = $126,000

Finally, those who selected option 4 3 deducted the expenditure variance from absorbed overheads (24,000 labour hours x $5.00) - $6,000 = $114,000

Comments on Section B performance

Section B contains 3 questions, one from each of syllabus areas C Budgeting, D Standard Costing and E Performance Measurement. The balance of MCQ questions in section A reflects this weighting so as to preserve the overall balance of the paper. The specimen exam reflects the weightings and this balance of questions will be used in future papers.

Common problems with section B questions include the following:

- An inability to calculate payback, NPV and IRR.
- An inability to calculate standard cost variances.
- An inability to calculate residual income and ROCE.
- An apparent difficulty with questions presented in spreadsheet format.
- A difficulty with questions involving the reconciliation of actual and budgeted figures via standard costing variances.

Future candidates are advised to:

- Study the whole syllabus because the paper will cover the full syllabus.
- Practise as many objective testing questions as possible, number entry questions appear to be a weakness.
- Read questions very carefully in the examination.
- Ensure that their calculations are complete before selecting their answer to multiple choice questions.
- Try to attempt the “easy” examination questions first.
- Try not to spend too much time on apparently “difficult” questions.
- Attempt all questions in the examination (there are no negative marks for incorrect answers).
- Consider the “reasonableness” of their answers in section B (an inventory days figure of 27 million days is unlikely)
- Read previous examiners’ reports