



Think Ahead

# Management Accounting (FMA/MA) September 2023- August 2024 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 alongside previous versions gives candidates at future sittings the resources which maximise 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 exam contains 35 objective test questions – each worth 2 marks, and section B contains 3 MTQs worth ten marks each. All questions are compulsory.

The exam is a two-hour examination. Calculation questions account for approximately one half of questions in both Section A and Section B. Candidates tend to perform slightly better on the narrative questions than on the calculation questions.

## Section A

The following questions cover different aspects of the syllabus. The approach to correctly answering each question is explained and the common incorrect approaches, along with the misunderstandings which they indicate, are highlighted. Answering objective test questions requires candidates to have both a clear understanding of the subject matter being examined and a logical approach.

### Example 1

Elephant Co makes bespoke items of wooden furniture which it sells to shops throughout its home country. It sources the wood from forests in its home country. Elephant Co only employs experienced craft workers in production, who are paid a premium for their skills.

**Which one of the following policies by government will have an impact on operating costs that the company should consider when measuring performance?**

#### Choices:

1. Increase in import tax on wood
2. Increase in energy tax
3. Increase in corporation taxation
4. Increase in subsidies for employing school leavers in production

**The correct answer is 2. Increase in energy tax**

2. This is relevant because an increase in energy tax would directly impact the operating costs of Elephant Co, and energy is likely to be a significant cost in the production process.

**Incorrect answers:**

1. Increase in import tax on wood: This is not relevant as Elephant Co sources wood from forests in its home country, so import taxes would not affect its operating costs.
3. Increase in corporation taxation: While this affects the overall profitability of the company, it does not directly impact the operating costs related to production and performance measurement.
4. Increase in subsidies for employing school leavers in production: This is not relevant as Elephant Co only employs experienced craft workers, so subsidies for employing school leavers would not affect its operating costs.

**Example 2**

Three types of big data are structured, semi-structured and unstructured data.

**For each of the following examples of data, indicate what type of big data they illustrate.**

	Structured data	Semi-structured data	Unstructured data
1 Voicemail message left on a company's automated voicemail service			
2 Emails			
3 The expiry date on a credit card			

**The correct answer is:**

	Structured data	Semi-structured data	Unstructured data
1 Voicemail message left on a company's automated voicemail service			<b>X</b>
2 Emails		<b>X</b>	
3 The expiry date on a credit card	<b>X</b>		

Structured data is data that is organised in a fixed format and can be easily stored, searched, and analysed using traditional database management tools.

The expiry date on a credit card is stored in a defined format (MM/YY) within a specific field in a database, making it structured data.

Unstructured data is data that does not have a specific format and cannot be easily stored, searched, and analysed using traditional database management tools. Examples include images, videos, and audio files.

Voicemail messages come in various formats and lengths, making them difficult to store and analyse systematically. These are classified as unstructured data.

Semi-structured data is data that contains some structure, but also contains unstructured elements. In an email, elements such as the sender, recipient and date are structured, but the data in the main body of the email could contain a mix of text and attachments in different formats and can vary greatly. Emails are therefore classified as semi-structured data.

### Example 3

**What is the effective annual rate of interest if simple interest of 11.2% per annum is compounded every six months (to 2 decimal places)?**

[       ] %

**The correct answer is 11.51%**

The rate of interest is 11.2% per annum and it is compounded every six months, which is two times per year.

To calculate an effective rate, use the formula:

$$r = (1 + i/n)^n - 1$$

i is the interest rate = 11.2% or 0.112 and n is the number of time periods = 2, so:

$$r = (1 + 0.112/2)^2 - 1$$

$$r = 1.11513 - 1 = 0.11513 \text{ or } 11.51\%$$

### Example 4

The budget for conversion costs in a factory, for output of 9,800 units, is \$76,660, made up as follows:

	\$
Direct labour	32,340
Production overheads	<u>44,320</u>
	76,660

Direct labour costs increase by \$0.50 per unit on additional output in excess of 10,500 units.

Production overheads at an output level of 9,800 units include fixed costs of \$36,480, the balance being variable costs.

**What is the flexed budget for conversion costs if the actual output is 10,900 units?**

**\$ [       ]**

**The correct answer is \$81,370**

Direct labour is a variable cost with a cost per unit of  $(\$32,340/9,800) = \$3.30$ .

Direct labour is £3.30 per unit up to 10,500 units, and  $(\$3.30 + \$0.50) = \$3.80$  per unit above 10,500 units.

For 10,900 units, the direct labour cost will be  $(10,500 \times \$3.30) + (400 \times \$3.80) = \$36,170$ .

Production overheads is a semi variable cost with a fixed element of \$36,480. The variable cost per unit for production overheads is therefore  $(\$44,320 - \$36,480)/9,800 = \$0.80$ .

For 10,900 units, the production overheads will be  $(\$36,480 + (10,900 \times \$0.80)) = \$45,200$ .

The flexed budget for conversion costs for 10,900 units is therefore  $(\$36,170 + \$45,200) = \$81,370$ .

### **Example 5**

Rhino Co uses an absorption rate of \$3 per machine hour, based on a budgeted overhead expenditure of \$120,000. Actual overhead expenditure in the period was \$123,000.

The under/over-absorbed overhead account for the period has the following entries:

<b>Debit \$</b>		<b>Credit \$</b>	
Statement of profit or loss	6,000	Production overhead	6,000
	<u>6,000</u>		<u>6,000</u>

**Which TWO of the following statements are true?**

**Choices:**

1. Overheads were over-absorbed by \$6,000
2. Overheads were under-absorbed by \$6,000
3. Actual machine hours were 1,000 less than budgeted
4. Actual machine hours were 3,000 more than budgeted

The correct answer is **1 & 4**

Given the credit entry of \$6,000 to the under/over absorption account, it indicates that the overhead was **over-absorbed** by \$6,000.

This means the absorbed overhead was \$6,000 more than the actual overhead expenditure, so:

	\$
Actual overhead	123,000
Over absorption	6,000
This means that the overhead absorbed =	<u>129,000</u>

Overhead absorbed is calculated as actual hours x overhead absorption rate (OAR).

Therefore, the actual hours are  $(\$129,000/3) = 43,000$  hours.

The budgeted hours are  $(\$120,000/3) = 40,000$  hours

So, actual machine hours were  $(43,000 - 40,000) = 3,000$  more than budgeted.

**Example 6**

Moth Co's actual contribution for the last accounting period was \$120,000. The following variances have been calculated.

	\$	
Sales volume contribution variance	15,000	Adverse
Sales price variance	13,000	Favourable
Fixed overhead expenditure variance	7,000	Favourable
Total direct materials variance	11,000	Adverse
Total direct labour variance	4,000	Favourable
Total variable overhead variance	3,000	Adverse

**What was the standard contribution for actual sales in the last accounting period?**

**\$ [       ]**

**The correct answer is \$117,000**

To answer this question, it is useful to consider the layout of the operating statement:

	\$
Standard (budgeted) contribution	X
Sales volume contribution variance	X
Standard contribution for actual sales	X
Sales price variance	X
Total cost variances	X
Actual contribution	X

Use this template and add in the figures given in the question:

	\$	
Standard (budgeted) contribution	X	
Sales volume contribution variance	15,000	A
<b>Standard contribution for actual sales</b>	<b>X</b>	
Sales price variance	13,000	F
Cost variances:		
Total direct materials variance	11,000	A
Total direct labour variance	4,000	F
Total variable overhead variance	3,000	A
Actual contribution	120,000	

The question does not give the standard (budgeted) contribution, which is the normal starting point, but as the question asks for the standard contribution for actual sales, which is calculated as the standard contribution plus or minus the sales volume contribution variance, this figure is not needed. The sales volume contribution variance is also not required as it has already been taken account of in getting to the standard contribution for actual sales.

The fixed overhead expenditure variance is ignored because we are dealing with the calculation of contribution, which indicates that we are dealing with marginal costing and not absorption costing.

The standard contribution for actual sales can be calculated by 'working backwards' from the actual contribution and adding the adverse variances and deducting the favourable variances.

So the standard contribution for actual sales is  $(\$120,000 + \$3,000 - \$4,000 + \$11,000 - \$13,000) = \$117,000$ .

## **Section B**

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 exam.

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.
- Difficulty with questions presented in a spreadsheet format
- A difficulty with questions involving the reconciliation of actual and budgeted figures via standard costing variances.

## **Conclusion**

Future candidates are advised to:

- Study the whole syllabus, because the exam 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 calculations are complete before selecting answers to multiple choice questions.
- 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 (for example, an inventory days figure of 27 million days is unlikely!)
- Read previous Examiner’s Reports.