



Think Ahead

# Managing Costs & Finance

## MA2

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## 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.

### Contents

General Comments.....	2
Example 1 .....	2
Example 2 .....	3
Example 3 .....	3
Example 4 .....	4
Example 5 .....	5
Example 6 .....	6
Conclusion .....	7



## 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 50 objective test questions, each worth 2 marks. The purpose of this report is to provide illustrations of questions which have especially posed problems for candidates.

The six sample multiple-choice questions below 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

**Which of the following could cause a favourable sales price variance?**

- (1) Actual price being greater than budgeted price
- (2) Actual units sold being greater than budgeted

**Choices:**

- 1. Both (1) and (2)
- 2. (1) only
- 3. (2) only
- 4. Neither (1) nor (2)

**The correct answer is 2. (1) only**

The sales price variance measures the increase or decrease in revenue due to a difference between the standard selling price and actual selling price. It is calculated as the actual sales revenue (actual sales volume at the actual selling price) less the actual sales volume at the standard selling price.

If the actual price is greater than budgeted price this gives a favourable sales price variance. Therefore statement (1) is correct.

The sales price variance only considers the actual sales volume at the actual selling price and the actual sales volume at the standard selling price. It does not take account of the difference in sales volume; therefore statement (2) is incorrect.

When the actual units sold are greater than budgeted this results in a favourable volume variance.

### Example 2

A new project requires an immediate investment in machinery of \$200,000. The project will generate additional sales of \$150,000 and incur variable costs of \$40,000 per annum, in years 1 to 5.

**Calculate the net present value of the project, at a discount rate of 10%.**

<b>Discount factor 10%</b>	
Year 1	0.909
Year 2	0.826
Year 3	0.751
Year 4	0.683
Year 5	0.621
<b>Annuity Factor 10%</b>	
Years 1 to 5	3.791

\$

**The correct answer is \$217,010**

The investment, a cash outflow, of \$200,000 occurs immediately, it therefore does not need to be discounted as it is already in present value terms.

The cash inflows for years 1 to 5 are  $(\$150,000 - \$40,000) = \$110,000$ . As the cash flows are the same amount for each year, the 5 year annuity factor (3.791) can be used to calculate the present value.  $(\$110,000 \times 3.791) = \$417,010$ .

The net present value is therefore  $\$417,010 - \$200,000 = \$217,010$ .

### Example 3

Dromio Co manufactures three joint products: X, Y and Z. For the month just ended, the following data has been extracted from the company's accounting records.

	<b>X</b>	<b>Y</b>	<b>Z</b>
Selling price (\$ per unit)	50	75	100
Production and sales (units)	600	480	300
Selling expenses (\$)	7,000	5,000	4,000

Joint costs amount to \$65,000.

**If joint costs are apportioned on the basis of sales value, what is the net profit made by Product Y in the month?**

\$

**The correct answer is \$6,625**

First, work out the sales value for each product:

X is  $(\$50 * 600) = \$30,000$

Y is  $(\$75 * 480) = \$36,000$

Z is  $(\$100 * 300) = \$30,000$

This gives a total sales revenue of \$96,000.

Product Y's share of joint costs is  $(\$36,000/\$96,000 * \$65,000) = \$24,375$ .

Product Y's net profit is:

	\$
Sales revenue	36,000
Share of joint costs	(24,375)
Selling expenses	<u>(5,000)</u>
Net profit	<u>6,625</u>

#### **Example 4**

**Which TWO of the following will appear in a company's cash flow statement, but NOT in its statement of operating profit or loss?**

- 1. Depreciation**
- 2. Dividends paid**
- 3. Sales**
- 4. Prepayments**
- 5. Profit or loss on the sale of a non-current asset**
- 6. Purchase of a non-current asset**

**The correct answers are 2. Dividends and 6. Purchase of a non-current asset**

The statement of operating profit or loss only considers those incomes and expenses that are necessary to keep the business running.

The cash flow statement paints a picture as to how a company's operations are running, where its money comes from, and how money is being spent.

Dividends paid and the purchase of a non-current asset are cash outflows and will appear in a company's cash flow statement, but not in its statement of operating profit or loss.

A dividend has no impact on profits. It is a distribution to shareholders of retained earnings that a company has already created through its profit-making activities.

The purchase of a non-current asset is capitalised rather than expensed, and its value is drawn down and allocated over the number of years that the asset will be in use.

Incorrect answers:

Sales are the amounts earned by the company from the sale of the goods or provision of the services with respect to the core business operations. The sales figure will appear in **both** the statement of operating profit or loss and the cash flow statement.

All other items will appear in the statement of operating profit or loss but not the cash flow statement.

All expenses that are necessary to keep the business running are included in the statement of profit or loss, which is why operating profit considers the asset-related depreciation. However, depreciation is not a cash flow and does not appear in the cash flow statement.

General and administration expenses or operating expenditure could include a prepayment. When the expense is incurred, the prepaid expense account is reduced by the amount of the expense, and the expense is recognised in the company's statement of operating profit or loss in the period when it was incurred. Only the cash impact of the expense is included in the cash flow statement.

Any profit or loss on the sale of a non-current asset is shown in the statement of operating profit or loss but this is not a cash flow so will not appear in the cash flow statement. The only entry in the cash flow statement in relation to the sale of a non-current asset would be any cash proceeds.

### Example 5

Sonamoo Co had operating profits of \$190,000 in its first year of operation. All sales were in cash.

The financial statements for the year show the following:

	\$
Year-end payables	50,000
Depreciation	10,000
Capital expenditure payments	100,000
Dividends paid	20,000

**By how much will cash have increased over the year?**

**Choices:**

- 1. \$130,000**
- 2. \$110,000**
- 3. \$80,000**
- 4. \$30,000**

**The correct answer is 1. \$130,000**

It is the first year of operation, therefore there is no need to account for any opening balances. Start with the operating profit of \$190,000. This will need to be adjusted for the figures included in the operating profit which do not have a cash impact.

The year-end payables figure, representing the amount owed to suppliers must be added on as the purchases figure will have been deducted to arrive at the operating profit figure but the cash has not yet been paid out.

Likewise, depreciation must be added back as this has also been deducted in arriving at the operating profit figure, but this is a non-cash expense.

The adjusted cash profit is therefore  $(\$190,000 + \$50,000 + \$10,000) = \$250,000$

The capital expenditure payments must be deducted as this is a cash outflow, but this is not included in the operating profit calculation.

The dividend paid figure is also a cash out flow which would not affect the operating profit figure; therefore, this must also be deducted.

The increase in cash is therefore  $(\$250,000 - \$100,000 - \$20,000) = \$130,000$ .

Incorrect answers are:

2. \$110,000 – the depreciation has been deducted instead of being added.
3. \$80,000 – the adjustment for payables has been omitted.
4. \$30,000 – the adjustment for payables has been deducted instead of being added.

### Example 6

The budgeted sales revenue of CST Co is \$450,000 and the margin of safety (as a percentage of budgeted sales) is 20%.

Its contribution to sales ratio is 40%.

**What is the expected fixed cost for the period?**

\$

**The correct answer is \$144,000**

The first calculation to do is to work out the contribution figure. The CS ratio is calculated as Contribution/Sales, so contribution = sales x CS ratio. Contribution =  $(\$450,000 \times 40\%) = \$180,000$ .

Now, use the margin of safety figure to calculate the fixed cost.

First calculate the breakeven sales revenue from the margin of safety formula:

Margin of safety % = (budgeted sales revenue – breakeven sales revenue)/budgeted sales revenue

$$0.2 = (\$450,000 - \text{breakeven sales revenue})/\$450,000$$

$$\text{Breakeven sales revenue} = \$450,000 - (\$450,000 \times 0.2) = \$360,000$$

Now, calculate fixed costs from the breakeven sales revenue formula:

$$\text{Breakeven sales revenue} = \text{fixed costs}/\text{CS ratio}$$

$$\$360,000 = \text{FC}/0.4$$

$$\text{Fixed costs} = \$360,000 \times 0.4 = \$144,000$$

Alternatively, after you have calculated the contribution of \$180,000, you can calculate the fixed cost using  $\$180,000 \times (100\% - 20\%) = \$144,000$ .

This is because budget sales less margin of safety equals the breakeven point  $(100\% - 20\%) = 80\%$  and the breakeven point is the point at which fixed cost are covered by contribution.

## **Conclusion**

Based on the performance of candidates in these questions, it can be observed that there were two major reasons for incorrect choices being made. The first is that there was a lack of awareness / understanding of fundamental issues in the syllabus such as the use of spreadsheets. The second is that the questions were not read carefully enough, which led to confused thinking.

Candidates preparing for future sittings are strongly encouraged to ensure that they have developed a clear understanding of the key points of each area of the syllabus and that they read carefully and think logically when attempting questions.