

Examiner's report

MA1 Management Information

December 2012



General Comments

The examination paper consisted of 50 multiple-choice questions, each worth 2 marks.

The four questions below, covering different aspects of the syllabus, are examples of questions that candidates found difficult. This report explains, for each sample question, the basis for the correct answer and for each of the incorrect options selected by some candidates.

SAMPLE QUESTIONS FOR DISCUSSION

Example 1

Employee H works a basic 37-hour week and is employed on product manufacture. He is paid at a rate of \$11 per hour for the basic hours with a premium of 30% for any overtime hours. Employee H worked 5 overtime hours in Week 7 to satisfy sales demand.

What amount, out of the total gross wages for Employee H in Week 7, should be charged as direct labour cost?

- A*** *\$407.00*
- B*** *\$462.00*
- C*** *\$478.50*
- D*** *\$423.50*

This question tested item D2a in the Study Guide.

Total hours worked productively by direct workers (i.e. on product manufacture) are always charged as direct labour cost. The only question, regarding the direct labour cost, is whether any overtime hours worked are charged at basic rate only or at a higher rate to also include the overtime premium.

If the overtime hours are specifically worked to satisfy the urgent requirement of a particular customer then the direct labour cost includes the overtime premium as well as the basic rate. Otherwise, the overtime premium is charged as indirect labour cost (production overhead) and spread over all of the output manufactured in a period.

In the situation in this question, the overtime hours are worked to satisfy sales demand generally and, therefore, the overtime premium is charged as an indirect (not direct) labour cost.

The correct answer, is Option B (42 hours × \$11 per hour = \$462.00).

Option C, charges the overtime premium as a direct labour cost $\{[(37 \text{ hours} \times \$11 \text{ per hour}) + (5 \text{ hours} \times \$11 \text{ per hour} \times 1.3)] = \$478.50\}$.

Option A ignores the cost of the overtime hours completely in the direct labour cost (37 hours × \$11 per hour = \$407.00).

Option D, includes the overtime premium, instead of the overtime hours at basic rate, in the direct labour cost $\{[(37 \text{ hours} \times \$11 \text{ per hour}) + (5 \text{ hours} \times \$11 \text{ per hour} \times 0.3)] = \$423.50\}$.

Example 2

Each finished unit of Product X contains 1.4 litres of Material Y. 10% of material Y used is lost in processing. Sales and production of Product X in a period were 21,000 and 20,200 units respectively.

What was the usage of Material Y in the period?

- A** 31,108 litres
- B** 31,422 litres
- C** 32,667 litres
- D** 28,280 litres

This question tested item D1c in the Study Guide.

The amount of material input that is required in the period is dependent upon how much of the product is produced rather than how much is sold. Also, if each finished unit of the product requires 1.4 litres of material, and there is a 10% loss of material in processing, then the 1.4 litres is 90% of the input of material required.

The correct answer to this question is Option B ($20,200 \text{ units} \times 1.4 \text{ litres/unit} \div 0.9 = 31,422 \text{ litres}$).

Option C, was based on the sales, rather than the production, quantity ($21,000 \text{ units} \times 1.4 \text{ litres/unit} \div 0.9 = 32,667 \text{ litres}$).

Option A, multiplied the 1.4 litres by a factor of 1.1 (i.e. added 10% to the amount required per finished unit) rather than divided by 0.9 ($20,200 \text{ units} \times 1.4 \text{ litres/unit} \times 1.1 = 31,108 \text{ litres}$).

Option D, made no allowance for wastage thus assuming that the 1.4 litres was the required material input per unit rather than the amount required in each unit of output ($20,200 \text{ units} \times 1.4 \text{ litres/unit} = 28,280 \text{ litres}$).

Example 3

What is the double-entry, in an interlocking accounting system, for the purchase of raw materials on credit?

- | | <i>Debit</i> | <i>Credit</i> |
|----------|-------------------------|-------------------------|
| A | Raw materials inventory | Trade payables |
| B | Trade payables | Raw materials inventory |
| C | Raw materials inventory | Cost ledger control |
| D | Cost ledger control | Raw materials inventory |

This question tested item A1f in the Study Guide.

Two decisions were faced by candidates in this question.

The first decision was whether the entry in the raw materials inventory account is a debit or a credit. As the entry in the inventory account is a purchase of materials the account will be debited (Options A and C).

The second decision was whether the other entry is in the trade payables account or in the cost ledger control account. A key issue is the difference between an interlocking accounting system and an integrated accounting system. An interlocking system is an accounting system where separate ledger accounts are kept for cost accounts and for financial accounts. The cost accounts will include the detailed inventory accounts (as opposed to a purchases account in the financial accounts) along with details of sales and expenses but will exclude

financial accounting items such as trade payables and trade receivables. These financial accounting aspects of transactions are posted to a cost ledger control account in order for the cost accounts to balance (Options C and D).

Majority of candidates had the entries the right way round but confused interlocking accounts with integrated accounts (Option A). Some candidates confused interlocking with integrated and also had the double entry the wrong way round (Option B).

Example 4

The inventory record for Component C2 for a month shows:

| Day | Movement | kg | \$ per kg |
|-----|----------|-----|-----------|
| 1 | Balance | 86 | 11.20 |
| 12 | Receipt | 200 | 11.90 |
| 14 | Issue | 174 | |
| 18 | Receipt | 200 | 12.00 |

The periodic weighted average method is used to price the issue of materials. Each average price is rounded to the nearest \$0.01.

What is the cost of the issue in the month?

- A** \$2,070.60
- B** \$2,034.06
- C** \$2,056.68
- D** \$2,079.30

This question tested item D1d in the Study Guide.

Candidates need to distinguish between the cumulative weighted average pricing method and the periodic weighted average pricing method. This question clearly demonstrates that there is confusion between the two weighted average methods.

The cumulative weighted average method recalculates the weighted average price after each receipt of inventory. This price is then used for all subsequent issues until there is a further receipt of inventory when the weighted average price is recalculated again. The periodic weighted average method, on the other hand, only calculates a single weighted average price for each period regardless of how many separate receipts of inventory there have been.

This question required application of the periodic weighted average pricing method. The correct option is (Option C). The periodic weighted average price is calculated by dividing the total value of the receipts plus opening inventory for the period by the corresponding total kg. Thus $\{[(86 \text{ kg} \times \$11.2/\text{kg}) + (200 \text{ kg} \times \$11.9/\text{kg}) + (200 \text{ kg} \times \$12/\text{kg})] \div (86 + 200 + 200 \text{ kg})\} = \$11.82/\text{kg}$ (to the nearest \$0.01). The cost of the issue is \$2,056.68 (174 kg \times \$11.82/kg).

A greater proportion of candidates applied cumulative average pricing (Option B). The cumulative average price is calculated after the receipt of inventory on Day 12. Thus $\{[(86 \text{ kg} \times \$11.2/\text{kg}) + (200 \text{ kg} \times \$11.9/\text{kg})] \div (86 + 200 \text{ kg})\} = \$11.69/\text{kg}$ (to the nearest \$0.01). The cost of the issue is \$2,034.06 (174 kg \times \$11.69/kg).



Majority of candidates:

Applied the LIFO method (Option A) i.e. $(174 \text{ kg} \times \$11.9/\text{kg} = \$2,070.60)$.

Attempted to apply a periodic weighted average but excluded the opening inventory (Option D) i.e. $\{[(200 \text{ kg} \times \$11.9/\text{kg}) + (200 \text{ kg} \times \$12/\text{kg})] \div (200 + 200 \text{ kg})\} = \$11.95/\text{kg}$. The cost of the issue is \$2,079.30 $(174 \text{ kg} \times \$11.95/\text{kg})$.