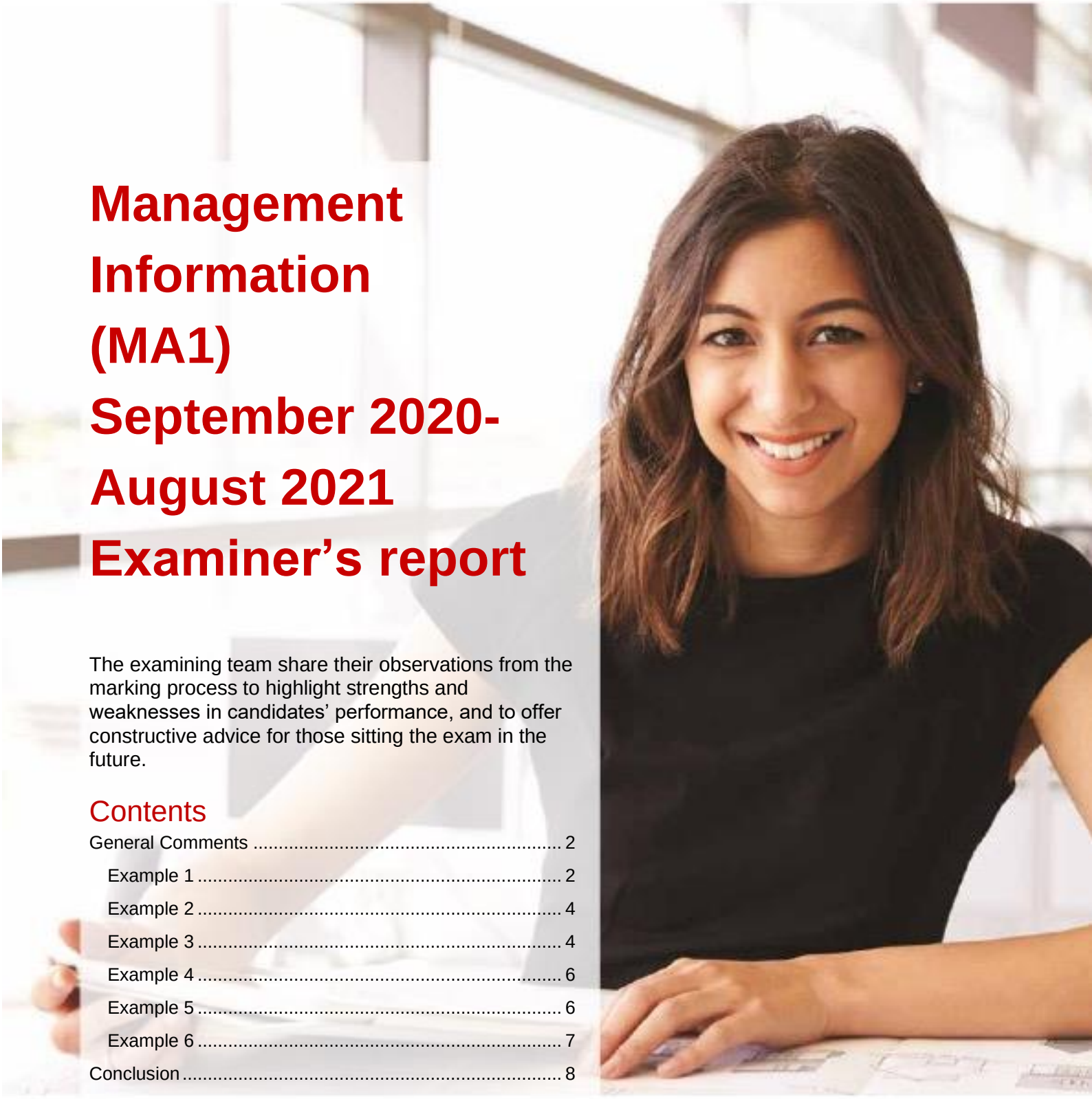


Management Information (MA1) September 2020-August 2021 Examiner's report

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

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

A company manufactures a single product. It expects to sell 10,000 units of the product in January and 12,000 units in February. Closing inventory of the product is 10% of the next month's expected sales. Each unit of the product requires 10 kg of Material X. Closing inventory of Material X is enough to make 20% of the next month's expected sales.

How many kg of Material X should be purchased in January?

Choices:

1. 106,000 kg
2. 98,000 kg
3. 102,000 kg
4. 94,000 kg

Correct answer 1. $106,000

To work out the amount of material X that needs to be purchased, first work out the level of production for January.

The closing inventory for January is 10% of the February sales (10% x 12,000 = 1,200). The opening inventory for January is the same as the closing inventory for December, which is 10% of the January sales (10% x 10,000 = 1,000).

	January units
Expected sales	10,000
Less opening inventory of finished goods (10% x 10,000)	(1,000)
Add closing inventory of finished goods (10% x 12,000)	1,200
Production	10,200

Next, calculate the level of Material X which is required for this level of production. Each unit of the product requires 10kg of Material X, therefore (10,200 x 10) = 102,000 kg are required for production.

Finally, work out how much Material X requires to be purchased.

The closing inventory of Material X for January is the amount of Material X required for 20% of February sales (20% x 12,000 x 10 = 24,000). The opening inventory of Material X for January is the same as the closing inventory for December, which is the amount of Material X required for 20% of the January sales (20% x 10,000 x 10 = 20,000).

	January kg
Required for production	102,000
Less opening inventory of Material X (20% x 10,000 x 10)	(20,000)
Add closing inventory of Material X (20% x 12,000 x 10)	24,000
Amount of Material X to purchase	106,000

Incorrect answers:

2. 98,000 kg – This has incorrectly added to opening inventory of Material X and deducted the closing inventory of Material X. (102,000 + 20,000 – 24,000 = 98,000)

3. 102,000 kg – this is amount of Material X which is required for production, not the amount required to be purchased.

4. 94,000 kg – this has omitted the addition of the closing inventory of finished goods.

Example 2

Stephanie works in a factory on different jobs and is paid $8 per hour. Each week she completes a document which ensures that the cost of her wages is allocated to the jobs she has worked on.

What is the name of this document?

Choices:

1. Time sheet
2. Clock card
3. Job card
4. Attendance sheet

The correct answer is:

1. Time sheet – A timesheet is a method for recording the amount of a worker's time spent on each job. This started out as a sheet of paper with the data arranged in tabular format; it is now often a digital document or spreadsheet.

Incorrect answers:

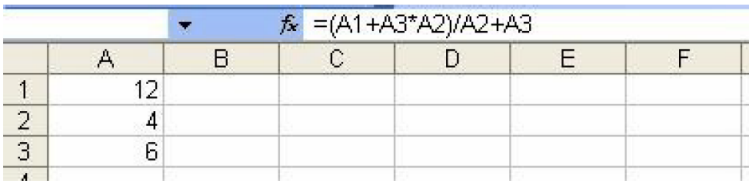
2. Clock card – also called a time card, it is a source document that records the number of hours each employee works during a pay period.

3. Job card – is a form that contains a set of procedures for completing a job. It describes the work to be performed and often tracks job progress.

4. Attendance sheet – this is a document which details people that would attend or appear at an event. It is an important document to let the presence of a person be officially checked and traced.

Example 3

Entries have been made in the following spreadsheet:



What is the result of the expression shown in the formula bar?

Choices:

1. 24
2. 3.6
3. 2.2
4. 15

Correct Answer 15
(12 + (6*4)) = 36 / 4 = 9 + 6 = 15 This is 12 add 24 (which is 6 multiplied by 4), thus giving 36, which is then divided correctly by 4 giving 9, which is then added to the 6, so a total of 15.

Incorrect answers:

Incorrect Answer 24
12 + 6 = 18 then multiplied by 4 = 72, then divided by 4 = 18 then add on 6 = 24 This takes 12 and incorrectly adds 6 to get 18; this is then multiplied by 4 to give 72. This incorrect figure of 72 is then adjusted by dividing by 4 to get 18, to which we then add on the 6 to calculate a wrong figure of 24.

Incorrect Answer 3.6
12 + (6 * 4) = 36 / then divide by 10 which is the (4 + 6) thus 3.6 This correctly takes 12 and adds 24 (which is 6 multiplied by 4), thus giving 36, which is then wrongly divided by 10 (the 6 added to the 4 in error) to calculate a wrong figure of 3.6.

Incorrect Answer 2.2
12 + 6 + 4 = 22 then divide by 10 which is the (4 + 6) = 2.2 This incorrectly adds 12, 6 and 4 together to get 22 and then further makes the mistake of dividing by 10 (which is the 6 added to the 4 in error) to calculate a wrong figure of 2.2.

Example 4

A research organisation is testing the effectiveness of a new fertiliser. It has recorded a large number of observations of crop yields per hectare for differing amounts of fertiliser applied.

Which of the following charts would be the BEST way to present this information in a meeting?

Choices:

1. A pie chart
2. A column chart
3. A scatter graph
4. A stacked bar chart

The correct answer is 3. Scatter graph.

This type of chart is useful for large data sets with two variables and can show the amount of fertiliser plotted on the x-axis and the yields plotted on the y-axis. The independent variable (fertiliser) is plotted on the x-axis and the dependent variable (yield) is plotted on the y-axis and the chart will allow the meeting attendees to see if any correlation appears to exist between the yield and amounts of fertilisers used.

Incorrect answers:

1. Pie chart – useful to illustrate the proportion (%) of each data item of the total value.
2. Column chart – a good way to show change over time because it's easy to compare column lengths.
4. Stacked bar chart – useful for a graphical representation of part-to-whole comparison over time.

Example 5

The following costs relate to a company's only product:

	$ per unit
Material	5.00
Labour	6.00
Fixed factory overhead	2.00
Variable selling overhead	3.00
Fixed selling overhead	1.00

In a period when budgeted production and sales were 1,000 units, the actual number of units produced was 1,100 and the actual number of units sold was 900. There was no opening inventory.

Using marginal costing principles, what is the value of the closing inventory?

Choices:

1. $2,200
2. $2,800
3. $2,600
4. $1,100

The correct answer is 1. $2,200

In marginal costing, inventory is valued at the marginal production cost. This is material + labour. ($5 + $6) = $11.

Calculate the closing inventory as Opening Inventory + Production – Sales. (0 + 1,100 – 900) = 200 units. The value of the closing inventory = 200 x $11 = $2,200.

Incorrect answers:

2. $2,800 – This has used the correct closing inventory but has used $14 as the marginal cost. Marginal cost has included the variable selling overhead ($5 + $6 + $3).

3. $2,600 – This has used the correct closing inventory but has used $13 as the marginal cost. Marginal cost has included the fixed factory overhead ($5 + $6 + $2).

4. $1,100 – This has used the correct marginal cost but has calculated the closing inventory as actual production less budgeted sales (1,100 – 1,000).

Example 6

Which of the following is/are an example of external information for a business?

(1) Employee productivity levels
(2) Weekly sales data
(3) Approved suppliers list

Choices:

1. None of the above
2. 3 only
3. 1 and
4. 2 and 3

The correct answer is 1. None of the above

All of the items mentioned are produced internally by the company itself from data it produces and collects.

Employee productivity levels are calculated to provide a basic view of employee performance.

Weekly sales data is an internal record of the sales performed over the period of a week to observe trends of sales.

An approved suppliers list is an important internal document which organisations maintain to list the items and services they buy from particular suppliers.

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 or 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.