Cambridge International AS & A Level

Cambridge International Examinations
Cambridge International Advanced Subsidiary and Advanced Level

BUSINESS **9609/21**

Paper 2 Data Response **May/June 2017**

MARK SCHEME

Maximum Mark: 60

Published

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Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

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<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>1(a)(i)</td><td>
Define the term ‘economies of scale (lines 1–2).
<table>
<tr><th>Knowledge</th><th>Marks</th></tr>
<tr><td>A correct definition</td><td>2</td></tr>
<tr><td>A partial, vague or unfocused definition</td><td>1</td></tr>
<tr><td>No creditable content</td><td>0</td></tr>
</table>
A correct definition will contain:
decreasing unit/average costs
as output rises
<table>
<tr><th>Exemplar</th><th>Marks</th><th>Rationale</th></tr>
<tr><td>As a firm produces more the average cost falls</td><td>2</td><td>A correct definition</td></tr>
<tr><td>Unit costs decrease due to an increase in size</td><td>1</td><td>Partial</td></tr>
<tr><td>More output leads to a fall in costs</td><td>1</td><td>No link to decreasing average/unit costs</td></tr>
<tr><td>The savings a firm gets as it grows bigger</td><td>1</td><td>Partial idea of increase in output</td></tr>
<tr><td>Lower costs because the firm is established</td><td>0</td><td>No creditable content</td></tr>
</table>
</td><td>2</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>1(a)(ii)</td><td>

Briefly explain the term 'buffer inventory' (line 6).

<table>
<tr><td>C</td><td>Example or some other way of showing good understanding, i.e. risky to hold too much/too little, link to liquidity, types of inventory (raw materials, in progress and finished) etc.</td><td>1 Mark</td></tr>
<tr><td>B</td><td>An explanation of buffer, i.e. surplus, lowest amount etc.</td><td>1 mark</td></tr>
<tr><td>A</td><td>An explanation of inventory, i.e. stock, supplies to produce, etc.</td><td>1 mark</td></tr>
</table>

This is when a business keeps surplus inventory in event of a problem with supply or an increase in demand for its products. This helps prevent the business from running out of supplies which could slow down or prevent production. Ties up working capital. Can be risky if buffer levels too high. No need to link to liquidity or risk of high levels of inventory.

<table>
<tr><th>Exemplar</th><th>Marks</th><th>Rationale</th></tr>
<tr><td>Raw materials that are kept in event of a problem with supply or an increase in demand for its products. For example MM might have a buffer stock of mirrors in case they have an increase in customers.</td><td>3</td><td>Understanding of buffer and inventory and an example.</td></tr>
<tr><td>Stock that can be used in case there is a sudden increase in customers. The business will not want too much buffer inventory because it ties up money.</td><td>3</td><td>Understanding of buffer and inventory and good understanding shown.</td></tr>
<tr><td>Surplus stock to make sure the business does not run out</td><td>2</td><td>An understanding of both inventory and buffer.</td></tr>
<tr><td>The inventory a form will keep to make sure it does not run out.</td><td>1</td><td>Tautology with 'inventory' but an idea of buffer.</td></tr>
</table>

</td><td>3</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>1(b)(i)</td><td>

Refer to Table 1, Calculate MM's acid-test ratio.

<table>
<tr><th>Marks</th><th>Rationale</th></tr>
<tr><td>3</td><td>Correct calculation of MM's acid-test ratio (with or without working)</td></tr>
<tr><td>2</td><td>Correct formula and correct calculation of CL</td></tr>
<tr><td>1</td><td>Correct formula or correct calculation of CL</td></tr>
<tr><td>0</td><td>No creditable content</td></tr>
</table>

$$\frac{\text{CA - Inventory}}{\text{CL}}$$

$$= \frac{15–10}{5+5}$$

$$= \frac{5}{10}$$

= 0.5:1 (accept 0.5, 50% and any ratio that is equivalent, i.e. 1:2)

Common incorrect answers

<table>
<tr><th>Answer</th><th>Marks</th><th>Rationale</th></tr>
<tr><td>$\frac{15}{10} = 1.5$</td><td>2</td><td>Correct calculation of ratio based on an incorrect formula (OFR) – only one mistake</td></tr>
<tr><td>$\frac{15}{5} = 3$</td><td>1</td><td>Incorrect formula and incorrect calculation of CL, but figures used correctly (OFR) – two mistakes</td></tr>
<tr><td>1.5</td><td>0</td><td>An incorrect answer with no working</td></tr>
<tr><td>3</td><td>0</td><td>An incorrect answer with no working</td></tr>
</table>

</td><td>3</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>1(b)(ii)</td><td>

Explain one way in which MM could improve its liquidity.

<table>
<tr><th>Level</th><th>Knowledge and Application</th><th>Marks</th></tr>
<tr><td>2b (APP)</td><td>Explanation of a way to improve liquidity in context</td><td>3</td></tr>
<tr><td>1b (KK)</td><td>Identification of a way to improve liquidity</td><td>2</td></tr>
<tr><td>1a (K)</td><td>Knowledge of liquidity</td><td>1</td></tr>
<tr><td>0</td><td>No creditable content</td><td>0</td></tr>
</table>

Correct use of an incorrect answer to 1(b)(i) should be fully rewarded (own figure rule – OFR)
No credit for knowledge of acid test or formula – already awarded in previous question

Use of acid test ratio (0.5) and/or current ratio (1.5) may provide context if used correctly within a way to improve liquidity.

Context and content is likely to come from:

<table>
<tr><th>Way to improve liquidity (K)</th><th>Possible context (APP)</th></tr>
<tr><td>Increase cash (e.g. by holding less inventory, fixed assets etc.)</td><td>MM holds $10 m of inventory – high buffer inventories
MM is a manufacturer so probably has machines etc. to manufacture mirrors
Has an overdraft so will need more than $5 m to have positive cash</td></tr>
<tr><td>Increase current assets (e.g. increase trade receivables/debtors)</td><td>Trade receivables (debtors) is $5 m
MM is a manufacturer (secondary) so may gain other benefits from increasing debtor turnover/period</td></tr>
<tr><td>Decrease current liabilities (e.g. decrease trade payables, overdraft, short term loans etc.)</td><td>Trade payables is $5 m, same as trade receivables – could be better to have lower payables than receivables
Long lead time may make reducing payables difficult
Could reduce overdraft through same ways as increasing cash.
Convert $5 m overdraft into longer term debt.</td></tr>
</table>

</td><td>3</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>1(c)</td><td>
Analyse <u>one</u> advantage and <u>one</u> disadvantage to Ben and Mary of changing MM from a partnership to a private limited company.
<table>
<tr><th>Level</th><th>Knowledge and Application (4 marks)</th><th>Marks</th><th>Analysis (4 marks)</th><th>Marks</th></tr>
<tr><td rowspan="2">2</td><td>Shows good understanding of moving from a partnership to a private limited company</td><td>4</td><td>Good analysis of one (or more) advantage(s) AND one (or more) disadvantage(s) of changing from a partnership to a private limited company</td><td>4</td></tr>
<tr><td>Shows isolated understanding of moving from a partnership to a private limited company</td><td>3</td><td>Good analysis of one (or more) advantage(s) OR one (or more) disadvantage(s) of changing from a partnership to a private limited company</td><td>3</td></tr>
<tr><td rowspan="2">1</td><td>Shows knowledge of partnerships AND private limited companies</td><td>2</td><td>Limited analysis of one (or more) advantage(s) AND one (or more) disadvantage(s) of a private limited company</td><td>2</td></tr>
<tr><td>Shows knowledge of partnerships OR private limited companies</td><td>1</td><td>Limited analysis of one (or more) advantage(s) OR one (or more) disadvantage(s) of a private limited company</td><td>1</td></tr>
</table>
</td><td>8</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td></td><td>Contextual:
<table>
<tr><th>Possible advantages</th><th>Possible context</th></tr>
<tr><td>Gain limited liability</td><td>Ben and Mary were in a partnership before and so had higher risk should MM fail that they would lose not only their investment but would be personally liable for the debts of MM
Ben and Mary doubled their investment</td></tr>
<tr><td>Gain continuity</td><td>In case Ben or Mary die</td></tr>
<tr><td>Gain separate legal identity</td><td>In case the business gets sued</td></tr>
<tr><td>Possible disadvantages</td><td></td></tr>
<tr><td>Loss of control</td><td>Ben and Mary have owned and run the business for such a long time (however they are the only shareholders so unlikely to be an issue)</td></tr>
<tr><td>Cost of conversion</td><td>Unlikely to be high but MM has poor liquidity – was this the cause?</td></tr>
<tr><td>Preparation and availability of accounts</td><td>Cost – link to liquidity
Competitors will be able to access the accounts</td></tr>
</table></td><td></td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>1(d)</td><td>

Discuss how MM could solve its human resource problems.

<table>
<tr><th>Knowledge and Application (4 marks)</th><th>Marks</th><th>Analysis and Evaluation (7 marks)</th><th>Marks</th></tr>
<tr><td></td><td></td><td>Justified evaluation based on argument(s) in context</td><td>7</td></tr>
<tr><td></td><td></td><td>Developed evaluation based on argument(s) in context</td><td>6</td></tr>
<tr><td></td><td></td><td>An evaluative statement based on arguments in context</td><td>5</td></tr>
<tr><td></td><td>3–4</td><td>Argument about one or more solutions to human resource problems at MM</td><td>3–4</td></tr>
<tr><td></td><td>1–2</td><td>Limited analysis of human resource management</td><td>1–2</td></tr>
<tr><td colspan="4">No creditable content (0 marks)</td></tr>
</table>

Context/content:

Training and development, survey shows this was rated poor by 25% of all employees. This is high. Therefore MM should ensure that employees have appropriate training to develop their skills and improve their morale. This may also help with opportunities for promotion.

Team working – morale is lower for employees involved in the production process and this may link to the flow production methods. Therefore team work may improve this as employees can work together and improve their sense of involvement

Fringe benefits and perks – although MM pay well, they could look at their perks and fringe benefits such as holiday periods as this may be a reason

Empowerment and participation – doing some focus groups with employees and/or creating worker representatives may enable MM to better understand the issues and therefore resolve them.

Evaluation is likely to come from a candidate:

Judging which methods could work best for MM and justifying this in the context for example, training and development given the survey outcomes

Weighting their response, for example, why one method would be better than another is likely to lead an evaluative response.

</td><td>**11**</td></tr>
</table>

Question	Answer	Marks

Problem	Possible solutions	Example of analysis
Increasing labour turnover	Increase wages – link to retention	Already high. Increased costs
	Use non-monetary motivation (e.g. holidays, perks, fringe benefits etc.)	Could increase costs – may be an alternative to higher wages.
	Increase training/skills development	Increased costs – could be wasted if staff leave
Decreasing applications	Better/more advertising	Increased costs – what is the cause of the fall? Demographics, word of mouth etc.
	Increase wages	Already high. Increased costs
	Increase training/skills development	Could improve word of mouth – may attract younger applicants, but increased costs
High management and labour costs	Reduce wages	Decrease motivation and increase labour turnover further
	Change payment system (i.e. piece rate, retention bonus etc.)	May not increase costs (could fall) and may increase retention, but may demotivate some workers
	Increase capital/reduce labour	Needs investment - already using flow production – could reduce quality, may further reduce motivation
Low motivation – lower in production workers	Improve hygiene factors (poorer in production)	Are conditions poor? If so can it be improved without increasing costs?
	Teamwork/cell production	May conflict with flow production
Poor skills development	Increase training/skill development	Increased costs but could improve quality and retention
	Increase capital/reduce labour	Needs investment – already using flow production – could reduce quality, may further reduce motivation
Poorly trained/skilled workers	Increase training/skill development	Increased costs but could improve quality and retention
	Increase capital/reduce labour	Needs investment – already using flow production – could reduce quality, may further reduce motivation

Question	Answer	Marks
2(a)(i)	**Define the term 'revenue' (line 14).**	**2**

Knowledge	Marks
A correct definition	2
A partial, vague or unfocused definition	1
No creditable content	0

Revenue is the money that flows into a business from selling its goods/services to consumer. Revenue is calculated by selling price * quantity.

Exemplar	Marks	Rationale
Price · Quantity	2	A reasonable definition of revenue
Money from sales	2	A correct definition
Income from business activities	2	A correct definition
Revenue is sales	1	A partial definition
The number of products a business sells	1	A partial definition
Revenue is found at the top of the Income Statement	0	Not a definition
Sales – total costs	0	Confusion with profit

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>2(a)(ii)</td><td>

Briefly explain the term 'consumer markets' (line 4)

Award one mark for each point of explanation:

<table>
<tr><td>C</td><td>Example or some other way of showing good understanding, i.e. rather than buying for business or capital use, not business to business/industrial markets</td><td>1 mark</td></tr>
<tr><td>B</td><td>An explanation of market(s) – sales, trade etc.</td><td>1 mark</td></tr>
<tr><td>A</td><td>An explanation of consumers – end user, purchase for use (allow consumption), not to change or resale</td><td>1 mark</td></tr>
</table>

The **consumer market** pertains to buyers who purchase goods and services for consumption rather than resale. Examples include shops, supermarkets and retail stores. It does not involve one business selling to another business.

<table>
<tr><th>Exemplar</th><th>Marks</th><th>Rationale</th></tr>
<tr><td>Where the business sells to the end user for example a supermarket</td><td>3</td><td>Sells, end user and an example</td></tr>
<tr><td>SA sells directly families who use the alarms not shops</td><td>3</td><td>All three elements</td></tr>
<tr><td>The consumer is the person who actually uses the product, for example a child is the end user of a toy</td><td>2</td><td>A and C – no understanding of market</td></tr>
<tr><td>A place where business go to sell and people go to buy products and services</td><td>1</td><td>B only</td></tr>
<tr><td>The person who uses the product or service</td><td>1</td><td>A only</td></tr>
<tr><td>Sold directly to the consumers</td><td>1</td><td>B only</td></tr>
<tr><td>Someone who buys a product, such as an alarm</td><td>0</td><td>Misunderstanding with a customer – example is irrelevant</td></tr>
</table>

</td><td>3</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>2(b)(i)</td><td>

Refer to Table 2. Calculate the forecast margin of safety for the new service.

<table>
<tr><th>Marks</th><th>Rationale</th></tr>
<tr><td>3</td><td>Correct calculation of the forecast margin of safety (with or without working, units or %)</td></tr>
<tr><td>2</td><td>Correct formula and correct calculation of expected sales</td></tr>
<tr><td>1</td><td>Correct formula or correct calculation expected sales</td></tr>
<tr><td>0</td><td>No creditable content</td></tr>
</table>

MOS = Expected Sales - break-even sales

ES are (2.5 mn/500) = 5000

MOS = 5000-3000

MOS = 2000 subscriptions (accept 2000)

Can also be expressed as a percentage of expected sales

$\frac{2000}{5000} \times 100 = 40\%$

Correct answer – 2000 subscriptions or 40%

Common incorrect answers

<table>
<tr><th>Answer</th><th>Marks</th><th>Rationale</th></tr>
<tr><td>3000 · $500 = $1.5 m</td><td>2</td><td>Calculated the revenue MoS – all the candidate needed to do was divide answer by price correct answer, so one step missed</td></tr>
<tr><td>$1 m</td><td>0</td><td>An incorrect answer with no working</td></tr>
<tr><td>$\frac{\$2.5\text{ m}}{500} = 5000$</td><td>1</td><td>Correct calculation of expected sales</td></tr>
<tr><td>5000</td><td>0</td><td>An incorrect answer with no working</td></tr>
</table>

</td><td>3</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>2(a)(ii)</td><td>
Explain <u>one</u> limitation to SA of using break-even analysis.
<table>
<tr><th>Level</th><th>Knowledge and Application</th><th>Marks</th></tr>
<tr><td>2b (APP)</td><td>Explanation of a limitation of using break-even analysis in context</td><td>3</td></tr>
<tr><td>1b (KK)</td><td>Identification of a limitation of using break-even analysis</td><td>2</td></tr>
<tr><td>1a (K)</td><td>Knowledge of break-even analysis</td><td>1</td></tr>
<tr><td>0</td><td>No creditable content</td><td>0</td></tr>
</table>
Correct use of an incorrect answer to 1(b)(i) should be fully rewarded (own figure rule – OFR)

Context and content is likely to come from:
<table>
<tr><th>Limitation (KK)</th><th>Possible context (APP)</th></tr>
<tr><td>Based on forecasts/estimates</td><td>SA have not started selling this service yet and have no experience in this industrial market</td></tr>
<tr><td>Assumes a constant price</td><td>Likely to need to discount the price to penetrate the industrial alarm market</td></tr>
<tr><td>Assumes fixed costs remain constant as output rises</td><td>As more alarms are fitted SA may need to increase the office size etc.</td></tr>
<tr><td>Assumes a constant variable cost per unit</td><td>As more alarms are fitted less efficient staff to man the telephones may need to be employed – diminishing returns</td></tr>
<tr><td>Assumes all output is sold</td><td>SA may produce a stock of alarms which may not all be sold in the first year</td></tr>
<tr><td>Assumes the fixed costs from one product can be allocated accurately</td><td>SA will have some fixed costs (such as management) which are difficult to allocate between the consumer and industrial markets</td></tr>
</table>
ARA
</td><td>3</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>2(c)</td><td>

Analyse two possible reasons why SA's objectives have changed over time.

<table>
<tr><th>Level</th><th>Knowledge and Application (4 marks)</th><th>Marks</th><th>Analysis (4 marks)</th><th>Marks</th></tr>
<tr><td rowspan="2">2</td><td>Shows understanding of TWO (or more) possible reasons why SA's objectives have changed over time</td><td>4</td><td>Good analysis of TWO (or more) possible reasons why SA's objectives have changed over time</td><td>4</td></tr>
<tr><td>Shows understanding of ONE possible reason why SA's objectives have changed over time</td><td>3</td><td>Good analysis of ONE possible reason why SA's objectives have changed over time</td><td>3</td></tr>
<tr><td rowspan="2">1</td><td rowspan="2">Shows knowledge of why a business objective might change</td><td rowspan="2">1–2</td><td>Limited analysis of TWO (or more) possible reason why a business's objectives may change over time</td><td>2</td></tr>
<tr><td>Limited analysis of ONE possible reason why a business's objectives may change over time</td><td>1</td></tr>
</table>

One reason analysed in context, max 3+3

Contextual analysis likely to come from:

Unrealistic original objective; one shop to become market leader?
Not specific enough original objective; market leader where?
Legal structure has changed to plc, so shareholders may now be part of the objective
Core business has changed – now in secondary and tertiary sector
Now producing and selling home alarms, not car alarms
Tastes may have changed
New focus on the industrial market.
The priority of objectives may have changed

</td><td>8</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td></td><td>Exemplars:
<table>
<tr><th>Reason (APP)</th><th>Possible (AN)</th></tr>
<tr><td>Legal structure has changed</td><td>As a partnership the owners were less likely to sell their stake in the business if their return was not high in the short term. However as a PLC, shareholders are disconnected from the business and may well sell their shares if they do not get reasonable dividends and/or increases in share price (AN). This could lead to a further fall in share price and a loss in confidence of other shareholders (ANAN).</td></tr>
<tr><td>Move to industrial market</td><td>It may be unrealistic to become market leader in the industrial market and pursuing this objective may make penetrating the market more difficult (AN). This could lead to a poor launch and SA not breaking even with 23 000 customers in the first year (ANAN).</td></tr>
</table></td><td></td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>2(d)</td><td>

Discuss suitable market research methods that SA could use before deciding whether to launch the new service.

<table>
<tr><th>Knowledge and Application (4 marks)</th><th>Marks</th><th>Analysis and Evaluation (7 marks)</th><th>Marks</th></tr>
<tr><td></td><td></td><td>Justified evaluation based on the suitability of TWO (or more) market research methods in context</td><td>7</td></tr>
<tr><td></td><td></td><td>Evaluation based on the suitability of TWO (or more) market research methods in context</td><td>6</td></tr>
<tr><td></td><td></td><td>Evaluation based on the suitability of ONE market research method in context</td><td>5</td></tr>
<tr><td>Shows understanding of TWO (or more) market research methods in context</td><td>4</td><td>Argument based on TWO (or more) market research methods in context</td><td>4</td></tr>
<tr><td>Shows understanding of ONE market research method in context</td><td>3</td><td>Argument based on ONE market research method in context</td><td>3</td></tr>
<tr><td>Shows knowledge of TWO (or more) market research methods</td><td>2</td><td>Limited analysis of TWO (or more) market research methods</td><td>2</td></tr>
<tr><td>Shows knowledge of ONE market research method</td><td>1</td><td>Limited analysis of ONE market research method</td><td>1</td></tr>
<tr><td colspan="4">No creditable content (0 marks)</td></tr>
</table>

Primary and secondary can be treated as methods

Context/content:

Primary

Focus groups linked to their current home or business customers, advantages of focus groups (can cover profile of customers, have a dialogue, ask/respond to questions)

Surveys/questionnaires to business or home customers (advantages: more quantitative data can be analysed, large sample used; disadvantages: cost, customers may not complete, would need a large sample to be accurate of the results)

Interviews to business/home customers (advantages: 1–1 contact, can have a very detailed conversation, qualitative data can come through; disadvantages: cost, expertise to ask the correct questions, compiling the results can take time)

</td><td>11</td></tr>
</table>

Question	Answer	Marks
	Surveys of the competition – do they provide this service? What is the cost? usefulness: being in line with market trends. **Secondary** Reports on the market from marketing specialists Analysis of crime statistics/reports on the area Any newspaper articles about crime/local area Economic/demographic information: unemployment, households, incomes Advantages of secondary: can be easily available, most available on-line, cheaper Disadvantages: not as accurate, may be out of date, lack of qualitative data Evaluation is likely to come from a candidate: Judging which market research methods could work best for SA and justifying this in the context for example, surveys to current customers Weighting their response, for example, why one method would be better than another is likely to lead an evaluative response.	