

# **A2 – BUSINESS (9609)**

## **PAST PAPER SESSION**

# **PAPER 3**

<b>ELEMENTS</b>
1. Paper 3 – ECR
2. Paper 3 – Calculations
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# Example Candidate Responses

Cambridge  
International  
AS & A Level

## Cambridge International AS and A Level Business

9609

Paper 3 – Case study

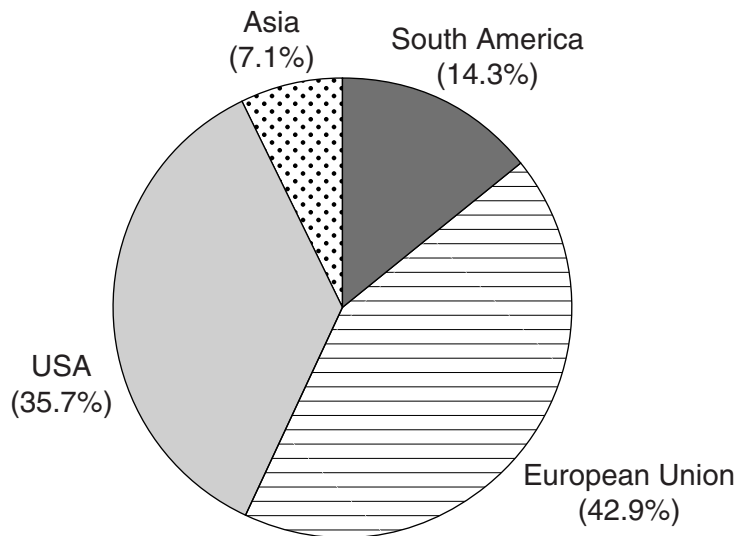
## Cameron Jet Engines (CJE)

CJE is a public limited company specialising in the manufacture of jet engines for aircraft. It has operations facilities in several African and Asian countries but its head office and main manufacturing base is in a European Union (EU) country. The corporate mission of CJE is to 'develop unrivalled engine technology and create power solutions for the next century'. CJE engines are purchased by most of the major global civil aeroplane manufacturers – Fig. 1 shows the geographical breakdown of sales in 2015. The core competence that CJE has gained in jet engines is also put to effective use in the company's marine and electricity generating divisions. CJE's core competence is also used to make power systems for fast boats and for electricity stations.

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**Fig. 1: Geographical breakdown of CJE sales (volume) 2015**

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### Production capacity

CJE managers have been surprised by the commercial success of the XL1 engine. Sales have exceeded forecasts and production capacity of 95% has been reached in the factory where the XL1 is assembled. The lack of spare capacity is most serious in the turbine blade department – the blades are an important part of every jet engine. The Operations Director is this week making a decision about whether to increase capacity in this department or outsource some turbine blade production to another business. This business, AOP, is in country X and its factory is 500 kilometres away from the XL1 assembly factory. AOP has substantial spare capacity as a jet engine manufacturer has recently cancelled a large order. The cost estimates for outsourcing and increasing factory capacity are shown in Table 1.

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**Table 1: Data comparing outsourcing with expansion of CJE factory capacity**

	Outsourcing to AOP	Increase capacity of existing factory	
Time required	Contract could be signed within 3 months – deliveries 1 month after that	15 months for completion of factory	25
Variable cost per blade	–	\$500	
Contracted price per blade	\$570	–	
Transport cost per 10 blades	\$200	–	30
Additional annual fixed costs	–	\$600 000	
Annual fixed costs of existing CJE factory	\$6 million	\$6 million	35
Annual capacity	5000	3000	

**Human resource management**

Despite significant barriers to the entry of new manufacturers, there is considerable competitive rivalry in the jet engine market. CJE's market share of 23% is under pressure from two large European based engine manufacturers. Quality, innovation and reliability are essential requirements of jet engines – but so is a competitive price. CJE has lower profit margins than its competitors and a corporate objective is to match competitors' margins. CJE is using a cost minimisation strategy to achieve this. 40

All departments have been instructed to produce plans for cutting costs by 7% this year. The Human Resource Director has already started implementing his proposals for a more flexible HR strategy: 45

- Recently recruited production employees have been appointed on short-term temporary contracts (even for skilled positions)
- Some unskilled employees have been given zero hours contracts
- All employees are to be required to learn new skills to allow flexible working. 50

**Market for helicopter jet engines**

CJE directors are determined to enter the market for the supply of engines for helicopters. Profit margins are substantially higher than in the market for engines for other types of aircraft. The Marketing Director has had lengthy negotiations with Government officials in country Y, which is a rich nation that is expanding its fleet of 'search and rescue' helicopters. The Government officials are keen for CJE to supply engines for the new helicopters in country Y. However, they have argued that CJE's engines are more expensive than those of competitors and have a shorter after-sales service agreement. Despite these factors, the officials have indicated secretly that a contract with CJE could soon be signed if substantial 'facilitating payments' were made directly to them personally in foreign bank accounts. 55 60



### Financial reporting

Under pressure from shareholders to raise the company's low profit margins, CJE's Finance Director is thinking about making the following changes to financial reporting methods this year.

- Fixed assets are depreciated by the straight line method over 10 years. If this is lengthened to 20 years then it would reduce annual depreciation by \$25m. 65
- Offering a major customer an early shipment discount could provide additional revenue of \$45 million in the current financial year. The expected operating profit margin of this contract would then be 10%.

The Finance Director claimed that, if adopted before the end of October, these measures would help to satisfy shareholder expectations – at least in the short term. 70

**Table 2: Summary of CJE accounting data forecasts, at end of October 2016 before changes suggested by Finance Director (\$m)**

Operating profit	65
Revenue (year ending)	850
Total non-current assets	1250
Intangible non-current assets	50
Net current assets	64
Long term liabilities	600

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### Strategic options

The directors are considering the following two strategies for future growth. 80

*Strategy 1:* Take over a small manufacturer of aircraft in a BRICS country. This manufacturer does not currently use CJE engines. It has designed a new small jet aeroplane which is expected to be popular in lower income countries.

*Strategy 2:* Establish a joint venture with Z&L, a USA based jet engine manufacturer. The joint venture would design and manufacture a new jet engine with a low environmental impact. This engine would be designed and manufactured in an African country. 85

Quantitative and qualitative data regarding these two options are shown in Table 3. Both strategic options would require careful implementation to achieve success as they both have elements of risk and would involve long term commitment of substantial CJE resources.

**Table 3: Data comparing the two strategic growth options**

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	Strategy 1: Take over aircraft manufacturer	Strategy 2: Joint venture with Z&L
Estimated cost	\$200m	\$150m
Forecast internal rate of return (over 5 years)	15%	20%
Greatest risk factor	Lack of synergy	Research fails to develop innovative product
Estimated chance of strategy failure	20%	40%
Expected monetary value if successful (over 5 years)	\$100m	\$120m
Greatest constraining factor	Lack of CJE directors' experience in aircraft manufacture	Culture clash with USA business managers
Greatest driving factor	Supply of CJE engines to this aircraft manufacturer	Developing low cost operations in an African country

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Appendix 1 contains some global economic forecasts that CJE's directors might find useful when making the strategic choice.

#### Appendix 1: Global economic forecasts, 2016–2020

Annual world GDP per capita growth	5%
European Union labour costs (annual growth)	8%
BRICS labour costs (annual growth)	2%
Average increase in global interest rates over period	4%
Growth in global market share of Asian aircraft manufacturers over period	12%
External costs: EU maximum permitted pollution level per jet engine in 2020 (2015 = 100)	80

**Section A**

Answer **all** questions in this section.

- 1 Analyse the impact on CJE of adopting a more flexible approach to human resource management. [10]
- 2 (a) Refer to Table 1. Calculate the difference in unit cost between the two supply options for turbine blades. [6]  
(b) Recommend whether CJE should outsource turbine blade production. Justify your answer using your answer from (a) and other information. [12]
- 3 Discuss the implications for CJE of making 'facilitating payments' to Government officials. [16]
- 4 (a) Refer to Table 2 and the information on lines 64–68. Assume the changes suggested by the Finance Director are made. Calculate:
  - (i) operating profit margin at the end of October 2016 [4]
  - (ii) gearing ratio at the end of October 2016. [4](b) Advise the Finance Director whether to make the proposed adjustments to the way CJE reports accounting results. [12]
- 5 Assess the usefulness of the forecasts in Appendix 1 to any **two** functional departments of CJE. [16]

**Section B**

Answer **one** question from this section.

- 6 Recommend to CJE's Board of Directors which one of the two strategic options the company should choose. Justify your recommendation. [20]
- 7 Assume CJE's directors choose strategy 2. Evaluate how this strategy might be implemented successfully. [20]

## Paper 3 – Case study

### Question 1

Example candidate response – high	Examiner comments
<p>1</p> <p>Human resource management is the strategic approach of the effective management of the organisation employees so that they help the business gain a competitive advantage.</p> <p>CJE is planning to cut costs by 7% in all the departments by adopting hard HRM approach. This will depend on offering temporary contracts to the <del>labour</del> recently recruited production employees even for skilled positions. This could have an impact on all the employees as their motivation will decrease due to loss of job security (Maslow theory). This could affect their productivity, especially that jet engines requires quality, innovation and reliability. These requirements could be affected by this approach, decreasing the market share of 23% and decrease profit margins.</p> <p>Moreover, offering <del>not</del> <sup>some</sup> unskilled employees zero hours contracts could <del>also</del> give some flexibility to CJE as employees will be called such as they are needed. This will decrease labour costs as if employees are not called, no payment will be made for them. However, CJE operates in an competitive environment, this means that employees could have several zero contracts with other competitors, so they may not be available for CJE at sometimes, disrupting the production process which could lead to loss of sales.</p> <p>Furthermore, employees will be required to learn new skills to allow flexible working. This could offer CJE the advantage of increasing motivation for employees as training is essential for self fulfillment. <del>However</del> which could lead to increase in labour productivity and decreasing <del>the</del> labour cost per</p>	<p>1 It is good practice for a candidate to define key terms in their answer. This is a good definition of human resource management.</p> <p>2 The candidate makes effective use of the case material and recognises that the flexible approach being used represents a 'hard' style of HRM.</p> <p>3 In this paragraph, the candidate makes effective links between the changes to contracts being introduced, the theory, and the possible impact on CJE in context, i.e. referencing the importance of engine quality and reliability. A link is made to the impact on market share. However, the analysis of this link could have been made clearer.</p> <p>4 Knowledge of zero hour contracts is demonstrated here, along with an explanation of how these could reduce costs. This point could have been linked back to the objective stated earlier.</p>

Example candidate response – high, continued	Examiner comments
<p>5</p> <p>and decreasing labour cost per engine so CJE could increase its profit margins or offer competitive prices to increase its market share of 23%. However, training is costly specially for big industries like engines manufacturing. It is also time consuming and this is not suitable for a competitive market.</p> <p>6</p>	<p>5</p> <p>The candidate provides some brief analysis of the impact of employees learning new skills. This is underpinned with reference to theory. The chain of argument is extended to explain that lower labour costs could increase profit margins and enable the firm to offer more competitive prices, leading to an increase in market share.</p> <p>6</p> <p>This answer demonstrates a sound understanding of theory and makes effective use of the case study by linking together the different strands of the material provided.</p> <p><b>Total marks awarded = 9 out of 10</b></p>

**How the candidate could have improved their answer**

The analysis could have been developed further by extending the chains of argument presented, for example, by explaining in more detail how demotivated workers might work less effectively, which would therefore impact the quality of the engines. If engine quality were affected, this could damage CJE’s reputation, resulting in lower sales and a consequent loss of market share.

## Question 2

Example candidate response – high		Examiner comments
2	<p>a</p> <p>For outsourcing to AOP:-</p> <p>Transport cost per blade = <math>\frac{\\$200}{10} = \\$20</math> ①</p> <p>Unit cost per blade = <math>\\$20 + \\$570 = \\$590</math></p> <p>For increasing capacity:-</p> <p>Fixed cost per blade = <math>\frac{\\$600,000}{3000} = \\$200</math> ②</p> <p>Unit cost per blade = <math>\\$200 + \\$500 = \\$700</math></p> <p>Difference = <math>700 - 590 = \\$110</math> ③</p>	<p>① A calculation of the unit transport cost.</p> <p>② A calculation of the additional unit fixed cost.</p> <p>③ The difference in unit cost is identified. All working is shown by the candidate.</p> <p>Mark for (a) = 6/6</p>
2	<p>b</p> <p>Outsourcing is the using of third party to undertake part of the production process instead of doing it within the business using the firm own employees. ④ It is obvious that the unit cost of blade using outsourcing is less (\$590) ⑤ and there is a difference in unit cost of \$190. This could increase the profit margins of CJE if it sells the XL1 engines at the same price. ⑥ Also this could allow CJE to offer competitive prices to maintain its market share as it is the dominant ⑦ has high market share and competition is high. ⑦</p>	<p>④ An accurate definition.</p> <p>⑤ Recognition that the unit cost of outsourcing is less than building an extension. The candidate uses the calculation from part (a) to answer the question.</p> <p>⑥ Stating the consequence for the profit margin demonstrates analysis.</p> <p>⑦ Further application that highlights the potential benefit to CJE of outsourcing.</p>



Example candidate response – high, continued	Examiner comments
<p>Moreover, it takes total of 4 months to order and get the blades which is shorter time <del>compared</del> compared to increasing capacity of existing factory which is 15 months. This is a long period and the business environment is always dynamic. Perhaps, and economic recession could occur, decreasing demand for the engines and there is a spare capacity of in the existing factory, so no expansion is needed. <b>8</b></p> <p>Moreover, Outsourcing is more flexible <del>as</del> as the contract between CJE and AOP could be ended in case of decrease in demand for engines. However, if increase in capacity of existing capacity is used, it is not an irreversible process and there will be huge spare capacity in case of decrease in production. More fixed costs will be spread over the production units which will increase the <del>price</del> <sup>cost</sup> per blade even more, decreasing profit margins. <b>9</b></p> <p>Moreover, Furthermore, outsourcing AOP is 500 km away from the XL2 assembly factory. This is a long distance so are deliveries will be reliable? <b>10</b></p> <p>Also, <del>safe</del> quality and reliability are essential requirements of jet engines. Could <del>a</del> good quality could be maintained when outsourcing is used? Perhaps CJE could use inspection to check the quality of the outsourced blades, but this will add to the costs of CJE. Safety is a priority for jet engines. <b>11</b></p> <p>I firmly believe that outsourcing will be suitable to increase the production capacity as AOP <del>is</del> has higher annual capacity (5000) than the existing factory (3000). This will offer CJE the opportunity to increase its sales. Moreover, outsourcing will decrease the unit cost per unit, which is the</p>	<p><b>8</b> The candidate makes a judgement regarding the risk of expansion if economic conditions change.</p> <p><b>9</b> Some developed analysis of the problems that could arise from expansion. This answer is enhanced by the use of appropriate terms such as 'spare capacity' and 'profit margin'.</p> <p><b>10</b> This point could have been developed further.</p> <p><b>11</b> Further application to the case study.</p> <p><b>12</b> The candidate develops their evaluation by making a recommendation that is supported by their earlier analysis and by identifying the most significant factor, using the case study information to support this.</p> <p><b>13</b> This answer shows good understanding of relevant issues and uses case study information throughout.</p>
<p>most significant factor as CJE corporate objective is to match competitors' margins. <b>12</b></p> <p>However, some data are forecasts; how reliable is that data? Also some qualitative data are needed such as the ethical issues concerned with AOP. <b>13</b></p>	<p>Mark for (b) = 10/12</p> <p><b>Total marks awarded = 16 out of 18</b></p>

### How the candidate could have improved their answer

The candidate made a strong case for their recommendation, using their result from (a) effectively. The candidate gave due consideration to both options, but the key issue of quality was only mentioned but not developed fully. Analysis could have been improved by building more extended chains of argument.

### Question 3

Example candidate response – high	Examiner comments
<p>3. CJE directors are determined to enter the market for the supply of engines for helicopters as profit margins are substantially higher than in the market for engines for other types of aircraft.</p> <p>The marketing director has been negotiating with government officials in country Y where a contract could soon be signed if substantial "facilitating payments" were made directly to them in foreign bank accounts. <b>1</b></p> <p>If CJE decides to proceed with these payments, the company would not consider corporate social responsibility, which means that it would not behave ethically in its decision making by not attempting to satisfy <b>2</b> the greatest amount of stakeholder groups possible while meeting the company's objectives.</p> <p>If CJE decides to proceed with these payments, the company could potentially be exposed to heavy court fines as it is against the law to take part in such actions. This could potentially mean that the already unsatisfied <b>3</b> shareholders could stop investing in the company and potentially invest in competitors as the market CJE is operating in is highly competitive and therefore there are a lot of companies to choose from.</p> <p>This is because the potential court fines would very likely be substantial and this would place the company's liquidity and therefore long term prospects at risk along with all the bad publicity that could potentially <b>4</b> be generated as a result (for example, pressure groups with national media coverage) which could lead to existing customers to stop trading with CJE. If this were to happen, sales revenue would drastically decline and therefore profit margins would be reduced as a result.</p> <p>However, country Y is a rich nation that is expanding its fleet of "search and rescue" helicopters and because CJE's engines are more expensive than competitor engines and have a shorter after service agreement, the government officials are also considering competitors.</p> <p>As a corporate objective is to match competitors' margins, by offering facilitating payments, CJE could likely be offered the contract and because profit margins in the helicopter engine market are substantially higher, CJE could potentially raise its profit margins and satisfy its shareholders.</p> <p>This is because if CJE reaches its objectives, shareholders are likely to be <b>5</b> increasingly happy to invest in the company in future and potentially offer larger capital sums for other business operations such as the potential take over or joint venture the company is considering and therefore offer potential higher future prospects for CJE, which could also result in a higher <b>6</b> market share.</p>	<p><b>1</b> This introduction paraphrases information from the case study and does not fulfil any assessment objectives.</p> <p><b>2</b> Knowledge of relevant business terms here.</p> <p><b>3</b> Understanding of the possible consequences of infringing the law, applied to the case study by linking this to the level of competition and existing shareholder dissatisfaction.</p> <p><b>4</b> Further analysis of the consequences of fines. There is a well-developed chain of argument in this paragraph, along with some evaluation in the reference to 'substantial' fines and the drastic decline in sales revenue.</p> <p><b>5</b> Good application, which links to other data in the case study.</p> <p><b>6</b> An effective counterargument to the previous paragraph, both analytical and well-founded in the context of the case study.</p>



Example candidate response – high, continued	Examiner comments
<p>To conclude, I believe that CJE should not make "facilitating payments" to government officials as there could be a potential long term damage in their reputation for a short term gain. There is also no indication of how large the contract would be in comparison to existing contracts with regular customers, which in quantitative terms can not be evaluated with the data presented.</p> <p>The potential for expensive court fines could potentially lead to a substantial loss of competitiveness due to all the bad publicity generated and the potential for lower liquidity positions which would likely place CJE in a risky cash position.</p> <p>However, CJE should also consider its objectives and the interests of shareholders in this decision as there could be a potential raise in profit margins due to the higher profitability involved in the helicopter engine</p>	<p><b>7</b> Assessing the long-term impact is a useful way of developing evaluation. The candidate also recognises that further quantitative data would be useful in deciding whether CJE should try to get the contract.</p> <p><b>Total marks awarded = 13 out of 16</b></p>

### How the candidate could have improved their answer

The candidate could have included further evaluative content in the main body of their answer. They could also have structured their evaluation in the final paragraph more effectively; the last sentence did not offer a strong conclusion.

## Question 4

Example candidate response – high	Examiner comments
<p>4 ai <math display="block">\text{operating profit margin} = \frac{\text{operating profit}}{\text{revenue}} \times 100\%</math> <b>1</b></p> <p><math display="block">\text{operating profit} = 65 + 25 + \left(\frac{10}{100} \times 45\right) = \\$94.5\text{m}</math> <b>2</b></p> <p><math display="block">\text{Revenue} = 850 + 45 = \\$895\text{m}</math> <b>3</b></p> <p><math display="block">\text{operating profit margin} = \frac{94.5}{895} \times 100\% = 10.6\%</math> <b>4</b></p>	<p><b>1</b> The correct equation for calculating operating profit margin is given here.</p> <p><b>2</b> An accurate calculation of operating profit with a clear method shown.</p> <p><b>3</b> An accurate calculation of revenue with a clear method.</p> <p><b>4</b> A correct calculation with a correct unit of measurement.</p>
<p>4 <del>ai</del> <b>b</b> <math display="block">\text{Gearing ratio} = \frac{\text{long-term liabilities}}{\text{capital employed}} \times 100\%</math> <b>5</b></p> <p><math display="block">\text{Total non-current assets} = 1250 + 45 = \\$1295\text{m}</math> <b>6</b></p> <p><math display="block">\text{Gearing ratio} = \frac{600}{1295 + 64} = 44.2\%</math> <b>7</b></p> <p><b>8</b></p>	<p>Mark for (a)(i) = 4/4</p> <p><b>5</b> A correct formula.</p> <p><b>6</b> Adding additional sales revenue is incorrect here.</p> <p><b>7</b> As the candidate uses the figure calculated above, the own figure rule applies here.</p> <p><b>8</b> A partially correct calculation of capital employed. Intangible non-current assets are not included. Proposed change to depreciation is not included.</p>
<p>4 <b>b</b> Published accounts are annual publications made by the company of its accounting statements to be viewed by its stakeholders.</p> <p>This adjustments will increase the operating profit margin from 7.6% to 10.6% <b>9</b> <del>which</del> <del>this</del> <del>will</del> <del>make</del> will be more favourable to shareholders as they focus on the short-term profits. This could provide the opportunity <del>of</del> for CJF to increase dividends paid to the shareholders, so their loyalty could be maintained. <b>10</b></p> <p>Moreover, CJF could <del>de</del> increase its retained profits by not increasing dividends paid to shareholders. This will provide a source of finance to exploit business opportunities for CJF. But this conflicts with the shareholders objectives of increasing</p>	<p>Mark for (a)(ii) = 1/4</p> <p><b>9</b> This shows application as it uses data from the case study to compare the operating profit margin before and after the proposed changes.</p> <p><b>10</b> The benefit of making changes is briefly analysed here.</p>

Example candidate response – high, continued	Examiner comments
<p>short-term profits and dividends. <b>11</b></p> <p>Moreover, the <del>long</del> value of non-current assets will increase from \$1250 m to \$1295 m. This means that the shareholders value will increase in the company's accounts by \$45 m. Shareholders will be satisfied by this adjustment <del>as</del> and their loyalty will be maintained.</p> <p>The gearing ratio of CJE will decrease from 45.7% to 44.2%. This will give an advantage for CJE in getting loans from banks for example. But, is the change in the gearing ratio is considerable? Both gearing ratios are below 50% so they are both good. <b>12</b></p> <p>However, some stakeholders may view these as window-dressing so that CJE accounts could impress its <del>share</del> stakeholders. <b>13</b> They may view that this could lead to loss of trust in CJE by shareholders.</p> <p>Moreover, the discount <del>is</del> offered for the major customer for early shipment could lead to loss of profits. For example, CJE could wait for a while so that discounts are not provided and a profit margin of more than 10% could be obtained. <b>14</b></p> <p><del>I</del> I firmly believe that the finance director should not adjust the accounts as this focuses on the short-term success. Focusing on the long-term is <del>is</del> important for an industry of jet engines that CJE operates in. Financial forecasts for future and presented to shareholders <del>is</del> so that they could be more persuaded to stay with the company instead of adjusting the accounts. <b>15</b></p> <p style="text-align: center;"><b>16</b></p>	<p><b>11</b> A recognition of how increased profit might benefit CJE.</p> <p><b>12</b> This shows understanding of the gearing ratio, but the calculation of current gearing (before the proposed changes) is incorrect. The candidate shows limited judgement in identifying that the change is not significant.</p> <p><b>13</b> Knowledge of window dressing here.</p> <p><b>14</b> An analysis of the benefit of not giving discount.</p> <p><b>15</b> The candidate makes a judgement here but includes limited support for it.</p> <p><b>16</b> The candidate demonstrates good knowledge and application in this answer, but the analysis and evaluation are not developed and remain in Level 1.</p> <p>Mark for (b) = 8/12</p> <p><b>Total mark awarded = 13 out of 20</b></p>

### How the candidate could have improved their answer

The candidate used their answer for (a) effectively and developed some of their analysis of the issues in (b). However, most of the analysis was not sufficiently extended and contained only one or two links. The response contained some evaluation, but this was underdeveloped. The candidate did not fully understand the impact of the proposed adjustments; for example, the case study accounting forecasts predict that the value of non-current assets will increase to \$1 295m. The candidate recognised that the adjustments involve window dressing, but did not explain the impact of the change to depreciation.



## Question 5

Example candidate response – high	Examiner comments
<p><b>5) Assess the usefulness of the forecasts in Appendix 1 to any two functional departments of CJE (16)</b></p> <p>There are four functional departments in business, Marketing, Finance, Human Resources and Operations. The data in Appendix 1 could have many effects on all of these departments, however in this essay i will concentrate on the HR department and the Finance department. <b>1</b></p> <p>The HR department is responsible for the strategic planning of a workforce so that the firm can gain a competitive advantage. The HR department is concerned with recruitment, selection development and labour costs amongst other things. Firstly, the HR department will find the annual growth in labour costs useful.</p> <p>By using appendix 1, the HR department can see the growth in labour costs in European countries and the BRICS countries. I think that this is beneficial because it will give the HR department an idea of what labour costs are likely to be if they enter either a European country or a BRICS country. EU countries have an annual growth in labour costs of 8% and I would assume this would regard wages. In contrast the BRICS countries have a relatively low annual growth in labour costs. By using these figures, the HR department can approximate which countries will be more expensive in terms of wages than others. <b>2</b></p> <p>This can help the HR department contribute to strategic decisions based on cost. This is important because increasing labour costs will lead to shrinking profit margins, unless these increases in costs are accompanied by increases in productivity. CJE would become less competitive the higher its labour costs are. <b>3</b></p> <p>Therefore by using these figures it is clear to see that it would be cheaper for the HR department if operations <b>4</b> were to take place in the BRICS countries rather than EU countries because wage and labour costs are lower. These figures are however an estimate and although the HR department and the whole of CJE should take heed of them, they are not necessarily correct. In addition to this, the information given assumes that labour costs will rise at a steady rate. This however is not true because trade unions can demand higher wages and governments can set higher wages. Furthermore there is no information on the productivity of workers in these countries. For example, if the annual growth in productivity in EU countries is 20% whereas in Brics countries it is 0.5%, then realistically labour costs would be cheaper in EU countries. Therefore the actual importance of these labour costs figures to the HR department is limited. Although they are good for comparison, they do not take into account all countries and therefore is not representative of the whole world i.e. HR cannot make the best informed decisions because of the quality of this data and the amount of data that is missing. <b>5</b></p> <p>The finance department will also find these figures useful; they will be very interested in the 'average increase in global interest rates over period'. They will be interested in this because interest rates can be very important especially if the business has many liabilities, which it does. The firm has 600m in long term liabilities. The finance director must know the interest rates because they dictate how much must be paid to people who have lent to CJE. The finance department could therefore use this figure to make strategic decisions based on how much interest will cost them. <b>6</b></p> <p>By being aware of these figures, the Finance department can plan ahead. This would involve setting budgets, paying of debts and perhaps borrowing more (when interest rates are low). This would increase the survivability and profitability of the business if the finance department plans for changes in interest rates. However, this figure is for the whole world and this decreases its value in terms of use. The finance department will want to know individual countries interest rates so that they can make informed decisions on where to borrow from. <b>8</b></p>	<p><b>1</b> Knowledge of functional departments.</p> <p><b>2</b> Awareness of the usefulness of information about growth in labour costs to HR.</p> <p><b>3</b> Analysis of the impact of increasing labour costs. The candidate could have highlighted how this might be used by HR.</p> <p><b>4</b> The forecasts do not show this; they only provide evidence of the growth in labour costs.</p> <p><b>5</b> The candidate demonstrates understanding of the limitations of the data; their judgement is supported through developed chains of argument.</p> <p><b>6</b> Application to the case study.</p> <p><b>7</b> Links could have been made to the strategic options for growth and the impact on financing of a change in interest rates.</p> <p><b>8</b> Analysis of the usefulness of forecasts to the finance department, along with evaluative comment.</p>

Example candidate response – high, continued	Examiner comments
<p>I would suggest that rather than looking at this figure with such weighting, the finance department use discount factors and accounting methods in order to work out things such as NPV and other interest payments. This would be more accurate. In addition, the global forecasts are over four years and it is unlikely that these figures will stay the same over this time period because economic climates are very fragile and can change instantly. <b>9</b></p> <p>Overall I believe that these figures are of limited use simply because the figures are forecasted i.e. they are estimates, there is no reliable source for the data and because they are not specific. In other words there are many important factors that the two departments should consider. The HR and Finance department would be better off looking at figures that directly concern the business i.e. if CJE has factories in Peru, then the EU and BRICS data will be completely useless. <b>10</b> Between the two functions though, I think that the HR department will find the figures of most use because they directly employ labour. The HR dept would be better off doing a workforce Audit rather than completely trusting these figures. This allows them to plan according to the needs of the business effectively. <b>11</b></p> <p>In addition to this, although average global interest rates may be 4%, they will vary between individual countries. For example, Englands interest rate is currently very low however this can change. The data is subject to volatility and therefore I think that the data should be taken lightly, perhaps as a guideline for some sort of planning, budgeting and decision making.</p>	<p><b>9</b> Further evaluation.</p> <p><b>10</b> The candidate could have focused here on the case study information: location of factories and strategic options, for example.</p> <p><b>11</b> Further evaluation.</p> <p><b>Total marks awarded = 15 out of 16</b></p>

### How the candidate could have improved their answer

The candidate demonstrated clear understanding of the usefulness of the data to functional departments. The evaluation was particularly well developed, both in the body of the answer and in the conclusion. The candidate could have included further analysis of how the functional departments might use the data in decision-making and planning.

## Question 6

Example candidate response – high	Examiner comments
<p><b>6) Recommend to CJE's board of directors which one of the two strategic options the company should choose. Justify your recommendation (20)</b></p> <p>Strategic choice is the process of deciding which option will be the most beneficial to the business when given a number of strategies/activities to choose from. This will involve the business using Ansoff's Matrix, decision trees and force field analysis. In this essay I will concentrate on the data in Table 3 and the Strategic options tab. I will stress the use of Ansoff's matrix, decision trees and force field analysis and other factors that CJE should use when making this decision. <b>1</b></p> <p>Firstly CJE should consider Risk when making a decision. They can do this by using Ansoff's Matrix. This matrix outlines which strategies involve what degree of risk; there are four strategies, market penetration, market development, product development and diversification. This is beneficial because the Ansoff's matrix can help when making strategic decisions as it outlines risk - if the project is less risky then it would be good to take it, however if the project is very risky then it may be less than ideal. It all depends on how safe CJE want to be and their growth strategy. <b>2</b></p> <p>Strategy 2 involves making establishing a joint venture with a USA based jet engine manufacturer. This would lead to the design and manufacture of a new jet engine with a low environmental impact. This is a medium risk strategy because the firm is familiar with the the product i.e. a Jet engine, however it is less familiar with the African market where it would be designed and manufactured. I would therefore class this strategy as market development. CJE and Z&amp;L would have to carry out lots of market research into this African country such as labour costs, the economic environment, Political stances, legal constraints etc... <b>3</b></p> <p>Overall, this strategy is of medium risk because both Z&amp;L and CJE know their product well and as a result they will benefit from core competencies, economies of scale and their combined knowledge. This will allow for a cost effective machine to be made.</p> <p>In contrast to this, strategy 1 involves taking over a small manufacturer in a BRICS country and this manufacturer is</p>	<p><b>1</b> A useful introduction which recognises that this question is about strategic choice. The candidate identifies relevant strategic choice techniques.</p> <p><b>2</b> Descriptive understanding of Ansoff's matrix.</p> <p><b>3</b> Application of Ansoff's matrix to strategy 1. The analysis is not developed in this paragraph.</p>



Example candidate response – high, continued	Examiner comments
<p>designing new jet planes. This is expected to be popular in LIC's, however CJE is not familiar with creating aircraft because their specialism is engines. As a result, this strategy is of the highest risk because it is in a new market and is based on a somewhat new product. This would involve the diversification of CJE. This is risky because it would involve masses of market research into the market, consumer behaviour, cultural factors &amp; it would also include costly R&amp;D into how to make a safe new jet plane. Once CJE has identified the risks involved they should use other strategies such as Force Field analysis. <b>4</b></p> <p>Force Field analysis works by weighting restrainers and drivers. The outcome which has the highest weighting should be chosen. In Strategy 1 the greatest restraining factor is the lack of CJE directors experience in aircraft manufacture, and the greatest driver is the vertical integration that would become of this strategy. With strategy 1 I personally believe that the restrainers outweigh the driving factors. I think this because it would cost a lot more money to branch off into making jet planes (which has high fixed costs and low profit margins). Before this decision is made though, Z&amp;L and CJE should concentrate on strengthening the drivers and dampening the restrainers. They can do this by carrying out market research, by creating project teams between firms, by using effective two way communication and by assigning project champions. If these steps are taken, then together, the increase in drivers and decrease in restrainers will allow for a more obvious decision. This method is useful because it gives a quantitative answer which aids in decision making - however this method doesn't take into account other factors such as risk. But, if CJE carries out an analysis of Ansoff's Matrix along with Forcefield analysis, the choice should be effective. <b>5</b></p> <p>By taking strategy 1 I believe that CJE would incur the most costs. I believe this because it is incredibly risky, there is a low forecast IRR, there is a low expected monetary value associated with success in comparison to strategy 2 and the restraining factors outweigh the drivers greatly from my perspective. I think that it would be way more beneficial to CJE to create a joint venture with Z&amp;L because the strategy involves a lot less risk, it is cheaper, the forecast returns are higher, the expected monetary value if successful is higher and there is great cost savings to be made in African countries. Although the estimated chance of strategy failure is 40%, strategy 2 would be more beneficial because the costs to the business are spread between two firms and there are greater returns expected from success. <b>6</b></p> <p>However, before CJE take my recommendation I would suggest that they partake in strategic analysis first simply because it will allow them to plan. For example, I think that before the choice is made CJE should take into account SWOT i.e. their strengths, weaknesses, opportunities and threats. It is evident that their strengths are in manufacturing engines and therefore from my perspective it makes little sense to diversify by making aeroplanes because that is not where the firms specialisms lie. CJE would be better off concentrating on their core competencies because that will allow the firm to blossom and it will decrease their chances of failure as a firm. <b>7</b></p> <p>In addition to this, before the decision is made CJE should also carry out a PESTLE analysis into the two countries. For example, in Africa (strategy 2) the political, legal, social and economic environment are likely to be very poor in comparison to a BRICS country. This is because of things such as terrorism, low growth, lack of spending and legal/political constraints by dictators. Although it may be cheaper to produce in an African country, it may not be safer/financially viable than producing in a BRICS country where there is high growth. <b>8</b></p> <p>There are many factors the CJE should take into account when making this decision. CJE should consider all things however I would stress the weighting on actual facts which can be gained from SWOT, PESTLE and Porter's 5 forces analysis. The most important factor in my opinion is the PESTLE environment of the country that will be operated in. I think this because the economic and political environment of a country can determine prices, costs, what the firm can produce, whether CJE will get grants for producing, what the level of tax may be and so on. <b>9</b></p> <p>Therefore in conclusion I would suggest that CJE take strategy 2 because I believe that the cost advantages and estimated profits of this strategy outweigh all other factors. However, whether this strategy is effective depends on how CJE and Z&amp;L cooperate, how they plan and how they function. It is important that they function as one business entity, have a strict plan, have budgets and a motivated workforce. To do this, the two firms, once a decision is chosen should make sure that everything is implemented properly by creating and communicating a vision, creating project teams and by setting a project champion to motivate and empower - this is what will guarantee success for CJE if they take my recommendation of strategy 2. <b>10</b></p>	<p><b>4</b> Understanding of strategy 2. Ansoff's matrix applied.</p> <p><b>5</b> Repetition of information from the case study.</p> <p><b>6</b> The candidate has lost focus on the question and describes strategic implementation. They should demonstrate how this helps make the decision.</p> <p><b>7</b> Evaluation of the usefulness of the technique.</p> <p><b>8</b> Application.</p> <p><b>9</b> Application.</p> <p><b>10</b> Analysis and evaluation.</p> <p><b>11</b> Evaluation.</p> <p><b>12</b> Further evaluative comment.</p> <p><b>13</b> The candidate makes a final evaluation, recognising the factor that success will depend on.</p> <p><b>Total marks awarded = 13 out of 16</b></p>

### How the candidate could have improved their answer

There was a strong focus on strategic choice techniques in the candidate's answer. However, it was often descriptive rather than analytical. Although there was some effective evaluation in the body of the answer and particularly in the conclusion, it could have included more detailed analysis of the data in Table 3.

# **A2 – BUSINESS (9609)**

## **PAPER 3**

### **[Calculations]**



## SECTION 2: PEOPLE IN BUSINESS

### Calculation 1 – Labor Productivity, Absenteeism Rate

(O/N 2010, V3) | Q2

	SIBCO	Average bus industry data
Annual labour turnover	200 drivers employed; 45 voluntarily left the company during the year	15%
Labour productivity – average annual distance covered by each driver	24 000 kilometres	28 000 kilometres
Average driver absences per 250 day working year	17 days	12 days = absenteeism rate of 4.8%
Pay rates for drivers	15% above National Minimum Wage and no profit sharing	10% above National Minimum Wage but profit sharing is common in other companies
Driver training	Basic bus driving course	Advanced proficiency bus driving course
Staff appraisal	When asked for by drivers	Annual appraisal and objective setting with each driver

**Table 3: Comparing human resource data (2009)**

- (a) Using data in Table 3, calculate for SIBCO the following:
- (i) labour turnover in 2009 [3]
  - (ii) absenteeism in 2009. [3]
- (b) Assess how the company might overcome the problems indicated by your results to part (a) without increasing unit costs. [12]

(M/J 2016, V1) | Q4

<b>Table 2: SEL factory workforce – performance data</b>		
	2014	2015
Factory employees	250	268
Total annual output of appliances	44 000	44 500
Number of appliances rejected by quality control	2000	2200
Factory employees who left during the year	55	63
Number of days lost through absenteeism (full time contract = 200 days per year)	5000	5400

- (a) Refer to Table 2. Calculate for 2014 and 2015:
- (i) labour productivity [4]
  - (ii) percentage of output rejected [4]
  - (iii) labour turnover. [4]
- (b) Discuss the effectiveness of two ways that SEL's factory manager could improve workforce performance. [12]

**SECTION 3: MARKETING**

**Calculation 1 - Elasticities**

(O/N 2016, V2), Q4

<b>Marketing decisions for country Y</b>	50
The directors of MFI have decided to start exporting the FineDine brand of fish products to country Y. At the most recent Board meeting the success of this country's economy was discussed and all directors agreed that this would be a good time to enter this market. Important marketing decisions will have to be taken to ensure consistency with existing marketing strategies and alignment of the strategy with market conditions in country Y. The Board considered that a 5% market share in 2017 was a realistic sales objective. After the Board meeting Marco obtained a two year old market research report on country Y's market for processed fish. A summary is shown in Appendix 2.	55

<b>Appendix 2: Summary of 2014 market research report on country Y</b>	
Population growth 2000–2014	2% per year
GDP per head compared to country X in 2000	20% lower
GDP per head compared to country X in 2014	15% higher
Processed fish market size in 2014	\$80 m
Forecast growth rate of processed fish market 2014–2017	10% per year
Revenue of largest fish processing company in 2014	\$45 m
Change in annual revenue from the best-selling premium brand of processed fish when price increased by \$1 to \$5	Increased from \$12 m to \$14 m
Estimated advertising elasticity of demand for processed fish products	2.3
Proportion of processed fish sold by the 4 largest supermarket companies	78%

- (a) Refer to Appendix 2 and the Board’s market share objective on lines 55–56. Calculate:
- (i) forecast value of MFI’s sales in country Y in 2017 [3]
  - (ii) price elasticity of demand of the best-selling premium brand of processed fish. [5]
- (b) Discuss a suitable marketing strategy that Marco could use for FineDine products in country Y. Use your results from 4(a) and other relevant information. [14]

(M/J 2013, V1) | Q3

<b>Appendix 2: Data used by GMC directors when considering whether to close the Daily Recorder</b>	
Price increase of a copy of Daily Recorder – December 2012	\$0.50 to \$0.55
Reduction in sales of Daily Recorder – December 2012	15%
Increase in advertising spend on Daily Recorder – May 2013	From \$60 000 per month to \$69 000
Increase in sales of Daily Recorder – May 2013	3%
Estimated income elasticity of demand for daily newspapers	0.2
Daily Recorder total revenue in 2012 (\$m)	4.0
Total direct costs of Daily Recorder in 2012 (\$m)	3.7
Allocation to Daily Recorder of GMC overheads in 2012 (\$m)	1.2

- (a) Refer to Appendix 2. Calculate for the Daily Recorder:
- (i) price elasticity of demand in December 2012 [3]
  - (ii) advertising elasticity of demand in May 2013. [3]
- (b) Using your results from 3(a) and other information, discuss whether GMC should close the Daily Recorder. [14]

(M/J 2015, V3) | Q4

Appendix C: Marketing data for Lemonfizz			
Price Elasticity of Demand		Promotional Elasticity of Demand	
Action	Reduce price to retailers from \$0.60 to \$0.58	Action	Increase promotional spending by \$1m to \$11m
Outcome	Sales increase by 5%	Outcome	Sales increase by 5%

Using the data in Appendix C, calculate:

- (i) promotional elasticity of demand for Lemonfizz [3]
  - (ii) price elasticity of demand for Lemonfizz. [3]
- (b) Discuss whether LF should reduce price or increase promotional expenditure in order to increase sales of Lemonfizz. Refer to your results from (a) and any other relevant information. [14]

**Calculation 2 – Moving Averages**

(O/N 2013, V2) Q4

Appendix 2: Past JCL sales data analysed by new market research executive						
Year	Quarter	Sales \$m	Trend (centred moving average) \$m	Seasonal variation \$m		
2010	1	23				
	2	27				
	3	35	27.5	7.5		
	4	24	28	-4		
2011	1	25	28.625	-3.625		
	2	29	29.375	-0.375		
	3	38	30.125	7.875		
	4	27	31	-4		
2012	1	28	31.875	-3.875		
	2	33	32.5	x		
	3	41	32.75	8.25		
	4	29	32.625	y		
2013	1	28				
	2	32				
Average seasonal variation \$m			Quarter 1	Quarter 2	Quarter 3	Quarter 4
			-3.75	0.0625	z	-3.875

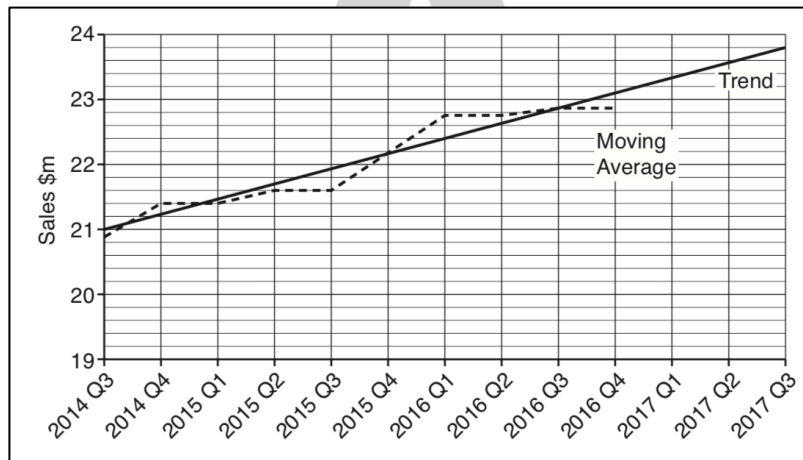
Appendix 3: Graph of JCL's sales data produced by Jo, the new market research executive

- (a) Refer to the data in Appendix 2. Calculate the following missing values:
- (i) x [1]
  - (ii) y [1]
  - (iii) z [2]
- (b) Refer to the data in Appendix 2 and Jo's extrapolated trend line on the graph in Appendix 3. Forecast JCL's actual sales level in:
- (i) 2013 Quarter 4 [3]
  - (ii) 2014 Quarter 1. [3]
- (c) Evaluate the extent to which Des should only rely on this moving average method of sales forecasting when making decisions about operating capacity and staffing levels. [12]

(M/J 2017, V3) | Q2

**Appendix 1: Past PV export sales**

Year	Quarter	Sales \$m	Sales trend (moving average) \$m	Seasonal variation \$m	Average seasonal variation \$m
2014	1	25			
	2	21			
	3	15	20.875	-5.875	-6.125
	4	20	21.375	-1.375	See 2(a)(ii)
2015	1	30	21.375	See 2(a)(i)	7.438
	2	20	21.625	-1.625	0.313
	3	16	21.625	-5.625	-6.125
	4	21	22.125	-1.125	See 2(a)(ii)
2016	1	29	22.750	6.250	7.438
	2	25	22.750	2.250	0.313
	3	16	22.875	-6.875	-6.125
	4	21	22.875	-1.875	See 2(a)(ii)
2017	1	30			
	2	24			



- (a) Refer to the table in Appendix 1. Calculate:
- (i) seasonal variation in 2015 Quarter 1 [1]
  - (ii) average seasonal variation in Quarter 4. [1]
- (b) Refer to the table and graph in Appendix 1. Calculate PV’s forecast sales for Quarter 3 in 2017. [3]
- (c) Discuss the usefulness of sales forecasts to PV when making marketing decisions. Refer to your result from 2(b). [12]

## SECTION 4: OPERATIONS AND PROJECT MANAGEMENT

### Calculation 1 – Capacity Utilization

(M/J 2015, V2), | Q2

#### New factory or further outsourcing?

MF's flour milling factory is 25 years old. It was designed and built before the principles of lean production were widely recognised. Access for regular deliveries from farms and other suppliers is poor, traditional flow production lines prevent team-working and there is a large section allocated to quality control inspectors. Total output in 2014 was 30 000 tonnes but factory managers believe that full capacity working using 24 hour per day operations could achieve 36 000 tonnes.

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**Table 1: Operating costs of existing factory and forecasts for new factory**

	2014 (\$000)	2016 (\$000) (Forecasts for new factory)
Total annual labour costs (based on 30 000 tonne output)	600	450
Other annual direct costs (based on 30 000 tonne output)	1200	1200
Annual depreciation of equipment	60	280
Other annual indirect costs	330	290

- (a) Using data on lines 16–18 and Table 1, calculate:
- (i) capacity utilisation in 2014 [2]
  - (ii) the difference, at an output of 30 000 tonnes of flour, between the average cost per tonne in 2014 and the forecasted average cost per tonne in 2016. [4]
- (b) Using your results to 2(a) and other information, recommend whether MF should build the new factory. Justify your answer. [12]

(O/N 2013, V1) | Q4

#### Appendix 2: Operation management data for LKE for year ending 30 September 2013

Annual production capacity	440 000
Actual output	360 000
Direct labour cost per unit	\$1
Direct material cost per unit	\$3
Total annual factory overheads	\$1.6m
Current break-even level of output (based on factory overhead costs)	145 454 units
Factory production employees (full-time equivalent)	220
Annual pollution level (tonnes of carbon dioxide)	650

- (a) Refer to Appendix 2. Calculate:
- (i) capacity utilisation [3]
  - (ii) labour productivity. [3]
- (b) Using data in Appendix 2 and other information, assess the likely impact on LKE's operational efficiency of increased use of technology. [12]

**Calculation 2 – Critical Path Analysis**

(O/N 2014, V3) | Q4

**Appendix 3: Option A – New hotel and country club development, activities for this project.**

Activity	Description	Preceding activity	Expected duration (weeks)
A	Clear site	–	10
B	Build hotel	A	23
C	Decorate and furnish hotel	B	16
D	Install kitchen equipment	B	8
E	Landscape gardens	B	12
F	Recruit and select hotel staff	B	4
G	Train hotel staff	F	3
H	Test hotel information technology systems	C, D, G	2

(a)

(i) Using the information in Appendix 3, draw a network (CPA) diagram for the new hotel development. [8]

(ii) Identify the critical path activities. [1]

(iii) State the length of the critical path. [1]

(b) Assess the usefulness of critical path analysis to the success of option A. [12]

(M/J 2013, V3) | Q2

**Appendix 1: Data used by Operations Director to construct a network diagram (CPA)**

Activity	Preceding activities	Expected Duration (weeks)	Description
A	–	3	Complete legal contract
B	–	1	Obtain estimate for factory conversion
C	A, B	2	Recruit replacement staff (for those not relocating)
D	A, B	3	Conversion of factory
E	C	2	Train new staff
F	D	1	Transfer CC computers to new site
G	D	2	Fit new automated equipment
H	E, F, G	1	Test production systems

(a)

(i) Draw a network diagram using the information in Appendix 1. [6]

(ii) Calculate the earliest start times (ESTs) and latest finish times (LFTs) of all of the activities. [5]

(iii) State the duration of the critical path. [1]

(b) Do you agree with the Operations Director that the relocation will be completed on time? Justify your answer using your results from 2(a) and other information. [10]

## SECTION 5: FINANCE AND ACCOUNTING

### Calculation 1 – Break-Even Analysis and Profit

(M/J 2017, V2) | Q2

Appendix: Data about location X and location Y		
	Location X	Location Y
Estimated time until opening of hotel	6 months	12 months
Most likely target market	Tourists	Business customers
Capital cost of adapting building to HH standards	\$300 000	\$500 000
Monthly fixed costs (including leasing cost)	\$30 000	\$69 000
Variable cost per customer per night	\$30	\$40
Estimated average price per customer per night	\$50	\$70
Monthly capacity (customers)	4000	5000
Expected monthly demand	3200	4500
Break-even number of customers per month	1500	See Question 2(a)
Monthly profit at maximum capacity	\$50 000	See Question 2(a)

- (a) Refer to the Appendix. Calculate for location Y:
- (i) break-even number of customers per month [3]
  - (ii) monthly profit at maximum capacity [3]
  - (iii) margin of safety. [2]
- (b) Refer to your results from 2(a), the Appendix and other information. Recommend to HH's directors whether to choose location X or Y for the new hotel. [12]

(O/N 2015, V2), Q2

	System 1	System 2
Capital cost	\$5m	\$3m
Annual overhead cost excluding production workers' salaries	\$2m	\$1m
Number of production workers required	16	50
Average annual salary per worker	\$31 250	\$20 000
Forecast contribution per unit	\$833	\$800
Maximum capacity	6000	5000
Break-even level of output	3000	See 2(a)
Margin of safety based on 2014 output	1000	See 2(a)
Profit at maximum capacity	\$2.5m	See 2(a)

- (a) Refer to Table 2. Calculate for System 2:
- (i) break-even level of output [3]
  - (ii) margin of safety based on 2014 output level [2] (Output level current 4000)
  - (iii) annual profit based on maximum system capacity. [3]
- (b) Using your results to (a) and any other relevant information, recommend to GO's directors which production system to purchase. [14]

**Calculation 2 – Total and Marginal Costing**

(M/J 2012, V2) | Q4

**Appendix 3: Data to be used when deciding whether to close Assured High School**

Students numbers 2011	345
Student numbers 2012	360
Total fee revenue 2011	\$1.035m
Average student fee 2012	\$2900
Total direct labour costs, e.g. teachers' salaries, 2012	\$0.85m
Other direct costs 2012	\$0.11m
Annual fixed building maintenance costs 2012	\$0.20m
Allocated share of education subsidiary overheads 2012	\$0.32m

(a) Refer to Appendix 3. Calculate the annual contribution for 2012 earned by Assured High School. [6]

(b) Recommend whether Assured School should be closed or not. Justify your recommendation using your result to 4(a) and other relevant information. [14]

(O/N 2016, V1) | Q2

**Table 1: Financial data for the five shops being considered for closure**

	Actual costs and revenue. Year ending 30 September 2016 (\$m)	Forecast costs and revenue. Year ending 30 September 2016 (\$m)	Notes
Revenue	1.9	2.3	
Annual leasing costs & other fixed costs	0.8	0.8	Leases signed until end of 2018 Includes allocated fixed costs such as national marketing
Variable material costs	0.4	0.45	
Other variable costs	0.8	0.85	

(a) Refer to Table 1. Calculate the actual contribution of the five shops to KA. [4]

(b) Recommend whether KA should close the five shops. Justify your answer using your results from 2(a) and any other information. [14]

(O/N 2015, V1) | Q2

**Table 1: Data used by BAS management when considering the future of Route 270 between city X and city Y**

Index of average AIAir single ticket price in 2015 (BAS = 100)		80
Number of BAS flights per year on Route 270		700
Average capacity utilisation on Route 270	2014	85%
	2015	70%
Revenue per flight on Route 270 (2015)		\$12300 (average)
Variable costs per flight on Route 270 (2015)		\$8000 (average)
Allocation of BAS fixed costs per flight on Route 270 (2015)		\$5300
Forecast economic growth in region in which city Y is located	2016	10%
	2017	8%
Forecast aviation fuel price (2015 = 100)	2016	95
	2017	97

(a) Refer to Table 1. Calculate the contribution per flight of Route 270. [2]

(b) Recommend whether BAS should stop operating Route 270. Justify your answer using your results from 2(a) and any other relevant information. [16]



**Calculation 3 - Budgets****(O/N 2011, V2) | Q2**

<b>Appendix A: Budget and actual data for Newtown steel works, 2011</b>		
	Budget for year ending 31 October 2011	Actual data for year ending 31 October 2011
Revenue	\$306m	\$272m
Material costs	\$125m	\$118m
Labour costs	\$113m	\$106m
Allocated overhead costs	\$40m	\$41m
Profit	\$28m	\$7m

- (a) (i) Using data in Appendix A, calculate the variances for the Newtown steel works. [6]  
(ii) Explain possible reasons for any two of these variances. [6]
- (b) Discuss the impact of ASC's privatisation on the company's stakeholders, using data in Table 1 and other relevant information. [16]

**(M/J 2011, V1) | Q3**

<b>Appendix B: Budgetary data for Asia Clothing, \$m</b>		
For year ending 31 May 2011	Budget	Actual data
Sales revenue	35	36
Cost of materials	12	14
Direct labour costs	4	4.5
Management costs e.g. salaries	3	3.5
Marketing costs e.g. trade exhibitions	1	2
Other overhead costs	9	9
Profit	6	3

- (a) Refer to Appendix B. Calculate all the variances between the budgeted and actual data. Indicate whether each one is adverse or favorable. [6]
- (b) Evaluate any two ways in which the business might reduce its costs. [8]

**Calculation 4 – Ratio Analysis**

(O/N 2014, V2) | Q2

**Table 1: Summary accounting data for TC (as at 31 October)**

	2014	2013
Revenue	\$1 695m	\$1 580m
Cost of goods sold	\$650m	\$580m
Net profit margin	17%	15%
Current assets	\$265m	\$210m
of which: Inventories	\$50m	\$29m
Trade receivables	\$205m	\$160m
Dividend yield ratio	6%	8%
Current liabilities	\$198m	\$212m

(a) Refer to Table 1. Calculate for 2014:

(i) inventory turnover ratio [3]

(ii) days' sales in trade receivables. [3]

(b) Refer to Table 1 and your answers to 2(a). Assess the usefulness of accounting ratio results to any two of TC's stakeholder groups. [14]

(O/N 2012, V2) | Q4

**Appendix B: Comparison of key data for BSL and ADC**

<b>Summary accounting data as at 31 October 2012 (\$000)</b>	BSL	ADC
Capital employed	53000	32000
Non-current liabilities	15000	25000
Current assets	15600	5200
Inventories	9400	3000
Current liabilities	7600	6800
Net profit for year ending 31 October 2012	13000	1200
<b>Other information:</b>		
Acid test ratio	0.82	0.32
Gearing ratio	See question 4(a)	78%
Inventory turnover	3	6
Dividend yield (as at 31 October 2012)	7.5 %	1 %
Return on Capital Employed	24.5%	See question 4(a)
Market share	15%	4%
Market capitalisation (stock market value of all issued shares at 31 October 2012) (\$000)	55000	8000
Style of leadership	Democratic	Autocratic
Labour turnover (12 months to 31 October 2012)	5%	23%
Number of warehouses	14	6
Legal status	Public limited company	Public limited company

(a) Refer to Appendix B. Calculate the:

(i) Return on Capital Employed (ROCE) for ADC [3]

(ii) Gearing Ratio for BSL. [3]

(b) Assess the usefulness of ratio analysis of BSL's published accounts to any two of the company's stakeholder groups. Refer to Appendix B in your answer. [14]

**(M/J 2012, V2) | Q2**

<b>Appendix 1: Extract from GCC's accounts</b>		
	Year ending 31st May 2011	Year ending 31st May 2012
Net profit after tax	\$356m	\$320m
Total dividends paid	\$100m	\$70m
Total issued shares	500m	500m
Earnings per share	\$0.712	\$0.64
Dividend per share	\$0.20	\$0.14
Share price at 31st May	\$2.40	\$2.00
Dividend yield at 31st May	8.3%	See Question 2(a)
Price earnings ratio at 31st May	3.37	See Question 2(a)

- (a) Refer to Appendix 1. Calculate the following ratios as at 31st May 2012:
- dividend yield [3]
  - price earnings ratio. [3]
- (b) Assess whether the directors of GCC should substantially increase dividends to shareholders. [14]

**(M/J 2011, V2) | Q3**

<b>Appendix B: Accounting data for FitsU</b>		
	As at: 31 May 2010	As at: 31 May 2011
Accounts receivable (Debtors) \$m	24	32
Inventories (Stocks) \$m	35	38
Cash \$m	4	1
Current liabilities \$m	65	88
Capital employed \$m	200	215
Non-current (Long-term) liabilities \$m	85	100
Gearing ratio %	42.5	
Acid test ratio	0.43	

- (a) Using data in Appendix B, calculate for year ending 31st May 2011:
- The acid test ratio [3]
  - The gearing ratio. [3]
- (b) Assume the decision to build a new factory is taken. Discuss whether the business should raise the finance required for the new factory from additional long-term loans. [8]

**(M/J 2010, V1) | Q4**

Capital employed	167
Share capital (80 000 issued shares @ \$1)	80
Long term loans	77
Current liabilities	24
Current assets	26
Stocks	12
Annual retained profit	10

(a) Using the data in Appendix C, calculate:

(i) Acid test ratio [3]

(ii) Gearing ratio. [3]

(b) Using your results to (a) and other data, recommend which sources of capital the company should use to finance the \$30 000 set-up costs of the magazine for 56–70 year olds. [10]

**(O/N 2016, V3) | Q4**

SC share price on 30 September 2016	\$3.30
Total number of shares issued	15m
Total dividends paid	\$1.5m
Capital employed	\$58m
Non-current liabilities	\$15m
Operating profit	\$3.5m
Profit after tax	\$2.0m

(a) Refer to Table 2. Calculate for 2016:

(i) return on capital employed [2]

(ii) price earnings ratio [3]

(iii) dividend yield. [3]

(b) Assess the usefulness of your results from 4(a) and the data in Table 2 to SC's shareholders. [14]

**Calculation 5 – Ratio Adjustments****(M/J 2017, V2) | Q4****Finance needed**

Sasha, HH's Finance Director, has been considering alternative sources of finance to pay for future strategic expansion plans. Sasha has estimated that HH will need to raise around \$60m over the next two years to finance both the refurbishment of some existing hotels and to pay for the growth option the Board chooses. Sasha's preferred source of finance is a new issue of shares. This option would lead to dividends per share falling for at least two years. Sasha plans to keep total dividends paid the same as in 2017, until expansion becomes profitable. She knows that Hari would prefer HH to increase its non-current liabilities. Sasha has gathered the information needed for this financing decision. See Table 1.

**Table 1: Financial information to be used in the financing decision**

HH share price – 31 May 2017 (31 May 2016)	\$3.00 (\$2.80)	
HH total issued shares – 31 May 2017	40m	60
Number of shares owned by Hari and his family	25m	
HH capital employed – 31 May 2017	\$200m	
HH non-current liabilities – 31 May 2017	\$85m	
Total annual dividends paid – 31 May 2017	\$8m	
Country Z interest rate – 31 May 2017 (31 May 2016)	5% (6%)	65

(a) Refer to lines 49–57 and Table 1. Calculate:

- (i) gearing ratio assuming all \$60m is obtained from long term loans [3]
- (ii) dividend per share in 2018 assuming all \$60m is obtained by the sale of an additional 20m shares. [3]

(b) Refer to your results from 4(a), Table 1 and other information. Recommend to the Board of Directors which source of finance should be used by HH to obtain \$60m. Justify your answer. [12]

**AATIK TASNEEM**

<b>Calculation 6 – Financial Adjustments</b>
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(O/N 2013, V1) | Q2

**Appendix 1: LKE income statement for year ending 30 September 2013**

	\$000
Revenue	5250
Gross profit	3850
Overheads:	
Factory	(1600)
Administration and marketing	(1625)
Depreciation	(320)
Net profit (before tax and interest)	305
Interest	(165)
Pre-tax profits	140
Tax	(70)
Profit after tax	70

**Forecasts for 2014**

Serge understands the need for forecasting future business performance. He has already prepared some budgets for 2014 and he is about to prepare a forecast income statement. He will use the income statement for the year ending 30 September 2013 as his starting point (see Appendix 1). Serge forecasts the following changes over the next 12 months. 15

- Revenue will increase. Sales are expected to rise from 350 000 units at an average price of \$15 to 370 000 units at an average price of \$16.
- Average cost of sales will increase from \$4 per unit to \$5 per unit due to higher metal costs. 20
- Factory overhead costs will increase by 10%.
- Administration and marketing costs will not increase. Serge intends to make savings on the promotion budget to cancel out the impact of higher salaries. 25
- Annual interest costs on the company's long term loans of \$1m are likely to rise from 16.5% to 18%.
- All other costs including depreciation will remain as in 2013 but the Government is expected to reduce corporation (profit) tax from 50% to 40%. 30

Serge thinks the business should be even more profitable. At the next meeting of senior managers he is going to ask for managers' views on how to increase profits.

- (a) Refer to Appendix 1 and information on lines (18–30). Construct a forecasted income statement for LKE for the year ending 30 September 2014. [8]
- (b) Assess how LKE could increase profit in 2014. [12]

**Calculation 7 – Investment Appraisal**

(O/N 2016, V2) | Q2

**Investment decision**

Half of MFI's fishing boats are over 20 years old. Marco plans to replace these 10 boats with new, more fuel efficient ones. Increasing taxes on fuel and Government subsidies offered to boat operators with the most efficient types of boats in country X helped to influence his plans. MFI's accountant provided the following information to Marco. 60

'These new boats would reduce annual costs by \$82000 per boat, including the Government subsidy. We have two options. 65

We could lease the boats for 5 years at a cost per boat of \$40000 per year. When the total capital cost of the leasing contract is considered, I estimate a payback of 2.5 years and a net present value of \$850000 at a 10% discount rate.

Alternatively, we could purchase the boats. I have negotiated a discount for a large order of 10 boats and they would cost \$320000 each. The boat manufacturer has offered to buy these boats back in 5 years time if we purchased new ones again. The agreed resale value would be 40% of the purchase price.' 70

Marco agreed that new boats were needed, but reminded the directors that financing the investment would need careful planning as interest rates were rising in country X. He also wondered if the boats could be purchased more cheaply from foreign manufacturers as country X's currency is appreciating. 75

- (a) Refer to lines 69–72. Calculate for the purchase of the 10 fishing boats:
- annual net cash flows [3]
  - payback period [2]
  - net present value at a discount rate of 10%. [3]
- (b) Recommend to Marco whether the new fishing boats should be purchased or leased. [12]

(M/J 2013, V2) | Q2

**Appendix 1: Replacement aircraft – Forecasted net cash flows for the two financing options**

Year	Option X: Leasing new aircraft (\$000)	Option Y: Purchasing second-hand aircraft (\$000)
0	(200)	(2000)
1	150	700
2	250	700
3	250	600
4	200	500
5	200	350 (not including residual value)

10% Discount factors: Year 1: 0.91; Year 2: 0.83; Year 3: 0.75; Year 4: 0.68; Year 5: 0.62.

*Option Y.* Buy 2 aircraft that are already 4 years old. These could be resold for an estimated residual value of 40% of their purchase price after five years. MT would pay to maintain these aircraft.

- (a) Refer to Appendix 1. Calculate for option Y at a 10% rate of discount:
- discounted payback period [3]
  - net present value. [3]
- (b) Using your results from 2(a) and other information, recommend to MT whether to lease new aircraft or purchase second-hand aircraft. [10]

(M/J 2017, V3) | Q4

Appendix 2: Forecast cash flows for new machinery		
Year	Net cash flow \$m	Discounted net cash flow \$m (discounted at 10%)
0	-2.0	-2.0
1	0.5	0.455
2	0.5	0.415
3	0.5	0.375
4	0.4	0.272
5	0.4	0.248

Appendix 3: 10% discount factors – value of \$1 in future time periods					
Year	6	7	8	9	10
Discount factor	0.56	0.51	0.47	0.42	0.39

- (a) Refer to Appendix 2. Calculate:
- payback period [2]
  - accounting rate of return over the 5 year life of the investment [3]
  - net present value over the 5 year life of the investment. [2]
- (b) Refer to Appendices 2 and 3. Calculate the discounted payback period if the net cash flows of \$0.4m continue after year 5. [2]
- (c) Refer to your answers to 4(a), 4(b) and other relevant information. Recommend whether PV should invest in new machinery. Justify your answer. [12]

A  
AATIK TASNEEM



**SECTION 6: STRATEGIC MANAGEMENT**

**Calculation 1 – Decision Tree and EMV**

(M/J 2014, V2) | Q4

Appendix 1: The 3 options for the Phoenix site				
Option	Explanation	Additional capital cost	Chance of successful outcome	Economic payoffs
1: Develop for offices	<b>Office accommodation:</b> Including offices for Government departments. This is the least risky option as prices for office accommodation are stable.	\$15m	0.8	Success: \$30 m Failure: \$10m
2: Develop for housing	<b>Housing:</b> Mix of expensive apartments and housing for low income groups. Quite risky as prices of expensive apartments could fall if the property market boom ends.	\$20m	0.7	Success: \$40 m Failure: \$18m
3: Sell site after 3 years	<b>Do not develop site:</b> Keep site for 3 years and then sell it. This is a risky option as land prices could rise or fall.	Nil	0.5	Success: \$10 m Failure: \$5 m

(a) Using Appendix 1, calculate the expected monetary values for the 3 options for the Phoenix site. [6]

(b) Using your results from 4(a) and other information, recommend to GC which of the 3 options for the Phoenix site should be chosen. Justify your answer. [14]

(O/N 2014, V1) | Q3

Appendix C: Forecasted probabilities and economic pay-offs (over 8 year period) from growth strategies		
	Probabilities of success	Forecasted economic pay-off
<b>Strategy A</b> Capital cost \$6m	0.6 probability of high membership	\$12m
	0.3 probability of medium membership	\$10m
	0.1 probability of low membership	\$7m
<b>Strategy B</b> Capital cost \$12m	0.5 probability of high membership	\$26m
	0.3 probability of medium membership	\$20m
	0.2 probability of low membership	\$10m

Using the data in Appendix C:

(a)

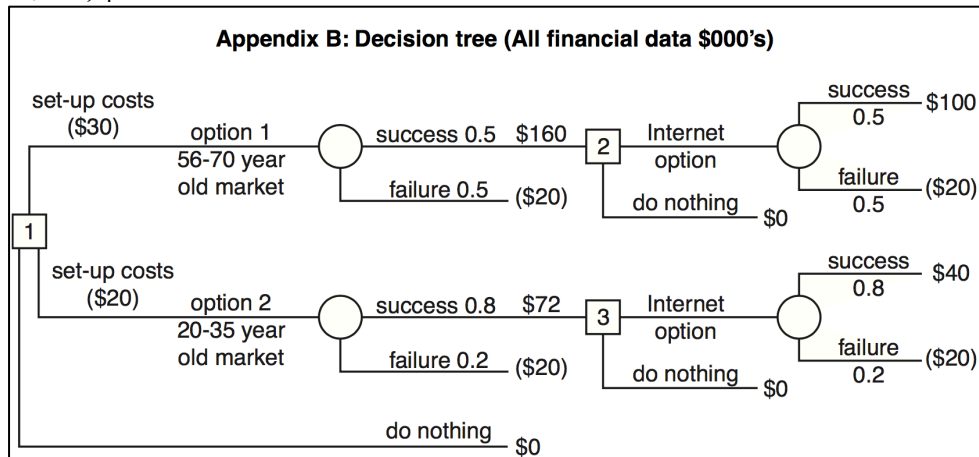
(i) draw and label a decision tree for the proposed growth strategies [5]

(ii) calculate the expected monetary value for strategy A and for strategy B. [4]

(b) Using your answer to (a)(ii) and other information in the case, which growth strategy would you recommend Hanif to choose? Justify your answer. [14]

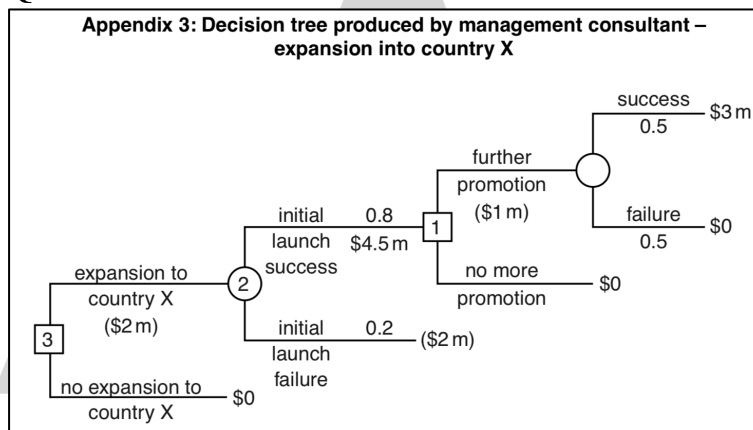
**Calculation 2 – Multi-Stage Decision Tree**

(M/J 2010, V2) | Q5



- (a) Use the decision tree (Appendix B) to calculate the expected monetary values of the two options. [10]
- (b) For which age range would you recommend TeenPrint to launch the new magazine? Use your results to (a) and any other information to support your recommendation. [16]

(M/J 2013, V3) | Q4



- (a) Refer to Appendix 3. Calculate the expected monetary values at:
- node 1 [2]
  - node 2 [3]
  - node 3. [1]
- (b) Recommend to CC whether to expand by selling products within country X. Refer to your results from 4(a) and other information in your answer. [10]

# **A2 – BUSINESS (9609)**

## **PAPER 3**

**[Calculation Solutions]**

## SECTION 2: PEOPLE IN BUSINESS

### Calculation 1 – Labor Productivity, Absenteeism Rate

(O/N 2010, V3) | Q2

**2 (a) Using data in Table 3, calculate for SIBCO the following:**

**(i) labour turnover in 2009** **[3]**

22.5%. 3 marks  
 Correct data but incorrect result. 2 marks  
 Staff leaving/total staff employed x 100. 1 mark

**(ii) absenteeism in 2009.** **[3]**

6.8%. 3 marks  
 Correct data but incorrect result. 2 marks  
 Days lost/Days worked x 100. 1 mark

(M/J 2016, V1) | Q4

**4 (a) Refer to Table 2. Calculate for 2014 and 2015:**

**(i) labour productivity** **[max 4]**

$$\text{Labour productivity} = \frac{\text{output in time period}}{\text{number employed}}$$

Both correct **[4]**

One correct **[3]**

Both incorrect calculations but correct data used **[2]**

Formula only **[1]**

$$2014: 44\,000/250 = 176$$

$$2015: 44\,500/268 = 166.05$$

**(ii) percentage of output rejected** **[max 4]**

$$\frac{\text{Number of rejected items in time period}}{\text{Total number produced}} \times 100$$

Both correct **[4]**

One correct **[3]**

Both incorrect calculations but correct data used **[2]**

Formula only **[1]**

$$2014: (2000/44\,000) \times 100 = 4.55\%$$

$$2015: (2200/44\,500) \times 100 = 4.94\%$$

$$\text{Accept: } 2014 - 42\,000/250 = 168 \text{ and } 2015 - 42\,300/268 = 157.84$$

**(iii) labour turnover.****[max 4]**

$$\text{Labour turnover} = \frac{\text{number of employees leaving in time period}}{\text{total number employed}} \times 100$$

Both correct

**[4]**

One correct

**[3]**

Both incorrect calculations but correct data used at least once

**[2]**

Formula only

**[1]**

$$2014: (55/250) \times 100 = 22\%$$

$$2015: (63/268) \times 100 = 23.5\%$$

	2014	2015
Labour productivity	176	166
Proportion of items rejected	4.55%	4.94%
Labour turnover	22%	23.5%



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## SECTION 3: MARKETING

### Calculation 1 - Elasticities

(O/N 2016, V2), Q4

**4 (a) Refer to Appendix 2 and the Board's market share objective on lines 55–56. Calculate:**

**(i) forecast value of MFI's sales in country Y in 2017 [3]**

Forecast market share 5%

Attempt at calculating 2017 total sales = [1]

Total sales in country Y in 2017 = 80 + 8 + 8.8 + 9.68 = 106.48 [2]

MFI sales: 106.48 × 0.05 = \$5.324m [3]

Answer	Marks	Reason
\$5.2m	2	Not compound growth
\$4m	1	5% of 80

**(ii) price elasticity of demand of the best-selling premium brand of canned fish. [5]**

$$\text{PED} = \frac{\% \text{ change in QD}}{\% \text{ change in P}} \quad [1]$$

Or  $\Delta Q/Q \div \Delta P/P$  or  $\Delta Q/Q \times P/\Delta P$  or  $\Delta Q/\Delta P \times P/Q$

Change in Qd = 3m tins to 2.8m tins (12/4 to 14/5) [1]

% change in Qd =  $0.2/3 \times 100 = -6.7\%$  (accept 6.7%) [1]

% change in P =  $1/4 = 25\%$  [1]

PED =  $-6.7/25 = -0.268$  or  $-0.27$  [5]

(M/J 2013, V1) | Q3

**3 (a) Refer to Appendix 2. Calculate for the Daily Recorder:**

**(i) price elasticity of demand in December 2012. [3]**

PED = % change in QD/% change in price (1 mark)

PED =  $-15 / 10$  (2 marks)

PED =  $-1.5$  (3 marks)

**(ii) advertising elasticity of demand in May 2013. [3]**

AED = % change in QD/% change in advertising spend (1 mark)

AED =  $3 / 15$  (2 marks [or 1 mark if just 15% change in advertising spend calculated])

AED =  $0.2$  (3 marks)

**(M/J 2015, V3) | Q4****4 (a) Using the data in Appendix C, calculate:****(i) promotional elasticity of demand for Lemonfizz [3]**

AED = % change quantity demanded / % change advertising expenditure (1)

% change advertising exp = 10% (1)

AED = 5/10 = 0.5 (3)

If equation inverted 0 marks, but using OFR if correct calculation 2 marks

Sign not essential for marks

**(ii) price elasticity of demand for Lemonfizz. [3]**

PED = % change quantity demanded / % change price (1)

% change price = -3.33% (1)

PED = 5/-3.33 = -1.5 (3)

**Calculation 2 – Moving Averages****(O/N 2013, V2) Q4****4 (a) Refer to the data in Appendix 2. Calculate the following missing values:****(i) x [1]**

\$0.5m

**(ii) y [1]**

-\$3.625m

**(iii) z [2]**

$$\frac{7.5 + 7.875 + 8.25}{3}$$

\$7.875m

**(b) Refer to the data in Appendix 2 and Jo's extrapolated trend line on the graph in Appendix 3. Forecast JCL's actual sales level in:****(i) 2013 Quarter 4 [3]**

Extrapolated figure = 35.5 1

35.5 + (ASV of -3.875) 2

\$31.625m 3

IF:

ASV is added then allow 2 marks for 39.375

**(ii) 2014 Quarter 1. [3]**

Extrapolated figure = 36 1

36 + (ASV of -3.75) 2

\$32.25m 3

IF:

ASV is added then allow 2 marks for 39.75

Allow **OFR** if incorrect trend value is identified from graph but correct ASV is used to arrive at actual forecast = 2 marks



**SECTION 4: OPERATIONS AND PROJECT MANAGEMENT**

**Calculation 1 – Capacity Utilization**

(M/J 2015, V2), | Q2

**2 (a) Using data on lines 16–18 and Table 1, calculate:**

**(i) capacity utilisation in 2014 [2]**

$$\frac{\text{Current Output}}{\text{Total Capacity}} \times 100 \quad 1 \text{ mark} \quad \text{OR} \quad \frac{30000}{36000} \times 100 \quad 1 \text{ mark}$$

$$= 83\% \text{ or } 83.3\% \quad 2 \text{ marks}$$

$$\text{If stated as a fraction then } \frac{5}{6} \quad 2 \text{ marks} \quad \frac{30000}{36000} \quad \text{OR} \quad \frac{30}{36} \quad 1 \text{ mark}$$

**(ii)**

What the candidate did	Answer	Mark	Justification	Notes: \$ sign not required OFR applies to calculations
Correct calculation of average cost(s)	\$1	4	Difference correctly calculated	Working need not be shown.
	2014 \$73 2016 \$74	3	Average costs correctly calculated	
	2014 \$73 OR 2016 \$74	2	Only one average cost correctly calculated	

(O/N 2013, V1) | Q4

**4 (a) Refer to Appendix 2. Calculate:**

**(i) capacity utilisation [3]**

$$\text{Capacity utilisation (\%)} = \frac{\text{current annual output}}{\text{annual capacity}} \times 100 \quad 1 \text{ mark}$$

$$360\,000/440\,000 \times 100 \quad 2 \text{ marks}$$

$$81.8\% \text{ or } 82\% \quad 3 \text{ marks}$$

**(ii) labour productivity. [3]**

$$\frac{\text{Annual output}}{\text{Number of (full time) employees}} \quad 1 \text{ mark}$$

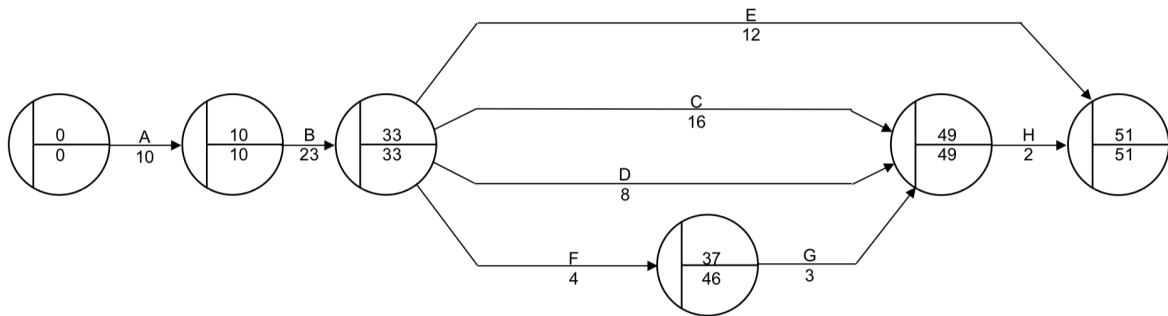
$$360\,000/220 \quad 2 \text{ marks}$$

$$1636 \text{ units per worker} \quad 3 \text{ marks}$$

**Calculation 2 – Critical Path Analysis**

(O/N 2014, V3) | Q4

4 (a) (i) Using the information in Appendix 3, draw a network (CPA) diagram for the new hotel development. [8]



Complete and accurate diagram (ESTs and LFTs not essential) = 8 marks  
 One error = 7 marks  
 Two errors = 6 marks  
 Three errors = 5 marks  
 Maximum of 4 marks if confusion between nodes and activities, e.g. letters in nodes  
 2-3 marks some logical pattern  
 1 mark – some attempt

(ii) Identify the critical path activities. [1]

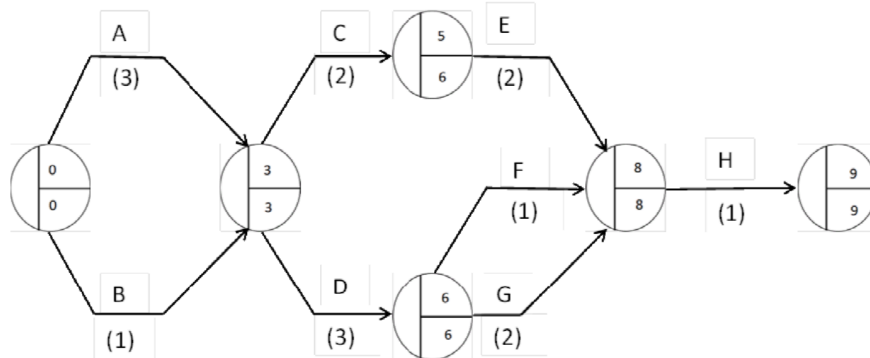
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(iii) State the length of the critical path. [1]

51 weeks

(M/J 2013, V3) | Q2

2 (a) (i) Draw a network diagram using the information in Appendix 1. [6]



(ii) Calculate the earliest start times (ESTs) and latest finish times (LFTs) of all of the activities. [5]

5 marks – all correct  
 3–4 marks – some errors  
 1–2 marks – some correct results

(iii) State the duration of the critical path. [1]

9 weeks A, D, G, H



**SECTION 5: FINANCE AND ACCOUNTING**

**Calculation 1 – Break-Even Analysis and Profit**

(M/J 2017, V2) | Q2

2(a)(i)	<p><b>Refer to the Appendix. Calculate for location Y:</b></p> <p><b>break-even number of customers per month</b></p> <p>TR = TC (1 mark)                  Fixed costs / contribution per unit (1 mark)                  \$69 000 / \$70–\$40 (2 marks)                  2300 customers (3 marks)</p> <p>OFR max 2 marks</p> <p>If use 50–30 or fixed costs of \$30 000 and calculate correctly then 2 marks</p>	<b>3</b>
---------	--	----------

2(a)(ii)	<p><b>monthly profit at maximum capacity</b></p> <p>Many formulae / approaches acceptable e.g.</p> <ul style="list-style-type: none"> <li>• (max customers × price) – (max customers × variable costs + fixed costs) (1 mark)</li> <li>• (max capacity – B / EVAL) × unit contribution (1 mark)</li> <li>• TR – TC (1 mark)</li> <li>• Total contribution less fixed costs (1 mark)</li> </ul> <p>Profit at expected demand is \$66 000 (evidence of method not needed) (2 marks)</p> <p>(5000 × \$70) – (5000 × \$40 + \$69 000) (2 marks)</p> <p>\$81 000 (3 marks)</p> <p>OFR max 2 marks</p>	<b>3</b>
2(a)(iii)	<p><b>margin of safety.</b></p> <p>Expected output – break-even output (1 mark if no calculation)</p> <p>4500 – 2300 (1 mark)</p> <p>2200 (2 marks)                  48.9% (2 marks)                  OFR based on answer from 2(a)(i) (2 marks)                  Max output – break-even output (0 marks)</p>	<b>2</b>

(O/N 2015, V2), Q2

<b>2 (a) Refer to Table 2. Calculate for System 2:</b>				
<b>(i) break-even level of output</b>				<b>[3]</b>
BE = fixed costs/contribution per unit 1 mark (If no relevant calculation)				
Working	Mark for working	Answer	Mark	Justification
2 m/800	2	2500	3	Correct
1 m/800	1	1250	2	Not all fixed costs
5 m/800	1	6250	2	Added capital cost to fixed costs
4 m/800	0	5000	1	Included capital cost and ignored one of fixed costs
3 m/800	0	3750	0	Only included capital cost. Fundamental misunderstanding of concept

<b>(ii) the safety margin based on the 2014 output level</b>	<b>[2]</b>
Safety margin = current output – BE output (1 mark)	
4000 – 2500 = 1500 units (2 marks)	
Own Figure Rule applies based on answer to (i)	
<b>(iii) annual profit based on maximum system capacity.</b>	<b>[3]</b>
Profit = TR – TC OR Contribution per unit × output in excess of BE (1 mark)	
2500 × \$800 (2 marks)	
\$2m (3 marks)	
Own Figure Rule applies based on answer to (i)	
i.e. (5000 – Calculated BE) × 800	

**Calculation 2 – Total and Marginal Costing**

(M/J 2012, V2) | Q4

**4 (a) Refer to Appendix 3. Calculate the annual contribution for 2012 earned by Assured High School. [6]**

Ready Reckoner :

Result	Explanation	Mark
\$84 000	This is the contribution made by the school – Revenue less direct costs. Assumes fixed school costs are not direct.	6
(\$116 000)	Assumes fixed school costs are direct costs.	6
Correct revenue/direct cost total but incorrect result	Arithmetic error	5 (4 if 2 arithmetic errors)
\$75 000	Uses 2011 revenue	5
(\$436 000)	Assumes all fixed costs are direct costs of the school (must show working as given in case).	3
(\$236 000)	Only deducts overheads not maintenance costs.	2
\$1.044m	Revenue only calculated (+ cont formula = 2 marks)	1
SR-DC formula	Formula only.	1

**(O/N 2016, V1) | Q2**

**2 (a) Refer to Table 1. Calculate the actual contribution of the five shops to KA. [4]**

Examiner note: \$ sign and/or units not required for marks to be awarded

Total contribution = Revenue – Direct costs 1 mark  
 Direct costs = 1.2m (reward 0.8 + 0.4 = 1.2) 1 mark  
 = 1.9m – 1.2m 1 mark  
 = \$0.7m 4 marks (OFR)

Calculation of profit based on full costing i.e. 1.9 – 2.0 = (0.1) No marks  
 Calculation of contribution using forecast data i.e. 2.3 – 1.3 = 1.0 is 1 mark (calculation must be shown)

**(O/N 2015, V1) | Q2**

**2 (a) Refer to Table 1. Calculate the contribution per flight of Route 270. [2]**

Contribution = Revenue – Variable costs  
 (If no calculation 1 mark may be awarded for definition of contribution)

= 12300 – 8000 (1)  
 = \$4300 (2) (\$ not required)

**(O/N 2013, V3) | Q4**

**4 (a) Refer to the data in Appendix 2. Calculate the impact on PC's profits of accepting the special order from the Superfood supermarket group. [6]**

Answer	Explanation	Mark	Implied assumptions (need not be stated)
Increase profits (contribution) by \$400 000	Selling price of \$0.50 Direct costs per unit = \$0.40: 0.1 material cost 0.15 labour cost 0.125 can design/product test 0.025 transport	6	Fixed factory costs are not direct costs PC has to pay for transport costs
Increase profits (contribution) by \$500 000	Same as above but no transport costs included	5	Supermarket pays for transport
	An arithmetical error in one part of the calculation	5	
Loss of \$600 000 (loss of \$520 000)	As above but factory fixed costs are allocated at same rate as before (or at new rate of \$0.23 per unit)	4	Assumes, incorrectly, that fixed costs are direct costs
	Some attempt to use accurate data to calculate change in profit (contribution)	3	
No overall figure given	Award 1 mark each for correct calculation of can design/product testing cost and transport cost per unit	2–1	

**Calculation 3 - Budgets****(O/N 2011, V2) | Q2****2 (a) (i) Using data in Appendix A, calculate the variances for the Newtown steel works. [6]****Budget and actual data for Newtown steel works, 2011**

	Budget for year ending 31/10/11	Actual data for year ending 31/10/11	Variance	Marks
Revenue	\$306m	\$272m	\$34m adverse	[1]
Material costs	\$125m	\$118m	\$7m favourable	[1]
Labour costs	\$113m	\$106m	\$7m favourable	[1]
Allocated overhead costs	\$40m	\$41m	\$1m adverse	[1]
Profit	\$28m	\$7m	\$21m adverse	[2]

**(M/J 2011, V1) | Q3****3 (a) Refer to Appendix B. Calculate all the variances between the budgeted and actual data. Indicate whether each one is adverse or favourable. [6]**

	Variance (award 1 mark for each correct variance including Favourable/Adverse – ½ marks for each correct result with no A/F or incorrect A/F. Round up half marks).
Sales revenue	1 F
Cost of material	2 A
Direct labour costs	0.5 A
Management expenses	0.5 A
Marketing expenses	1 A
Other expenses	0 (No marks)
Profit	3 A

**Calculation 4 – Ratio Analysis****(O/N 2014, V2) | Q2****2 (a) Refer to Table 1. Calculate for 2014:****(i) inventory turnover ratio [3]**

Cost of goods sold/value of inventories (1)  
*(allow revenue/value of inventories)*  
 \$650m/\$50m (2)  
 (\$1695/50)  
 13 (3)  
 (33.9)

**(ii) days' sales in trade receivables [3]**

accounts receivable  $\times$  365/sales revenue (1)  
 205  $\times$  365/1695 (2)  
 44 days (3)

**(O/N 2012, V2) | Q4****4 (a) Refer to Appendix B. Calculate the:****(i) Return on Capital Employed (ROCE) for ADC [3]**

ROCE % =  $\frac{\text{Net profit}}{\text{Capital employed}} \times 100$  1 mark

$\frac{1200}{32000}$  2 marks

3.75% 3 marks

**(ii) gearing ratio for BSL. [3]**

Gearing % =  $\frac{\text{Non-current liabilities (long term liabilities)}}{\text{Capital employed}} \times 100$  1 mark

$\frac{15000}{53000}$  2 marks

28.3% 3 marks

**(M/J 2012, V2) | Q2****2 (a) Refer to Appendix 1. Calculate the following ratios as at 31st May 2012:****(i) Dividend yield [3]**

Dividend per share / share price  $\times$  100 = Dividend yield % 1 mark  
 \$0.14 / \$2 = 2 marks  
 7.0% = 3 marks

**(ii) Price earnings ratio [3]**

Share price/earnings per share = 1 mark  
 \$2 / \$0.64 = 2 marks  
 3.125 = 3 marks

**(M/J 2011, V2) | Q3**

**3 (a) Using data in Appendix B, calculate the acid test ratio and the gearing ratio of FitsU for the year ending 31<sup>st</sup> May 2011. [6]**

Formulae:

$$\text{Acid test} = \frac{\text{Liquid assets}}{\text{Current liabilities}} = 33/88$$

$$\text{Gearing ratio \%} = \frac{\text{Long term liabilities}}{\text{Capital employed}} \times 100 = 100/215 \times 100$$

**(M/J 2010, V1) | Q4**

**4 (a) Using the data in Appendix C, calculate:**

**(i) Acid test ratio [3]**

Acid test ratio = 0.58 = 3 marks  
 Correct data but mathematical error = 2 marks  
 Liquid assets/current liabilities = 1 mark

**(ii) Gearing ratio. [3]**

Gearing ratio = 49% = 3 marks  
 Correct data but mathematical error = 2 marks  
 Long term liabilities/capital employed x 100 = 1 mark  
 Accept other versions of gearing ratio:  
 LTL/Share capital = 77/80 = 96.25%  
 LTL/Share capital + Ret. Profits = 77/90 = 85.5%

**(O/N 2016, V3) | Q4**

**4 (a) Refer to Table 2. Calculate for 2016:**

**(i) return on capital employed [2]**

\$3.5/\$58 (m) [1]  
 6.03%

If 2/58 = 3.4% [1 mark]

**(ii) price earnings ratio [3]**

PE = share price/earnings per share [1]  
 EPS = \$2/15 (m) = 13.3 cents [1]  
 \$3.3/0.133 = 24.8 [3]

PER = 14.14 = 2 marks (candidate used incorrect profit figure)  
 Some relevant attempt [1 mark]

**(iii) dividend yield [3]**

Div per share/share price [1]  
 DPS = \$1.5/15 = 10 cents [1]  
 \$0.1/3.3 = 3.03% [3]



**Calculation 5 – Ratio Adjustments****(M/J 2017, V2) | Q4**

4(a)(i)	<p><b>Refer to lines 49–57 and Table 1. Calculate:</b></p> <p><b>gearing ratio assuming all \$60 m is obtained from long term loans</b></p> <p>Gearing ratio = non-current liabilities / capital employed × 100 (1 mark)  <math>= \frac{\\$145\text{m}}{\\$260\text{m}} \times 100</math> (2 marks)  <math>= 55.8\%</math> (3 marks)</p> <p>Gearing ratio = non-current liabilities / shareholder equity × 100 (1 marks)  <math>= 145 / 115 \times 100</math> (2 marks)  <math>= 126\%</math> (3 marks)</p> <p>Other likely answers:</p> <p><math>85 / 260 = 32.69\%</math> (2 marks)  <math>145 / 200 = 72.5\%</math> (2 marks)  <math>85 / 200 = 42.5\%</math> (1 mark)</p> <p>Answers expressed as a decimal rather than a percentage should be rewarded equally.</p>	<b>3</b>
4(a)(ii)	<p><b>dividend per share in 2018 assuming all \$60 m is obtained by the sale of an additional 20 m shares.</b></p> <p>Dividend per share = total dividends / total shares issued (1 mark)  <math>= \frac{\\$8\text{m}}{60\text{m}}</math> (2 marks)  <math>= 13.33 \text{ cents or } \\$0.1333</math> (3 marks)  13 and 0.13 (3 marks)  <math>8 / 40 = 0.20 \text{ cents}</math> (2 marks)</p>	<b>3</b>

**Calculation 6 – Financial Adjustments****(O/N 2013, V1) | Q2**

- 2 (a) Refer to Appendix 1 and information on lines (18–30). Construct a forecasted income statement for LKE for the year ending 30 September 2014. [8]**

	(\$000)	Marks
Revenue	5920	1
Cost of Goods Sold	1850 (370 000 × \$5)	1
Gross profit	4070	1 (OFR and all subsequent calculations)
Overheads:		
Factory	(1760)	1
Administration and marketing	(1625)	
Depreciation	(320)	
Net profit (before tax and interest)	365	1
Interest	(180)	1
Pre-tax profits	185	
Tax	74	1
Profit after tax	111	1



**AATIK TASNEEM**

**Calculation 7 – Investment Appraisal**

(O/N 2016, V2) | Q2

2 (a) Refer to lines 69–72. Calculate for the purchase of the 10 fishing boats:

(i) annual net cash flows

[3]

Year	Net cash flows	Marks
0	(\$3.2m) [320 000 × 10]	1
1	\$820 000 [82 000 × 10]	} 1 mark for 820 000 four times
2	\$820 000	
3	\$820 000	
4	\$820 000	
5	\$2.1m [820 000 + 40% of 3.2m (1 280 000)]	1

(ii) payback period

[2]

3 years 10.83 months (or 3 years 11 months or 3.902 years or 3 years 329 days)

[2]

Some attempt e.g. working out one stage of the calculation

[1]

(iii) net present value at a discount rate of 10%

[3]

Year	Net cash flows	Discounted cash flows
0	(\$3.2m)	(3.2m)
1	\$820 000	746 200 (820 000 × 0.91)
2	\$820 000	680 600
3	\$820 000	615 000
4	\$820 000	557 600
5	\$2.1m (OFR net cash flows from part 1)	1.302m [Up to 2 marks for these figs]
	Net present value	\$3 901 400 – \$3 200 000 = \$701 400

**(M/J 2013, V2) | Q2**

**2 (a) Refer to Appendix 1. Calculate for option Y at a 10% rate of discount:**

**(i) discounted payback period [3]**

1 mark – some correct use of discount factors (do not award same mark in part (ii)) OR some knowledge of payback.  
 2 marks – reasonable attempt e.g.  $332 / 340 \times 12$  months but not calculated  
 3 marks – just less than 4 years (3 years 11.7 months)

**(ii) net present value. [3]**

Net cash flow	Discount factors	DCF (\$000)
(2000)	1	(2000)
700	.91	637 (1 mark – some use of discount factors)
700	.83	581
600	.75	450
500	.68	340
[350 (not including residual value)]	.62	[217]
1150 (including residual value)		1150 (1 mark) $\times$ .62 = 713
	NPV =	721 (3)

**(M/J 2017, V3) | Q4**

4(a)(i)	<p><b>Refer to Appendix 2. Calculate:</b></p> <p><b>payback period.</b></p> <p>4.25 years or 4 years 3 months                  Some attempt e.g. cumulative net cash flows</p>	<p><b>2</b></p> <p>(2 marks) (1 mark)</p>
---------	--	---

4(a)(ii)	<p><b>accounting rate of return over the 5 year life of the investment.</b></p> <p>Net cash flows / years as % = <math>\frac{2.3 - 2}{5} \times 100 = \frac{0.3 \times 100}{5} = 6\%</math> (or 0.06)</p> <p><b>or</b></p> <p>Average annual net cash flow – annual depreciation/initial cost as %                  = <math>0.46 - 0.4 = 0.06 / 2 \times 100 = 3\%</math> (or 0.03)</p> <p><b>or</b></p> <p>Sum of Net cash flow each year – average depreciation/initial cost as %                  = <math>0.1 + 0.1 + 0.1 + 0 + 0 = 0.3 / 2 \times 100 = 15\%</math> (or 0.15)</p> <p>Some attempt with partially complete correct working                  Some attempt / correct formula</p>	<p><b>3</b></p> <p>(2 marks) (1 mark)</p>
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4(a)(iii)	<p><b>net present value over the 5 year life of the investment.</b></p> <p>NPV = <math>-\\$0.235\text{m}</math> (accept <math>-\\$0.24\text{m}</math> or <math>-\\$0.23\text{m}</math>) (2 marks)</p> <p>Sum DCF over 5 years = <math>\\$1.765\text{m}</math> (accept <math>\\$1.77\text{m}</math> or <math>\\$1.76\text{m}</math>) (1 mark)</p> <p>Some reasonable attempt e.g.mistake in calculation (1 mark)</p> <p><b>\$m not required</b></p>	<b>2</b>
4(b)	<p><b>Refer to Appendices 2 and 3. Calculate the discounted payback period if the annual net cash flows of \$0.4m continue after year 5.</b></p> <p>Just over 6 years / 6.054 years (accept 6 years) (2 marks)</p> <p>Use of DCF or some reasonable attempt e.g. 6.647yrs (1 mark)</p> <p><i>Examiner Note:</i> Example of Full Calculation (details not required for 2 marks):</p> <p>NPV over 5 years + DCF in year 6 = <math>-\\$0.235 + (0.56 \times \\$0.4\text{m}) = -\\$0.011\text{m}</math> Therefore NPV reaches zero in just over 6 years</p> <p>Year 7 DCF for whole year: <math>0.51 \times \\$0.4\text{m} = \\$0.204\text{m}</math> So, Year 7 DCF per day: <math>\\$0.204\text{m} / 365 = 0.00056</math></p> <p>Therefore, answer is 6 years + <math>(0.011 / 0.00056) = 6</math> years 20 days. (6yrs 0.647mths)</p>	<b>2</b>



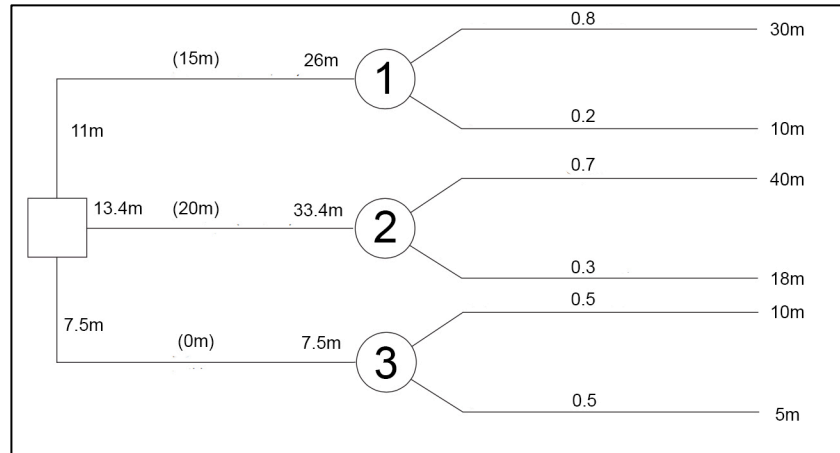
**AATIK TASNEEM**

**SECTION 6: STRATEGIC MANAGEMENT**

**Calculation 1 – Decision Tree and EMV**

(M/J 2014, V2) | Q4

EMV = (Probability of Success x Success) + (Probability of Failure x Failure)



(O/N 2014, V1) | Q3

**3 Using the data in Appendix C:**

(a) (i) draw and label a decision tree for the proposed growth strategies [5]

1 mark = nodes  
1 mark = capital cost  
2 marks = structure  
1 mark = probability / pay-offs

(ii) calculate the expected monetary value for strategy A and for strategy B. [4]

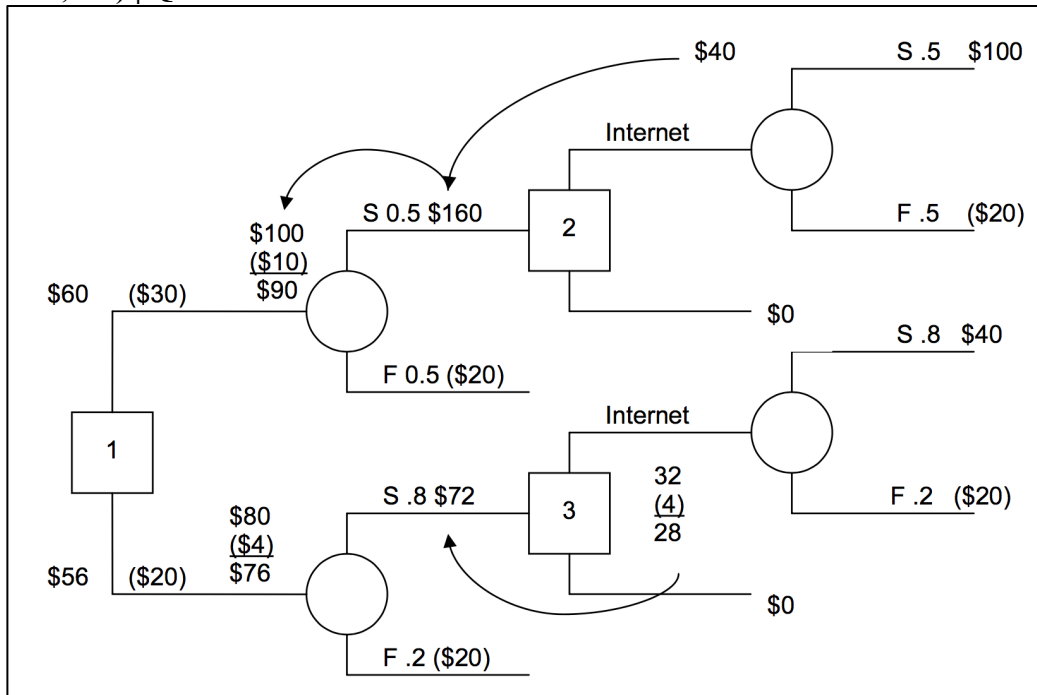
Strategy A =  $(0.6 \times 12 + 0.3 \times 10 + 0.1 \times 7) - 6$   
 =  $10.9 - 6$   
 = \$4.9m (2 marks)

Strategy B =  $(0.5 \times 26 + 0.3 \times 20 + 0.2 \times 10) - 12$   
 =  $21 - 12$   
 = \$9m (2 marks)

1 mark if some use of probabilities

**Calculation 2 – Multi-Stage Decision Tree**

(M/J 2010, V2) | Q5



(M/J 2013, V3) | Q4

**4 (a) Refer to Appendix 3. Calculate the expected monetary values at:**

**(i) node 1** **[2]**  
 $\$0.5 \text{ m } [(0.5 \times \$3 \text{ m}) - \$1 \text{ m}]$     2 marks  
 1 mark if some attempt

**(ii) node 2** **[3]**  
 $\$3.6 \text{ m } [(0.8 \times \{\$0.5 \text{ m} + \$4.5 \text{ m}\}) + (0.2 \times -\$2 \text{ m})]$     3 marks  
 2–1 marks if some attempt     $\$3.2 \text{ m}$  2 marks  
 Allow OFR from (i)

**(iii) node 3** **[1]**  
 $\$1.6 \text{ m } (\$3.6 \text{ m} - \$2 \text{ m})$     1 mark  
 Allow OFR from (i) & (ii)

**Examiners note**

0 may be 'correct' answer where, based on OFR, expansion to country X yields a negative monetary value



# YEARLY PAPERS

## PAPER 3

PAPERS
1. O/N 2019, V2
2. O/N 2019, V1
3. M/J 2019, V2
4. M/J 2019, V3
5. M/J 2018, V2
6. M/J 2018, V3
7. M/J 2017, V2
8. O/N 2016, V2
9. M/J 2016, V2
10. M/J 2016, V1
11. O/N 2015, V2

# **PAPER NUMBER 1**

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**BUSINESS**

**9609/32**

Paper 3 Case Study

**October/November 2019**

INSERT

**3 hours**

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**READ THESE INSTRUCTIONS FIRST**

This Insert contains the case study for use with the Question Paper.  
The business described in this Insert is entirely fictitious.

You may annotate this Insert.  
This Insert will not be assessed by the Examiner.



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This document consists of **5** printed pages and **3** blank pages.

## Asian Electric Vehicles (AEV)

Akira Morrison graduated from university with a degree in electrical engineering. He made his fortune in technology start-ups in country K in Asia. Akira lived in the capital city and he became increasingly concerned about pollution from cars. He started to research the problem, and was soon convinced that electric vehicles were the solution. Akira planned to start a business called AEV that would produce electric cars. It was difficult to attract investors as it was generally accepted that competition from car manufacturers and problems with the existing battery technology made success unlikely. However, Akira approached venture capitalists for finance in return for equity and, along with his own substantial investment, AEV began operations as a private limited company in 2010. It converted to a public limited company in 2011, with Akira as Chief Executive Officer (CEO).

5

10

### Product development – launching the AEV4 Section 3

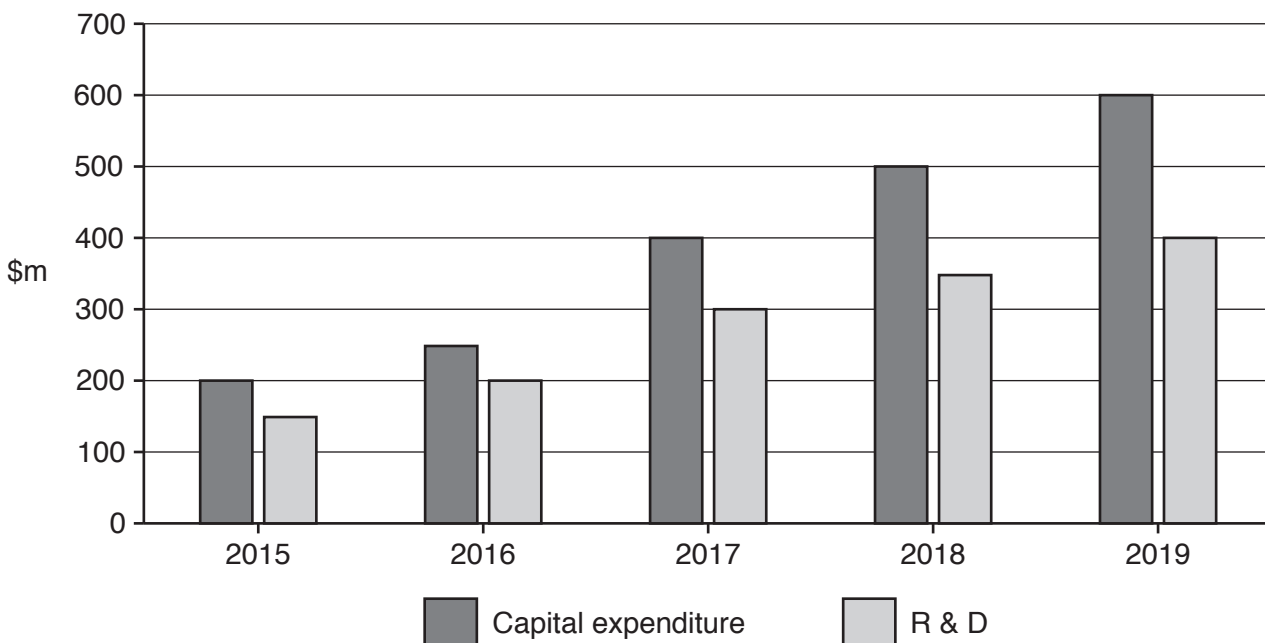
AEV's first three products were luxury cars with prices ranging from \$70,000 to \$100,000. Demand for these cars has been high but customers have had to wait months for delivery. From the start, Akira recognised that there were two key problems faced by his business:

- the short distance that cars can travel on one battery charge
- limited facilities within some countries to allow charging of car batteries.

15

A high proportion of AEV's investment into research and development has been to improve battery performance. Working in partnership with the University of Technology, AEV has increased the distance the vehicles can travel with its advanced battery technology. Over 9 years, AEV has cut battery costs by 75% and achieved a 500% increase in the amount of energy stored in each battery. Fig. 1 shows AEV's capital expenditure and research and development expenditure.

20



**Fig. 1: AEV investment (\$m)**

At the launch party of AEV's new model, the AEV4, in September 2019, Akira told the media: 'Today is a historic moment for AEV. The AEV4 will transform the company from a niche producer of electric sports cars into the biggest mass producer of electric cars in the world.'

25

### Production problems Section 4 / Section 2

In 2012 AEV bought a car factory in country K that was about to be closed. Akira converted the outdated factory into an advanced manufacturing centre called CellX. This is AEV's only manufacturing base. Although it is capital intensive, AEV now employs 2000 workers on the CellX car production line and associated battery production. 80% of the workforce are trade union members. 30

Production delays and quality problems have affected the supply of AEV cars. To increase car production, employees are required to work long hours with compulsory overtime. They have complained about the difficulty of achieving the high production targets. In 2018, ambulances were called to the factory more than 20 times for employees suffering from work-related health problems. These problems have been reported in the media. A company spokesperson has reassured the media that factory safety has improved in 2019 and that AEV cares about employee welfare. 35

Akira is worried about the impact of labour turnover at the CellX manufacturing centre. Further details are in Table 1. 40

**Table 1: Employee data for CellX**

Year	Total employees	Employees leaving
2017	1300	165
2018	1500	250

### AEV's supply chain – future of CellX manufacturing centre 45

Electric cars are dependent on batteries. Manufacturing batteries is dependent on the supply of rare natural materials. Before its launch, the AEV4 had pre-orders of 300 000 units. AEV is unable to meet this demand due to a lack of capacity and supply constraints. Materials for the batteries produced at AEV's CellX manufacturing centre are imported from country C.

Akira has plans to expand the CellX manufacturing centre. This is crucial to Akira's target of selling 400 000 cars per year by 2021, which is 4 times the forecast production level for 2019. The expansion will double the size of the workforce. The Human Resources Director is preparing a workforce plan to contribute towards a successful expansion. 50

### The external environment Section 1

There is growing global concern over pollution caused by cars. Recent scientific reports have highlighted the impact of this on health. Air pollution in major cities regularly exceeds international guidelines on safe limits. In response, the Government of country K has announced that sales of new diesel cars will be banned from 2030. Some other countries are also planning similar regulations. In 2019, the Government of country K increased the rate of tax on petrol (gasoline) and diesel fuels. Country K's exchange rate has appreciated during 2019. 60

Country C is the biggest market for electric cars in the world. However, AEV only gained a 5% share of the electric car market, with sales of 10 000 vehicles in the 12 months to September 2019. Country C imposes a 30% tax on all car imports.

## Raising finance Section 5

AEV has received \$1bn in government grants since 2010. It converted to a public limited company in 2011 to help provide finance for production of AEV1, its first car design. Akira has announced that AEV is to raise a further \$500m share capital in November to expand the CellX centre. Akira has always invested in new products rather than paying a dividend. The dividend proposed for 2019 will be the first ever payment to shareholders. 65

Akira reported in the most recent shareholder update that: 'The Board of Directors has the task of ensuring that management is working towards maximising shareholder value. AEV's immediate goal is to continue expanding in the electric car market. The impressive rise in AEV's share price, since the AEV4 was announced, reflects the long-term potential of the company. The current share price gives AEV a market capitalisation greater than any other manufacturing company in country K.' 70  
75

## Strategic options Section 6

Akira is considering further opportunities for AEV's expansion. There are currently two options being considered.

*Option 1:* Establish a joint venture with CVG Motor Corporation based in country C. AEV has been negotiating with the government and CVG to build a factory in country C. This would enable production of the AEV4 in country C. The market in country C is highly competitive, where there are 10 established manufacturers of electric cars. Akira believes that a new factory could be producing cars within 12 months once negotiations are completed. Investment costs would be split equally between AEV and CVG. 80

*Option 2:* Develop a large electric truck. The target market would be businesses. It would be manufactured at the CellX centre. AEV engineers believe that they will be able to develop the first large electric truck to enter the market. Initial planning suggests that customers could take delivery of their first trucks in early 2022. 85

Information regarding these two strategic options is shown in Table 2. Both options involve risk and Akira is aware that implementation of either option will be difficult and that planning will be essential. Therefore, he has decided only one option can be chosen. 90

**Table 2: Information comparing the two strategic options**

	Option 1: Joint venture with CVG (AEV's share)	Option 2: Develop large electric truck	
Estimated initial investment	\$800m	\$1.5bn	95
Forecast annual return (12 years)	\$80m	\$120m	
Expected monetary value	\$600m	\$1.1bn	100
Estimated risk of strategy failure	15%	20%	
Major driving force	Improved access to country C market	Competitive advantage: first to enter the market	
Major constraining force	Culture difference with CVG	Research fails to develop battery technology	105

**Appendix 1: Financial data**

	September 30 2019	September 30 2018	
Number of issued ordinary shares	70m	60m	110
Total equity	\$2.5bn	\$2bn	
Non-current liabilities	\$3bn	\$2.4bn	
Revenue (for the year ending)	\$4.8bn	\$2.4bn	
Cost of sales (for the year ending)	\$3.6bn	\$1.92bn	
Operating profit (for the year ending)	\$60m	\$(200m)	115
Profit for the year (for the year ending)	\$48m	\$(210m)	
Total dividends (proposed)	\$10m	None	
Market share price	\$130	\$100	
Current ratio	1.2	1.3	
Net cash flow from operating activities (for the year ending)	\$(200m)	\$(80m)	120



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**BUSINESS**

**9609/32**

Paper 3 Case Study

**October/November 2019**

MARK SCHEME

Maximum Mark: 100

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**Published**

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This document consists of **20** printed pages.

**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

**GENERIC MARKING PRINCIPLE 1:**

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

**GENERIC MARKING PRINCIPLE 2:**

Marks awarded are always **whole marks** (not half marks, or other fractions).

**GENERIC MARKING PRINCIPLE 3:**

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

**GENERIC MARKING PRINCIPLE 4:**

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

**GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

**GENERIC MARKING PRINCIPLE 6:**

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Question	Answer			Marks
1	<b>Analyse the likely impact on AEV's profit of intervention by governments in the car market.</b>			<b>10</b>
	<b>Level</b>	<b>Knowledge 3 marks</b>	<b>Application 2 marks</b>	<b>Analysis 5 marks</b>
	2	3 marks Understanding of impact/intervention	2 marks Points applied to AEV	4–5 marks Good use of theory and/or reasoned argument to explain impact on profit
	1	1–2 marks Identification of intervention and/or impact	1 mark Point applied to AEV	1–3 marks Some use of theory and/or reasoned argument to explain impact
	<b>Examiner note:</b> Link to profit necessary for L2 AN			
	<b>Knowledge</b>			
	<ul style="list-style-type: none"> <li>• Definition of profit: revenue less costs</li> <li>• Understanding of types of government intervention: <ul style="list-style-type: none"> <li>– Regulation. Rules that businesses have to abide by in a market and constrain business activity</li> <li>– Indirect taxation (to correct market failure). Increase costs of supply to business</li> <li>– Subsidies/government grants. Reduce the costs of production and encourage an increase in output</li> </ul> </li> <li>• Understanding of impact of subsidies on AEV, e.g. increase in AEV sales related to indirect tax on diesel cars</li> </ul>			
	<b>Application</b>			
	<ul style="list-style-type: none"> <li>• Ban on sale of diesel cars from 2030 will give AEV a competitive advantage over non-electric cars in the market <b>OR</b> government regulations on diesel cars and ban will increase competition in electric vehicle market</li> <li>• Increase in fuel duty on petrol in 2019 will benefit AEV</li> <li>• Benefit is in long term as some regulations will come into force in 2030</li> <li>• AEV vehicles with zero emissions will not be subject to the regulations</li> <li>• AEV has received \$1 bn in government grants since 2010</li> <li>• Government action to increase availability of charging points for electric cars</li> <li>• 30% tax on imports of cars in country C</li> </ul>			

Question	Answer	Marks
1	<p><b>Analysis</b></p> <ul style="list-style-type: none"><li>• Diesel ban will reduce competition for AEV resulting in a potential increase in sales of electric vehicles and increase in AEV's profits as a result</li><li>• Announcement of changes will influence trends in the market leading to a rise in electric vehicle sales immediately</li><li>• Increase in fuel duty will make vehicles using petrol/diesel less competitive in the market. This will boost AEV sales, as electric vehicles will be relatively less expensive to run</li><li>• Country C tax on imports will increase the selling price of AEV cars reducing demand and profit</li><li>• Subsidies received by AEV from government may have conditions attached which impact AEV operations</li><li>• Subsidies received by AEV provides finance for investment to develop products, manufacturing and workforce</li><li>• Subsidies enable expansion of output by reducing costs and therefore increase sales and potentially profit</li></ul>	

Question	Answer	Marks
2(a)(i)	<p><b>Refer to Appendix 1. Calculate for 2019:</b></p> <p><b>the dividend yield</b></p> <p><i>Units necessary for full marks</i></p> <p>dividend yield = dividend per share/share price × 100 and/or dividend per share = total dividend/number of shares (1 mark if no relevant working)</p> <p>dividend per share = <math>10/70 = (\\$)0.143</math> (1)</p> <p>dividend yield = <math>0.143/130 \times 100</math> (2)</p> <p>dividend yield = 0.11% or 0.1% or 0.1098% (3)</p> <p>0.11 (2)</p> <p><b>Common errors</b> Total dividend rather than dividend per share: <math>10/130 \times 100 = 7.69\%</math> (relevant working required) (1)</p> <p>OFR applies</p>	<b>3</b>
2(a)(ii)	<p><b>the price earnings ratio</b></p> <p>price earnings ratio = share price/EPS (1 mark if no relevant calculation)</p> <p>EPS = profit for the year/total shares issued (1 mark if no relevant calculation)</p> <p>EPS = <math>48/70</math> (1) EPS = <math>48/70 = (\\$)0.69</math> or 0.7 or 0.686 (2)</p> <p>Price earnings ratio = <math>130/0.69</math> (3)</p> <p>Accept range for PER between: 185.7 to 191.2 (years or times) (4)</p> <p>185.7 to 191.2 \$ or % (3)</p> <p><b>Errors</b> Earnings rather than earnings per share <math>130/48 = 2.71</math> (years or times) (2 marks if appropriate working shown)</p> <p><b>Incorrect profit figure used \$60 m</b> Answers within range 151 to 153 (years or times), e.g. <math>130/0.857 = 151.69</math> (3 marks appropriate working required)</p> <p>OFR applies</p>	<b>4</b>

Question	Answer	Marks
2(a)(iii)	<p><b>the return on capital employed.</b></p> <p><i>Units necessary for full marks</i></p> <p>ROCE = Operating profit/capital employed × 100 (1 mark if no relevant calculation)</p> <p>Capital employed = 3 + 2.5 = 5.5(\$ bn) (1)</p> <p>ROCE = 0.06/5.5 × 100 (2)</p> <p>ROCE = 1.09% (3)</p> <p>1.09 (2)</p> <p><b>Profit for year used</b></p> <p>0.048/5.5 × 100 = 0.87% (2)</p> <p>Following answers are given 2 marks if relevant working shown:</p> <p>0.06/2.5 × 100 =2(%)</p> <p>0.06/3 × 100 =2.4(%)</p> <p>0.6/5.5 × 100 =10.9(%)</p> <p>OFR applies</p>	<b>3</b>

Question	Answer				Marks
2(b)	<b>Refer to 2(a) and any other information. Recommend whether potential investors should purchase shares in AEV. Justify your recommendation.</b>				<b>12</b>
	<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 4 marks</b>	<b>Evaluation 4 marks</b>
	2	2 marks Two relevant points	2 marks Two points applied	3–4 marks Good use of theory and/or reasoned argument to analyse factors	3–4 marks Good judgement shown, e.g. well supported conclusion
	1	1 mark Relevant point	1 mark Point applied	1–2 marks Some use of theory and/or reasoned argument to analyse factors	1–2 marks Some judgement shown, e.g. one factor very important
	<b>Examiner note:</b> L1 AN & EVAL if only refer to results from 2(a) <b>OR</b> other information				
	<b>Knowledge</b>				
	<ul style="list-style-type: none"> <li>• Investors will be interested in the return on their investment               <ul style="list-style-type: none"> <li>– Capital gains from increase in share price</li> <li>– Dividend paid for ownership</li> </ul> </li> </ul>				
	Understanding of relevant factors in decision				
	<ul style="list-style-type: none"> <li>• Assessment of future profitability of AEV</li> <li>• Current performance, e.g. profit of AEV, ROCE, PER, dividend yield</li> <li>• Return of alternative investments</li> </ul>				
	<b>Application</b>				
	<ul style="list-style-type: none"> <li>• Price earnings ratio of 188 is very high and suggests that shareholders will take many years to gain a return on their investment but also suggests that market has confidence about future profitability of AEV</li> <li>• Low ROCE of only 1.09%</li> <li>• Dividend yield is very low – 0.11%</li> <li>• Proposed increase in dividend to be paid in 2019 from 2018</li> <li>• Share price has risen by 30% in last year</li> <li>• Regulatory changes should benefit AEV and therefore its profits</li> <li>• Market capitalisation of AEV is high relative to assets of the business</li> <li>• AEV profits have become positive in last year</li> <li>• Current ratio has decreased and is quite low (below 1.5) so may suggest concern about liquidity</li> <li>• AEV has used significant cash over last year (\$200 m)</li> <li>• Successful R &amp; D to improve battery technology</li> <li>• Production delays and quality problems</li> </ul>				



Question	Answer	Marks
2(b)	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• AEV faces many difficulties in increasing profits and profitability – problems in operations to meet demand and need to increase finance to fund expansion. This means that investment is risky for potential investors</li> <li>• Akira committed to growth strategies. This will reduce dividends in the future as any profits likely to be retained for investment</li> <li>• Profitability is low suggesting lack of dividend payments</li> <li>• Markets are changing in AEV’s favour. This will increase future potential for profits and therefore returns to investors</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Justification of most important factor</li> <li>• This is a risky investment as AEV profits are low and returns are long term</li> <li>• Is the market capitalisation unrealistic and purely based on potential rather than actual performance?</li> <li>• Dividend yield is very low: 0.11% – how does this compare with other investments?</li> </ul>	

Question	Answer				Marks															
3	<p><b>‘AEV is unable to meet this demand due to a lack of capacity and supply constraints’ (Lines 47–48).</b></p> <p><b>Other than expansion of CellX, discuss ways in which the Operations Management Department of AEV could solve this problem.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 6 marks</th> <th>Evaluation 6 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Two relevant points</td> <td>2 marks Good application to AEV</td> <td>4–6 marks Good use of theory and/or reasoned argument to</td> <td>4–6 marks Good judgement shown</td> </tr> <tr> <td>1</td> <td>1 mark One relevant point</td> <td>1 mark Some application to AEV</td> <td>1–3 marks Some use of theory and/or reasoned argument</td> <td>1–3 marks Some judgement shown</td> </tr> </tbody> </table> <p><b>Knowledge</b> Definition of capacity: maximum output achievable with current resources</p> <p><b>Identification/understanding of options</b></p> <ul style="list-style-type: none"> <li>• Outsourcing production</li> <li>• Improve efficiency – increase labour productivity, e.g. by motivating employees more effectively</li> <li>• Reduce labour turnover</li> <li>• New manufacturing base</li> <li>• Find new suppliers</li> <li>• Take over supplier</li> <li>• JIT manufacturing/lean production (more efficient use of existing resources)</li> <li>• Increase capital intensity at CellX</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Workers already facing compulsory overtime</li> <li>• Increase in production required is significant. Current production is 100 000 units per year</li> <li>• Akira is worried about labour turnover. This is a contributory factor that reduces output</li> <li>• Source materials for batteries from countries other than country C</li> <li>• Take over supplier in country C</li> <li>• Invest in new manufacturing plant in country</li> <li>• Negotiate with trade union as 80% of workforce is unionised</li> <li>• Outsourcing production of batteries/cars</li> </ul>				Level	Knowledge 2 marks	Application 2 marks	Analysis 6 marks	Evaluation 6 marks	2	2 marks Two relevant points	2 marks Good application to AEV	4–6 marks Good use of theory and/or reasoned argument to	4–6 marks Good judgement shown	1	1 mark One relevant point	1 mark Some application to AEV	1–3 marks Some use of theory and/or reasoned argument	1–3 marks Some judgement shown	16
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Question	Answer	Marks
3	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Outsourcing could risk loss of control over quality of components such as batteries. This could further impact reputation of AEV</li> <li>• Outsourcing involves no major capital investment and therefore aids AEV's cash flow</li> <li>• Establishing a new manufacturing base will be expensive and affect AEV's cash flow and result in greater coordination problems – diseconomies of scale</li> <li>• Reducing labour turnover will ensure that AEV keeps experienced workers and thus enable an increase in output</li> <li>• JIT manufacturing/lean production enables a more efficient use of resources thus increasing output per worker</li> <li>• JIT can reduce storage of inventory and allow a more efficient use of space for production leading to an increase in output</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Depends on the cost of outsourcing</li> <li>• Difficult working conditions may make reducing labour turnover challenging</li> <li>• As batteries depend on rare materials it may not be possible to source the materials from elsewhere</li> <li>• Given the increase in production required expansion of CellX may be only viable approach but this will take time and not alleviate the immediate capacity problems faced</li> <li>• Supplier constraints likely to be faced by all manufacturers of electric vehicles so gaining control of supplier may be the best option</li> <li>• Some options may in theory enable an increase in capacity but do not necessarily address the supply constraints faced <ul style="list-style-type: none"> <li>– JIT manufacturing</li> <li>– Improvements in efficiency</li> <li>– Reduction in wastage</li> </ul> </li> </ul>	

Question	Answer	Marks
4(a)	<p><b>Refer to Table 1. Calculate the difference in labour turnover between 2017 and 2018.</b></p> <p><i>For full marks units are necessary</i></p> <p>Labour turnover = Number of employees leaving over period/Average number of employees during period × 100 (1 mark if no relevant calculation)</p> <p>Labour turnover 2018 = <math>165/1300 \times 100 = 12.69(\%)</math> Allow appropriate rounding (1)</p> <p>Labour turnover 2019 = <math>250/1500 \times 100 = 16.67(\%)</math> Allow appropriate rounding (1)</p> <p>Change in labour turnover = 4% (points) (increase of 31.5%) (4) Within range of 3.9% – 4% (4)</p> <p>Within range of: 3.9–4 or 31.5 (3)</p> <p>OFR applies</p>	<b>4</b>

Question	Answer					Marks															
4(b)	<p><b>Discuss the importance of human resource management to the success of the planned expansion of the CellX manufacturing centre.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 4 marks</th> <th>Evaluation 4 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Two relevant points</td> <td>2 marks Two points of application</td> <td>3–4 marks Good use of theory and/or reasoned argument</td> <td>3–4 marks Good judgement shown e.g. well supported conclusion</td> </tr> <tr> <td>1</td> <td>1 mark One relevant point</td> <td>1 mark One point of application</td> <td>1–2 marks Some use of theory and/or reasoned argument</td> <td>1–2 marks Some judgement shown</td> </tr> </tbody> </table> <p><b>Knowledge</b> Definition of human resource management: the strategic approach to the effective management of an organisation’s workers so that they help the business gain a competitive advantage.</p> <p><b>Understanding of role of HRM</b></p> <ul style="list-style-type: none"> <li>• Need for workforce planning</li> <li>• Motivation of employees</li> <li>• Importance of cooperation between management and the workforce to success</li> <li>• Recruitment, selection and training</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• High labour turnover of 16.7% is a problem for AEV operations</li> <li>• High union density</li> <li>• Workforce planning to recruit 2000 workers with appropriate skills</li> <li>• Need to double output per employee to meet target</li> <li>• Reference to issues of employee dissatisfaction <ul style="list-style-type: none"> <li>– Long hours</li> <li>– Compulsory overtime</li> <li>– Unrealistic production targets?</li> <li>– Employee health and safety</li> </ul> </li> <li>• Quality problems may be linked to employee dissatisfaction</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• If labour turnover continues to increase this will impact AEV’s ability to meet the growing demand for vehicles. Delays in delivery of vehicles will impact reputation and future sales as customers will go elsewhere</li> <li>• Quality problems will also harm sales in the long term. Employee concerns need to be addressed to improve product</li> <li>• Determination of employment contracts in order to control costs</li> </ul>					Level	Knowledge 2 marks	Application 2 marks	Analysis 4 marks	Evaluation 4 marks	2	2 marks Two relevant points	2 marks Two points of application	3–4 marks Good use of theory and/or reasoned argument	3–4 marks Good judgement shown e.g. well supported conclusion	1	1 mark One relevant point	1 mark One point of application	1–2 marks Some use of theory and/or reasoned argument	1–2 marks Some judgement shown	12
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Question	Answer	Marks
4(b)	<b>Evaluation</b> <ul style="list-style-type: none"><li>• Justification of most important issue</li><li>• Success of expanded CellX depends crucially on employees. HRM is critical in terms of planning and execution of the expansion</li><li>• There are other factors that will also determine success, e.g. supplies of raw materials from country C for the batteries</li><li>• Depends on availability of finance</li></ul>	

Question	Answer				Marks
5	<b>Discuss the significance of product development to AEV's future success.</b>				16
<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 6 marks</b>	<b>Evaluation 6 marks</b>	
2	2 marks Good knowledge shown	2 marks Good application to AEV	4–6 marks Good use of theory and/or reasoned argument	4–6 marks Good judgement shown	
1	1 mark Some knowledge shown	1 mark Some application to AEV	1–3 marks Some use of theory and/or reasoned argument	1–3 marks Some judgement shown	
<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Definition of product development within Ansoff's Matrix framework, i.e. new product for existing market</li> <li>• Definition of product development: the development and sale of new products or new developments of existing products</li> <li>• Definition of research and development: scientific research and technological development. This will contribute to product development</li> <li>• Benefits of product development: <ul style="list-style-type: none"> <li>– Competitive advantage</li> <li>– Developing products to meet customer expectations</li> </ul> </li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Significance of improvements in battery technology to gaining competitive advantage. R&amp;D's contribution to increasing energy density</li> <li>• Reference to data in Fig. 1 <ul style="list-style-type: none"> <li>– R &amp; D: \$400 m in 2019 increased from \$150 m in 2015</li> </ul> </li> <li>• R&amp;D has helped reduce battery costs by 75%</li> <li>• AEV4 model important to take AEV from a niche producer to a mass producer</li> <li>• Reference to developing electric truck</li> <li>• Move to profitability in 2019 is a result of R&amp;D</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• As battery costs fall then price can be reduced increasing the competitiveness of AEV relative to competitors</li> <li>• Electric vehicle sales face constraint of range of vehicles on battery charge making them less desirable than alternatives due to difficulty of driving long distances</li> <li>• Increasing energy density will improve the product and can be used in promotion of AEV products to gain customer interest</li> <li>• Development of AEV4 broadened AEV's market appeal resulting in increased sales and profit</li> <li>• Enhance reputation as an innovative company increasing brand loyalty and sales</li> </ul>					

Question	Answer	Marks
5	<b>Evaluation</b> <ul style="list-style-type: none"><li>• Product development essential in this market as without it product unable to compete with existing technologies</li><li>• Cost of research is high and not guaranteed to be successful</li><li>• First mover advantage may be important</li><li>• Dynamic nature of the car market requires AEV to be constantly developing its products to maintain a competitive edge</li><li>• Other factors will be important to future success, e.g. government policy</li></ul>	



**Questions 6 and 7 use this marking grid:**

<b>Level</b>	<b>Knowledge 3 marks</b>	<b>Application 3 marks</b>	<b>Analysis 4 marks</b>	<b>Evaluation 10 marks</b>
3				7–10 marks Good judgement shown throughout with well supported conclusion/recommendation, focused on the business in the case
2	3 marks Good understanding shown	3 marks Good application to the case	3–4 marks Good use of reasoned argument or use of theory to explain points made	4–6 marks Some judgement shown in the main body of the answer <b>and</b> an attempt to support conclusion/recommendation, focused on the business in the case <b>OR</b> effective and well supported conclusion/recommendation, focused on the business in the case
1	1–2 marks Some understanding shown	1–2 marks Some application to the case	1–2 marks Limited use of reasoned argument or use of theory to support points made	1–3 marks Limited attempt to show judgement either within the answer <b>OR</b> a weakly supported conclusion/recommendation with some focus on the business in the case
0	No creditable content			

Question	Answer	Marks
6	<p><b>Evaluate the importance of business planning to AEV's future profitability.</b></p> <p>Examiner reminder: L2 EVAL should be awarded if: some judgement shown in the main body of the answer and an attempt to support conclusion/recommendation, focused on the business in the case</p> <p><b>OR</b> effective and well supported conclusion/recommendation, focused on the business in the case</p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Definition of business planning: setting objectives and determining strategies and their implementation to achieve objectives including the use of contingency planning for unexpected events</li> <li>• Planning gives direction to the business</li> <li>• Planning promotes coordination of different parts of business towards a single goal</li> <li>• Helps secure finance from investors</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Failure of AEV to meet demand for AEV4</li> <li>• Problems of quality with previous model launches and link to planning</li> <li>• Reference to the two strategic options under consideration</li> <li>• Reference to the expansion of CellX</li> <li>• Reference to R&amp;D and market objectives of AEV</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Analysis of benefits of planning and consequences of poor planning</li> <li>• Failure of AEV to plan appropriately for demand for AEV4 is damaging cash flow and reputation and therefore will lose profits</li> <li>• Expansion of CellX factory requires resources – capital and labour – planning necessary to ensure disruption to production is minimised and resources available as necessary</li> <li>• Joint venture requires planning to overcome cultural differences between organisations and deal with issues regarding operating in another country, e.g. dealing with the government. How the joint venture is to be managed will need to be established in advance of operations</li> </ul>	20

Question	Answer	Marks
6	<b>Evaluation</b> <ul style="list-style-type: none"><li>• AEV operates in a dynamic market and therefore planning is essential to ensure the effective use of resources to meet changes in the market</li><li>• Planning needs to be reviewed in light of changes in the market, e.g. considering impacts of changes in the law and to be constantly updated</li><li>• Planning is important but without effective implementation success less likely</li><li>• Planning more likely to be effective if it is agreed so communication with, and involvement of, employees are important</li></ul>	

Question	Answer	Marks
7	<p><b>Recommend which one of the two strategic options AEV should choose. Justify your recommendation. Your answer must include an evaluation of strategic choice techniques.</b></p> <p>Examiner note: Limit to 4 marks EVAL if no evaluation of SC techniques made</p> <p>Examiner reminder: L2 EVAL should be awarded if: some judgement shown in the main body of the answer <b>and</b> an attempt to support conclusion/recommendation, focused on the business in the case</p> <p><b>OR</b></p> <p>effective and well supported conclusion/recommendation, focused on the business in the case</p> <p><b>Knowledge</b></p> <p>Knowledge of strategic choice techniques</p> <ul style="list-style-type: none"> <li>• Decision trees</li> <li>• Ansoff's matrix</li> <li>• Force-field analysis</li> <li>• Investment appraisal</li> </ul> <p><b>Understanding of relevant factors:</b></p> <ul style="list-style-type: none"> <li>• ARR – measures return on investment. Higher % the better</li> <li>• Lower capital cost will be preferable</li> <li>• Lower risk of failure is preferable</li> <li>• Lower payback period is preferable</li> <li>• Use of AEV's core competencies</li> <li>• Understanding of strengths and weaknesses of AEV</li> <li>• Understanding of opportunities and threats facing AEV</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• According to Ansoff's matrix, the joint venture is market development and the truck is product development or diversification</li> <li>• Capital cost of Option 2 is \$700 m more than Option 1</li> <li>• Risk of failure is 5% points more for Option 2 than Option 1</li> <li>• ARR of Option 1 is 10% compared to 8% for Option 2</li> <li>• Gearing ratio in 2019 is 55%</li> <li>• Use of driving force/constraining force information, e.g. culture clash</li> </ul>	20

Question	Answer	Marks
7	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Establishing a greater presence in Country C through the joint venture would enable an increase in market share in the most important market in the world. This may offer significant potential for future growth</li> <li>• Delaying building a factory in country C would enable existing manufacturers to consolidate their position in the market</li> <li>• Development of a truck will take longer and significantly more capital than Option 1 increasing pressure on cash flow of AEV</li> <li>• Decision tree analysis encourages a logical approach to decision making which can reduce the risk of taking strategic decisions thus reducing the chance of failure</li> <li>• Success of AEV in developing battery technology suggests that AEV has the ability to develop the technology further for use in trucks</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Supported judgement for either option</li> <li>• Identification of most important factor in choosing which option should be chosen, with supporting argument, e.g. capital cost with reference to gearing and cash flow over last year</li> <li>• Will shareholders be prepared to wait for returns from Option 2?</li> <li>• Ansoff's analysis only considers two main factors – it is important to consider SWOT and PEST to provide a more complete picture</li> <li>• Force-field analysis: allocation of numerical figure to driving and constraining forces is subjective and managers may fail to identify all relevant factors</li> <li>• Decision tree limitations include the accuracy of the data used and estimates of probability. Does not consider the qualitative factors on a decision</li> <li>• Expected returns in a decision tree are average returns are not necessarily the final result</li> <li>• Decision trees do not eliminate risk</li> </ul>	

# **PAPER NUMBER 2**

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**BUSINESS**

**9609/31**

Paper 3 Case Study

**October/November 2019**

INSERT

**3 hours**

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**READ THESE INSTRUCTIONS FIRST**

This Insert contains the case study for use with the Question Paper.  
The business described in this Insert is entirely fictitious.

You may annotate this Insert.  
This Insert will not be assessed by the Examiner.



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This document consists of **5** printed pages and **3** blank pages.

## Quality Houses (QH)

Min qualified as an architect in country Z. He has a particular interest in designing family houses. He worked for 10 years in a large building company before setting up QH as a limited company. QH manufactures wooden frame houses, for sale in country Z. QH supplies a limited range of houses as ready to assemble kits. Each house is assembled on foundations that have to be built first. Buyers can either build the house themselves or pay QH to do part or all of the work. The buyer is responsible for internal decorations. The market for these houses has expanded. Min's attention to both detail and quality has also contributed to the success of QH.

5

### Human Resource Management (HRM) policy Section 2

QH has specialised in producing only five house designs which are based on detailed market research. These can be easily adapted to meet the requirements of customers. QH's workforce includes 120 employees who work in teams to manufacture the kits. The directors of QH aim to maintain a supportive culture in which all employees are valued. Min and at least one other director interview all job applicants. All new employees follow an induction course and receive detailed training in the manufacturing process. They are encouraged to be self-motivated, and can choose which jobs they carry out. They also decide who their team leader will be. New ideas can be placed in a suggestions box and QH rewards people who provide cost or time saving proposals. All manufacturing employees are paid a guaranteed wage plus a bonus based on team performance.

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### Capital equipment Section 5

QH uses a range of machinery to manufacture the timber frames, walls and roof material. Some of the existing machines are reaching the end of their usable lives. Min has negotiated a reduced price for some replacement machines. Table 1 shows the cost of this offer and the savings that the new more efficient machinery can make compared to continuing with the existing equipment. To appraise this investment, Min intends to use a discount rate equal to the current rate of interest. A decision has to be made within one week in order to obtain the reduced price.

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**Table 1: Investment appraisal information for new machinery for wooden house kits**

	Year 0	Year 1	Year 2	Year 3	Year 4
Net cash flow \$000	(350)	100	100	90	90
Discount factors at 4%	1	0.962	0.925	0.889	0.855

30

### Assembling the kit houses on site Section 4

More than 90% of the houses QH sells are installed and built on-site by QH. Appendix A shows a network diagram that outlines the most important processes involved. QH on-site supervisors are responsible for checking that each task meets QH's quality standards. The assembly teams are paid a bonus if they complete their task in the time allocated. All the building and safety regulations must be met. QH guarantees to assemble a kit house in 9 days. Most other kit house companies take 10 to 12 days. Min is concerned because 12% of the house kits are not fully assembled in 9 days. In addition, some have defects which require correction by QH.

35



**Macroeconomic environment** Section 1

Country Z is undergoing changes. For most of the last 10 years there has been economic growth but this has slowed recently. The government has a large budget deficit. The data in Table 2 has just been published. The government has stated that it will give a detailed report on the policies it will use to try and achieve its macroeconomic objectives. The Finance Minister has said that these policies will be introduced quickly and will include: 40

- a higher rate of income tax on high earners 45
- an increase in interest rates
- subsidies for exporters
- increased sales tax on goods priced over \$1000
- the introduction of a tax on land developed for housing.

**Table 2: Country Z – key macroeconomic indicators** 50

	2017	2018	2019
Unemployment %	5	6	8
Average depreciation of Country Z's currency against other major currencies %	4	4	4
Inflation %	4	5	7
Interest rate %	2	2	4
Economic growth %	5	3	1
Proportion of income tax revenue collected from highest earners %	15	12	12

**Expanding to another country** Section 3

Min realises that there are potential large markets in other countries for wooden kit houses. He tells the directors: 'Our houses are cheaper than building with bricks and concrete, even after shipping costs have been paid. The macroeconomic factors mean that operating in country Z is becoming increasingly difficult. Competition is likely to increase. My initial research indicates that a real market opportunity exists in European countries, as population and land costs rise. Pressure to increase the housing stock is leading to a search for cheaper houses and at less than \$16000 for a wooden house kit, before transport costs, QH houses are very affordable. The European market is growing rapidly and there are very few competing firms as large as QH.' 65

The directors know that QH has no links with any European property developers, builders or governments. This means that the cost of setting up direct exporting at the present moment is too high. They plan to discuss the different methods QH could use to enter the European market. These include: 70

- franchising the local marketing and assembly of wooden house kits
- direct investment in manufacturing operations in a European country
- joint venture with a European building company. 75

**Expansion into a new market – steel houses**

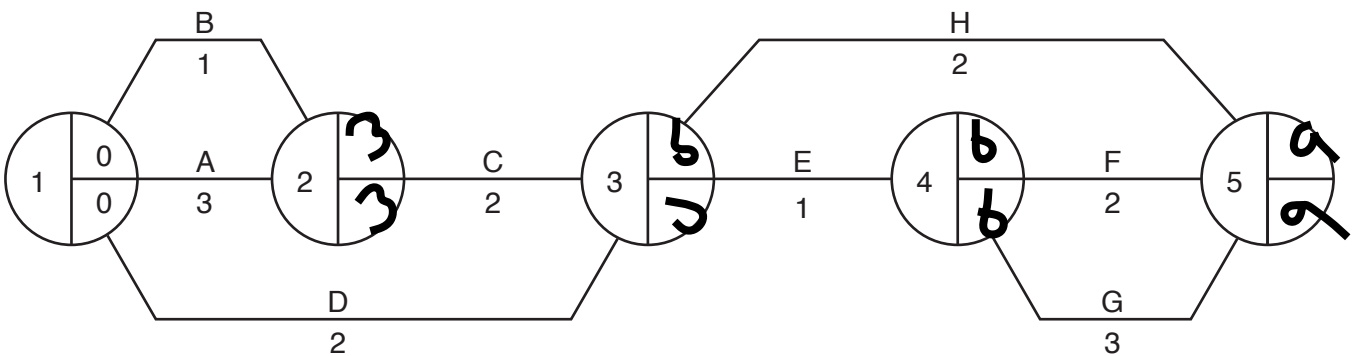
Artur, the Marketing Manager for QH, has researched a possible new product – kit houses made of steel. The manufacturing costs are similar to wooden kit houses but, because they last longer, they would sell for approximately \$100 per square metre. A wooden kit house sells for \$80 per square metre. Steel houses are more difficult to assemble and are more difficult to heat and insulate. To start manufacturing, QH would have to invest in new specialist equipment and hire more employees. New larger premises would have to be obtained. Appendix B shows some initial marketing analysis prepared by Artur.

80

The directors realise that important decisions have to be made correctly if QH is to continue to grow.

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**Appendix A: Network for assembling a kit house**



Activity	Description
A	Build foundations
B	Walls unpacked and prepared for assembly
C	Assemble walls
D	Roof unpacked and prepared for assembly
E	Assemble and fit roof
F	Install plumbing
G	Install electrics
H	Install windows and doors

ACEG, 9 Days

FF (H) = EST of Next Act - Duration - EST  
 $9 - 2 - 5 = 2$

- (1) Critical Path
- (2) Free float of Activity H
- (3) total Float on activity F

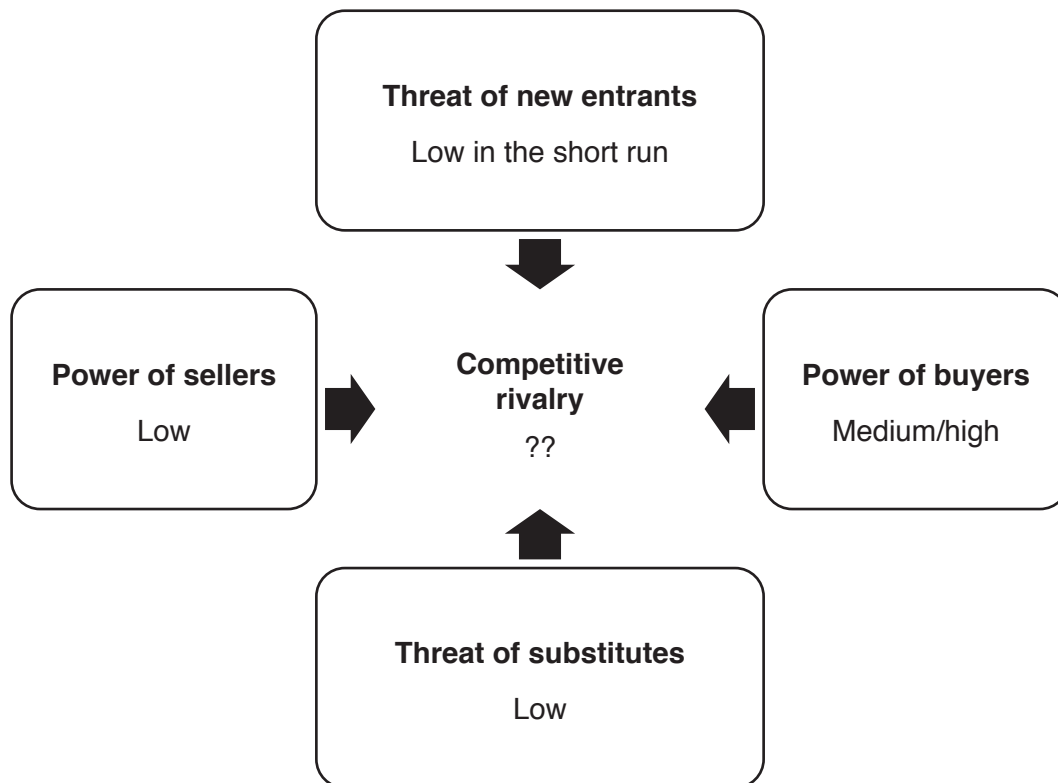
TT (F) =  $9 - 2 - 6 = 1$

## Appendix B

## QH SWOT analysis for expansion – steel houses

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Existing distribution channels</li> <li>• Adaptable workforce</li> <li>• Established reputation</li> </ul>	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Rapidly growing market</li> <li>• Few domestic competitors</li> <li>• High profit margin</li> </ul>
<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• No experience in steel houses</li> <li>• High gearing ratio</li> <li>• Quality challenges</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Macroeconomic factors</li> <li>• Possibility of foreign competitors</li> <li>• Possible high risk of losses</li> </ul>

## The market for steel house kits: Porter's Five Forces



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**BUSINESS**

**9609/31**

Paper 3 Case Study

**October/November 2019**

MARK SCHEME

Maximum Mark: 100

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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

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Cambridge International is publishing the mark schemes for the October/November 2019 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

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This document consists of **19** printed pages.

**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

**GENERIC MARKING PRINCIPLE 1:**

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

**GENERIC MARKING PRINCIPLE 2:**

Marks awarded are always **whole marks** (not half marks, or other fractions).

**GENERIC MARKING PRINCIPLE 3:**

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

**GENERIC MARKING PRINCIPLE 4:**

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

**GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

**GENERIC MARKING PRINCIPLE 6:**

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Question	Answer				Marks
1	<b>Analyse the advantages to QH of its HRM policy.</b>				<b>10</b>
<b>Level</b>	<b>Knowledge 3 marks</b>	<b>Application 2 marks</b>	<b>Analysis 5 marks</b>		
<b>2</b>	3 marks Two or more relevant points made about benefits	2 marks Points made are applied to QH	3–5 marks Good use of theory to explain benefits		
<b>1</b>	1–2 marks One or two relevant points made about benefits	1 mark Some application to QH	1–2 marks Some use of theory to explain benefits		
<b>0</b>	No creditable content				
<b>Examiners note:</b>					
<ul style="list-style-type: none"> <li>• <b>Disadvantages should not be rewarded</b></li> <li>• <b>Benefits should relate to QH, not, e.g. to employees or other stakeholders</b></li> </ul>					
<b>Knowledge</b>					
<ul style="list-style-type: none"> <li>• HRM Policy, Supportive HRM culture and general advantages</li> <li>• Democratic/paternalistic leadership</li> <li>• Soft versus hard HRM and general advantages of soft HRM</li> <li>• Team working and advantages</li> <li>• Employee training and advantages</li> <li>• Meaning of self-motivation</li> <li>• Employee involvement and advantages</li> <li>• Employee payment policy and advantages</li> </ul>					
<b>Application</b>					
<ul style="list-style-type: none"> <li>• Soft HRM approach of QH management shown by workers choosing own team leaders, etc.</li> <li>• Could include specific reference to team working to manufacture house kits</li> <li>• Supportive culture, training, selection procedure, ideas box, team bonuses</li> </ul>					
<b>Analysis</b>					
<ul style="list-style-type: none"> <li>• Motivation leading to increased efficiency, higher quality, deadlines met</li> <li>• Personal interest by Min leads to greater commitment, less labour turnover</li> <li>• Good training leads to lower wastage rates, lower labour turnover</li> <li>• Bonus payments encourage faster working leading to customer satisfaction</li> <li>• Ideas box leads to lower costs, innovation, faster working and therefore increased profit or more competitive pricing</li> <li>• Impact of supportive culture leads to more commitment, lower wastage rates, less labour turnover</li> </ul>					

Question	Answer	Marks
2(a)	Refer to Appendix A. Calculate:	
2(a)(i)	<p><b>Examiners note – check diagram for figures, may need for OFR in (ii) and (iii), or may have entered CP on diagram.</b></p> <p><b>total duration of house assembly</b></p> <p>Critical path = A – C – E – G (1 mark)  <b>OR</b>  <math>3 + 2 + 1 + 3</math> (1 mark)            9 (days) (2 marks)</p> <p>Units not required</p>	<b>2</b>
2(a)(ii)	<p><b>free float activity H</b></p> <p><b>Examiners note – check diagram for OFR</b></p> <p>Free float is max. time an activity can be delayed without delaying the next activity  <b>OR</b> EST next activity – duration – EST (1 mark)</p> <p><math>9 - 2 - 5 = 2</math> (days)</p> <p>Units not required</p>	<b>2</b>
2(a)(iii)	<p><b>total float activity F</b></p> <p><b>Examiners note – check diagram for OFR</b></p> <p>Total float is max. time an activity can be delayed without delaying whole project  <b>OR</b> LFT – duration – EST (1 mark)</p> <p>LST of next activity – duration – EST</p> <p><math>9 - 2 - 6 = 1</math> (day)</p> <p>Units not required</p>	<b>2</b>

Question	Answer				Marks																				
2(b)	<p><b>Evaluate the role of critical path analysis (CPA) in meeting QH's quality targets.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 3–4 marks</th> <th>Evaluation 3–4 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Two or more relevant points</td> <td>2 marks Application of two or more points to QH</td> <td>3–4 marks Good use of theory to answer question</td> <td>3–4 marks Good judgment shown</td> </tr> <tr> <td>1</td> <td>1 mark One relevant point made</td> <td>1 mark Some application to QH</td> <td>1–2 marks Some use of theory to answer question</td> <td>1–2 marks Some judgment shown</td> </tr> <tr> <td>0</td> <td colspan="4">No creditable content</td> </tr> </tbody> </table> <p><b>Examiners note – if only comment on methods of meeting quality targets then L1 AN and EVAL maximum</b></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• CPA and network diagrams and uses <ul style="list-style-type: none"> <li>– Meeting deadlines</li> <li>– Planning resources</li> <li>– Simultaneous completion of tasks</li> </ul> </li> <li>• Methods of meeting quality targets <ul style="list-style-type: none"> <li>– Quality control/assurance/TQM</li> </ul> </li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• QH targets – house built in 9 days – duration 9 days, floats</li> <li>• Min is concerned that 12% not completed on time and the defect rate</li> <li>• Reference to activities and durations/critical/non-critical activities</li> <li>• On site supervisor checks each task – form of quality control</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• CPA indicates that houses should be complete within 9 day guarantee, allows simultaneous completion of tasks saving time and resources so making it more likely that this quality target is met</li> <li>• CPA allows more effective management of resources so that quality target is more likely to be met</li> <li>• On site supervisor can use CPA to ensure that house building is on schedule and take action if</li> </ul>				Level	Knowledge 2 marks	Application 2 marks	Analysis 3–4 marks	Evaluation 3–4 marks	2	2 marks Two or more relevant points	2 marks Application of two or more points to QH	3–4 marks Good use of theory to answer question	3–4 marks Good judgment shown	1	1 mark One relevant point made	1 mark Some application to QH	1–2 marks Some use of theory to answer question	1–2 marks Some judgment shown	0	No creditable content				12
Level	Knowledge 2 marks	Application 2 marks	Analysis 3–4 marks	Evaluation 3–4 marks																					
2	2 marks Two or more relevant points	2 marks Application of two or more points to QH	3–4 marks Good use of theory to answer question	3–4 marks Good judgment shown																					
1	1 mark One relevant point made	1 mark Some application to QH	1–2 marks Some use of theory to answer question	1–2 marks Some judgment shown																					
0	No creditable content																								



Question	Answer	Marks
2(b)	<b>Evaluation</b> <ul style="list-style-type: none"><li>• There are quality standards but these are not well explained nor specific. No explicit reference in the CPA. How much time does quality assurance take? Is it included in the timings?</li><li>• CPA minimum duration is the target so any holdup will mean target not met so is the target too strict? Is 12% reasonable?</li><li>• CPA does not address targets re defects</li><li>• No indication that bonuses are impacted by defect rates</li><li>• May need different quality control/assurance methods not related to CPA, e.g. workers at each stage check quality (profit centres?)</li><li>• Is the information in the CPA (duration of activities) accurate?</li></ul>	

Question	Answer				Marks
3	<b>Discuss the possible effects on QH of the changes to the macroeconomic policies as announced by the Finance Minister of Country Z.</b>				16
<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 6 marks</b>	<b>Evaluation 6 marks</b>	
2	2 marks Two or more relevant points	2 marks Application of two or more points to QH	4–6 marks Good use of theory to answer question	4–6 marks Good judgment shown	
1	1 mark One relevant point made	1 mark Some application to QH	1–3 marks Some use of theory to answer question	1–3 marks Some judgment shown	
0	No creditable content				
<b>Examiners note – answer should focus on effects on QH. This question is about policies, not indicators in table 2, although information in table 2 may support points</b>					
<b>Answers could include:</b> Explanation of the operation of the polices and their possible effects					
<b>Knowledge</b> <ul style="list-style-type: none"> <li>• Income tax – direct tax on earnings</li> <li>• Interest rates – cost of borrowing/reward for savings</li> <li>• Subsidies for exporters – government payment to encourage increase in exports. Reduces costs.</li> <li>• Sales tax – indirect tax on spending, increases prices</li> <li>• Tax on land developed for housing – indirect tax making development more expensive</li> </ul>					
<b>Application</b> <ul style="list-style-type: none"> <li>• Homes often bought on borrowed money</li> <li>• QH considering exporting</li> <li>• QH homes cost over \$1000</li> <li>• Taxing land for house building will raise cost of land for houses</li> <li>• Linking policies to indicators in Table 2 (these are actual rather than forecast) <ul style="list-style-type: none"> <li>– Increasing interest rates to reduce inflation which has been increasing</li> <li>– Increasing interest rates would lead to appreciation of exchange rate (other things being equal)</li> <li>– Increasing interest rates may exacerbate slowdown in economic growth</li> <li>– Higher rate of income tax would reverse current trend of proportion of income tax collected from higher earners</li> </ul> </li> </ul>					

Question	Answer	Marks
3	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• High earners likely to buy QH homes as major spending (or not as QH homes are cheap) so higher income tax might decrease QH sales or have no effect</li> <li>• Increase in interest rates raises cost of loans so house sales fall</li> <li>• Increase in interest rates may mean higher costs for QH if borrowing needed for materials</li> <li>• Export subsidies lower cost of exporting so QH more likely to decide to export</li> <li>• Higher purchase tax increases cost of homes so QH sales fall</li> <li>• Tax on house building land increases cost of housing land so QH sales fall</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Effects may depend on other policies or macroeconomic changes, e.g. changes in exchange rates, competition</li> <li>• The forecast data does not take into account the policy changes, which are not known quantitatively</li> <li>• The proposed policy changes may not be implemented</li> <li>• If the forecasts are accurate then higher unemployment, inflation, interest rates and lower economic growth are likely to reduce QH sales, as might the increase in tax % paid by richest 10%</li> <li>• If successful likely that unemployment goes higher, inflation falls, growth falls so QH sales reduced by more</li> <li>• Effect on exchange rate difficult to assess, possibly higher interest rates will reduce the rate of decrease</li> <li>• Proposed government policy changes are in line with the forecasters view. To what extent will the forecast be accurate?</li> </ul>	

Question	Answer	Marks
4(a)(i)	<p><b>Refer to Table 1. Calculate:</b></p> <p><b>payback period</b></p> <p>payback period is the time it takes to recover the initial investment (1 mark if no relevant calculation)</p> <p>Up to Year 3 pays back 290</p> <p>Remainder needed = 60 <span style="float: right;">1 mark</span></p> <p>Payback in 4th year <span style="float: right;">1 mark</span></p> <p>60 / 90 = 0.66 <b>OR</b> 0.67 therefore 3.67 years <b>OR</b> 3 years 8 months (or between 241 and 243 days) <span style="float: right;">2 marks</span></p> <p>Units must be stated for full marks. Thus, 3.67 <span style="float: right;">1 mark</span></p>	<b>2</b>
4(a)(ii)	<p><b>accounting rate of return (ARR)</b></p> <p>Units required for <b>full</b> marks</p> <p>ARR = annual profit / capital cost × 100 <span style="float: right;">(1 mark if no relevant calculation)</span></p> <p>Total profit: 380 000 – 350 000 = (\$)30 000 <span style="float: right;">1 mark</span></p> <p>Annual profit: 380 k – 350 k / 4 = 7.5 k <span style="float: right;">2 mark</span></p> <p><b>7.5 × 100 / 350 = 2.14%</b> <span style="float: right;"><b>3 marks</b></span></p> <p><b>Common errors:</b></p> <p>No deduction of capital cost: 380 / 4 = (\$)95 000 <span style="float: right;">1 mark</span></p> <p>95 000 / 350 000 × 100 = 27.1(%) <span style="float: right;">2 marks</span></p> <p>Annual profit not calculated: (\$)30 000 <span style="float: right;">1 mark</span></p> <p>30 000 / 350 000 × 100 = 8.57(%) <span style="float: right;">2 marks</span></p> <p>.2.14 <span style="float: right;">2 marks</span></p> <p>If any of above answers are stated without working marks can still be awarded</p>	<b>3</b>

Question	Answer	Marks
4(a)(iii)	<p><b>Net present value (NPV).</b></p> <p><b>Examiners note – units required for full marks and must be negative</b></p> <p>NPV = Total of discounted cash flows – original investment (1 mark if no correct calculation)</p> <p>Use of discount factor</p> <p>Yr0 (350) Yr1 96.2 Yr2 92.5 Yr3 80.01 Yr4 76.95</p> <p>Summed discounted cash flows: (\$)345 660</p> <p>–4.34 <b>OR</b> (4.34) <b>OR</b> –\$4.34 <b>OR</b> (\$4.34)</p> <p>NPV = 345.66 – 350 = –\$4340 <b>OR</b> (\$4340)</p>	<p><b>3</b></p> <p>1 mark</p> <p>2 marks</p> <p>2 marks</p> <p>3 marks</p>

Question	Answer				Marks
4(b)	<b>Refer to your results from 4(a) and any other information. Discuss whether QH should purchase the new machinery.</b>				<b>12</b>
<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 3–4 marks</b>	<b>Evaluation 3–4 marks</b>	
<b>2</b>	2 marks Two or more relevant points	2 marks Application of two or more points to QH	3–4 marks Good use of theory to answer question	3–4 marks Good judgment shown	
<b>1</b>	1 mark One relevant point made	1 mark Some application to QH	1–2 marks Some use of theory to answer question	1–2 marks Some judgment shown	
<b>0</b>	No creditable content				
<b>Examiners note:</b>					
<ul style="list-style-type: none"> <li>• <b>Own figure rule from 4 applies</b></li> <li>• <b>Maximum L1 for AN and EVAL if only 4(a) or other information used</b></li> </ul>					
<b>Knowledge</b>					
Understanding of relevant factors					
<ul style="list-style-type: none"> <li>• Investment appraisal methods, (discounted) payback, ARR, IRR, NPV</li> <li>• Availability of finance</li> <li>• Impact on employees</li> <li>• Impact on quality</li> <li>• Cost of investment</li> <li>• Existing machinery at end of useful life/more efficient machinery available</li> </ul>					
<b>Application</b>					
<ul style="list-style-type: none"> <li>• Results from 4(a), <ul style="list-style-type: none"> <li>– NPV is negative. Not profitable when discount rate applied at 4%</li> <li>– ARR lower than rate of interest</li> <li>– Payback in 4th year and investment appraisal suggests a useful life of only 4 years?</li> </ul> </li> <li>• Special offer on price requiring decision within a week</li> <li>• Existing machinery reaching end of useful life</li> <li>• Greater efficiency of new machinery. This would increase the profit margin on the \$80 per square metre selling price</li> <li>• May enable QH to export abroad which they are considering</li> <li>• Data in Table 1</li> <li>• New government policies, especially interest rate</li> </ul>					

Question	Answer	Marks
4(b)	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Quantitative data indicates non-acceptance as NPV is negative, ARR lower than interest rate which is likely to rise</li> <li>• Inflation indicates replacing machines in future likely to be more expensive</li> <li>• Special price could be much lower than price next month so agreeing a contract now will reduce the cost of investment</li> <li>• Greater potential output will enable expansion and QH to export abroad thus increasing sales and profit</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Justified recommendation</li> <li>• Does QH have a choice as existing machinery is reaching end of usable life</li> <li>• If lifetime of new machinery is longer than four years then NPV may be positive</li> <li>• Quantitative data relies on accurate forecasting of costs</li> <li>• Inflation indicates savings if replace now (does overall inflation figure apply to this type of machinery?)</li> <li>• Better to wait to get more technical advancements in machinery?</li> <li>• Are new machines capable of greater quality?</li> </ul>	

Question	Answer				Marks
5	<b>Recommend which method of market entry QH should use to start selling houses in the European market.</b>				<b>16</b>
<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 6 marks</b>	<b>Evaluation 6 marks</b>	
<b>2</b>	2 marks Two or more relevant points	2 marks Application of two or more points to QH	4–6 marks Good use of theory to answer question	4–6 marks Good judgment shown	
<b>1</b>	1 mark One relevant point made	1 mark Some application to QH	1–3 marks Some use of theory to answer question	1–3 marks Some judgment shown	
<b>0</b>	No creditable content				
<b>Examiners note – This is about method of entry into Europe NOT whether QH should enter the market. In the case of franchising, QH would be the franchisor. Do not reward references to QH as a franchisee of a European company</b>					
<b>Knowledge</b>					
Entry methods explained					
<ul style="list-style-type: none"> <li>• Franchise – license to sell franchisor’s product/service</li> <li>• Direct investment – setting up own manufacturing plant in new market</li> <li>• Joint venture – selling product/service in agreement with another business, usually local to market</li> <li>• Agent – selling through independent representative in new market</li> <li>• Direct exporting – selling to individual customers in new market</li> </ul>					
<b>Application</b>					
<ul style="list-style-type: none"> <li>• Wooden house kits</li> <li>• Requirements of European market (meeting building regulations)</li> <li>• Exchange rate depreciation will impact costs depending on method of entry, e.g. direct exporting vs. direct investment</li> <li>• QH no links with European developers, builders or governments</li> <li>• High cost rules out direct exporting</li> <li>• Possible export subsidies</li> <li>• Shipping costs</li> </ul>					



Question	Answer	Marks												
5	<p><b>Analysis</b> Advantages and disadvantages of the proposed methods:</p> <table border="1"> <thead> <tr> <th></th> <th><b>Advantages</b></th> <th><b>Disadvantages</b></th> </tr> </thead> <tbody> <tr> <td>Franchise or licensing</td> <td>Lower set up cost Trade barriers may be reduced Franchisee will pay upfront for operating the franchise and royalties Local expertise</td> <td>Risk to QH reputation if franchisee does not maintain standards Sharing profits</td> </tr> <tr> <td>Direct Investment</td> <td>Higher profit margins Full control of marketing and operations Avoids trade barriers</td> <td>High set-up costs More market research than franchising or joint venture as new to the market</td> </tr> <tr> <td>Joint Venture</td> <td>Risks shared Local expertise available</td> <td>Not full control Possible disagreements Possible loss of industrial secrets</td> </tr> </tbody> </table> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Recommendation on method with justification</li> <li>• Ranking of methods</li> <li>• Conditional recommendation <ul style="list-style-type: none"> <li>– Depends on availability of finance (for direct investment)</li> <li>– Suitable joint venture companies (with experience of kit houses)</li> <li>– Depends on exchange rate movements, e.g. direct investment</li> </ul> </li> <li>• Depends on existence and nature of any trade barriers in Europe</li> <li>• Begin sounding out possible partners for each method and/or contact European government agencies without committing large resources</li> <li>• Contact government in Z for possible help/assistance (possible export subsidies)</li> </ul>		<b>Advantages</b>	<b>Disadvantages</b>	Franchise or licensing	Lower set up cost Trade barriers may be reduced Franchisee will pay upfront for operating the franchise and royalties Local expertise	Risk to QH reputation if franchisee does not maintain standards Sharing profits	Direct Investment	Higher profit margins Full control of marketing and operations Avoids trade barriers	High set-up costs More market research than franchising or joint venture as new to the market	Joint Venture	Risks shared Local expertise available	Not full control Possible disagreements Possible loss of industrial secrets	
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Question	Answer				Marks
<b>Questions 6 and 7 use this marking grid:</b>					
Level	Knowledge 3 marks	Application 3 marks	Analysis 4 marks	<b>Evaluation 10 marks</b>	
<b>3</b>				7–10 marks Good judgment shown throughout with well supported conclusion/recommendation, focused on QH	
<b>2</b>	3 marks Good understanding shown	3 marks Good application to QH	3–4 marks Good use of reasoned argument or use of theory to explain points made to explain points made	4–6 marks Some judgment shown in the main body of the answer <b>and</b> an attempt to support conclusion/recommendation, focused on QH <b>OR</b> effective and well supported conclusion/recommendation focused on QH	
<b>1</b>	1–2 marks Some understanding shown	1–2 marks Some application to QH	1–2 marks Limited use of reasoned argument or use of theory to support points made	1–3 marks Limited attempt to show judgment either within the answer <b>OR</b> a weakly supported conclusion/recommendation with some focus on QH	
<b>0</b>	No creditable content				

Question	Answer	Marks
6	<p><b>Evaluate whether the strategic analysis undertaken by Artur is sufficient to provide QH with a framework for business strategy.</b></p> <p><b>Examiners note – This is not a question about strategic choice (to expand into steel houses). An answer that uses SA to make a choice should be limited to L1 AN &amp; EVAL</b></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Strategic analysis is the process that provides information to enable strategic choices to be made</li> <li>• Strategic analysis uses 5 techniques – SWOT, PEST, Boston Matrix, Porter’s Five Forces, Core Competencies and a consideration of vision/mission statements</li> <li>• Place of strategic analysis in strategic management</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Use of Appendix B information</li> <li>• Established reputation will improve chances of success in (steel) market</li> <li>• High gearing ratio will impact ability to borrow for expansion and risk</li> <li>• Porter’s Five Forces looks favourable as power of seller, threat of substitutes and threat of new entrants are all low</li> <li>• PEST or Boston matrix carried out</li> <li>• Reference to core competency of QH, e.g. specialist supplier of complete wooden homes</li> <li>• Relative price of steel compared to wood houses: \$100 to \$80 per square metre</li> <li>• Steel houses last longer, more expensive to insulate refs?</li> <li>• New equipment, skills, labour, premises needed</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• SWOT analysis enables a business to make a judgement about the balance of internal and external factors that will impact strategy</li> <li>• More research needed into costs, foreign competition</li> <li>• Porter’s Five Forces looks favourable as power of seller, threat of substitutes and threat of new entrants are all low therefore suggesting that competitive rivalry is low. Potential for first mover advantage in this market</li> <li>• PEST analysis – P has government action, e.g. the changes to macro policies plus indicators in Table 1 showing possible decline in demand</li> <li>• Core competency is house supply so new product fits well</li> <li>• Place of strategic analysis as part of strategic management process. Gives direction for choosing possible options to consider</li> <li>• Discussion of how techniques are a framework for strategy, e.g. identifying strengths to build on or weaknesses that should be addressed</li> </ul>	20

Question	Answer	Marks
6	<b>Evaluation</b> <ul style="list-style-type: none"><li>• What else is needed to provide a framework for strategy? Are these two techniques enough?</li><li>• All analysis relies on accurate data</li><li>• Analysis gives clear indications on which to base a decision but insufficient</li><li>• All techniques are more qualitative than quantitative so further information required</li><li>• Porter’s Five Forces analysis that is provided is basic and lacks detail</li><li>• Little financial information in techniques</li><li>• Results may depend on the attitude of the person preparing them</li><li>• Must carry out the rest of strategic management, not just rely on analysis</li></ul>	

Question	Answer	Marks
7	<p><b>Assume QH has decided to manufacture and sell steel framed houses. Evaluate the importance of developing a strategy to manage this change</b></p> <p><b>Examiners note – There are two possible approaches to answering this question, both of which are equally rewardable:</b></p> <p><b>Approach 1 – strategy for manufacturing and selling new product which is steel house (mark scheme suggests points for this approach)</b>  <b>Approach 2 – importance of managing the change in the QH organisation, given this diversification</b></p> <p><b>Approach 2 answers might consider the role of culture in an organisation and/or the techniques for making change happen successfully, e.g. communication of changes, overcoming resistance, involving employees, Kotter’s 8 steps, getting key individuals on board</b></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Strategic management is using corporate strategy and tactics, encompassing setting objectives, strategic analysis, choice and implementation to achieve the objectives</li> <li>• Coordinated strategies for functional areas</li> <li>• Strategy can determine a business’ competitive advantage and how successful it is</li> <li>• Chandlers’ assertion that strategy determines structure may be relevant</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• New product/addition to product range</li> <li>• Price and characteristics of steel houses</li> <li>• Need for more equipment, employees and premises</li> <li>• Existing product portfolio</li> <li>• Reference to data in Appendix B</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Contrast between a strategic approach and no strategy</li> <li>• Need for integration of functional area strategies – examples of result of integration and/or non-integration</li> <li>• Reasons for each stage of preparing a strategy including review and contingency</li> <li>• Strategy could help decide how to place the new project in company structure – as a separate department or not?</li> </ul>	20

Question	Answer	Marks
7	<b>Evaluation</b> <ul style="list-style-type: none"><li>• Strategic approach provides a timetable for each necessary process and maximises chances of success</li><li>• Difficult to see how the changes needed to enter the new market could happen in a coordinated way if there was no strategy</li><li>• Avoids conflicts between managers</li><li>• Major new venture requiring significant investment requires thorough planning</li><li>• Strategy enables communication between functional areas and existing product areas to maximise efficiency</li><li>• Requires objectives to be set – very important</li><li>• Supported conclusion on role of strategic management</li><li>• Relative importance of constituent sections of strategic management</li><li>• Necessity of review/updating strategy</li><li>• Importance of accurate reliable data/information</li></ul>	

# **PAPER NUMBER 3**

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**BUSINESS**

**9609/32**

Paper 3 Case Study

**May/June 2019**

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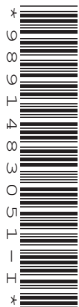
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**READ THESE INSTRUCTIONS FIRST**

This Insert contains the case study for use with the Question Paper.  
The business described in this Insert is entirely fictitious.

You may annotate this Insert.  
This Insert will not be assessed by the Examiner.



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This document consists of **6** printed pages and **2** blank pages.



## South West Farming (SWF)

SWF is a family controlled private limited company based in country Q. The current Managing Director, Lee Tae-woo is the grandson of the founder of this farming business. The core focus of SWF changed in the 1980s. Lee recognised an opportunity to increase profitability by shifting production from cereal products to milk from cows, in response to changing tastes in country Q. Sales of fresh milk now account for 70% of SWF's revenue. Other milk based products have also been introduced to increase sales and include cheese, butter and ice cream.

5

Using the SWF brand, products are sold direct to retailers, including a national supermarket group. SWF also supplies the government with milk for consumption in schools. SWF has established a reputation for high quality products and its mission statement is to:

- bring health to all our customers naturally
- ensure that our customers' needs and expectations are the starting point for everything we do
- maintain excellent long-term relationships with employees, retailers and customers.

10

Lee has transformed the business from being a small single farm to owning 20 large farms spread throughout country Q. The business has grown through acquisition. The structure of the organisation has only changed through the addition of levels of hierarchy. SWF has a centralised structure and is organised into functional departments.

15

### A changing external environment Section 1

SWF is currently facing a difficult external environment. A falling birth rate in country Q has resulted in a decrease in milk consumption. The Association of Milk Farmers is pressurising the government to increase subsidies paid to farmers. In 2017 SWF started to export milk to country P but this has been difficult due to country P's different legal controls about the processing and packaging of milk. Country Q's currency exchange rate is appreciating against country P's currency. Table 1 provides some economic and market data affecting SWF.

20

**Table 1: Economic and market data for country Q including forecasts for 2019–2021**

25

	2016	2017	2018	2019	2020	2021
Consumer price inflation (%)	2	2.1	2.5	2.5	2.5	2
Increase in feed cost for cows (%)	2.5	3	3	5	5	5
Annual change in milk sales by volume (%)	-4	-5	-4	-1	-1	-1
Annual change in cheese sales by volume (%)	4	4.5	4.2	4	3	3
Annual change in butter sales by volume (%)	7	10	7	8	4	4

30

35

### Cutting costs to remain profitable Section 5

Kim Min-seo, the Operations Director, has proposed that SWF invest in automating the milking of cows in order to reduce costs. Farms in country Q are typically too small to invest in expensive automated machinery. However, Kim has reported to the Board of Directors that SWF has achieved sufficient scale to make the investment worthwhile. The total investment cost for equipping all 20 farms is \$2m. She also highlighted reports that the government is considering increasing the minimum wage for agricultural workers. The cost savings to SWF would result from the reduced number of employees required. Kim estimates that the machinery would replace five employees per farm. The Human Resources Director is concerned about the impact of automation on employees. Kim has prepared an investment appraisal for the directors to consider. Table 2 is an extract from the appraisal. The finance department is concerned that further borrowing will increase SWF's already high gearing.

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45

**Table 2: Investment appraisal extract**

Year	Net cash flow for all 20 farms (\$)	Discount factors at 10%
1	200 000	0.91
2	710 000	0.83
3	780 000	0.75
4	650 000	0.68
5	600 000*	0.62

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55

\*including residual value of \$200 000

### Future sales Section 3

SWF branded milk is consumed by all age and income groups. There is no specific target market and milk consumption does not vary through the year. SWF conducts market research constantly to anticipate customer needs and collate product feedback. Industry market reports are also used to help plan for the future. The marketing department is responsible for making sales forecasts for all of SWF's products. Appendix 1 shows data on sales volumes for ice cream. The Marketing Director is currently in negotiations with another supermarket group in country Q to sell SWF products.

60

### Reputation damaged

65

In April 2019, there were news reports that 250 people became ill after consuming contaminated milk produced by SWF. This was country Q's biggest case of food poisoning for over 10 years. After a week of confused press releases from SWF, an emergency Board meeting was held to consider SWF's options. Following this meeting, a public relations consultant was hired. A Ministry of Health investigation identified that bacteria had been allowed to accumulate in a production-line valve at one SWF farm. In a national television appearance, Lee apologised to the public and accepted full responsibility for the contamination caused by a failure of the quality control inspectors to identify the problem. He added that SWF has now introduced a quality assurance system and also contacted all those consumers affected to offer compensation.

70

**Organisational issues** Section 2

75

The Board of Directors is to consider whether business growth requires a change to the organisational structure of the business. Lee is aware of a number of issues related to organisation:

- A lack of coordination between functional departments resulted in the delayed launch of a new product in 2018.
- There were shortages of cheese to meet increased demand due to poor communication between marketing, human resources and operations.
- Different products might need to be marketed in different ways.

80

**Strategic options for growth**

Lee wants SWF to grow. As a result of the demand changes already experienced and future anticipated changes, Lee commissioned reports into two strategic options.

85

*Option 1: Organic production.*

Demand for organic food products is increasing in country Q. This is a consequence of rising incomes, greater awareness of the environmental impact of non-organic farming and the possible health benefits of organic produce. Certification of organic standards takes at least five years for a farm to achieve.

90

There would be medium term costs to SWF as a result of lower milk yields before organic status is achieved. The reduction in profit is estimated to be \$10m. However, this market segment is predicted to grow at 10% per year and organic products can be sold at higher prices. Currently 90% of organic milk products sold in country Q are imported.

95

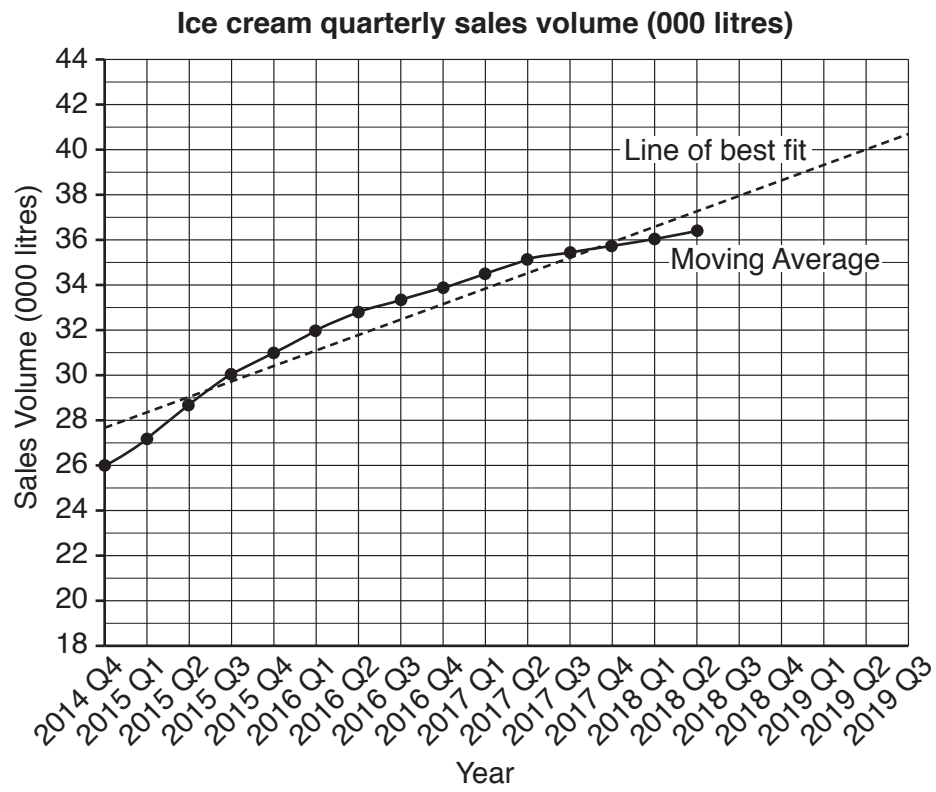
*Option 2: Diversify into frozen yoghurt products.*

Market research indicates increasing demand for frozen yoghurt products. A successful entry into this market could compensate for the falling demand for fresh milk and increase SWF's product portfolio. Research would be required to develop new products. The production of frozen yoghurt is similar to ice cream manufacture. Capital investment of \$3m would be required but the production of frozen yoghurts would increase capacity utilisation in the ice cream factory.

100

## Appendix 1: Ice cream sales data by volume (000 litres)

Year	Quarter	Sales volume	Centred quarterly moving average	Seasonal variation	Average seasonal variation
2014	2	25			
	3	35			
	4	25	25.88	-0.88	0.22
2015	1	16	27.13	-11.13	-12.09
	2	30	28.63	1.38	0.34
	3	40	30.00	<b>See Q4a(ii)</b>	11.97
	4	32	30.88	1.13	0.22
2016	1	20	31.88	-11.88	-12.09
	2	33	32.75	0.25	0.34
	3	45	33.25	11.75	11.97
	4	34	33.75	0.25	0.22
2017	1	22	34.38	-12.38	-12.09
	2	35	35.00	0.00	0.34
	3	48	35.38	12.63	11.97
	4	36	35.63	0.38	0.22
2018	1	23	36.00	-13.00	-12.09
	2	36	36.25	-0.25	0.34
	3	50	<b>See Q4a(i)</b>		11.97
	4	36			
2019	1	25			



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**BUSINESS**

**9609/32**

Paper 3 Case Study

**May/June 2019**

MARK SCHEME

Maximum Mark: 100

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the May/June 2019 series for most Cambridge IGCSE™, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

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This document consists of **19** printed pages.

**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

**GENERIC MARKING PRINCIPLE 1:**

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

**GENERIC MARKING PRINCIPLE 2:**

Marks awarded are always **whole marks** (not half marks, or other fractions).

**GENERIC MARKING PRINCIPLE 3:**

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

**GENERIC MARKING PRINCIPLE 4:**

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

**GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

**GENERIC MARKING PRINCIPLE 6:**

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Question	Answer			Marks
1	<b>Analyse how SWF might benefit from introducing a quality assurance system.</b>			<b>10</b>
<b>Level</b>	<b>Knowledge 3 marks</b>	<b>Application 2 marks</b>	<b>Analysis 5 marks</b>	
2	3 marks Knowledge of QA and benefits	2 marks Points applied to SWF	4–5 marks Good use of theory and/or reasoned argument to explain benefits	
1	1–2 marks Knowledge of QA	1 mark Point applied to SWF	1–3 marks Some use of theory and/or reasoned argument to explain benefits	
<p><b>Note:</b> <i>Quality control is not a form of QA and should not be rewarded. Candidates must demonstrate some understanding about QA to access marks.</i></p> <p><i>Question is about benefits. No marks for drawbacks.</i></p>				
<p><b>Knowledge</b> Definition of quality assurance: based on setting agreed quality standards at all stages of production in order to ensure customer satisfaction is achieved.</p>				
<p>Accept:</p> <ul style="list-style-type: none"> <li>• TQM as particular form of QA</li> <li>• Giving responsibility to workers for checking quality</li> </ul>				
<p>Benefits:</p> <ul style="list-style-type: none"> <li>• Makes everyone responsible for quality</li> <li>• Motivational impact of self-checking and efforts to increase quality leads to increased productivity</li> <li>• System can be used to trace back quality problems</li> <li>• Reduces the need for expensive final inspection – no need for quality inspectors</li> </ul>				



Question	Answer	Marks
1	<p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Could avoid issues such as the poisoning caused by inadequate cleaning of production valve</li> <li>• A failure of SWF was in not identifying the problem of the production valve</li> <li>• Importance of quality in a food industry context</li> <li>• Maintaining SWF's reputation for good quality products</li> <li>• Impact on sales to national supermarket group that SWF supplies</li> <li>• Link to mission statement which refers to meeting customers' needs and expectations</li> </ul> <p>Benefit of QA can be explored in context of the possible consequences of SWF's <b>failure</b> to assure quality of milk:</p> <ul style="list-style-type: none"> <li>• Possible loss of government contract to supply milk to schools</li> <li>• Impact on sales of non-milk products such as ice cream and butter</li> <li>• Payment of compensation to those affected by sub-standard products</li> </ul> <p><b>Analysis</b></p> <p>Building of chains of arguments linked to Knowledge and Application points raised above</p> <ul style="list-style-type: none"> <li>• Impact on long term reputation and therefore sales and profits</li> <li>• Avoid payment of compensation in poisoning outbreak will reduce profits</li> <li>• Loss of contract to government would reduce sales and profits</li> <li>• Motivation leading to higher productivity will lead to higher profits / enable SWF to offer more competitive prices.</li> <li>• Less rework of goods produced leading to a reduction in costs</li> </ul>	

Question	Answer	Marks
2(a)(i)	<p><b>Refer to lines 37–48 and Table 2. Calculate, for the purchase of the automated milking machinery, the:</b></p> <p><b>accounting rate of return (ARR)</b></p> <p><i>For full marks units (%) required</i></p> <p>ARR = Annual return/Capital cost x 100 (1 if no calculation)</p> <p>Return = \$940 000 or 940 000(1) Annual return = \$188 000 or 188 000 (2) ARR = 9.4% (3)</p> <p>9.4 (2)</p> <p><i>Likely answers with errors: Requires working to be shown for award of marks.</i></p> <p>1 error due to residual value being added or subtracted</p> <p><math>148\,000/2\,000\,000 \times 100 = 7.4\% \text{ or } 7.4</math> (2)</p> <p><math>228\,000/2\,000\,000 = 11.4\% \text{ or } 11.4</math> (2)</p> <p><b>Alternative formula:</b></p> <p>ARR = Annual return/Average investment x 100 (1 if no calculation)</p> <p>Where: Average investment = (Initial capital cost + scrap value)/2</p> <p>Return = \$940 000 (1) Annual return = \$188 000 (2)</p> <p><math>ARR = 188\,000/(2.2/2) \times 100 = 17.1\%</math> (3)</p> <p>17.1 (2)</p> <p><b>OFR applies</b></p>	3

Question	Answer			Marks																																
2(a)(ii)	<p><b>net present value (NPV) at a discount rate of 10%.</b></p> <p><i>For full marks units (\$) are required</i></p> <table border="1"> <thead> <tr> <th>Year</th> <th>Net cash flows (\$000s)</th> <th>Discounted cash flows (\$000s)</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>200</td> <td>182</td> <td rowspan="5">1 for any accurate use of discount factor(s)</td> </tr> <tr> <td>2</td> <td>710</td> <td>589.3</td> </tr> <tr> <td>3</td> <td>780</td> <td>585</td> </tr> <tr> <td>4</td> <td>650</td> <td>442</td> </tr> <tr> <td>5</td> <td>600</td> <td>372</td> </tr> <tr> <td colspan="2">Cumulative inflow</td> <td>2170.3</td> <td>2</td> </tr> <tr> <td>Less Yr 0</td> <td>(2000)</td> <td>(2000)</td> <td></td> </tr> <tr> <td>NPV</td> <td></td> <td>170.3</td> <td>3</td> </tr> </tbody> </table> <p>NPV = \$170 300 (3) 170 300 (2) \$2 170 300 (2)</p> <p><b>Likely Answers with errors. Requires working to be shown for award of marks.</b></p> <p>Added on the residual value: \$294 300 or 294 300 (2)</p> <p>Subtracted residual value: \$46 300 or 46 300 (2)</p> <p><b>OFR</b></p>			Year	Net cash flows (\$000s)	Discounted cash flows (\$000s)	Marks	1	200	182	1 for any accurate use of discount factor(s)	2	710	589.3	3	780	585	4	650	442	5	600	372	Cumulative inflow		2170.3	2	Less Yr 0	(2000)	(2000)		NPV		170.3	3	3
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NPV		170.3	3																																	

Question	Answer				Marks
2(b)	<b>Recommend to SWF whether the new automated milking machinery should be purchased. Justify your recommendation.</b>				<b>12</b>
<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 4 marks</b>	<b>Evaluation 4 marks</b>	
2	2 marks Two relevant points	2 marks Factors well applied to SWF	3–4 marks Good use of theory and/or reasoned argument to analyse factors	3–4 marks Good judgement shown e.g. well supported conclusion	
1	1 mark Relevant point	1 mark Some application of factors to SWF	1–2 marks Some use of theory and/or reasoned argument to analyse factors	1–2 marks Some judgement shown e.g. one factor very important	
<p><b>Knowledge</b> Understanding of factors influencing decision:</p> <ul style="list-style-type: none"> <li>• NPV</li> <li>• ARR</li> <li>• Payback</li> <li>• Importance of finance required/cost of investment</li> <li>• Benefits of automation <ul style="list-style-type: none"> <li>– Increased productivity</li> <li>– Lower labour costs</li> <li>– Consistent quality</li> </ul> </li> <li>• Disadvantages of automation <ul style="list-style-type: none"> <li>– Labour redundancy</li> <li>– Training of workers</li> <li>– Initial cost</li> </ul> </li> <li>• Use of strategic choice techniques such as force field analysis</li> </ul>					

Question	Answer	Marks
2(b)	<p><b>Application</b> Use of results to investment appraisal/case study information. OFR</p> <ul style="list-style-type: none"> <li>• NPV \$170 300 so worth considering</li> <li>• ARR 9.4% – a good return on investment?</li> <li>• Calculation of payback; 3yrs 5.72 months (Allow 5.7 or 5.8 months)</li> <li>• Discounted payback; 4yrs 6.5 months</li> <li>• 100 employees may lose jobs. Contradicts the stated core values of SWF regarding employees</li> <li>• Other firms too small to take advantage of machinery – SWF gains competitive advantage</li> <li>• Calculation of cost per farm = \$100 000</li> <li>• Reference to industry being competitive. Price important.</li> <li>• Application of strategic choice techniques</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Cost savings would make SWF more competitive in market enabling price to be reduced leading to higher sales.</li> <li>• Impact of redundancies on motivation and therefore productivity of firm</li> <li>• Impact of redundancies on reputation and sales of SWF</li> <li>• Reaction of unions/ employees could lead to industrial action and disruption to production during transition. This could impact reputation and future sales</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Identification and justification of most important factor.</li> <li>• How many employees will leave due to natural wastage?</li> <li>• Would consumers care about redundancies or do they just want cheaper milk – Some evidence of ethical considerations as sales of organic produce is increasing</li> <li>• This is a competitive industry, feed costs are increasing and sales decreasing – SWF <b>must</b> change to remain competitive.</li> <li>• This is a significant investment that has to be financed. Does SWF have sufficient funds? Will a loan be required? What is the rate of interest for borrowing?</li> </ul>	

Question	Answer				Marks
3	<b>Assess the likely impact on SWF's profitability of the changing external environment.</b>				16
<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 6 marks</b>	<b>Evaluation 6 marks</b>	
2	2 marks Good knowledge shown	2 marks Good application to SWF	4–6 marks Good use of theory and/or reasoned argument to explain impact of external environment	4–6 marks Good judgement shown	
1	1 mark Some knowledge shown	1 mark Some application to SWF	1–3 marks Some use of theory and/or reasoned argument to explain impact of external environment	1–3 marks Some judgement shown	
<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>The external environment includes consideration of the economic, social, technological, demographic and legal factors that influence SWF.</li> <li>Profitability; rate of return measured by profit margins</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>Use of data in Table 1</li> <li>Technological changes e.g. automation of milking offer solutions to problems</li> <li>Demographic changes resulting in decreasing sales of milk. This is SWF's core product accounting for 70% of sales.</li> <li>Consumer price inflation is lower than feed cost inflation</li> <li>Increasing costs may mean that SWF needs to identify methods of increasing efficiency</li> <li>Changes to minimum wage are likely to impact SWF as employees may be paid near MINIMUM WAGE</li> <li>Changes to government policy important as SWF has contract for supplying milk to schools.</li> <li>Exporting products will be subject to the regulatory regimes of other countries as with country P</li> </ul>					

Question	Answer	Marks
3	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Decreasing sales of milk due to demographics means SWF may need to identify alternative markets for using milk such as frozen desserts. Entering these new markets may require substantial investment.</li> <li>• Consumer price inflation is lower than feed cost inflation – this could put pressure on SWF’s profit margins.</li> <li>• As MINIMUM WAGE increases SWF production costs may increase and this may reduce profits. This may affect all other farming businesses equally</li> <li>• Technological changes offer solutions to problems to cost pressures but require substantial investment and therefore carry risk</li> <li>• Increasing costs will mean that SWF needs to identify methods of increasing efficiency.</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Identification of most important external factor and justification</li> <li>• SWF less affected by MINIMUM WAGE changes as they can automate milking</li> <li>• Diversification of SWF will have reduced risk</li> <li>• Impact of cost increases on profitability depend on price elasticity of demand</li> <li>• The external environment is dynamic and may change in the future and affect profitability differently. What if government changes policy? Will government increase subsidies to farms?</li> <li>• Data in Table 1 is forecast. Actual changes may be very different</li> <li>• Impact of changing environment will depend on the management of SWF and its flexibility in responding to change. Contingency planning may be significant.</li> </ul>	

Question	Answer	Marks
4(a)(i)	<p><b>Refer to the table in Appendix 1. Calculate:</b></p> <p><b>the centred quarterly moving average for quarter 3, 2018</b></p> <p>4 period MA = 8 period moving total/8 (1 mark if no calculation)</p> <p>= (23 + 36 + 50 + 36 + 36 + 50 + 36 + 25)/8 (1)</p> <p>= 292/8 (2)</p> <p>= 36 500 litres or 36.5 thousand litres (3)</p> <p>Allow full marks for 36.5 thousand or 36 500</p> <p><b>OFR</b></p>	<b>3</b>
4(a)(ii)	<p><b>the seasonal variation for quarter 3, 2015.</b></p> <p>Sales – 4 period moving average trend (1)</p> <p>= 40 – 30 (1)</p> <p>= 10 000 litres (2) Allow full marks for 10 or 10 000</p> <p>Note: -10 or -10 000 is no marks (wrong equation)</p>	<b>2</b>
4(b)	<p><b>Refer to the table and graph in Appendix 1. Calculate SWF's forecast sales for Quarter 3 in 2019.</b></p> <p>Predicted trend from inspection of graph: 40.8 (1) Allow <math>\pm 0.2</math> i.e. 40.6 – 41</p> <p>Add average seasonal variation Q3 = 11.97(1)</p> <p>Forecast = 52.77 thousand litres or 527 700 litres (3)</p> <p>Allow 52.57 – 52.97 thousand litres (3)</p> <p><b>Correct units must be indicated for full marks</b></p> <p>52.57 – 52.97 or 527 570 – 527 970 (2)</p> <p><b>OFR</b></p>	<b>3</b>



Question	Answer					Marks
4(c)	<b>Refer to your result from 4(b). Discuss the usefulness of sales forecasts to SWF when making marketing and operational decisions.</b>					<b>12</b>
<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 4 marks</b>	<b>Evaluation 4 marks</b>		
2	2 marks Good knowledge shown of sales forecasts & decisions	2 marks Points well applied to SWF	3–4 marks Good use of theory and/or reasoned argument	3–4 marks Good judgement shown e.g. well supported conclusion		
1	1 mark Knowledge shown of forecasts or decisions	1 mark Some application to SWF	1–2 marks Some use of theory and/or reasoned argument	1–2 marks Some judgement shown		
<b>Note:</b> Limit to L1 AN & EVAL if <b>only</b> marketing or operational decisions considered.						
Limit to L1 AN & EVAL if <b>no</b> reference to trend shown from <b>4(b)/Appendix 1</b>						
<i>OFR for answer to 4(b)</i>						
<b>Knowledge</b>						
<ul style="list-style-type: none"> <li>• Methods of forecasting sales: TSA, Delphi etc <ul style="list-style-type: none"> <li>– TSA based on extrapolating from past sales data</li> <li>– Delphi technique based estimates of a panel of experts</li> </ul> </li> <li>• Sales forecasting using Time Series Analysis takes account of seasonal variations and gives a realistic prediction.</li> <li>• Marketing decisions relate to marketing strategy / marketing mix</li> <li>• Operational decisions relate to production e.g. stock control, capacity utilisation. May include reference to numbers of workers / types of contract</li> </ul>						

Question	Answer	Marks
4(c)	<p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Trend clearly shows that sales of ice cream are increasing</li> <li>• Reference to usefulness of data in Table 1 e.g. change in milk sales by volume etc</li> <li>• Forecasting enables planning, this method fits ice cream sales pattern well i.e. SWF faces clear seasonal variation and consistent past trends so it is reasonable to assume that the future will be similar, making forecasting valuable for planning. E.g. Volume of milk required to meet production requirements</li> <li>• Combined forecasting sales of milk and milk products will inform decisions regarding purchase of animal feed, herd size required – this requires relatively long term planning as herd size may take time to alter.</li> <li>• Case indicates possible changes to the market; demographic change and change in tastes will impact accuracy of forecasts based on past data</li> <li>• Not all products sold by SWF will demonstrate seasonal patterns of demand e.g. milk thus using 4 period moving average not necessary.</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Helps ensure efficient use of labour and machinery helping to control costs of production and therefore ensure profitability</li> <li>• Marketing decisions regarding pricing will be influenced by many other factors such as PED and costs of production</li> <li>• Advertising likely to be influenced by overall sales so forecasting important but will also be influenced by competitor actions</li> <li>• Objectives will influence decisions – e.g. if SWF wishes to increase profits may need to cut costs of operations</li> <li>• How forecasts contribute to market planning and production planning</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• More reliable than simple forecasting or just projecting a trend</li> <li>• Relies on future events behaving as in past so may not be reliable</li> <li>• Extent to which it is or isn't useful</li> <li>• Other evidence needs to be taken into account e.g. prediction of competitors' behaviour, likely future government actions, and/or economic changes</li> <li>• May be advisable to introduce an element of probability to the forecasts – what if analysis?</li> </ul>	

Question	Answer				Marks															
5	<p><b>The Board of Directors is to consider changes to the organisational structure of SWF needed during a period of business growth.</b></p> <p><b>Recommend changes to the organisational structure of SWF. Justify the changes you recommend</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 6 marks</th> <th>Evaluation 6 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Good knowledge shown of organisational structure</td> <td>2 marks Good application to SWF</td> <td>4–6 marks Good use of theory and/or reasoned argument</td> <td>4–6 marks Good judgement shown</td> </tr> <tr> <td>1</td> <td>1 mark Relevant point organisational structure</td> <td>1 mark Some application to SWF</td> <td>1–3 marks Some use of theory and/or reasoned argument</td> <td>1–3 marks Some judgement shown</td> </tr> </tbody> </table> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Organisational structure shows the lines of authority/chain of command in an organisation – also spans of control/levels of hierarchy/formal communication channels</li> <li>• Knowledge of different organisational structures e.g. matrix, geographic</li> <li>• Delayering – e.g. from tall to flat</li> <li>• Centralisation/Decentralisation</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Current structure appears to be traditional hierarchy based on functional departments. This hasn't evolved with the growth of the business and could lead to potential inefficiencies linked to: <ul style="list-style-type: none"> <li>– SWF has farms throughout country Q and regional differences.</li> <li>– SWF produces a range of products – milk, ice cream, cheese – that may require different ways of managing e.g. marketing. Could this be better achieved through a product based structure</li> <li>– SWF sells internationally – may require different approach to selling goods.</li> <li>– Expansion plans include further extending the product portfolio</li> </ul> </li> </ul> <p>Other options include:</p> <ul style="list-style-type: none"> <li>• Geographical structure e.g. farms throughout country Q, sales in country P</li> <li>• Business unit structure e.g. ice cream, milk and option 2</li> <li>• Matrix structure for new projects such as option 1 or 2</li> <li>• Remain hierarchical but adopt a flatter structure</li> </ul>				Level	Knowledge 2 marks	Application 2 marks	Analysis 6 marks	Evaluation 6 marks	2	2 marks Good knowledge shown of organisational structure	2 marks Good application to SWF	4–6 marks Good use of theory and/or reasoned argument	4–6 marks Good judgement shown	1	1 mark Relevant point organisational structure	1 mark Some application to SWF	1–3 marks Some use of theory and/or reasoned argument	1–3 marks Some judgement shown	16
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1	1 mark Relevant point organisational structure	1 mark Some application to SWF	1–3 marks Some use of theory and/or reasoned argument	1–3 marks Some judgement shown																

Question	Answer	Marks
5	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Analysis of why the current structure is not suited to SWF</li> <li>• Analysis of why the structure is not suited to growth of the business or increasing competition which might need more flexible/adaptable structure</li> <li>• Geographical structure allows for regional/country differences and quicker local decision making – less control from SWF head office though? <ul style="list-style-type: none"> <li>– SWF has farms throughout country Q. Regional differences may require managers to respond to local conditions. A centralised, tall structure may prevent SWF responding appropriately. A more decentralised structure might be more appropriate.</li> </ul> </li> <li>• Business unit structure allows specialist managers to focus on different needs of different divisions – might lead to rivalry though?</li> <li>• Matrix structure improves communication between departments allowing better decisions to be made. This could be linked to change required by strategic options.</li> <li>• Analysis of benefits of a centralised structure currently used <ul style="list-style-type: none"> <li>– Consistency of management</li> </ul> </li> <li>• Analysis of benefits of change to decentralised structure.</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Judgement as to which structure is best suited to SWF with justification</li> <li>• Recognition of possible limitations on change e.g. impact of delayering on motivation, role of unions etc.</li> <li>• Judgement as to which is most important factor guiding the change e.g. need for more effective coordination.</li> </ul>	

Question	Answer			Marks
<b>Questions 6 and 7 use this marking grid:</b>				
Level	Knowledge 3 marks	Application 3 marks	Analysis 4 marks	Evaluation 10 marks
3				7–10 marks Good judgement shown throughout with well supported conclusion/recommendation, focused on the business in the case
2	3 marks Good understanding shown	3 marks Good application to the case	3–4 marks Good use of reasoned argument or use of theory to explain points made	4–6 marks Some judgement shown in the main body of the answer <b>and</b> an attempt to support conclusion/recommendation, focused on the business in the case <b>OR</b> effective and well supported conclusion/recommendation, focused on the business in the case
1	1–2 marks Some understanding shown	1–2 marks Some application to the case	1–2 marks Limited use of reasoned argument or use of theory to support points made	1–3 marks Limited attempt to show judgement either within the answer <b>OR</b> a weakly supported conclusion/recommendation with some focus on the business in the case
0	No creditable content			

Question	Answer	Marks
6	<p><b>Evaluate the usefulness of strategic analysis techniques when making decisions about the future direction of SWF.</b></p> <p>If <b>only</b> consider strategic choice techniques i.e. decision tree, force field, investment appraisal, Ansoff then no marks.</p> <p>Question is <b>not</b> about the choice between Option 1 and Option 2. Focus should be on how SA will help guide the direction of SWF</p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Explanation of strategic analysis and its techniques – SWOT, PEST, Boston Matrix, Porters 5 Forces, core competencies.</li> <li>• Place of strategic techniques in strategic management</li> <li>• Critical comments on the techniques</li> <li>• Need to understand the external environment – requiring a detailed PEST analysis</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• SWOT applied to SWF <ul style="list-style-type: none"> <li>– Strengths e.g. reputation for quality, scale of production</li> <li>– Weaknesses e.g. lack of contingency planning, inadequate QA systems, high gearing</li> <li>– Threats e.g. changing demographics and tastes in society</li> <li>– Opportunities e.g. organic market growth</li> </ul> </li> <li>• PEST applied to SWF <ul style="list-style-type: none"> <li>– Technological e.g. automation and impact on costs</li> <li>– Economic e.g. changes to minimum wage, change to exchange rate/trade relations</li> <li>– Social e.g. demographic changes</li> <li>– Political/legal e.g. regulations regarding milk processing</li> </ul> </li> <li>• Relevant application of other techniques e.g. Boston Matrix etc</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Analysis of how changes identified might guide strategic decisions <ul style="list-style-type: none"> <li>– Focus on strengths will reduce risk to the business</li> <li>– Identification of weaknesses that need to be addressed when making decisions or alternative sought e.g. financing</li> <li>– Anticipating changes to the external environment will enable SWF to take decisions to reduce risk take advantage of opportunities</li> </ul> </li> </ul>	20

Question	Answer	Marks
6	<p><b>Evaluation</b></p> <p>Clear conclusion as to the importance of strategic analysis and/or techniques including:</p> <ul style="list-style-type: none"><li>• Critical comments on the techniques</li><li>• Importance of understanding where the business is now in order to generate ideas and/or support for expansion</li><li>• Comments that strategic analysis on its own is not enough to fully support a decision</li><li>• Subjective interpretation of the models – one manager’s opinion of SWOT may be very different to another’s</li><li>• SWF operate in a dynamic environment so analysis may quickly become outdated</li><li>• Weighing up importance of other stages in strategic management especially objectives and choice techniques in relation to strategic analysis</li><li>• Ranking the usefulness of the techniques in relation to expansion plans</li><li>• An assessment of the importance of timing and a timescale in carrying out analysis.</li></ul>	

Question	Answer	Marks
7	<p><b>Discuss the importance of contingency planning to the future success of SWF.</b></p> <p><b>Knowledge</b>            Definition of contingency planning: preparing an organisation's resources for unlikely events. This may also be referred to as crisis management, scenario planning and business continuity planning.</p> <p>Allow reference to business use of having a 'Plan B'</p> <p>Benefits:</p> <ul style="list-style-type: none"> <li>• Reassures customers and staff that their interests are being considered.</li> <li>• Reduces potential impact on customers in the event of a major disaster</li> <li>• Recognising major risks may actually reduce the risk of the disaster happening</li> </ul> <p>Limitations:</p> <ul style="list-style-type: none"> <li>• Disasters still occur</li> <li>• Can't have contingency plans for all eventualities</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Recognising major risks, such as</li> <li>• milk contamination</li> <li>• impacts of weather on production</li> <li>• disease of livestock</li> <li>• failure of equipment – could impact storage of ice cream etc</li> <li>• fire in factories producing ice cream etc</li> <li>• Commentary on SWF's response to milk contamination</li> <li>• Confused statements from SWF</li> <li>• Delay in appointing PR consultant</li> <li>• Delay in public announcement from CEO</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Can be expensive and time consuming especially for small businesses. There is the planning process and also the need to train staff for each possible eventuality</li> <li>• With fore-planning the public relations response is much more likely to be quick and appropriate so that senior managers can manage the media attention and communicate effectively what the company intends to do, by when and how from disasters both in terms of costs and bad PR and loss of customer loyalty</li> <li>• Avoiding disasters is better than planning what to do if they happen.</li> <li>• Plans need to be updated frequently as the business develops increasing costs</li> <li>• Ineffective response to milk contamination threatens SWF's future sales and profitability</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Judgement of extent to which CP is important to success</li> <li>• Recognition that other factors will have significant impact on success of SWF</li> <li>• Cost of CP needs to be balanced against the potential costs of not doing it. Which potential disasters should be planned for?</li> <li>• How much time is spent on preparing and testing contingency plans?</li> </ul>	20



# **PAPER NUMBER 4**

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**BUSINESS**

**9609/33**

Paper 3 Case Study

**May/June 2019**

INSERT

**3 hours**

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**READ THESE INSTRUCTIONS FIRST**

This Insert contains the case study for use with the Question Paper.  
The business described in this Insert is entirely fictitious.

You may annotate this Insert.  
This Insert will not be assessed by the Examiner.



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This document consists of **5** printed pages and **3** blank pages.

## Africo Chocolate (AC)

AC is a family business, based in an African country. AC is a private limited company, owned and managed by the Lukwesa family, which started the business over 50 years ago. AC produces chocolate powder, using cocoa beans sourced from local farms in its home country, which is world famous for the quality of its cocoa beans. AC has expanded steadily over the years, financed by retained profit and bank borrowing. AC's profits have remained steady, giving the family shareholders a good return. 5

Processing of the cocoa beans into chocolate powder takes place at 2 factories which are 300km apart. Factory S is located in the south of the country, near the capital city and the coast and Factory N is in the north, not far from the border with another country. Both factories have full teams of production managers and employees, but administration, finance and marketing are based in offices at factory S. 10

AC's chocolate powder is sold in bulk to business customers, which are well-known chocolate companies around the world. These companies carry out final manufacturing, transforming chocolate powder into their own branded mass market and luxury chocolate products for consumers. AC has excellent relationships with its customers who value the company's punctuality of supply and consistent product quality. 15

### Marketing

AC adopts 'fair trade' principles. This means that they pay farmers a guaranteed agreed price for their crops, which is often higher than the current market price for cocoa beans. AC also pays its own employees more than the legal minimum wage. The Lukwesa family believes that 'fair trade' is an important ethical marketing advantage for their company. AC's business customers are then able to use the 'fair trade' label on their final chocolate products and charge a higher price to consumers. Although the global demand for 'fair trade' chocolate is increasing, the chocolate market is becoming much more competitive. 20

### Economic and legal changes 25

The economy in AC's home country is developing and growing at a fast rate. The level of employment is increasing and the government has introduced new laws to protect employees. All workers now have a right to sick pay and a contract of employment. The daily minimum wage has also been increased by 10%. The government is keen to support business development and reduced the tax on company profits by 2% this year. Current and forecast economic data is shown in Appendix 1. 30

### New management and new ideas

Ali Lukwesa has recently taken over as Managing Director of the business. Ali is ambitious and determined to reorganise and modernise the company. He would like to raise the business profile of AC and take advantage of opportunities presented by the fast growing world demand for chocolate products. 35

Ali is considering closing factory N in 2020 and centralising all functions at factory S, which has land available for expansion. The factory N site could be sold for \$1.5m. This will cover the redundancy costs for employees and contribute to the factory S expansion. AC will need to borrow \$7m to finance the project, including updating machinery and modernising facilities. AC's Operations and Human Resources Directors are opposed to this plan. Ali has forecast that the overall impact on capital employed will be to increase it by \$8m. Table 1 shows an extract from AC's latest accounts. 40

**Table 1: Extract from AC's latest accounts**

	\$m
Current assets	5
Current liabilities	4
Non-current assets	20
Non-current liabilities	21
Capital employed	54

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Ali and the other directors will use the data about the two factories shown in Appendix 1 before making a final decision.

### **Cocoa bean supply problems**

Ali would like to expand AC's chocolate powder production. However, AC competes with other chocolate processors for their supply of cocoa beans. Cocoa bean prices are driven by global supply and demand factors. AC has been forced to increase the prices it pays to farmers by 15% in 2019. AC's Production Director has also been investigating new supplies of cocoa beans from a neighbouring country, but there are doubts about the quality and reliability of the supply. However, many farmers in AC's home country are now planting cocoa bean bushes, hoping to gain from the current high prices.

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### **Human resource planning**

At present, production and administrative employees at both factories have full-time permanent contracts. Labour turnover is low and the relationship between directors and employees is good. Ali would like to introduce new employment contracts. Senior managers would remain on their existing full-time contracts, but all other employees would have a more flexible pattern of work imposed, including more use of temporary and short-term employment contracts. This will enable longer hours of production and operations will respond more quickly to changes in demand.

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### **Long-term strategic planning**

Ali is looking to the future. He wants to consider two options for growth. At a recent meeting with his team of directors, Ali said: 'If we want our company to grow, I believe we need to move with the times. Each of these two options will be expensive. We will need to make a strategic choice between them. Perhaps we should convert AC into a public limited company as well. We will need to make changes to our business plan, whichever option we choose.'

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The two options for growth are:

#### *Option A*

Start production of an AC branded range of luxury chocolate products. These would be aimed at the increasing numbers of middle and high-income consumers in AC's home country. The products could be sold through supermarkets. AC would also consider exporting the chocolates.

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#### *Option B*

Secure future supplies of cocoa beans for the company by the purchase of a large farm in AC's home country. This would be cultivated to grow cocoa beans, with the first crop expected after three years. Surplus cocoa beans could also be sold to other companies.

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Ali asked his directors to carry out research into markets and costs, to help make the strategic choice. Data from Ali's own research is shown in Appendix 3.

**Appendix 1: Data for Factory S and Factory N for year ending 31 December 2018**

	<b>Factory S</b>	<b>Factory N</b>
Full capacity (millions of kg)	4.00	2.50
Current production (millions of kg)	3.10	2.20
Revenue (\$m)	9.3	6.60
Raw materials cost (\$m)	2.79	1.98
Variable labour cost (\$m)	1.55	0.66
Variable transport cost of processed chocolate powder (\$m)	0.62	0.77
Factory fixed costs (\$m)	2.00	1.50
Allocated fixed costs of marketing and administration departments (\$m)	0.50	0.30

**Appendix 2: Economic data for AC's home country**

<b>Economic indicator</b>	<b>Actual data for 2018</b>	<b>Average yearly forecast for the next three years</b>
Economic growth (%)	7	4.5
Inflation (%)	5	8
Unemployment (%)	8	6
Interest rate (%)	6	9
Change in currency exchange rate against major currencies	2% depreciation	No change

**Appendix 3: Extract from Ali's research data for Options A and B**

	<b>Option A – Production of luxury chocolates</b>	<b>Option B – Purchase land and farm cocoa beans</b>
Capital cost (\$m)	2	1.5
Lead time to set up project (years)	1	3
Probability of success (%)	70	80
Estimated annual economic return if successful (\$m)	0.8	0.6
Driving forces	<ul style="list-style-type: none"> <li>• Use of own processed chocolate powder</li> <li>• Control over marketing of final product</li> </ul>	<ul style="list-style-type: none"> <li>• Secure cocoa bean supply</li> <li>• Good transport links with Factory S</li> </ul>
Constraining forces	<ul style="list-style-type: none"> <li>• Lack of expertise in chocolate final processing and retailing</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of expertise in farming cocoa beans</li> </ul>
Opportunities	<ul style="list-style-type: none"> <li>• Growing market for chocolate products in the home country and worldwide</li> </ul>	<ul style="list-style-type: none"> <li>• Growing demand for cocoa beans from AC and other companies</li> </ul>
Threats	<ul style="list-style-type: none"> <li>• Competition from well-known brands</li> </ul>	<ul style="list-style-type: none"> <li>• Weather and crop disease.</li> <li>• Over-supply in market for cocoa beans.</li> </ul>

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**May/June 2019**

MARK SCHEME

Maximum Mark: 100

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the May/June 2019 series for most Cambridge IGCSE™, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

## Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

### GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

### GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

### GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

### GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

### GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

### GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.



Question	Answer				Marks
1	<b>Analyse the risks to AC of the economic forecasts in Appendix 2.</b>				10
	<b>Level</b>	<b>Knowledge 3 marks</b>	<b>Application 2 marks</b>	<b>Analysis 5 marks</b>	
2	3 marks Good knowledge shown of risks/ impact of them.	2 marks Points well applied to the case	4–5 marks Good use of theory/reasoned argument to explain the likely impact of risks		
1	1–2 marks Knowledge shown of risks/impact of them.	1 mark Some application to the case	1–3 marks Some use of theory/reasoned argument to explain the likely impact of risks		
0	No creditable content				
<p><b>Note:</b> <i>Credit economic factors from text as well as appendix. Credit impacts on AC as a business, not e.g. workers unless link is made with AC. Only credit risks.</i></p>					
Answers could include					
<b>Knowledge:</b>					
<ul style="list-style-type: none"> <li>• Risks/threats – external factors that impact business negatively</li> <li>• Definitions of terms from Appendix 2 <ul style="list-style-type: none"> <li>– Economic growth – rate of change of GDP/economic output</li> <li>– Inflation – increase in the general price level</li> <li>– Unemployment – proportion of labour force without work</li> <li>– Interest rate – cost of borrowing / reward for saving</li> </ul> </li> </ul>					
<b>Application</b>					
<ul style="list-style-type: none"> <li>• Use of information from the appendix and what this may mean for AC <ul style="list-style-type: none"> <li>– Reduction, 2.5% points, in forecast rate of economic growth but still positive</li> <li>– Increase in inflation; 3% points</li> <li>– Reduction in unemployment; 2% points</li> <li>– Increase in interest rate of 3% points</li> <li>– No forecast change in exchange rate</li> </ul> </li> <li>• Linking change in economic data to relevant impacts on AC e.g. interest rates and plan to borrow \$7m, rising incomes / falling unemployment and demand for chocolate, inflation and costs of raw materials</li> </ul>					

Question	Answer	Marks
1	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Reasoned chain of argument. e.g. economic growth is set to slow (not become negative) therefore incomes may not be rising as fast. This may mean a slowdown in the growth in demand for luxuries, such as chocolate products.</li> <li>• Inflation set to rise. This could result in an increase in costs for AC e.g. cost of cocoa beans.</li> <li>• Inflation could reduce the spending power of consumers resulting in less demand for chocolate.</li> <li>• Unemployment set to fall, risk is that AC may need to pay higher wages and therefore impact on costs and pricing and therefore demand.</li> <li>• Increase rates set to rise. This will increase the cost of borrowing and therefore impact AC's investment decisions such as the modernisation of the factory.</li> </ul>	

Question	Answer	Marks
2(a)(i)	<p><b>Refer to the table in Appendix 1. Calculate the:</b></p> <p><b>Current capacity utilisation at Factory S.</b></p> <p>Formula: <math>\frac{\text{Current production}}{\text{Full capacity}} \times 100</math> (1) if no calculation</p> <p>3.1 / 4 × 100 = 77.5% (2)</p> <p>Other answers:</p> <p>78% (2)</p> <p>77% (1)</p> <p>77.5 or 78 (1)</p>	2

Question	Answer	Marks
2(a)(ii)	<p><b>Contribution from each kg of chocolate powder sold from Factory S.</b></p> <p>Contribution = SP – Unit variable cost (1 mark if no relevant calculation)</p> <p>Revenue per kg: <math>\frac{9.3}{3.1} = \\$3.00</math> (1)</p> <p>Raw materials per kg: <math>\frac{2.79}{3.1} = \\$0.90</math></p> <p>Labour per kg: <math>\frac{1.55}{3.1} = \\$0.50</math></p> <p>Transport costs: <math>\frac{0.62}{3.1} = \\$0.20</math></p> <p>Therefore contribution: <math>\\$3 - \\$1.60 = \\$1.40</math> (4)</p> <p>(if fixed costs included <math>2.5 / 3.1 = \\$0.81</math> then 3 marks)</p> <p>Price \$3 (1)</p> <p>Max 1 mark for calculation of 1 or more of following:</p> <ul style="list-style-type: none"> <li>• Raw material      \$0.90</li> <li>• Labour              \$0.50</li> <li>• Transport          \$0.20</li> </ul> <p>TVC \$1.60 (2)</p> <p>Contribution \$1.40 (4)</p> <p>Contribution 1.40 (3)</p> <p>Revenue 9.3  raw materials 2.79  labour 1.55  transport 0.62  TVC = 4.96 (1)  = 4.96 / 3.1 = 1.60 (2)</p>	4

Question	Answer				Marks
2(b)	<b>Refer to your results in 2(a) and other information. Recommend whether AC should close Factory N. Justify your recommendation.</b>				<b>12</b>
	<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 4 marks</b>	<b>Evaluation 4 marks</b>
	2	2 marks Good knowledge shown of factors	2 marks Points well applied to the case	3–4 marks Good use of theory / reasoned argument to explain the advantages and disadvantages of closing factory.	3–4 marks Good judgement shown in answer and conclusion.
	1	1 mark Knowledge shown of factors	1 mark Some application to the case	1–2 marks Some use of theory / reasoned argument to explain the advantages and disadvantages of closing factory.	1–2 marks Some judgement shown in answer and conclusion.
	0	No creditable content			
<b>Note:</b> L1 of AN and EVAL if only use results or other information.					
Answers may include:					
<b>Knowledge</b>					
<ul style="list-style-type: none"> <li>• Definition of centralisation – bringing all functions together in one place.</li> <li>• General points related to factory closures, such as worker redundancy</li> <li>• Lead time that might be needed to make the change and impact</li> <li>• Knowledge of contribution and breakeven</li> </ul>					
<b>Application</b>					
<ul style="list-style-type: none"> <li>• Comparison of figures from Appendix 1 <ul style="list-style-type: none"> <li>– Unit labour costs lower at Factory N (\$0.3 per kg compared to \$0.5? per kg)</li> <li>– Transport cost per kg is higher at Factory N \$0.35 compared to \$0.20</li> <li>– Fixed costs of marketing etc are allocated roughly in proportion to current production levels</li> </ul> </li> <li>• Capacity utilisation comparisons</li> </ul>					

Question	Answer	Marks
2(b)	<p><b>Factory S:</b></p> $\frac{3.1}{4} \times 100 [1] = 77.5\% [1]$ <p><b>Factory N:</b></p> $\frac{2.2}{2.5} \times 100 [1] = 77.5\% [1]$ <ul style="list-style-type: none"> <li>• Contribution (\$ / breakeven units not required) <ul style="list-style-type: none"> <li>– Factory S: \$3 – \$1.60 = \$1.40</li> <li>– Factory N: \$3 – (\$0.9 + \$0.3 + \$0.35) = \$3 – \$1.55 = \$1.45</li> </ul> </li> <li>• Break-even comparisons: <ul style="list-style-type: none"> <li>– Factory S; (Break-even output = Fixed costs / contribution per unit = 2 500 000 / 1.4 = 1 785 714 kg)</li> <li>– Factory N; (break-even output = 1 800 000 / 1.45 = 1 241 379 kg)</li> </ul> </li> <li>• Will Factory S be able to accommodate all production from Factory N?</li> <li>• Profit comparisons – Factory S \$1.84 m Factory N \$1.39 m</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Impact on workers, customers and company as a whole <ul style="list-style-type: none"> <li>– Workers would not easily be able to transfer from Factory N to S due to distance</li> <li>– Efficiency gains may lead to lower prices for customers</li> </ul> </li> <li>• Possible reputational damage due to closing Factory N could lead to reduction in demand. Link to AC's corporate social responsibility – AC believes its 'fair trade' is an important ethical marketing advantage</li> <li>• Cost of redundancy payments resulting in short-term strain on AC's cash flow and liquidity</li> <li>• Impact on production whilst changes are made could disrupt supplies to customers resulting in reduced demand</li> <li>• Implications of loss of contribution from Factory N, which has lower FC and lower break-even</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Balance of evidence – for or against?</li> <li>• Most important issue e.g. competitive market so need to make efficiency gains for long-term sustainability</li> <li>• Some of Adam's other directors are against the idea</li> <li>• Future cost rises – faster in Factory S?</li> </ul>	

Question	Answer				Marks
3	<b>Evaluate the importance of the ethical ‘fair trade’ principle to the success of the marketing strategy for AC’s chocolate powder.</b>				16
	<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 6 marks</b>	<b>Evaluation 6 marks</b>
2	2 marks Good knowledge shown	2 marks Points well applied to the case	4–6 marks Good use of theory / reasoned argument to explain the likely impact of opportunities and threats	4–6 marks Good judgement shown in answer and conclusion	
1	1 mark Knowledge shown	1 mark Some application to the case	1–3 marks Some use of theory / reasoned argument to explain the likely impact of opportunities and threats	1–3 marks Some judgement shown in answer and conclusion	
0	No creditable content				
<p><b>Note:</b> <i>This question is about fair trade, not business ethics in general, although candidates who focus on ethics in general, such as employee treatment, can get 1 knowledge mark, due to mention of ‘ethical’ in question stem.</i></p>					
<p>Answers may include:</p>					
<p><b>Knowledge</b></p>					
<ul style="list-style-type: none"> <li>• Fair trade principles; paying farmers a ‘fair’ price and possibly in advance to help with cash flow</li> <li>• Marketing strategy, including budget, objectives, integrated marketing mix</li> <li>• Ethics – moral guidelines that guide business behaviour</li> </ul>					
<p><b>Application</b></p>					
<ul style="list-style-type: none"> <li>• AC are essentially supplying a raw material / ingredient, reasons why business customers might value fair trade principles, such as the ability to use it on final chocolate products.</li> <li>• Reference to chocolate market becoming more competitive and link to fair trade as competitive advantage</li> <li>• References to quality of chocolate powder</li> <li>• AC produces in a developing country where local companies may be indifferent to fair trade issues</li> </ul>					

Question	Answer	Marks
3	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Development of why fair trade may be important or not – will it attract more customers? Do manufacturers really care? Are consumers willing to pay higher prices for fair trade chocolate products?</li> <li>• Possible impacts on company image and reputation</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Future use if fair trade is used to market new chocolate products</li> <li>• Judgement as to how important fair trade may be – is quality more important? Not so important in developing country but customers of AC likely to include developed country companies where this is increasingly an important issue.</li> <li>• Price more important as it is an ingredient?</li> </ul>	

Question	Answer	Marks																																				
4(a)	<p><b>Refer to Appendix 1. Calculate the impact of a 15% increase in the price of raw materials for Factory S on its operating profit margin in 2019, assuming revenue and all other cost data remains the same.</b></p> <p><b>Note:</b> Look for rounding to 2 DP</p> <table border="1"> <thead> <tr> <th></th> <th>Factory S</th> <th>Mark</th> </tr> </thead> <tbody> <tr> <td>Operating profit margin</td> <td>Operating profit / sales revenue × 100</td> <td>1 if no calculation</td> </tr> <tr> <td>Sales revenue (\$ m)</td> <td>9.3</td> <td></td> </tr> <tr> <td>Raw materials cost (\$ m)</td> <td>15% of 2.79 = 0.4185 = 2.79 + 0.42 = 3.21</td> <td>1 2</td> </tr> <tr> <td>Labour cost (\$ m) Transport cost (\$ m) Factory fixed costs (\$ m) Allocated fixed costs (\$ m) Total cost</td> <td>1.55 + 0.62 + 2.00 + 0.50 + 3.21 7.88</td> <td>3</td> </tr> <tr> <td>Operating profit</td> <td>9.3 – 7.88 = 1.42</td> <td>4</td> </tr> <tr> <td>OPM</td> <td>1.42 / 9.3 × 100 = 15.27%</td> <td>5</td> </tr> <tr> <td></td> <td>15.27</td> <td>4</td> </tr> <tr> <td>Current OPM</td> <td>19.78%</td> <td>3</td> </tr> <tr> <td></td> <td>19.78</td> <td>2</td> </tr> <tr> <td>Change in OPM</td> <td>4.51%</td> <td>5</td> </tr> <tr> <td></td> <td>4.51</td> <td>4</td> </tr> </tbody> </table>		Factory S	Mark	Operating profit margin	Operating profit / sales revenue × 100	1 if no calculation	Sales revenue (\$ m)	9.3		Raw materials cost (\$ m)	15% of 2.79 = 0.4185 = 2.79 + 0.42 = 3.21	1 2	Labour cost (\$ m) Transport cost (\$ m) Factory fixed costs (\$ m) Allocated fixed costs (\$ m) Total cost	1.55 + 0.62 + 2.00 + 0.50 + 3.21 7.88	3	Operating profit	9.3 – 7.88 = 1.42	4	OPM	1.42 / 9.3 × 100 = 15.27%	5		15.27	4	Current OPM	19.78%	3		19.78	2	Change in OPM	4.51%	5		4.51	4	5
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Question	Answer	Marks
4(b)	<p><b>Refer to Table 1 and lines (37–43). Calculate AC’s gearing ratio that would result from the project to expand Factory S.</b></p> <p>Gearing = non-current liabilities / capital employed × 100 (1)  OR = NCL / shareholder equity + NCL × 100 (1)</p> <p>New gearing = 21 +7 / 54+8 (8 is forecast addition to capital employed)  = 28 / 62 = 45.16% (3) 45.2% (3)</p> <p>45.16 (2) 45.2 (2)</p> <p>OR = NCL / Shareholder Equity × 100 (1)  = 28 / 33 = 84.8% (3)</p> <p>84.8 (2)</p> <p>Other likely answers with errors:</p> <p>28 / 53 = 52.8% (2)  21 / 62 = 33.9% (2)</p> <p>Allow rounded figures.</p> <p>Current gearing = 21 / 54 × 100 = 38.88% (1) or 21 / 33 = 63.6% (1) If no formula stated</p>	3

Question	Answer				Marks																				
4(c)	<p><b>Refer to your results from 4(a) and other information. Evaluate whether the Lukwesa family should convert the business into a public limited company.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 4 marks</th> <th>Evaluation 4 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Good knowledge shown of factors</td> <td>2 marks Points well applied to the case</td> <td>3–4 marks Good use of theory / reasoned argument to explain the advantages and disadvantages of converting to a plc</td> <td>3–4 marks Good judgement shown in answer and conclusion.</td> </tr> <tr> <td>1</td> <td>1 mark Knowledge shown of factors</td> <td>1 mark Some application to the case</td> <td>1–2 marks Some use of theory / reasoned argument to explain the advantages and disadvantages of converting to a plc</td> <td>1–2 marks Some judgement shown in answer and conclusion.</td> </tr> <tr> <td>0</td> <td colspan="4">No creditable content</td> </tr> </tbody> </table> <p><b>Note:</b> <i>No requirement to refer to results and other issues to access full marks. Do not credit references to ‘more ideas from new shareholders’ or similar as this is not relevant to PLC.</i></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Meaning of converting to PLC – shares publicly available on a stock exchange</li> <li>• Advantages / disadvantages of Ltd. v PLC legal status <ul style="list-style-type: none"> <li>– Raising finance from shareholders as a PLC</li> <li>– Greater divorce between ownership and control of business as a PLC. Dilution of control as PLC.</li> <li>– Risk of takeover increased as PLC</li> <li>– PLC status and link to long term growth of business</li> </ul> </li> <li>• Share capital is a permanent form of finance</li> <li>• Reference to financial information and ratios e.g. gearing</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Current gearing classified as low (below 50%). Link to expansion plans.</li> <li>• Further borrowing for expansion and predicted increase in interest rates</li> <li>• Profits have provided Lukwesa family with good returns</li> <li>• Family business for 50 years</li> <li>• Potential attractiveness of the business to chocolate manufacturers for backward vertical integration</li> <li>• Application of changes to financial performance</li> </ul>				Level	Knowledge 2 marks	Application 2 marks	Analysis 4 marks	Evaluation 4 marks	2	2 marks Good knowledge shown of factors	2 marks Points well applied to the case	3–4 marks Good use of theory / reasoned argument to explain the advantages and disadvantages of converting to a plc	3–4 marks Good judgement shown in answer and conclusion.	1	1 mark Knowledge shown of factors	1 mark Some application to the case	1–2 marks Some use of theory / reasoned argument to explain the advantages and disadvantages of converting to a plc	1–2 marks Some judgement shown in answer and conclusion.	0	No creditable content				12
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0	No creditable content																								

Question	Answer	Marks
4(c)	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Gearing low but expansion funded by borrowing would potentially increase to over 50% and increase in costs impacting profit</li> <li>• Risk of takeover increased if plc thus Lukwesa family could lose control of the business</li> <li>• As a plc increased tension between shareholders wanting dividends and short term profit v the long term success of AC that Lukwesa family may be more concerned about</li> <li>• Ali Lukwesa ambitious for AC and plc conversion could fund his plans for modernisation.</li> <li>• Borrowing for expansion can result in greater reward for Lukwesa family</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Different views of family members. Ali Lukwesa more focused on expansion and modernisation – this may conflict with other family members.</li> <li>• Short / long term impact on the family and the business</li> <li>• Which is most important factor to family members?</li> <li>• Reliability of figures?</li> </ul>	

Question	Answer				Marks																				
5	<p><b>Evaluate the possible impact on AC of more flexible employment contracts.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 6 marks</th> <th>Evaluation 6 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Good knowledge shown</td> <td>2 marks Points well applied to the case</td> <td>4–6 marks Good use of theory / reasoned argument to explain the likely impact of flexible working patterns</td> <td>4–6 marks Good judgement shown in answer and conclusion</td> </tr> <tr> <td>1</td> <td>1 mark Knowledge shown</td> <td>1 mark Some application to the case</td> <td>1–3 marks Some use of theory / reasoned argument to explain the likely impact of flexible working patterns</td> <td>1–3 marks Some judgement shown in answer and conclusion</td> </tr> <tr> <td>0</td> <td colspan="4">No creditable content</td> </tr> </tbody> </table> <p><b>Note:</b> <i>Impact must be on AC. If impact on employees then this should be linked to what it may mean for the business.</i></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Meaning of flexible working, short term, zero hours, part-time contracts</li> <li>• Using HR to meet the needs of the business</li> <li>• Allows a business to operate for more hours</li> <li>• Modernisation may mean more automation</li> <li>• General impacts on staff leading to impacts on business, e.g. low motivation due to insecurity</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Unemployment falling will impact labour supply and ability to recruit employees on flexible contracts</li> <li>• AC production staff are likely to be unskilled – new machinery may need higher skill level</li> <li>• What are labour supply conditions in the area of Factory S?</li> <li>• Redundancies already an issue after centralisation – assuming Factory N closes</li> <li>• Impact on chocolate powder production</li> <li>• Impact on image of AC as an ethical business</li> </ul>				Level	Knowledge 2 marks	Application 2 marks	Analysis 6 marks	Evaluation 6 marks	2	2 marks Good knowledge shown	2 marks Points well applied to the case	4–6 marks Good use of theory / reasoned argument to explain the likely impact of flexible working patterns	4–6 marks Good judgement shown in answer and conclusion	1	1 mark Knowledge shown	1 mark Some application to the case	1–3 marks Some use of theory / reasoned argument to explain the likely impact of flexible working patterns	1–3 marks Some judgement shown in answer and conclusion	0	No creditable content				16
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0	No creditable content																								

Question	Answer	Marks
5	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• If new machinery requires less skilled workers then recruitment of employees for more flexible working more likely to be possible. (Allow candidate reasoning that higher skilled workers required)</li> <li>• Impacts on AC as a company, such as de-motivated employees reducing productivity</li> <li>• Impact on labour costs – likely to decrease thus making AC more competitive</li> <li>• Flexible contracts may result in higher labour turnover leading to an increase in recruitment costs</li> <li>• More responsive to changing market conditions</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Depends on nature of employees required e.g. skilled v. unskilled</li> <li>• Depends on the local labour market factors</li> <li>• Depends on effectiveness of HR department</li> <li>• Long / short term impacts</li> </ul>	

Question	Answer			Marks
<b>Questions 6 and 7 use the following marking grid.</b>				
Level	Knowledge 3 marks	Application 3 marks	Analysis 4 marks	Evaluation 10 marks
3				7–10 marks Good judgement throughout with well supported conclusion / recommendations focused on the case
2	3 marks Good knowledge shown of factors	3 marks Points well applied to the case	3–4 marks Good use of theory / reasoned argument to explain the implications / effectiveness / usefulness	4–6 marks Some judgement shown in the main body of the answer and an attempt to support conclusion. <b>OR</b> Well supported conclusion / recommendation focused on the case.
1	1–2 marks Knowledge shown of factors	1–2 marks Some application to the case	1–2 marks Some use of theory / reasoned argument to explain the implications / effectiveness / usefulness	1–3 marks Some judgement shown in answer and conclusion.  Weakly supported conclusion.
0	No creditable content			

Question	Answer		Marks
6	<p><b>Discuss the usefulness of strategic choice techniques for the directors of AC, as they decide between Option A and Option B.</b></p>		20
	<p><b>Option A – Production of luxury chocolates</b></p>	<p><b>Option B – Purchase land and farm cocoa beans</b></p>	
Capital cost (\$m)	2	1.5	
Lead time to set up project (years)	1	3	
Probability of success (%)	70	80	
Estimated annual economic return if successful (\$m)	0.8	0.6	
Driving forces	<ul style="list-style-type: none"> <li>• Use of own processed chocolate powder</li> <li>• Control over marketing of final product</li> </ul>	<ul style="list-style-type: none"> <li>• Secure cocoa bean supply</li> <li>• Good transport links with Factory S</li> </ul>	
Constraining forces	<ul style="list-style-type: none"> <li>• Lack of expertise in chocolate final processing and retailing</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of expertise in farming cocoa beans</li> </ul>	
Opportunities	<ul style="list-style-type: none"> <li>• Growing market for chocolate products in the home country and worldwide</li> </ul>	<ul style="list-style-type: none"> <li>• Growing demand for cocoa beans from AC and other companies</li> </ul>	
Threats	<ul style="list-style-type: none"> <li>• Competition from well-known brands</li> </ul>	<ul style="list-style-type: none"> <li>• Weather and crop disease</li> <li>• Over-supply in market for cocoa beans</li> </ul>	
<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Meaning of strategic choice as part of strategic management</li> <li>• Strategic choice techniques such as Ansoff Matrix, Decision trees, Force Field Analysis and investment appraisal</li> <li>• Reference to strategic analysis techniques when preparing for choice such as SWOT, PEST, Boston matrix, Porter’s Five Forces, Core competencies and others.</li> <li>• Ansoff encourages management to consider risk of each option</li> </ul>			

Question	Answer	Marks
6	<p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Use of the techniques / factors for two options – appendix 3 examples</li> <li>• Ansoff's matrix – Option A – product development as new products being sold in existing market but also possibly diversification into new markets</li> <li>• Option B – diversification market penetration / market development as secure cocoa bean supplies may enable more sales of chocolate powder to existing and possibly new markets</li> <li>• Option B has higher probability of success. Less risk.</li> <li>• Option A has higher annual economic return – link to shareholder returns</li> <li>• Option A capital cost is \$0.5 m greater – link to gearing</li> <li>• Force field analysis – what is the balance between driving and restraining forces? <ul style="list-style-type: none"> <li>– Both options face restraining force of lack of expertise</li> <li>– Option B will give AC security of supply of cocoa beans link to competitive advantage for AC</li> </ul> </li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• How techniques may be used and the advantages and disadvantages</li> <li>• Better decision making by considering the quantitative aspects of the choices <ul style="list-style-type: none"> <li>– Use of probabilities in decision trees therefore reducing risk for AC of option choice</li> <li>– Payback gives focus on time to recover investment which is important to business faced with issues of working capital / liquidity</li> <li>– ARR enables AC to choose option with highest return which may be important to shareholders</li> <li>– NPV takes account of the time value of money</li> </ul> </li> <li>• The use of techniques to analyse aspects of the options</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Justification of most useful technique with supporting argument</li> <li>• Effective integration of analysis and choice techniques will be important</li> <li>• Other information that could be useful?</li> <li>• Impact of management objectives and attitudes</li> <li>• Long and short term impacts</li> </ul>	



Question	Answer	Marks
7	<p><b>Assume AC's directors choose Option A. Evaluate the importance of business planning to the successful implementation of this strategy.</b></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Successful strategic implementation – the process of putting a strategic choice option into action effectively, to the benefit of the business.</li> <li>• Nature of strategic management and implementation, such as long term, irreversible change.</li> <li>• How implementation fits with strategic choice and analysis</li> <li>• Business planning as part of implementation, including mission, corporate objectives and functional business plan sections.</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• This will be a diversification into production of final chocolate products, rather than the existing production of an ingredient or raw material.</li> <li>• How might this fit with AC's current organisational structure?</li> <li>• How might AC's mission and objectives change as the move into producing and selling a final product?</li> <li>• Use of business planning and corporate objectives in context, e.g. change from selling chocolate powder to existing manufacturers to selling final product to supermarkets, link with marketing objectives.</li> <li>• Comment on recent changes such as centralisation and this as a further change needing to be managed</li> <li>• The need for a completely new production function and business plan for new chocolate products</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• How strategic implementation techniques may be used and their advantages and disadvantages</li> <li>• How setting and updating of new business plan objectives might lead to success, as in high sales of new products</li> <li>• The need for constant updating in order to keep up with changes in the fast growing chocolate market</li> <li>• How resistance to change may come about, e.g. from existing production employees and how this could be overcome</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Will there need to be a culture change?</li> <li>• Might there be more need now for contingency planning or are risks not significantly different?</li> <li>• What are the main factors that could lead to successful implementation?</li> <li>• Other factors such as external factors that need to be considered.</li> </ul>	20

# **PAPER NUMBER 5**

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**BUSINESS**

**9609/32**

Paper 3 Case Study

**May/June 2018**

INSERT

**3 hours**

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**READ THESE INSTRUCTIONS FIRST**

This Insert contains the case study for use with the Question Paper.  
The business described in this Insert is entirely fictitious.

You may annotate this Insert.  
This Insert will not be assessed by the Examiner.



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This document consists of **5** printed pages and **3** blank pages.

## **Denali Adventures (DA)**

Lino is the founder and Chief Executive Officer (CEO) of DA, a public limited company. Founded in 1990, DA is a leading manufacturer of equipment for outdoor pursuits in country A, located in Europe. DA makes a range of products including rucksacks, tents, sleeping bags and other camping equipment. All of DA's output is sold to specialist retailers. DA has grown internally since its foundation. This has been assisted by:

- significant economic growth in country A
- improved public access to mountain areas in country A
- DA's focus on product testing, development and innovation.

### **Decentralised control**

Lino still owns 25% of the shares in DA. He is very protective of the image of DA and still regards it as his company. Lino has always encouraged a soft approach to the management of human resources. The organisational structure of the business is decentralised. DA has made substantial investment in the training and development of employees. The business is split into four product areas and product leaders are encouraged to manage teams democratically.

### **Shareholder unrest**

Shareholders are worried about the shareholder value created by DA. At the Annual General Meeting (AGM) in May, a representative from a major investor argued that, 'We have supported the Board through difficult trading conditions in recent years and now believe that shareholders should be rewarded for their commitment to the business. Without an increase in the dividend yield to match the industry average we may be forced to reassess our shareholding in DA.'

Lino reassured shareholders that long-term growth strategies currently under consideration would enable DA to maximise shareholder value. He added that 'these growth strategies depend critically on the ability of DA to retain profit for investment'. Data presented to shareholders at the AGM is contained in Appendix 1.

### **Increasing problems in manufacturing**

In contrast to some leading competitors, DA has manufactured its own products since integrating with a manufacturing business in 2004. This has given DA a competitive advantage. Manufacturing is based in country A and currently employs 60 production workers. In 2015 operations became more capital intensive following investment in a new batch production system. At the same time, quality assurance was introduced and DA successfully gained an international quality standard certificate. However, Bian, the factory manager, is concerned about a number of recent problems:

- labour turnover of 10 workers in 2016 and 15 workers in 2017
- an increase in defective products from 0.3% in 2015 to 1.5% in 2017
- an increase in machine downtime due to necessary maintenance
- late delivery of supplies of materials halting production on two occasions in 2017.

Bian believes that the introduction of lean production techniques will solve these operational problems. She estimates that this would require an investment of \$2m. She provided a detailed plan to the Board of Directors two months ago with the changes required. This has been approved. She is currently in negotiation with trade unions at the factory but, as yet, has not reached agreement regarding implementation of the plan.

**Extending the product portfolio**

As part of DA's plans for growth, the Board of Directors has agreed to extend the product portfolio. This will be achieved by developing a range of walking boots aimed at serious mountain walkers. This is a competitive market segment and Joon, the Marketing Director, believes that a combination of product design, aggressive promotion and competitive pricing will be essential for a successful launch of this new range. Joon's marketing team have conducted primary and secondary market research to help make these critical marketing decisions. Using this data, Joon is now working on the final details of a marketing strategy with the objective of achieving a market share of 5% by value within one year. The range will be launched in early 2019. The most expensive boot in the range will be branded as the 'DA Explorer'.

Further information regarding the market for walking boots in country A is contained in Appendix 2.

**Growth strategies**

The Board of Directors has set corporate aims of increasing sales by a minimum of 30% within five years and to increase shareholder value. Competitive rivalry in country A is high. The market for outdoor pursuits equipment in country A is saturated and further growth is unlikely. Industry analysts believe that success requires a dynamic organisation that anticipates and is responsive to market changes. Having already agreed to enter the consumer market for walking boots, other strategies for growth were considered at the most recent Board meeting. These are outlined below:

*Strategy 1 – Market development:* Enter the outdoor pursuits equipment market in country B. This is a high income country in Europe. Initial discussions have been held with retail outlets. Although this is a competitive market, the latest industry report has predicted continued growth in sales of outdoor pursuits equipment.

*Strategy 2 – Forward vertical integration:* Enter the retail market by taking over Outdoor Life (OL), a chain of outdoor pursuits retail outlets in country A. OL has been unprofitable for the past three years. However, DA's Board of Directors believes that with investment in upgrading outlets, this could be the leading retailer of outdoor pursuits equipment within five years. The Marketing Director also believes that there is potential to develop online retailing.

Further data is provided in Appendices 3, 4 and 5. The Board of Directors will decide which strategy to proceed with in July.

**Appendix 1: Selected financial data reported at the AGM**

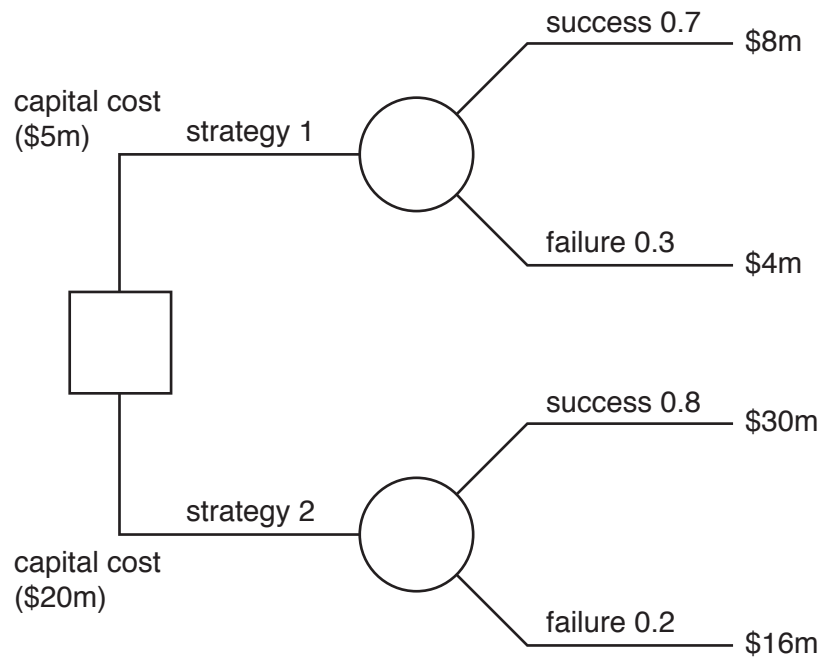
	2016/17	2017/18
Revenue	\$76m	\$75m
Profit (after tax and interest) for the year	\$7m	\$6m
Total dividends	\$1m paid	\$1.1m proposed
Non-current liabilities as at 20 April	\$30m	\$35m
Capital Employed as at 20 April	\$95m	\$100m
Share price as at 20 April	\$7	\$5
Total number of issued shares	10m	10m
Average dividend yield for other companies in the outdoor pursuits equipment market	5%	5%
Central bank base lending rate	5%	7%

**Appendix 2: Market data for walking boots in country A and DA's sales forecasts**

Forecast demand for DA walking boot range in 2019 with promotional spending of \$200 000	40 000 units
Forecast demand for DA walking boot range in 2019 with promotional spending of \$300 000	50 000 units
Forecast demand for DA Explorer in 2019 at a price of \$200	10 000 units
Forecast demand for DA Explorer in 2019 at a price of \$180	11 300 units
Forecast annual growth of walking boots sales 2018–2021	1%
Walking boot sales in 2017 by volume	1.5m units
Walking boot sales in 2017 by value	\$165m
Number of walking boots brands	30

*Note: A unit is a pair of boots*

### Appendix 3: Decision tree for the two potential growth strategies



### Appendix 4: Data for DA's two potential growth strategies

	Strategy 1: Market development	Strategy 2: Forward vertical integration
Payback	3 years	4 years
ARR (first five years)	7%	9%
Key driving forces for	<ul style="list-style-type: none"> <li>Strong economic growth in country B</li> <li>Market is not saturated</li> </ul>	<ul style="list-style-type: none"> <li>Control over significant distribution channel</li> <li>Outdoor Life (OL) has own brand products</li> </ul>
Key restraining forces against	<ul style="list-style-type: none"> <li>Strong brand loyalty to current market leaders</li> <li>Exchange rate risks</li> </ul>	<ul style="list-style-type: none"> <li>Capital cost</li> <li>Lack of experience of retailing</li> </ul>

### Appendix 5: Forecast data for Country B

	2018	2019	2020
Annual growth in real GDP (%)	4	5.4	5
Inflation (%)	4	8	7
Exchange rate index: country A: country B	100	95	92
Indirect tax rates (%)	10	12	12
Direct tax rates (%)	22	20	20
Unemployment rate (%)	10	6.5	5.8

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**BUSINESS**

**9609/32**

Paper 3 Case Study

**May/June 2018**

MARK SCHEME

Maximum Mark: 100

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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

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This document consists of **16** printed pages.



**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

**GENERIC MARKING PRINCIPLE 1:**

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

**GENERIC MARKING PRINCIPLE 2:**

Marks awarded are always **whole marks** (not half marks, or other fractions).

**GENERIC MARKING PRINCIPLE 3:**

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

**GENERIC MARKING PRINCIPLE 4:**

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

**GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

**GENERIC MARKING PRINCIPLE 6:**

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Question	Answer			Marks																
1	<b>Analyse the likely positive and negative impact on DA of having a decentralised organisational structure.</b>			<b>10</b>																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Level</th> <th style="width: 30%;">Knowledge 3 marks</th> <th style="width: 30%;">Application 2 marks</th> <th style="width: 30%;">Analysis 5 marks</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2</td> <td>3 marks Knowledge of decentralised structure and impacts</td> <td>2 marks More than one point explained in context</td> <td>4–5 marks Good use of theory and/or reasoned argument to explain impact</td> </tr> <tr> <td style="text-align: center;">1</td> <td>1–2 marks Knowledge of decentralised organisational structure and/or impact</td> <td>1 mark Some application to case</td> <td>1–3 marks Some use of theory and/or reasoned argument to explain impact</td> </tr> <tr> <td style="text-align: center;">0</td> <td colspan="3" style="text-align: center;">No creditable content</td> </tr> </tbody> </table>					Level	Knowledge 3 marks	Application 2 marks	Analysis 5 marks	2	3 marks Knowledge of decentralised structure and impacts	2 marks More than one point explained in context	4–5 marks Good use of theory and/or reasoned argument to explain impact	1	1–2 marks Knowledge of decentralised organisational structure and/or impact	1 mark Some application to case	1–3 marks Some use of theory and/or reasoned argument to explain impact	0	No creditable content		
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<p><b>Examiner reminder:</b> Application marks are not awarded for simply repeating material from the case study. Application is by answering in the context of the case or by using the information in the case to help answer the question. This applies to all questions.</p>																				
<p><b>Examiner Note:</b> Although decentralisation is not synonymous with democratic leadership, candidates may be rewarded for answers suggesting that decentralisation is more likely to involve a democratic approach where there is discussion and involvement of workers. If only positive <b>or</b> negative impacts then L1 AN max. (Max mark overall is 8)</p>																				
<p><b>Knowledge:</b></p> <ul style="list-style-type: none"> <li>• Definition of decentralised organisational structure</li> <li>• Span of control likely to be wide</li> <li>• Likely to be flatter structures as bureaucracies have been thinned</li> <li>• May help development of junior managers</li> <li>• Managers may take decisions that are not in the best interests of the whole organisation</li> </ul>																				
<p><b>Application:</b></p> <ul style="list-style-type: none"> <li>• How decentralised organisational structure would help DA respond to local conditions if DA adopts strategy 1 and enters a foreign market</li> <li>• Linking benefits/drawbacks to the four product areas</li> <li>• Delegation and empowerment – production manager has authority to deal with production issues</li> <li>• Linking benefits/drawbacks to negotiating with trade unions at the factory</li> </ul>																				

Question	Answer	Marks
1	<p><b>Analysis:</b></p> <p><i>Drawbacks of decentralisation</i></p> <ul style="list-style-type: none"> <li>• A more centralised structure with a fixed set of rules and procedures in all areas of the firm might lead to rapid decision making being possible as there would be less discussion</li> <li>• Less consistent policies throughout the organisation. This could lead to conflicts and create confusion in the minds of consumers about the DA brand</li> <li>• Senior managers at headquarters will be experienced decision-makers. They might make better decisions regarding DA</li> </ul> <p><i>Benefits of decentralisation</i></p> <ul style="list-style-type: none"> <li>• A more motivated workforce contributing to greater productivity within the firm</li> <li>• Decision making in response to changes in local conditions may be quicker – if DA enters foreign markets this could be significant</li> </ul> <p>For reference to motivation needs to link to impact on firm for reward of analysis</p>	

Question	Answer	Marks
2(a)(i)	<p><b>Refer to Appendix 1. Calculate as at 20 April 2018</b></p> <p><b>Dividend yield</b></p> <p>Dividend yield = <math>\frac{\text{dividend per share} \times 100}{\text{current share price}}</math> (1 mark)</p> <p>Dividend per share = \$1.1m/10m = \$0.11 (1 mark)</p> <p>= <math>\frac{0.11 \times 100}{5} = 2.2\%</math> (3 marks)</p> <p>Allow 0.022 (3 marks)</p> <p>DY = 2 (3 marks if evidence of calculation)</p> <p>0.22 (2 marks)</p> <p>OFR applies if clear evidence correct equation being used</p> <p>1.43% (2 marks) Wrong year used</p>	<b>3</b>
2(a)(ii)	<p><b>Price earnings ratio</b></p> <p>PE Ratio = <math>\frac{\text{current share price}}{\text{Earnings per share}}</math> (1 mark)</p> <p>Earnings per share = <math>\frac{\text{Profit after tax}}{\text{Total number of shares}}</math> (1 mark)</p> <p>EPS = 6m/10m = 0.6</p> <p>PER = 5/0.6 = 8.3</p> <p>PER = 8 (5 marks if evidence of calculation)</p> <p>OFR applies</p> <p>PER = 10 (4 marks) (4 marks) Wrong year used</p>	<b>5</b>

Question	Answer				Marks
2(b)	<b>Using your results to 2(a) and any other relevant information, recommend whether potential investors should buy shares in DA. Justify your recommendation.</b>				<b>12</b>
<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 4 marks</b>	<b>Evaluation 4 marks</b>	
<b>2</b>	2 marks At least two relevant points made about ratios and/or other relevant issues to shareholders	2 marks Application of two or more points to case	3–4 marks Good use of reasoned argument or theory to explain shareholder view of DA's financial performance	3–4 marks Good judgement shown	
<b>1</b>	1 mark One relevant point made about ratios or relevant issues to shareholders. Definition of shareholder.	1 mark Some application to case	1–2 marks Some use of reasoned argument or theory to explain shareholder view of financial performance	1–2 marks Some judgement shown	
<b>0</b>	No creditable content				
<p><b>Examiner note:</b> Limit to L1 A &amp; E if <b>only</b> refers to results from (a) or other information in the case</p>					
<p><b>Knowledge:</b></p> <ul style="list-style-type: none"> <li>• Shareholders may be primarily interested in the return from their investment: <ul style="list-style-type: none"> <li>– Rising share price provides a capital gain</li> <li>– Rising dividends provide an income</li> </ul> </li> <li>• Dividend yield shows the rate of return based on the current market share price</li> <li>• PE Ratio gives an indication of market confidence in the business</li> </ul>					
<p><b>Application:</b> OFR from (a) applies i.e. candidate using own figure should be rewarded</p> <ul style="list-style-type: none"> <li>• Dividend yield has risen from 1.43% to 2.2%.</li> <li>• Dividend yield has increased due to lower share price</li> <li>• Dividend yield is substantially below the industry average – better returns elsewhere</li> <li>• Business has low gearing – less risk for investors</li> <li>• PE Ratio has fallen from 10 to 8.3.</li> <li>• Profits have decreased</li> </ul>					

Question	Answer	Marks
2(b)	<ul style="list-style-type: none"> <li>• DA has ambitious expansion plans. If successful, this could lead to an increase in the share price.</li> <li>• Dividend cover is 5.45</li> <li>• Linking shareholder decision to Lino's statement that DA needs to retain profit for investment</li> <li>• Will share price continue to fall?</li> </ul> <p><b>Analysis:</b></p> <ul style="list-style-type: none"> <li>• The decreasing PE Ratio suggests declining market confidence in DA's ability to generate long term profits and thus makes it a less attractive investment for shareholders</li> <li>• DA can easily cover the dividends payable suggesting that there is limited risk in making the investment.</li> <li>• Business growth may produce less benefit to shareholders due to low gearing</li> </ul> <p><b>Evaluation:</b></p> <ul style="list-style-type: none"> <li>• Short term v long term judgement of shareholders</li> <li>• Willingness of shareholders to wait for better returns?</li> <li>• More data need to identify longer term trends in ratios.</li> </ul>	

Question	Answer	Marks																				
3	<p><b>Discuss the extent to which the adoption of lean production techniques will solve DA's current operational problems.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 6 marks</th> <th>Evaluation 6 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Knowledge of lean production and at least one point made about impact on operational problems</td> <td>2 marks Good application to the case</td> <td>4–6 marks Good use of theory to answer question</td> <td>4–6 marks Good judgement shown</td> </tr> <tr> <td>1</td> <td>1 marks Knowledge of lean production</td> <td>1 marks Some application to case</td> <td>1–3 marks Some use of theory to answer question</td> <td>1–3 marks Some judgement shown</td> </tr> <tr> <td>0</td> <td colspan="4">No creditable content</td> </tr> </tbody> </table> <p><b>Examiner note:</b> Must demonstrate some knowledge of lean production to gain any marks</p>	Level	Knowledge 2 marks	Application 2 marks	Analysis 6 marks	Evaluation 6 marks	2	2 marks Knowledge of lean production and at least one point made about impact on operational problems	2 marks Good application to the case	4–6 marks Good use of theory to answer question	4–6 marks Good judgement shown	1	1 marks Knowledge of lean production	1 marks Some application to case	1–3 marks Some use of theory to answer question	1–3 marks Some judgement shown	0	No creditable content				16
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Question	Answer	Marks
3	<p><b>Knowledge:</b></p> <ul style="list-style-type: none"> <li>• Lean production approach – using fewer resources to make production more efficient</li> <li>• Large range of examples could be given e.g. JIT; waste control methods; TQM (reduces waste of poor quality products); simultaneous engineering; kaizen, etc.</li> <li>• Lean production will require DA to work closely with suppliers</li> <li>• Knowledge of operational issues</li> </ul> <p><b>Application:</b></p> <ul style="list-style-type: none"> <li>• 1.2% point increase in the proportion of defective products</li> <li>• 50% increase in labour turnover</li> <li>• Linking issues to the new batch production system</li> <li>• Linking material supply problems and lean production</li> <li>• Linking lean production to effect on quality of camping equipment produced</li> <li>• Using reference to investment cost of \$2m</li> <li>• Linking introduction of lean production to negotiations with unions.</li> </ul> <p><b>Analysis:</b></p> <ul style="list-style-type: none"> <li>• Problems have emerged since production became more capital intensive. Did this result in work becoming more deskilled? Lean production through its emphasis on multi-skilled employees might help motivate employees and therefore address issues such as labour turnover</li> <li>• TQM would give workers responsibility for quality and this could result in quicker identification of problems and thus improve quality</li> <li>• Quality circles increases worker involvement and use their expertise. This could increase motivation and therefore improve operational efficiency</li> <li>• Implementing lean production takes time as training required. This could create operational issues in the short term and disrupt production</li> </ul> <p><b>Evaluation:</b></p> <ul style="list-style-type: none"> <li>• Reaction of employees to these changes – are they able or prepared to cope with production methods that require much more involvement from them?</li> <li>• Labour turnover is a key problem. Lean production increases pressure on employees to perform – will this result in greater labour turnover?</li> <li>• Better answers will contain an overall judgement suggesting that lean production methods will help but that other factors will affect production/quality problems too, such as employee training.</li> </ul>	

Question	Answer	Marks
4(a)(i)	<p><b>Refer to data in Appendix 2. Calculate:</b></p> <p><b>promotional elasticity of demand for the DA range of walking boots if spending on promotion is increased from \$200 000 to \$300 000</b></p> $\text{AdED} = \frac{\% \Delta Q_d}{\% \Delta A_d} \quad (1 \text{ mark if no relevant calculation})$ $\% \Delta Q_d = 25\% \quad (1 \text{ mark})$ $\% \Delta A_d = 50\% \quad (1 \text{ mark})$ $\text{AdED} = 0.5 \quad (3 \text{ marks})$ <p>25% and 50% can only be rewarded if it is clear what the numbers refer to.</p>	<b>3</b>
4(a)(ii)	<p><b>Price elasticity of demand for the DA Explorer boot if price is reduced from \$200 to \$180.</b></p> $\text{PED} = \frac{\% \Delta Q_d}{\% \Delta P} \quad (1 \text{ mark if no relevant calculation})$ $\% \Delta Q_d = 13\% \quad (1 \text{ mark})$ $\% \Delta P = -10\% \quad (1 \text{ mark})$ $\text{PED} = -1.3 \quad \text{or} \quad 1.3 \quad (3 \text{ marks})$ <p>13% and (-)10% can only be rewarded if it is clear what the numbers refer to.</p>	<b>3</b>



Question	Answer				Marks
4(b)	<p><b>Use your results to 4(a) and any other relevant information. Discuss the importance of marketing planning to the success of DA's entry into the market for walking boots.</b></p>				<b>12</b>
	<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 4 marks</b>	<b>Evaluation 4 marks</b>
	<b>2</b>	2 marks At least two relevant points made about marketing planning and or results	2 marks Application of two or more points to case	3–4 marks Good use of theory to answer question	3–4 marks Good judgement shown
	<b>1</b>	1 mark One relevant point made about results or marketing planning	1 mark Some application to case	1–2 marks Some use of theory to answer question	1–2 marks Some judgement shown
	<b>0</b>	No creditable content			
<p><b>Examiner note:</b> L1 A &amp; E if <b>only</b> refer to answer from (a) <b>or</b> other information</p>					
<p><b>Knowledge:</b></p>					
<ul style="list-style-type: none"> <li>• Marketing plan: The plan of how the marketing objectives are going to be achieved</li> <li>• Clear objectives gives business direction and focus</li> <li>• Market research will help DA understand the market and make appropriate marketing decisions</li> <li>• Estimating PED/AED aids making decisions about pricing/promotion</li> </ul>					
<p><b>Application:</b></p>					
<p>OFR from (a) applies i.e. candidate using own figure should be rewarded</p>					
<ul style="list-style-type: none"> <li>• Demand for DA Explorer is price elastic – responsive to changes in price</li> <li>• Demand is advertising inelastic – not responsive to changes in advertising expenditure</li> <li>• Comparing revenues with and without the change in price /advertising expenditure</li> </ul>					
<p><b>Analysis:</b></p>					
<ul style="list-style-type: none"> <li>• Knowledge of PED will help shape marketing mix. It is a competitive market – PED is estimated to be 1.3. Is market penetration pricing therefore most appropriate? Pricing at \$180 rather than \$200 will boost revenue but how will profit be affected?</li> <li>• Promotion will be important as DA has not sold walking boots before, therefore it is essential to raise awareness of DA's entrance into the market. However, promotional elasticity of demand is only 0.5; does this suggest that spending \$100 000 more is ineffective?</li> </ul>					

Question	Answer	Marks
4(b)	<p><b>Evaluation:</b></p> <ul style="list-style-type: none"> <li>• Completely new marketing plan needed – most important factor could be identified and explained.</li> <li>• Essential to have fully integrated and supportive marketing mix aimed at this market</li> <li>• Competitive rivalry will be an important factor</li> <li>• Original objective needs to be realistic (market share?) and used as a form of assessment of this strategy.</li> </ul>	

Question	Answer	Marks																				
5	<p><b>Assume DA decides to go ahead with strategy 1.</b></p> <p><b>Discuss the extent to which the data in Appendix 5 and other external factors could influence DA's success in country B.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 6 marks</th> <th>Evaluation 6 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Knowledge of external factors and at least one point about impact on success</td> <td>2 marks Good application of points to case</td> <td>4–6 marks Good use of theory to answer question</td> <td>4–6 marks Good judgement shown in text and conclusion</td> </tr> <tr> <td>1</td> <td>1 mark Knowledge of external factors or their impact on success</td> <td>1 mark Some application to case</td> <td>1–3 marks Some use of theory to answer question</td> <td>1–3 marks Some judgement shown in text or conclusion</td> </tr> <tr> <td>0</td> <td colspan="4">No creditable content</td> </tr> </tbody> </table> <p><b>Examiner note:</b> If candidate assumes that DA entering market of country B to set up, not just sell in, then marks can be awarded for discussion on staff availability due to unemployment etc.</p> <p><b>Knowledge:</b></p> <ul style="list-style-type: none"> <li>• External factors are outside the control of the business and include economic, social and political factors.</li> <li>• Definition of terms in Appendix 1</li> <li>• Definition of other external factors</li> </ul> <p><b>Application:</b></p> <ul style="list-style-type: none"> <li>• Reduction in rate of growth of GDP and link to spending</li> <li>• Rising inflation in country B and link to consumer spending</li> <li>• Exchange rate depreciation and consequence for DA entering country B</li> </ul>	Level	Knowledge 2 marks	Application 2 marks	Analysis 6 marks	Evaluation 6 marks	2	2 marks Knowledge of external factors and at least one point about impact on success	2 marks Good application of points to case	4–6 marks Good use of theory to answer question	4–6 marks Good judgement shown in text and conclusion	1	1 mark Knowledge of external factors or their impact on success	1 mark Some application to case	1–3 marks Some use of theory to answer question	1–3 marks Some judgement shown in text or conclusion	0	No creditable content				16
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Question	Answer	Marks
5	<ul style="list-style-type: none"> <li>• Impact of increase in indirect taxes on DA prices and consumer spending</li> <li>• Impact of reduction in direct taxes on consumer spending</li> <li>• Reduction in unemployment rate and impact on consumer spending</li> </ul> <p><b>Analysis:</b></p> <ul style="list-style-type: none"> <li>• Rising real GDP should mean that incomes are rising and thus lead to increased demand for DA's products. Income elasticity of demand in country B will have a significant impact on extent to which demand increases</li> <li>• Unemployment is expected to fall as the economy grows. This may also boost sales as household incomes rise leading to sales growth.</li> <li>• High rates of inflation can create economic instability and result in it being difficult to predict future sales and revenues. The government may have to tackle higher inflation through increasing interest rates; this could impact sales of camping equipment particularly if it is expensive.</li> <li>• The depreciation of country A exchange rate may be beneficial to DA as they produce their equipment in country A; it will therefore become cheaper when imported into country B. This therefore allows DA to either enjoy a higher profit margin or to cut price to country B customers.</li> <li>• High inflation will increase the price of domestically produced goods – this could also help to make DA's products more competitive.</li> <li>• Indirect taxes are set to increase. This will add to the price of DA's products.</li> <li>• Direct taxes are set to fall. This will increase disposable income and benefit sales.</li> </ul> <p><b>Evaluation:</b></p> <ul style="list-style-type: none"> <li>• Which is the most significant factor determining success?</li> <li>• Can DA manage the external factors to minimise their negative impacts?</li> <li>• Importance of internal factors as well in determining success</li> </ul>	

Question	Answer			Marks
<b>Questions 6 and 7 use this marking grid:</b>				
Level	Knowledge 3 marks	Application 3 marks	Analysis 4 marks	Evaluation 10 marks
<b>3</b>				7–10 marks Good judgement shown throughout with well supported conclusion/ recommendation, focused on the business in the case
<b>2</b>	3 marks Good understanding shown	3 marks Good application to the case	3–4 marks Good use of reasoned argument or use of theory to explain points made	4–6 marks Some judgement shown in the main body of the answer <b>and</b> an attempt to support conclusion/ recommendation, focused on the business in the case OR effective and well supported conclusion/ recommendation, focused on the business in the case
<b>1</b>	1–2 marks Some understanding shown	1–2 marks Some application to the case	1–2 marks Limited use of reasoned argument or use of theory to support points made	1–3 marks Limited attempt to show judgement either within the answer OR a weakly supported conclusion/ recommendation with some focus on the business in the case

Question	Answer	Marks
6	<p><b>Discuss whether strategic choice techniques can eliminate risk from the strategic decisions that the directors of DA have to make.</b></p> <p><b>Examiner note:</b></p> <ul style="list-style-type: none"> <li>• If only discuss role of strategic analysis (SA) or strategic implementation (SI) in reducing risk this is only L1 K and APP</li> <li>• However, if strategic choice (SC) is discussed then reference to need for SA and SI to reduce risk can be rewarded fully.</li> <li>• This is not a question about which strategy to choose. A candidate who just goes through SC techniques and uses them to justify a choice should be limited to K3 APP3 AN2 EVAL 0</li> </ul> <p><b>Knowledge:</b></p> <ul style="list-style-type: none"> <li>• Strategic choice is an element of the strategic decision making process.</li> <li>• It is concerned with the identification of different strategic options and deciding between them.</li> <li>• Force Field Analysis</li> <li>• Technique for identifying and analysing the positive factors that support a decision (driving forces) and negative factors that constrain it (restraining factors)</li> <li>• This can be useful for a business to consider how to overcome the restraining forces.</li> <li>• Decision tree</li> <li>• Sets out options connected with a decision and the outcomes and economic returns that may result</li> <li>• Ansoff Matrix</li> <li>• Strategic planning tool that provides a framework to help devise future growth strategies (market penetration, market development, product development, diversification)</li> <li>• Investment Appraisal</li> <li>• Evaluation of the attractiveness of an investment proposal, using methods such as payback, average rate of return and net present value</li> </ul> <p><b>Application:</b></p> <ul style="list-style-type: none"> <li>• Classification of takeover of Outdoor Life in Ansoff Matrix</li> <li>• Expected monetary values are <ul style="list-style-type: none"> <li>– Strategy 1 \$1.8m, Strategy 2 \$7.2m</li> <li>– Strategy 2 would be chosen on basis of decision tree.</li> </ul> </li> <li>• Payback favours strategy 1, ARR favours strategy 2</li> </ul> <p><b>Analysis:</b></p> <ul style="list-style-type: none"> <li>• Quicker payback may be beneficial to satisfy shareholders – relates to risk of decisions causing shareholder dissatisfaction</li> <li>• Strategic choice techniques attempt to apply a more scientific approach to decision making. This can improve the quality of decisions and ensure that more factors are considered hence reducing risk</li> <li>• Identifying restraining factors can enable to DA to reduce risk by developing strategies to overcome the restraining factors</li> <li>• Strategy 1 is market development</li> </ul>	20

Question	Answer	Marks
6	<ul style="list-style-type: none"> <li>• Analysis of risks of market development</li> <li>• Analysis of implication of unsaturated market for Strategy 1</li> <li>• Analysis of exchange rate risks for Strategy 1</li> <li>• Analysis of lack of experience of retailing for Strategy 2</li> <li>• Analysis of benefit of distribution channel for Strategy 2</li> </ul> <p><b>Evaluation:</b></p> <ul style="list-style-type: none"> <li>• Reference to role that SA and SI will also contribute to reducing risk</li> <li>• How useful is Ansoff's Matrix in assessing risk, it is a very blunt instrument.</li> <li>• A key issue is the cost of investment and the ability of DA to absorb potential losses from any strategic decision.</li> <li>• Dependence of techniques on estimation and role of subjectivity, both of which mean that risk still remains</li> <li>• ARR and payback this doesn't take into the difference in capital cost. Can DA afford the \$20m capital cost of strategy 2?</li> <li>• Strategic implementation will have a significant bearing on the success of any decision. Strategic choice techniques are helpful in identifying risk but cannot eliminate risk.</li> <li>• For all of these techniques issue of estimation is important. Inflation is predicted to be high in country B – this could make estimates of revenue difficult to forecast with any accuracy.</li> </ul>	

Question	Answer	Marks
7	<p><b>Evaluate the extent to which contingency planning might help DA achieve its long term aims and objectives.</b></p> <p><b>Knowledge:</b></p> <ul style="list-style-type: none"> <li>• Definition of contingency planning: preparing an organisation's resources for unlikely events.</li> <li>• This may also be referred to as crisis management and business continuity planning.</li> <li>• Having a back-up plan or plan B.</li> <li>• Part of business planning process</li> <li>• Reassures customers and staff that their interests are being considered</li> <li>• Reduces potential impact on customers in the event of a major disaster</li> <li>• Disasters may still occur</li> <li>• Can be expensive and time consuming especially for small businesses</li> <li>• There is the planning process and also the need to train staff for each possible eventuality.</li> </ul> <p><b>Application:</b></p> <ul style="list-style-type: none"> <li>• Problems with suppliers. This could be an area where contingency planning could be helpful in ensuring that disruption to production is minimised</li> <li>• If DA opt for strategy 1 it could be affected by the significant exchange rate movements predicted for country B. It is important to have considered how to respond to this change in the economic environment.</li> </ul> <p><b>Analysis:</b></p> <ul style="list-style-type: none"> <li>• With fore-planning the public relations response is much more likely to be quick and appropriate so that senior managers can manage the media attention and communicate effectively what the company intends to do, by when and how from disasters both in terms of costs and bad PR and loss of customer loyalty.</li> <li>• Recognising major risks, such as fire, may actually reduce the risk of the disaster happening</li> </ul> <p><b>Evaluation:</b></p> <ul style="list-style-type: none"> <li>• Avoiding disasters is better than planning what to do if they happen.</li> <li>• Plans need to be updated frequently as the business develops</li> <li>• Cost of CP needs to be balanced against the potential costs of not doing it. Which potential disasters should be planned for?</li> <li>• How much time is spent on preparing and testing contingency plans?</li> </ul>	20

# **PAPER NUMBER 6**



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**BUSINESS**

**9609/33**

Paper 3 Case Study

**May/June 2018**

INSERT

**3 hours**

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**READ THESE INSTRUCTIONS FIRST**

This Insert contains the case study for use with the Question Paper.  
The business described in this Insert is entirely fictitious.

You may annotate this Insert.  
This Insert will not be assessed by the Examiner.



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This document consists of **4** printed pages.

## Rolling Wheels (RW)

Kadeem is a keen cyclist and he had the idea that selling bicycles might be profitable. Without a business plan, he set up RW five years ago in the capital city of country X. RW is now a private limited company and Kadeem owns 95% of the shares. RW sells bicycles, accessories, specialist clothing and replacement parts. Half of these products are imported. RW also offers bicycle repairs and servicing. RW is one of the largest independent bicycle businesses in the city and employs ten people. It offers customers a personal service and charges prices that are competitive compared to other specialist bicycle retailers. However, there are large general retailers that sell and repair bicycles at lower prices. These large retailers have over 80% of the bicycle supply and repair market in the city. 5

RW's major competitive advantage is that it is the only business of its type located very close to a university. The students and employees of the university are the main customer base and they value the convenience, reliability and personal attention. 10

### Human resource management issues

Kadeem employs Asif as the store manager. Asif has noticed an increase in the number of complaints from customers in the last year. He is worried that this will lead to loss of reputation, falling sales and reduced customer loyalty. Asif raised the following concerns with Kadeem. 15

- RW has not increased employee pay for over a year.
- Customer service training is given in-store while employees are working.
- New employees are slow at servicing and repairs.
- The store seems busy but many visitors do not buy anything. 20
- Employees feel that they are working as individuals and are not part of a team.
- Kadeem has been very busy for three months drawing up future plans.
- Half the employees are thinking of leaving because they do not feel involved in the business.

Kadeem gave some serious thought to these concerns. As a result, he is considering introducing Management by Objectives (MBO) and ways to improve communication within the business. 25

### Quality issues

The meeting between Kadeem and Asif highlighted customer complaints regarding quality. New bicycles arrive from manufacturers in several parts and are assembled in-store. The assembly of some bicycles has not been done well, with customers pointing out faults or returning bicycles for adjustment soon after purchase. Other complaints have also been made about the servicing and repair of bicycles. The workshop manager is responsible for this work. She checks some of the bicycles following assembly, service or repair. She then asks any available employee to correct the fault without investigating the cause of the problem. Kadeem knows that RW needs to improve quality, possibly by introducing Total Quality Management (TQM). 30 35

### Order from the university

The university's human resources department has approached Kadeem with a possible order for 80 bicycles for use by employees and students. Kadeem can obtain these bicycles at the short notice required but is worried that the university has offered a price of only \$260 per bicycle. He does not want to accept the order without carefully considering the costs and revenue. All 80 bicycles would have to be assembled and checked. He also knows that his current inventory takes up nearly all the space he has available. Table 1 shows information about RW's existing costs and revenue from selling bicycles. Kadeem has to decide whether to accept this order. 40

**Table 1: Financial data for the bicycle sales profit centre 2017–18**

Sales volume	300 units
Average selling price per bicycle	\$350
Direct costs	\$60 000
Allocated indirect costs including marketing, utilities and premises	\$30 000

45

**The future: Expansion plans**

50

Kadeem is excited about the future but also very worried. He knows that his business is profitable but that future success is not guaranteed. He has begun the process of deciding how to maintain RW's success. Kadeem is certain that RW has core competencies. With these in mind, he has set the following objectives:

- increase sales volumes by 10% per year for the next 3 years
- increase the proportion of revenue from non-university customers from 10% to 25% over the next 3 years
- maintain profitability ratios at their current level

55

Kadeem is considering two possible ways to expand the business.

**Strategy A: Guided bicycle tours**

60

The city council has invested heavily in attracting more tourists. Kadeem has an idea to offer guided bicycle tours of the city to tourists and business visitors. RW would be one of the first to offer this service. He would need to recruit qualified guides accredited by the city's new Tourist Authority. These guides would be employed on zero-hours contracts. RW would need extra bicycles and a part-time office worker to deal with the paperwork and communicate with the Tourist Authority. Additional marketing would be needed, including improving the website to enable a booking system to operate. Table 2 shows forecast net cash flows based on initial market research.

65

**Table 2: Guided bicycle tours: Forecast of net cash flows (\$000)**

	Year 0	Year 1	Year 2	Year 3	Year 4
<b>Revenue</b>	0	25	40	50	60
<b>Costs</b>					
Guides	0	10	16	18	25
Marketing	10	10	12	14	14
Administration	0	4	4	5	5
Purchase of bicycles	3	0	2	3	3
<b>Net cash flow</b>	(13)	1	6	10	13
Discount factors at 6% per year	1	0.943	0.890	0.834	0.792

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**Strategy B: Takeover of DB**

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Kadeem realizes that offering the guided bicycle tours will not be enough to achieve RW's new objectives, so he is considering an additional expansion plan. This involves the takeover of DB, an independent bicycle retailer in a different part of the city. RW might decide to continue using the existing employees to save recruitment costs. However, RW would still need to appoint its own managers to ensure that the new store operates in the same way and with the same culture as RW's existing store. This will mean deciding what role the managers will play in the new store and how much power they will have to take decisions. Buying DB will be expensive. Kadeem has to be certain that the new store will be profitable.

85

**Additional strategic factors**

Kadeem is keen to make a decision soon about the takeover of DB as the owners want to sell quickly. This means he might not have the time to prepare a detailed plan for integrating the DB store into the existing RW business. Kadeem is also worried about possible changes to market conditions and has discussed these with Asif. As a result of their discussions Asif has quickly produced some business, market and economic data (see Appendices 1 and 2).

90

**Appendix 1: SWOT analysis for RW**

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• strong links with university</li> <li>• brand loyalty and excellent reputation</li> <li>• specialist service</li> </ul>	<ul style="list-style-type: none"> <li>• workforce performance issues</li> <li>• reliance on the university market</li> <li>• inadequate research and planning</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• expanding into bicycle tours and takeover of DB</li> <li>• supplying other institutions (businesses or government agencies)</li> <li>• internet selling</li> </ul>	<ul style="list-style-type: none"> <li>• competitor internet sales</li> <li>• competitors target university market</li> <li>• more competitors entering the market</li> <li>• proposed legislation on minimum wage, pension provision and health &amp; safety</li> </ul>

**Appendix 2: Economic data for country X**

	2018	2019	2020
Rate of interest %	6	5	3
Exchange rate index: 2018 =100	100	95	92
Population growth (year on year) %	5	6	8
Unemployment %	7	6	5

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**BUSINESS**

**9609/33**

Paper 3 Case Study

**May/June 2018**

MARK SCHEME

Maximum Mark: 100

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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

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**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

**GENERIC MARKING PRINCIPLE 1:**

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

**GENERIC MARKING PRINCIPLE 2:**

Marks awarded are always **whole marks** (not half marks, or other fractions).

**GENERIC MARKING PRINCIPLE 3:**

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

**GENERIC MARKING PRINCIPLE 4:**

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

**GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

**GENERIC MARKING PRINCIPLE 6:**

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Question	Answer			Marks																
1	<p><b>Analyse the likely benefits to RW of introducing Total Quality Management (TQM).</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 3 marks</th> <th>Application 2 marks</th> <th>Analysis 5 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>3 marks Two or more relevant points made about benefits</td> <td>2 marks Points made are applied to RW</td> <td>4–5 marks Good use of theory to explain benefits</td> </tr> <tr> <td>1</td> <td>1–2 marks One or two relevant points made about benefits</td> <td>1 mark Some application to RW</td> <td>1–3 marks Some use of theory to explain benefits</td> </tr> <tr> <td>0</td> <td colspan="3">No creditable content</td> </tr> </tbody> </table> <p><i>Note to examiners:</i></p> <ul style="list-style-type: none"> <li>• Disadvantages should not be rewarded</li> <li>• Benefits should relate to RW, not e.g. to employees or other stakeholders</li> <li>• If no specific knowledge of TQM demonstrated, only benefits of improving quality then L1 all skills – max 6</li> </ul> <p><i>Answers could include:</i></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• TQM is a holistic approach to quality that involves all employees in ensuring best possible processes and outcomes Inc. quality chains, quality circles, internal customers, kaizen.</li> <li>• Checking for quality at every stage can be accepted as knowledge of TQM, but not checking quality at the end of the process.</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Many faults in servicing and repair</li> <li>• Workshop manager responsible</li> <li>• Lack of involvement by employees.</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Problems identified early saving costs of correction</li> <li>• Little need for final inspection, saving costs</li> <li>• Easier to trace reasons for faults, leading to lower costs</li> <li>• Responsibility for quality identified, accountability improved</li> <li>• More opportunities for employee responsibility so greater motivation</li> <li>• Less wastage of materials and time so saving costs</li> <li>• Better customer relations so more repeat business</li> </ul>			Level	Knowledge 3 marks	Application 2 marks	Analysis 5 marks	2	3 marks Two or more relevant points made about benefits	2 marks Points made are applied to RW	4–5 marks Good use of theory to explain benefits	1	1–2 marks One or two relevant points made about benefits	1 mark Some application to RW	1–3 marks Some use of theory to explain benefits	0	No creditable content			10
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Question	Answer	Marks
2(a)(i)	<p><b>Refer to Table 1. Calculate:</b></p> <p><b>profit margin of bicycle sales for 2017–18</b></p> <ul style="list-style-type: none"> <li>• Profit margin = profit/revenue × 100% (1 mark) (or implied by use of correct formula)</li> <li>• Revenue = 300 × \$350 = \$105(000) (1 mark)</li> <li>• <b>or</b> Costs = 60 + 30 = \$90(000) (1 mark)</li> <li>• Profit = 105 – 90 = \$15(000) (1 mark)</li> <li>• Profit margin = 15/105 = <b>14.3% (allow 14%)(% not essential)</b></li> <li>• 1 error, e.g. incorrectly calculated figure (3 marks) OFR applies</li> <li>• If calculate GPM allow full marks. i.e. 45/105 × 100 = 42.85% (4)</li> </ul>	<b>4</b>
2(a)(ii)	<p><b>contribution per unit for the new university order.</b></p> <ul style="list-style-type: none"> <li>• Contribution p/u = selling price – direct cost (per unit) (1 mark) or selling price – AVC</li> <li>• 260 – 200 = <b>\$60</b></li> </ul>	<b>2</b>



Question	Answer				Marks																				
2(b)	<p><b>Refer to your answer your results to 2(a) and any other information. Discuss whether RW should accept the new university order.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 4 marks</th> <th>Evaluation 4 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Two or more relevant points made</td> <td>2 marks Application of two or more points to RW</td> <td>3–4 marks Good use of theory to answer question</td> <td>3–4 marks Good judgement shown</td> </tr> <tr> <td>1</td> <td>1 mark One relevant point made</td> <td>1 mark Some application to RW</td> <td>1–2 marks Some use of theory to answer question</td> <td>1–2 marks Some judgment shown</td> </tr> <tr> <td>0</td> <td colspan="4">No creditable content</td> </tr> </tbody> </table> <p><i>Note to examiners:</i></p> <ul style="list-style-type: none"> <li>• Own figure rule from 2(a) applies</li> <li>• L1 AN and EVAL if only use 2(a) results or only use other information</li> </ul> <p><i>Answers could include:</i></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Significance of the calculation of loss using full cost method</li> <li>• Significance of positive contribution to indirect costs</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• RW are in a position to source cycles but possible difficulty in assembly</li> <li>• Limited storage space</li> <li>• Competitive market context</li> <li>• Possible loss of goodwill from university</li> <li>• Offer price of \$260 for 80 cycles – use of calculation of loss and contribution 25.7% reduction in price Contribution on the order is \$90 lower per unit, so \$7200 in total Additional profit is <math>80 \times 60 = \\$4800</math> Current profit from bicycles is \$15 000</li> </ul> <p><b>Analysis</b> – other factors including:</p> <ul style="list-style-type: none"> <li>• Development of calculations, in terms of impact on RW</li> <li>• Possible need for more employees and space might increase costs</li> <li>• Opportunity costs – storage space limited and use of employees might mean other business not carried out</li> <li>• Sale of 80 bicycles may clear storage space for new stock</li> <li>• Failure to accept might lead to offer to competitors and loss of advantage</li> <li>• Status of goodwill from university – would rejecting order prejudice this or encourage university to offer more below cost contracts</li> <li>• Possibility of negotiating on the offer price of \$260?</li> </ul>				Level	Knowledge 2 marks	Application 2 marks	Analysis 4 marks	Evaluation 4 marks	2	2 marks Two or more relevant points made	2 marks Application of two or more points to RW	3–4 marks Good use of theory to answer question	3–4 marks Good judgement shown	1	1 mark One relevant point made	1 mark Some application to RW	1–2 marks Some use of theory to answer question	1–2 marks Some judgment shown	0	No creditable content				12
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Question	Answer	Marks
2(b)	<p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• A supported recommendation should follow consideration of pros and cons of accepting the order</li> <li>• Is RW certain that the costings are accurate?</li> <li>• Assumptions made in calculation of indirect costs may not be accurate</li> </ul>	

Question	Answer	Marks																				
3	<p><b>Discuss whether introducing Management by Objectives (MBO) is the most effective way for RW to solve its human resource problems.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 6 marks</th> <th>Evaluation 6 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Two or more relevant points</td> <td>2 marks Application of two or more points to RW</td> <td>4–6 marks Good use of theory to answer question</td> <td>4–6 marks Good judgment shown</td> </tr> <tr> <td>1</td> <td>1 mark One relevant point made</td> <td>1 mark Some application to RW</td> <td>1–3 marks Some use of theory to answer question</td> <td>1–3 marks Some judgment shown</td> </tr> <tr> <td>0</td> <td colspan="4">No creditable content</td> </tr> </tbody> </table> <p><i>Note to examiners:</i></p> <ul style="list-style-type: none"> <li>• Answer should focus on MBO and advantages/disadvantages, not general points re: motivation, leadership or other HRM issues</li> <li>• If no specific knowledge shown of MBO, but other approaches discussed, then L1 all skills.</li> <li>• Answer should focus on RW. If focus is on effect on employees this should be developed further into effect on RW.</li> </ul> <p><i>Answers could include:</i></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• MBO involves negotiating and setting objectives/targets for all employees and managers so all know what is expected of them</li> <li>• objectives could be manager led or consensual</li> <li>• objectives to be SMART</li> <li>• objectives should be in line with strategic overall aims</li> <li>• Alternative method(s) for addressing worries</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Reference to list of Asif's bullet points</li> <li>• high dissatisfaction rate (50% thinking of leaving)</li> <li>• Asif as store manager, Kadeem as less involved with store employees</li> </ul>	Level	Knowledge 2 marks	Application 2 marks	Analysis 6 marks	Evaluation 6 marks	2	2 marks Two or more relevant points	2 marks Application of two or more points to RW	4–6 marks Good use of theory to answer question	4–6 marks Good judgment shown	1	1 mark One relevant point made	1 mark Some application to RW	1–3 marks Some use of theory to answer question	1–3 marks Some judgment shown	0	No creditable content				16
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Question	Answer	Marks
3	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• employee involvement in setting objectives leads to increased ownership, motivation, commitment and performance</li> </ul> <p><b>BUT</b></p> <ul style="list-style-type: none"> <li>– can be time consuming and costly</li> <li>– might lead to employees disclosing confidential strategic information</li> <li>– agreed objectives might be too easy/difficult to achieve</li> <li>– may lead to inflexible response to changing environment</li> </ul> <ul style="list-style-type: none"> <li>• Other possible responses to issues may be put forward with reasons/implications including: <ul style="list-style-type: none"> <li>– increased training provision</li> <li>– discussion with store manager to improve his management skills (application)</li> <li>– more involvement with employees by Kadeem (application)</li> <li>– introduction of a bonus scheme</li> </ul> </li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Supported recommendation on (non) introduction of MBO</li> <li>• Ranking MBO with alternatives as solution to problems</li> <li>• Weighing up of benefits of MBO with disadvantages.</li> </ul>	

Question	Answer	Marks
4(a)(i)	<p><b>Refer to Table 2. Calculate:</b></p> <p><b>accounting rate of return</b></p> <ul style="list-style-type: none"> <li>• <math>ARR = \text{average earnings per year} \times 100 / \text{initial cost}</math> (1 mark)</li> <li>• Average earnings per year = <math>30 - 13/4</math> (1 mark) = 4.25k (1 mark)</li> <li>• <math>4.25 \times 100 / 13</math> = <b>32.7%</b> (4 marks)</li> <li>• Initial investment not deducted <math>7.5/13 \times 100 = 58\%</math> (3 marks)</li> <li>• Not divided by number of years <math>17/13 \times 100 = 131\%</math> (3 marks) OFR applies</li> </ul>	<b>4</b>

Question	Answer	Marks																								
4(a)(ii)	<p><b>Net present value (at 6% discount rate)</b></p> <ul style="list-style-type: none"> <li>NPV is the difference between present value of cash inflows and outflows. (1 mark)</li> </ul> <table border="1"> <thead> <tr> <th></th> <th>Year 0</th> <th>Year 1</th> <th>Year 2</th> <th>Year 3</th> <th>Year 4</th> </tr> </thead> <tbody> <tr> <td><b>NCF</b></td> <td>-13</td> <td>1</td> <td>6</td> <td>10</td> <td>13</td> </tr> <tr> <td><b>DF</b></td> <td>1</td> <td>.943</td> <td>.890</td> <td>.834</td> <td>.792</td> </tr> <tr> <td><b>DCF</b></td> <td>-13</td> <td>.943</td> <td>5.34</td> <td>8.34</td> <td>10.296</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Total net DCF = <math>24.92 - 13 = \mathbf{\\$11.919 (000) \text{ or } 11.92}</math></li> <li>Allow rounding if correct calculation shown, e.g. 12 (000)</li> <li>Use of discount factor (1 mark)</li> <li>Calculation of annual DCF (2 marks)</li> <li>\$24.92 i.e. does not deduct capital cost (2 marks) OFR applies</li> </ul>		Year 0	Year 1	Year 2	Year 3	Year 4	<b>NCF</b>	-13	1	6	10	13	<b>DF</b>	1	.943	.890	.834	.792	<b>DCF</b>	-13	.943	5.34	8.34	10.296	<b>4</b>
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<b>DCF</b>	-13	.943	5.34	8.34	10.296																					

Question	Answer				Marks																				
4(b)	<p><b>Refer to your results to 4(a) and any other information. Recommend whether or not RW should offer guided bicycle tours. Justify your decision.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 3–4 marks</th> <th>Evaluation 3–4 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Two or more relevant points</td> <td>2 marks Application of two or more points to RW</td> <td>3–4 marks Good use of theory to answer question</td> <td>3–4 marks Good judgment shown</td> </tr> <tr> <td>1</td> <td>1 mark One relevant point made</td> <td>1 mark Some application to RW</td> <td>1–2 marks Some use of theory to answer question</td> <td>1–2 marks Some judgment shown</td> </tr> <tr> <td>0</td> <td colspan="4">No creditable content</td> </tr> </tbody> </table> <p><i>Note to examiners:</i></p> <ul style="list-style-type: none"> <li>• Own figure rule from 4(a) applies</li> <li>• L1 AN and EVAL if only use 4(a) results or only use other information</li> </ul> <p><i>Answers could include:</i></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• costs of setting up and operating – availability of finance and time</li> <li>• projected revenue</li> <li>• Discounted cash flow and investment appraisal techniques</li> <li>• market opportunity exists on basis of forecasts</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• use of data from table 2, choice of discount factor</li> <li>• Payback period 2 yrs 7.2 months</li> <li>• reference to requirements – recruit guides, admin assistant, cycles</li> <li>• reference to Tourist Authority and enhanced website</li> <li>• space for cycle storage issue</li> <li>• support for tourism from city authorities</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• results from data</li> <li>• possible benefits from the new product</li> <li>• possible disadvantages of the new scheme</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• supported recommendation on the proposal</li> <li>• comments re accuracy of data and implicit assumptions made</li> <li>• uncertainty re possible competitors actions</li> <li>• RW may be attempting too much given resources available</li> </ul>				Level	Knowledge 2 marks	Application 2 marks	Analysis 3–4 marks	Evaluation 3–4 marks	2	2 marks Two or more relevant points	2 marks Application of two or more points to RW	3–4 marks Good use of theory to answer question	3–4 marks Good judgment shown	1	1 mark One relevant point made	1 mark Some application to RW	1–2 marks Some use of theory to answer question	1–2 marks Some judgment shown	0	No creditable content				12
Level	Knowledge 2 marks	Application 2 marks	Analysis 3–4 marks	Evaluation 3–4 marks																					
2	2 marks Two or more relevant points	2 marks Application of two or more points to RW	3–4 marks Good use of theory to answer question	3–4 marks Good judgment shown																					
1	1 mark One relevant point made	1 mark Some application to RW	1–2 marks Some use of theory to answer question	1–2 marks Some judgment shown																					
0	No creditable content																								

Question	Answer				Marks
5	<b>Discuss an appropriate marketing strategy RW could use if it decides to expand by offering guided bicycle tours.</b>				
<b>Level</b>	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 6 marks</b>	<b>Evaluation 6 marks</b>	
<b>2</b>	2 marks Two or more relevant points	2 marks Application of two or more points to RW	4–6 marks Good use of theory to answer question	4–6 marks Good judgment shown	
<b>1</b>	1 mark One relevant point made	1 mark Some application to RW	1–3 marks Some use of theory to answer question	1–3 marks Some judgment shown	
<b>0</b>	No creditable content				
<i>Note to examiners:</i>					
Limit to L1 AN and EVAL if only considers one element of marketing strategy e.g. just pricing or budget					
<i>Answers could include:</i>					
<b>Knowledge</b>					
<ul style="list-style-type: none"> <li>• marketing strategy is coordinated elements of the marketing mix incorporated into a marketing plan/strategy, including objectives and budget.</li> <li>• elements of a marketing plan/strategy</li> </ul>					
<b>Application</b>					
<ul style="list-style-type: none"> <li>• target market is tourists and business visitors</li> <li>• link to city Tourist Agency</li> <li>• product – high quality guided set or personalised group and individual cycle tours with expert guides focused on historical/social/architectural features. Reference to amount spent on bicycles.</li> <li>• place – operated from store or other premises to be decided</li> <li>• promotion – enhanced website with booking facility, tickets via Tourist Agency outlets, adverts/PR in newspapers, cards/flyers in hotels and travel agents, entries in tourist aimed publications/brochures, flyers and email to university contacts likely to have visitors. Also to businesses likely to offer their visitors some downtime. Methods to contain details of routes, prices, location</li> <li>• price – early entrant so slightly higher price than existing small competition. introductory discounts/offers e.g. free drinks/snacks, discounted repeat bookings</li> <li>• Reference to marketing budget in Table 2</li> </ul>					
<b>Analysis</b>					
<ul style="list-style-type: none"> <li>• Linked elements of the marketing mix</li> <li>• Reasoned argument for methods in the mix elements</li> <li>• Possible results of the marketing mix methods</li> </ul>					

Question	Answer	Marks
5	<b>Evaluation</b> <ul style="list-style-type: none"><li>• supported assessment of likelihood of success</li><li>• objectives are needed for strategy</li><li>• availability of finance/resources for the strategy/plan</li><li>• must build in review of strategy</li><li>• strategy relies on reliability of data/research</li></ul>	

Question	Answer			Marks
<b>Questions 6 and 7 use this marking grid:</b>				
Level	Knowledge 3 marks	Application 3 marks	Analysis 4 marks	Evaluation 10 marks
<b>3</b>				7–10 marks Good judgment shown throughout with well supported conclusion/recommendation, focused on RW
<b>2</b>	3 marks Good understanding shown	3 marks Good application to RW	3–4 marks Good use of reasoned argument or use of theory to explain points made to explain points made	4–6 marks Some judgment shown in the main body of the answer <b>and</b> an attempt to support conclusion/recommendation, focused on RW <b>OR</b> effective and well supported conclusion/recommendation, focused on RW
<b>1</b>	1–2 marks Some understanding shown	1–2 marks Some application to RW	1–3 marks Limited use of reasoned argument or use of theory to support points made	1–3 marks Limited attempt to show judgment either within the answer <b>OR</b> a weakly supported conclusion/recommendation with some focus on RW
<b>0</b>	No creditable content			



Question	Answer	Marks
6	<p><b>Evaluate the importance of using a strategic management approach to improve RW's competitive advantage.</b></p> <p><i>Note to examiners:</i></p> <ul style="list-style-type: none"> <li>• If only consider one element of SM (i.e. only strategic analysis or strategic choice or strategic implementation) then L1 AN and EVAL max</li> <li>• Emphasis is on improving competitive advantage for AN and EVAL marks</li> </ul> <p><i>Answers could include:</i></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• strategic management is the process in which objectives, strategy, tactics and review are used in business planning and implementation</li> <li>• strategic management covers the whole of the business</li> <li>• elements are integrated and linked</li> <li>• objectives help determine strategies in each functional area</li> <li>• tactics and methods in each follow from the strategic overview</li> <li>• process is objectives, analysis (including appropriate tools), choice (including appropriate tools) and implementation (business plans, appropriate corporate culture, contingency planning).</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• role of different elements in product portfolio (cycle and accessory supply, repair)</li> <li>• appropriate objectives from case material</li> <li>• concerns over quality</li> <li>• opening another store</li> <li>• setting up guided cycle tours</li> <li>• larger lower cost competitors/increased competition</li> <li>• use of Tables 3 and 4.</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• takeover will assist in gaining competitive advantage and enable flexible responses to change</li> <li>• guided cycle tours spread risk</li> <li>• takeover will assist in gaining competitive advantage and enable flexible responses to change</li> <li>• demonstration that elements are integrated and linked</li> <li>• objectives help determine strategies in each functional area</li> <li>• tactics and methods in each follow from the strategic overview.</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• supported conclusion on usefulness of strategic management</li> <li>• relative importance of constituent sections of strategic management</li> <li>• necessity of review/updating the management plan</li> <li>• importance of accurate reliable data/information</li> </ul>	20

Question	Answer	Marks
7	<p><b>Discuss the importance of effective strategic implementation for the future success of RW.</b></p> <p><i>Answers could include:</i></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• strategic implementation involves making a strategic choice happen including a business plan, developing an appropriate corporate culture (may need a change) and preparing contingency plans</li> <li>• requires business plan setting out exact requirements for products/services offered, marketing plan (based on market analysis), organisational (HRM) plan setting out workforce planning and structure, financial plan outlining sources of finance and on-going cash flow</li> <li>• change management techniques.</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Reference to appropriate objectives from case</li> <li>• possibility of less university business</li> <li>• proposed new ventures (guided cycle tours, takeover of DB)</li> <li>• possible need for culture change re quality/attitudes</li> <li>• use of Appendix 1 and 2.</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• SI contains processes for change management as existing culture will need to alter for new project</li> <li>• SI enables all managers to be focused on appropriate actions/tasks</li> <li>• Plan will assesses resources and enable finance to be obtained</li> <li>• examines commercial viability of project</li> <li>• enables review</li> <li>• strategic implementation carries a cost in time and resources</li> <li>• contingency plans for possible change in conditions.</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• supported conclusion on meaning and importance of effective strategic implementation inc. possible result of not acting strategically</li> <li>• comments on relative importance of constituent parts of SI</li> <li>• relies on accuracy of data/research</li> <li>• relies on effectiveness of managers.</li> </ul>	20

# **PAPER NUMBER 7**

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**BUSINESS**

Paper 3 Case Study

**9609/32**

**May/June 2017**

**3 hours**

No Additional Materials are required.

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**READ THESE INSTRUCTIONS FIRST**

An answer booklet is provided inside this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

**Section A**

Answer **all** questions.

**Section B**

Answer **one** question.

You are advised to spend no more than 40 minutes on Section B.

The businesses described in this question paper are entirely fictitious.

The number of marks is given in brackets [ ] at the end of each question or part question.



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This document consists of **5** printed pages, **3** blank pages and **1** Insert.

## Hari Hotels (HH)

'We must take advantage of the huge growth in international tourism if we want our company to continue to grow profitably' argued Hari, HH's Chief Executive Officer. 'Globalisation is having a huge impact on tertiary sector businesses such as ours.'

He was speaking at HH's Board of Directors meeting which had been called to discuss the future strategic direction the business should take. The directors were being asked to analyse two strategic options for growth that Hari had proposed. International expansion into other countries, such as country P, is one option. The other option is the closure of three existing HH hotels and using these locations to create 'activity holiday resorts'. These would aim to attract foreign tourists that visit country Z, where HH is based. Increased competition from international hotel chains is affecting all hotels in country Z. However, easier international movement of both labour and capital is also creating new opportunities for businesses such as HH. 5 10

HH was started by Hari 23 years ago when he opened his first hotel. Currently the public limited company manages 35 hotels in country Z. It owns 30 of these and rents a further five. The business is well known for offering hotel accommodation of '4 star' quality at competitive prices. 4 stars is the rating given to hotels that offer very clean, comfortable accommodation with many facilities and services. However, they do not offer large conference facilities, swimming pools or gyms which are found in 5 star hotels. 15

### Organisational structure

HH's organisational structure is still based around the functional departments that Hari originally created. Once an overall strategy has been decided at Board level, departmental directors and senior managers then put into effect the necessary changes within their function. 20

The recent construction of a new hotel in the capital city illustrated the need for coordinating decisions between marketing, operations, finance and human resources. Due to construction problems the opening of this hotel was delayed. Unfortunately, senior managers in the functional departments did not liaise closely with each other. The lack of coordination and communication in promotion activities, employee recruitment and inventory purchase led to major difficulties. These issues had to be resolved at Board level. 25

Hari and some of his fellow directors are worried that the current organisational structure might not be suitable for future business growth and the changes and challenges resulting from it.

### The new hotel location dilemma 30

HH has decided to open a hotel in the northern region of country Z for the first time. The directors intend to lease a property rather than purchase it. This would allow HH to exit the market in this region quickly if the venture is unprofitable.

The Operations Director has identified two locations to choose between. Location X is an existing 2 star hotel that is not close to a large town or city and has a low fixed leasing cost. This could be converted into a 4 star hotel quite quickly. Location Y is a city centre office building. Conversion into a hotel would take longer and the fixed leasing cost is high. The Operations Director has gathered other information about the two sites in the Appendix. 35

### Marketing strategy

HH adopts a consistent marketing strategy for all of its hotels. Promotion is focused on national newspaper advertisements and Internet sites that also allow online bookings. Prices are competitive with other 4 star hotels, but HH never uses price discounts to fill hotels. Hari would rather leave rooms empty than maximise occupancy at low prices and risk angering customers who had paid full prices. Instead HH offers 'eat and sleep' special offers which encourage customers to stay at one of its hotels and eat all of their meals there too. Last month over 50% of HH's customers 45

booked using this offer. In the company's hotels last year the average capacity utilisation rate was 80%. Hari asked the Marketing Director to consider whether the marketing strategy would need to be adapted if HH opened hotels in country P for the first time.

### Finance needed

Sasha, HH's Finance Director, has been considering alternative sources of finance to pay for future strategic expansion plans. Sasha has estimated that HH will need to raise around \$60m over the next two years to finance both the refurbishment of some existing hotels and to pay for the growth option the Board chooses. Sasha's preferred source of finance is a new issue of shares. This option would lead to dividends per share falling for at least two years. Sasha plans to keep total dividends paid the same as in 2017, until expansion becomes profitable. She knows that Hari would prefer HH to increase its non-current liabilities. Sasha has gathered the information needed for this financing decision. See Table 1.

**Table 1: Financial information to be used in the financing decision**

HH share price – 31 May 2017 (31 May 2016)	\$3.00 (\$2.80)	
HH total issued shares – 31 May 2017	40m	60
Number of shares owned by Hari and his family	25m	
HH capital employed – 31 May 2017	\$200m	
HH non-current liabilities – 31 May 2017	\$85m	
Total annual dividends paid – 31 May 2017	\$8m	
Country Z interest rate – 31 May 2017 (31 May 2016)	5% (6%)	65

### Strategic options for growth: choice and implementation

Details of the two options for growth are shown in Table 2. Each of these options would involve substantial changes in the operations of HH. Many employees would need to acquire new skills. There would be opportunities for some existing employees for promotion to junior management positions in the expanded operations. However, other employees would have to take on a bigger workload before replacements are found for those promoted. Hari intends to recruit senior managers externally.

Hari has asked the other directors to agree to keep secret from employees the Board's discussion about which growth strategy to choose. He is determined not to make the same mistakes that were made when HH bought out a small hotel company called Ajax. An early announcement of this decision led many HH employees to worry about their own pay and conditions which, at the time, were much better than those of Ajax employees. The fear had been that Ajax pay and conditions would be imposed on all employees. 'We will announce our strategic decision at the next Annual General Meeting' Hari told the Board.

**Table 2: Information used by HH directors when making the strategic choice between option 1 and option 2**

80

	Option 1 – market development by opening 10 HH hotels in country P. This is a high income country located 500 kilometres from country Z.	Option 2 – close the 3 hotels with lowest profit margins and use these locations to diversify into ‘activity holiday resorts’ in country Z. These resorts would offer holidays aimed at foreign tourists keen on outdoor activities.	85
Estimated capital cost	\$45 million	\$40 million	90
Estimated Net Present Value (NPV) after 10 years	\$13 million	\$18 million	95
Estimated chance of strategy failing	20%	22%	
Percentage of HH employees with experience of:	Working in foreign hotels: 35%	Working in ‘activity holiday resorts’: 18%	100
Main barrier to entry	Competitive hotel market in country P	Purchase of additional land around the current hotel locations	

**Appendix: Data about location X and location Y**

	Location X	Location Y
Estimated time until opening of hotel	6 months	12 months
Most likely target market	Tourists	Business customers
Capital cost of adapting building to HH standards	\$300 000	\$500 000
Monthly fixed costs (including leasing cost)	\$30 000	\$69 000
Variable cost per customer per night	\$30	\$40
Estimated average price per customer per night	\$50	\$70
Monthly capacity (customers)	4000	5000
Expected monthly demand	3200	4500
Break-even number of customers per month	1500	See Question 2(a)
Monthly profit at maximum capacity	\$50 000	See Question 2(a)

### Section A

Answer **all** questions in this section.

- 1 Analyse the likely impact of globalisation on HH. [10]
- 2 (a) Refer to the Appendix. Calculate for location Y:
- (i) break-even number of customers per month [3]
  - (ii) monthly profit at maximum capacity [3]
  - (iii) margin of safety. [2]
- (b) Refer to your results from 2(a), the Appendix and other information. Recommend to HH's directors whether to choose location X or Y for the new hotel. [12]
- 3 Discuss the changes HH should make to its organisational structure to allow for future business growth. [16]
- 4 (a) Refer to lines 49–57 and Table 1. Calculate:
- (i) gearing ratio assuming all \$60m is obtained from long term loans [3]
  - (ii) dividend per share in 2018 assuming all \$60m is obtained by the sale of an additional 20m shares. [3]
- (b) Refer to your results from 4(a), Table 1 and other information. Recommend to the Board of Directors which source of finance should be used by HH to obtain \$60m. Justify your answer. [12]
- 5 Discuss a suitable marketing strategy for HH if it decides to open hotels in country P. [16]

### Section B

Answer **one** question from this section.

- 6 Refer to Table 2 and other information. Evaluate the most important **factors** HH's directors should consider when making the strategic choice between option 1 and option 2. [20]
- 7 Evaluate the importance of developing a culture of change within HH when introducing new growth strategies. [20]



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**BUSINESS**

**9609/32**

Paper 3 Case Study

**May/June 2017**

MARK SCHEME

Maximum Mark: 100

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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.

Cambridge is publishing the mark schemes for the May/June 2017 series for most Cambridge IGCSE<sup>®</sup>, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

Question	Answer	Marks												
1	<p><b>Analyse the likely impact of globalisation on HH.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 3 marks</th> <th>Application 2 marks</th> <th>Analysis 5 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>3 marks Good knowledge of globalisation and its impact(s)</td> <td>2 marks Points applied to HH</td> <td>4–5 marks Good use of theory and / or reasoned argument to explain impacts</td> </tr> <tr> <td>1</td> <td>1–2 marks Knowledge of globalisation and / or impact(s)</td> <td>1 mark Point applied to HH</td> <td>1–3 marks Some use of theory and / or reasoned argument to explain impacts</td> </tr> </tbody> </table> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Globalisation is the trend towards freer international trade and movement of labour and capital</li> <li>• Greater competition</li> <li>• Easier recruitment from abroad</li> <li>• Opportunities for expansion</li> <li>• Economies of scale</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• More competition – referred to in para 1</li> <li>• Greater opportunities for recruiting hotel / catering employees from other countries</li> <li>• More opportunities for expansion abroad – this is what HH is considering</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• This will impose competitive pressures on HH and force business to be cost competitive or to create a differentiated service – might be difficult with only 4 star hotels.</li> <li>• Recruitment from abroad might help to keep HH labour costs low / competitive</li> <li>• Expansion abroad especially important if country Z hotel market is static / mature</li> </ul>	Level	Knowledge 3 marks	Application 2 marks	Analysis 5 marks	2	3 marks Good knowledge of globalisation and its impact(s)	2 marks Points applied to HH	4–5 marks Good use of theory and / or reasoned argument to explain impacts	1	1–2 marks Knowledge of globalisation and / or impact(s)	1 mark Point applied to HH	1–3 marks Some use of theory and / or reasoned argument to explain impacts	10
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2(a)(i)	<p><b>Refer to the Appendix. Calculate for location Y:</b></p> <p><b>break-even number of customers per month</b></p> <table> <tbody> <tr> <td>TR = TC</td> <td>(1mark)</td> </tr> <tr> <td>Fixed costs / contribution per unit</td> <td>(1 mark)</td> </tr> <tr> <td>\$69 000 / \$70–\$40</td> <td>(2 marks)</td> </tr> <tr> <td>2300 customers</td> <td>(3 marks)</td> </tr> </tbody> </table> <p>OFR max 2 marks</p> <p>If use 50–30 or fixed costs of \$30 000 and calculate correctly then 2 marks</p>	TR = TC	(1mark)	Fixed costs / contribution per unit	(1 mark)	\$69 000 / \$70–\$40	(2 marks)	2300 customers	(3 marks)	3				
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Fixed costs / contribution per unit	(1 mark)													
\$69 000 / \$70–\$40	(2 marks)													
2300 customers	(3 marks)													

Question	Answer	Marks
2(a)(ii)	<p><b>monthly profit at maximum capacity</b></p> <p>Many formulae / approaches acceptable e.g.</p> <ul style="list-style-type: none"> <li>• <math>(\text{max customers} \times \text{price}) - (\text{max customers} \times \text{variable costs} + \text{fixed costs})</math> (1 mark)</li> <li>• <math>(\text{max capacity} - B / \text{EVAL}) \times \text{unit contribution}</math> (1 mark)</li> <li>• <math>\text{TR} - \text{TC}</math> (1 mark)</li> <li>• Total contribution less fixed costs (1 mark)</li> </ul> <p>Profit at expected demand is \$66 000 (evidence of method not needed) (2 marks)</p> <p><math>(5000 \times \\$70) - (5000 \times \\$40 + \\$69\,000)</math> (2 marks)</p> <p>\$81 000 (3 marks)</p> <p>OFR max 2 marks</p>	<b>3</b>
2(a)(iii)	<p><b>margin of safety.</b></p> <p>Expected output – break-even output (1 mark <i>if no calculation</i>)</p> <p>4500 – 2300 (1 mark)</p> <p>2200 (2 marks)</p> <p>48.9% (2 marks)</p> <p>OFR based on answer from 2(a)(i) (2 marks)</p> <p>Max output – break-even output (0 marks)</p>	<b>2</b>

Question	Answer				Marks															
2(b)	<p><b>Refer to your results from 2(a), the Appendix and other information. Recommend to HH’s directors whether to choose location X or Y for the new hotel.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 4 marks</th> <th>Evaluation 4 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Two relevant points</td> <td>2 marks Factors well applied to HH</td> <td>3–4 marks Good use of theory and / or reasoned argument to explain location factors</td> <td>3–4 marks Good judgement shown e.g. well supported conclusion</td> </tr> <tr> <td>1</td> <td>1 mark Relevant point</td> <td>1 mark Some application of factors to HH</td> <td>1–2 marks Some use of theory and / or reasoned argument to explain location factors</td> <td>1–2 marks Some judgement shown e.g. one factor very important</td> </tr> </tbody> </table> <p><i>Note to examiners:</i> Limit to L1 A &amp; EVAL if only Appendix, results or other information considered. OFR from 2(a) applies</p> <p><b>Knowledge</b></p> <p>Factors influencing location:</p> <ul style="list-style-type: none"> <li>• Costs</li> <li>• Nearness to market</li> <li>• Preferences of owner</li> <li>• Transport links</li> <li>• Competition</li> <li>• Risk</li> <li>• B / EVAL</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Comparison of results: OFR applies</li> <li>• Location X has lower BE;</li> <li>• Location Y has greater profit at max capacity</li> <li>• Location Y has higher margin of safety</li> <li>• Other issues:</li> <li>• Y is city centre location</li> <li>• Y requires higher capital outlay</li> <li>• X has margin of safety of 1700</li> <li>• Location Y requires higher capital outlay – are funds available internally or will this have to be added to the \$60 m to be raised?</li> <li>• Location Y takes longer to become operational</li> <li>• Location Y has higher fixed costs</li> </ul>				Level	Knowledge 2 marks	Application 2 marks	Analysis 4 marks	Evaluation 4 marks	2	2 marks Two relevant points	2 marks Factors well applied to HH	3–4 marks Good use of theory and / or reasoned argument to explain location factors	3–4 marks Good judgement shown e.g. well supported conclusion	1	1 mark Relevant point	1 mark Some application of factors to HH	1–2 marks Some use of theory and / or reasoned argument to explain location factors	1–2 marks Some judgement shown e.g. one factor very important	12
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Question	Answer	Marks
	<p><b>Note:</b> Where candidate only gives several higher / lower comparisons then limit to L1 APP.</p> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Location X is less risky – lower BE point which might be best for a new hotel in an untried region. This can be linked to fixed costs.</li> <li>• Location Y is potentially more profitable – because of city centre location attracting business guests?</li> <li>• Location Y has greater margin of safety, this reduces risk as allows for greater deviation from expected demand</li> <li>• Time taken to become operational will have an impact on cash flow for HH</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Market research data essential too: likelihood of reaching beyond BE points in both locations; management attitude to risk; types of guests aimed for in both locations</li> <li>• Decision can go either way – but must be supported e.g. X is better as it gives earlier feedback on market demand and is less risky at a time of other strategic changes.</li> <li>• Y is better as it is potentially more profitable and plcs will aim for profitable growth and tourism / travel seems to be increasing making the higher BE less of a risk</li> <li>• How significant is difference in capital cost to HH</li> <li>• Location Y takes longer – how important is it to enter this geographical market quickly?</li> </ul>	

Question	Answer				Marks	
3	<b>Discuss the changes HH should make to its organisational structure to allow for future business growth.</b>				16	
	Level	Knowledge 2 marks	Application 2 marks	Analysis 6 marks		Evaluation 6 marks
	2	2 marks Good knowledge shown of organisational structure	2 marks Good application to HH	4–6 marks Good use of theory and / or reasoned argument to explain ads / disads of possible new structure		4–6 marks Good judgement shown on possible new organisational structure
1	1 mark Some knowledge shown of organisational structure	1 mark Some application to HH	1–3 marks Some use of theory and / or reasoned argument to explain ads / disads of possible new structure	1–3 marks Good judgement shown on possible new organisational structure		
<p><i>Note to examiners:</i> If changes suggested but not specifically linked to future growth then no bar on marks. If just discuss the problems with current structure then limit to L1 AN &amp; EVAL</p>						
<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Organisational structure shows the lines of authority / chain of command in an organisation – also spans of control / levels of hierarchy / formal communication channels</li> <li>• Knowledge of different organisational structures</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Current structure appears to be traditional hierarchy based on functional departments – rigid, poor communication and coordination between departments.</li> <li>• Does not seem well suited to either operations in another country (Option 1) or another business unit – activity centres (Option 2)</li> <li>• Might not even be well suited to growth of the existing business</li> <li>• Impact of globalisation on organisational needs</li> </ul> <p>Other options include:</p> <ul style="list-style-type: none"> <li>• Geographical structure e.g. northern hotels and Option 1</li> <li>• Business unit structure e.g. hotels and activity centres (Option 2)</li> <li>• Matrix structure for new projects such as option 1 or 2</li> </ul>						

Question	Answer	Marks
	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Analysis of why the current structure is not suited to HH</li> <li>• Analysis of why the structure is not suited to growth of the business or increasing competition which might need more flexible / adaptable structure</li> <li>• Geographical structure allows for regional / country differences and quicker local decision making – less control from HH head office though?</li> <li>• Business unit structure allows specialist managers to focus on different needs of different divisions – might lead to rivalry though?</li> <li>• Matrix structure improves communication between departments allowing better decisions to be made. But how to bring this into line with existing structure?</li> <li>• Benefits of a centralised or decentralised new structure</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Existing structure probably will not do – might depend on whether it can be effectively de-layered</li> <li>• Supporting arguments for structure(s) proposed to allow good judgement / conclusion</li> <li>• Globalisation will mean more and quicker changes – HH need a flexible structure which will allow for these</li> </ul>	

Question	Answer	Marks
4(a)(i)	<p><b>Refer to lines 49–57 and Table 1. Calculate:</b></p> <p><b>gearing ratio assuming all \$60 m is obtained from long term loans</b></p> <p>Gearing ratio = non-current liabilities / capital employed × 100 (1 mark)  <math display="block">= \frac{\\$145\text{m}}{\\$260\text{m}} \times 100</math> (2 marks)  <math display="block">= 55.8\%</math> (3 marks)</p> <p>Gearing ratio = non-current liabilities / shareholder equity × 100 (1 marks)  <math display="block">= 145 / 115 \times 100</math> (2 marks)  <math display="block">= 126\%</math> (3 marks)</p> <p>Other likely answers:</p> <p><math>85 / 260 = 32.69\%</math> (2 marks)  <math>145 / 200 = 72.5\%</math> (2 marks)  <math>85 / 200 = 42.5\%</math> (1 mark)</p> <p>Answers expressed as a decimal rather than a percentage should be rewarded equally.</p>	<b>3</b>
4(a)(ii)	<p><b>dividend per share in 2018 assuming all \$60 m is obtained by the sale of an additional 20 m shares.</b></p> <p>Dividend per share = total dividends / total shares issued (1 mark)  <math display="block">= \frac{\\$8\text{m}}{60\text{m}}</math> (2 marks)  <math display="block">= 13.33 \text{ cents or } \\$0.1333</math> (3 marks)  13 and 0.13 (3 marks)  <math>8 / 40 = 0.20 \text{ cents}</math> (2 marks)</p>	<b>3</b>



Question	Answer				Marks																			
4(b)	<p><b>Refer to your results from 4(a), Table 1 and other information. Recommend to the Board of Directors which source of finance should be used by HH to obtain \$60 m. Justify your answer.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 4 marks</th> <th>Evaluation 4 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Knowledge shown of finance source(s) and factor(s)</td> <td>2 marks Points well applied to HH</td> <td>3–4 marks Good use of theory and / or reasoned argument to explain finance sources / factors</td> <td>3–4 marks Good judgement shown e.g. well supported conclusion</td> </tr> <tr> <td>1</td> <td>1 mark Knowledge shown of finance source(s) or factor(s)</td> <td>1 mark Some application to HH</td> <td>1–2 marks Some use of theory and/ or reasoned argument to explain finance sources / factors</td> <td>1–2 marks Some judgement shown e.g. one factor very important in decision</td> </tr> </tbody> </table> <p><i>Note to examiners:</i> Limit to L1 A &amp; EVAL if only Table 1, results or other information considered. OFR for answer to 4(a)</p> <p><b>Knowledge</b></p> <table> <thead> <tr> <th><b>Sources of finance</b></th> <th><b>Factors in decision:</b></th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> <li>• Loans</li> <li>• Shares</li> <li>• Selling assets</li> <li>• Retained profits</li> <li>• Overdraft</li> <li>• Debt factoring</li> </ul> <p>A list of sources of finance should not be given more than 1 mark.</p> </td> <td> <ul style="list-style-type: none"> <li>• Risk related to gearing</li> <li>• Cost of borrowing</li> <li>• Impact on ownership and control – shares potentially dilute ownership control</li> <li>• Impact on taxable profit; Interest on borrowing reduces taxable profit dividends on shares does not reduce tax liability</li> </ul> </td> </tr> </tbody> </table> <p><b>Application</b></p> <p>OFR</p> <ul style="list-style-type: none"> <li>• Gearing ratio raised above 50% – was 42.5%</li> <li>• Interest rates forecast to fall</li> <li>• Hari prefers bank loan</li> <li>• Hari owns shares</li> <li>• Reduction in dividend per share from 20 to 13 cents</li> <li>• Servicing debt at interest charge of 5% is \$3 m</li> <li>• Hari's ownership would change from 62.5% of all share to 41.6% of shares if 20 m shares issued</li> </ul>				Level	Knowledge 2 marks	Application 2 marks	Analysis 4 marks	Evaluation 4 marks	2	2 marks Knowledge shown of finance source(s) and factor(s)	2 marks Points well applied to HH	3–4 marks Good use of theory and / or reasoned argument to explain finance sources / factors	3–4 marks Good judgement shown e.g. well supported conclusion	1	1 mark Knowledge shown of finance source(s) or factor(s)	1 mark Some application to HH	1–2 marks Some use of theory and/ or reasoned argument to explain finance sources / factors	1–2 marks Some judgement shown e.g. one factor very important in decision	<b>Sources of finance</b>	<b>Factors in decision:</b>	<ul style="list-style-type: none"> <li>• Loans</li> <li>• Shares</li> <li>• Selling assets</li> <li>• Retained profits</li> <li>• Overdraft</li> <li>• Debt factoring</li> </ul> <p>A list of sources of finance should not be given more than 1 mark.</p>	<ul style="list-style-type: none"> <li>• Risk related to gearing</li> <li>• Cost of borrowing</li> <li>• Impact on ownership and control – shares potentially dilute ownership control</li> <li>• Impact on taxable profit; Interest on borrowing reduces taxable profit dividends on shares does not reduce tax liability</li> </ul>	12
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Question	Answer	Marks
	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Fall in interest rates will reduce the fixed cost of borrowing reducing risk of taking loan capital</li> <li>• Higher gearing represents an increase in risk due to fixed cost of servicing high levels of borrowing</li> <li>• Shareholders may consider further share issue as undesirable as it dilutes ownership and control</li> <li>• Higher gearing might not be a problem if expansion is profitable – once the interest has been paid, returns to shareholders should increase</li> <li>• Either option will increase costs of business – so would any increase in interest payments be advisable?</li> <li>• If shareholder react to the proposal to sell shares by selling their shares the share price will fall and that would threaten ability to raise \$60 m. Rights issue might have to be sold at a discount.</li> <li>• Will the lower dividend per share encourage sale of shares?</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Much depends on Hari's reaction / preference and that of shareholders</li> <li>• 50:50 split might be suggested – will the cost of the new issue of shares be worth the finance raised?</li> <li>• More information would have been useful e.g. how HHs competitors' share prices have changed over last year and impact of new share issue on PE ratio</li> <li>• Is the finance required sufficient to justify the cost of a share issue</li> <li>• More shares – Hari and family will lose overall control – unless they buy most of the new shares (unlikely?)</li> <li>• What is happening to dividend yield in similar plcs?</li> </ul>	

Question	Answer				Marks															
5	<p><b>Discuss a suitable marketing strategy for HH if it decides to open hotels in country P.</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge 2 marks</th> <th>Application 2 marks</th> <th>Analysis 6 marks</th> <th>Evaluation 6 marks</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2 marks Good knowledge shown of marketing strategy</td> <td>2 marks Good application to HH</td> <td>4–6 marks Good use of theory and / or reasoned argument to explain new marketing strategy</td> <td>4–6 marks Good judgement shown on possible new marketing strategy</td> </tr> <tr> <td>1</td> <td>1 mark Some knowledge shown of marketing strategy</td> <td>1 mark Some application to HH</td> <td>1–3 marks Some use of theory and / or reasoned argument to explain new marketing strategy</td> <td>1–3 marks Some judgement shown on possible new marketing strategy</td> </tr> </tbody> </table>				Level	Knowledge 2 marks	Application 2 marks	Analysis 6 marks	Evaluation 6 marks	2	2 marks Good knowledge shown of marketing strategy	2 marks Good application to HH	4–6 marks Good use of theory and / or reasoned argument to explain new marketing strategy	4–6 marks Good judgement shown on possible new marketing strategy	1	1 mark Some knowledge shown of marketing strategy	1 mark Some application to HH	1–3 marks Some use of theory and / or reasoned argument to explain new marketing strategy	1–3 marks Some judgement shown on possible new marketing strategy	16
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<p><i>Note to examiners:</i> Limit to L1 AN &amp; EVAL if only considers one element of marketing strategy e.g. just pricing or budget</p>																				
<p><b>Knowledge</b> Marketing strategy is a detailed plan of the company’s marketing objective, budget and marketing mix</p>																				
<ul style="list-style-type: none"> <li>• The objective set will be the benchmark of success / failure as well as a major determinant of the marketing mix and the budget level</li> <li>• Reference to situational analysis / market research as part of marketing</li> </ul>																				
<p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Clear objective needs to be set – this has not yet been done – the general statement in para 1 about the “need to take advantage of growth in international tourism” is not an objective.</li> <li>• EVAL.G.: 15% market share in country P by 20xx?</li> <li>• Marketing budget? Is this included in the \$60 m? No details of how much will be needed. Same as competitors?</li> </ul>																				

Question	Answer	Marks
	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Pricing - penetration pricing to get established is a possibility – Hari not very keen on this but might be necessary. How will this impact on image of the new hotels?</li> <li>• Promotion – newspaper advertising expensive might not reach target market – again market research essential. Need to focus on promotion methods most likely to reach target market</li> <li>• Place – online? Own website or booking agencies? Travel agencies?</li> <li>• Product – 4 star hotels (HH experienced in this sector) – market research needed to establish likely demand and whether tourists or business customers. Country P a definitely not a developing lower income economy but high income country with high competition in this market</li> <li>• Clear objectives will provide focus for taking appropriate decisions leading to better outcomes</li> <li>• Budget will allow HH to have more control over expenditure ensuring that strategy generates profit</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Strategy needs market research to underpin it – is Hari prepared to undertake this?</li> <li>• Most important factors: mix must be fully integrated to present a ‘united’ image of the business; strategy must be changed from existing country X strategy if the culture/income levels / market conditions are different in country P</li> <li>• Essential to differentiate HH from other hotels in this ‘competitive market’</li> </ul>	

Question	Answer				Marks
<b>Questions 6 and 7 use this marking grid:</b>					
<b>Level</b>	<b>Knowledge 3 marks</b>	<b>Application 3 marks</b>	<b>Analysis 4 marks</b>	<b>Evaluation 10 marks</b>	
<b>3</b>				7–10 marks Good judgement shown throughout with well supported conclusion / recommendation, focused on the business in the case	
<b>2</b>	3 marks Good understanding shown	3 marks Good application to the case	3–4 marks Good use of reasoned argument or use of theory to explain points made	4–6 marks Some judgement shown in the main body of the answer <b>and</b> an attempt to support conclusion / recommendation, focused on the business in the case OR effective and well supported conclusion / recommendation, focused on the business in the case	
<b>1</b>	1–2 marks Some understanding shown	1–2 marks Some application to the case	1–2 marks Limited use of reasoned argument or use of theory to support points made	1–3 marks Limited attempt to show judgement either within the answer OR a weakly supported conclusion / recommendation with some focus on the business in the case	
<b>0</b>	No creditable content				

Question	Answer	Marks
6	<p><b>Refer to Table 2 and other information. Evaluate the most important factors HH's directors should consider when making the strategic choice between option 1 and option 2.</b></p> <p><i>Note to examiners:</i> Limit to L1 EVAL if only Table 2 or other information considered. If only discuss factors in relation to location X and Y then only K and APP (i.e. max 6 marks)</p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Strategic choice is important as decisions are costly, often effect all functional departments and are difficult to reverse</li> </ul> <p>Reference to strategic choice techniques</p> <ul style="list-style-type: none"> <li>• Ansoff Matrix</li> <li>• Force Field Analysis</li> <li>• Investment Appraisa</li> </ul> <p>Factors affecting the strategic choice</p> <ul style="list-style-type: none"> <li>• Strengths / weaknesses of the business</li> <li>• Cost</li> <li>• Return on investment</li> <li>• Risk</li> </ul> <p><b>Note:</b> List of techniques and list of factors without explanation is 1 mark each</p> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Limited experience of current employees of working in activity holiday resorts for option 2</li> <li>• Lower NPV for option 2</li> <li>• Greater cost of option 1</li> <li>• Competition in hotel market in country P</li> <li>• Lower capital cost of option 1; link to current gearing level of 42.5%</li> <li>• Option 1 is market development</li> <li>• Option 1 – hotels and hotel management have been key to HHs success so far</li> <li>• Country P something of an unknown quantity</li> <li>• Country P is a high-income country; link to 4 star hotels of HH</li> </ul>	20

Question	Answer	Marks
	<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Competition in country P will increase difficulty of breaking into the market</li> <li>• Training costs may be greater for option 2 due to inexperience of employees</li> <li>• Little info in the case about country P; how much market research has HH done?</li> <li>• As a high-income country will HH need to modify product by offering better facilities than currently offered in country Z to appeal to the market?</li> <li>• Country P is a competitive market – profit margins may be low</li> <li>• As 35% of employees have experience abroad this could reduce the risk of option 1</li> <li>• Option 2 – country Z market well known but this is a different segment. Product may need to be branded differently – how much synergy will there be between the two parts of the business? Lower cost and higher NPV, less risk – seems like a better investment BUT will HH be too dependent on state of country Z market and tourism levels? Is this real diversification?</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Most important factors? Supporting argument required</li> <li>• More information would have allowed a wider consideration of factors e.g. income levels in P and profit margins of hotel competitors in this country</li> <li>• Judgement might be shown in giving a final decision – but this is not required given the question</li> <li>• HH has some employees who have experience abroad – will HH make good use of them?</li> <li>• Lower NPV – but how reliable were the cash flow forecasts?</li> </ul>	

Question	Answer	Marks
7	<p><b>Evaluate the importance of developing a culture of change within HH when introducing new growth strategies.</b></p> <p><i>Note to examiners:</i> Limit to L1 EVAL if only discusses changing culture with no link made to growth.</p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Culture means the values and beliefs of an organisation – especially senior management. Culture of change means encouraging and facilitating strategic change in an organisation.</li> <li>• Implementation means putting into effect strategic change</li> <li>• These changes will affect employees – opportunities but also potential threats.</li> </ul> <p>Change can be promoted through:</p> <ul style="list-style-type: none"> <li>• Clear mission statement and sense of direction</li> <li>• Employee involvement</li> <li>• Team working / project champions</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Both strategic options will involve considerable change – market / country / language in Option 1; product / image / market segment in Option 2</li> <li>• Culture of change does not appear to be that strong in HH – e.g. the case of the Ajax takeover was not well handled.</li> <li>• Current suggested secrecy over the options will hinder culture of change developing</li> <li>• Threats to employees include redundancy in option 2. May need to offer jobs in the activity centres to those facing redundancy.</li> </ul> <p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• Employees could actually add something to the decision and its implementation – given their experience in these two types of business – foreign hotels and activity centres.</li> <li>• Less resistance to change makes responding to a dynamic environment more effective</li> <li>• Decisions can be made more quickly resulting in first mover advantage in a competitive market</li> <li>• Important in a globalised market to be able to respond</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Without a culture of change, strategic implementation can become very difficult and less successful – putting at risk a large investment</li> <li>• It is vital to the success of the implementation of either of these options that employees are involved, consulted and communicated with</li> <li>• Employee fear of change and resistance to change will be much greater without an effective culture of change – but can Hari introduce this?</li> </ul>	20



# **PAPER NUMBER 8**



## Marco Fishing Incorporated (MFI)

Marco has just congratulated himself on the completion of another takeover deal. The MFI 'fish processing and packaging' business he controls is now one of the largest in Asia.

Marco bought his first boat when he was just 18 years old. That was 15 years ago. Marco has always been a hard worker. He used to fish longer each day than anyone else in his village and his tuna fish catches were usually the biggest. He sold all of his fish to a local entrepreneur, Lin, who then distributed them to restaurants and fish processing factories in country X. When Lin retired he offered Marco his distribution business for \$35 000. Marco negotiated a final price of \$25 000. Tough negotiation skills have been an important factor in Marco's success – together with his ability to delegate effectively. 5

Several years ago Marco gave up fishing himself and employed some local workers to take his boat out and do the heavy work of transporting the fish to customers. Marco focused on building up the customer base of the business as he had excellent contacts in the industry. Soon he had to buy more fishing boats to ensure adequate supplies of tuna. Although the annual revenue of the business was rising, the profit margin was low. Most value was being created by the 'fish processing and packaging' businesses that he was supplying. Marco decided that the future success of his business depended on becoming a fish processing and packaging business. 10 15

Marco decided to:

- Convert the business into a private limited company called MFI to raise equity finance
- Buy Asia Fish Processing (AFP), one of MFI's largest customers
- Recruit an experienced Operations manager, Suzy, for AFP's factories – Suzy reorganised production and bought expensive new automated processing and packaging equipment which contributed to a 75% increase in productivity 20
- Encourage existing managers to take more responsibility for accounting and human resource issues, allowing Marco to focus on marketing.

MFI is now a public limited company with Marco as Chief Executive. 25

### Recent developments

Marco has, in recent months, given directors of MFI the authority to implement two important decisions.

Firstly, MFI bought another large food processing and packaging business, giving the company 55% of the market for processed and packaged fish products in country X. This decision was made despite Government ministers threatening to tighten consumer protection and competition laws relating to monopoly businesses. 30

The second decision was the introduction of a new brand name for the highest quality range of MFI's products – called FineDine. Top quality ingredients are used and labelled as 'dolphin friendly tuna' – tuna fish caught by fishing line with no risk to dolphins. Other FineDine features are competitive prices, distribution mainly through specialist food shops and social media promotions. Initial sales of products under the FineDine brand have been most encouraging. Marco is pleased with himself because it was his idea to develop this brand. He had told other directors at the time he made the decision: 'Trust me – I know the market better than most people and, even without detailed market research, I can tell you FineDine will be a winner, especially as incomes are rising in country X and the Government is planning to reduce income tax rates'. 35 40

### **Recruiting a new Operations manager**

Suzy has recently resigned and Marco needs to recruit a new Operations manager. Marco has asked a specialist recruitment agency to undertake this process and to shortlist the two best candidates. He will then select one to be the manager. Appendix 1 contains details of these two applicants. The new Operations manager will have to be very aware of the consequences to businesses such as MFI of the proposed new health and safety legislation which is being introduced in country X. This will give factory workers extra protection when working with machinery and require all workers to be trained in hygiene, emergency procedures and first aid. 45

### **Marketing decisions for country Y**

The directors of MFI have decided to start exporting the FineDine brand of fish products to country Y. At the most recent Board meeting the success of this country's economy was discussed and all directors agreed that this would be a good time to enter this market. Important marketing decisions will have to be taken to ensure consistency with existing marketing strategies and alignment of the strategy with market conditions in country Y. The Board considered that a 5% market share in 2017 was a realistic sales objective. After the Board meeting Marco obtained a two year old market research report on country Y's market for processed fish. A summary is shown in Appendix 2. 50 55

### **Investment decision**

Half of MFI's fishing boats are over 20 years old. Marco plans to replace these 10 boats with new, more fuel efficient ones. Increasing taxes on fuel and Government subsidies offered to boat operators with the most efficient types of boats in country X helped to influence his plans. MFI's accountant provided the following information to Marco. 60

'These new boats would reduce annual costs by \$82 000 per boat, including the Government subsidy. We have two options. 65

We could lease the boats for 5 years at a cost per boat of \$40 000 per year. When the total capital cost of the leasing contract is considered, I estimate a payback of 2.5 years and a net present value of \$850 000 at a 10% discount rate.

Alternatively, we could purchase the boats. I have negotiated a discount for a large order of 10 boats and they would cost \$320 000 each. The boat manufacturer has offered to buy these boats back in 5 years time if we purchased new ones again. The agreed resale value would be 40% of the purchase price.' 70

Marco agreed that new boats were needed, but reminded the directors that financing the investment would need careful planning as interest rates were rising in country X. He also wondered if the boats could be purchased more cheaply from foreign manufacturers as country X's currency is appreciating. 75

### **Food poisoning – are MFI products to blame?**

Yesterday, the national television station covered a story about the death of a woman from food poisoning. The reporter said that the woman's husband suggested she had eaten a fish meal the night before and he thought it was an MFI branded fish product. Marco was watching television in his office at the time – he immediately started making telephone calls and sending e-mails. Could he and his fellow directors cope with this crisis without MFI suffering the risk of complete business failure? 80

### Appendix 1: Information on shortlisted applicants for Operations manager

	Candidate A	Candidate B
Current post	MFI – assistant to Suzy, the previous Operations manager	Associated Foods – Operations manager
Age	54	36
Education	Degree in Operations Management	Degree in Business Management and Law
Number of previous jobs	5	1
Lean production experience	Given responsibility for introducing JIT within MFI packaging division	No direct experience – delegated lean production to subordinates
Explain your leadership style	'I set clear objectives and encourage employees to achieve their own goals'	'Food factories require strict guidance and employee control at all times'
Achievement of which you are most proud	'Coordinating the production processes of the different MFI factories'	'Reducing unit labour costs to the lowest in the industry'
Current salary	\$37 000	\$64 000

### Appendix 2: Summary of 2014 market research report on country Y

Population growth 2000–2014	2% per year
GDP per head compared to country X in 2000	20% lower
GDP per head compared to country X in 2014	15% higher
Processed fish market size in 2014	\$80m
Forecast growth rate of processed fish market 2014–2017	10% per year
Revenue of largest fish processing company in 2014	\$45m
Change in annual revenue from the best-selling premium brand of processed fish when price increased by \$1 to \$5	Increased from \$12m to \$14m
Estimated advertising elasticity of demand for processed fish products	2.3
Proportion of processed fish sold by the 4 largest supermarket companies	78%

### Appendix 3: 10% discount factors – value of \$1 in future time periods

Year	1	2	3	4	5
Discount factor	0.91	0.83	0.75	0.68	0.62

### Section A

Answer **all** questions in this section.

- 1 Analyse the benefits to MFI of Marco's effective delegation. [10]
- 2 (a) Refer to lines 69–72. Calculate for the **purchase** of the 10 fishing boats:
  - (i) annual net cash flows [3]
  - (ii) payback period [2]
  - (iii) net present value at a discount rate of 10%. [3]
 (b) Recommend to Marco whether the new fishing boats should be purchased or leased. [12]
- 3 Discuss the likely impact on MFI of the changes to the external legal and economic environment in country X. [14]
- 4 (a) Refer to Appendix 2 and the Board's market share objective on lines 55–56. Calculate:
  - (i) forecast value of MFI's sales in country Y in 2017 [3]
  - (ii) price elasticity of demand of the best-selling premium brand of processed fish. [5]
 (b) Discuss a suitable marketing strategy that Marco could use for FineDine products in country Y. Use your results from 4(a) and other relevant information. [14]
- 5 Recommend to Marco which one of the two applicants should be selected to be the new Operations manager. Justify your answer with reference to Appendix 1 and other relevant information. [14]

### Section B

Answer **one** question from this section.

- 6 Discuss how MFI's directors should manage the food poisoning crisis. [20]
- 7 Evaluate the importance of strategic management to the future success of MFI. [20]

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**BUSINESS**

**9609/32**

Paper 3 Case Study

**October/November 2016**

MARK SCHEME

Maximum Mark: 100

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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.

Cambridge is publishing the mark schemes for the October/November 2016 series for most Cambridge IGCSE<sup>®</sup>, Cambridge International A and AS Level components and some Cambridge O Level components.

Page 2	Mark Scheme	Syllabus	Paper
	Cambridge International A Level – October/November 2016	9609	32

1 Analyse the benefits to MFI of Marco's effective delegation.

[10]

	Knowledge 3 marks	Application 2 marks	Analysis 5 marks
Level 2	3 marks Knowledge of delegation and <b>two</b> benefits	2 marks Benefit(s) well applied to case	4–5 marks Good use of theory and/or reasoned argument to explain benefits
Level 1	1–2 marks Some knowledge of delegation and 1 benefit or 2 benefits	1 mark Benefit applied to case	1–3 marks Some use of theory and/or reasoned argument to explain benefits

Examiner notes:

- Only reward benefits to MFI.
- If impact on employees is discussed then this must then be linked to benefits to MFI to be rewarded.
- No marks for disadvantages.

Definition: Delegation – passing down of authority to perform tasks/take decisions

Answers could include:

- Delegation may motivate employees and result in an increase in productivity or work effort and potentially output. (Motivating employees in itself is not a benefit; the benefit is that effort will be increased)

Application might be evidenced by:

- Links made to fishing
- Links made to recruitment of Suzy as operations manager
- Links made to encouraging existing managers to take on more responsibilities and this would help train and prepare them for managing parts of MFI's business as it expands
- Links to authority given to directors to implement 'two important decisions'
- Marco seems to be best at marketing and forming contacts in the industry – by being able to focus on these aspects of business he has helped the success of MFI
- Marco gave up fishing himself – this is work that can easily be passed to others while he managed the business
- He appointed an operations manager to manage AFP's factories – perhaps recognising that he could not manage production himself – the manager was able to increase productivity substantially making MFI more competitive



2 (a) Refer to lines 69–72. Calculate for the purchase of the 10 fishing boats:

(i) annual net cash flows [3]

Year	Net cash flows	Marks
0	(\$3.2m) [320 000 × 10]	1
1	\$820 000 [82 000 × 10]	} 1 mark for 820 000 four times
2	\$820 000	
3	\$820 000	
4	\$820 000	
5	\$2.1m [820 000 + 40% of 3.2m (1 280 000)]	1

Examiner note: No marks for discounted cash flows

(ii) payback period [2]

3 years 10.83 months (or 3 years 11 months or 3.902 years or 3 years 329 days) [2]

Some attempt e.g. working out one stage of the calculation [1]

(iii) net present value at a discount rate of 10% [3]

Year	Net cash flows	Discounted cash flows
0	(\$3.2m)	(3.2m)
1	\$820 000	746 200 (820 000 × 0.91)
2	\$820 000	680 600
3	\$820 000	615 000
4	\$820 000	557 600
5	\$2.1m (OFR net cash flows from part 1)	1.302m [Up to 2 marks for these figs]
	Net present value	\$3 901 400 – \$3 200 000 = \$701 400

[3]

Page 4	Mark Scheme	Syllabus	Paper
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NPV	Marks
701 400	3
(92 200)	3 if OFR from 2(a)(i) Not included resale of boats
193 000	3 if OFR from 2(a)(i) Included resale of boat in Yr 5 but not 820 000

(b) Recommend to Marco whether the new fishing boats should be purchased or leased.

[12]

	Knowledge 2 marks	Application 2 marks	Analysis 4 marks	Evaluation 4 marks
Level 2	2 marks Two relevant points made about results to (a) or other factors	2 marks Factor(s) well applied to the case	3–4 marks Good use of theory to answer question	3–4marks Good judgement shown
Level 1	1 mark One relevant point made about results to (a) or other factor	1 mark Some application to case	1–2 marks Some use of theory to answer question	1–2 marks Some judgement shown

Examiner note: Candidates **do not** have to refer their answer from **Q2(a)** to access full marks OFR from part (a)

Answers could include:

Knowledge:

- Length of payback
- Leasing is easier to finance as annual payments are made
- Leasing means boats are never owned by MFI – implications for statement of financial position?
- Purchasing may give greater flexibility of how the boat is used
- Maintenance costs may be covered by leasing

Application

- Slower payback with purchase and/or lower NPV. (Leasing payback is 2.5 years / NPV \$850 000 compared to purchase payback of 3yrs 10mths / NPV \$701 400). So if outright gain is an objective, boats should be leased
- Can MFI raise \$3.2m as purchase price of the boats?
- With interest rates rising is now a good time to borrow finance for the boats?
- Value (if any) of old boats being replaced has not been considered.
- Will boatyard fulfil its promise to buy boats back after 5 years? Will it still be in business?

Page 5	Mark Scheme	Syllabus	Paper
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Analysis

- Higher interest rates will mean that if MFI borrows money to purchase the boats that interest repayments will be greater and thus increase costs and reduce profitability

Evaluation:

- Overall conclusion and recommendation based on preceding analysis

**3 Discuss the likely impact on MFI of the changes to the external legal and economic environment in country X.**

[14]

	Knowledge 2 marks	Application 2 marks	Analysis 5 marks	Evaluation 5 marks
Level 2	2 marks Two relevant points made about impact of external factors	2 marks Impact of external factor(s) well applied to the case	4–5 marks Good use of theory to answer question	4–5 marks Good judgement shown
Level 1	1 mark Knowledge of external factors or one relevant point made about impact of external factors	1 mark Some application to case	1–3 marks Some use of theory to answer question	1–3 marks Some judgement shown

Examiner note: If only refer to economic/legal changes that are not from the case study then limit to knowledge and application marks only i.e. no award of any analysis and evaluation marks.

Answers could include:

There are a number of changes / possible changes highlighted in the case

- Higher interest rates will:
  - increase the cost of borrowing so buying the new boats outright might become more expensive if finance has to be borrowed.
  - reduce consumers discretionary income – spending on higher priced food products might fall
- Currency appreciation – cheaper to import machines and boats but exporting to country Y will now become easier as prices could be lowered
- Health and safety – higher costs of training and safeguarding employees in factories might raise unit labour costs
- Competition policy – MFI could be forced to sell off some fish canning/processing capacity or it might prevent further integration thus restricting potential economies of scale
- Consumer protection – no details provided but this could limit how products are promoted, labelled etc. – is FineDine really made from “dolphin friendly tuna”?

Evaluation:

- Impacts will be similar for all similar businesses – may be no loss of relative competitiveness
- More details of legal changes needed for precise impact
- Better hygiene may reduce chances of “food poisoning” crises
- Higher interest rate impact depends on how much they increase and the gearing ratio of MFI

Page 6	Mark Scheme	Syllabus	Paper
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4 (a) Refer to Appendix 2 and the Board's market share objective on lines 55–56. Calculate:

(i) forecast value of MFI's sales in country Y in 2017 [3]

Forecast market share 5%

Attempt at calculating 2017 total sales = [1]

Total sales in country Y in 2017 = 80 + 8 + 8.8 + 9.68 = 106.48 [2]

MFI sales: 106.48 × 0.05 = \$5.324m [3]

Answer	Marks	Reason
\$5.2m	2	Not compound growth
\$4m	1	5% of 80

(ii) price elasticity of demand of the best-selling premium brand of canned fish. [5]

$$PED = \frac{\% \text{ change in QD}}{\% \text{ change in P}} \quad [1]$$

Or  $\Delta Q/Q \div \Delta P/P$  or  $\Delta Q/Q \times P/\Delta P$  or  $\Delta Q/\Delta P \times P/Q$

Change in Qd = 3m tins to 2.8m tins (12/4 to 14/5) [1]

% change in Qd =  $0.2/3 \times 100 = -6.7\%$  (accept 6.7%) [1]

% change in P =  $1/4 = 25\%$  [1]

PED =  $-6.7/25 = -0.268$  or  $-0.27$  [5]

Accept: 0.27 for full marks

Answer	Marks	Explanation
(–) 0.192	4	Used incorrect starting price
(–) 0.67	3	Used change in revenue NOT demand

Page 7	Mark Scheme	Syllabus	Paper
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- (b) Discuss a suitable marketing strategy that Marco could use for FineDine products in country Y. Use your results from 4(a) and other relevant information. [14]

	Knowledge 2 marks	Application 2 marks	Analysis 5 marks	Evaluation 5 marks
Level 2	2 marks Two relevant points made about results/marketing decisions	2 marks Point(s) well applied to the case	5–4 marks Good use of theory to answer question	5–4 marks Good judgement shown
Level 1	1 mark One relevant point made about results/marketing decisions	1 mark Some application to case	3–1 marks Some use of theory to answer question	3–1 marks Some judgement shown

Examiner note: Limit to L1 Analysis & Evaluation if only use result(s) or other information OFR from part (a)

Definition: Marketing strategy is a strategy aiming to achieve marketing objectives through an integrated marketing mix within a defined budget

Answers could include:

- Marketing objective seems to be realistic at 5% in one year – but will supermarkets be willing to stock this new product? If distribution problems arise then objective might have to be revised down
- 2 year old report may need to be updated
- PED is inelastic for leading brand – so MFI may be able to price FineDine products highly – but will market accept high prices for a relatively unknown product? PED could be different
- AED seems to be high so high promotion budget might be justified – but this data refers to existing products and MFI might have to spend more than rivals in order to get established. Not all promotion/advertising will succeed – AED depends on the effectiveness of campaign too
- Product – has this been assessed using product portfolio analysis? Rising/higher incomes in country Y could justify this quality product decision
- Distribution – could be key to entering a new market. MFI does not currently appear to be using this channel in country X. Will it be able to establish effective relationships with supermarket buyers in country Y? Should an agent be used or even a joint venture?

Evaluation

- More up to date market research essential! Including primary and qualitative research to help establish buyers' preferences in this new market. Different consumer tastes could be a major factor preventing success.
- Need for integrated and consistent strategy – must not sell FineDine too cheaply – may rebound on image in country X
- In-country contacts essential – perhaps Marco needs to use an agent or joint venture to help enter this new market

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- 5 Recommend to Marco which one of the two applicants should be selected to be the new Operations manager. Justify your answer with reference to Appendix 1 and other relevant information. [14]

	Knowledge 2 marks	Application 2 marks	Analysis 5 marks	Evaluation 5 marks
Level 2	2 marks Two relevant factors made about selection	2 marks Good application of point(s) to the case	4–5 marks Good use of theory to answer question	4–5 marks Good judgement shown
Level 1	1 mark One relevant point made about selection or knowledge of operations manager	1 mark Some application to case	1–3 marks Some use of theory to answer question	1–3 marks Some judgement shown

Answers could include:

- Candidate A is internal – may be no need for induction training and will be well aware of the strengths/weaknesses of production systems within MFI
- Candidate B is external – able to bring in new ideas which could help reduce unit labour costs for MFI
- Lower salary might be paid to A – reduces costs but how important is this to a large business such as MFI?
- B is younger – may be more dynamic and prepared to try new methods but has no direct experience of introducing lean production
- B seems more autocratic – MFI workers may not be used to this style and it might conflict with the style adopted by Marco, which seems to encourage workers to develop and take responsibility
- A has had more jobs – good experience but does it mean that he cannot “stick with it”?

Evaluation

- Shown in balance of arguments and suggesting limitations to analytical points made – as above
- Final recommendation needs to be clear and based on preceding analysis

**Section B**

	Knowledge 3 marks	Application 3 marks	Analysis 4 marks	Evaluation 10 marks
Level 3				7–10 marks Good judgement shown throughout with well supported conclusion/ recommendation, focused on the business in the case
Level 2	3 marks Good understanding shown.	3 marks Good application to case	3–4 marks Good use of reasoned argument or use of theory to explain points made	4–6 marks Some judgement shown in the main body of the answer <b>and</b> an attempt to support conclusion/ recommendation, focused on the business in the case OR effective and well supported conclusion/ recommendation, focused on the business in the case
Level 1	1–2 marks Some understanding shown	1–2 marks Some application to case	1–2 marks Limited use of reasoned argument or use of theory to support points made	1–3 marks Limited attempt to show judgement either within the answer OR a weakly supported conclusion/ recommendation with some focus on the business in the case

**6 Discuss how MFI’s directors should manage the food poisoning crisis.**

**[20]**

Examiner note:

It is acceptable for the candidate to suggest that MFI could act dishonestly or suppress information or attempt to discredit or bribe the family.

- Crisis management – dealing with an unforeseen major negative event – helped by preceding contingency planning (CP)
- Not clear if CP has been undertaken – but Marco’s immediate reaction might suggest that it has. This should help to diminish the negative impact of the crisis – especially if MFI products can be proven to be the problem
- Do nothing – hope for the crisis to blow over – but this might be perceived as being complacent and MFL viewed as being a business that does not care about its customers
- Deny all link between MFI products and food poisoning case – but this might backfire if scientific evidence proves otherwise and then MFL will appear to be irresponsible
- Undertake immediate scientific research – may discover there is no link in which case MFI could be cleared OR if it does, it shows that MFI takes responsibilities seriously.
- If link is proven – withdraw all relevant products from shelves; offer shops compensation; offer consumers compensation (especially the husband!)
- In the longer term: re-brand products; retrain workers; impose stricter quality assurance; advertise widely to re-establish image and reputation; CSR such as supporting charities etc.

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#### Evaluation

- The ways in which Marco and directors manage the crisis will reflect on MFI for many years
- Is it crucial to be open and honest and to release all information as it becomes available – as any hint of secrecy will be seen as admission of guilt
- If any doubts persist about MFI's production methods or integrity then long term survival might be in doubt
- Detailed and updated contingency planning essential in future – if it does not already exist
- MFI should not initially overreact to the accusation. May be important to establish the facts.

### **7 Evaluate the importance of strategic management to the future success of MFI. [20]**

#### Examiner note:

If only consider one element of strategic management (i.e. strategic analysis or strategic choice or strategic implementation) then limit to L1 in all skills

#### Answers could include:

- Strategic management is the continuous planning, monitoring, analysis and assessment of strategies needed for an organisation to meet its goals and objectives. The strategic management process involves analysing cross-functional business decisions before implementing them.
- Decision making seems to depend heavily on Marco's input – they have been successful up to now perhaps due to his intuition, knowledge of the product/industry and his contacts within the industry.
- Signs that strategic management is not fully adopted include lack of detailed/up to date market research and lack of strategic analysis before decisions are taken.
- Is FineDine appropriate for country Y for example?
- Should takeovers have been decided on while the government was considering tighter competition laws?
- Is the food poisoning crisis (if MFI is implicated) the result of lack of long term HR and production planning?
- Market development, product development and market penetration should all be strategic decisions taken after strategic analysis and strategic choice techniques have been used – not much evidence of these!
- Role of contingency planning e.g. might make reference to food poisoning

#### Evaluation:

- External environmental changes as well as strategy of market development suggest that effective strategic management will become increasingly important to the success of MFI
- Now a plc – shareholders will not tolerate undue risk or significant failure – strategic management should reduce risk and increase chances of success for MFI
- Is Marco able to adapt his CEO role to allow a more detailed assessment of strategic options before decisions are taken?
- However much SM is done there is no guarantee of success as external changes may make planning outdated



# **PAPER NUMBER 9**

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**BUSINESS**

**9609/32**

Paper 3 Case Study

**May/June 2016**

**3 hours**

No Additional Materials are required.

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**READ THESE INSTRUCTIONS FIRST**

An answer booklet is provided inside this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

**Section A**

Answer **all** questions.

**Section B**

Answer **one** question

You are advised to spend no more than 40 minutes on Section B.

The businesses described in this question paper are entirely fictitious.

The number of marks is given in brackets [ ] at the end of each question or part question.

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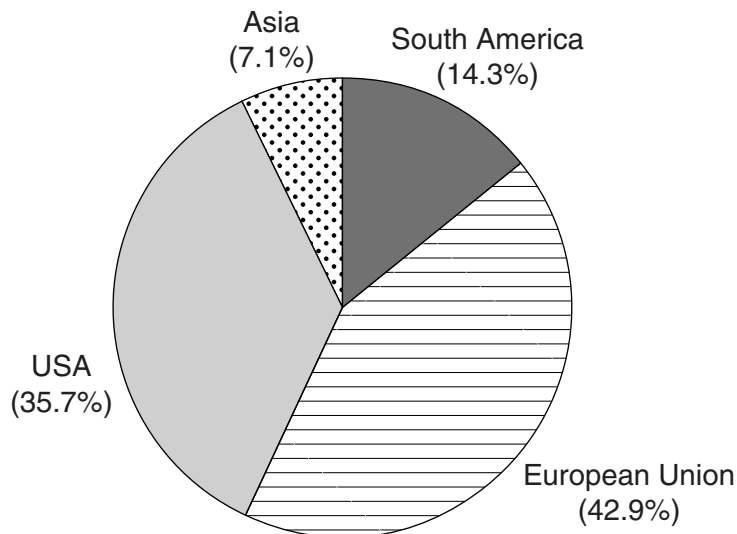
## Cameron Jet Engines (CJE)

CJE is a public limited company specialising in the manufacture of jet engines for aircraft. It has operations facilities in several African and Asian countries but its head office and main manufacturing base is in a European Union (EU) country. The corporate mission of CJE is to 'develop unrivalled engine technology and create power solutions for the next century'. CJE engines are purchased by most of the major global civil aeroplane manufacturers – Fig. 1 shows the geographical breakdown of sales in 2015. The core competence that CJE has gained in jet engines is also put to effective use in the company's marine and electricity generating divisions. CJE's core competence is also used to make power systems for fast boats and for electricity stations.

5

**Fig. 1: Geographical breakdown of CJE sales (volume) 2015**

10



### Production capacity

CJE managers have been surprised by the commercial success of the XL1 engine. Sales have exceeded forecasts and production capacity of 95% has been reached in the factory where the XL1 is assembled. The lack of spare capacity is most serious in the turbine blade department – the blades are an important part of every jet engine. The Operations Director is this week making a decision about whether to increase capacity in this department or outsource some turbine blade production to another business. This business, AOP, is in country X and its factory is 500 kilometres away from the XL1 assembly factory. AOP has substantial spare capacity as a jet engine manufacturer has recently cancelled a large order. The cost estimates for outsourcing and increasing factory capacity are shown in Table 1.

15

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**Table 1: Data comparing outsourcing with expansion of CJE factory capacity**

	Outsourcing to AOP	Increase capacity of existing factory	
Time required	Contract could be signed within 3 months – deliveries 1 month after that	15 months for completion of factory	25
Variable cost per blade	–	\$500	
Contracted price per blade	\$570	–	
Transport cost per 10 blades	\$200	–	30
Additional annual fixed costs	–	\$600 000	
Annual fixed costs of existing CJE factory	\$6 million	\$6 million	35
Annual capacity	5000	3000	

**Human resource management**

Despite significant barriers to the entry of new manufacturers, there is considerable competitive rivalry in the jet engine market. CJE's market share of 23% is under pressure from two large European based engine manufacturers. Quality, innovation and reliability are essential requirements of jet engines – but so is a competitive price. CJE has lower profit margins than its competitors and a corporate objective is to match competitors' margins. CJE is using a cost minimisation strategy to achieve this. 40

All departments have been instructed to produce plans for cutting costs by 7% this year. The Human Resource Director has already started implementing his proposals for a more flexible HR strategy: 45

- Recently recruited production employees have been appointed on short-term temporary contracts (even for skilled positions)
- Some unskilled employees have been given zero hours contracts
- All employees are to be required to learn new skills to allow flexible working. 50

**Market for helicopter jet engines**

CJE directors are determined to enter the market for the supply of engines for helicopters. Profit margins are substantially higher than in the market for engines for other types of aircraft. The Marketing Director has had lengthy negotiations with Government officials in country Y, which is a rich nation that is expanding its fleet of 'search and rescue' helicopters. The Government officials are keen for CJE to supply engines for the new helicopters in country Y. However, they have argued that CJE's engines are more expensive than those of competitors and have a shorter after-sales service agreement. Despite these factors, the officials have indicated secretly that a contract with CJE could soon be signed if substantial 'facilitating payments' were made directly to them personally in foreign bank accounts. 55 60

### Financial reporting

Under pressure from shareholders to raise the company's low profit margins, CJE's Finance Director is thinking about making the following changes to financial reporting methods this year.

- Fixed assets are depreciated by the straight line method over 10 years. If this is lengthened to 20 years then it would reduce annual depreciation by \$25m. 65
- Offering a major customer an early shipment discount could provide additional revenue of \$45 million in the current financial year. The expected operating profit margin of this contract would then be 10%.

The Finance Director claimed that, if adopted before the end of October, these measures would help to satisfy shareholder expectations – at least in the short term. 70

**Table 2: Summary of CJE accounting data forecasts, at end of October 2016 before changes suggested by Finance Director (\$m)**

Operating profit	65
Revenue (year ending)	850
Total non-current assets	1250
Intangible non-current assets	50
Net current assets	64
Long term liabilities	600

75

### Strategic options

The directors are considering the following two strategies for future growth. 80

*Strategy 1:* Take over a small manufacturer of aircraft in a BRICS country. This manufacturer does not currently use CJE engines. It has designed a new small jet aeroplane which is expected to be popular in lower income countries.

*Strategy 2:* Establish a joint venture with Z&L, a USA based jet engine manufacturer. The joint venture would design and manufacture a new jet engine with a low environmental impact. This engine would be designed and manufactured in an African country. 85

Quantitative and qualitative data regarding these two options are shown in Table 3. Both strategic options would require careful implementation to achieve success as they both have elements of risk and would involve long term commitment of substantial CJE resources.

**Table 3: Data comparing the two strategic growth options**

90

	Strategy 1: Take over aircraft manufacturer	Strategy 2: Joint venture with Z&L
Estimated cost	\$200m	\$150m
Forecast internal rate of return (over 5 years)	15%	20%
Greatest risk factor	Lack of synergy	Research fails to develop innovative product
Estimated chance of strategy failure	20%	40%
Expected monetary value if successful (over 5 years)	\$100m	\$120m
Greatest constraining factor	Lack of CJE directors' experience in aircraft manufacture	Culture clash with USA business managers
Greatest driving factor	Supply of CJE engines to this aircraft manufacturer	Developing low cost operations in an African country

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100

105

Appendix 1 contains some global economic forecasts that CJE's directors might find useful when making the strategic choice.

#### **Appendix 1: Global economic forecasts, 2016–2020**

Annual world GDP per capita growth	5%
European Union labour costs (annual growth)	8%
BRICS labour costs (annual growth)	2%
Average increase in global interest rates over period	4%
Growth in global market share of Asian aircraft manufacturers over period	12%
External costs: EU maximum permitted pollution level per jet engine in 2020 (2015 = 100)	80

**Section A**

Answer **all** questions in this section.

- 1 Analyse the impact on CJE of adopting a more flexible approach to human resource management. [10]
- 2 (a) Refer to Table 1. Calculate the difference in unit cost between the two supply options for turbine blades. [6]  
(b) Recommend whether CJE should outsource turbine blade production. Justify your answer using your answer from (a) and other information. [12]
- 3 Discuss the implications for CJE of making 'facilitating payments' to Government officials. [16]
- 4 (a) Refer to Table 2 and the information on lines 64–68. Assume the changes suggested by the Finance Director are made. Calculate:
  - (i) operating profit margin at the end of October 2016 [4]
  - (ii) gearing ratio at the end of October 2016. [4](b) Advise the Finance Director whether to make the proposed adjustments to the way CJE reports accounting results. [12]
- 5 Assess the usefulness of the forecasts in Appendix 1 to any **two** functional departments of CJE. [16]

**Section B**

Answer **one** question from this section.

- 6 Recommend to CJE's Board of Directors which one of the two strategic options the company should choose. Justify your recommendation. [20]
- 7 Assume CJE's directors choose strategy 2. Evaluate how this strategy might be implemented successfully. [20]

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**BUSINESS**

**9609/32**

Paper 3 Case Study

**May/June 2016**

MARK SCHEME

Maximum Mark: 100

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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.

Cambridge is publishing the mark schemes for the May/June 2016 series for most Cambridge IGCSE<sup>®</sup>, Cambridge International A and AS Level components and some Cambridge O Level components.



Page 2	Mark Scheme	Syllabus	Paper
	Cambridge International A Level – May/June 2016	9609	32

**1 Analyse the impact on CJE of adopting a more flexible approach to human resource management. [10]**

Level	Knowledge 3 marks	Application 3 marks	Analysis 4 marks
2	3 marks Knowledge of flexible HRM and benefits and/or limitations	3 marks Points well applied to the case	3–4 marks Good use of theory and/or reasoned argument to explain benefits and limitations
1	1–2 marks Some knowledge of HRM OR benefits and/or limitations of flexible HRM	1–2 marks Some application to case	1–2 marks Some use of theory and/or reasoned argument to explain benefits or limitations
0	No creditable content		

Examiner note: Analysis must link impact to CJE i.e. it is not sufficient to just analyse impact on employees as this is not the question.

Definition:

- HRM is the strategic approach to the effective management of an organisation's workers so that they help the business gain a competitive advantage. Includes workforce planning, recruitment, training and managing performance.
- Flexible HRM attempts to convert fixed costs of employing workers into variable costs – and make workers more adaptable/multi-skilled to make production more flexible to changing demand.

Answers may include:

Benefits:

- Should reduce total employee costs
- Workers asked to work longer when needed
- Unsatisfactory workers replaced quickly
- Able to switch tasks more easily
- Important to CJE as it is attempting to cut departmental costs by 7% this year
- Learning new skills may enrich jobs and drive productivity
- CJE competes in a competitive market and policies that help control costs will help CJE compete.

Limitations:

- Could be negative on motivation so productivity might fall – this could raise unit labour costs;
- More difficult to recruit good/skilled employees
- Cost of training increases if labour turnover increases
- Important to CJE as many jobs will be skilled – will skilled employees be prepared to accept this flexible approach?
- Quality, reliability and innovation are essential for jet engines. Will use of short term temporary contracts negatively impact those attributes?

Page 3	Mark Scheme	Syllabus	Paper
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- 2 (a) Refer to Table 1. Calculate the difference in unit cost between the two supply options for turbine blades. [6]

Unit cost = total cost/output or (fixed + variable cost)/output (1 mark if no relevant calculation)

**Ousourcing:**

Transport cost is \$20 (1 mark)

Unit cost is \$590 [ $\$570 + \$200/10$ ] (2 marks)

**Extend factory:**

Additional fixed cost is  $600\,000/3000 = 200$  (1 mark)

Assuming max capacity then unit cost is  $\$500 + [\$600\,000/3000] = \$700$  (3 marks)

**Note:** If a candidate makes a clear assumption regarding output up to a max of 3000 then treat as OFR.

Identify outsourcing and extend factory as \$590 and \$700 (5 marks)

Difference is  $700 - 590 = \$110$  (6 marks)

Own Figure Rule (OFR) applies.

- (b) Recommend whether CJE should outsource turbine blade production. Justify your answer using your answer from (a) and other information. [12]

Level	Knowledge 2 marks	Application 2 marks	Analysis 4 marks	Evaluation 4 marks
2	2 marks At least two relevant points made	2 marks Application of two or more points to case/use of results	3–4 marks Good use of theory to answer question	3–4 marks Good judgement shown
1	1 mark One relevant point made or definition of outsourcing	1 mark Some application to case/use of one result	1–2 marks Some use of theory to answer question	1–2 marks Some judgement shown
0	No creditable content			

Definition of outsourcing: using an outside agency to carry out some business functions.

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Answers could include:

- Unit cost of extending factory should not include current annual fixed costs – these have to be paid anyway.
- Outsourcing: Seems to be cheaper (but even if a ‘more expensive’ result is obtained in (a), there is still scope for discussion e.g. time factor and flexibility of production).
- It is also quicker – this could be a real advantage if CJE is in danger of not being able to meet customer orders.
- Outsourcing fits in better with the aim of greater flexibility and cost cutting.
- Has greater maximum additional capacity.
- However: Quality is a big issue – and perhaps the deal breaker. If CJE do not want to risk their quality/reliability reputation is this worth taking the risk?
- Why did the other engine maker cancel an order?
- Will transport costs rise?
- Will distance prove to be a problem if CJE uses JIT?
- Deliveries within 4 months compared to 15 months to complete factory.

**Evaluation:**

Judgement/conclusion needed based on overall analysis of issues.

- Possible identification of the most important point. Costs? Quality? Time?
- How reliable is AOP? It has lost a contract.
- Is this a long term contract with AOP?

Page 5	Mark Scheme	Syllabus	Paper
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**3 Discuss the implications for CJE of making ‘facilitating payments’ to Government officials. [16]**

Level	Knowledge 3 marks	Application 3 marks	Analysis 5 marks	Evaluation 5 marks
2	3 marks At least two relevant points made about impact on CJE	3 marks Application of two or more points to case	4–5 marks Good use of theory to answer question	4–5 marks Good judgement shown
1	1–2 marks One relevant point made about bribery or ethics or impact on CJE	1–2 marks Some application to case	1–3 marks Some use of theory to answer question	1–3 marks Some judgement shown
0	No creditable content			

Answers could include:

- Some facilitating payments such as bribery are illegal in many countries – and is widely regarded as unethical even if it is not specifically illegal.
- If discovered it could lead to fines for CJE and even prison for marketing employees.
- If undiscovered it could lead to major new market for CJE with higher profit margins – which directors are currently worried about.
- Will bribe become expected in future and in other markets?
- What message does it give out to stakeholders?
- Other marketing methods are, of course, possible e.g. lower prices, longer service contracts etc.

**Evaluation:**

- Depends on CJE Directors’ ethical code.
- What are rivals doing? But perhaps this is unimportant if bribery is illegal/unethical anyway?
- Better to create an ethical image based on legal marketing tactics – even if fewer orders are received?
- But will shareholders lose faith in a business with low profit margins and unable to enter helicopter jet engine market?
- How substantial are the facilitating payments?
- How likely is it that information will be leaked?
- How might bribery impact potential orders from other markets such as the EU?

Page 6	Mark Scheme	Syllabus	Paper
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4 (a) Refer to Table 2 and the information on lines 64–68. Assume the changes suggested by the Finance Director are made. Calculate:

(i) operating profit margin at the end of October 2016 [4]

Operating profit will increase by \$29.5 m i.e. to \$94.5 m (2 marks)

Operating profit \$69.5 m (1 mark)

Operating profit \$90 m (1 mark)

Revenue will increase by \$45 million (1 mark)

Operating profit margin =  $94.5/895 \times 100 = 10.56\%$  (4 marks)

OFR applies.

**Only includes discount then:**

Operating profit = \$69.5 m and OPM = 7.77% (3 marks)

**Only includes change to depreciation then:**

Operating profit = \$90 m Revenue = \$850 m then OPM = 10.59% (3 marks)

If no calculation but formula given then 1 mark.

If  $65/850 = 7.6\%$  (1 mark) [implied knowledge of formula]

(ii) gearing ratio at the end of October 2016 [4]

Long term liabilities/capital employed  $\times 100$  if no calculation (1 mark)

New capital employed = \$1275 m (less depreciation) + \$50 M + \$64 m = \$1389 m  
(2 marks)

$600/1389 \times 100 = 43.2\%$  (4 marks)

If gearing defined as long term liabilities/shareholder equity  $\times 100$  (1 mark)

Shareholder equity = 1389 – 600 = \$789 m (2 marks)

$600/789 \times 100 = 76.05\%$  (4 marks)

Page 7	Mark Scheme	Syllabus	Paper
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(b) Advise the Finance Director whether to make the proposed adjustments to the way CJE reports accounting results. [12]

Level	Knowledge 3 marks	Application 3 marks	Analysis 5 marks	Evaluation 5 marks
2	3 marks At least two relevant points made about impact on CJE	3 marks Application of two or more points to case	4–5 marks Good use of theory to answer question	4–5 marks Good judgement shown
1	1–2 marks One relevant point made about bribery or ethics or impact on CJE	1–2 marks Some application to case	1–3 marks Some use of theory to answer question	1–3 marks Some judgement shown
0	No creditable content			

Answers could include:

Definition: Window dressing – making reported accounts appear to be more favourable – at least in the short term.

Yes:

- Improves profit margin – shareholders concerned about this.
- May help to boost share price (plc).
- Lowers gearing ratio – helps to raise additional finance for one of the two strategic growth options.
- Makes CJE appear to be ‘worth more’ – may discourage predator companies.
- Intangible assets likely to add to shareholder value for a high tech business such as this.

No:

- Potentially misleading to accounts users if the underlying ‘rules’ are changed.
- Cannot repeat these measures easily so this is likely to be a one-off improvement in ‘performance/gearing’.
- Investors/lenders may not be convinced that the improvements are real
- May not be illegal – but is it unethical?
- Change to depreciation will impact operating profit and therefore tax liability.
- Early shipment might put workers under pressure to fulfil order.

**Evaluation:**

- Overall judgement based on analysis of results to (a) and other data.
- Might depend on how rivals prepare their accounts.
- Need for benchmarking of accounting practices as well as company performance?

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**5 Assess the usefulness of the forecasts in Appendix 1 to any two functional departments of CJE. [16]**

Level	Knowledge 3 marks	Application 3 marks	Analysis 5 marks	Evaluation 5 marks
2	3 marks Good understanding of economic forecast(s)	3 marks Good application to CJE department(s)	4–5 marks Good use of theory to answer question	4–5 marks Good judgement shown
1	1–2 marks Knowledge of functional departments and/or relevant points made about economic forecasts showing understanding	1–2 marks Some application to CJE departments	1–3 marks Some use of theory to answer question	1–3 marks Some judgement shown
0	No creditable content			

Answers could include:

Definition of functional departments.

Marketing:

- Demand for aviation likely to increase; demand from Asian manufacturers likely to increase: need to be prepared for increasing sales and switch in emphasis towards Asian customers.
- BUT: how does GDP growth compare to previous periods? What total market share will Asian aeroplane manufacturers have in 2020?

Operations:

- Should there be relocation of more manufacturing to BRICS countries and away from EU?
- Should further finance be provided for R and D into cleaner jet engines – and does this make Strategy 2 more likely to be the accepted growth strategy for CJE?
- BUT: How do other production costs compare – not just labour? Are skill levels in BRICS suitable for jet engine manufacture? Other issues with location?
- Do CJE engines already meet EU limits? No detail of CJE engine pollution compared to rivals.

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Finance:

- Higher borrowing costs – does this make both of the two growth strategies too expensive to finance through loans?
- How will higher interest rates affect share prices? Could lower share prices for CJE make it more difficult to raise finance through equity?
- BUT: Are all countries going to experience higher interest rates?
- Other factors influence share prices too – global GDP growth might increase profits and lead to higher share prices.
- Other answers possible.

HR:

- Workforce planning.
- Recruitment may be required due to growth of incomes.
- Inflation will impact wage demands and collective bargaining.

**Evaluation:**

- Source of data and its reliability?
- No information about specific market conditions which is really necessary to make a fuller assessment of impact on departments.



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Questions 6 and 7 use this marking grid:

Level	Knowledge 3 marks	Application 3 marks	Analysis 4 marks	Evaluation 10 marks
3				7–10 marks Good judgement shown throughout with well supported conclusion/ recommendation, focused on the business in the case
2	3 marks Good understanding shown	3 marks Good application to the case	3–4 marks Good use of reasoned argument or use of theory to explain points made	4–6 marks Some judgement shown in the main body of the answer <b>and</b> an attempt to support conclusion/ recommendation, focused on the business in the case OR effective and well supported conclusion/ recommendation, focused on the business in the case
1	1–2 marks Some understanding shown	1–2 marks Some application to the case	1–2 marks Limited use of reasoned argument or use of theory to support points made	1–3 marks Limited attempt to show judgement either within the answer OR a weakly supported conclusion/ recommendation with some focus on the business in the case
0	No creditable content			

<b>Page 11</b>	<b>Mark Scheme</b>	<b>Syllabus</b>	<b>Paper</b>
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- 6 Recommend to CJE’s Board of Directors which one of the two strategic options the company should choose. Justify your recommendation. [20]**

Answers could include:

Understanding of decision making models such as Ansoff’s Matrix, Force Field Analysis, decision trees and investment appraisal.

Strategy 1: Vertical forward integration (accept interpretation as diversification)

- Higher cost, lower IRR – although there could be lower risk with this option, so lower risk and lower return complement each other.
- Good market potential in BRICS countries in future?
- May be lack of synergy – management culture clashes; lack of aircraft manufacturing experience; are CJE engines suitable for the aircraft made by this manufacturer?
- Is finance available for this higher cost option?

Strategy 2: Joint venture

- Is the USA manufacturer larger than CJE? Will it have a controlling interest?
- Research and development is expensive and outcome uncertain – hence higher risk.
- New range of engines – if successfully developed – would fit in well with EU anti-pollution policy.
- Has the BRICS country got the infrastructure, support industries and skilled labour needed to support this new venture? Any government grants available? Much more likely for this option than Strategy 1.
- Culture class a real risk – EU managers may not easily work closely with USA management.

**Evaluation:**

- Questions over reliability and accuracy of data e.g. decision trees expected monetary values and cash flows used to calculate IRR.
- Other data would be useful e.g. accounting data for the aircraft manufacturer and time needed (usually) to research and develop a new range of engines.
- Supported conclusion or recommendation based on preceding contextualised analysis.

<b>Page 12</b>	<b>Mark Scheme</b>	<b>Syllabus</b>	<b>Paper</b>
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- 7 Assume CJE’s directors choose strategy 2. Evaluate how this strategy might be implemented successfully. [20]**

Answers could include:

- Strategic implementation: Putting a strategy into effect in a planned way with the purpose of reaching a desired objective.
- This is a major strategic decision involving significant change and substantial resources.
- Detailed corporate/operational planning will be needed – including contingency planning.
- Analysis of the benefits of business planning.
- Resources must be prepared especially finance and people – will these take away vital resources from CJE’s existing operations?
- Is there sufficient finance available from retained earnings? Operating profit forecast to be \$65 m in 2016. Effect on dividends of using retained earnings.
- Analysis of effects on CJE of different ways of financing.
- Team of engineers and designers from CJE may need to be identified to work with Z&L employees.
- How should this joint venture be managed?
- Managing and leading the change will be essential. CEO/Directors will have to explain the reasons for these strategies and the objectives of them – to employees and other stakeholders.

**Evaluation:**

- Successful implementation of the strategy will be vital to success of CJE as failure could put at risk the entire business.
- Planning of timing, resources, operational decisions will be needed – explain in terms of the strategic option.
- Planning for eventualities will be essential. Estimated that there is a 40% chance of failure.
- Communication between Z&L and CJE essential.

# **PAPER NUMBER 10**

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**BUSINESS**

Paper 3 Case Study

**9609/31**

**May/June 2016**

**3 hours**

No Additional Materials are required.

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**READ THESE INSTRUCTIONS FIRST**

An answer booklet is provided inside this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

**Section A**

Answer **all** questions.

**Section B**

Answer **one** question.

You are advised to spend no more than 40 minutes on Section B.

The businesses described in this question paper are entirely fictitious.

The number of marks is given in brackets [ ] at the end of each question or part question.

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This document consists of **5** printed pages, **3** blank pages and **1** Insert.

## Sandson Electronics Limited (SEL)

'The winner of the 2016 innovation award goes to Sandson Electronics for its new robo-cleaner' announced the award ceremony presenter. Phil Sandson was delighted to receive yet another award for SEL. However, it would be the last time he would represent the company at the annual award ceremony for the European consumer electronics industry. He and his brother Robert, the joint owners of SEL, have just concluded a deal to sell the business to CCP, one of Africa's largest manufacturers of consumer electronics. 5

SEL was established 20 years ago by Phil and Robert, both engineering graduates. It is based in a European Union (EU) country. The company has established a strong reputation for invention and innovation of floor cleaners and other household appliances. The Sandson brand name has an excellent reputation in the industry. Its products are expensive but of such clever design that demand is high. 10

CCP's decision to take over the business was made during an emergency Board of Directors meeting, arranged after CCP's Chief Executive heard that SEL was for sale. New product innovation is SEL's strength – but managing the manufacturing operations is one of its weaknesses which has contributed to declining profitability. CCP's decision to acquire SEL was not based on detailed strategic analysis. It was mainly driven by the desire to gain SEL's intangible assets. Following the takeover, CCP's Chief Executive plans to operate SEL as a separate division within the CCP group of companies. 15

### Establishing SEL's selling price

Phil and Robert decided to sell the business to raise the capital to invest in a social enterprise. This will supply clean water to low income families. The brothers studied carefully the data in Table 1 prepared for them by the company accountant. They decided to accept CCP's takeover bid of \$35m – half in cash and half in CCP shares. They also considered external economic factors before accepting the bid. 20

**Table 1: SEL selected accounting data**

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	2014	2015
Operating profit	\$15m	\$6m
Total non-current assets	\$38m	\$43m
Intangible non-current assets	\$8m	\$10m
Shareholders' funds/equity	\$16m	\$18m
Annual dividends	\$2m	\$1.5m
Acid test ratio	0.5	0.3
Gearing ratio	55.5%	57.1%

30

### New award winning product – the robo-cleaner

This new product took SEL 9 years to develop and the total research and development cost was \$28 million. This expenditure has led to serious cash flow problems. The robo-cleaner has just entered production and initial consumer test reports are very positive. Advance orders are high and an injection of CCP's cash will be necessary to provide the working capital needed for full production to start. 35

The robo-cleaner is a fully automatic robotic floor cleaner. It is powered by a new SEL designed and patented battery. The user places it in a room, switches it on and then it cleans the floor by itself. In-built sensors detect furniture and walls and the cleaner turns away from these. Three versions 40

are available for different types of floor – carpet, wood or tiles. The product is more technologically advanced than rivals' products – this is vital as the industry is becoming increasingly competitive.

### Market development – selling SEL's robo-cleaner in foreign markets

45

When the Sandson brothers owned SEL the company lacked the resources to market its products in foreign countries. CCP is determined to sell the robo-cleaner in as many global markets as possible. Freda, the Marketing Director appointed by CCP, plans to start this process of market development by exporting the robo-cleaner to country X. She will have to make important marketing strategy decisions, including:

50

- Which model of robo-cleaner should be launched first?
- Should the objective be high market share?
- Will the existing advertising and promotional material for the robo-cleaner be suitable for country X?
- Is it best to use existing well-established wholesalers in country X as a channel of distribution or should the robo-cleaner only be available to purchase online?

55

### Factory workforce performance

The data in Table 2 indicates declining factory workforce performance at SEL's factory before the takeover by CCP. Phil and Robert were interested in design and research, rather than manufacturing. Chris has been Operations manager at the factory since 2013. He uses a hard approach to human resource management. Despite this, the quality of the electrical appliances leaving the factory is high – but many are rejected before they reach this final stage. Factory employees are trained in the specific skill they require. Chris is a very experienced Operations manager and he believes that he can solve all operational problems himself. He is a firm believer in promoting workers he likes and rejects the idea that the factory needs to adopt an equality and diversity policy. The directors of CCP are secretly considering whether they should close this SEL factory and transfer production to one of CCP's factories in Africa.

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**Table 2: SEL factory workforce – performance data**

	2014	2015
Factory employees	250	268
Total annual output of appliances	44 000	44 500
Number of appliances rejected by quality control	2000	2200
Factory employees who left during the year	55	63
Number of days lost through absenteeism (full time contract = 200 days per year)	5000	5400

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### Communication methods

By commenting on blog posts, employees in the SEL division can use BlogHub to share ideas and knowledge on issues that are relevant to them and the company. BlogHub is an effective collaborative tool and helps to increase awareness of what each engineer, researcher and designer is working on.

80

Social media communication can have beneficial effects with some customers too. Last year a customer was disappointed with the lack of SEL's appliances in his preferred colour. He wrote a highly critical personal post about his experience and posted this on social media. Much to the customer's surprise, he received a message direct from SEL within minutes and by the end of the week this had been followed up with several phone calls from SEL. The company even posted a discount card so the customer could purchase a specially painted SEL product at a low price. The customer immediately used social media to tell the whole world of the positive customer service he had received!

85

### CCP's future Research and Development (R&D) strategy

SEL invested almost 15% of its annual revenue in recent years in research and development. This is a higher proportion than that invested by competing businesses. CCP's R&D strategy, until the decision to take over SEL, was to minimise investment in new technology but to copy as closely as possible competitors' innovations. Table 3 contains some recent industry data on R&D spending. 90

**Table 3: R&D spending and other data for major companies in the EU household appliance industry** 95

Major companies in household appliance market (EU)	Annual average R&D spending 2013–2015 (\$m)	R&D spending as % of annual revenue 2015	Operating profit margin 2015	Number of new patents 2013–2015
SEL (before the takeover)	\$15m	14.5%	5.8%	6
CCP (before the takeover of SEL)	\$8m	2.3%	8.4%	2
DRS	\$35m	10%	11.2%	15
HA	\$18m	12%	6.2%	1

100

105



**Section A**

Answer **all** questions in this section.

- 1 Analyse the benefits to SEL of using social media to communicate with employees and customers. [10]
- 2 Discuss whether the Sandson brothers made the correct decision to sell their business to CCP for \$35m. [16]
- 3 Assume CCP is to begin selling the SEL designed robo-cleaner in your country for the first time. Evaluate a marketing strategy that CCP could use. [16]
- 4 (a) Refer to Table 2. Calculate for 2014 and 2015:
  - (i) labour productivity [4]
  - (ii) percentage of output rejected [4]
  - (iii) labour turnover. [4](b) Discuss the effectiveness of **two** ways that SEL's factory manager could improve workforce performance. [12]
- 5 Recommend to CCP whether it should maintain SEL's level of R&D spending in the future. [14]

**Section B**

Answer **one** question from this section.

- 6 Evaluate the significance to CCP of not undertaking strategic analysis before the decision to take over SEL. [20]
- 7 Evaluate the importance of strategic management to CCP's future before **and** after the decision to take over SEL. [20]

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**BUSINESS**

**9609/31**

Paper 3 Case Study

**May/June 2016**

MARK SCHEME

Maximum Mark: 100

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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Cambridge is publishing the mark schemes for the May/June 2016 series for most Cambridge IGCSE<sup>®</sup>, Cambridge International A and AS Level components and some Cambridge O Level components.

Page 2	Mark Scheme	Syllabus	Paper
	Cambridge International A Level – May/June 2016	9609	31

**1 Analyse the benefits to SEL of using social media to communicate with employees and customers.** [10]

Level	Knowledge 3 marks	Application 3 marks	Analysis 4 marks
2	3 marks Knowledge of social media as a means of communication and two benefits	3 marks More than one benefit explained in context	3–4 marks Good use of theory and/or reasoned argument to explain benefits
1	1–2 marks Some knowledge of social media and/or benefits as a means of communication	1–2 marks Some application to case	1–2 marks Some use of theory and/or reasoned argument to explain benefits
0	No creditable content		

Examiner Note: Benefits **to** SEL. No reward for disadvantages.

Answers could include:

- Communication – passing of information to a receiver and receiving feedback
- Social media – IT/web based forms of communication
- Quick – as in the case, a response was received quickly
- Messages can be personalised – as with direct mail
- Able to communicate with large number of customers/potential customers
- Helps to portray a modern/youthful image to customers – important for a business with a new technology focus
- Internal company blogs allow effective formal/informal communication between employees
- Important for research based company where formal/hierarchical communication channels would not prompt as much discussion or two-way flow of ideas as IT based methods
- Speed of sending message and receiving reply also important between employees

<b>Page 3</b>	<b>Mark Scheme</b>	<b>Syllabus</b>	<b>Paper</b>
	<b>Cambridge International A Level – May/June 2016</b>	<b>9609</b>	<b>31</b>

**2 Discuss whether the Sandson brothers made the correct decision to sell their business to CCP for \$35m. [16]**

Level	Knowledge 3 marks	Application 3 marks	Analysis 5 marks	Evaluation 5 marks
2	3 marks At least two relevant points made about value of business or assets or other factors	3 marks Application of two or more points to case	4–5 marks Good use of theory to answer question	4–5 marks Good judgement shown
1	1–2 marks One relevant point made about value of business or assets or other factors	1–2 marks Some application to case	1–3 marks Some use of theory to answer question	1–3 marks Some judgement shown
0	No creditable content			

Answers could include:

- Knowledge of accounting terms e.g. ratio results; non-current assets; intangible assets.

Yes:

- More than shareholders' equity – reflecting the under valuation of intangible assets such as the patent on robo-cleaner and other innovative products.
- Much greater than annual operating profit (2016) and it would take years for this level of profit to equal \$35m.
- Gives the brothers cash (\$17.5m) to invest in new social enterprise project.
- Shares in CCP could rise in value meaning that they receive even more than \$35m over time.
- High gearing of SEL and low liquidity suggest that the business was in a potentially risky situation (high R and D costs and operations problems) – so perhaps the brothers would be wise to get out of the business!

No:

- Too rapid – they might sell for more.
- 2015 profit was much higher – if this level of profit can be regained then the \$35m will be repaid to CCP in just over two years – are the brothers selling too cheaply?
- Perhaps CCP think the robo-cleaner technology is worth much more than the brothers do – it did cost \$28m to develop after all.
- Profits might rise sharply at SEL with robo-cleaner if the brothers could solve the operations problems.
- CCP shares could fall in value so, in effect, the brothers would receive less for the sale of the business.

**Evaluation:**

- Perhaps they were too keen to accept some cash quickly from CCP without trying to sell to other companies – perhaps, in time, they could have sold for more.
- Not known how keen the brothers were to get out of this industry/market.
- Social enterprise scheme suggests that profit/capital gain is not the most important factor in the brothers' lives.
- The future prospects of SEL are not made entirely clear.

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- 3 Assume CCP is to begin selling the SEL designed robo-cleaner in your country for the first time. Evaluate a marketing strategy that CCP could use. [16]**

Level	Knowledge 3 marks	Application 3 marks	Analysis 5 marks	Evaluation 5 marks
2	3 marks At least two relevant points made about marketing strategy	3 marks Application of two or more points to case or own country	4–5 marks Good use of theory to answer question	4–5 marks Good judgement shown
1	1–2 marks One relevant point made about marketing strategy	1–2 marks Some application to case or own country	1–3 marks Some use of theory to answer question	1–3 marks Some judgement shown
0	No creditable content			

Application can be demonstrated through identifying relevant factors that would influence marketing within own country and/or through relevant use of case material.

Answers could include:

- Marketing strategy – long term plan of action for marketing activities which aim to achieve a long term marketing objective.
- Candidates should apply to own country – allow any potentially relevant points e.g. regarding income levels, competition, population, distribution problems etc.
- Objective needed – high market share or niche product? The design of the product suggests the latter – but candidate’s own country might be low income etc.
- Marketing budget needed – should fit in with marketing objective and the size of the potential market in the candidate’s own country.
- Marketing mix – price could be high to help repay development costs and establish niche image – but what about competition levels in own country?
- Product – which model should be launched? Market research needed on common floor types in candidate’s own country.
- Promotion – should be integrated with the remainder of the marketing mix.
- Place – if online selling to be used, is their adequate transport/courier infrastructure in the candidate’s own country?

**Evaluation:**

- Most important element of the strategy in candidate’s own country?
- Need for integration of the strategy aimed at achieving the marketing objective will be crucial.

<b>Page 5</b>	<b>Mark Scheme</b>	<b>Syllabus</b>	<b>Paper</b>
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**4 (a) Refer to Table 2. Calculate for 2014 and 2015:**

**(i) labour productivity** **[max 4]**

$$\text{Labour productivity} = \frac{\text{output in time period}}{\text{number employed}}$$

Both correct **[4]**

One correct **[3]**

Both incorrect calculations but correct data used **[2]**

Formula only **[1]**

$$2014: 44\,000/250 = 176$$

$$2015: 44\,500/268 = 166.05$$

**(ii) percentage of output rejected** **[max 4]**

$$\frac{\text{Number of rejected items in time period}}{\text{Total number produced}} \times 100$$

Both correct **[4]**

One correct **[3]**

Both incorrect calculations but correct data used **[2]**

Formula only **[1]**

$$2014: (2000/44\,000) \times 100 = 4.55\%$$

$$2015: (2200/44\,500) \times 100 = 4.94\%$$

$$\text{Accept: } 2014 - 42\,000/250 = 168 \text{ and } 2015 - 42\,300/268 = 157.84$$

<b>Page 6</b>	<b>Mark Scheme</b>	<b>Syllabus</b>	<b>Paper</b>
	<b>Cambridge International A Level – May/June 2016</b>	<b>9609</b>	<b>31</b>

(iii) labour turnover.

[max 4]

$$\text{Labour turnover} = \frac{\text{number of employees leaving in time period}}{\text{total number employed}} \times 100$$

Both correct [4]

One correct [3]

Both incorrect calculations but correct data used at least once [2]

Formula only [1]

$$2014: (55/250) \times 100 = 22\%$$

$$2015: (63/268) \times 100 = 23.5\%$$

	2014	2015
Labour productivity	176	166
Proportion of items rejected	4.55%	4.94%
Labour turnover	22%	23.5%

Page 7	Mark Scheme	Syllabus	Paper
	Cambridge International A Level – May/June 2016	9609	31

(b) Discuss the likely effectiveness of two ways that SEL’s factory manager could improve workforce performance. [12]

Level	Knowledge 2 marks	Application 2 marks	Analysis 4 marks	Evaluation 4 marks
2	2 marks At least two relevant points made about results or workforce performance improvements	2 marks Application of two or more points to case	3–4 marks Good use of theory to answer question	3–4 marks Good judgement shown
1	1 mark One relevant point made about results or workforce performance improvements	1 mark Some application to case	1–2 marks Some use of theory to answer question	1–2 marks Some judgement shown
0	No creditable content			

Answers could include:

- Meaning of workforce performance in terms of labour productivity, labour turnover and quality.
- Identify possible causes of problems e.g. Chris promotes those he likes and he rejects equality & diversity policy.
- More democratic leadership style – encouraging more participation in solving the obvious quality issues (quality circles?).
- Softer HRM – perhaps temporary contracts are used and if more permanent/full time contracts were offered this would improve job security and reduce labour turnover.
- Improve multi-skilling to make workers more flexible and increase job enrichment – this might help to increase productivity which has declined over the period shown.
- Job enlargement (horizontal expansion). Giving more duties to employees.
- Bonus for meeting targets.
- Replace Chris or give him training.
- JIT production.
- TQM.
- Quality Assurance.
- Reference to level of absenteeism: 2014 20 days per worker and 2015 20.15 days
- Other methods are possible – and could be analysed in context.

**Evaluation:**

- How keen is Chris to change his leadership style or HR strategy?
- More detail needed – why is hard HR used? Has he been instructed to reduce costs?
- Methods might not be effective if workers learn of the takeover and believe that the factory could be closed by CCP.



Page 8	Mark Scheme	Syllabus	Paper
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5 Recommend to CCP whether it should maintain SEL's level of R&D spending in the future. [14]

Level	Knowledge 2 marks	Application 2 marks	Analysis 5 marks	Evaluation 5 marks
2	2 marks At least two relevant points made about R&D or data	2 marks Application of two or more points to case	4–5 marks Good use of theory to answer question	4–5 marks Good judgement shown
1	1 mark One relevant point made about R&D or data	1 mark Some application to case	1–3 marks Some use of theory to answer question	1–3 marks Some judgement shown
0	No creditable content			

Answers could include:

- R&D is spending on scientific research and technical development of innovative products and processes.
- SEL has highest R&D as % of revenue of all major EU businesses in this market – yet OPM is lowest – could this be due to high cost of R&D or failure to manage operations successfully?
- R&D can lead to reputation for innovation and brand loyalty (examples?) and higher profit margins through premium prices – SEL prices seem to be high yet OPM is low due to other factors – factory problems?
- CCP seem to be successful with minimum R&D – so perhaps spending on innovation is not required for success in this industry, just successful 'copying'.
- DRS seems to achieve good innovation (patents) as well as high OPM, yet HA spends a lot on R&D with little success – suggesting that not all R&D leads to new inventions and innovative products.

**Evaluation:**

- As CCP bought SEL largely for innovative reputation and intangible property it might seem unwise to cut back on R&D spending.
- However, some cutbacks might be justified if research teams do not produce patented products which can be exploited profitably.

Page 9	Mark Scheme	Syllabus	Paper
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Questions 6 and 7 use this marking grid:

Level	Knowledge 3 marks	Application 3 marks	Analysis 4 marks	Evaluation 10 marks
3				7–10 marks Good judgement shown throughout with well supported conclusion/recommendation, focused on the business in the case
2	3 marks Good understanding shown	3 marks Good application to the case	3–4 marks Good use of reasoned argument or use of theory to explain points made	4–6 marks Some judgement shown in the main body of the answer <b>and</b> an attempt to support conclusion/recommendation, focused on the business in the case OR effective and well supported conclusion/recommendation, focused on the business in the case
1	1–2 marks Some understanding shown	1–2 marks Some application to the case	1–2 marks Limited use of reasoned argument or use of theory to support points made	1–3 marks Limited attempt to show judgement either within the answer OR a weakly supported conclusion/recommendation with some focus on the business in the case
0	No creditable content			

Page 10	Mark Scheme	Syllabus	Paper
	Cambridge International A Level – May/June 2016	9609	31

**6 Evaluate the significance to CCP not undertaking strategic analysis before the decision to take over SEL. [20]**

Answers could include:

- Strategic analysis: conducting research into the business environment within which an organisation operates and into the organisation itself to help form future strategies.
- SWOT; PEST; Ansoff; Porter; market research and any other appropriate tools might be suggested.
- CCP's revenue in 2015 was \$347m and their operating profit \$29.2m. It is a large business but the take-over of SEL still represents a significant strategic decision.
- It seems to have been taken quickly to avoid competitors buying SEL.
- This decision does not appear to have been aided by strategic analysis so it was an instinctive decision.
- This is risky – \$35m is more than 1 year's operating profit for CCP.
- Legal environment is changing (e.g. EU laws) and without analysing these a poor decision might result.
- Competition exists – is this growing or weakening? Is SEL's market share rising or falling? Without this analysis, CCP could have bought a business in decline despite the robo-cleaner development.
- Economic environment might change e.g. higher interest rates – how will this affect demand for expensive household appliances such as those made by SEL?
- Internal weakness of the factory management and workforce performance – but perhaps this does not matter if CCP intend to close this factory and make SEL products in their own factories.
- With the brothers going, will this make SEL easier or less easy to manage?
- Other features of SWOT/PEST/Boston etc. might be assessed by candidates in context.

**Evaluation:**

- Robo-cleaner patent might be worth the purchase price alone – so strategic analysis of other factors unimportant?
- Need to prevent SEL falling into hands of rivals might be most important factor – so intuitive decision was essential.

Page 11	Mark Scheme	Syllabus	Paper
	Cambridge International A Level – May/June 2016	9609	31

**7 Evaluate the importance of strategic management to CCP’s future success before and after the decision to take over SEL. [20]**

Answers could include:

- Strategic management – planning for the future with long term objectives and development of future strategies.
- CCP needs to take some measures to deal with declining profitability and liquidity.

Strategies such as market development will require:

- Strategic analysis – where are we now e.g. SWOT and PEST. This could help to identify the risks associated with the market development strategy and help to influence the decision about future R and D spending.
- Strategic choices made by CCP about SEL’s future direction will require the use of specific strategic choice techniques such as decision trees.
- Strategic implementation – putting the chosen strategy into effect and monitoring performance against the long term plan e.g. the market development strategy.

**Evaluation:**

- Important for long term success but short term/tactical decisions might also be needed if profitability and liquidity of the SEL division continue to fall.
- Strategic management will only be effective if undertaken by effective managers. Is CCP’s management capable of clear objective setting and long term planning? The past success and size of the business suggest that they are.
- Strategic management should allow for flexibility in planning e.g. changes in economic environment will affect the success of the robo-cleaner and the market development strategy – plans might need to be changed to allow for these.

# **PAPER NUMBER 11**

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**BUSINESS STUDIES**

**9707/32**

Paper 3

**October/November 2015**

CASE STUDY

**3 hours**

Additional Materials: Answer Booklet/Paper

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**READ THESE INSTRUCTIONS FIRST**

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use an HB pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, glue or correction fluid.

**DO NOT WRITE IN ANY BARCODES.**

**Section A**

Answer **all** questions.

**Section B**

Answer **one** question.

You are advised to spend 40 minutes on Section B.

The businesses described in this question paper are entirely fictitious.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.



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This document consists of **5** printed pages and **3** blank pages.

## Genco Ovens (GO)

Genco Ovens (GO) manufactures a large range of ovens for business customers such as schools, factories and food processing businesses that prepare and cook food in large quantities. The ovens are produced in GO's factory which employs 105 production workers. GO was established in 1998 and grew rapidly until 2014. Shareholders have benefited from high returns. Table 1 shows selected accounting data for GO over the last two years. The directors are concerned about the decline in revenue but this is due to economic conditions resulting from the Government's anti-inflation policy. GO's market share has actually risen over the period by 4%.

5

**Table 1: Selected accounting data for GO**

	Year ending 31 May 2014	Year ending 31 May 2015
Revenue	\$14m	\$12m
Profit (before tax) for the year	\$2m	\$1.8m
Gearing ratio:  $\frac{\text{non-current liabilities}}{\text{non-current liabilities} + \text{equity}} \times 100$	60%	65%

### Upgrading production equipment

The existing production equipment in GO's factory is 15 years old. It does not use the latest digital controls and is becoming unreliable. The Operations Director has investigated the options available to GO and two alternative production systems have been identified as potentially suitable. System 1 is fully automated with digital controls. These allow the machinery to manufacture and assemble ovens of different sizes and different design features. System 2 is partly automated and is less adaptable to changes in sizes and design features. Some manual jobs are still required at the end of this system's operations such as fitting oven doors and packaging. Some other data about these two systems are shown in Table 2. GO's total output of ovens in 2014 was 4000 units.

10

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**Table 2: Comparing the two production systems**

	System 1	System 2
Capital cost	\$5m	\$3m
Annual overhead cost excluding production workers' salaries	\$2m	\$1m
Number of production workers required	16	50
Average annual salary per worker	\$31 250	\$20 000
Forecast contribution per unit	\$833	\$800
Maximum capacity	6000	5000
Break-even level of output	3000	See <b>2(a)</b>
Margin of safety based on 2014 output	1000	See <b>2(a)</b>
Profit at maximum capacity	\$2.5m	See <b>2(a)</b>

**Marketing to businesses**

20

GO markets its products through trade fairs and direct selling to large businesses and Government buyers. It has a large sales team who attend the trade fairs and also sell directly to business customers. GO has an up-to-date website and also prints large numbers of brochures and leaflets as additional forms of promotion. Publicity is obtained through articles in trade catering magazines.

25

**Market development – selling to consumers**

A recent market research report indicated that consumer demand for large household ovens was increasing and the size of the market could reach \$300m in 2016. The Managing Director, Jez, told last month's Board meeting: 'Our smallest oven model could be adapted for the consumer market with new colours, more attractive controls and glass doors. 'Tested by industry' is the unique selling point we could use to help market the ovens.'

30

The Marketing Director recognises the potential offered by the consumer market. She used to work for a leading manufacturer of consumer kitchen equipment. 'We will have to devise a completely new marketing plan if this market development is going to be successful', she said when responding to Jez's idea.

35

**Sales department – budget variances**

'The downturn in sales in 2014/15 has resulted in some significant budget variances from our Sales Department', reported the Finance Director recently. 'I am showing you this example from the South-East region which is typical of other regions' he said (see Appendix 1). 'We issued the budget for the financial year 2014/15 to all regional managers in May last year. Budgeting for a whole year helps planning. The budgets we set at head office lead to fairness and coordination between regional offices. I know that sales have been disappointing mainly because of factors outside of their control but the managers have not made the efforts needed to keep to the overall budgets! Perhaps the managers did not know that they could have adjusted prices in their regions to compensate for the weaker demand.'

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45

**Management consultant report (see Appendix 2)**

Three years ago Jez commissioned a management consultant to research growth strategies that GO could adopt. No action had been taken on the findings of the report as industrial oven sales were still increasing at that time. Now that this market is becoming smaller, Jez discussed the report again at a recent Board meeting. 'Can I remind you of the consultant's main conclusions?' he said. 'We need to make some important strategic choices. We could continue as we are and just extend our products to appeal to the consumer market. Alternatively we could also decide to pursue one or both of the growth strategy options proposed by the consultant. We will have to consider the potential financial cost of these and the possible loss of control if we need to raise capital from a public share issue.'

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Most of the other directors were in favour of choosing at least one of the consultant's proposed strategies. Jez had to remind them that the findings were three years old. 'The basic conclusions are likely to be valid as the underlying analysis is still accurate and appropriate' suggested the Marketing Director. 'We should not worry too much about potential loss of control as many of the existing owners of GO, including ourselves, would be keen to invest more without a public share issue.'

60



**Appendix 1:  
Budget and actual data for GO's South-East region – financial year to 31 May 2015**

	Budget	Actual	Variance A = Adverse F = Favourable
Sales (units)	400	350	50 A
Average price per unit	\$3000	\$3000	-
Revenue	\$1 200 000	\$1 050 000	\$150 000 A
Sales employees' basic salaries	\$65 000	\$68 000	\$3000 A
Sales employees' commission payments	\$30 000	\$24 000	\$6000 F
Local advertising costs	\$40 000	\$60 000	<b>x</b>
Other regional marketing costs	\$14 000	\$12 000	<b>y</b>
Contribution to head office and factory costs	<b>v</b>	<b>w</b>	

**Appendix 2:  
Summary of 2012 management consultant report for GO**

Section of report	Main strength	Main weakness
Legal status: private limited company	Directors are main shareholders.	Currently, no access to public share issue to finance growth strategies.
Sales performance	Excellent growth record in recent years supported by good brand name.	Dependent on industrial market for ovens in one country.
Current organisational structure: Departmental structure; hierarchical; centralised	Consistent decision making; narrow spans of control reduce risk from delegation.	Rigid and inflexible. Slow vertical communication. Unsuited to the needs of the two proposed growth strategies.
Financial position	Profitable business, high proportion of profits reinvested.	Gearing ratio is high to finance growth of business.
Growth Strategy 1: Establish a marketing division in country Y, a large potential export market	Country Y's economy is expanding rapidly. Existing oven manufacturers are very profitable.	Financial risks might be high due to competitive market.
Growth Strategy 2: Take over a producer of freezers and air conditioning units to diversify product range	These products are often bought at the same time as ovens when industrial users re-equip their kitchens.	GO has no experience of product development strategies.

### Section A

Answer **all** questions in this section.

- 1 Analyse the potential benefits and limitations of GO's high gearing ratio. [10]
- 2 (a) Refer to Table 2. Calculate for System 2:
- (i) break-even level of output [3]
  - (ii) margin of safety based on 2014 output level [2]
  - (iii) annual profit based on maximum system capacity. [3]
- (b) Using your results to (a) and any other relevant information, recommend to GO's directors which production system to purchase. [14]
- 3 Discuss the factors that may determine the success of GO's entry into the consumer oven market. [16]
- 4 (a) Refer to Appendix 1.
- (i) Calculate the values **v** and **w**. [4]
  - (ii) Calculate the values **x** and **y**. [2]
  - (iii) Identify whether the variances you have calculated for **x** and **y** are adverse or favourable. [2]
- (b) Assess the usefulness of the budgetary system used by GO. [10]
- 5 Assume GO enters the consumer oven market **and** adopts Growth Strategy 1 (see Appendix 2). Discuss appropriate changes to GO's organisational structure. [14]

### Section B

Answer **one** question in this section.

- 6 Discuss the importance to GO of undertaking strategic analysis before making a decision about future growth strategies. [20]
- 7 Evaluate the importance of strategic management to the future success of GO. [20]

**CAMBRIDGE INTERNATIONAL EXAMINATIONS**

Cambridge International Advanced Level

## **MARK SCHEME for the October/November 2015 series**

### **9707 BUSINESS STUDIES**

**9707/32**

Paper 3 (Case Study), maximum raw mark 100

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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

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Page 2	Mark Scheme	Syllabus	Paper
	Cambridge International A Level – October/November 2015	9707	32

1 Analyse the potential benefits and limitations of GO's high gearing ratio. [10]

	Knowledge 3 marks	Application 3 marks	Analysis 4 marks
<b>Level 2</b>	3 marks Knowledge of gearing and benefits/limitations of high gearing	3 marks More than one benefit/limitation explained in context	4–3 marks Good use of theory and/or reasoned argument to explain benefits and limitations
<b>Level 1</b>	2–1 marks Some knowledge of gearing or benefits/limitations of high gearing	2–1 marks Some application to case	2–1 marks Some use of theory and/or reasoned argument to explain benefits or limitations

Level 1 Analysis if only benefits or limitations

Answers could include:

- Gearing is proportion of total capital financed from loans – formula accepted too
- GO's non-current assets are greater than equity
- Gearing has increased (by 5% points)
- High gearing – as in this case, over 50% – can be risky especially if profits start to fall – as in this case
- High gearing can lead to high interest costs – especially, as in the case, the Government is pursuing an anti-inflation policy which **could** increase interest rates
- Financing growth through high gearing seems to have occurred in this case – this can benefit shareholders – who include directors in this case – by increasing returns to shareholders at a faster rate than profits growth. This has not led to much higher dividends yet

Page 3	Mark Scheme	Syllabus	Paper
	Cambridge International A Level – October/November 2015	9707	32

2 (a) Refer to Table 2. Calculate for System 2:

(i) break-even level of output

[3]

BE = fixed costs/contribution per unit 1 mark (If no relevant calculation)

Working	Mark for working	Answer	Mark	Justification
2 m/800	2	2500	3	Correct
1 m/800	1	1250	2	Not all fixed costs
5 m/800	1	6250	2	Added capital cost to fixed costs
4 m/800	0	5000	1	Included capital cost and ignored one of fixed costs
3 m/800	0	3750	0	Only included capital cost. Fundamental misunderstanding of concept

(ii) the safety margin based on the 2014 output level

[2]

Safety margin = current output – BE output (1 mark)  
 4000 – 2500 = 1500 units (2 marks)

Own Figure Rule applies based on answer to (i)

(iii) annual profit based on maximum system capacity.

[3]

Profit = TR – TC OR Contribution per unit × output in excess of BE (1 mark)  
 2500 × \$800 (2 marks)  
 \$2m (3 marks)

Own Figure Rule applies based on answer to (i)  
 i.e. (5000 – Calculated BE) × 800

B/E	OFR Profit
1250	\$3m
6250	(\$1m)
5000	\$0
3750	\$1m

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**(b) Using your results to (a) and any other relevant information, recommend to GO's directors which production system to purchase. [14]**

	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 5 marks</b>	<b>Evaluation 5 marks</b>
<b>Level 2</b>	2 marks At least two relevant points made	2 marks Application of two or more points to case/use of results	5–4 marks Good use of theory to answer question	5–4 marks Good judgement shown
<b>Level 1</b>	1 mark One relevant point made	1 mark Some application to case/use of one result	3–1 marks Some use of theory to answer question	3–1 marks Some judgement shown

Level 1 Analysis and Evaluation if only one out of results to **(a)** and other relevant information

Answers could include:

- Analysis of BE results: Lower BE for cheaper option – good
- Higher safety margin too – good
- BUT lower profit at max capacity so much depends on whether output will increase in future – System 2 actually gives higher profits at 4000 output
- The higher profit from System 1 (at max capacity) would help to pay back the higher capital cost

Other factors:

- Can finance be raised for System 1? Impact on already high gearing if this is borrowed?
- Training costs for System 1? Can suitably qualified workers be recruited?
- Loss of employment with System 1 – how important is CSR to GO? Is there a risk of industrial action?
- Greater flexibility of System 1 could be crucial if they enter the consumer market
- System 2 requires 50 production workers but System 1 only requires 16. Link could be made to current number of production workers (105) and level of redundancies
- System 2 is less flexible. Link could be made to entry into consumer oven market

Evaluation:

- Most important factor in this case?
- Accuracy of quantitative estimates – can these be relied on?
- How long will each system take to introduce?
- Has there been sufficient technical research into the systems?
- Final recommendation needs to be supported by appropriate analysis

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**3 Discuss the factors that may determine the success of GO’s entry into the consumer oven market. [16]**

	<b>Knowledge 3 marks</b>	<b>Application 3 marks</b>	<b>Analysis 5 marks</b>	<b>Evaluation 5 marks</b>
<b>Level 2</b>	3 marks At least two relevant points made	3 marks Application of two or more points to case/use of results	5–4 marks Good use of theory to answer question	5–4 marks Good judgement shown
<b>Level 1</b>	2–1 marks One relevant point made	2–1 marks Some application to case/use of one result	3–1 marks Some use of theory to answer question	3–1 marks Some judgement shown

Answers could include:

Success in consumer markets will depend on...

- Differences between consumer and industrial markets – consumer market more widely dispersed, consumer choices may be based on different factors, direct selling unlikely etc.
- Effective market research e.g. size of market, market segments, major competitors, “what consumers are expecting” in this market
- Product – can existing small GO ovens be adapted for consumers? Will they accept a “former industrial oven”?
- Price – cost plus unlikely to be successful if there is much competition – need to use penetration to get established – or skimming if they want to present a very high image for the product?
- Promotion budget – may need to equal that of competitors in this market
- Promotion methods – very different e.g. adverts and point of sale displays to attract consumers
- Distribution – through retailers? Need to establish good links with major retailers and to have supportive brochures written for consumers
- Adopting System 1 might help
- Macroeconomic events could influence success

Evaluation:

- Completely new marketing plan needed – most important factor could be identified and explained
- Essential to have fully integrated and supportive marketing mix aimed at consumer market
- Competitive rivalry will be an important factor – no information on this
- How will “success” be judged?
- Original objective needs to be realistic (market share?) and used as a form of assessment of this market development strategy

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4 (a) Refer to Appendix 1.

- (i) Calculate the values v and w. [4]
- (ii) Calculate the values x and y. [2]
- (iii) Identify whether the variances you have calculated for x and y are adverse or favourable. [2]

Question	Letter	Answer	Mark
(i)	v	1 051 000	2
	w	886 000	2
(ii)	x	20 000	1
	y	2 000	1
(iii)	x	Adverse	1
	y	Favourable	1

	Budget	Actual	Variance A = Adverse F = Favourable
Sales (units)	400	350	50 A
Average price per unit	\$3 000	\$3 000	–
Revenue	\$1 200 000	\$1 050 000	\$150 000 A
Sales employees basic salaries	\$65 000	\$68 000	\$3 000 A
Sales employees commission payments	\$30 000	\$24 000	\$6 000 F
Local advertising costs	\$40 000	\$60 000	\$20 000 A (1 + 1)
Other regional marketing costs	\$14 000	\$12 000	\$2 000 F (1 + 1)
Contribution to Head Office and Factory costs	\$1 051 000 (2) Allow 1 mark for an attempt	\$886 000 (2) Allow 1 mark for an attempt	



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**(b) Assess the usefulness of the budgetary system used by GO.**

**[10]**

	<b>Knowledge 2 marks</b>	<b>Application 2 marks</b>	<b>Analysis 2 marks</b>	<b>Evaluation 4 marks</b>
<b>Level 2</b>	2 marks At least two relevant points made	2 marks Application of two or more points to case/use of results	2 marks Good use of theory to answer question	4–3 marks Good judgement shown
<b>Level 1</b>	1 mark One relevant point made	1 mark Some application to case/use of one result	1 mark Some use of theory to answer question	2–1 marks Some judgement shown

Answers could include:

- Budgetary system: method of allocating and reviewing financial plans for parts of the business
- Current system allows each region's demands to be decided on centrally so coordination and fairness are possible
- Long term planning aided by annual budgets
- Budgets allow for long term planning of resources and allow reviews to be held – as with calculation of variances above

Evaluation:

- Not very useful/effective because too rigid – no scope for flexible budgets?
- No regional input – these are “handed down from central office” so this demotivates managers and means that budgets might not reflect regional conditions
- No monthly budgets? Review only seemed to be held at end of year

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5 Assume GO enters the consumer oven market and adopts Growth Strategy 1 (see Appendix 2). Discuss appropriate changes to GO's organisational structure. [14]

	Knowledge 2 marks	Application 2 marks	Analysis 5 marks	Evaluation 5 marks
<b>Level 2</b>	2 marks At least two relevant points made	2 marks Application of two or more points to case/use of results	5–4 marks Good use of theory to answer question	5–4 marks Good judgement shown
<b>Level 1</b>	1 mark One relevant point made	1 mark Some application to case/use of one result	3–1 marks Some use of theory to answer question	3–1 marks Some judgement shown

Answers could include:

- Organisational structure: shows lines of authority/communication between different sections/departments/levels of hierarchy of an organisation
- Current structure is “rigid, inflexible, hierarchical and centralised”
- Candidates may try to draw existing structure or a replacement for it – showing how a new consumer oven division and country Y's operations would be included – allow up to 4 marks (Knowledge/Application) for organisational chart
- Analysis marks awarded for advantages/disadvantages of existing and/or proposed structure
- Keep current structure but delayer – reduces costs of middle management and increases spans of control – but will this be suitable for new divisions abroad?
- Switch to divisional structure based on countries or consumer/industry products – or both. May allow some independence/decentralisation for the new sections of the business and this could be important as they will need to take different decisions from the “original” parts of GO. Is existing management prepared to give up some control? Which decisions will remain centralised?
- Matrix structure – combining, for example, departments with horizontal project teams, e.g. consumer products, industrial products, export division etc. This might lead to confusion with too many changes occurring within the business. Existing management might resist this – could end up having “two bosses” and divided loyalties.
- Other structures possible

Evaluation:

- Advantages and disadvantages of each suggestion balanced against each other
- Most important factors identified in this case
- Overall recommendation for including consumer oven division and country Y's operations and for improving current structure with supported argument

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- 6 Discuss the importance to GO of undertaking strategic analysis before making a decision about future growth strategies. [20]

	<b>Knowledge 3 marks</b>	<b>Application 3 marks</b>	<b>Analysis 4 marks</b>	<b>Evaluation 10 marks</b>
<b>Level 3</b>				10–7 marks Good judgement shown in text and conclusions
<b>Level 2</b>	3 marks Good understanding shown.	3 marks Good application to case	4–3 marks Good use of theory to explain points made	6–4 marks Some judgement shown in text and/or conclusions
<b>Level 1</b>	2–1 marks Some understanding shown	2–1 marks Some application to case	2–1 marks Limited use made of theory	3–1 marks Limited judgement shown

Answers could include:

- Strategic analysis – analysis of the business and the business environment in which it operates
- SWOT; PEST; Ansoff; Porter; market research and any other appropriate tools might be suggested
- Some analysis seems to have been undertaken by the consultant – some recognition of strengths and weaknesses.
- These are major strategic changes for GO so very important to undertake further and up-to-date analysis
- SWOT – how significant is finance as a weakness? Will existing organisational structure prevent effective expansion overseas or into other product markets?
- PEST – how has economic environment changed since 2012? Is anti-inflation policy likely to continue and what impact will this have on interest rates?
- Ansoff – degree of risk associated with these two growth strategies?
- Market research – essential for both strategies but especially with exporting and the different market conditions/competitive rivalry that might exist there

Evaluation:

- How important is strategic analysis in this case?
- Are the two strategies very different from those already undertaken by GO?
- Is the environment in which the business operates continuously changing – in which case strategic analysis will need frequent updating
- Which aspects of strategic analysis are of greatest importance in this case?
- What could be consequences for GO of not undertaking it?

7 Evaluate the importance of strategic management to the future success of GO. [20]

	Knowledge 3 marks	Application 3 marks	Analysis 4 marks	Evaluation 10 marks
<b>Level 3</b>				10–7 marks Good judgement shown in text and conclusions.
<b>Level 2</b>	3 marks Good understanding shown.	3 marks Good application to case	4–3 marks Good use of theory to explain points made	6–4 marks Some judgement shown in text and/or conclusions
<b>Level 1</b>	2–1 marks Some understanding shown	2–1 marks Some application to case	2–1 marks Limited use made of theory	3–1 marks Limited judgement shown

Answers could include:

- Strategic management – planning for the future with long term objectives and development of future strategies
- GO needs to take some measures to deal with declining sales and profit – these measures will require:
  - Strategic analysis – where are we now? e.g. SWOT and PEST. This could help to identify the risks associated with the two proposed strategies – market development and product development
  - Strategic choice – deciding between different options e.g. Strategy 1 and Strategy 2. This will require the use of specific strategic choice techniques such as decision trees.
  - Strategic implementation – putting the chosen strategy into effect and monitoring performance against the long term plan

Evaluation:

- Important for long term success but short term/tactical decisions might also be needed if sales and profit continue to fall e.g. adjustments to existing marketing mix
- Strategic management will only be effective if undertaken by effective managers. Is GO's management capable of clear objective setting and long term planning?
- Strategic management should allow for flexibility in planning e.g. changes in consumer incomes will affect the success of the GO consumer market initiative and plans might need to be changed to allow for these