Cambridge Assessment International Education
Cambridge International Advanced Subsidiary and Advanced Level

BUSINESS	**9609/32**
Paper 3 Case Study	**October/November 2019**
MARK SCHEME	
Maximum Mark: 100	

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	**Analyse the likely impact on AEV's profit of intervention by governments in the car market.**	10

Level	Knowledge 3 marks	Application 2 marks	Analysis 5 marks
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

Examiner note: Link to profit necessary for L2 AN

Knowledge
    Definition of profit: revenue less costs
    Understanding of types of government intervention:
–   Regulation. Rules that businesses have to abide by in a market and constrain business activity
–   Indirect taxation (to correct market failure). Increase costs of supply to business
–   Subsidies/government grants. Reduce the costs of production and encourage an increase in output
    Understanding of impact of subsidies on AEV, e.g. increase in AEV sales related to indirect tax on diesel cars

Application
    Ban on sale of diesel cars from 2030 will give AEV a competitive advantage over non-electric cars in the market **OR** government regulations on diesel cars and ban will increase competition in electric vehicle market
    Increase in fuel duty on petrol in 2019 will benefit AEV
    Benefit is in long term as some regulations will come into force in 2030
    AEV vehicles with zero emissions will not be subject to the regulations
    AEV has received $1 bn in government grants since 2010
    Government action to increase availability of charging points for electric cars
    30% tax on imports of cars in country C

Question	Answer	Marks

1	**Analysis**
	    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
	    Announcement of changes will influence trends in the market leading to a rise in electric vehicle sales immediately
	    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
	    Country C tax on imports will increase the selling price of AEV cars reducing demand and profit
	    Subsidies received by AEV from government may have conditions attached which impact AEV operations
	    Subsidies received by AEV provides finance for investment to develop products, manufacturing and workforce
	    Subsidies enable expansion of output by reducing costs and therefore increase sales and potentially profit	

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

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

Question	Answer	Marks
2(b)	**Refer to <u>2(a)</u> and any other information. Recommend whether potential investors should purchase shares in AEV. Justify your recommendation.**	12

Level	Knowledge 2 marks	Application 2 marks	Analysis 4 marks	Evaluation 4 marks
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

Examiner note:
L1 AN & EVAL if only refer to results from **2(a) OR** other information

Knowledge
    Investors will be interested in the return on their investment
    –   Capital gains from increase in share price
    –   Dividend paid for ownership

Understanding of relevant factors in decision
    Assessment of future profitability of AEV
    Current performance, e.g. profit of AEV, ROCE, PER, dividend yield
    Return of alternative investments

Application
    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
    Low ROCE of only 1.09%
    Dividend yield is very low – 0.11%
    Proposed increase in dividend to be paid in 2019 from 2018
    Share price has risen by 30% in last year
    Regulatory changes should benefit AEV and therefore its profits
    Market capitalisation of AEV is high relative to assets of the business
    AEV profits have become positive in last year
    Current ratio has decreased and is quite low (below 1.5) so may suggest concern about liquidity
    AEV has used significant cash over last year ($200 m)
    Successful R & D to improve battery technology
    Production delays and quality problems

Question	Answer	Marks

2(b)	**Analysis**
	    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
	    Akira committed to growth strategies. This will reduce dividends in the future as any profits likely to be retained for investment
	    Profitability is low suggesting lack of dividend payments
	    Markets are changing in AEV's favour. This will increase future potential for profits and therefore returns to investors
	
	Evaluation
	    Justification of most important factor
	    This is a risky investment as AEV profits are low and returns are long term
	    Is the market capitalisation unrealistic and purely based on potential rather than actual performance?
	    Dividend yield is very low: 0.11% – how does this compare with other investments?	

Question	Answer	Marks
3	**'AEV is unable to meet this demand due to a lack of capacity and supply constraints' (Lines 47–48).** **Other than expansion of CellX, discuss ways in which the Operations Management Department of AEV could solve this problem.**	16

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

Knowledge
Definition of capacity: maximum output achievable with current resources

Identification/understanding of options
    Outsourcing production
    Improve efficiency – increase labour productivity, e.g. by motivating employees more effectively
    Reduce labour turnover
    New manufacturing base
    Find new suppliers
    Take over supplier
    JIT manufacturing/lean production (more efficient use of existing resources)
    Increase capital intensity at CellX

Application
    Workers already facing compulsory overtime
    Increase in production required is significant. Current production is 100 000 units per year
    Akira is worried about labour turnover. This is a contributory factor that reduces output
    Source materials for batteries from countries other than country C
    Take over supplier in country C
    Invest in new manufacturing plant in country
    Negotiate with trade union as 80% of workforce is unionised
    Outsourcing production of batteries/cars

Question	Answer	Marks
3	**Analysis** Outsourcing could risk loss of control over quality of components such as batteries. This could further impact reputation of AEV Outsourcing involves no major capital investment and therefore aids AEV's cash flow Establishing a new manufacturing base will be expensive and affect AEV's cash flow and result in greater coordination problems – diseconomies of scale Reducing labour turnover will ensure that AEV keeps experienced workers and thus enable an increase in output JIT manufacturing/lean production enables a more efficient use of resources thus increasing output per worker JIT can reduce storage of inventory and allow a more efficient use of space for production leading to an increase in output **Evaluation** Depends on the cost of outsourcing Difficult working conditions may make reducing labour turnover challenging As batteries depend on rare materials it may not be possible to source the materials from elsewhere 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 Supplier constraints likely to be faced by all manufacturers of electric vehicles so gaining control of supplier may be the best option Some options may in theory enable an increase in capacity but do not necessarily address the supply constraints faced – JIT manufacturing – Improvements in efficiency – Reduction in wastage	

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

Question	Answer	Marks
4(b)	**Discuss the importance of human resource management to the success of the planned expansion of the CellX manufacturing centre.**	**12**

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

Knowledge
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.

Understanding of role of HRM
    Need for workforce planning
    Motivation of employees
    Importance of cooperation between management and the workforce to success
    Recruitment, selection and training

Application
    High labour turnover of 16.7% is a problem for AEV operations
    High union density
    Workforce planning to recruit 2000 workers with appropriate skills
    Need to double output per employee to meet target
    Reference to issues of employee dissatisfaction
    –   Long hours
    –   Compulsory overtime
    –   Unrealistic production targets?
    –   Employee health and safety
    Quality problems may be linked to employee dissatisfaction

Analysis
    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
    Quality problems will also harm sales in the long term. Employee concerns need to be addressed to improve product
    Determination of employment contracts in order to control costs

Question	Answer	Marks
4(b)	**Evaluation** Justification of most important issue Success of expanded CellX depends crucially on employees. HRM is critical in terms of planning and execution of the expansion There are other factors that will also determine success, e.g. supplies of raw materials from country C for the batteries Depends on availability of finance	

Question	Answer	Marks
5	**Discuss the significance of product development to AEV's future success.**	16

Level	Knowledge 2 marks	Application 2 marks	Analysis 6 marks	Evaluation 6 marks
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

Knowledge

Definition of product development within Ansoff's Matrix framework, i.e. new product for existing market

Definition of product development: the development and sale of new products or new developments of existing products

Definition of research and development: scientific research and technological development. This will contribute to product development

Benefits of product development:
– Competitive advantage
– Developing products to meet customer expectations

Application

Significance of improvements in battery technology to gaining competitive advantage. R&D's contribution to increasing energy density

Reference to data in Fig. 1
– R & D: $400 m in 2019 increased from $150 m in 2015

R&D has helped reduce battery costs by 75%

AEV4 model important to take AEV from a niche producer to a mass producer

Reference to developing electric truck

Move to profitability in 2019 is a result of R&D

Analysis

As battery costs fall then price can be reduced increasing the competitiveness of AEV relative to competitors

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

Increasing energy density will improve the product and can be used in promotion of AEV products to gain customer interest

Development of AEV4 broadened AEV's market appeal resulting in increased sales and profit

Enhance reputation as an innovative company increasing brand loyalty and sales

Question	Answer	Marks

5	**Evaluation**
	    Product development essential in this market as without it product unable to compete with existing technologies
	    Cost of research is high and not guaranteed to be successful
	    First mover advantage may be important
	    Dynamic nature of the car market requires AEV to be constantly developing its products to maintain a competitive edge
	    Other factors will be important to future success, e.g. government policy	

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 **and** 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			

Question	Answer	Marks
6	**Evaluate the importance of business planning to AEV's future profitability.**	**20**
	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 **OR** effective and well supported conclusion/recommendation, focused on the business in the case	

	Knowledge
	    Definition of business planning: setting objectives and determining strategies and their implementation to achieve objectives including the use of contingency planning for unexpected events
	    Planning gives direction to the business
	    Planning promotes coordination of different parts of business towards a single goal
	    Helps secure finance from investors	

	Application
	    Failure of AEV to meet demand for AEV4
	    Problems of quality with previous model launches and link to planning
	    Reference to the two strategic options under consideration
	    Reference to the expansion of CellX
	    Reference to R&D and market objectives of AEV	

	Analysis
	    Analysis of benefits of planning and consequences of poor planning
	    Failure of AEV to plan appropriately for demand for AEV4 is damaging cash flow and reputation and therefore will lose profits
	    Expansion of CellX factory requires resources – capital and labour – planning necessary to ensure disruption to production is minimised and resources available as necessary
	    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	

Question	Answer	Marks
6	**Evaluation** AEV operates in a dynamic market and therefore planning is essential to ensure the effective use of resources to meet changes in the market 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 Planning is important but without effective implementation success less likely Planning more likely to be effective if it is agreed so communication with, and involvement of, employees are important	

Question	Answer	Marks

7	**Recommend which one of the two strategic options AEV should choose. Justify your recommendation. Your answer must include an evaluation of strategic choice techniques.**
	
	Examiner note: Limit to 4 marks EVAL if no evaluation of SC techniques made
	
	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
	OR
	effective and well supported conclusion/recommendation, focused on the business in the case
	
	Knowledge
	Knowledge of strategic choice techniques
	      Decision trees
	      Ansoff's matrix
	      Force-field analysis
	      Investment appraisal
	
	Understanding of relevant factors:
	      ARR – measures return on investment. Higher % the better
	      Lower capital cost will be preferable
	      Lower risk of failure is preferable
	      Lower payback period is preferable
	      Use of AEV's core competencies
	      Understanding of strengths and weaknesses of AEV
	      Understanding of opportunities and threats facing AEV
	
	Application
	      According to Ansoff's matrix, the joint venture is market development and the truck is product development or diversification
	      Capital cost of Option 2 is $700 m more than Option 1
	      Risk of failure is 5% points more for Option 2 than Option 1
	      ARR of Option 1 is 10% compared to 8% for Option 2
	      Gearing ratio in 2019 is 55%
	      Use of driving force/constraining force information, e.g. culture clash
		20

Question	Answer	Marks
7	**Analysis** 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 Delaying building a factory in country C would enable existing manufacturers to consolidate their position in the market Development of a truck will take longer and significantly more capital than Option 1 increasing pressure on cash flow of AEV 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 Success of AEV in developing battery technology suggests that AEV has the ability to develop the technology further for use in trucks **Evaluation** Supported judgement for either option 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 Will shareholders be prepared to wait for returns from Option 2? Ansoff's analysis only considers two main factors – it is important to consider SWOT and PEST to provide a more complete picture Force-field analysis: allocation of numerical figure to driving and constraining forces is subjective and managers may fail to identify all relevant factors Decision tree limitations include the accuracy of the data used and estimates of probability. Does not consider the qualitative factors on a decision Expected returns in a decision tree are average returns are not necessarily the final result Decision trees do not eliminate risk	