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MARKSCHEME

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BUSINESS AND MANAGEMENT

Standard Level

Paper 2

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Secti	Section A Section B		B			
(c) questions						
Q1 (c)	Q2 (c)	Q3 (c)	Q4 (c)	Q5 (c)	Level descriptors	
Marks 0–5						
0					 No knowledge or understanding of relevant issues, concepts and theories. No use of appropriate terminology. 	
1–2					 Little knowledge and understanding of relevant issues, concepts and theories. Little use of appropriate terminology. No reference is made to the information in the stimulus material. The response is mainly theoretical. 	
3-4					 A description or partial analysis/examination with relevant knowledge and/or understanding of relevant issues, concepts and theories. Some use of appropriate terminology. Some reference is made to the information in the stimulus material, not just to the name of the organization. 	
5					 A balanced analysis/examination with accurate, specific well-detailed knowledge and understanding of relevant issues, concepts and theories. An analysis/examination that uses appropriate terminology throughout the response. Explicit references are made to the information in the stimulus material. 	

The markbands on pages 3–4 should be used where indicated in the markscheme.

Section B (d) questions Q3 Q4 Q5 (d) (d) (d) Marks 0–7	Level descriptors		
0	 No knowledge or understanding of relevant issues, concepts and theories. No use of appropriate terminology. 		
1–2	 Little knowledge and understanding of relevant issues, concepts and theories. Little use of appropriate terminology. No evidence of judgments and/or conclusions. No reference is made to the information in the stimulus material. 		
3-4	 A description with some knowledge and/or understanding of issues and concepts. Some use of appropriate terminology. No evidence of judgments and/or conclusions. Some reference is made to the information in the stimulus material, not just to the name of the organization. The response is mainly theoretical. 		
56	 A response with relevant knowledge and understanding of relevant issues, concepts and theories. A response that uses relevant and appropriate terminology. Evidence of judgments and/or conclusions that are little more than unsubstantiated statements that has balanced analysis and demonstrates understanding. Explicit references to the information in the stimulus material are made at places in the response. 		
7	 A response with accurate, specific well-detailed knowledge and understanding of relevant issues, concepts and theories. A response that uses appropriate terminology competently throughout the response. A response that includes judgments and/or conclusions that is well supported and underpinned by a balanced analysis. Explicit references to the information in the stimulus material are made throughout the response. 		

SECTION A

1. (a) (i) Define the term *batch production*.

In batch production, items are produced in consignments and undergo a stage of the production process together. The whole consignment is then moved on to the next stage of production and another task is performed.

Candidates are **not** expected to word their definition **exactly** as above.

Award [1 mark] for a basic definition that conveys partial knowledge and understanding.

Award [2 marks] for a full, clear definition that conveys knowledge and understanding similar to the answer above.

For only a relevant: example or application to the stimulus award [1 mark].

(ii) Identify two fixed costs for Informatic.

[2 marks]

For Informatic fixed costs could include:

- rent of the premises
- insurance of machinery
- salary for managers
- accept any other relevant fixed cost for Informatic.

If a candidate refers to "cost of workers" or "workers' salaries," the candidate must make clear that the employees referred to are (a) salaried (not earning wages) and (b) "permanent" (short of some financial or other disaster). In other words, if the candidate says workers' salaries / cost of workers, the presumption is that these costs are variable (not fixed) unless the candidate fully and clearly explains that they are fixed.

Also, distribution costs, unless otherwise appropriately explained, are variable, not fixed.

Award [1 mark] for each correct and relevant fixed cost identified up to a maximum of [2 marks].

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[2 marks]

(b) For *Informatic*:

(i) calculate the break-even quantity in units (show all your working). [2 marks]

Fixed Costs = \$100000

To calculate contribution we need variable costs per unit. They are equivalent to 80% of sales price = \$800.

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Contribution per unit = sales price – variable cost per unit = \$1000 - \$800 = \$200

Break-even point = $\frac{\text{fixed costs}}{\text{contribution per unit}} = \frac{\$100\ 000}{\$200} = 500 \text{ units}$

[1 mark]

If a candidate **who has shown working** provides a correct procedure (thus, demonstrates an understanding of the underlying concepts) but has made an error in calculation.

[2 marks]

Candidate provides the correct answer with working.

(ii) calculate the margin of safety in units (show all your working). [2 marks]

Margin of safety = current level of output – break-even level = 4000 - 500 = 3500 units

Apply Own Figure Rule (OFR).

[1 mark]

If a candidate **who has shown working** provides a correct procedure (thus, demonstrates an understanding of the underlying concepts) but has made an error in calculation.

[2 marks]

Candidate provides the correct answer with working.

(iii) calculate the net profit if 4000 computers are sold (show all your working). [2 marks]

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Method 1

Revenue	4000 computers at \$1000 per computer	4000000
Variable costs	4000 computers at \$800 per computer	-3200000
Fixed costs		-100000
Profit		700000

Net profit = \$700000

Method 2

Net profit = margin of safety × contribution = 3500 units × \$200 = \$700 000

Apply Own Figure Rule (OFR).

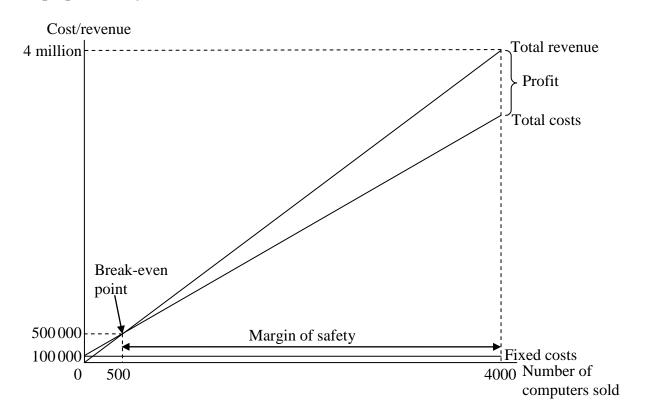
[1 mark]

If a candidate **who has shown working** provides a correct procedure (thus, demonstrates an understanding of the underlying concepts) but has made an error in calculation.

[2 marks]

Candidate provides the correct answer with working.

[5 marks]



(iv) prepare a fully labelled break-even chart.

Award marks as follows:

[1 mark] for each appropriately labelled axis – maximum of [2 marks].

[1 mark] for an accurately drawn and labelled total revenue curve.

[1 mark] for an accurately drawn and labelled total costs curve.

[1 mark] for the identification of the break-even level of output.

Award [0 marks] if a candidate produces a table, and award no more than [3 marks] if the chart is not neat, not drawn with a straight-edge, or is not to scale.

Ideally, the candidate will draw an arrow pointing to the break-even point and label the arrow. However, accept as an "appropriately labelled" break-even point a vertical line from the *x*-axis to the break-even point provided that the line is labelled "break-even point".

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(c) Examine the effectiveness of the new distribution channel for *Informatic*. [5 marks]

Currently *Informatic* is using local independent distributors to distribute 90% of its annual sales. We must assume that the new channel is intended to reduce selling prices (by eliminating distributors' fees) by selling directly to customers.

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Benefits include but are not limited to:

- cost savings, with an increase in profit margins per computer sold
- if variable costs are reduced, contribution will increase, reducing the break-even level of computer sales and increasing profits (if the number of units sold remains the same)
- additional profits generated could be used to pay for the training of staff taking the telephone orders
- if selling prices are reduced, additional volumes of computer sales will be generated, perhaps further reducing the break-even level of output.

However:

- a lack of experience in selling through this channel and also not being able to take advantage of the local knowledge of the Pakistani distributors
- given that orders will be taken by telephone, additional staff training will be required to process those orders
- the new system may not be able to cope with increased orders
- the new telephone system may not be entirely reliable.

Accept any other relevant examination.

If the response is a one-sided generally relevant approach with no examination, award a maximum of [3 marks].

If there is no mention of the cost savings, award a maximum of [3 marks].

2. (a) Define the following terms:

(i) *variable costs*

Variable costs refer to those costs that change according to the quantity/output of the business.

Candidates are **not** expected to word their definition **exactly** as above.

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Award [1 mark] for a basic definition that conveys partial knowledge and understanding.

Award [2 marks] for a full, clear definition that conveys knowledge and understanding similar to the answer above.

For only a relevant: example or application to the stimulus award [1 mark].

(ii) retrenchment.

[2 marks]

Retrenchment is the permanent dismissal of an employee or employees in order to reduce the workforce to lower costs or to address declining profits.

Candidates are **not** expected to word their definition **exactly** as above.

"Retrenchment" and "redundancy" are not synonyms. A business can make a position redundant but not let the employee go (the employee must be reassigned). Retrenchment involves the permanent separation of employees from a business in order to reduce the workforce to lower costs or to address declining profits. Because the two often occur simultaneously or in unison, they are sometimes used interchangeably (when they should not be).

Award [1 mark] for a basic definition that conveys partial knowledge and understanding.

Award [2 marks] for a full, clear definition that conveys knowledge and understanding similar to the answer above.

For **only** a relevant: example **or** application to the stimulus award [1 mark].

[2 marks]

(b) (i) Using the information in *Table 1*, calculate the cost of goods sold (figure x) and construct a profit and loss account for *BA* for 2009. [4 marks]

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Profit and loss account for *BA* for the year ended 30 April 2009 (US\$ millions)

Sales revenue	9074
Direct labour costs	2160
Aviation fuel costs	3000
Other operating costs	4034
Cost of goods sold	9194 *
Gross profit	-120
Expenses	100
Net profit before interest and tax	-220
Interest	180
Tax	0
Net profit after interest and tax	-400
Dividends	0
Retained profit	-400

* Cost of goods sold = 2160 + 3000 + 4034 = 9194

OR cost of goods sold = sales revenue – gross profit = 9074 - (-120)= 9194

Award [1 mark] if the candidate has correctly calculated cost of goods sold (COGS).

If the profit and loss account is constructed following a generally accepted format and is correct in all respects, award *[3 marks]*. Apply own figure rule (OFR): if the candidate incorrectly calculated COGS but otherwise the profit and loss account is constructed following a generally accepted format and is correct in all other respects, award *[3 marks]* (the "penalty" will be that the candidate does not receive the mark for correctly calculating COGS).

Award [2 marks] if the candidate produces a profit and loss account that follows a generally accepted format but has one or two errors (OFR regarding COGS). Award [1 mark] if the candidate shows some understanding of what a profit and loss account is, but the actual account constructed is not in a generally accepted format and/or has more than two errors.

(ii) Using the information in Table 1 and Table 2, calculate the return on capital employed (ROCE) *and* net profit margin (NPM) for *BA* (*show all your working*). [4 marks]

Return on capital employed (ROCE) Capital employed = share capital + loan capital + retained profit = 1046 + 800 + (-400) = 1446 ROCE = $\frac{\text{Net profit before interest and tax}}{\text{Total capital employed}} \times 100$ = $\frac{-220}{1446} \times 100 = -15.21 \%$ to 2 d.p.

Net profit margin (NPM) NPM = $\frac{\text{Net profit before interest and tax}}{\text{Sales revenue}} \times 100$ = $\frac{-220}{9074} \times 100 = -2.42 \% \text{ to } 2 \text{ d.p.}$

Mark as 2+2.

For each calculation, award [2 marks] if the candidate has the correct answer and shows working. Award [1 mark] if the candidate makes a mathematical error (thus the answer is incorrect) **OR** if the candidate has the correct answer but does not show working.

Award [0 marks] for merely writing the formulae.

(iii) Comment on your results from part (ii), using information from the stimulus material. [3 marks]

The ROCE is a performance ratio that measures the company's efficiency in the use of its resources to generate profit. The results for BA show that the company has made a loss of 15.21% on its assets (or on the capital employed).

The NPM is the result of dividing a company's net profit before taxes and interest by its sales revenue. It reflects the company's ability to manage its costs and make profits out of its sales. The NPM shows that for every worth in sales, the company has made on average a 2.42% of net loss. Both ratios are suggesting a negative financial performance for *BA*.

There are several factors that could explain BA's negative financial performance. Possible reasons could be found in a falling demand of business travellers, who represent BA's most important market segment, increased borrowing costs due to the global financial crisis, and increasing aviation fuel costs, which are essential operating costs for an airline company.

Award [1 mark] for a comment on each ratio (ROCE and NPM) that demonstrates some understanding of their purpose up to [2 marks]. Award an additional [1 mark] if the candidate comments that the performance is negative (apply Own Figure Rule (OFR)) or, implying an understanding that the performance is negative, and offers possible reasons or explanation.

(c) Examine the impact of not awarding pay increases and managerial fringe payments for *BA*. [5 marks]

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The impact could include the following:

- If workers are not given a pay increase, *BA* will save on labour costs, which represent an important percentage of total operating expenses of the company. However, such a measure could result in bitter conflict with workers and unions. It could also harm workers' motivation and rapport with the company, which may be already eroded due to the 2500 jobs that the company has retrenched.
- Managerial costs would be reduced as managers will not receive fringe payments. However, this could affect managers' motivation and lead to a swing of highly skilled personnel to other companies offering better working prospects.
- Although these two measures may result in important cost reductions they could lead to job dissatisfaction and de-motivation among staff and therefore negatively affect productivity. The quality of the services provided by the airline may in turn suffer. This may also in turn affect passenger satisfaction upon flights.

Accept any other relevant examination.

If the response is a one-sided relevant approach with no examination award a maximum of [3 marks]. If only one impact is examined, award a maximum of [3 marks].

SECTION B

3. (a) Define the term *pressure group*.

A pressure group is an external stakeholder that through direct lobbying or by raising awareness of key issues hopes to influence decision-makers.

Candidates are **not** expected to word their definition **exactly** as above.

Award [1 mark] for a basic definition that conveys partial knowledge and understanding.

Award [2 marks] for a full, clear definition that conveys knowledge and understanding similar to the answer above.

For **only** a relevant: example **or** application to the stimulus award [1 mark].

(b) (i) Calculate the payback period of Cinegames.

Cost of Cinegames refurbishment US\$280000.

Income from year 1 = US\$64000 Income from year 2 = US\$88000

Total income = US\$152000

BLC require $\frac{128}{142} \times 365$ to payback initial investment = 329.01 days.

Accept 2 years 329 days and 2 years and 11 months.

Rounded to 329 days to payback assuming revenue from year 3 is distributed evenly.

[1 mark]

The candidate who has shown working and provides a correct procedure (thus demonstrating an understanding of the underlying concepts) but has made an error in calculation.

[2 marks]

The candidate provides the correct answer. Working not required.

If the candidate calculates the payback period correctly but expresses it as a rational number (2.901 years/2.90 years/2.9 years), award [1 mark].

[2 marks]

[2 marks]

(ii) Calculate the average rate of return (ARR) of Cinegames in the first five years of its operation. [2 marks]

(all figures in US\$000s)

Total revenue from Cinegames over five years = 64 + 88 + 142 + 124 + 88= 506

Profit from Cinegames = 506 - 280 = 226

Average profit =
$$\frac{226}{5}$$
 = 45.2 per year

ARR =
$$\frac{45.2}{280} \times 100 = 16.14$$
 % to 2 d.p.

[1 mark]

The candidate who has shown working and provides a correct procedure (thus demonstrating an understanding of the underlying concepts) but has made an error in calculation.

[2 marks]

The candidate provides the correct answer. Working not required.

(iii) Comment briefly on your results from parts (i) and (ii).

[2 marks]

- The conversion of a movie theatre to a Cinegames experience would be a good investment.
- The payback period for Cinegames is just almost 3 years assuming the revenue earned from the experience is even through the 5 years of forecasts. The ARR is 16.14%.

Accept any other relevant comment.

For [1 mark] candidates only comment on the suitability of the investment and for [2 marks] candidates justify their comment by referring to both payback and ARR. Apply Own Figure Rule (OFR).

(c) Analyse the usefulness of market segmentation to *BLC*.

[5 marks]

The stimulus highlights that market segmentation may be useful to *BLC* as it would allow them to target their marketing effort.

From the stimulus, market segmentation allows *BLC* to:

- Target the young 18–30 year-old male segment when designing promotional activities when the experience is launched. There could also be pricing opportunities here.
- Allow them to cater for families by identifying a product mix which could satisfy the individual needs of parents, sons and daughters. Again by segmenting the market in this way it allows *BLC* to use different pricing strategies.

Limitations for market segmentation for *BLC* could potentially include:

- Neglect of other market segments (such as seniors or independent cinema lovers), allowing competitors to get ahead of *BLC* or even attracting competitors to the new niche.
- Increased marketing costs if *BLC* were to target too many markets.

Accept any other relevant analysis.

If the response is a one-sided relevant approach with no analysis, award a maximum of [3 marks].

(d) Discuss whether *BLC* should open a second Cinegames experience.

The financial success of the first Cinegames experience was beyond *BLC's* expectations. It also offered the possibility of an enlarged product mix to satisfy the two key market segments (explained in part (c)). For those two reasons, the decision to open a second Cinegames experience seems fully justified.

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However, *BLC* must take into account the concerns of the pressure group and the impact of the success of the first experience on the local infrastructure. If a second theatre is converted, ensuing social costs may grow, alienating *BLC* and leading to losses in goodwill. Besides the costs of converting a theatre into a second Cinegames experience may be difficult to recoup, especially if the pressure group begins a campaign and audience numbers begin to fall.

BLC may have to convince the local community that they are keen to avoid any more bad publicity and contribute to schemes such as extended car parking to convince the community that they take their social responsibilities seriously.

Accept any other relevant discussion.

If the response is a one-sided relevant approach with no discussion, award a maximum of [4 marks].

Marks should be allocated according to the markbands on page 4.

4. (a) Define the term *primary research*.

Primary research is the collection of data about a product/service that does not already exist.

Candidates are **not** expected to word their definition **exactly** as above.

Award [1 mark] for a basic definition that conveys partial knowledge and understanding.

Award [2 marks] for a full, clear definition that conveys knowledge and understanding similar to the answer above.

For only a relevant: example or application to the stimulus award [1 mark].

[2 marks]

[7 marks]

(b) Explain *two* non-financial rewards that *Dome Hospital* could use to encourage Ghanaian nurses to stay in Ghana. [6 marks]

Non-financial rewards could include:

- opportunities for promotion leading to responsibility
- opportunities for job enlargement to gain additional experience in other areas of the health industry
- other possible non-financial rewards could be linked to empowerment and teamwork
- accept any other relevant non-financial reward.

Accept any other relevant explanation.

3+3 marks.

For each relevant non-financial reward identified, award [1 mark]. Award [2 marks] for partial, appropriate explanations, and [3 marks] for thorough, appropriate explanations. Award a maximum of [6 marks]. If a candidate names as one reward a generic non-financial reward that does not realistically fit the organization (a hospital), award a maximum of [1 mark] for that reward. "Flexi-time" is not fully realistic for most nurses at a hospital.

In any instance where a candidate names a "financial" reward (free housing, for example), award [0 marks] for that reward.

(c) Analyse the likely benefits for *Dome Hospital* of *Afua's* support. [5 marks]

"*Afua* will probably offer *Dome Hospital* advice and guidance on recruitment and retention, but not direct funding."

Afua could provide:

- Information and secondary data about successful recruitment schemes in other countries.
- Guidance about potential sources of additional finance from other NGOs.
- Improved media awareness of the problems of increased international labour mobility affecting Ghanaian hospitals.

Limitations:

- There is no evidence of financial resources in order to help finance the recruitment strategy.
- It may not be realistic to expect international law to be changed by one NGO alone.
- A more concerted effort with other NGOs will help, but *Dome Hospital's* need is immediate. Clearly patient care could suffer if there are any further delays in recruitment.

Accept any other relevant analysis.

If the response is a one-sided relevant approach with no analysis, award a maximum of [3 marks].

(d) Discuss the advantages *and* disadvantages of *Dome Hospital's* recruitment strategy. [7

[7 marks]

The new recruitment strategy may benefit Dome Hospital by:

- Attracting the best nurses back to Ghana, encouraged by the job enrichment opportunities, leading to motivational and productivity gains for *Dome Hospital*.
- These nurses may also bring back to Ghana new ideas from their overseas experiences.

However:

- Costs of flights home and moving expenses will need to be paid even before the non-financial rewards and job enrichment schemes are accounted for.
- Resources will need to be diverted to the recruitment events and web site to monitor the cost-effectiveness of the strategy. This will also take time.
- The recruitment package may not work, given the global labour mobility challenges facing hospitals such as *Dome Hospital*.

Dome Hospital may be left with no option but to implement this new recruitment strategy and then review it in a six month period, making adjustments where necessary.

Accept any other relevant discussion.

If the response is a one-sided relevant approach with no discussion, award a maximum of [4 marks]. If the candidate discusses only the advantages or disadvantages award a maximum of [4 marks].

Marks should be allocated according to the markbands on page 4.

5. (a) Outline what a marketing audit is.

[2 marks]

A marketing audit provides a company with the opportunity to evaluate its current marketing strategy. This is a valuable tool to help with planning possible adjustments to the marketing mix.

Award [1 mark] for a basic outline that conveys partial knowledge and understanding.

Award [2 marks] for a full, clear answer that conveys knowledge and understanding.

(b) Explain *two* flexible working practices that would allow an accounting business, such as *CMP*, to offer an increased range of accounting services (Option 1).

[6 marks]

Possible flexible working practices include:

- Flexitime working especially important given that *CMP's* customers are small businesses and may be so busy that *CMP* is forced to offer its services during out of office hours and at weekends. Staffing at *CMP* will need to be flexible enough to accommodate these working patterns.
- Teleworking. Given the above and the desire for *CMP* to offer new accounting software services such as installation, some of *CMP's* staff may need to use ICT to a greater extent and perhaps work remotely to provide after sales support to potential new clients.
- Hiring part-time employees with special technical knowledge in software installation and support.
- Accept any other flexible working practice.

If a candidate names as one flexible working practice a generic flexible working practice that does not realistically fit the business, award a maximum of *[1 mark]* for that practice.

Accept any other relevant explanation.

Mark as 3+3.

For each relevant change to *CMP's* working practices identified, award [1 mark]. Award [2 marks] for partial, appropriate explanations, and [3 marks] for thorough, appropriate explanations. Award a maximum of [6 marks].

(c) Analyse the appropriateness of an autocratic leadership style for *CMP*. [5 marks]

CMP is a small accounting business employing three people with Carl firmly in control. The advantages of narrow spans of control, increasing productivity and consistent service leading to considerable goodwill are documented in the stimulus. The Theory X environment has served Carl well.

However, if *CMP* wishes to offer more services to its clients, some empowerment/delegation to allow greater teamwork/participation will be required. This point is particularly relevant if *CMP* has to change work practices and as a result more democratic or more likely paternalistic leadership styles will be need to be adopted.

Accept any other relevant analysis.

If the response is a one-sided relevant approach with no analysis, award a maximum of [3 marks].

(d) Discuss the two options (Option 1 and Option 2) put forward by Carl to replace lost revenue. [7 marks]

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Carl is considering two options to replace lost revenue at his accounting business: Option 1 is to offer accounting software installation and support and build a customer base through internal growth generated largely through above the line promotion. Option 2 is to merge with *AS*, a business already engaged in accounting software installation and support.

There are advantages and disadvantages to both options. For Option 1, the benefit is that Carl will retain full ownership of his accounting business, which gives him full control over decision-making and profits. On the other hand, developing new income streams in-house can be complicated. It requires investment of capital to acquire the necessary tools and programs to offer the new services as well as time to learn them and how to sell them. The promotion strategies necessary to sell the new services will be expensive, and there is no guarantee that the promotion efforts will be successful.

Option 2 also has advantages, because AS is already operating in accounting software installation and support, it will immediately bring new revenue to CMP. Because overheads at the combined business will be lower, the profitability of the new revenue stream will have a greater impact than it otherwise might. In addition, Matt Auth brings expertise to the business in the area of accounting software and support, freeing Carl to continue to focus on CMP's business, traditional accounting services. The opportunities for "cross selling" to CMP's and AS's customers may offer an opportunity to see the generation of new sales quickly (beyond the mere increase in revenue that will come from merging the two businesses).

The major disadvantage of a merger is that both Carl and Matt will lose some control of their businesses. From Carl's point of view, because he will own 55% of the new company, he will be the majority owner and his decisions would be final. However, as a practical matter, given that *AS*'s employees respond well to Matt, Carl will have to consider Matt's views. In addition to issues of decision-making, Carl will also have to share profits of the business with Matt, according to the dividend payout rate and their respective ownership of the shares.

Please note that "culture clash" is NOT in the SL syllabus. Candidates may address this issue and it be considered a legitimate part of their response for the receipt of marks. However, a candidate cannot be penalized for NOT addressing culture clash in merging leadership styles.

Accept any other relevant discussion.

If the response is a one-sided relevant approach with no discussion, award a maximum of [4 marks]. If only one option is discussed, award a maximum of [4 marks].