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**BUSINESS AND MANAGEMENT (PRINCIPAL)**

**9771/01**

Paper 1 Business Concepts

**May/June 2016**

**2 hours 45 minutes**

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 1**

Answer **all** questions.

The Insert contains the multiple-choice answer sheet on which you write your answers to Section 1.

For each question there are four possible answers **A**, **B**, **C** and **D**.

Choose the **one** you consider correct and record your choice **on the Insert**.

Each correct answer will score one mark. A mark will not be deducted for a wrong answer.

**Section 2**

Answer **all** questions.

**Section 3**

Answer **one** question.

You are advised to spend 30 minutes on Section 1, 1 hour 15 minutes on Section 2, and 1 hour on Section 3.

At the end of the examination, fasten all your work securely together.

All questions in Section 1 are worth 1 mark. For Section 2 and Section 3 the number of marks is given in brackets [ ] at the end of each question or part question.

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The syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 3 Pre-U Certificate.

This document consists of **10** printed pages, **2** blank pages and **1** Insert.

**Section 1: Multiple Choice**

**Answer all questions in this section.**

**Record your answers on the Insert.**

**You are advised to spend 30 minutes on the 20 questions in this section.**

- 1 According to the Boston Matrix model, a 'problem child' is a product with:
  - A high market share and high market growth.
  - B high market share and low market growth.
  - C low market share and high market growth.
  - D low market share and low market growth.
  
- 2 Which one of the following factors is likely to make the demand for a firm's product less responsive to a reduction in its price?
  - A A reduction in the cost of making the product.
  - B A reduction in the price of a complementary good.
  - C An increase in consumer incomes.
  - D Competitors decide to lower their prices.
  
- 3 The best definition of stratified sampling is:
  - A selecting each item in the sample from one small group of the population.
  - B selecting the sample from non-overlapping groups within the population.
  - C selecting items at random from the whole population.
  - D selecting each  $n^{\text{th}}$  item from the population when all items have been placed in order.
  
- 4 In May 2012 the annual rate of inflation in the UK measured by the Consumer Price Index fell to 2.8%. The most likely reason for this fall was:
  - A income tax rates had been reduced in the March 2012 budget.
  - B the UK economy had recently recorded a further fall in real GDP.
  - C the exchange rate of sterling (£) had depreciated against all other major currencies over the previous 12 months.
  - D the demand for UK exports abroad was increasing.

	Budget	Actual
Revenue	£100 000	£91 200
Unit selling price	£2.00	£1.92
Total variable costs	£45 000	£40 000
Total fixed costs	£23 000	£24 000

**Table 1: Budget and Actual data**

- 5 Based on the data in Table 1 which one of the following statements is correct?
- A The actual sales volume was 5% less than budget.
  - B The variable cost variance is the only adverse variance.
  - C The favourable profit variance is £12 800.
  - D Unit variable costs remained unchanged.
- 6 Which one of the following is the most likely reason for a trend towards flexible specialisation in manufacturing industries?
- A Reduced numbers of low-skilled unemployed workers mean that more machines have to be used.
  - B Transport problems are making JIT inventory methods much less reliable.
  - C It is becoming more profitable to produce differentiated products for diverse groups of consumers.
  - D The recent economic recession has encouraged more consumers to purchase low-cost undifferentiated products.
- 7 According to the Data Protection Act, businesses should observe which one of the following data handling rules?
- A Delete all data held after it has been used once.
  - B Delete all data when the need for it has passed.
  - C Not transfer any of the data collected to countries within the European Economic Area.
  - D Provide copies of personal data held to individuals whether this is requested or not.
- 8 In 2012 the Mayor of London supported a proposal to build a new London airport in the Thames Estuary. One of the most likely economic effects of this scheme is:
- A a reduction in the external cost of each flight using existing London airports.
  - B an increase in the positive externalities of existing airport operations in the UK.
  - C negative externalities as a consequence of increased aircraft flights.
  - D positive externalities as a result of increased air pollution.

- 9 Which one of the following statements about contingency plans is true?
- A Contingency plans help businesses to identify and prepare for new market opportunities.
  - B Contingency plans are too expensive for small firms to undertake.
  - C Contingency plans encourage businesses to prepare resources to meet unexpected events.
  - D Contingency plans remove the risk of unexpected events occurring.
- 10 Which one of the following is a limitation of Porter's Five Forces model?
- A It does not consider supplier power as one of the Five Forces.
  - B Even simple industry analysis using Porter's Five Forces model is expensive to undertake.
  - C It is only of any use in rapidly changing markets.
  - D The model assumes reasonably static market structures.
- 11 On a network (CPA) diagram, the duration of activity M is 25 days. The EST of this activity is day 50 and the LFT is day 90. What is the total float on activity M?
- A 15 days.
  - B 25 days.
  - C 40 days.
  - D 65 days.
- 12 A business has calculated its annual break-even level of sales to be 66000 units. The average variable unit cost of production is £1.50 and annual fixed costs amount to £330 000.
- The selling price of each unit is:
- A £4.40
  - B £4.50
  - C £5.00
  - D £6.50
- 13 A business increases its advertising spending from £50 000 to £60 000 per month. As a result of this, and assuming no other changes, sales rise from 200 units to 220 units per month. Based on this data, the advertising elasticity of demand is:
- A -0.5
  - B 0.5
  - C 1.5
  - D 2.0

- 14** A furniture retailer sold 50 chairs in May 2014. The average cost to the retailer of each chair sold was £80. The total gross profit from the sale of the chairs was £1200. The gross profit margin on each chair was:
- A** 10.2%
  - B** 20%
  - C** 23.1%
  - D** 24%
- 15** At 31/10/13, XYZ Engineering plc had a gearing ratio of 40%. On 1/11/13 the company increased its long term loans by £20m to £220m. Assuming no other changes to its accounts, the gearing ratio on 1/11/13 was:
- A** 38.7%
  - B** 42.3%
  - C** 44%
  - D** 50%

Hartwood Trading Ltd	2013	2014	2015
Number of employees leaving	45	50	60
Total number employed	300	340	310

**Table 2**

- 16** According to the data contained in Table 2, the labour turnover rate of Hartwood Trading Ltd:
- A** cannot be calculated without details of employee absenteeism as well.
  - B** increased every year from 2013 to 2015.
  - C** increased from 15% to 19.35% between 2013 and 2014.
  - D** increased to 19.35% in 2015 from 15% in 2013.

Price per unit	Number sold per month
£8	500
£8.50	475
£9	400
£9.50	350

**Table 3**

- 17** Based on the data in Table 3, which one of the following statements is correct?
- A** As the price is increased, price elasticity is relatively inelastic at first and then becomes relatively elastic.
  - B** Total revenue cannot be calculated without information about the cost of each unit.
  - C** The marginal revenue is always negative as the price is increased.
  - D** The total revenue at a price of £8 is less than the total revenue at a price of £9.50.
- 18** One of the potential drawbacks for a business of outsourcing of production is:
- A** higher employee costs.
  - B** higher fixed costs.
  - C** higher transport costs.
  - D** higher unemployment costs.
- 19** According to David McClelland's motivational needs theory, 'prefers to direct others and wants to be influential' are some of the key characteristics of people who have which one of the following as a dominant motivator?
- A** need for affiliation
  - B** need for power
  - C** need for job enrichment
  - D** need for achievement
- 20** Which one of the following is an essential purpose of job evaluation?
- A** To achieve equality of pay between all grades of workers.
  - B** To achieve a ranking of jobs as a basis for a rational pay structure.
  - C** To make all jobs have the same level of work and effort associated with them.
  - D** To analyse jobs so that employee motivation increases.

## Section 2: Case Study

Answer all questions in this section.

You are advised to spend 1 hour 15 minutes on this section.

### Sahara Warehousing Ltd (SWL)

SWL operates an e-commerce business from three warehouses in the Midlands. These hold substantial inventories of books, clothes, toys and many other items which are promoted and sold through SWL's website. The business has grown rapidly in the last three years. It promotes itself as offering not only very competitive prices but also unrivalled customer service. 80% of sales are to UK residents.

### Warehouse relocation

The leases on two of the warehouse sites, W1 and W2, are due for renewal next year. SWL directors plan to close these two warehouses and relocate all of the inventory to one much larger site in the north of England. There are two potential locations and one must be chosen. The company accountant has produced appropriate quantitative evidence to allow the directors to make a decision (Table A). The accountant explained that the net cash flow forecasts were different between the two sites due to different rental, heating and security costs.

	Location X	Location Y
Forecasted capital cost of 5 year lease	£20m	£25m
Annual forecasted net cash flows	Year 1 £6m	Year 1 £7m
	Year 2 £7m	Year 2 £8m
	Year 3 £9m	Year 3 £10m
	Year 4 £9m	Year 4 £12m
	Year 5 £11m	Year 5 £14m
Payback period	2 years 9.3 months	See <b>Q21(a)</b>
Net present value at 10% discount rates (over 5 years)	£10.96m	See <b>Q21(a)</b>
Distance from nearest motorway	5 miles	15 miles
Distance from nearest airport	26 miles	12 miles

**Table A: Quantitative data for the two new locations**

The directors have agreed not to announce this relocation proposal to the workforce until absolutely necessary. The Finance Director spoke for all of his colleagues when he said: 'This move could upset the warehouse workers, many of whom may be unwilling to move to the new location. Trade union representatives will start causing us trouble. Once we have made our decision we will announce it just before the time limit required for redundancy notices. Some key workers will be offered generous relocation packages'.

### Employee motivation at W3

The third warehouse, W3, will not be closed. This is 6 miles south of Birmingham in an area of quite low unemployment. 35 warehouse workers and their supervisors are employed on full-time contracts. These contracts include the requirement to work up to 10 hours per day during busy periods. A further 20 workers can be called in at short notice and they have 'zero hours' contracts that do not guarantee work each week but require workers to be available for up to 15 hours per week when required. Labour turnover of both groups of workers is high. The Human Resources Director is concerned about this and commented to the Managing Director that: 'Turnover and absenteeism rates are above the national average for unskilled work – and much higher than either W1 or W2. One of the supervisors introduced a suggestion box to encourage staff to give ideas for improvements within the warehouse, including their conditions of service, and he received some unprintable suggestions!'

Warehouse employees are paid an hourly wage rate, 5% above the minimum wage. Supervisors are paid a salary plus a bonus for reaching a 65% success rate at getting orders out on the day they are received, but they are not allowed to join the senior managers' profit sharing scheme.

### Expansion into delivery service?

SWL directors are constantly seeking new products for the business to stock and market at home and abroad. At the latest Board of Directors meeting another more radical strategy was proposed by the Operations Director. He suggested: 'By starting our own delivery service we could become a more integrated operation. Currently 75% of our UK deliveries are by Royal Mail and we have been hit by its recent substantial price rises. The remainder of our delivery services are by courier firms that charge us a small fortune for express deliveries, some of which we can pass on to the customers. By leasing our own trucks and employing drivers directly we could control the delivery costs of products bought from our website. But, and this is the big strategic gain, we could simultaneously start to offer a parcel collection and delivery service to rival existing courier firms.'

The other directors said they needed more details before they would even commit to a thorough appraisal of this idea. 'I am not convinced we have the appropriate strengths and assets for this type of operation – it is a very competitive market' said the Marketing Director. The Operations Director would not be discouraged: 'Of course there are threats but there are huge opportunities for expansion of our business in this way. We could even offer the delivery services to other e-commerce operators.' The Board agreed to allow the Operations Director to undertake a SWOT analysis of the entire business as a starting point to the development of a marketing plan for this courier and parcels delivery service.

### Appendix 1

Discount factors at 10% rate of discount:

year 1 = 0.91; year 2 = 0.83; year 3 = 0.75; year 4 = 0.68; year 5 = 0.62

- 21 (a)** Calculate for location Y the:
- (i) payback period [1]
  - (ii) net present value at a 10% discount rate. [3]
- (b)** Using your results from **21(a)** and other information, recommend to SWL which location should be chosen. Briefly justify your recommendation. [6]
- 22** Evaluate the most cost effective ways to increase employee motivation at W3. [10]
- 23** Advise the company on how to manage the employees' likely resistance to change resulting from the relocation. [10]
- 24** Assess the importance of SWOT analysis to the success of a marketing plan for SWL's proposed new courier and parcels service. [10]

**Section 3: Essay**

**Answer one question in this section.**

**You are advised to spend 1 hour on this section. Relevant references to real world business examples will be expected.**

- 25** 'I am a great believer in luck and I find the harder I work the more I have of it'. Thomas Jefferson.  
Discuss the importance of 'good luck' in the successful establishment of new enterprises. [40]
- 26** 'BMW to invest a further £250m in MINI production in the UK'.  
Evaluate the factors multinational businesses such as BMW should consider before making investments abroad. [40]
- 27** 'Rather than relying on carefully window-dressed annual snapshots, investors and creditors should have access to a complete real-life picture of a company's financial position.'  
Robert Menendez (US Senator).  
Evaluate the usefulness of a company's published accounts to its stakeholders. [40]
- 28** Discuss strategies UK businesses could adopt in response to an ageing UK population. [40]



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