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**BUSINESS AND MANAGEMENT (PRINCIPAL)**

**9771/01**

Paper 1 Business Concepts

**May/June 2017**

**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 or graphs.

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.

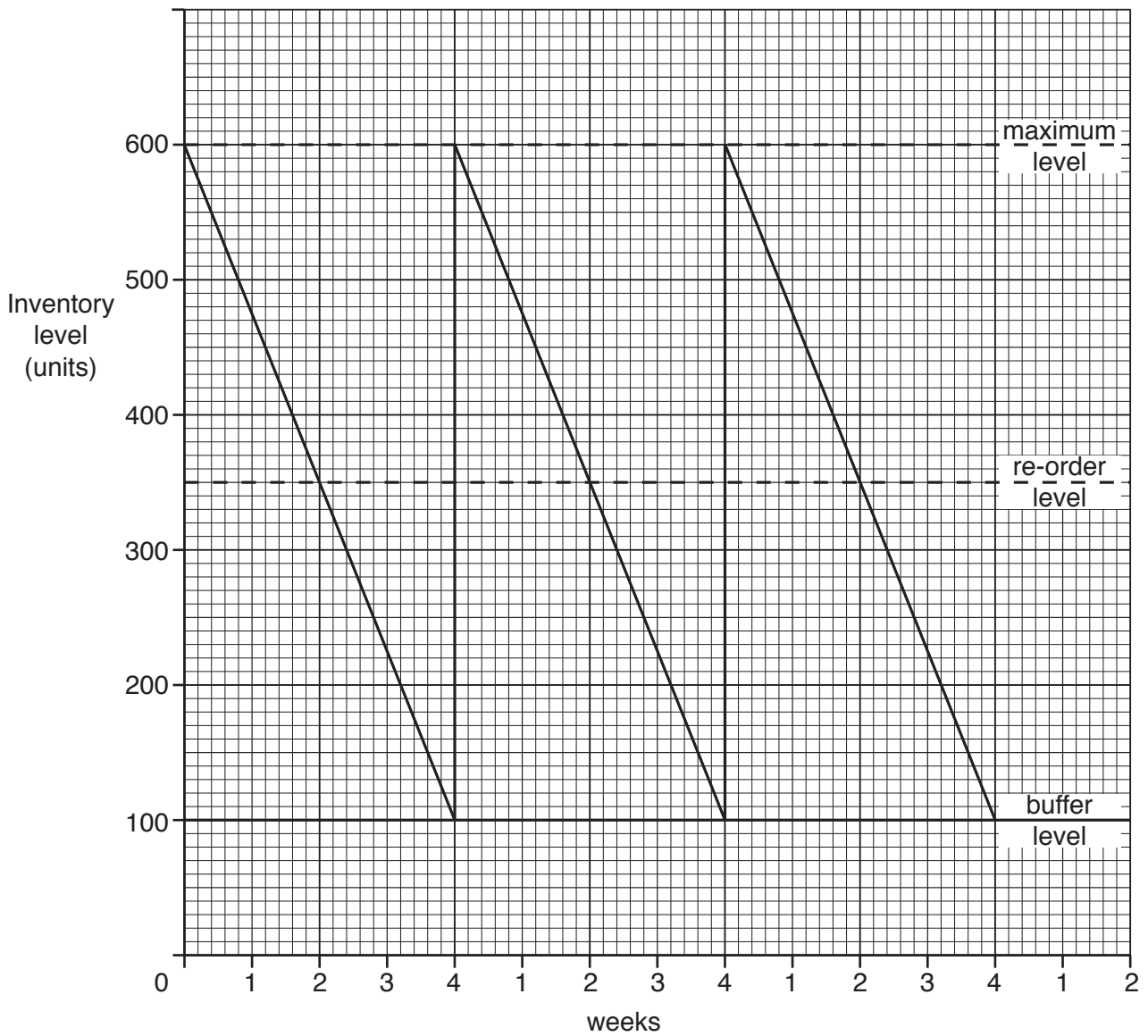
This document consists of **12** printed pages and **1** Insert.

**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.



**Fig. 1: Inventory control graph**

Questions 1 and 2 refer to the inventory control graph in Fig. 1.

- 1 From Fig. 1 it can be deduced that the lead time is:
- A 1 week.
  - B 2 weeks.
  - C 3 weeks.
  - D 4 weeks.
- 2 From Fig. 1 it can be deduced that the average weekly rate of inventory usage is:
- A 100
  - B 125
  - C 175
  - D 500
- 3 An important element of Adams' Equity Theory of Motivation is that:
- A an individual's level of motivation only depends upon their own input–output ratio and equity level.
  - B equity and motivation levels are not influenced by the reward to effort ratio of other workers.
  - C equity depends on the balance that exists between an individual worker's level of pay and their working conditions.
  - D equity depends on an individual's comparison of their input–output ratio with the ratio of other workers.
- 4 A public limited company currently has a gearing ratio of 45%, based on long term liabilities valued at £900m and total capital employed of £2000m. What is the new gearing ratio if the company takes out a further loan of £120m and pays for a factory extension with this finance? Assume no other change to the company's accounts.
- A 12%
  - B 47.9%
  - C 48.1%
  - D 51%

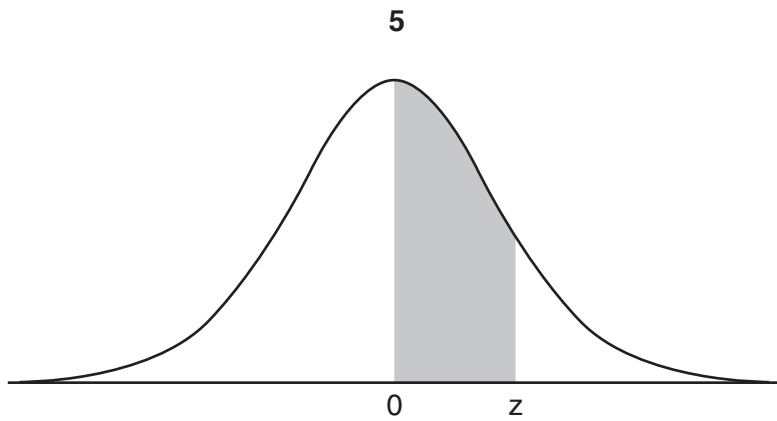
Product	Demand change
Foreign holidays	+ 18%
White bread	+ 3.2%
Bus journeys	- 2%
Soap	+ 4%

**Table 1**

- 5 Table 1 shows the changes in demand levels for four product categories following a 10% increase in consumers' incomes. Assume no other changes occurred.

Which one of the following can be deduced from this data?

- A** All products listed, apart from foreign holidays, are inferior goods.
- B** The price elasticity of demand for soap and white bread is relatively elastic.
- C** The revenue earned by foreign holiday operating companies will increase if prices of holidays are increased.
- D** The income elasticity for foreign holidays is 4.5 times greater than the income elasticity for soap.



**Fig. 2: Area between 0 (mean) and z**

z	area
1.0	0.3413
1.1	0.3643
1.2	0.3849
1.3	0.4032
1.4	0.4192
1.5	0.4332
1.6	0.4452
1.7	0.4554
1.8	0.4641
1.9	0.4713
2.0	0.4772

**Table 2: Areas under normal curve from the mean to z standard deviations from the mean**

- 6 Weights and Measures Inspectors tested 1000 petrol station pumps. On testing them for the accuracy of delivering a volume of 1 litre, the mean volume of 1000 tests was 1.02 litres. The standard deviation was 0.01 of a litre and the results were normally distributed. Using Table 2 what chance is there of any one customer receiving less than the stated volume delivered by a pump?
- A 2.28%
  - B 3.59%
  - C 34.13%
  - D 47.72%

Gross profit	£4010m
Profit after interest but before tax	£2259m
Finance costs (interest expense)	£564m

**Table 3: Summary of financial information for company X plc (28 February 2014)**

- 7 Using data in Table 3, company X's interest cover ratio on 28 February 2014 was:
- A 1.8
  - B 4
  - C 5
  - D 7.1
- 8 In May 2014 the annual rate of CPI inflation was 1.4%. In May 2015 the annual rate of CPI inflation was 0.1%, nominal (money) annual wage rates increased by 2% and the typical cost of a short term bank loan was 6%.
- Which one of the following statements about the period May 2014 to May 2015 can be correctly deduced from this information?
- A Average prices fell.
  - B Average real incomes fell by 1.5% and average prices increased by 1.3%.
  - C Average real incomes increased and the real value of outstanding debts fell.
  - D The real value of outstanding debts rose.
- 9 Which one of the following pricing methods is cost based?
- A Contribution pricing
  - B Penetration pricing
  - C Psychological pricing
  - D Skimming pricing
- 10 A business in the UK recorded an adverse profit variance in its latest financial year. Which one of the following is the most likely cause of this variance?
- A Budgeted profit figure was based on a low sales forecast.
  - B Budgeted fixed costs were lower than actual fixed costs.
  - C Prices of the products sold by the business fell and price elasticity of demand was relatively elastic.
  - D Imported material costs were affected by an appreciation of sterling (£).

- 11 The UK's textile industry is forecast to create an additional 20 000 jobs in the next five years due to reshoring. Which one of the following offers the best explanation of why reshoring to the UK might occur?
- A Corporation tax rates have been reduced in China and India.
  - B International transport costs are rising rapidly.
  - C Labour costs per unit are lower in Asia than in the UK.
  - D The sterling exchange rate is appreciating against all major currencies.
- 12 One of the advantages often claimed for participative decision-making is:
- A employee input is of higher value than that of management.
  - B it is a quick way of taking important decisions.
  - C it allows the use of a Theory X leadership style.
  - D workers can offer their practical experience to management.
- 13 Which one of the following is the best definition of an indirect cost?
- A A cost that does not vary with output at all.
  - B A cost with both a fixed cost and a variable cost element.
  - C A cost that cannot be attributed to a particular product.
  - D A fixed cost that is incurred for manufacturing a particular product.
- 14 One of the claimed limitations of break-even analysis is that:
- A it can only be based on historic data.
  - B it cannot be used to compare break-even points of different business projects.
  - C the typical break-even graph does not reflect how revenue might vary with price changes once a certain level of sales has been reached.
  - D the typical break-even graph does not show the level of profit that could be made assuming all products at maximum output were sold.
- 15 Which one of the following is a key feature of the UK Data Protection Act (1998)?
- A Data must be used in ways that are adequate, relevant and not excessive.
  - B Data can be retained indefinitely.
  - C Data on individuals must be destroyed within six months of collection.
  - D The Government or its agencies do not have the right to collect e-mail records from individuals.

- 16 A recently developed product incorporates a new battery technology that the manufacturer has patented. Protecting the invention in this way is likely to:
- A increase buyer power in the industry.
  - B lower the barriers to entry into the industry for new battery manufacturers.
  - C make demand for the recently developed product less price elastic.
  - D raise the market prices of older technology batteries.

Managers	36
Drivers	54
Administrative staff	90
Production staff	180

**Table 4**

- 17 Table 4 shows the total employees of a company categorised into four different groups. The company's canteen manager wants to survey opinions on the level of satisfaction with the food served. For this survey, how many administrative staff should be included in a stratified random sample of 20 people?
- A 5
  - B 9
  - C 18
  - D Cannot tell from the information provided
- 18 A satellite dish manufacturer has unit direct variable costs of production of £54. From June 2015 to June 2016, the business sold 30 000 units at a selling price of £120. Fixed costs were 40% of total revenue. The break-even level of sales over this period was:
- A 3000 units
  - B 3630 units
  - C 21 818 units
  - D 143 999 units
- 19 Which one of the following is a possible application of Porter's Five Forces model?
- A It helps to identify the level of corporate responsibility.
  - B It helps to assess the financial risks being taken by a business.
  - C It helps in assessing the degree of competitive rivalry experienced by a business.
  - D It identifies the key internal and external factors that influence the current strategies of a business.



- 20 Assume that the Monetary Policy Committee of the Bank of England announces an increase in interest rates. The most likely impact on some UK businesses will be:
- A UK businesses that rely heavily on imported materials will experience an increase in costs.
  - B Businesses will experience pressure from trade receivables (debtors) for quicker payments.
  - C Inventory holding costs will fall.
  - D Sales of consumer durable products will fall.

## Section 2: Case Study

Answer all questions in this section.

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

### Consort Resort Hotels (CRH)

CRH is a public limited company. It owns and operates 45 hotels in 4 European countries. The hotel industry is highly competitive and developments such as the widespread use of online booking sites have increased buyer power. CRH is profitable but profit margins have fallen over the last three years. CRH's directors have recently considered several strategies with the objective of achieving higher profitability.

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### Purchase of Elvin World of Adventures (EWA)

The first strategic development has just been completed – the purchase of Elvin World of Adventures from the family that founded this theme park 23 years ago. The Operations Director and Human Resources Director presented the data in Table A on EWA and key industry benchmarks at a crucial Board meeting. Directors were disappointed by the data but were more influenced in their decision to buy EWA by the low purchase price of £15m. The directors also believed that there was potential for high profit margins despite greater operational risks than in the hotel business.

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	Elvin World of Adventures	Theme park industry average
Adult entry fee	£25	£35
Average age of main rides	15 years	11 years
% of customers that return within 12 months	55%	72%
Average waiting time for rides	45 minutes	30 minutes
Average time spent booking tickets online	20 minutes	5 minutes
Labour turnover	47%	38%
% of employees with part-time contracts	65%	60%
Average training period for employees	1 week	2 months
% of customers satisfied with employees	26%	53%
% of customers satisfied with catering	22%	38%

**Table A: EWA data produced by CRH's Marketing and Operations Directors**

Following the Board's decision to buy EWA, the HR Director accepted that he would need to work on improving workforce effectiveness at the theme park. He said: 'A detailed workforce plan for the park will be the most important factor determining its success. The temporary closure of a CRH hotel near the park for a year-long refurbishment will allow us to use spare labour resources to improve the park's HR record.'

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### Investing in EWA: new ride or improved catering?

CRH's directors realised that the purchase of EWA would lead to the need for further investment funds to improve facilities at the park. Current financial resources seem adequate to allow one major investment this year. The two alternative investments are:

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- a new ride which would be the largest in the EU
- 5-star catering facilities specifically aimed at young families.

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Data concerning the new ride investment is given in Table B. Both investments have a life expectancy of five years. The catering facilities will cost £1.5m with a forecasted payback of 2.5 years and a net present value at 10% discount rate of £416 000.

Capital cost	Forecast annual net cash flows
£2m	£950 000

**Table B: New ride**

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

**Table C: Discount factors @ 10%**

### Marketing the EWA theme park

The CRH Marketing Director has little experience in business operations other than hotels and she is uncertain of the main features of a marketing plan for the EWA park. She is considering the recruitment of a marketing executive with entertainment industry experience to help develop an appropriate marketing plan for EWA.

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### Minimising costs

CRH's Chief Executive is keen to increase profitability in ways other than diversification. She wants CRH to operate its hotels with some of the lowest costs in the industry. As a former Operations manager for a car manufacturer, she recognises the potential for saving time and resources in all business operations. She told the Board recently: 'CRH hotels waste more food per guest and take longer to send out invoices to business clients than our competitors. Our website has been criticised as being 'user unfriendly' by customers. Businesses using our conference services often complain that they do not have a specific employee that they can always liaise with. Profit is not just about price – it is also about cutting costs and increasing effectiveness.'

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**21 (a)** Refer to Tables B and C.

**(i)** Calculate the payback period for the new ride. [2]

**(ii)** Calculate the net present value for the new ride. [2]

**(b)** Evaluate the usefulness of your results from **(a)** to the directors of CRH when they decide which investment project to choose. [6]

**22** Discuss a suitable marketing plan for EWA assuming the 'new ride' investment is chosen. [10]

**23** Evaluate the importance of workforce planning to the future success of the EWA theme park. [10]

**24** Assess the potential for the adoption of lean production within CRH, a service-based business. [10]

**Section 3: Essay**

**Answer one question from this section.**

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

- 25** Evaluate the usefulness of the published accounts of public limited companies. [40]
- 26** 'There are only two ways in which to establish competitive advantage: do things better than others or do them differently.' (Karl Albrecht)
- To what extent does the competitiveness of any business depend on its Operations Management? [40]
- 27** 'A satisfied customer is the best business strategy of all.' (Michael LeBeouf)
- Discuss the most effective ways businesses can achieve and maintain customer satisfaction. [40]
- 28** In 2015 the newly elected UK Government pledged to eliminate its budget deficit within five years. This was to be achieved despite cutting taxes on both low-paid workers and corporate profits.
- Evaluate the likely impact on UK businesses of these Government economic policies. [40]

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