# UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS 

 Cambridge International Level 3 Pre-U CertificatePrincipal Subject

## BUSINESS AND MANAGEMENT

## 9771/01

Paper 1 Business Concepts

## May/June 2013

2 hours 30 minutes
Additional Materials: Answer Booklet/Paper

## 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 a soft pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.

## 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 25 minutes on Section 1, 1 hour 20 minutes on Section 2, and 45 minutes on Section 3.

At the end of the examination, fasten all your work securely together including your answers on the multiple-choice Insert.
The number of marks is given in brackets [ ] at the end of each question or part question.

## Section 1: Multiple Choice

## Answer all questions in this section.

Record your answers on the Insert.

## You are advised to spend $\mathbf{2 5}$ minutes on the $\mathbf{2 0}$ questions in this section.

1 Which one of the following is an advantage of using critical path analysis during the development of a new product?

A It can identify the potential simultaneous activities.
B It allows for float times on the critical activities.
C It eliminates the need for any work-in-progress.
D It ensures the project is completed on time.

2 Which one of the following is a possible external diseconomy of scale for a company based in London developing software?

A Higher rates of interest on loans to the company due to a decision by the Monetary Policy Committee to raise rates.

B Poor communication with the company's overseas marketing offices.
C Lack of coordination between the company's Finance department and Human Resources department.

D Relatively high salary levels being paid to software developers due to skill shortages in London.

3 A public limited company currently has a gearing ratio of $35 \%$, based on long term liabilities valued at $£ 350 \mathrm{~m}$ and total capital employed of $£ 1000 \mathrm{~m}$. What is the new gearing ratio if the company takes out a further loan of $£ 50 \mathrm{~m}$ and purchases new office premises with this finance? Assume no other change to the company's accounts.

A $33.3 \%$
B 38.1\%
C $40.0 \%$
D $45 \%$

4 Rolls Royce plc outsources the production of some aeroplane engine components to countries with low labour costs. These components are then used in the construction of aeroplane engines in the UK. Many of these engines are exported. Following a depreciation of the $£$ sterling against all currencies, which one of the following is likely to result?

A Rolls Royce aeroplane engines will become more competitive in overseas markets if the cost of imported components is a low proportion of total production costs.

B Rolls Royce's cost of importing outsourced components will fall.
C Rolls Royce will experience more competition from its foreign rivals in the UK aeroplane engine market.

D Rolls Royce will switch construction of aeroplane engines to those countries that currently supply it with outsourced components.


Figure 1: 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 1: Areas under normal curve from the mean to $z$ standard deviations from the mean.

5 As a result of market research based on analysing the bills of 100 customers, the owner of a restaurant believes that the average (mean) spend per customer is $£ 20$ with a standard deviation of $£ 3$. He believes the results are normally distributed. Using Figure 1 and Table 1, what would be the chance of any one customer spending more than $£ 24.50$ ?

A 0.668\%
B 6.68\%
C 43.32\%
D 43.72\%

6 During the 2009 recession Honda UK did not make car workers redundant but offered them reduced hours contracts which were restored to normal hours contracts when economic conditions improved. The most likely motivational benefit of this decision is:

A Herzberg's motivators, as explained in his two-factor theory, will be achieved.
B Mayo's Hawthorne effect is achieved.
C Maslow's safety needs will be met.
D improved job satisfaction if Taylor's view of rational economic man applies.

7 In recent years the relative importance of the secondary sector of business activity in the UK economy has fallen. One of the problems some economists believe has resulted from this is:

A the value of the UK's Gross Domestic Product must have declined.
B the level of UK labour productivity in manufacturing has fallen faster than labour productivity in manufacturing in other countries.

C the value of the UK's visible imports has increased at a faster rate than the value of the UK's visible exports.

D the total level of employment in all sectors of the economy in the UK has declined.

| Annual data (£000's) for 2011 | Product A | Product B |
| :--- | :---: | :---: |
| Variable labour costs | 100 | 70 |
| Variable material costs | 25 | 20 |
| Allocated factory fixed costs | 65 | 10 |
| Revenue | 170 | 150 |
| Profit (Loss) | $(20)$ | 50 |

Table 2

8 A business operates a factory with annual fixed costs of $£ 75000$. It produces two products, $A$ and B, in this factory. Financial data for 2011 for these products is shown in Table 2. The company is considering stopping production of product A. This decision would have which one of the following effects on total annual profit?

A Fall by $£ 20000$.
B Rise by $£ 20000$.
C Fall by $£ 45000$.
D Rise by $£ 125000$.

9 Refer again to Table 2. In fact, the company decided to continue producing product A in 2012. Assume that in 2012 revenue from product B increased by $10 \%$ and all variable costs for product $B$ increased by $5 \%$. Assume no other changes. What will be the annual profit for product B in 2012?

A $£ 60500$
B $£ 70500$
C £165000
D £172500

10 One of the claimed advantages of flow production compared to batch production is:
A it leads to increased demand for the product.
B no labour is required with flow production.
C it requires less investment in capital equipment.
D it reduces the value of work-in-progress at each stage of production.


Figure 2
11 Figure 2 shows the current monthly break-even chart of a business that produces sailing boats. If fixed costs increased by $10 \%$ but variable costs fell by $£ 100$ per boat, the change in the breakeven level of production would be:

A down 2 to 18 .
B no change.
C up 2 to 22 .
D up 4 to 24 .

12 Sasha is a self-employed jewellery maker. She wants to increase the value she adds to materials she buys in. Which one of the following is a possible way of doing this?

A Buy in cheaper materials, reduce jewellery prices but maintain gross profit margins.
B Buy in more expensive materials to create a quality image but not increase prices.
C Move her workshop to a cheaper location with lower fixed costs.
D Create and sell new designs based on well-known branded jewellery products.

13 A business uses the declining balance method when depreciating fixed assets. New fixed assets costing $£ 16 \mathrm{~m}$ have been purchased. The rate of depreciation used is $25 \%$. What will be the net book value of these fixed assets after two years?

A $£ 4 \mathrm{~m}$
B $£ 6.75 \mathrm{~m}$
C $£ 8 \mathrm{~m}$
D $£ 9 \mathrm{~m}$

14 Which one of the following is an example of business-to-business below the line promotion that could be used by a catering equipment supplier?

A Advertising in trade magazines such as Caterer and Hotelkeeper.
B Paying for advertising on local radio covering an area with many hotels.
C Using trade fairs to contact potential customers.
D Offering discounts to consumers in supermarkets who bought more than one item of catering equipment.

15 Following a unit price reduction of $5 \%$, from $£ 1$ to 95 p, the weekly revenue received from selling a product increased by $15 \%$ to $£ 22999.50$. Assume no other changes. Which one of the following is the best estimate for the price elasticity of demand for this product?

A -4.21
B -3
C -0.3
D +8.42

16 One potential impact of the UK Government's fiscal deficit reduction programme is to:
A increase the demand for income inelastic products from higher rate taxpayers.
B increase the demand for road maintenance equipment used by local authorities.
C increase the number of job vacancies in the National Health Service.
D increase the number of people of working age on state benefits.

17 A business decides to delayer its organisational structure. Which one of the following is the most likely consequence of this?

A Wider spans of control and lower levels of delegation.
B Wider spans of control and higher levels of delegation.
C Longer chain of command and less effective communication.
D Fewer levels of hierarchy and a longer chain of command.

18 Pfizer, one of the world's largest pharmaceutical businesses, spent $\$ 7$ billion on research and development in 2012. One of the most likely benefits to the company of this expenditure is:

A the development of innovative products that are differentiated from those of competitors.
B ensuring that drugs coming to the end of their marketable lives are promoted more effectively.
C higher short term profitability as existing products can be targeted more carefully.
D improved information about market trends and greater market orientation.

19 One of the main benefits that methods of quality assurance have over quality control techniques is:

A increased use of quality checks on finished products reduces the risk of consumer dissatisfaction.

B involvement of all staff at each stage of production reduces wastage and reworking costs.
C staff do not have to be encouraged to accept responsibility for quality and can specialise in the work that is allocated to them.

D staff training costs are much lower.

20 Using the Boston Matrix classification of products, which one of the following strategies is most likely to be used for a product experiencing low market share in a high growth market?

A Divesting the product
B Milking the product
C Developing the product
D Diversifying the product

## Section 2: Case Study

## Answer all questions in this section.

You are advised to spend 1 hour 20 minutes on this section.

## Affordable Fashions (AF) - A retail success story

The corporate objectives of Affordable Fashions (AF) include 'increasing market share in the low cost fashion sector' and the company is currently attaining this goal. Sales and profits reached record levels last year. AF now operates 200 stores in the UK.

## Location of a new shop

This week the directors are to decide between two locations for a new shop. The Operations Director has produced the data in Table A and this is to be considered by directors at tomorrow's Board meeting.

|  | Location X | Location Y |
| :--- | :---: | :---: |
| Site | Town centre | Out of town |
| Capital cost of 5-year lease | $£ 2.0 \mathrm{~m}$ | $£ 1.0 \mathrm{~m}$ |
| Forecasted annual net cash flows |  |  |
| Year 1 | $£ 0.5 \mathrm{~m}$ | $£ 0.3 \mathrm{~m}$ |
| Year 2 | $£ 0.7 \mathrm{~m}$ | $£ 0.6 \mathrm{~m}$ |
| Year 3 | $£ 0.8 \mathrm{~m}$ | $£ 0.6 \mathrm{~m}$ |
| $\quad$ Year 4 5 | $£ 1.9 \mathrm{~m}$ | $£ 0.6 \mathrm{~m}$ |
| Payback Period | $£ 2.5 \mathrm{~m}$ | $£ 0.8 \mathrm{~m}$ |
| Forecasted annual average profit | $£ 0.88 \mathrm{~m}$ | $£ 0.38 \mathrm{~m}$ |
| (first 5 years) | See Q21(a) | 2 years |
| Annual Average Rate of Return | See Q21(a) | $38 \%$ |

Table A: Financial data for the two locations

## New clothing range

The success of the company is based on 'fast fashion' - creating new designs and distributing them to shops quickly - and low prices. 'Quality is relative - no one expects our clothes to last for years' is a quote from the Managing Director that most AF managers recall well. Progress in the first six months of 2013 has slowed - sales are still growing but margins have fallen. Profits are being affected by increasing costs of materials.

The directors have developed a plan to start selling a range of clothes, to be called Top Look, aimed at high income consumers. 'Demand from consumers with high incomes tends to be less price elastic than the demand of our existing shoppers. If the products are fashionable and well designed they will buy them at prices that will give us much higher margins' said the Managing Director at the most recent Board meeting. The Marketing Director suggested that the Top Look range of clothes should be in a separate part of every shop and that promotion could be limited to in-store displays and special offers.

## Labour turnover

The Human Resources Director is worried about employee performance within the business. She has summarised AF employee data and compared it to the UK average. These comparisons are shown in Table B.

| All data 2012 | AF shop workers | UK fashion retail workers <br> (average) |
| :--- | :---: | :---: |
| Annual labour turnover | $22 \%$ | $16 \%$ |
| Median hourly wage | $£ 7.35$ | $£ 7.83$ |
| Staff on part-time contracts | $73 \%$ | $56 \%$ |
| Staff aged 16-24 years old | $45 \%$ | $33 \%$ |
| Customer complaints per 100 transactions | 4.6 | Data not available |
| Staff with no formal qualifications | $16 \%$ | $11 \%$ |

Table B: Employee performance and other Human Resources data
The Human Resources Director knows that on average it takes 3 weeks to fill each vacancy with advertising costs of around $£ 120$ per vacancy. She wants AF to introduce a comprehensive set of objectives and targets at each level of the organisation. 'I believe that this would give regional managers, shop managers and shop staff a clear focus and the incentive they need to stay with the business and work hard to develop their careers with us. A clear set of quantifiable targets for each region and shop within our business will definitely improve employee performance within AF.'

## Legal issues

Business leaders in the UK are increasingly concerned about the impact of the growing number and significance of legal controls on their operations. Managers of retail businesses are particularly concerned about the following legal changes.

- Age discrimination - employers can no longer insist on a particular retirement age for workers.
- Agency staff rights - workers recruited through agencies (many of them part-time staff) must be given the same conditions of work as directly employed staff.
- Minimum wage increases.
- Improvements in consumer rights to reject or return goods.
- Tougher health and safety regulations in shops.
'With continued slow economic growth, the last thing we need is higher costs forced on us by more legal controls' said AF's Managing Director at last year's Annual General Meeting.

21 (a) (i) Using data in Table A, calculate the Payback Period for location X.
(ii) Using data in Table A, calculate the Accounting/Average Rate of Return (ARR) for location $X$.
(b) Evaluate the usefulness of your results from (a) and other data in Table A to AF's directors when deciding between the two locations for a new shop.

22 Evaluate the extent to which 'a comprehensive set of objectives and targets at each level of the organisation' would improve employee performance within AF (lines 26-27).

23 Recommend an appropriate marketing strategy for the new Top Look range of clothing.

24 Discuss the possible impact on AF of recent changes in the legal environment (lines 36-42). [10]

## Section 3: Essay

## Answer one question in this section.

## You are advised to spend 45 minutes on this section. Relevant references to real world business examples will be expected.

25 'The aim of marketing is to know and understand the customer so well that the product or service fits him/her and it sells itself.' Peter Drucker.

Evaluate the extent to which the level of promotional spending determines the success of a product or service.

26 'When written in Chinese, the word crisis is composed of two characters - one represents danger and the other represents opportunity.' John F. Kennedy.

Discuss the factors that determine whether a business is able to convert a crisis into an opportunity.

27 It is often claimed that a well-motivated workforce can lead to increased productivity and improved competitiveness.

Evaluate the extent to which businesses can improve competitiveness through increased workforce motivation.

28 The profitability of some UK businesses has increased in recent years despite adverse economic conditions.

Discuss the view that external factors are less important to business success than effective management decisions.

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