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**Business management**  
**Standard level**  
**Paper 2**

Friday 9 November 2023 (morning)

1 hour 30 minutes

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**Instructions to candidates**

- Do not open this examination paper until instructed to do so.
- A clean copy of the **business management formulae sheet** is required for this examination paper.
- Section A: answer two questions.
- Section B: answer one question.
- A calculator is required for this examination paper.
- The maximum mark for this examination paper is **[40 marks]**.

## Section A

Answer **two** question from this section.

### 1. Roscas

*Roscas* produces and sells sugar donuts. Monthly fixed costs are \$15 000, monthly sales revenue is \$70 000, and total variable costs per month are \$25 000. To increase its productivity rate, *Roscas* wants to buy a new high-efficiency machine that produces chocolate-filled donuts. The finance manager has forecasted the following information.

**Table 1: Forecasted information for the production of chocolate-filled donuts**

Price per unit	\$5
Variable costs per unit	\$2
Sales revenue per month	\$100 000
Fixed costs per month	\$1000

**Table 2: Forecasted cash flow for the new machine**

Year	Net cash flows (\$000s)
0	–2000
1	600
2	650
3	670
4	700
5	710

- (a) Define the term *productivity rate*. [2]
- (b) Using the information provided above and in **Table 1**, calculate:
- (i) the total contribution per month for the production of 20 000 chocolate-filled donuts (*show all your working*); [2]
  - (ii) the monthly profit if *Roscas* sells sugar donuts **and** chocolate-filled donuts (*show all your working*). [2]
- (c) Using the information provided above and in **Table 2**, calculate:
- (i) the payback period for the new machine (*show all your working*); [2]
  - (ii) the average rate of return (ARR) for the new machine (*show all your working*). [2]

## 2. Les Légumes Contentes (LLC)

*Les Légumes Contentes (LLC)* is a cooperative of farmers that sells organic produce. *LLC*'s starting capital is \$5000. It needs a bank loan to buy refrigerators for its store. The bank has requested a cash-flow forecast. The forecasted figures are shown in **Table 3**.

**Table 3: Forecasted figures for *LLC* for the first four months of operations, beginning 1 January**

Average price per kg of produce	\$4
Forecasted sales for January	3000 kg
Forecasted sales from February onwards	4000 kg
Cash sales	50 % of each month's sales, from customers paying at the cooperative store
Credit sales	50 % of each month's sales, sold to supermarkets and payable one month later
Rent	\$4500 per month
Labour costs	\$2500 per month
Cost of goods sold	40 % of sales revenue per month
Overhead costs	\$1100 per month, paid in cash

- (a) State **two** features of a cooperative. [2]
- (b) Using **Table 3** and the information provided above, prepare a monthly cash-flow forecast for *LLC* for the first four months of operations. [6]
- (c) Calculate *LLC*'s forecasted net profit at the end of April (*show all your working*). [2]

## Section B

### 4. Bandit & Max

*Bandit & Max (BM)* is a partnership between Dr. Jones and Dr. Morris that produces specialist food for dogs with health problems. *BM*'s unique selling point/proposition (USP) is food for dogs with diabetes and digestive or kidney problems. *BM*'s mission statement is, "To help strengthen the bond between people and their dogs."

*BM* uses a cost-plus (mark-up) pricing strategy; however, the costs of raw materials are rising. *BM* has an excellent brand image and sells its products only through veterinarians and large pet shops that provide advice to customers. Veterinarians recommend *BM*'s dog food because of its high quality and nutritional value. However, potential customers in some areas lack access to *BM*'s food. *BM*'s sales are not growing.

Dr. Morris wants to diversify into specialist cat food, as more people are buying or adopting cats. *BM* has experience in developing new products. In the past, *BM* outsourced its research and development. Now, Dr. Morris wants *BM* to build its own research facilities, but building costs are high. *BM*'s warehouse will need refurbishing to stock more food. *BM* could become a private limited company to raise the necessary finance.

Dr. Jones disagrees. He believes *BM* should not diversify. *BM*'s current distribution costs are high. He has suggested introducing a new distribution channel for the dog food that includes a large supermarket chain, a wholesaler, and many small pet shops.

- (a) Describe **one** feature of a mission statement. [2]
- (b) Explain **two** advantages of *BM*'s unique selling point/proposition (USP). [4]
- (c) Explain **one** advantage **and one** disadvantage for *BM* of using a cost-plus (mark-up) pricing strategy. [4]
- (d) Discuss whether *BM* should diversify into specialist cat food **or** introduce a new distribution channel for dog food. [10]

## 5. Frez PLC (FR)

*Frez PLC (FR)* has 6000 employees in its 100 supermarkets and 250 in its head office. *FR* operates a 360-degree feedback appraisal system for head office employees. *FR*'s directors believe that this system has improved retention and morale of head office employees. This year, to reduce head office costs, *FR* offered head office employees the option of teleworking, which 60 % accepted. They will work at the head office only one day per month.

Each *FR* supermarket has 10 departments. Departmental managers have concerns about their workload caused by their large span of control. Labour turnover at *FR* supermarkets is increasing each year because departmental managers are leaving. In January, *FR* increased its supermarket opening hours and hired an additional 1000 part-time employees. *FR* is considering extending its 360-degree feedback appraisal system to all supermarket employees.

Recently, demand from supermarket shoppers for a home delivery service increased, although industry experts disagree on whether this demand will continue. *FR*'s main competitors already provide delivery services.

*FR* has decided to launch a home delivery service. It will require 500 vans, which would be replaced every five years. *FR* is considering two options:

- **Option 1:** purchase the vans at a unit cost of \$34 000 each, financed by a five-year bank loan at 3 % interest.
- **Option 2:** Lease the vans at a unit cost of \$13 000 per year per van. The minimum term for the lease will be 24 months.

*FR* already borrowed \$50 million in 2019 to finance the modernization of its supermarkets.

- (a) State **two** features of a public limited company. [2]
- (b) (i) Explain, with reference to Maslow's motivation theory, how teleworking at *FR* may damage motivation amongst head office staff. [2]
- (ii) Explain **one** disadvantage for *FR*, **other than** the impact on employee motivation, of introducing teleworking. [2]
- (c) Explain **two** disadvantages for *FR* if it extends its 360-degree feedback appraisal system to its supermarket employees. [4]
- (d) Recommend whether *FR* should choose **Option 1** or **Option 2**. [10]

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### References: