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

22 October 2024

**Zone A** morning | **Zone B** morning | **Zone C** morning

Candidate session number

1 hour 30 minutes

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**Instructions to candidates**

- Write your session number in the boxes above.
- 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 all questions.
- Section B: answer one question.
- Answers must be written within the answer boxes provided.
- A calculator is required for this examination paper.
- The maximum mark for this examination paper is **[40 marks]**.



### Section A

Answer **all** questions in this section. Answers must be written within the answer boxes provided.

#### 1. Mdas Ltd (MSL)

*Mdas Ltd (MSL)* owns a small farm. Seeking economies of scale, in 2023 *MSL* increased its herd of cows from 40 to 50. By the end of September 2024, *MSL*'s 50 cows had produced a total of 492 000 litres of milk, which sold for \$0.40 per litre.

In January 2025, *MSL* will purchase four more cows at \$1000 each. *MSL* will pay in cash.

**Table 1** shows selected financial information for *MSL* for the year ended and as at 30 September 2024.

**Table 1: Selected financial information for *MSL* for the year ended and as at 30 September 2024 (all figures in \$)**

Borrowings, long term	180 000
Current assets	45 000
Current liabilities	30 000
Non-current assets	250 000
Retained earnings	10 000
Share capital	75 000
Total fixed costs	40 000
Total revenue	172 200
Unit variable costs	0.30

(a) Define the term *economies of scale*.

[2]

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**(Question 1 continued)**

- (b) Calculate *MSL*'s break-even level of output in 2024 (*show all your working*). [2]

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- (c) Using relevant information from **Table 1**, construct a fully labelled statement of financial position (balance sheet), for *MSL*, as at 30 September 2024. [4]

**(This question continues on page 5)**



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**(Question 1 continued)**

- (d) Explain the potential changes in *MSL*'s statement of financial position (balance sheet) with the purchase of four cows in January 2025.

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2. **Fritos Food (FF)**

*Fritos Food (FF)* is a restaurant started by Friya Shah that offers a range of fast food. *FF*'s customers have high brand loyalty, and demand is increasing. Friya is considering expansion, and she has identified three options, which are shown in **Table 2**.

**Table 2: Estimated financial data relating to the three expansion options**

	<b>Cost (\$)</b>	<b>Probability</b>	<b>Expected revenue (\$)</b>
<b>Option 1:</b> Renovate the existing restaurant	35 000	High returns (0.7) Low returns (0.3)	80 000 20 000
<b>Option 2:</b> Invest in a new restaurant with the existing product range	150 000	High returns (0.7) Low returns (0.3)	200 000 50 000
<b>Option 3:</b> Invest in a new restaurant and develop a new product range	190 000	High returns (0.7) Low returns (0.3)	320 000 50 000

(a) State **two** advantages for a business of having customers with high brand loyalty. [2]

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**(Question 2 continued)**

- (b) Using **Table 2**, construct a fully labelled decision tree **and** identify the best option for *FF* (*show all your working*). [6]

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**(Question 2 continued)**

(c) Explain **one** advantage for Friya of using a decision tree.

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### Section B

Answer **one** question from this section. Answers must be written within the answer boxes provided.

#### 3. Beepa Bakery (BB)

*Beepa Bakery (BB)* is a for-profit social enterprise. *BB* makes pies, cupcakes and tarts which are sold in three shops it owns in a large city. *BB*'s vision is to impact lives with the "art form of cookery".



*BB* offers two free annual workshops for school-aged children from low-income communities. The workshops offer instructions on nutritional development, teach basic cooking skills, and promote creativity in the kitchen. *BB* plans to increase the number of free annual workshops to four.

*BB* also contributes to a community food bank that provides food for low-income families while also preventing food waste.

(a) State **two** advantages of operating as a for-profit social enterprise. [2]

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(Question 3 continued)

Table 3 shows information about the unit cost of producing 40 of BB's pies per day.

Table 3: Information about the unit cost of producing 40 of BB's pies per day

Pie size	Unit cost of production (\$)	Number of pies made per day
Small (S)	20	4
Medium (M)	40	15
Large (L)	60	13
Extra Large (XL)	80	8

(b) Using Table 3:

- (i) calculate the mean cost of production per day for the 40 pies made (show all your working);

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- (ii) calculate the median cost of production per day for the 40 pies made (show all your working);

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**(Question 3 continued)**

- (iii) calculate the modal/mode cost of production per day for the 40 pies made  
(no working required).

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- (c) *BB* wants to launch a bigger pie, the extra extra large (XXL). *BB* plans to make 10 XXL pies per day and estimates a unit cost of production of \$100.

Calculate the effect that this would have on your answer to part (b) (iii)  
(no working required).

[1]

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(Question 3 continued)

Figure 1 and Figure 2 present some information about *BB*'s revenue contribution.

Figure 1: Analysis of *BB*'s revenue contribution by product

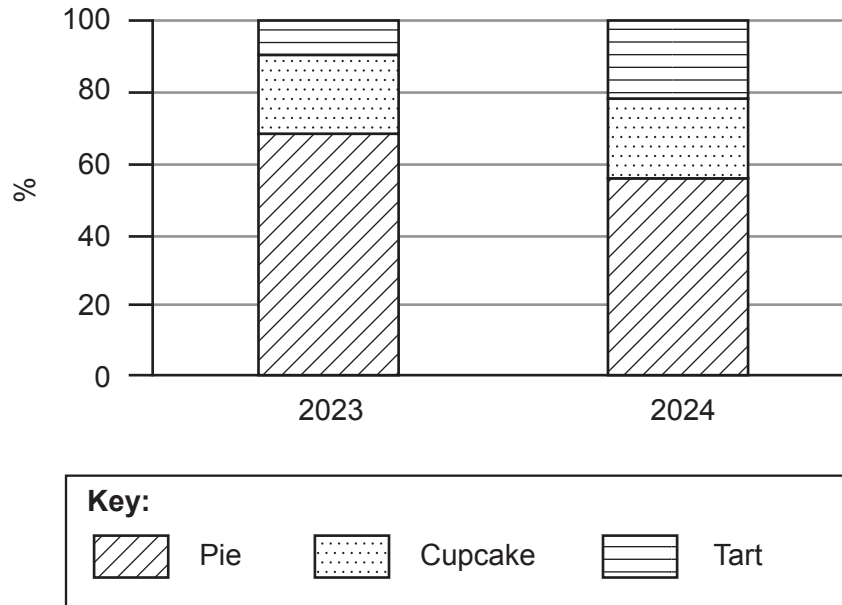
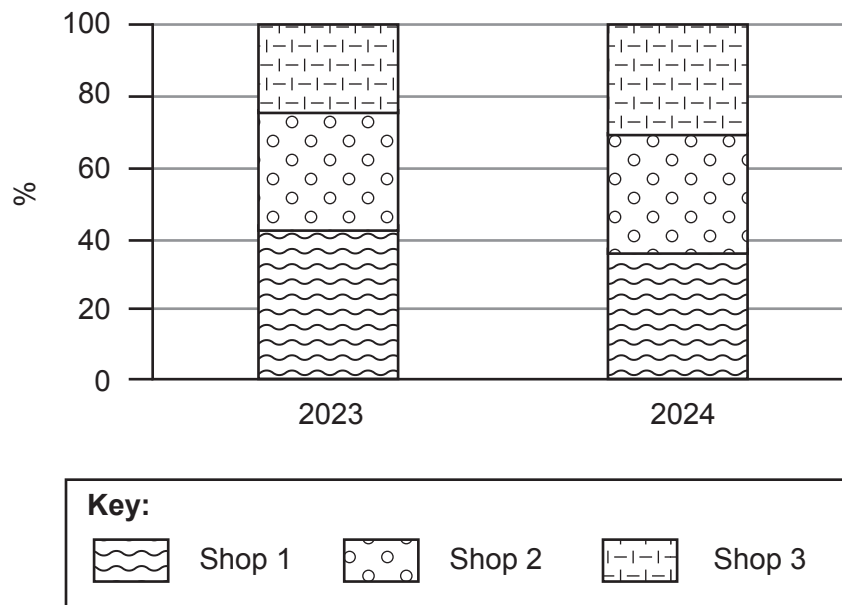


Figure 2: Analysis of *BB*'s revenue contribution by shop



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(Question 3 continued)

(d) Comment on **one** of the two data sets (**Figure 1** or **Figure 2**).

[2]

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According to statista.com, sales in the bakery industry will increase by 10% over the next five years. Thanks to e-commerce, bakeries have a promising future. Additionally, the gig economy provides the bakery industry with a cost-effective way to recruit additional employees during busy seasons or periods of the day.

*BB* is planning to open two more shops in the city between 2025 and 2028. *BB* will install automated\* bakery equipment and will offer employees training to acquire new skills (reskill). As lower-skilled employees leave *BB*, the business will replace them with gig economy employees.

John Cook, *BB*'s managing director, has identified that growth is mainly due to an increase in online sales for in-store collection orders. John believes this "click-and-collect" strategy will result in a reduction in the number of employees needed to serve customers in all *BB*'s shops.

While some employees agree with John's new plans, other employees feel threatened.

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\* automated: carried out by machines or computers without human control

(e) Using information in the stimulus, discuss strategies that *BB*'s human resource department could use to reduce the impact of change on employees.

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4. AkvoBotelo (AB)

AkvoBotelo (AB) manufactures reusable water bottles. For every water bottle that AB sells, it plants a tree. The business is a cooperative owned by its 30 employees, who are also environmental activists.

(a) State **two** features of a cooperative. [2]

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AB's mission statement is, "To reduce the use of plastic and to make the world greener by planting a tree for every bottle we sell". All of AB's packaging has this mission statement printed on it.

(b) Explain **one** advantage for AB of having a mission statement. [2]

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(Question 4 continued)

Table 4 shows forecasted figures for AB.

Table 4: Forecasted figures for AB for the year ending 31 December 2025

Fixed costs	\$1 800 000
Variable cost per water bottle	\$4
Cost of planting a tree	\$5
Selling price of each water bottle	\$15
Number of water bottles produced	320 000

(c) Using Table 4:

- (i) comment on the effect on fixed costs if the number of bottles produced decreases to 300 000;

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- (ii) calculate AB's margin of safety for 2025 (*show all your working*);

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**(Question 4 continued)**

- (iii) comment on the effect on the break-even quantity if the selling price of each water bottle increases to \$21.

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**(Question 4 continued)**

AB's management team includes a chief executive officer (CEO), a chief financial officer (CFO), and a chief personnel officer (CPO). **Table 5** shows their annual salaries.

**Table 5: Annual salaries of AB's management team**

CEO	\$60 000
CFO	\$45 000
CPO	\$35 000

Three factory supervisors are paid \$21 000 per year. All remaining factory employees are paid \$20 000.

The CEO has some concerns about the next two years (2025–2026):

- Because of high inflation, AB's employees have complained that an annual salary of \$20 000 is no longer enough to pay for basic necessities, such as food and rent.
- Supervisors have complained that they are not being rewarded enough for their extra responsibilities.
- One supervisor and five employees are planning to retire.
- In 2026, AB will have to make \$600 000 in capital expenditure in order to increase capacity.
- Increased competition has made the reusable water bottle market more price competitive.

(d) Using the information in the stimulus, recommend a plan of action to address the CEO's concerns for the next two years (2025–2026).

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**References:**

- 3. YinYang, n.d. *Pecan Pie, Fresh Baked Holiday Dessert with Ingredients, Rolling Pin – stock photo* [image online]. Available at: <https://www.gettyimages.co.uk/detail/photo/pecan-pie-fresh-baked-holiday-dessert-with-royalty-free-image/172410532> [Accessed 5 January 2024]. Source adapted.

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