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Business management
Higher level
Paper 2

22 October 2024

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

Candidate session number

1 hour 45 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 **[50 marks]**.



Section A

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

1. Fluffy Cloud Technology (FCT)

Fluffy Cloud Technology (FCT) is a publicly held company that manufactures computer hardware. Specializing in building customized gaming computers, *FCT* is growing rapidly and will purchase a new machine for \$2 million to improve production efficiency. The production department estimates the new machine can produce 80 000 computers in its lifetime. *FCT* plans to depreciate the new machine using the units of production method.

The expected output (computers) for year 1 is 12 000.

Table 1 provides selected financial data for *FCT* from:

- the statement of profit or loss for the year ended 31 December 2023
- the statement of financial position (balance sheet) as at 31 December 2023.

Table 1: Selected financial data for *FCT* (all figures in \$000s)

Accumulated depreciation	220
Bank overdraft	100
Cash	200
Creditors	100
Debtors	150
Dividends	250
Expenses	350
Non-current liabilities	1500
Property, plant and equipment	3500
Retained earnings	750
Sales revenue	1300
Share capital	1305
Stock	150

(a) State **two** features of a publicly held company.

[2]

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(Question 1 continued)

(b) Using information from **Table 1**, as at 31 December 2023:

(i) calculate *FCT's* current ratio (*show all your working*); [2]

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(ii) calculate *FCT's* working capital (*show all your working*). [2]

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(c) Using the units of production method, calculate the expected depreciation expense of the new machine for year 1 (*show all your working*). [2]

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(Question 1 continued)

- (d) Explain the impact of purchasing the new machine on *FCT's* statement of financial position (balance sheet).

[2]

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2. Daniel Moon

Daniel Moon works in a garden centre. He wants to open a garden (yard) design business as a sole trader in January 2025. He surveyed garden centre customers and learned that demand exists for garden designers. Daniel has obtained a \$3000 bank loan for his new business and will also inject \$2000 of his personal funds into the business.

Daniel has prepared forecasted figures (**Table 2**) and a cash-revenue forecast (**Table 3**) for his new business for the first four months of operation in 2025.

Table 2: Daniel’s forecasted figures for his new business for the first four months of operation in 2025 (all figures in \$)

Personal funds	2000
Bank loan	3000
Van purchase in January	2000
Tools and equipment purchase in January	4000
Advertising every two months, starting in February	125
Cost of sales per month	400
Daniel’s monthly salary, starting in March	800
Loan repayments per month	200

Table 3: Daniel’s cash-revenue forecast for his new business for the first four months of operation in 2025. These figures include some orders secured by Daniel

	January	February	March	April
Forecasted cash revenue	\$2000	\$2100	\$2000	\$2500

(a) State **two** features of a sole trader.

[2]

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(Question 2 continued)

- (b) Using the information in **Table 2** and **Table 3**, complete the following cash-flow forecast, all figures in \$, for Daniel's new garden design business for the first four months of operation in 2025.

[4]

Opening balance				
Total cash inflows				
Total cash outflows				
Net cash flow				
Closing balance				

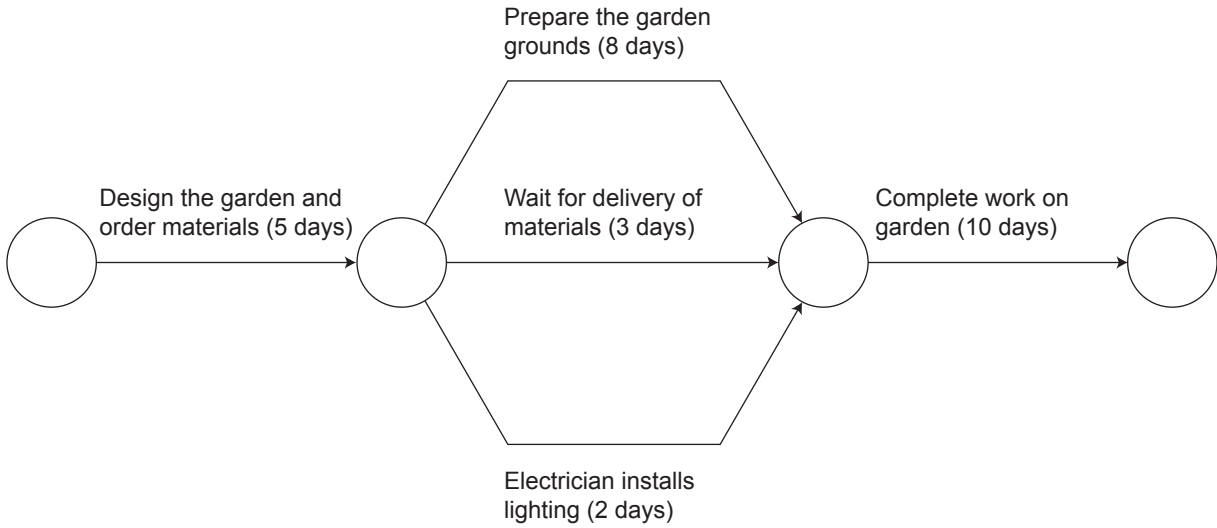
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(Question 2 continued)

Daniel also created a critical path diagram for a garden design project (**Figure 1**).

Figure 1: Daniel's critical path diagram for a garden design project



(c) Using **Figure 1**:

(i) determine the critical path and write the activities of the critical path in the boxes below;

[1]

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(ii) calculate the minimum amount of time required for Daniel to finish a garden design project (*no working required*).

[1]

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(Question 2 continued)

- (d) Explain **one** advantage for Daniel of using critical path analysis for a garden design project.

[2]

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3. Mulenga Enterprises (ME)

Mulenga Enterprises (ME) is a privately held company that invests in construction projects. Currently, the company is considering two projects:

- **Option 1:** A storage facility with a forecasted capital cost of \$1 million
- **Option 2:** A shopping centre with a forecasted capital cost of \$2 million

The chief financial officer (CFO) has started to prepare a decision tree for the two projects (**Table 4**).

Table 4: Decision tree started by the CFO

		Probability	Total returns for the next 3 years (\$ m)	Expected outcome (\$ m)
Option 1 Forecasted capital cost: \$1.0 m	Economy improves	0.3	2.5	1.65
	Economy is unchanged	0.4	1.5	
	Economy worsens	0.3	1.0	
Option 2 Forecasted capital cost: \$2.0 m	Economy improves	0.3	4.0	X
	Economy is unchanged	0.4	3.375	
	Economy worsens	0.3	(1.0)	

When the CFO was initially considering the two projects, she assumed a discount rate of 4%. However, immediately before *ME*'s management decided which project to choose, economic indicators suggested to the CFO that she should use a discount rate of 6%. Indications now suggest that the forecasted capital cost of **Option 2** is approximately \$200 000 too low.

Table 5: Discount rates at 4% and 6%

Years	Discount rate	
	4%	6%
1	0.9615	0.9434
2	0.9246	0.8900
3	0.8890	0.8396

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(Question 3 continued)

(a) State **one** advantage **and one** disadvantage of operating as a privately held company. [2]

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(b) Using **Table 4**, calculate the expected outcome, **X**, for **Option 2** (*show all your working*). [2]

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(Question 3 continued)

(c) Assuming that *ME's* **annual** profits are the same each year:

(i) calculate the average rate of return (ARR) for **Option 1** (*show all your working*); [2]

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(ii) calculate the net present value (NPV) for **Option 2** (*show all your working*). [2]

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(d) Explain **one** reason why the net present value (NPV) for **Option 2** may be inaccurate. [2]

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Section B

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

4. Chaltex PLC (CLX)

Eunju Kwak is the recently appointed chief executive officer (CEO) of *Chaltex PLC (CLX)*, a publicly held company. *CLX* specializes in recruitment and training services for large organizations throughout Southeast Asia.

Eunju has an autocratic leadership style. She sees herself as being in charge and as the only person capable of making important decisions. She plans for everything that might happen at *CLX*.

(a) Describe **one** disadvantage of an autocratic leadership style.

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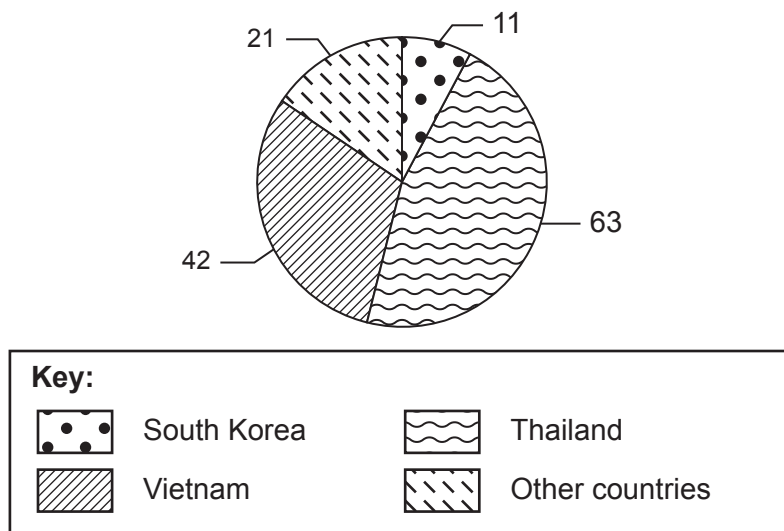
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CLX has grown significantly since the COVID-19 pandemic. It now has several large contracts to provide training courses to government departments in South Korea, Thailand, and Vietnam, where it hopes to further develop its services. The training *CLX* provides is customized to the needs of each organization. Eunju seeks feedback from training course participants through surveys that are completed at each training event.

Figure 2 and **Table 6** provide extracts from the latest survey results (March 2024–September 2024).

Figure 2: Number of organizations participating in the surveys



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(Question 4 continued)

Table 6: Survey questions (average marks out of 10)

	South Korea	Thailand	Vietnam	Other countries
Quality of the presentation	7.7	8.9	8.4	7.3
Quality of the course materials	7.2	7.9	8.1	7.1
Usefulness of the training to the job role	7.8	8.8	8.2	7.6
Trainer enthusiasm	6.8	9.5	8.7	8.6

(b) Using **Figure 2** and **Table 6**, comment on the survey carried out by Eunju. [2]

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(c) Explain **two** methods/techniques of primary market research, **other than** surveys, that Eunju could use to gather information to help her assess the training provided by *CLX*. [4]

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(Question 4 continued)

At a recent board meeting, concerns were raised about *CLX*'s falling sales in South Korea. In 2023, *CLX* had an adverse sales variance in South Korea. Sales were below the detailed sales forecasting that Eunju had carried out for the whole business. A further fall in sales in South Korea would severely impact any further growth.

- (d) Explain **one** advantage of sales forecasting for *CLX*. [2]

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Eunju wants to introduce contingency planning throughout *CLX*. The management of *CLX* presently deals with serious issues as they arise. Eunju has several concerns that she feels *CLX* should be planning for. These issues include changes in technology that may reduce the need for *CLX* to provide training in its current format, threats arising from *CLX* working internationally, and political unrest in the countries in which *CLX* operates.

Eunju believes that a move from crisis management to contingency planning would be beneficial to *CLX*.

- (e) Using the information provided in the stimulus and in **Figure 2** and **Table 6**, recommend whether *CLX* should engage in contingency planning. [10]

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5. De Soto Paint Company (DSP)

De Soto Paint Company (DSP) manufactures paint for commercial and residential use. The founder, who once owned 100 % of the share capital, had a paternalistic leadership style. Despite the company's growth, a paternalistic leadership style has been characteristic of *DSP's* management ever since.

DSP's founder believed in corporate social responsibility (CSR) long before it was popular. *DSP* is now a publicly held company and has six factories in the United States (US) and Mexico. *DSP* matches the location of production to regional demand for different paint colours. Paints are sold through franchises across the US and Mexico.

- (a) State **one** advantage **and one** disadvantage to a franchiser of retailing through franchises.

[2]

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(Question 5 continued)

Many factors, including culture and weather, influence where different paint colours sell. In 2023, *DSP* required all franchisees to connect their computer systems to that of *DSP*. This process was expensive for *DSP*, as franchise contracts did not specify software requirements. *DSP* paid for the cost of integrating systems.

Once the software integration was completed, *DSP* collected big data based on every tin of paint sold – colour, size, location, customer, even the time of day it was sold. *DSP* quickly became more competitive and more efficient and switched from just-in-case (JIC) production to just-in-time (JIT) production. Sales for *DSP* and the franchisees increased.

DSP's chief financial officer (CFO) had read that many companies, including some famous ones, relied on big data to boost sales (**Table 7**). He wanted *DSP* to do the same.

Table 7: Four companies making almost \$907 billion using big data

Company	2022 Revenue
Netflix	\$31.6 billion
Tesla	\$81.5 billion
Google	\$279.8 billion
Amazon	\$514 billion

- (b) Explain how *DSP*'s collection of big data could impact **two** of *DSP*'s stakeholder groups **other than** employees, management, and shareholders.

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(Question 5 continued)

The chief operating officer (COO) immediately saw the benefits of big data. He set up a cost centre and hired a data mining expert to run it. The data mining cost centre's purpose was to help *DSP* extract even more information from the operations and marketing of both the company and the franchisees. The data mining expert also suggested that this cost centre become a profit centre. The profit centre would sell data to companies in related industries, such as construction services and home decorating services.

Because *DSP* had a profit-related pay scheme for all employees, the idea of having a big data profit centre appealed to many employees. The data mining cost centre was converted into a profit centre.

(c) With reference to *DSP*, distinguish between a cost centre and a profit centre. [4]

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(Question 5 continued)

The data mining expert also had an idea for using management information systems to help *DSP* improve its operations: start monitoring employee activity in the six factories. If employee identification badges were fitted with a microchip, *DSP* could monitor each employee's movements. Employees not working hard enough or taking too many breaks could be punished and, if necessary, dismissed. According to the data mining expert, operations efficiency would increase significantly.

DSP adopted the plan, but many employees accused management of digital Taylorism, and labour turnover increased. Prior to the adoption of the plan, *DSP's* labour turnover had been low compared to other paint manufacturers.

- (d) Using information in the stimulus and **Table 7**, discuss the impact on *DSP* of its use of data mining to inform decision making **and** its use of data to monitor and manage employees.

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References:

Table 7. Leo, 2023. *4 Companies Making Almost \$907 Billion Using Big Data*. [blog] Consult Port, April 29. Available at: <https://consultport.com/for-companies/4-companies-making-almost-907-billion-using-big-data/> [Accessed 19 February 2024]. Source adapted.



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