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Business management
Higher level
Paper 2

Monday 3 May 2021 (morning)

1 hour 45 minutes

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 one question.
- Section B: answer two questions.
- A calculator is required for this examination paper.
- The maximum mark for this examination paper is **[50 marks]**.

Section A

Answer **one** question from this section.

1. The Pie Store (TPS)

The Pie Store (TPS) bakes pies and sells them in its three retail stores. When developing its brand, *TPS* used the mathematical symbol pi (π). In 2020, each store made a profit.

Table 1: Financial information for *TPS*' three retail stores for 2020 (all figures in \$)

	Store 1	Store 2	Store 3
Sales	180 000	223 000	170 000
Cost of goods sold	90 000	120 000	85 000
Gross profit	90 000	103 000	85 000
Expenses	66 000	76 000	67 000
Net profit before interest and tax	X	Y	Z

At the end of 2020, the balance sheet for *TPS* (the three stores combined) showed \$200 000 in assets and \$120 000 in liabilities. \$50 000 of the liabilities was long-term debt.

- (a) Describe **one** step in the development of a brand. [2]
- (b) Calculate:
 - (i) which store made the highest net profit before interest and tax (*no working required*); [1]
 - (ii) which store had the highest profitability (*show all your working*). [2]
- (c) Calculate:
 - (i) *TPS*' equity; [1]
 - (ii) *TPS*' return on capital employed (ROCE) (*show all your working*). [2]
- (d) Explain **one** effect that the \$50 000 long-term debt may have on *TPS*' profit and loss account. [2]

2. Sharon's Super Lunches (SSL)

Sharon's Super Lunches (SSL) is a cooperative that provides healthy school lunches. The lunches are delivered daily to students, who order them online. *SSL* aims for a minimum order size of 50 lunches to deliver to a school.

Table 2: Sales and other financial information for *SSL* for one week

Forecasted sales of lunches	3200
Maximum sales of lunches	4000
Price of lunches	\$10.20
Variable costs per lunch	\$6.40
Fixed costs for <i>SSL</i>	\$7980

SSL is considering a new promotional strategy for healthy school lunches: they will donate a free school lunch to a student in a lower-income area for each lunch purchased in a higher-income area.

- (a) Describe **one** feature of a cooperative. [2]
- (b) Using total contribution, calculate the forecasted total profit for *SSL* **before** the introduction of the new promotional strategy (*show all your working*). [2]
- (c) Construct a fully labelled break-even chart for *SSL* for **before** the new promotional strategy is introduced (*show all your working*). [4]
- (d) Explain **one** advantage to *SSL* from implementing the new promotional strategy. [2]

Section B

Answer **two** questions from this section.

3. Soft Skin Cosmetics (SSC)

Soft Skin Cosmetics (SSC) is a private limited company that produces a small range of face creams and soaps. Its products are designed and produced in the United States, and are made from safe, natural ingredients.

SSC has a product-orientated marketing approach. Tiffany Presley, one of the company's co-founders, believes that SSC's consumers value health above fashion. "The skincare market is full of toxic products, but ours are healthy even if they don't smell or look as nice," she says. Chelsea Presley, SSC's other co-founder, wants to develop the first sunscreen free of synthetic chemicals. However, product innovation is costly and risky. If the new sunscreen is a failure, several years of research and development costs will be wasted, which SSC cannot afford. SSC currently lacks the scale to innovate.

SSC does not pay for advertising. It relies on social media and word-of-mouth promotion. Its brand awareness is very high among young women, and customer reviews are very positive about SSC's quality and effectiveness. The company only sells online, not in retail outlets. To reach unsatisfied demand domestically and internationally, SSC would have to broaden its current distribution channels.

SSC practises corporate social responsibility (CSR). It does not test its products on animals, and supports several charities protecting endangered species. Pressure groups publicly recognize SSC's commitment to animal welfare.

Currently, multinational companies dominate the global skincare market. Small emerging companies rarely survive. Chelsea wants to convert SSC to a public limited company, but Tiffany disagrees: she argues that shareholder pressure toward profit maximization could jeopardize consumer and animal safety.

- (a) State **two** features of product innovation. [2]
- (b) Explain **one** advantage **and one** disadvantage for SSC of having a product-orientated marketing approach. [4]
- (c) Explain **one** advantage **and one** disadvantage to SSC of practising corporate social responsibility (CSR). [4]
- (d) Discuss Chelsea's idea to convert SSC into a public limited company. [10]

4. ReVolve Ltd (RV)

ReVolve Ltd (RV) manufactures and sells high-quality, high-priced bicycles to high-income earners. Operating in a niche market, its advertising slogan and unique selling point/proposition (USP) is “hand made to order, in the USA, delivered within seven days”. Brand loyalty is strong, but brand recognition outside of its customer base is weak. 98 % of its sales are to customers living within 50 miles of the business.



Prior to 2017, *RV* received an increasing number of customer complaints that phone lines were often engaged and calls not returned. As such, it adopted e-commerce. Its website now allows customers to:

- customize their choice of bicycle
- place orders
- pay for purchases
- have their questions answered.

RV employs 20 highly paid, skilled employees using job production. To retain these workers, *RV* has raised their wages significantly since 2016.

Increasing competition from imports of hand-made high-quality bikes has forced down prices in this niche market. *RV* has been making increasingly larger losses since 2017. In 2020, its sales fell by 15 %. Inflation is forecasted at between 2 % and 3 % for the next three years. As such, *RV*’s directors are considering two options to enable it to lower the prices of its bicycles.

Option 1: Offshore production to China, where production costs are significantly lower. The bicycles would be manufactured using batch production. *RV* would focus only on the design and marketing of its bicycles.

Option 2: Invest in new job production techniques that enable parts to be glued rather than welded, which only requires unskilled labour. Investment would cost \$3 500 000 and the forecasted annual net cash flow is \$600 000.

- | | |
|---------------------------------------------------------------------------------------------------------------|------|
| (a) Define the term <i>niche market</i> . | [2] |
| (b) Explain two benefits to <i>RV</i> of the decision to adopt e-commerce. | [4] |
| (c) (i) Calculate the payback period if <i>RV</i> chooses Option 2 (<i>show all your working</i>). | [2] |
| (ii) Explain one disadvantage to <i>RV</i> of using the payback period method of investment appraisal. | [2] |
| (d) Recommend whether <i>RV</i> ’s directors should choose Option 1 or Option 2 . | [10] |

5. KapTan

KapTan (KT), which manufactures rechargeable batteries for cordless consumer products like vacuum cleaners, began five years ago as a business with a product orientation. It sells business to business (B2B). Multinational companies dominate the rechargeable battery industry, and *KT* suffered from cash-flow problems in its first year of trading. Its profits are small and, in the last two years, have fallen.

KT has now developed an innovative battery that is small and lightweight. This battery is an emergency power source allowing electric cars to reach a charging station. However, the battery can only be used ten times before it runs out. *KT* has insufficient finance to create a battery that can be recharged an unlimited number of times.

Through market research, *KT* has discovered that:

- no other emergency batteries for electric cars exist
- owners of electric cars fear running out of power
- *KT*'s new battery could be obsolete in five years.

KT has the capacity to produce 90 000 of these new batteries each year. The average cost is \$200 per unit. *KT* has insufficient funds to invest in additional capacity.

KT is considering two options:

Option 1: Market and sell directly to existing car owners through business to consumer (B2C) at a retail price of \$400. *KT* will need to borrow significant capital to finance this option.

Option 2: Accept an offer of a five-year strategic alliance with a manufacturer of electric cars. *KT* would provide its product exclusively at \$250 per unit. Sales are guaranteed.

Table 3: *KT*'s forecasted and guaranteed worldwide unit sales (in 000s) for the two options

Year	Option 1 forecasted sales	Option 2 guaranteed sales
1	50	40
2	60	50
3	100	85
4	110	80
5	90	60
Total sales	410	315

- (a) Define the term *product orientation*. [2]
 - (b) With reference to **Option 1**, for *KT*, explain the relationship between the product life cycle, investment, profit and cash flow. [4]
 - (c) With reference to *KT*, explain **two** problems that a new business may face. [4]
 - (d) Recommend whether *KT* should choose **Option 1** or **Option 2**. [10]
-

References:

4. [Bicycle] Hall, E., (2006). My new bicycle [online]. Available at <https://www.flickr.com/photos/mulegirl/99132433> (CC BY-SA 2.0) <https://creativecommons.org/licenses/by-sa/2.0/> [accessed 29 August 2019].

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Business management
Standard level
Paper 2

Friday 29 April 2022 (morning)

1 hour 15 minutes

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 one question.
- Section B: answer one question.
- A calculator is required for this examination paper.
- The maximum mark for this examination paper is **[30 marks]**.

Section A

Answer **one** question from this section.

1. AXL

AXL has two factories, in which it manufactures aluminium cans for the soft drinks industry. AXL has a maximum production capacity of 80 million cans per year.

Table 1: AXL's forecasted sales revenue and costs for 2023

Output (millions)	Total fixed costs (\$m)	Total variable costs (\$m)	Total revenue (\$m)
0	5.0	0	0
10	5.0	0.5	1.5
20	5.0	1.0	3.0
30	5.0	1.5	4.5
40	5.0	2.0	6.0
50	5.0	2.5	7.5
60	5.0	3.0	9.0
70	5.0	3.5	10.5
80	5.0	4.0	12.0

AXL plans to close its two factories and move production to a new, larger factory to obtain economies of scale.

In the first six months of 2022, increased competition led to a fall in AXL's sales. For the final two months of 2022, AXL plans to increase the trade credit period it offers to customers from 30 to 60 days.

- (a) Define the term *economies of scale*. [2]
- (b) Using **Table 1**, calculate:
 - (i) the contribution per unit (*show all your working*); [2]
 - (ii) the break-even level of output (*no working required*). [1]
- (c) If AXL produces 75 million cans in 2023, using **Table 1**, calculate:
 - (i) the margin of safety (*no working required*); [1]
 - (ii) the profit (*show all your working*). [2]
- (d) Explain the potential impact on AXL if it implements its planned increase in trade credit period. [2]

2. Ritev Enterprises (RE)

Ritev Enterprises (RE) is a public limited company that owns a chain of 20 gas (petrol) stations. Next year, *RE* plans to modernize its gas stations by installing self-service pumps.

Table 2 provides selected financial data for *RE* from:

- the profit and loss account for year ending 31 May 2021
- the balance sheet as of 31 December 2021.

Table 2: Selected financial data for *RE*

	\$m
Accumulated retained profit	5
Cash	1
Cost of goods sold	80 000
Creditors	6
Dividends	1
Expenses	185
(Net) fixed assets	50
Long-term liabilities	15
Overdraft	1
Sales revenue	100 000
Share capital	29
Stock	5

The finance director is concerned about the trend in consumer preference for electric cars and the potential impact of increased numbers of electric cars on *RE*.

- (a) State **two** appropriate external sources of finance that *RE* could use to modernize its gas stations. [2]
- (b) (i) Construct a fully labelled balance sheet for *RE* as of 31 December 2021. [5]
 - (ii) Calculate *RE*'s gross profit margin (*no working required*). [1]
- (c) Explain the potential impact of the increasing popularity of electric cars on *RE*'s costs **and** revenues. [2]

Section B

Answer **one** question from this section.

3. Hums Athletics (HA)

Hums Athletics (HA) manufactures running shorts, sweat shirts, and sports bras. Operating only in the secondary sector, *HA* has a head office and three manufacturing facilities, one for each product. These are located in its home country in Europe. Labour costs are high. The quality of labour is excellent.

HA produces goods under its own *HA* brand, which it sells to wholesalers. *HA* also manufactures for other sportswear companies. *HA* puts the other sportswear companies' logos on the running shorts, sweat shirts, and sports bras. Sales to other sportswear companies are an important revenue stream for *HA*.

HA has many levels of hierarchy. Managers at each level have a narrow span of control, and the company is organized by product. *HA*'s management believe that these features of organizational structure ensure product quality, which they view as essential for brand loyalty.

The sportswear manufacturing industry is becoming more competitive. Some foreign manufacturers have begun using penetration pricing to gain market share. For three years, none of *HA*'s revenue streams have increased, despite increasing unit sales. *HA*'s gross and net profit margins have declined. However, its sales have increased for the last three years. *HA* has had to raise additional external finance to increase production.

In response to the increasing competition, *HA* is considering two options:

- **Option 1:** Outsourcing some of its manufacturing overseas.
- **Option 2:** Entering the rapidly growing online business-to-consumer (B2C) retail market.

Market research has shown that consumers increasingly expect to buy online.

- (a) State **two** ways in which market share can be measured. [2]
- (b) Draw an organization chart for *HA*. [4]
- (c) Explain:
 - (i) the impact of price changes by foreign competition on *HA*'s break-even point; [2]
 - (ii) why *HA* had to raise additional external finance to increase production. [2]
- (d) Recommend whether *HA* should choose **Option 1** or **Option 2**. [10]

4. Red Squirrel Apple Juice (RS)

Red Squirrel Apple Juice (RS) is a cooperative of apple farmers. *RS* was named after the red squirrel, whose population is declining because of growing numbers of grey squirrels. Originally from North America, grey squirrels are aggressive and take over red squirrels' habitats. *RS*'s founders thought that the red squirrel would be a good symbol to reverse the declining popularity of traditional apple juice due to consumer preference for high-sugar American-style beverages. With the symbol, *RS* aimed to appeal to environmentally aware and health-conscious consumers.



Originally, *RS* only sold apple juice in bulk to beverage companies. These companies bottle the juice and sell it under their own labels. *RS* requires these companies to place *RS*'s logo of a red squirrel on their labels. Although *RS* only sells to a small number of beverage companies, its logo is on juice bottles in stores across the country.

Awareness of the *RS* brand grew. The cooperative's managers recently opened another channel of distribution: direct sales of bottled juice to consumers at the cooperative's processing plant. *RS* charges lower prices than stores. The new channel of distribution required capital expenditure for bottling equipment and additional revenue expenditure. *RS* experienced increased labour and promotion costs, which some farmers complained about.

In recent decades, *RS*'s home country has experienced rising anti-immigrant sentiment. Some politically motivated organizations have begun to use images of red squirrels to symbolize this sentiment, so some beverage companies no longer want to use *RS*'s logo on their labels.

Some of *RS*'s stakeholders are concerned.

- (a) State **two** features of a cooperative. [2]
- (b) With reference to *RS*, explain the importance of branding. [4]
- (c) With reference to *RS*, explain the difference between capital expenditure **and** revenue expenditure. [4]
- (d) Discuss **two** possible areas of conflict between the interests of *RS*'s stakeholders. [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 may damage employee motivation at *FR*'s head office. [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]

References: