Diploma Programme
Programme du diplôme
Programa del Diploma

Business management
Higher level and standard level
Paper 1

29 April 2026

Zone A afternoon | **Zone B** afternoon | **Zone C** afternoon

1 hour 30 minutes

Instructions to students

- Do not open this examination paper until instructed to do so.
- Read the case study carefully.
- Section A: answer all questions.
- Section B: answer one question.
- You are permitted access to a calculator for this paper.
- The maximum mark for this examination paper is **[30 marks]**.

5 pages

2226 – 3017

Abraca (ABC)

Abraca (*ABC*), a publicly held company, is Country Z’s largest concrete producer. *ABC* purchases large quantities of limestone and clay aggregates to manufacture cement to make concrete. Half of the world’s buildings are made from concrete.

As part of *ABC*’s research into using recycled products as aggregates in concrete, *ABC*’s scientists discovered, by chance, a process to recover gold and other precious metals from electronic circuit boards (e-waste) at room temperature. Previously, the only way to recover precious metals from circuit boards was by burning them at extremely high temperatures, which is a carbon-intensive process. Circuit boards from discarded electronic products, such as computers, mobile (cell) phones and games consoles, create 50 million tonnes of e-waste globally every year. Only 20 % of this e-waste is recycled, with 80 % of it going to landfill.

In 2024, *ABC* opened a factory to process e-waste. Weekly, this factory processes 100 tonnes of circuit boards. Annually, it recovers hundreds of kilograms of gold, which *ABC* sells to jewellery makers.

ABC is considering:
- increasing efficiencies in its current concrete production
- methods to reduce its impact on the environment
- becoming more market-orientated
- growth options.

ABC separated the business into two divisions: the Concrete division and the Gold division. *ABC*’s e-waste factory uses a batch production method to recover gold. The complexity of this process, along with dangers from the toxic metals that are its byproduct, have prevented *ABC* from using job rotation.

The factory uses expensive plastic-shredding machinery purchased using trade credit and a small overdraft. The factory setup costs were $120 million and were financed by a bank loan (loan capital) of $50 million, $35 million of retained profits, and another $35 million by the sale of new shares.

The market for concrete is very competitive. Some customers select their concrete supplier solely on price. Initially, *ABC* found it challenging to differentiate itself from competitors. Until 2024, neither *ABC* nor its main competitor delivered concrete on weekends. However, some customers, particularly smaller construction companies, wanted weekend deliveries. *ABC* now delivers concrete seven days a week. *ABC*’s records show that repeat business improved in 2025 and that sales increased by 10 %.

Last month, *ABC* conducted a survey of all its customers. The research revealed that:
- 80 % regard *ABC* as a leading concrete supplier
- 90 % see *ABC* as a business that cares about customers
- 85 % would use *ABC* again
- 75 % would recommend *ABC* to other businesses.

ABC’s concrete production doubled between 2019 and 2024. Production increased to supply concrete for the government’s road modernization scheme. *ABC*’s purchases of limestone and clay aggregates to make concrete more than doubled during these five years. *ABC* also invested in expensive machinery and solar panels that improved the efficiency of its concrete production.

In 2025, the Concrete division’s profit margin was 6 % —just above the target of 5.75 % set by the board of directors. *ABC* benefits from internal economies of scale, but the directors are concerned that its main competitor may start using predatory pricing.

The profit margin on recovered gold is three times that of concrete. *ABC*’s board of directors decided to open a second factory to increase *ABC*’s gold output.

ABC’s marketing director suggested that instead of selling its gold through business-to-business (B2B), *ABC* should:

- use it to produce a range of expensive jewellery
- either open *ABC* jewellery shops or take over an existing chain of jewellery shops
- charge premium prices.

ABC identified *Vam3 PLC* (*V3*) as a target for the proposed takeover. *V3* owns 250 jewellery shops, where it sells jewellery made in its own workshops.

V3’s jewellery, made from gold and silver, targets younger consumers wanting affordable fashion jewellery. A famous actor recently wore a piece of *V3*’s jewellery at an award ceremony.

In June 2025 *V3*’s share price fell from $3.25 to $1.05 following an after-dinner speech to entrepreneurs made by *V3*’s chairman, Justin Treble. He told the audience that *V3*’s jewellery was “cheap and purchased by consumers who didn’t know any better”. A recording of this speech, uploaded from a mobile (cell) phone onto a social media platform, went viral. Justin resigned. *V3*’s sales have fallen by 50 % since the speech.

At a share price of $1.05, a takeover of *V3* would cost $225 million. *V3*’s latest statement of financial position (balance sheet) valued its 250 shops at $305 million and its non-current liabilities at $125 million. *ABC* has retained profits of $200 million and non-current liabilities of $10 million.

In 2026, *ABC* launched a new concrete brand, Eco-concrete, as an alternative to stone aggregate. Eco-concrete was made using recycled plastic from e-waste, which was cheaper than stone and reduced the cost of concrete by 5 %. *ABC*’s competitors do not use recycled plastic. *ABC*’s laboratory tests found that Eco-concrete was an equal match to traditional concrete in strength, durability and safety. However, social media posts suggested that *ABC*’s laboratory tests were inaccurate and questioned Eco-concrete’s safety for home construction.

ABC’s output of Eco-concrete is currently 5 % below the break-even point, as sales are 60 % lower than forecast, causing a build-up of large stocks of unused plastic. Limited storage space has forced *ABC* to use a recycling company to remove the plastic at a cost of $5 million. However, recent news reports have revealed that most of this plastic ended up in landfill sites in less developed countries. *ABC*’s board of directors fear damage to *ABC*’s reputation.

Future Growth Foundations (*FGF*), a small construction company that builds low-cost houses for low-income groups, has approached *ABC*. *FGF* made a profit of $4 million in 2025 on sales of $50 million. *FGF* wants to form a joint venture with *ABC* to build eco-friendly houses targeted at high-income groups. Sales of eco-friendly houses are forecast to grow significantly, and other construction companies are entering the market.

FGF's eco-friendly houses would be built using *ABC*'s Eco-concrete. Annually, 25 % of *ABC*'s Eco-concrete output would be used by the joint venture. *FGF* agreed to promote Eco-concrete in its marketing. *ABC* would contribute $40 million to the joint venture to purchase land on which to build eco-friendly houses. In return, *ABC* would receive 20 % of the joint venture's profits annually. **Table 1** shows forecasted profits for the joint venture.

Table 1: Forecasted profits for the joint venture with *FGF,* 2026–2029

Year	$ millions
2026	15
2027	25
2028	30
2029	30

Section A

Answer **all** questions from this section.

1. Define the term *job rotation*. [2]

2. State **two** features of batch production. [2]

3. Describe **two** long-term sources of finance used by *ABC*’s Gold division’s. [4]

4. Explain **two** benefits for *ABC* of differentiating itself and its concrete products from competitors. [6]

5. Explain **two** internal economies of scale from which *ABC*’s Concrete division has benefited. [6]

Section B

Answer **one** question from this section.

6. Discuss whether *ABC* should take over *V3*. [10]

7. Discuss whether *ABC* should form a joint venture with *FGF*. [10]