Week 19

A-Level Business

Homework bundle for this week

本周作业合集

exercises.lol

Contents 目录

A-Level Business Name: ______________ Score: ______

1. Operations management turns:
   - ☐ inputs into outputs
   - ☐ profit into shares
   - ☐ customers into suppliers
   - ☐ costs into prices
2. Making a single, unique product to order is:
   - ☐ job production
   - ☐ batch production
   - ☐ flow production
   - ☐ mass production
3. On a stock control chart, the re-order level is the stock level at which:
   - ☐ a new order is placed
   - ☐ production must stop
   - ☐ the warehouse is full
   - ☐ stock reaches zero
4. A firm can make 4,000 units but makes 3,000. What is its capacity utilisation (%)?

   ____
5. 6 workers produce 480 units. What is labour productivity (units per worker)?

   ____
6. Continuous mass production on an assembly line is:
   - ☐ flow production
   - ☐ job production
   - ☐ batch production
   - ☐ cell production
7. Buffer stock is held to:
   - ☐ cope with delivery delays or demand spikes
   - ☐ maximise the cash tied up in stock

- ☐ slow down production
- ☐ avoid ever ordering

8. Effectiveness is about actually meeting the objective, such as quality and on-time delivery.

   ☐ True ☐ False

9. Automation suits high-volume, standardised production better than bespoke work.

   ☐ True ☐ False

10. Lead time is the gap between placing an order and receiving the delivery.

   ☐ True ☐ False

A-Level Business

1. **inputs into outputs**

   Operations is the transformation of inputs into outputs.

2. **job production**

   Job production makes one bespoke item at a time.

3. **a new order is placed**

   Reaching the re-order level triggers a new order.

4. **75**

   $3000 / 4000 \times 100 = 75\%$.

5. **80**

   $480 / 6 = 80$ units per worker.

6. **flow production**

   Flow production runs continuously, giving a low unit cost.

7. **cope with delivery delays or demand spikes**

   Buffer stock is a safety minimum.

8. **True**

   Effectiveness = achieving the goal; efficiency = doing so without waste.

9. **True**

   For one-offs, skilled labour is often cheaper and more flexible.

10. **True**

    Longer lead times require higher buffer stock.

A-LEVEL BUSINESS • EXERCISE SHEET

4.1 The nature of operations

Name: ____________ Class: ________ Date: __________ **Total: 29 marks**

KEY WORDS operations 运营 • productivity 生产率 • flow production 流水线生产 • transformation process 转化过
• inputs 投入

Objective

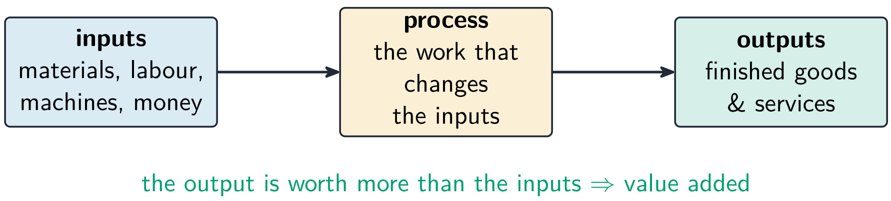
Build the skills to answer exam questions on **the nature of operations** 运营的本质 — the **transformation process** 转化过程, **productivity** 生产率, **capital- and labour-intensive** 资本密集型和劳动密集型 operations, and the **methods of production** 生产方法.

You must be able to:

- describe the transformation process and how operations add value
- calculate **productivity** and explain efficiency
- analyse and evaluate the choice of production method

1 Worked examples

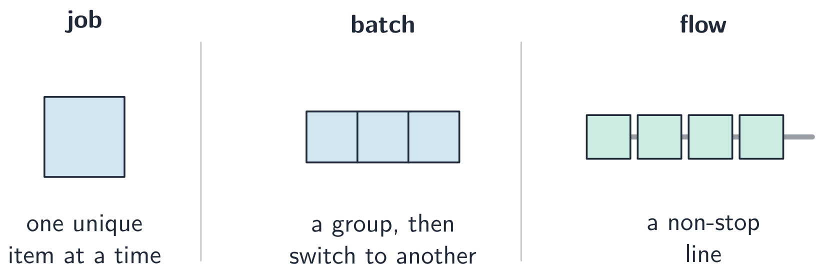
■ Inputs, outputs and productivity



$$\textit{Inputs} \to \textit{process} \to \textit{outputs: value is added in the process}$$

$$\text{productivity} = \frac{\text{output}}{\text{input used}}$$

- **Worked:** 600 units made by 20 workers $\to \frac{600}{20} = 30$ units per worker.
- **Methods:** *job* (one unique item), *batch* (a group then a switch), *flow* (non-stop line, low unit cost, needs high steady demand).



The three methods of production: job, batch and flow

- **Capital-intensive** = mostly machines (high set-up, low unit cost); **labour-intensive** = mostly people (flexible, personal).

Answer shapes: AO1 + AO2 + AO3 (reasoning chain) + AO4 (a supported judgement *in context*).

2 Practice

2.1 Define the term *productivity*. [2]

2.2 A team of 5 workers makes 200 units in a shift. Calculate the productivity per worker. [2]

2.3 State the difference between *job* and *flow* production. [2]

3 Exam-style questions

3.1 Explain one benefit to a business of raising its productivity. [3]

3.2 Analyse two benefits to a manufacturer of using **flow production**. [8]

3.3 A furniture maker is choosing between **job** and **batch** production. Evaluate which method it should use. [12]

Solutions

Business answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

2.1 the amount of output produced from a given amount of input (output per unit of input) (2 for a clear definition; 1 for a partial idea).

2.2 $\frac{200}{5} = 40$ units per worker (2; award 1 for a correct method with the wrong figure).

2.3 job production makes one unique item at a time; flow production makes identical items non-stop on a line (2 for a clear difference; 1 for a partial idea).

3.1 *[3]* **AO1** 1 — name a benefit (lower cost per unit; more output; can compete on price). **AO2** up to 2 — develop it, e.g. higher productivity spreads fixed costs over more units → lower unit cost → the firm can cut price or raise its margin (2 developed / 1 limited).

3.2 *[8]* For **each** of two benefits: **AO1** 1 + **AO2** 1 + **AO3** up to 2. Example chains — *low unit cost*: machines run non-stop → many identical units → economies of scale → low cost per unit. *Consistent quality*: a standard line → every unit is the same → fewer defects and complaints. Maximum 4 per benefit, 8 total.

3.3 *[12]* **AO1** 2 / **AO2** 2 / **AO3** 2 / **AO4** up to 6. **Job:** unique, high-quality, custom furniture → higher price, but slow and costly per unit. **Batch:** groups of the same design → lower unit cost and some variety, but switching causes downtime and stock. Judgement: a maker of custom pieces should use job production; one selling several standard ranges should use batch — it depends on how varied the products are and the level of demand.

3 **(a)** Define the term *labour productivity*. [2]

(b) Explain **one** way that a business can improve labour productivity. [3]

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2 Law Advice Forum (LAF)

Drake has a law degree and works for a partnership of lawyers during the day. Drake owns a website that gives free legal advice. He works on the website in the evenings and at the weekend.

He started the website as a hobby, but the website has grown to over 20000 users and he now sells advertising on his videos and on the website.

Drake uses outsourcing for some areas of his website. He has recently been sent a report showing variances in the budget from the previous month (see Table 2.1).

Table 2.1 Budget report for Drake's website in the previous month

	Budget	Actual
Total revenue	$4500	$4000
Total costs	$600	$750
Profit	$3900	$3250

Drake has now left his job and is focusing full time on the website. He rebranded the website as Law Advice Forum (LAF). Drake's business plan for LAF included:

- Operating as a sole trader.
- Continuing to develop and expand the website to provide legal advice and paid legal services.
- Renting an office in city G where all employees would work.
- Hiring five fully qualified lawyers.
- Hiring three administrators.
- Leasing IT equipment.

However, Drake is concerned about the limitations LAF will face as a labour intensive operation.

(a) **(i)** Identify **one** external stakeholder of a business partnership. [1]

(ii) Explain the term *outsourcing*. [3]

(b) **(i)** Refer to Table 2.1. Calculate the profit variance for Drake's website in the previous month. State whether the variance is favourable or adverse. [3]

(ii) Explain **one** way Drake could use the budget data in Table 2.1. [3]

(c) Analyse **two** possible limitations for LAF as a labour intensive operation. [8]

(d) Evaluate the most important responsibilit Drake has as the owner of LAF. [12]

1 Solar Farms (SF)

SF is a private limited company that develops and maintains large-scale solar farms in country X. SF operates as a capital intensive business.

Bob is an entrepreneur and the majority shareholder of SF. He invested into SF's first solar farm. SF took out high-interest bank loans to cover initial cash flow problems and provide working capital. SF used internal (organic) growth over the next 10 years.

SF rents fields from farmers. Its main capital expenditure is solar panels, which are installed on the rented fields. The solar panels generate electricity, which SF sells to energy providers. Solar panel technology is constantly improving.

SF operates five solar farms in country X. A team of seven engineers maintain all of SF's solar farms.

Table 1.1 shows SF's budgeted and actual data for 2024.

Table 1.1 SF's annual budgeted and actual data for 2024

	Budget ($m)	Actual ($m)
Revenue	5	4
Total costs	3	3.75
Profit	2	0.25

Bob has identified that SF can increase its revenue by using batteries to store electricity generated by the solar panels. This electricity can then be sold at peak times for premium prices. This will require significant investment into battery technology.

Bob wants to retain control of SF but is concerned about the investment required for further growth. In 2024 the cost of renting new farmland and purchasing solar panels increased significantly.

ZB is a multinational battery manufacturer that is keen to start a joint venture with SF. If the joint venture goes ahead, ZB will insist that SF uses ZB batteries in all future solar farms.

(a) **(i)** Identify **one** quality an entrepreneur needs for success. [1]

(ii) Explain the term *working capital*. [3]

(b) **(i)** Refer to Table 1.1. Calculate the profit variance for SF in 2024. State whether the variance is favourable or adverse. [3]

(ii) Explain **one** drawback to SF of using budgets. [3]

(c) Analyse **two** limitations to SF of operating as a capital intensive business. [8]

(d) Evaluate whether a joint venture is the most appropriate way for SF to grow. [12]

3 **(a)** Define the term *capital intensive operations*. [2]

(b) Explain **one** limitation to a business of labour intensive operations. [3]

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1 **Town Trucks (TT)**

TT is a private limited company in country J. TT has contracts to deliver products to secondary, tertiary and quaternary sector businesses.

QZ is one of the largest manufacturers in country J and plans to outsource its supply chain management. A contract has been agreed between TT and QZ based on the following cost and revenue data (see Table 1.1). TT's Sales Manager has forecast that TT will make 5000 deliveries with the new contract.

Table 1.1 Cost and revenue forecast for the QZ contract

	$
Direct costs (average per delivery)	5
Total indirect costs	9000
Total revenue	40000

TT employs 120 drivers. The majority of these drivers are white men aged between 40 and 60. A national newspaper has recently criticised the truck industry in country J for not having diversity and equality in the workplace.

Klide, the Marketing Manager, has been set an objective to increase TT's revenue. He has decided to target small online retailers. TT will pick up individual products from the small online retailers and deliver them to households. This would require a new fleet of smaller trucks but has the potential to increase TT's revenue. Klide plans to use digital promotion to target these small online retailers.

(a) **(i)** Identify **one** business activity within the quaternary sector. [1]

(ii) Explain the term *supply chain management*. [3]

(b) **(i)** Refer to Table 1.1 and other information. Calculate TT's forecast total profit from the QZ contract. [3]

(ii) Explain **one** reason why TT needs accurate cost information. [3]

(c) Analyse **two** advantages to TT of improving diversity and equality in the workplace. [8]

(d) Evaluate the usefulness of digital promotion to TT when targeting small online retailers. [12]

2 **(a)** Define the term ‘sustainability’. [2]

(b) Explain **one** reason why a manufacturing business might take measures to improve the sustainability of its operations. [3]

4.2 Inventory management

Name: ____________ Class: ________ Date: __________ **Total: 29 marks**

KEY WORDS inventory 库存 • re-order level 再订货水平 • buffer inventory 缓冲库存 • lead time 交货周期 • just-in-time 准时制

Objective

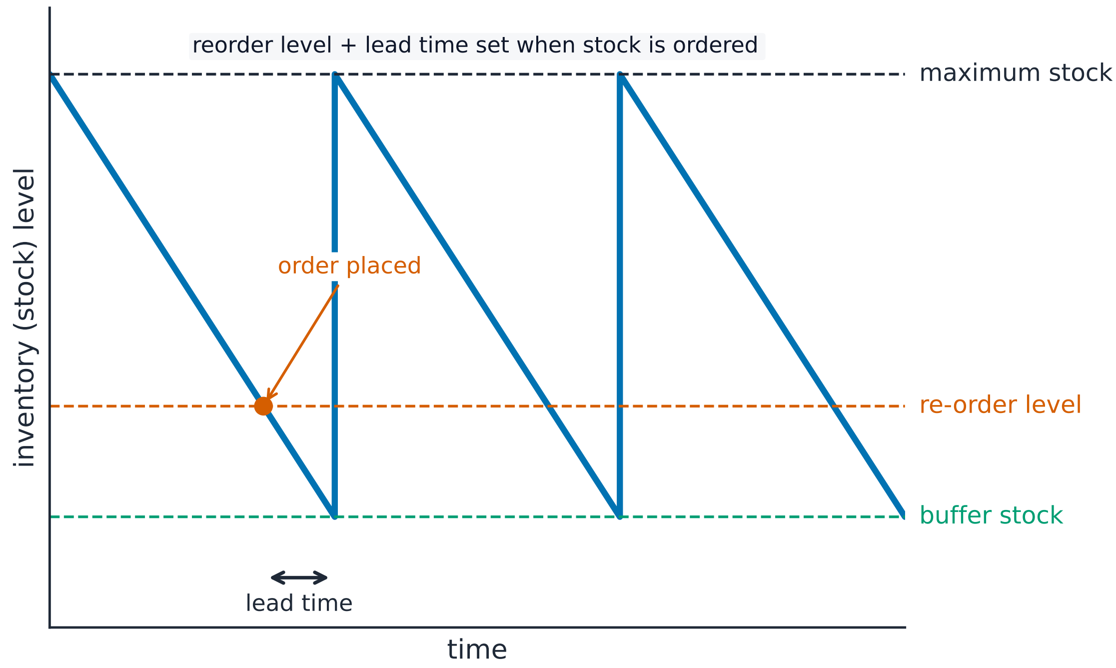
Build the skills to answer exam questions on **inventory management 库存管理** — why firms hold **inventory 库存**, the **inventory control chart 库存控制图** (re-order level, lead time, buffer stock), and **just-in-time 准时制** versus **just-in-case 备货制**.

You must be able to:

- explain the costs and benefits of holding inventory
- read an inventory control chart (re-order level, lead time, buffer, maximum)
- analyse and evaluate JIT versus JIC stock control

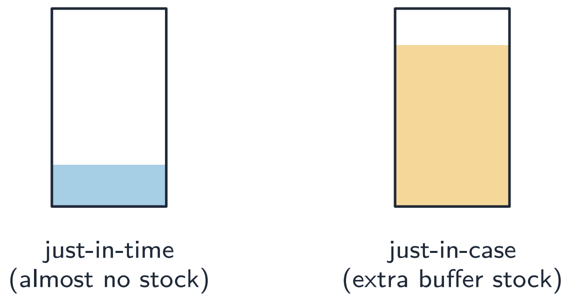
1 Worked examples

■ **Reading an inventory control chart**



Stock falls as it is used, an order is placed at the re-order level, and arrives after the lead time

- **Re-order level:** the stock level that triggers a new order. **Lead time:** order → delivery.
- **Buffer inventory:** minimum safety stock for delays/extra demand. **Maximum inventory:** the most held.
- **JIT:** stock arrives as needed → almost none held → low holding cost, but a late delivery stops production. **JIC:** extra stock held → safer, but costs more to store.



Just-in-time versus just-in-case stock control

Answer shapes: AO1 + AO2 + AO3 (reasoning chain) + AO4 (a supported judgement *in context*).

2 Practice

2.1 Define the term *buffer inventory*. [2]

2.2 State what is meant by *lead time*. [2]

2.3 State two costs to a business of holding inventory. [2]

3 Exam-style questions

3.1 Explain one reason why a business holds buffer inventory. [3]

3.2 Analyse two benefits to a business of using a **just-in-time** (JIT) system. [8]

3.3 A manufacturer is deciding whether to switch from just-in-case to **just-in-time** stock control. Evaluate this decision. [12]

Solutions

Business answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

2.1 a minimum level of "safety" stock kept in case of delays in delivery or extra demand (2 for a clear definition; 1 for a partial idea).

2.2 the time between placing an order and receiving the goods (2 for a clear idea; 1 for a partial idea).

2.3 any two of: storage cost; insurance; money tied up in stock; risk of goods going out of date or being damaged (1 + 1).

3.1 *[3]* **AO1** 1 — name a reason (to avoid running out; to cover late deliveries or demand spikes). **AO2** up to 2 — develop it, e.g. buffer stock lets the firm keep selling if a delivery is late → no lost sales → customers stay satisfied (2 developed / 1 limited).

3.2 *[8]* For **each** of two benefits: **AO1** 1 + **AO2** 1 + **AO3** up to 2. Example chains — *lower holding cost*: almost no stock held → less storage and insurance → lower costs and more cash free. *Less waste*: stock does not sit and expire → fewer write-offs → lower costs. Maximum 4 per benefit, 8 total.

3.3 *[12]* **AO1** 2 / **AO2** 2 / **AO3** 2 / **AO4** up to 6. **For JIT:** lower holding costs, less waste, more cash and space. **Against:** a late delivery can halt production, it needs reliable suppliers and good IT, and there is no buffer for demand spikes. Judgement: JIT suits a firm with dependable local suppliers and steady demand, but a firm with unreliable supply or volatile demand may keep some buffer — it depends on supplier reliability and demand stability.

4 Analyse **one** reason why a business might hold low levels of inventory. [5]

Section B

Answer **one** question only.

EITHER

2 Popular Drinks (PD)

PD is a mass market fizzy drinks manufacturer in country Z. The fizzy drinks market in country Z is dominated by a few well-known brands. The total market value is $5.3bn and the PD brand has a 17% share of this market.

Pablo was recruited to be the Marketing Director of PD in 2022. He launched a new promotional campaign based on trending music on social media. He decided to use social media influencers to focus on this market.

Online feedback of the campaign was poor. Many of PD's customers did not want to be associated with trending music. National news highlighted the negative feedback and PD's sales volume decreased by 20% within a week and continued falling. This led to excess inventory in PD's warehouses. The bad publicity also caused a drop in PD's share price and a negative impact on cash flow.

Fig. 2.1 shows feedback from a recent questionnaire where previous PD customers were asked what they thought about the promotional campaign.

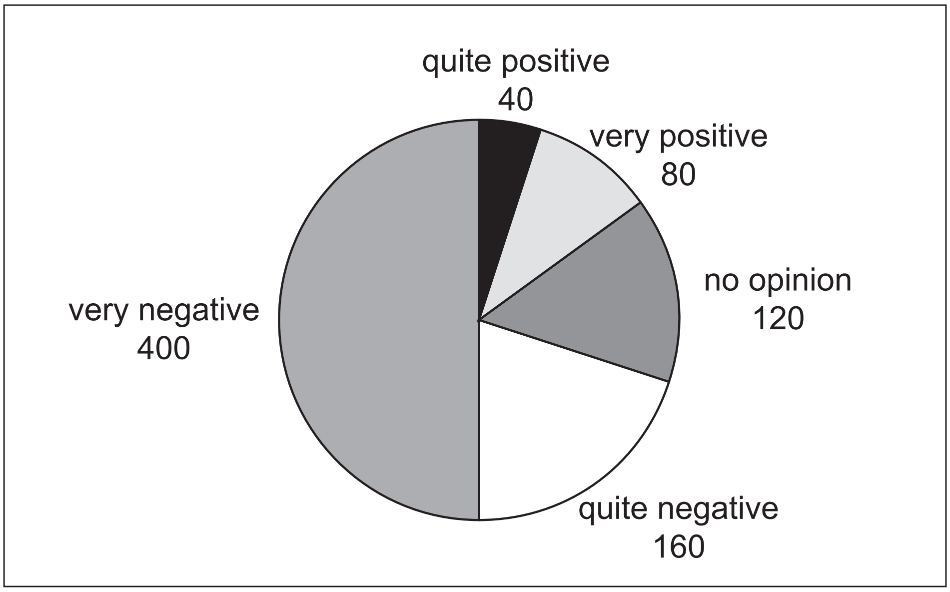


Fig. 2.1 Market analysis data of a sample of PD's customers

Pablo has called an emergency meeting of PD's marketing managers to repair the damage done to the PD brand from this recent promotional campaign.

(a) **(i)** Identify **one** recruitment method. [1]

(ii) Explain the term *cash flow*. [3]

(b) **(i)** Refer to Fig. 2.1. Calculate the percentage of PD's customers with positive feedback. [3]

(ii) Refer to Fig. 2.1 and other information. Explain **one** reason why this data collected for PD may not be reliable. [3]

(c) Analyse **two** possible costs to PD of holc ventory. [8]

(d) Evaluate the importance of branding to the future success of PD. [12]

3 **(a)** Define the term *inventory re-order level*. [2]

(b) Explain **one** advantage to a business of holding buffer inventory. [3]

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3 **(a)** Define the term *Just in Time (JIT)*. [2]

(b) Explain **one** disadvantage to a business of using Just in Time (JIT). [3]

A-LEVEL BUSINESS • EXERCISE SHEET

4.3 Capacity utilisation and outsourcing

Name: ______________ Class: __________ Date: ____________ **Total: 29 marks**

KEY WORDS capacity 产能 • outsourcing 外包 • capacity utilisation 产能利用率 • supplier 供应商 • over-utilisation 产能过度利用

Objective

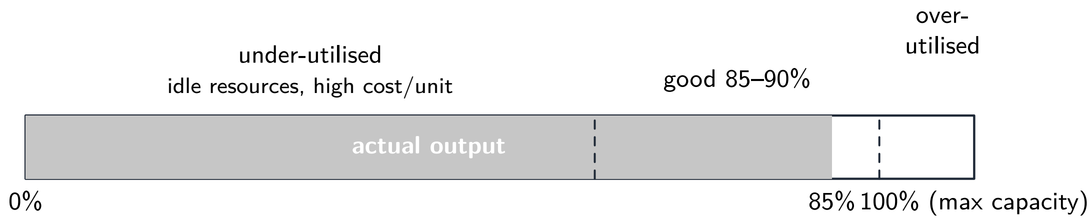
Build the skills to answer exam questions on **capacity utilisation** 产能利用率 and **outsourcing** 外包 — calculating how much of its capacity a firm uses, the problems of under- and over-utilisation, and the trade-offs of outsourcing.

You must be able to:

- calculate **capacity utilisation** and explain a good level
- explain the problems of under- and over-utilisation
- analyse and evaluate the decision to outsource

1 Worked examples

■ Using capacity, and outsourcing



Capacity utilisation: aim for 85–90% — too low wastes resources, too high risks quality

Capacity utilisation shows how much of a firm's possible output it actually makes

$$\text{capacity utilisation} = \frac{\text{actual output}}{\text{maximum possible output}} \times 100\%$$

- **Worked:** actual output 1700, maximum 2000 → $\frac{1700}{2000} \times 100 = 85\%$.
- **Under-utilisation:** idle resources → high fixed cost per unit. **Over-utilisation** (near 100%): no time for repairs, tired staff, quality may fall. Most firms aim for **85–90%**.
- **Outsourcing:** paying another firm to do work — cheaper and lets the firm focus, but less control of quality.

Answer shapes: AO1 + AO2 + AO3 (reasoning chain) + AO4 (a supported judgement *in context*).

2 Practice

2.1 Define the term *capacity utilisation*. [2]

2.2 A factory's maximum output is 5000 units; it actually makes 4000. Calculate the capacity utilisation. [2]

2.3 Define the term *outsourcing*. [2]

3 Exam-style questions

3.1 Explain one problem for a business of operating at a low level of capacity utilisation. [3]

3.2 Analyse two benefits to a business of **outsourcing** part of its work. [8]

3.3 A business is running close to 100% capacity. Evaluate whether it should **outsource** some of its production. [12]

Solutions

Business answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

2.1 the proportion of a firm's maximum possible output that it is actually producing, shown as a percentage (2 for a clear definition; 1 for a partial idea).

2.2 $\frac{4000}{5000} \times 100 = 80\%$ (2; award 1 for a correct method with the wrong figure).

2.3 paying another firm (a supplier) to do work the business used to do itself (2 for a clear definition; 1 for a partial idea).

3.1 *[3]* **AO1** 1 — state a problem (high fixed cost per unit; idle machines and staff; lower profit). **AO2** up to 2 — develop it, e.g. the same rent and salaries are spread over fewer units → higher cost per unit → lower profit margin (2 developed / 1 limited).

3.2 *[8]* For **each** of two benefits: **AO1** 1 + **AO2** 1 + **AO3** up to 2. Example chains — *lower cost*: a specialist supplier produces more cheaply → the firm's costs fall → higher profit or lower prices. *Focus and flexibility*: the firm concentrates on what it does best → better core products → and can scale output up or down without buying machines. Maximum 4 per benefit, 8 total.

3.3 *[12]* **AO1** 2 / **AO2** 2 / **AO3** 2 / **AO4** up to 6. **For outsourcing:** it adds capacity without buying machines, meets extra demand, and keeps the firm flexible. **Against:** less control of quality, possible delays, and reliance on another firm. Judgement: outsourcing is sensible to handle demand the firm cannot meet at 100% capacity, but only with a reliable supplier and good quality checks — otherwise expanding its own capacity may be safer; it depends on how long the extra demand will last.

4 Analyse **one** impact on a business of outsourcing. [5]

Section B

Answer **one** question only.

EITHER

2 Natalia's Naturals (NN)

NN is a small business owned by Natalia. NN produces and sells a range of natural skincare products.

In 2020, Natalia started making her own skincare products at home using natural ingredients. She realised that there was a demand for her products among her friends and family. Natalia then decided to turn her hobby into a business and launched NN in 2021.

Natalia operates her business from a rented workshop with limited space, where she makes her products by hand. She buys her ingredients from local suppliers who share her values of environmentally friendly production.

NN has been growing steadily and has gained a loyal customer base. NN has received positive reviews from beauty magazines. Natalia's skincare products are sold through her own website, social media platforms and local retailers who specialise in selling natural products.

Natalia is developing a new face cream. Table 2.1 shows price and cost estimates for the new face cream.

Table 2.1 Price and cost estimates

Product	Price	Allocated fixed costs	Variable costs per unit
Face cream	$5	$12 000	$2

The skincare market is very competitive. There are many established brands that offer similar products to NN, but with wider distribution channels.

Natalia needs to balance her time between production, managing orders, delivery, marketing and other administrative tasks. She works long hours and is stressed and exhausted.

Natalia is considering outsourcing to increase NN's production capacity.

(a) **(i)** Identify **one** internal stakeholder of a business. [1]

(ii) Explain the term *distribution channels*. [3]

(b) **(i)** Refer to Table 2.1. Calculate the break-even level of output of the new face cream. [3]

(ii) Explain **one** limitation to NN of break-even analysis. [3]

(c) Analyse **one** advantage and **one** disadvantage to NN of being a small business. [8]

(d) Evaluate whether outsourcing is the most suitable way to increase NN's production capacity. [12]

2 Law Advice Forum (LAF)

Drake has a law degree and works for a partnership of lawyers during the day. Drake owns a website that gives free legal advice. He works on the website in the evenings and at the weekend.

He started the website as a hobby, but the website has grown to over 20 000 users and he now sells advertising on his videos and on the website.

Drake uses outsourcing for some areas of his website. He has recently been sent a report showing variances in the budget from the previous month (see Table 2.1).

Table 2.1 Budget report for Drake's website in the previous month

	Budget	Actual
Total revenue	$4500	$4000
Total costs	$600	$750
Profit	$3900	$3250

Drake has now left his job and is focusing full time on the website. He rebranded the website as Law Advice Forum (LAF). Drake's business plan for LAF included:

- Operating as a sole trader.
- Continuing to develop and expand the website to provide legal advice and paid legal services.
- Renting an office in city G where all employees would work.
- Hiring five fully qualified lawyers.
- Hiring three administrators.
- Leasing IT equipment.

However, Drake is concerned about the limitations LAF will face as a labour intensive operation.

(a) **(i)** Identify **one** external stakeholder of a business partnership. [1]

(ii) Explain the term *outsourcing*. [3]

(b) **(i)** Refer to Table 2.1. Calculate the profit variance for Drake's website in the previous month. State whether the variance is favourable or adverse. [3]

(ii) Explain **one** way Drake could use the budget data in Table 2.1. [3]

(c) Analyse **two** possible limitations for LAF as a labour intensive operation. [8]

(d) Evaluate the most important responsibility that Drake has as the owner of LAF. [12]

1 Natural Shampoos (NS)

NS is a private limited company set up by Saira and Chantal as a social enterprise. NS sells natural hair care products and focuses on customer (market) orientation. The main aims of Saira and Chantal include donating to local charities and improving gender equality in the workplace.

NS began by selling its products to small, independent businesses in country H. NS expanded its range slowly based on customer feedback, specific requests on its blog, and sales data.

NS explored additional finance opportunities required for expansion. NS approached John, who owns manufacturing facilities in country H and has significant marketing experience. He invested into NS in return for ownership of one third of the business. John's main aim is to increase long-term profits in order to maximise the return on his investment.

In the five years since John's investment, NS has become the market leader in country H for natural hair care products. NS products are now sold in major cosmetic retailers.

NS recently analysed its output in 2024 (see Table 1.1).

Table 1.1 NS output data for 2024

	Units
Actual output level	145 000
Capacity	150 000

Saira and Chantal have decided to employ a Marketing Manager for NS. Fig 1.2 shows an extract from the job advertisement.

Marketing Manager

- Experience of growing brand awareness and using online channels of distribution.
- Using budgets to monitor the performance of marketing campaigns.
- Developing and maintaining relationships with external stakeholders.

Fig 1.2 Extract from job advertisement for NS's new Marketing Manager

(a) **(i)** Identify **one** feature of a private limited company. [1]

(ii) Explain the term *customer (market) orientation*. [3]

(b) **(i)** Refer to Table 1.1. Calculate NS's capacity utilisation in 2024. [3]

(ii) Explain **one** possible disadvantage to NS of high capacity utilisation. [3]

(c) Analyse **two** selection methods that NS could use to choose a new Marketing Manager. [8]

(d) Evaluate the most likely reason for confli[illegible] arise between the owners of NS. [12]