A-LEVEL BUSINESS • EXERCISE SHEET

4.3 Capacity utilisation and outsourcing

Name: ______ Class: ______ Date: ______ **Total: 29 marks**

Objective

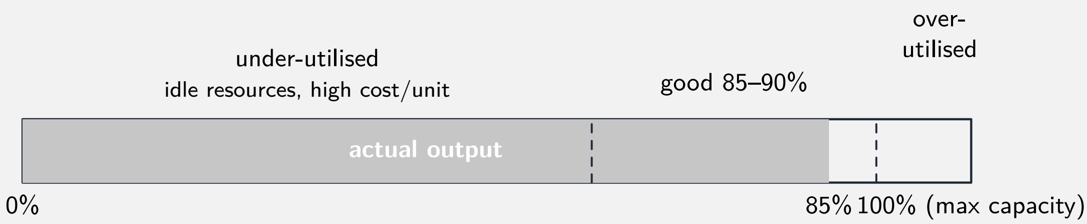
Build the skills to answer exam questions on **capacity utilisation** 产能利用率 and **outsourcing** 外包—calculating how much of its capacity a firm uses, the problems of under- and over-utilisation, and the trade-offs of outsourcing.

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]

4 Go further

You are now ready for the real exam questions on this subtopic. Open the **4.3 Capacity utilisation and outsourcing** past-paper sheet in the Library, or try these in **Practice**

mode:

- 9609/13 N25 —Q4 (capacity utilisation)
- 9609/21 N25 —Q2 (operations, applied)
- 9609/22 N25 —Q2 (capacity / outsourcing)

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.