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 转化过程 • inputs 投入

Objective

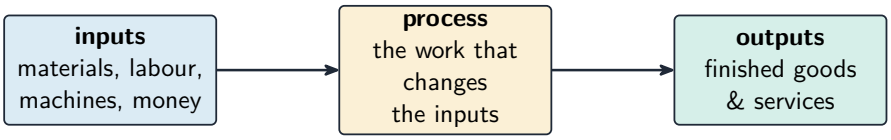
Build the skills to answer exam questions on **the nature of operations** 运营的本质 — the **transformation process** 转化过程, **productivity** 生产率, **capital- and labour-intensive** 资本密集型和劳动密集型 operations, and the **methods of production** 生产方法.

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

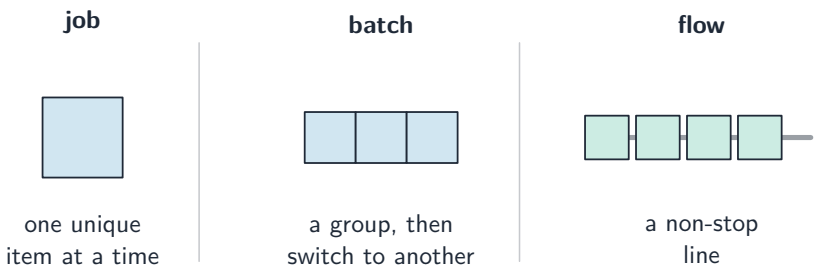


the output is worth more than the inputs ⇒ value added

Inputs → process → outputs: value is added in the process

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

- **Worked:** 600 units made by 20 workers → $\frac{600}{20} = 30$ 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]