

7.5 Types of cost, revenue and profit, short-run and long-run production

Name: _____ Class: _____ Date: _____ Total: 24 marks

KEY WORDS total cost • economies of scale • average cost
• diminishing returns • normal profit

Objective

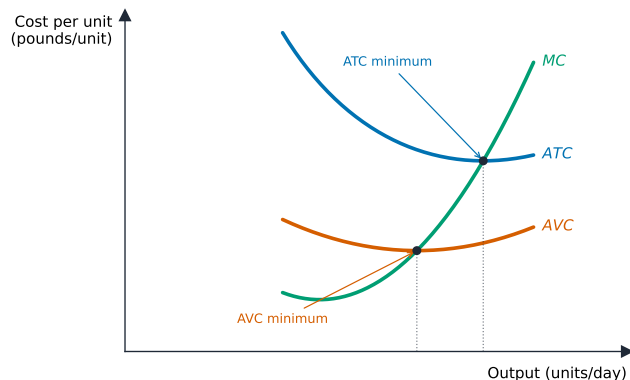
Build the skills to answer exam questions on **costs, revenue and profit**,
– short-run and long-run costs, **diminishing returns**, **economies of scale**, and **normal and supernormal profit**.

You must be able to:

- define fixed, variable, average and marginal cost
- explain diminishing returns and economies of scale
- explain normal/supernormal profit and the profit-maximising rule ($MR = MC$)

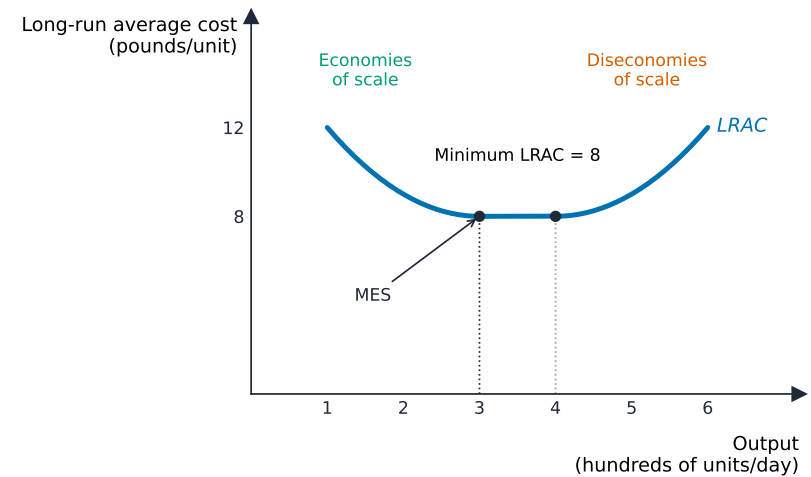
1 Key knowledge and worked examples

■ Short-run cost curves



Diminishing returns make marginal cost rise

- $AC = TC/Q$; $MC = \Delta TC / \Delta Q$. **Diminishing returns** : adding a variable factor to a fixed one eventually raises MC.
- **Economies of scale** : long-run average cost falls as the firm grows; **diseconomies** raise it if too big.



The long-run picture: economies then diseconomies of scale give a U-shaped LRAC

- **Normal profit** : just enough to stay (a cost); **supernormal** : above normal.
- A firm maximises profit where $MR = MC$.

Answer shapes: an **Explain [up to 8]** answer may use a cost diagram (AO3); **Discuss [12]** adds a judgement (AO4).

2 Practice

2.1 Define the term *marginal cost*. [2]

2.2 State the difference between *normal* and *supernormal* profit. [2]

2.3 State the output rule for profit maximisation. [1]

3 Exam-style questions

3.1 A firm maximises profit at the output where: [1]

☐ A average cost is lowest
☐ B marginal revenue equals marginal cost
☐ C total revenue is highest
☐ D price equals average cost

3.2 Explain, using diminishing returns, why the marginal cost curve is U-shaped. [6]

3.3 Discuss why a firm's long-run average cost may fall and then rise as output increases. [12]