

Solutions

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

Each answer shows the steps, then the **result**.

2.1

- the addition to total cost from producing one more unit of output ($\Delta TC/\Delta Q$) (2 for a clear definition; 1 for a partial idea)

2.2

- normal profit is just enough to keep the firm in the industry (it counts as a cost); supernormal profit is any profit above normal (2 for a clear difference; 1 for a partial idea)

2.3

- produce where marginal revenue equals marginal cost ($MR = MC$) (1)

3.1 B

- Profit is maximised where $MR = MC$

3.2

- [6] AO1 1 + AO3 up to 5 — at low output, adding a variable factor to fixed factors raises productivity, so MC falls; beyond a point, diminishing returns set in (each extra worker adds less output)
- the cost of each extra unit rises
- MC rises
- the curve is U-shaped

3.3

- [12] AO1/AO2/AO3 up to 8 + AO4 up to 4. **Falls:** economies of scale — bulk buying, large machines, specialisation, financial economies lower average cost as the firm grows. **Rises:** diseconomies of scale — poor communication, control and coordination problems raise average cost if it grows too large. Judgement: there is an optimum size at minimum LRAC; whether a firm gains net economies depends on the industry and how well it is managed