

Use the question-specific markscheme together with the markbands. Award up to the maximum marks as indicated.

SECTION A

Microeconomics

1. (a) Using diagram(s), explain the signalling and incentive functions of price. [10 marks]

Answers **may** include:

- definition of price mechanism
- diagram(s) (supply and demand) to illustrate the signalling and incentive functions of price
- an explanation of the price mechanism to show how changes in supply and demand ration scarce resources through the signalling and incentive functions of price
- examples of price providing a signalling and incentive function.

Assessment Criteria

Part (a) 10 marks

Level	Marks
0 The work does not reach a standard described by the descriptors below.	0
1 There is little understanding of the specific demands of the question. Relevant economic terms are not defined. There is very little knowledge of relevant economic theory. There are significant errors.	1–3
2 There is some understanding of the specific demands of the question. Some relevant economic terms are defined. There is some knowledge of relevant economic theory. There are some errors.	4–6
3 There is understanding of the specific demands of the question. Relevant economic terms are defined. Relevant economic theory is explained and applied. Where appropriate, diagrams are included and applied. Where appropriate, examples are used. There are few errors.	7–8
4 There is clear understanding of the specific demands of the question. Relevant economic terms are clearly defined. Relevant economic theory is clearly explained and applied. Where appropriate, diagrams are included and applied effectively. Where appropriate, examples are used effectively. There are no significant errors.	9–10

- (b) **Evaluate the view that the market failure caused by the consumption of demerit goods is best dealt with through the use of taxation.** *[15 marks]*

N.B. It should be noted that definitions, theory, and examples that have already been given in part (a), and then referred to in part (b) should be rewarded.

Answers **may** include:

- definitions of demerit goods, market failure and indirect taxation
- diagram(s) to show market failure and use of indirect taxation
- explanations of the market failure caused by the consumption of demerit goods (negative consumption externalities); taxation policy to reduce consumption of demerit goods; other market based policies, *ie* tradable permits and non market-based policies, *eg* regulation and negative advertising
- examples of demerit goods and examples of where such responses have occurred, or might occur
- synthesis or evaluation.

Evaluation **may** include: consideration of the positive and negative consequences of the policies used.

Examiners should be aware that candidates may take a different approach which, if appropriate, should be rewarded.

Opinions or conclusions should be presented clearly and should be supported by appropriate examples.

Assessment Criteria

Part (b) 15 marks

Level	Marks
0 The work does not reach a standard described by the descriptors below.	0
1 There is little understanding of the specific demands of the question. Relevant economic terms are not defined. There is very little knowledge of relevant economic theory. There are significant errors.	1–5
2 There is some understanding of the specific demands of the question. Some relevant economic terms are defined. There is some knowledge of relevant economic theory. There are some errors.	6–9
3 There is understanding of the specific demands of the question. Relevant economic terms are defined. Relevant economic theory is explained and applied. Where appropriate, diagrams are included and applied. Where appropriate, examples are used. There is an attempt at synthesis or evaluation. There are few errors.	10–12
4 There is clear understanding of the specific demands of the question. Relevant economic terms are clearly defined. Relevant economic theory is clearly explained and applied. Where appropriate, diagrams are included and applied effectively. Where appropriate, examples are used effectively. There is evidence of appropriate synthesis or evaluation. There are no significant errors.	13–15

2. (a) Explain **two** possible government responses to the abuse of monopoly power. **[10]**

Answers may include:

- definition of monopoly power
- diagrams may be used to show monopoly power but are not essential to answer the question
- theory to explain the application of any two of regulation, nationalization, legislation and trade liberalization
- examples of instances to which this might be, or has been, applied.

Assessment Criteria

Part (a) 10 marks

Level	Marks
0 The work does not reach a standard described by the descriptors below.	0
1 There is little understanding of the specific demands of the question. Relevant economic terms are not defined. There is very little knowledge of relevant economic theory. There are significant errors.	1–3
2 There is some understanding of the specific demands of the question. Some relevant economic terms are defined. There is some knowledge of relevant economic theory. There are some errors.	4–6
3 There is understanding of the specific demands of the question. Relevant economic terms are defined. Relevant economic theory is explained and applied. Where appropriate, diagrams are included and applied. Where appropriate, examples are used. There are few errors.	7–8
4 There is clear understanding of the specific demands of the question. Relevant economic terms are clearly defined. Relevant economic theory is clearly explained and applied. Where appropriate, diagrams are included and applied effectively. Where appropriate, examples are used effectively. There are no significant errors.	9–10

- (b) Evaluate the view that monopolies, despite their inefficiencies, may often be considered desirable.

[15]

*Answers **may** include:*

- definition of monopoly
- diagrams to explain monopoly inefficiency
- theory to explain what inefficiencies might occur. Explanation of the reasons why monopoly may be considered desirable, including the ability to finance research and development from economic profits, the need to innovate and the possibility of economies of scale, natural monopoly
- examples of where monopoly might or might not have been beneficial
- synthesis or evaluation.

Evaluation **may** include: an evaluation of the relative merits/demerits of monopoly.

Examiners should be aware that candidates may take a different approach which, if appropriate, should be rewarded.

Opinions or conclusions should be presented clearly and supported by appropriate examples.

Assessment Criteria

Part (b) 15 marks

Level	Marks
0 The work does not reach a standard described by the descriptors below.	0
1 There is little understanding of the specific demands of the question. Relevant economic terms are not defined. There is very little knowledge of relevant economic theory. There are significant errors.	1–5
2 There is some understanding of the specific demands of the question. Some relevant economic terms are defined. There is some knowledge of relevant economic theory. There are some errors.	6–9
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4 There is clear understanding of the specific demands of the question. Relevant economic terms are clearly defined. Relevant economic theory is clearly explained and applied. Where appropriate, diagrams are included and applied effectively. Where appropriate, examples are used effectively. There is evidence of appropriate synthesis or evaluation. There are no significant errors.	13–15

3. The information below represents the weekly cost and revenue conditions of a firm, measured in dollars (\$).

Output (Q)	Price per unit	Total revenue (TR)	Average revenue (AR)	Marginal revenue (MR)	Total cost (TC)	Marginal Cost (MC)
1	50	50	50		35	
				40		10
2	45	90	45		45	
				30		15
3	40	120	40		60	
				20		20
4	35	140	35		80	
				10		25
5	30	150	30		105	
				0		30
6	25	150	25		135	
				-10		35
7	20	140	20		170	
				-20		40
8	15	120	15		210	

(a) Complete the table above by entering the total revenue, average revenue, marginal revenue and marginal cost information for all levels of output. [4]

For an accurate total revenue column award [1 mark].

For an accurate average revenue column award [1 mark].

For an accurate marginal revenue column award [1 mark].

For an accurate marginal cost column award [1 mark].

NB MC and MR figures may be entered between the units of output or at the second unit of output.

(b) (i) Using your answers from part (a), identify the profit-maximizing level of output for the firm. You *must* outline the reason for your answer. [3]

Profit is maximised where $MC = MR$ [2]

Therefore, profit is maximised at 4 units of output [1]

OR

Profit equals $TR - TC$ [2]

Profit is highest (\$60) at (3 or) 4 units of output

Therefore profit is maximized at (3 or) 4 units of output [1]

- (ii) Calculate the economic profit/loss which the firm would make at this level of output. [2]

At 4 units of output, TR=140, TC=80
or, at 3 units of output, TR=120, TC=60 [1]

Any valid working is sufficient for [1 mark].

Profit=\$60 [1]

An answer of \$60 or 60 without any valid working is sufficient for [1 mark] only.

OFR applies

- (c) (i) Calculate the price elasticity of demand for the product when price falls from \$25 to \$20. [2]

$$PED = \frac{\% \Delta Qd}{\% \Delta P} = \frac{16.67}{20} [1]$$

Any valid working is sufficient for [1 mark].

=0.83 or - 0.83 [1]

An answer of 0.83 (or -0.83) without any valid working is sufficient for [1 mark] only.

Correct use of negative sign for ΔP and PED may be present but is not necessary.

N.B. Candidates who use an accurate midpoint formula may be fully rewarded.

$$\frac{1}{6.5} \div \frac{5}{22.5}$$

=0.69 or - 0.69

An answer of 0.69 (or -0.69) without any valid working is sufficient for [1 mark] only

- (ii) Using the table on page 16 to illustrate your answer, explain why the price elasticity of demand would change along the demand curve. [4]

Level

- 0 *The work does not reach a standard described by the descriptors below.* 0
- 1 *The written response is limited.* 1-2
For an explanation that as price/quantity changes, the percentage changes in price and quantity change, causing PED to change.
- 2 *The written response is accurate.* 3-4
For an explanation that as price increases along a straight line demand curve the percentage change in quantity demanded increases while the percentage change in price decreases. Therefore demand becomes more elastic.

The following explanation is also valid: $PED = \text{slope} \times \frac{P}{Q}$

Since the slope is constant along a straight line, PED is equal to a constant number $\times \frac{P}{Q}$ whose value constantly changes along the demand curve. Therefore, as we move along the demand curve, PED changes.

N.B. A similar explanation which refers to a price decrease is also acceptable

Full marks may be earned without specific reference to the figures in the table.

(d) The graph below illustrates the average total cost and average variable cost information for a firm.

On the graph, identify the break-even price and the shut-down price for a perfectly competitive firm.

[2]

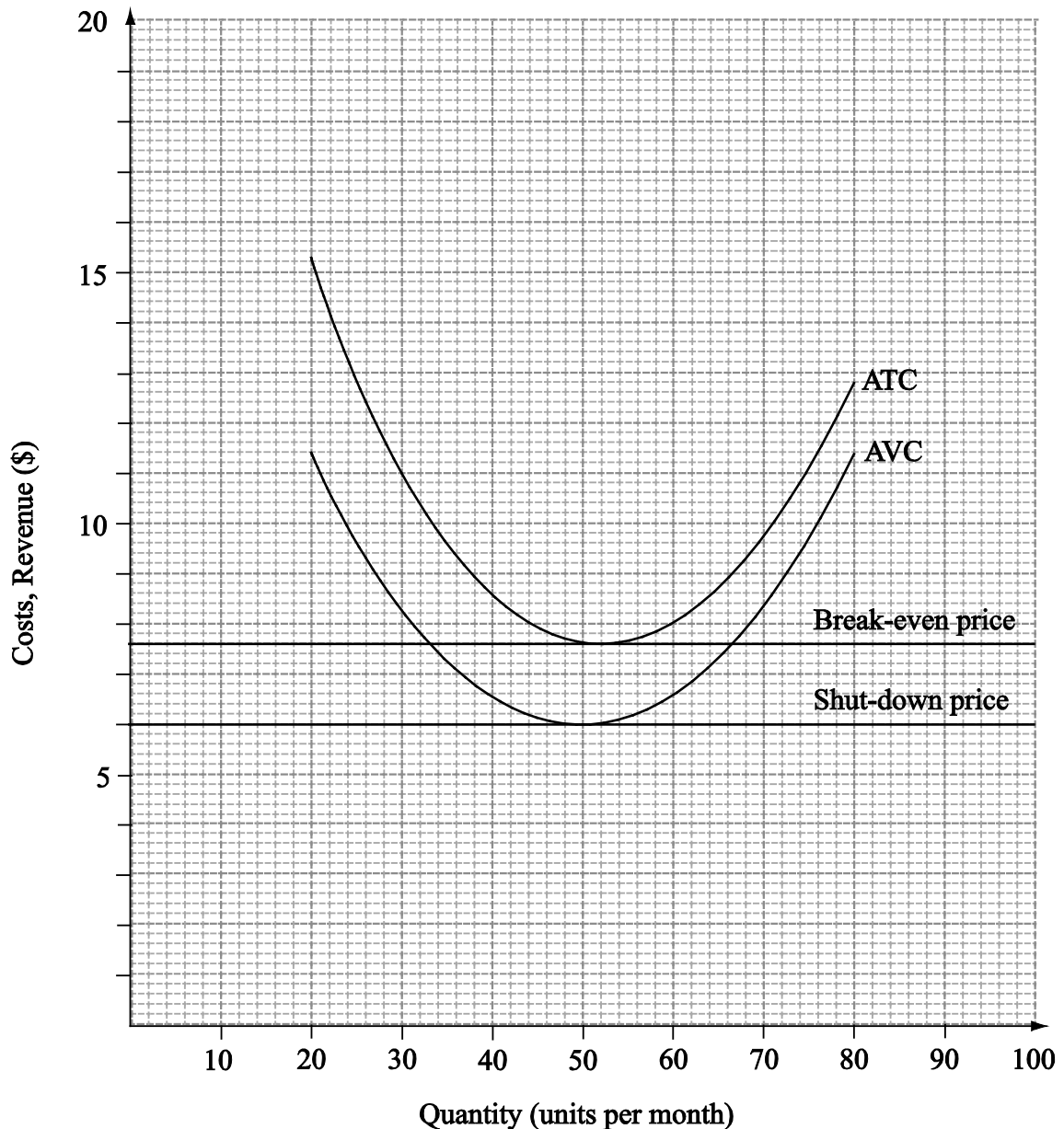
For correct identification of the shut-down price award [1 mark].

For correct identification of the break-even price award [1 mark].

NB Candidates may identify the shut-down price and break-even price by:

- drawing a horizontal line tangential to the lowest point of the AVC and ATC curves
- indicating the correct values or position on the vertical axis. (Break-even = \$7.60, shut down = \$6)
- writing the correct figures for each (distinguished correctly) somewhere on the graph.

A candidate who circles the lower point of each curve, AND appropriately identifies one as break-even and the other as shut down may be awarded [1 mark].



(e) From the graph in part (d)

(i) calculate the total variable cost if output is 50 units per month; [2]

$TVC = 50 \times 6$ [1]

Any valid working is sufficient for [1 mark].

$= \$300$ [1]

An answer of \$300 or 300 without any valid working is sufficient for [1 mark] only.

(ii) calculate total cost if output is 30 units per month. [2]

$TC = 30 \times 11$ [1]

Any valid working is sufficient for [1 mark].

$= \$330$ [1]

An answer of \$330 or 330 without any valid working is sufficient for [1 mark] only.

(f) With reference to the graph in part (d), explain the difference between the break-even price and the shut-down price. [4]

Level

0 *The work does not reach a standard described by the descriptors below.* 0

1 *The written response is limited.* 1–2

For an explanation that break-even price is the price at which a firm is able to just cover its average total costs while the shut down price is the price at which a firm is able to just cover its average variable costs OR for explaining that in the short run a firm may stay in business even if the price is below the break-even level provided that it is greater than or equal to the minimum average variable cost so that it makes a contribution towards its fixed costs.

2 *The written response is accurate.* 3–4

For an explanation that break-even price is the price at which a firm is able to just cover its average total costs while the shutdown price is the price at which a firm is able to just cover its average variable costs AND for explaining that in the short run a firm may stay in business even if the price is below the break-even level provided that it is greater than or equal to the minimum average variable cost so that it makes a contribution towards its fixed costs.
