



Economics Questions By Topic:

**Perfect Competition (3.4.2) Mark
Scheme**

A-Level Edexcel Theme 3

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SECTION A

Question Number	Answer	Mark
1(a)	<p style="text-align: center;">Knowledge 2, Application 2</p> <p>Knowledge</p> <ul style="list-style-type: none"> - Market equilibrium price (1) - Horizontal demand for the firm, taking the market equilibrium price (1) <p>Application</p> <ul style="list-style-type: none"> - Profit maximisation output and price for the firm (1) - Normal profit identified at the profit maximising output/(ATC=AR) (1) <div style="display: flex; justify-content: space-around; align-items: center;"> </div>	(4)

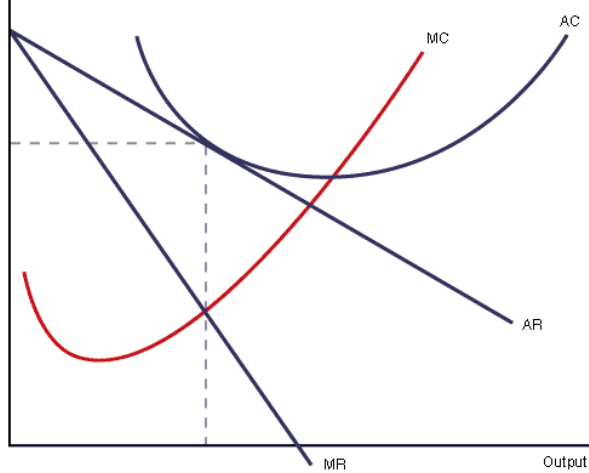
Question Number	Answer	Mark
1(b)	<p style="text-align: center;">Analysis 1</p> <p>The only correct answer is B</p> <p><i>A is not correct because the firm is not operating at its minimum point on the AC curve</i></p> <p><i>C is not correct because $P=MC$ so the firm is allocatively efficient</i></p> <p><i>D is not correct because of the reasons given in A and C.</i></p>	(1)

Question Number	Answer	Mark
2	Key: B	(1)
	<p>Definition of supernormal profits, or $AR > ATC$ or $AR > AC$ (1);</p> <p>Explanation (1+1+1): characteristic of perfect competition, e.g. many independent firms, price taker (1)</p> <p>Analysis: firms enter because they are attracted by supernormal profits(1); easy to enter because entry barriers are non-existent (1);</p> <p>Diagram: (up to 3 marks) showing firms entering industry/reduction in supply (1) with profit area (1) subsequent fall in price for other firms (1) and smaller output per firm (1). Award horizontal $AR=MR$ if this has not been awarded as a characteristic of perfect competition (1).</p> <div data-bbox="359 862 1316 1444" data-label="Figure"> </div> <p>Example of a knock out: not E as shut down point is $P=AVC$ (long run $P=AC$) so firms continue as long as prices are not below this.</p>	(3)

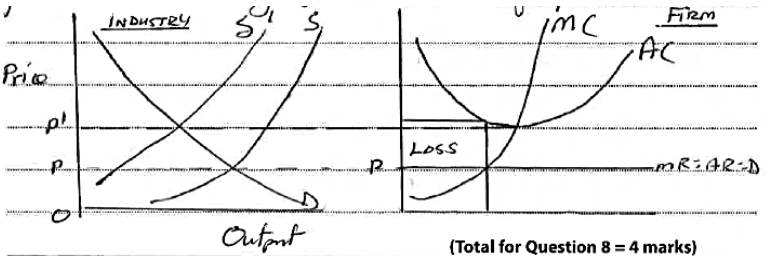
Question Number	Answer	Mark
3	Key: E	(1)
	<p>Definition of normal profit (1) e.g. $AR=AC$ or $TR=TC$ or making just enough profit to keep factors in their current use.</p> <p>Award 1 mark for correct calculation of the columns and filled in up to at least 5 units, for TC (1) AR or MR (1) MC (1) or total profit if added (1).</p> <p>Observation that $MC=MR$ is profit maximisation (1)</p> <p>The firm is a price taker, or faces perfectly elastic/horizontal demand (1)</p> <p>The firm makes normal profits where $AR=AC$ in the long run (1)</p> <p>Defining characteristic of perfect competition, if not included above, e.g. very many firms in the industry, perfect knowledge, no barrier to entry or exit, homogeneous product (1)</p> <p>Diagram showing price taking firm, or perfect competition firm with industry diagram determining the price (1)</p> <p>Total revenue is increasing at a constant gradient indicating firm is a price taker (1)</p> <p>Knock out marks: e.g. it is not A because this is a price taker with horizontal demand curve whereas monopolistic competitor would have downward sloping demand curve due to differentiation (1)</p> <p>D is wrong because £3 loss is made at 3 units</p>	(3)

Output per day	Total revenue (£)	Average revenue/Marginal revenue (£)	Total cost (£)	Average cost (£)	Marginal cost (£)
0	0	-	12	-	-
1	10	10	22	22	10
2	20	10	28	14	6
3	30	10	33	11	5
4	40	10	40	10	7
5	50	10	50	10	10
6	60	10	81	13.5	31

Question Number	Mark scheme	Mark
4	Key: D	1
	<p>Definition of average revenue (1) e.g. TR/Q or demand or price</p> <p>Characteristic of perfect competition (1) e.g. many firms, no firm has market power, identical products</p> <p>The firm is a price taker (unless awarded above) (1)</p> <p>Perfectly elastic, horizontal or constant demand (unless awarded above) (1)</p> <p>Diagram showing total revenue (diagonal straight line passing through the origin) (1) or market diagram S and D determining price for an individual firm (1)</p> <p><i>Example of knock out marks: It is not A because this shows the shape of the total revenue for a price making firm (1)</i></p>	3

Question Number	Mark scheme	Mark
5	Key: D	1
	<p>Definition or characteristics of monopolistic competition (1) <i>e.g. low or no barriers to entry or exit, slightly differentiated products, non-homogenous</i></p> <p>Function of supernormal profits in terms of entry (1) <i>e.g. profits attract new entrants</i></p> <p>Normal profits are made in the long run (1) <i>e.g. supernormal profits are eroded or competed away</i></p> <p>Application to context (1) <i>e.g. shoe repair services are very cheap to set up and very little equipment or training is required</i></p> <p>Explanation that normal profits are where $AR=AC$ or $TC=TR$ or 'just enough profits to keep resources in their current use' (1).</p> <p>Diagram showing $AC=AR$ (1) (if not awarded above as a written definition of normal profits), where $MC=MR$ and AR is downward sloping (1):</p> <p>Revenue or costs (£)</p>  <p>Also award normal profit as $TC=TR$ (verbal or on TR/TC diagram).</p> <p><i>Example of knock out marks: It is not C because in the short run, before other firms can enter or leave the industry, supernormal profits (or losses) can be made (1)</i></p>	3

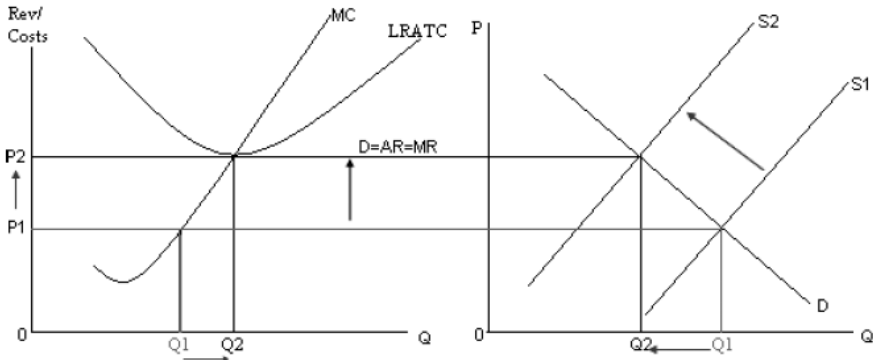
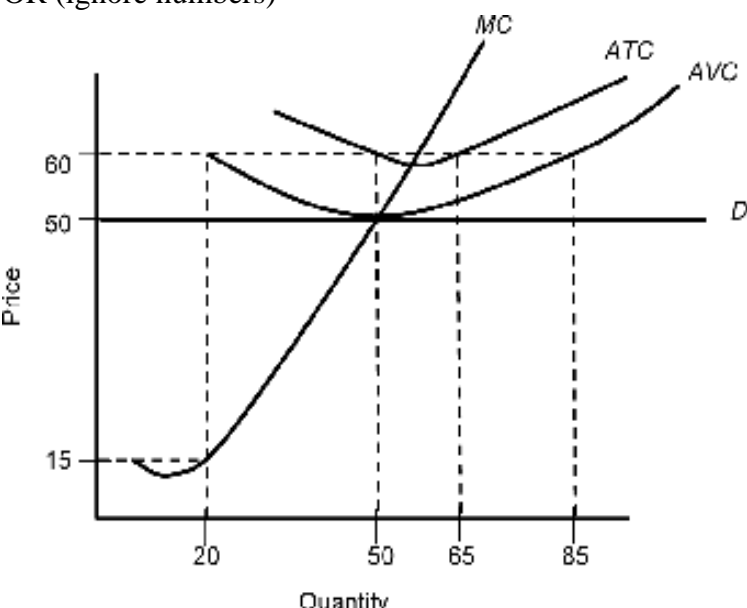
Question Number	Answer	Mark
6	<p>Correct option E (1 mark)</p> <p>Definition of a price taker e.g. has to sell at the market price (1)</p> <p>Horizontal or perfectly elastic demand curve (1) – could also be awarded from their diagram (not both)</p> <p>Explanation of perfect competition: one characteristic, e.g. no barriers to entry or exit, many firms, homogenous product (1);</p> <p>Diagram showing horizontal AR=MR (1 – if not previously awarded); link to market equilibrium in a separate market or industry diagram (1)</p> <p>Application to cherries – they seem very similar (1)</p> <p>Examples of knock out: It is not A as we assume they are a profit maximiser operating where $MC=MR$</p> <p>It is not C as $MC=AC$ is the productive efficiency point and this will only happen in the LR</p>	(4)

Question Number	Answer	Mark
7	<p>D</p> <p>Characteristic of perfect competition, e.g. no barriers to entry/exit, $AR=MR$, many firms all selling exactly the same product (1);</p> <p>Explanation: firms leave because the price is below AVC or AC or shut down point (1); barriers to entry/exit are low making it easy to leave (1); which makes the industry price rise (1) normal profits is the level at which firms will stop leaving (1);</p> <p>Diagram can earn up to the maximum 3 marks:</p> <ul style="list-style-type: none"> • horizontal $AR=MR$ (as characteristic of perfect competition - do not award this in addition to any perfect competition definition/characteristic in text)(1), • firms leaving (1) • loss area (1); • long run perfect competitive firm equilibrium diagram i.e. AC at tangent to horizontal AR (1) <p>This diagram shows horizontal $AR=MR$ and the loss area on the right hand side, and the supply shift to the left on the left hand side shows firms leaving:</p>  <p>(Total for Question 8 = 4 marks)</p> <p>Example of knock out mark: not A because perfectly competitive firms are price takers so cannot cut prices.</p>	(4)

Question Number	Answer	Mark
8	<p>C</p> <p>Definition/identification mark: Identification of perfect competition (1).</p> <p>Explanation that profit maximisation is $MC=MR$ (1).</p> <p>Characteristics of perfect competition (1): $AR=MR$ or perfectly elastic demand, price taker, low barriers to entry, homogenous product, lots of firms in the industry.</p> <p>Application e.g. that it is difficult to distinguish potatoes according which farm they were produced on (1)</p> <p>Diagram: showing horizontal $AR=MR$ (1) with output occurs where $MC=MR$ (1)</p> <p>Example of elimination mark: Knock out of A that she cannot sell as much as she can produce because costs will rise</p> <p>Knock out of B: not a monopoly because there are many firms in the industry</p>	(4)

Question Number	Answer	Mark
9	<p>C</p> <p>Definition or one characteristic of perfect competition (1) Diagram (up to 3 marks): Short run: AR=MR horizontal for firm and/or supernormal profits (1) Long run: AR=AC=MC=MR for firm normal profits and/or fall in output for firm (1) Industry diagram: showing supply shifting right showing fall in price (1)</p> <p>Equivalent verbal analysis: no barriers to entry mean that other firms will enter (1) supernormal profit acts as a signal or incentive (1) this will reduce price because of increased competition/total output in the market increases as industry supply increases (1) and each individual firm's output will fall (1) and firm will only make normal profit in the long run (1).</p>	(4)

Question Number	Answer	Mark
10	<p>A</p> <p>Identification MC=MR Characteristic of perfect competition (1) Data mark: Supernormal profits (SNP) are being made/SNP is £7000 to £8000 in the short run, or profits are maximised at 6 units in the short run. (1) Annotation of diagram in the question which adds to the answer (1) Firm is a price taker/perfectly elastic demand (1) TR has a constant gradient/linear (1) Diagram showing horizontal AR/MR (1) showing SNP (1) In the long run the supernormal profits will be eroded (1) Normal profits in the long run (1). Knock out mark example: it is not E because the firm is making a profit (1)</p>	(4)

Question Number	Answer	Mark
11	<p>D</p> <p>Definition of AVC or AR (1)</p> <p>Identification of any characteristics of perfect competition e.g. that there are no barriers to entry/exit, or firms are price takers (1)</p> <p>Shut down point is $AVC = AR$ or $AVC > AR$ in short run (1)</p> <p>Firm is making a loss (1) staying in production means that losses would increase (i.e. reason for leaving) (1).</p> <p>No contribution is made to fixed costs (1)</p> <p>Losses act as a signal for firms to leave the market (1),</p> <p>In the long run the shut down point is $AVC=AR$ because all cost are variable (1)</p> <p>Diagram showing short run loss-making firm (1) with industry diagram showing leftwards shift in supply (1) with long run rise in price (1) OR diagram showing AVC not or just covered (1) with shut down point (1)</p>  <p>OR (ignore numbers)</p> 	(4)

Question Number	Answer	Mark
12	<p>A</p> <p>Definition of normal profit or supernormal profit verbally or as formulae normal profit $AC = AR$ or supernormal $AC < AR$ (1 mark)</p> <p>Understanding of the existence of perfect knowledge which means that these profits attract new firms (1 mark) into the industry benefitting from no or low barriers to entry such as sunk costs (1 mark) and therefore profits are competed away (1 mark)</p> <p>Diagram to illustrate entry of new firms in long run up to (2 marks) If diagram has no industry and just shows long run perfectly competitive firm (1 mark)</p>	(4)

END OF SECTION A