Assessment Schedule – 2024

Economics: Demonstrate understanding of the efficiency of different market structures using marginal analysis (91400)

Assessment Criteria

Achievement	Achievement with Merit	Achievement with Excellence
*Demonstrating **understanding** of the efficiency of different market structures using marginal analysis* involves: • providing an explanation of: - the efficiency of a market structure - the impact of a change in a market on the short- and / or long-run pricing and / or output decisions of a firm using marginal analysis - a government policy to improve the efficiency of a monopoly market - pricing and output decisions for perfectly competitive and / or monopolist firms using marginal analysis • using an economic model(s) to illustrate concepts relating to the efficiency of different market structures.	*Demonstrating **in-depth understanding** of the efficiency of different market structures using marginal analysis* involves: • providing a detailed explanation of: - the efficiency of a market structure - the impact of a change in a market on the short- and / or long-run pricing and / or output decisions of a firm using marginal analysis - a government policy to improve the efficiency of a monopoly market - pricing and output decisions for perfectly competitive and / or monopolist firms using marginal analysis • using an economic model(s) to illustrate complex concepts and / or support detailed explanations relating to the efficiency of different market structures.	*Demonstrating **comprehensive understanding** of the efficiency of different market structures using marginal analysis* involves: • comparing and / or contrasting: - the efficiency of market structures - the impact of a change in a market on the short- and long-run pricing and / or output decisions of a firm using marginal analysis - the effectiveness of government policies to improve the efficiency of a monopoly market • integrating an economic model(s) into explanations relating to the efficiency of different market structures.

Evidence

Q1	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)(i)	See Appendix.	TWO of: • MC intersects AC at AC's minimum point, and labelled • P_e and Q_e labelled • subnormal profit shaded and labelled.		
(ii)	See Appendix.	BOTH of: • $MR_1 = AR_1 = D_1$ labelled • P_1 and Q_1 labelled.		
(iii)	Due to the subnormal profit where AC>AR (or TC>TR) and the firm making insufficient revenue to cover all economic costs (insufficient return to stay in the industry), some firms will leave the market. They can leave as there are no barriers to exit. This decreases market supply, which results in a rise in the market price. As firms in perfect competition are price takers, they take the new higher price, P_1, and MR = AR = D shifts up to $MR_1 = AR_1 = D_1$. At the original output of Q_e MR_1 is now greater than MC, meaning that the additional revenue generated from selling the last unit is greater than the additional cost in making it so there is more marginal profit to be made. To maximise profit, the firm will increase output from Q_e to Q_1 where MC = MR_1 (profit maximisation). In the long run, at output level Q_1 the perfect competitor will make normal profit as the AR = AC (or TR = TC) and the firm is making just sufficient return to stay in the industry (or there is no more incentive to leave / enter).	Explains: • the price increases due to market supply decreasing OR output increases to where MC = MR_1 OR normal profits are made as AR = AC (or TR = TC).	Explains in detail TWO of: • the price increases due to market supply decreasing referring to characteristics of perfect competition • output increases referring to marginal analysis • normal profits are made as AR = AC (or TR = TC), including details of what a normal profit means. AND refers to Graph One.	Explains in detail ALL of: • the price increases due to market supply decreasing referring to characteristics of perfect competition AND output increases referring to marginal analysis AND normal profits are made as AR = AC (or TR = TC), including details of what a normal profit means. AND refers to Graph One.
(b)	See Appendix.	TWO of: • P_{e2} and Q_{e2} labelled • P_{e2} and q_{e2} labelled • $MR_1 = AR_1 = D_1$ labelled • supernormal profit shaded and labelled.		

(c)	The market quantity decreases from Q_e to Q_{e2} because the severe weather conditions means that firms might be unable to operate their machinery, their farm or factory might be flooded, or some firms might leave the market, therefore production decreases. This leads to an overall decrease in the total output available in the market. As a result of market supply decreasing, market price increases, leading to firms remaining in the market now receiving a higher price. The increase in price means increased profitability, as shown by the shaded area of supernormal profit, leading to the perfect competition firm increasing its output from q_e to q_{e2}, where the new profit maximisation is, i.e. where MC = MR_1. While firms' output may have increased this is not enough to offset the number of firms that have left leading to the overall decrease in market quantity.	Explains: • market quantity decreases because firms produce less or some firms leave OR • the firm's output increases because of the higher price.	Explains in detail: • market quantity decreases because firms produce less, with a reason or example of weather conditions that disrupts production or some firms leaving • the firm's output increases because of the higher price, linked to profitability. AND refers to Graph Two or Graph Three.	Explains in detail: • market quantity decreases because firms produce less, with a reason or example of weather conditions that disrupts production • the firm's output increases because of the higher price, linked to profitability • while firms' output increases this is not enough to offset the number of firms leaving, hence the overall market quantity decreases. AND refers to Graph Two and Graph Three.

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence.	Some Achievement evidence, partial explanations.	Most Achievement evidence.	Nearly all Achievement evidence.	Some Merit evidence.	Most Merit evidence.	Excellence evidence. One part may be weaker.	All points covered.
				Must refer to Graph One, Graph Two, or Graph Three.		Integrates relevant information from Graph One, Graph Two, and Graph Three into answer.	

N0 = No response; no relevant evidence.

Q2	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)(i) (ii)	See Appendix.	TWO of: • $P_e = P_{LR}$ labelled • $Q_e = Q_{LR}$ labelled • supernormal profit shaded and labelled.		
(iii)	Short run: Supernormal profit Long run: Supernormal profit	BOTH correct.		
(b)	At output level Q_e, the monopoly maximises profits, which is where MC = MR. This output level is the same both in the short and long run because at Q_{LR} it is also where MC = MR, i.e. at profit maximisation. The monopoly is a price maker and a single seller supplying to the entire market, represented by the AR curve, which is the market demand curve. This means that it can charge a high price by restricting quantity OR if it chooses to reduce price, it is able to increase quantity sold, based on the AR = D curve, i.e. at output level Q_{LR}, the price charged will be P_{LR}. Therefore, the price in the short and long run remains the same at $P_e = P_{LR}$. The monopoly has strong barriers to entry such as high set-up costs or patents. This will prevent any potential new firms from entering the market lured by any supernormal profits the monopoly might be making in the short run. As new firms are prevented from increasing the market supply, the monopoly can keep making supernormal profits in the long run as the price will be prevented from falling.	Explains: • the output in the short run is the same as in the long run OR the price in the short run is the same as in the long run OR the monopoly makes a supernormal profit in the short run and continues to make a supernormal profit in the long run.	Explains in detail TWO of: • the output in the short run is the same as in the long run due to profit maximisation being at the same point • the price in the short run is the same as in the long run, with a reason linked to characteristics of a monopoly • the monopoly makes a supernormal profit in the short run and continues to make a supernormal profit in the long run, with a reason linked to characteristics of a monopoly. AND refers to Graph Four.	Explains in detail ALL of: • the output in the short run is the same as in the long run due to profit maximisation being at the same point • the price in the short run is the same as in the long run, with a reason linked to characteristics of a monopoly • the monopoly makes a supernormal profit in the short run and continues to make a supernormal profit in the long run, with a reason linked to characteristics of a monopoly. AND refers to Graph Four.
(c)(i)	See Appendix	Either • P_1 and Q_1 labelled OR • subnormal profit shaded and labelled.		

(ii)	The fall in demand shifts the AR curve left to AR_1, and MR_1 accordingly to halfway between AR_1 and the origin. At the original output of Q_e, the monopoly is no longer maximising profits (or minimising losses) as $MC > MR_1$. This means that at Q_e the monopoly is making marginal losses as the additional cost in producing the last unit is greater than the additional revenue generated from selling it. This is true for all units between Q_e and Q_1. To reach profit maximising (or loss minimising), the monopoly will decrease output to Q_1 where $MC = MR_1$ and profit is maximised (or loss minimised). At output level Q_1, the price now falls below AC so the monopoly makes a subnormal profit as $AC > AR$ (or $TC > TR$). This means that the revenue generated is not enough to cover all economic costs and if this continues in the long run, the monopoly cannot survive and will leave the industry.	Explains: • output decreases due to MR_1 decreasing OR the monopoly makes a subnormal profit due to the fall in price.	Explains in detail: • output decreases due to shift in the profit maximising point using the concept of marginal analysis OR the monopoly makes a subnormal profit as $AC > AR$ (or $TC > TR$) and will leave the market, as not covering all economic costs. AND refers to Graph Five.	Explains in detail: • output decreases due to shift in the profit maximising point using the concept of marginal analysis AND the monopoly makes a subnormal profit as $AC > AR$ (or $TC > TR$) and will leave the market as not covering all economic costs. AND refers to Graph Five.

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence.	Some Achievement evidence, partial explanations.	Most Achievement evidence.	Nearly all Achievement evidence.	Some Merit evidence.	Most Merit evidence.	Excellence evidence. One part may be weaker.	All points covered.
				Must refer to Graph Four and Graph Five.		Integrates relevant information from Graph Four and Graph Five.	

N0 = No response; no relevant evidence.

<table>
<tr><th>Q3</th><th colspan="4">Sample evidence</th><th>Achievement</th><th>Achievement with Merit</th><th>Achievement with Excellence</th></tr>
<tr><td rowspan="5">(a)(i)</td><td></td><td>Profit maximising</td><td>AC pricing</td><td>MC pricing</td><td rowspan="5">At least SEVEN correct.</td><td rowspan="5"></td><td rowspan="5"></td></tr>
<tr><td>Price</td><td>P_3</td><td>P_2</td><td>P_1</td></tr>
<tr><td>Output</td><td>Q_2</td><td>Q_3</td><td>Q_4</td></tr>
<tr><td>Consumer surplus</td><td>P_5BP_3</td><td>P_5CP_2</td><td>P_5DP_1</td></tr>
<tr><td>Deadweight loss (if any)</td><td>BDF</td><td>CDE</td><td>None</td></tr>
<tr><td>(ii)</td><td colspan="4">Profit maximising: supernormal profit
AC pricing: normal profit
MC pricing: subnormal profit</td><td>At least TWO correct.</td><td></td><td></td></tr>
<tr><td>(b)(i)</td><td colspan="4">Consumers are worst off under profit maximising (PM) as it results in the smallest consumer surplus (i.e. P_5BP_3 is the smallest area of the three CS). This is because the price consumers pay is the highest of all the three options (P_3 is higher than P_2 and P_1), which means that the difference between the price consumers are willing to pay and what they actually pay (P_3) is the smallest. The output under PM is the lowest of the three options (i.e. Q_2 is less than Q_3 and Q_4), which means consumers have the least quantity from which to gain surplus.
Consumers are best off under MC pricing (MCP) as it results in the largest consumer surplus (i.e. P_5DP_1 is the largest area of the three CS). This is because the price consumers pay is the lowest of all the three options (P_1 is lower than P_2 and P_3), which means that the difference between the price consumers are willing to pay and what they actually pay (P_1) is the greatest. The output under MCP is the greatest of the three options (i.e. Q_4 is more than Q_3 and Q_2), which means consumers have the highest quantity from which to gain surplus.</td><td>Explains:
• consumers are worst off under PM because CS is smallest
OR
consumers are best off under MCP because CS is largest.</td><td>Explains in detail:
• consumers are worst off under PM because CS is smallest, with price or quantity reason linked to CS
AND
• consumers are best off under MCP because CS is largest, with price or quantity reason linked to CS.
AND refers to data.</td><td>Explains in detail:
• consumers are worst off under PM because CS is smallest, with both price and quantity reasons linked to CS being smallest
AND
• consumers are best off under MCP because CS is largest, with both price and quantity reasons linked to CS being largest.
AND refers to data.</td></tr>
</table>

(ii)	Allocative efficiency is achieved (or highest) under MCP as the sum of CS and PS is maximised and there is no DWL. Under MCP, the natural monopolist produces where MC = AR, which is where S = D. PM is the least efficient (or allocative efficiency is furthest from being achieved) as the DWL area is the largest (i.e. BDF is bigger than CDE and none). Under PM, the natural monopolist produces where MC = MR, which is not where S=D, leading to a DWL, and the sum of CS and PS is not maximised.	Explains: • AE is achieved under MCP because there is no DWL OR PM results in the least efficient outcome due to the largest DWL.	Explains in detail: • AE is achieved under MCP because there is no DWL, with a reason why there is no DWL AND PM results in the least efficient outcome due to the largest DWL, with a reason why there is a DWL AND refers to data.	Explains in detail: • AE is achieved under MCP because there is no DWL, with two or more reasons why there is no DWL AND PM results in the least efficient outcome due to the largest DWL, with two or more reasons why there is a DWL AND refers to data.
(iii)	Under PM, the natural monopolist makes a supernormal profit as its AR > AC (or TR > TC) so it is making more than sufficient to stay in the industry. This means that the Government will gain tax revenue from the supernormal profit made. This can be used to increase spending in areas of the economy such as education and health. Unlike under MCP, the Government will not need to subsidise the natural monopoly under PM. Under MCP the natural monopolist makes a subnormal profit as its AC > AR (or TC > TR) so it is making less than sufficient to stay in the industry. It will leave the industry unless the Government provides a subsidy equivalent to at least the amount of subnormal profit. This means that the Government will need to fund the subsidy under MCP. This might lead to the Government having to cut spending in other areas of the economy or resort to increasing debt. Under ACP the natural monopolist makes a normal profit as its AR = AC (or TR = TC) so it is making just sufficient return to stay in the industry. It will not need a subsidy from the Government.	Explains ONE of: • under PM supernormal profit is made as AR > AC (or TR > TC) or the monopolist is making more than sufficient to stay so the Government gains tax revenue • under MCP subnormal profit is made as AC > AR (or TC > TR) or it is making less than sufficient to stay so will need a subsidy from the Government in order to stay • under ACP a normal profit is made as AR = AC (TR = TC or it is making just enough to stay) so will not need a subsidy from the Government.	Explains in detail TWO of: • under PM supernormal profit is made as AR > AC (or TR > TC) and the monopolist is making more than sufficient to stay; the Government gains tax revenue, or no need to subsidise or more detail on what the tax revenue could be used for • under MCP subnormal profit is made as AC > AR (or TC > TR) so it is making less than sufficient to stay and will need a subsidy from the Government, or more detail on the impact on the Government's budget • under ACP a normal profit is made as AR = AC (or TR = TC) so it is making just enough to stay so will not need a subsidy from the Government.	Explains in detail ALL of: • under PM supernormal profit is made as AR > AC (or TR > TC) and the monopolist is making more than sufficient to stay; the Government gains tax revenue, and no need to subsidise or more detail on what the tax revenue could be used for • under MCP subnormal profit is made as AC > AR (or TC > TR) so it is making less than sufficient to stay and will need a subsidy from the Government, plus more detail on the impact on the Government's budget • under ACP a normal profit is made as AR = AC (or TR = TC) so it is making just enough to stay so will not need a subsidy from the Government.

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence.	Some Achievement evidence, partial explanations.	Most Achievement evidence.	Nearly all Achievement evidence.	Some Merit evidence.	Most Merit evidence.	Excellence evidence. One part may be weaker.	All points covered.
				Must refer to Graph Six or Table One.		Integrates relevant information from Graph Six and Table One.	

N0 = No response; no relevant evidence.

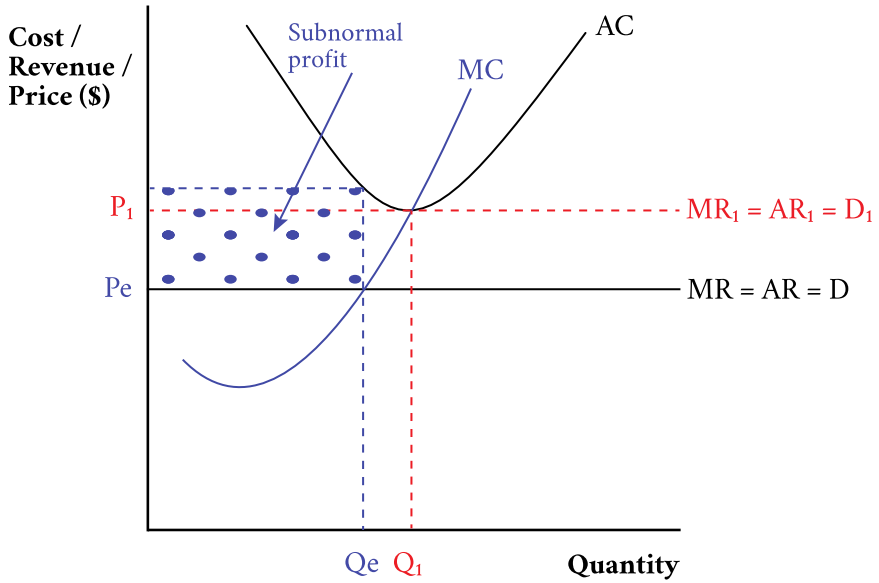
Cut Scores

Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
00–06	07–13	14–19	20–24

Appendix

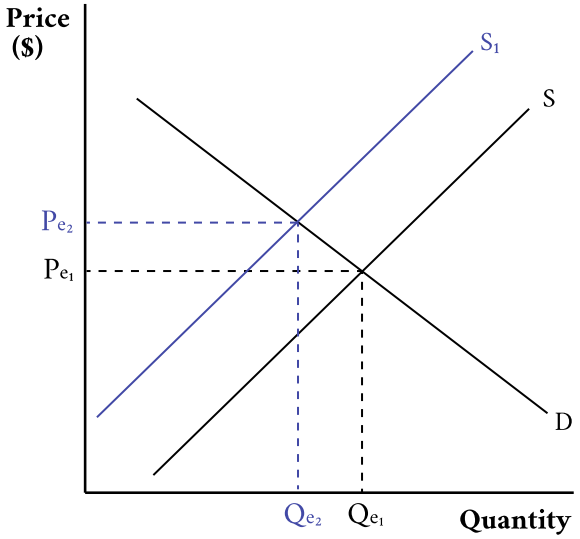
Question One (a)(i) and (ii)

Graph One: Perfect competitor earning subnormal profit in the short run

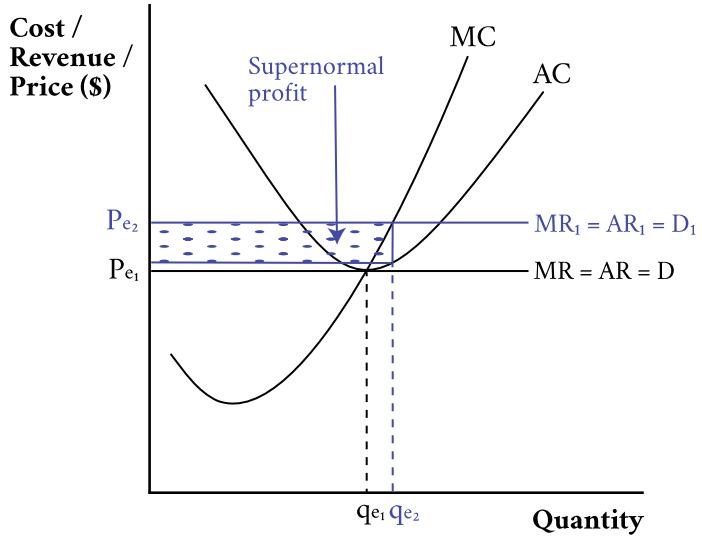


Question One (b)(i) and (ii)

Graph Two: The market

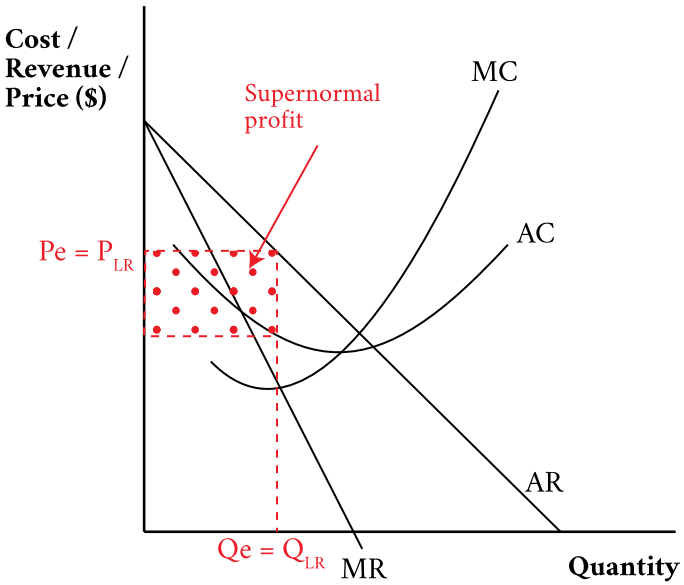


Graph Three: The perfect competition firm



Question Two (a)(i) and (ii)

Graph Four: Monopoly in the short and long run



Question Two (c)(i)

Graph Five: Monopoly – impact of falling demand