Assessment Schedule – 2019

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: – pricing and output decisions for perfectly competitive and / or monopolist firms using marginal analysis – efficiency of a market structure – 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 • 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: – pricing and output decisions for perfectly competitive and / or monopolist firms using marginal analysis – 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 • 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	Evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)	**See Appendix.**	TWO of: - MR = AR line shifted down and labelled. - Lower price and quantity labelled. - Subnormal profit shaded and labelled.		
(b)	**See Appendix.**	BOTH of: - AC curve (only) shifted down and labelled. - Supernormal profit shaded and labelled.		
(c)	**Falling dairy prices** A decrease in the global prices would decrease the market price and hence the price (payout) received by the individual dairy farmer (from P to P_1 is therefore shown as a downward shift in the MR=AR=D to MR_1=AR_1=D_1. The individual dairy farmer is a price taker, too small to influence the market price and hence has to accept the price set by the market.	Explains for a falling dairy price: • The short-run price level will decrease due to the dairy farmer being a price taker.	Explains in detail for a falling dairy price: • The short-run price level will decrease due to the dairy farmer being a price taker, too small to influence the market.	Explains in detail for a falling dairy price: • The short-run price level will decrease due to the dairy farmer being a price taker, too small to influence the market.
	At the original output of Q, MC is now greater than MR_1, meaning the individual dairy farmer is making marginal losses and this is true for all units between Q and Q_1. To maximise profit, the individual farmer will reduce output to Q_1 where MC=MR_1, the profit maximisation point. At this level of output, the AC is greater than the price, resulting in a subnormal profit being made in the short run as TC is greater than TR and the firm is earning less than sufficient to stay in the industry	• The short-run level of output will decrease as the MC is greater than the new MR OR because the firm will reduce output to where the MC=MR1 where profits are maximised/losses minimised	• The short-run level of output will decrease as the MC is greater than the new MR (marginal losses being made) ,AND because the firm will reduce output to where the MC=MR1 where profits are maximised/losses minimised	• The short-run level of output will decrease as the MC is greater than the new MR (marginal losses being made), AND because the firm will reduce output to where the MC=MR1 where profits are maximised/losses minimised
		• The short-run economic profit earned is subnormal because AC is now greater than AR or P	• The short-run economic profit earned is subnormal because AR (or revenue or price) has decreased so AC is greater than the AR or P, and they earn less than the minimum	• The short-run economic profit earned is subnormal because AR (or revenue or price) has decreased so AC is greater than the AR or P, and they earn less than the minimum

			return required to stay in the industry (TC greater than TR). OR	return required to stay in the industry (TC greater than TR). AND
	Decrease in interest / fixed costs A decrease in interest rates means a decrease in fixed costs, which causes a decrease in Average Cost only, shifting AC curve down to AC_1. Due to MC staying constant, the profit maximising (where MC=MR) price and output level also remain the same i.e. $P=P_2$ and $Q=Q_2$. However, due to the lower AC at this level of output, the individual dairy farmer in this instance makes a supernormal profit in the short run, as shown by the shaded area in Graph Two as the price P_2 or AR is greater than the AC_1 so TR greater than TC and the firm is earning more than sufficient to stay in the industry	Explains for a decrease in interest / fixed costs: • The short-run price and output level will not change as profit maximisation point MC=MR has remained the same OR fixed costs only affect AC (and not MC). • The short-run economic profit earned is supernormal because AC is now lower than AR or P.	Explains in detail for a decrease in interest / fixed costs: • The short-run price and output level will not change as profit maximisation point MC=MR has remained the same AND fixed costs only affect AC (and not MC). • The short-run economic profit earned is supernormal as the AR or P is greater than the AC (TR greater than TC) and the firm is earning more than sufficient to stay in the industry	Explains in detail for a decrease in interest / fixed costs: • The short-run price and output level will not change as profit maximisation point MC=MR has remained the same AND fixed costs only affect AC (and not MC). • The short-run economic profit earned is supernormal as the AR or P is greater than the AC (TR greater than TC) and the firm is earning more than sufficient to stay in the industry

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. AND Integrates relevant information from both graphs into the explanation.	All points covered. AND Integrates relevant information from both graphs into the explanation.

N0 = No response; no relevant evidence.

Q2	Evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)(i)	**See Appendix.**	TWO of: - Consumer Surplus and DWL shaded and labelled - AC pricing equilibrium price and output labelled - Normal profit stated.		
(ii)	Normal profit.			
(b)(i)	**See Appendix.**	TWO of: - Consumer Surplus shaded and labelled and no DWL shaded or labelled - MC pricing equilibrium price and output labelled		
(ii)	Subnormal profit.	- Subnormal profit stated.		
(c)	**Impact on consumers** Under AC pricing, the consumers are worse off as the price (P_a) they pay is higher and they consume fewer units (Q_a) compared with under MC pricing where they pay (P_m), a lower price, and consume a higher quantity (Q_m). This means consumers gain a smaller consumer surplus under AC pricing as shown by the smaller shaded area of CS in Graph Three compared with Graph Four, indicating the difference between what consumers are willing to pay and what they actually pay is smaller and there are less units from which to gain a surplus under AC pricing compared with MC pricing.	Explains that: • Under AC pricing the consumers are worse-off as the consumer surplus is less, OR they pay a higher price, OR they consume a lower quantity.	Explains in detail that: • Under AC pricing the consumers are worse-off as the consumer surplus is less because they pay a higher price and consume a lower quantity. OR	Explains in detail that: • Under AC pricing the consumers are worse-off as the consumer surplus is less because they pay a higher price and consume a lower quantity. AND
	Impact on allocative efficiency Under MC pricing, the natural monopolist achieves allocative efficiency as it operates at the point where MC=AR, AR being the market demand curve for the firm, the only seller in the market, and MC being is the market supply curve. Under MC pricing the price P_m and the quantity produced Q_m are the allocative efficient price and quantity as market demand equals market supply and there is no deadweight loss. Under AC pricing, the natural monopolist is not allocatively efficient as it operates at the point where	• Under MC pricing the consumers are better-off as the consumer surplus is larger, OR they pay a lower price, OR they consume a larger quantity. • Under MC pricing the natural monopolist is allocatively efficient as it is operating where market supply = market demand, OR there is	• Under MC pricing the consumers are better-off as the consumer surplus is larger because they pay a lower price and they consume a larger quantity. • Under MC pricing the natural monopolist is allocatively efficient as it is operating where market supply = market demand, and there is	• Under MC pricing the consumers are better-off as the consumer surplus is larger because they pay a lower price and they consume a larger quantity. • Under MC pricing the natural monopolist is allocatively efficient as it is operating where market supply = market demand, and there is

	AC=AR, and this is where AR (demand) is not equal to MC (supply). Under AC pricing the price P_a and the quantity produced Q_a are not allocatively efficient as a deadweight loss is created as shown by the shaded area in Graph Three.	no deadweight loss. • Under AC pricing the natural monopolist is not allocatively efficient as it is operating where market demand does not equal market supply, OR there is a deadweight loss.	no deadweight loss. OR • Under AC pricing the natural monopolist is not allocatively efficient as it is operating where market demand does not equal market supply and there is a deadweight loss.	no deadweight loss. AND • Under AC pricing the natural monopolist is not allocatively efficient as it is operating where market demand does not equal market supply, and there is a deadweight loss.
	Impact on economic profit and ability to stay in the long run Under AC pricing, the natural monopoly earns a normal profit as the price (P_a or AR) they charge equals their AC. This means it covers all their economic costs and they are earning the minimum return to keep them in business so will continue operating.	• Under AC pricing the natural monopolist makes normal profit and will continue operating.	• Under AC pricing the natural monopolist makes normal profit (the minimum return to keep the owner in business) as their price or AR =AC (TR=TC) so will continue operating. OR	• Under AC pricing the natural monopolist makes normal profit (the minimum return to keep the owner in business) as their price or AR = AC (TR=TC) so will continue operating. AND
	Under MC pricing, the natural monopoly makes a subnormal profit as the price (P_m or AR) they charge is less than their AC, meaning not enough to cover all their economic costs. As they are earning less than the minimum return to sustain them in business, in the long run they will leave the industry unless the government provides a subsidy.	• Under MC pricing the natural monopolist makes a subnormal profit and will leave the industry, OR will require a subsidy in order to continue operating.	• Under MC pricing the natural monopolist makes a subnormal profit (less than the minimum return required to keep the owner in business) as their price or AR is less than AC (TC>TR) and will leave the industry unless a subsidy is provided.	• Under MC pricing the natural monopolist makes a subnormal profit (less than the minimum return required to keep the owner in business) as their price or AR is less than AC (TC>TR) and will leave the industry unless a subsidy is provided.

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. AND integrates relevant information from both graphs into the explanation.	All points covered. AND integrates relevant information from both graphs into the explanation.

N0 = No response; no relevant evidence.

Q3	Evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)	**See Appendix.**	BOTH of: - Higher price and higher quantity labelled. - Supernormal profit shaded and labelled.		
(b)(i) (ii)	**See Appendix.**	TWO of: - MR line shifted right and halfway between the origin and AR4=D4 line, as well as labelled. - Higher price and higher quantity labelled. - Supernormal profit shaded and labelled.		
(iii)	An increase in demand shifts $AR_3 = D_3$ curve to the right, to $AR_4 = D_4$ and MR_3 to MR_4. This means that, at the original output level of Q_3, the firm is not profit maximising as the new MR is greater than the MC ($MR_4 > MC$). As a result, the additional revenue generated from selling the last unit is greater than the additional cost in producing it so the firm is missing marginal profits. This is true for all units between Q_3 and Q_4. To profit-maximise, the monopoly will increase output to Q_4 where $MC=MR_4$.	Explains that the monopolist will increase output because of ONE of: - The new MR is greater than the MC. - It is missing marginal profits. - To profit maximise, it will increase output to where MC=new MR.	Explains in detail that the monopolist will increase output because of THREE of: - The new MR is greater than the MC. - It is missing marginal profits. - To profit maximise, it will increase output to where MC=new MR.	Explains in detail that the monopolist will increase output because of THREE of: - The new MR is greater than the MC. - It is missing marginal profits. - To profit maximise, it will increase output to where MC=new MR.
(c)	**Impact on pricing** Perfect competition has many sellers. They sell a homogenous product and are price takers as each firm is too small to influence the market price (indicated by the horizontal MR=AR=D curve). When demand increases, the MR=AR=D curve shifts up from $MR_1=AR_1=D_1$ to $MR_2=AR_2=D_2$, and the perfect competitor takes the new higher price, P_2 as set by the market. At P_2, the perfect competitor maximises profits as this is where $MC=MR_2$. Monopoly, on the other hand, being the only seller in the market, they can set the price or quantity. With the higher MR the monopoly will increase output to where $MC=MR_4$ and profits are maximised. At this output level they will	Explains the impact on pricing: • The PC firm will have a price increase as the firm is a price taker, OR is too small to influence the market price, OR as it takes the higher market price set by the market. • For the monopolist the price increases as it is a price maker, OR it can set price or quantity because it is the only seller in the market, OR due	Explains in detail, the impact on pricing: • The PC firm will have a price increase as the firm is a price taker as is too small to influence the market price so it takes the higher market price set by the market. • The monopolist can set the price or quantity as it is the only seller in the market. Due to the higher MR and AR the profit-maximising	Explains in detail, the impact on pricing: • The PC firm will have a price increase as the firm is a price taker as is too small to influence the market price so it takes the higher market price set by the market. • The monopolist can set the price or quantity as it is the only seller in the market. Due to the higher MR and AR the profit-maximising output

	charge a higher price, P_4, which equals AR at the higher quantity. **In the long run** In the long run, the perfect competitor will only make normal profit as no barriers to entry will attract more firms into the industry, increasing market supply and reducing the market price until all supernormal profits are eliminated and there is no longer an incentive for new firms to join the industry. The monopoly will continue to earn a supernormal profit in the long run as it has strong barriers to entry (eg high set up costs, technology or legal barriers). These will prevent new firms from entering the market so market supply cannot increase and the price won't decrease	to the higher AR at the new profit maximising quantity. Explains that in the long run: • the perfect competitor makes only normal profit due to no barriers of entry. • the monopoly continues to earn a supernormal profit due to strong barriers to entry.	output increases and the monopolist can charge a higher price, which equals AR at the higher quantity. OR Explains in detail that in the long run: • the perfect competitor will only make normal profit as no barriers of entry will attract more firms into the industry, increasing market supply and reducing the market price until all supernormal profits are eliminated and there is no longer an incentive for new firms to join the industry. • The monopoly will continue to earn a supernormal profit in the long run as it has strong barriers to entry. These will prevent new firms from entering the market so market supply cannot increase and the price won't decrease	increases and the monopolist can charge a higher price, which equals AR at the higher quantity. AND Explains in detail that in the long run: • the perfect competitor will only make normal profit as no barriers of entry will attract more firms into the industry, increasing market supply and reducing the market price until all supernormal profits are eliminated and there is no longer an incentive for new firms to join the industry. • The monopoly will continue to earn a supernormal profit in the long run as it has strong barriers to entry.These will prevent new firms from entering the market so market supply cannot increase and the price won't decrease.

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. AND Integrates relevant information from both graphs into the explanation.	All points covered. AND Integrates relevant information from both graphs into the explanation.

N0 = No response; no relevant evidence.

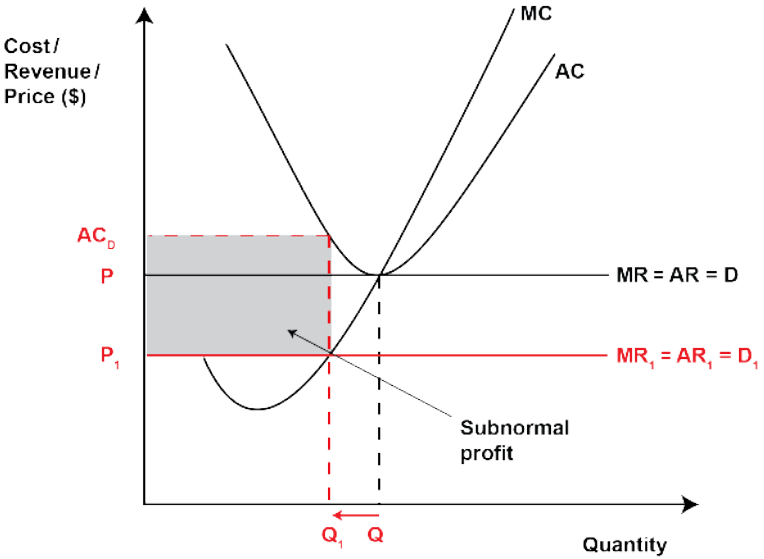
Cut Scores

Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
0 – 6	7 - 12	13 - 18	19 – 24

Appendix

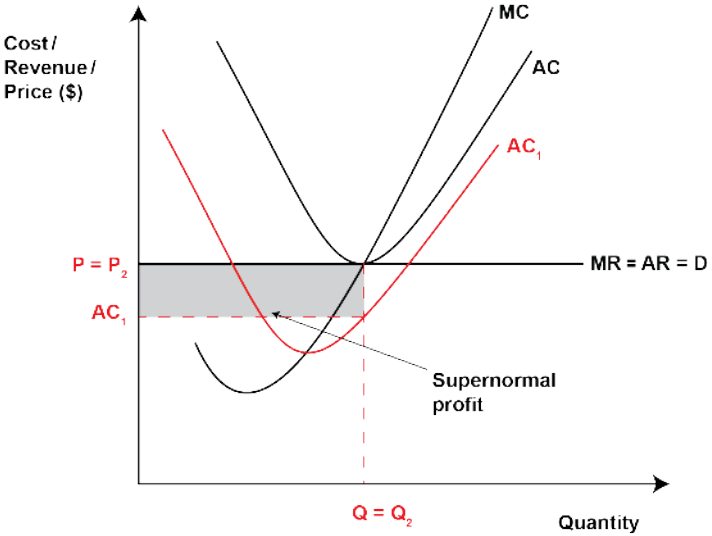
Question One (a)

Graph One: A perfect competitor earning normal profit



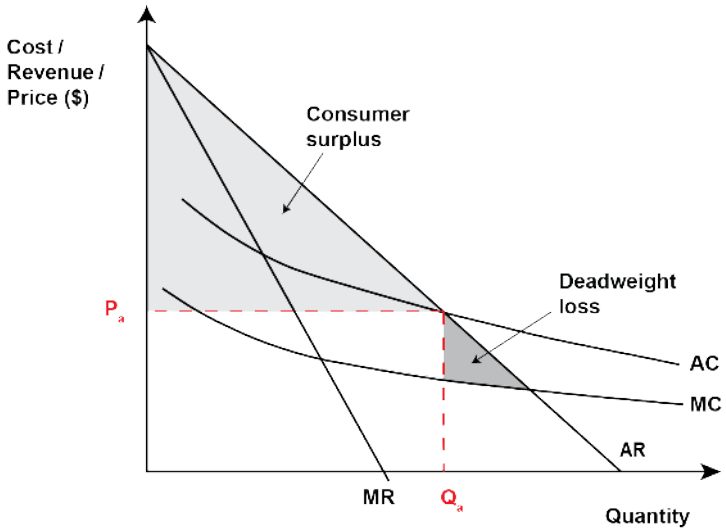
Question One (b)

Graph Two: A perfect competitor earning normal profit



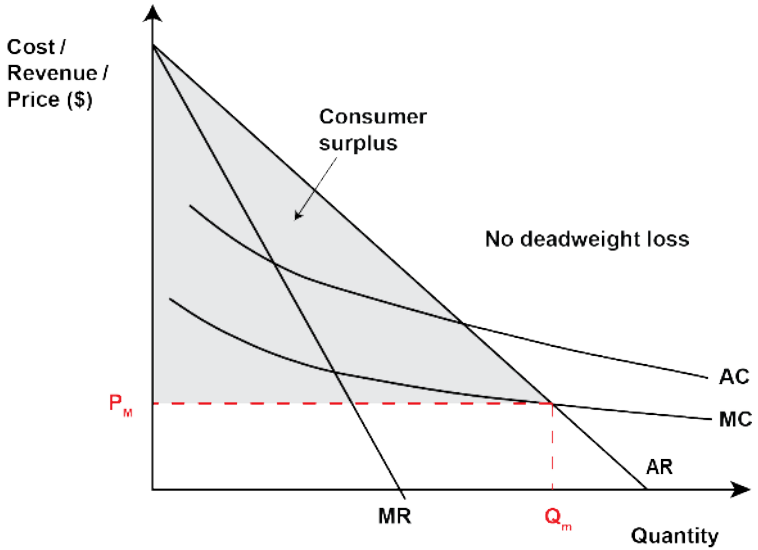
Question Two (a)(i)

Graph Three: A natural monopolist operating under average-cost pricing

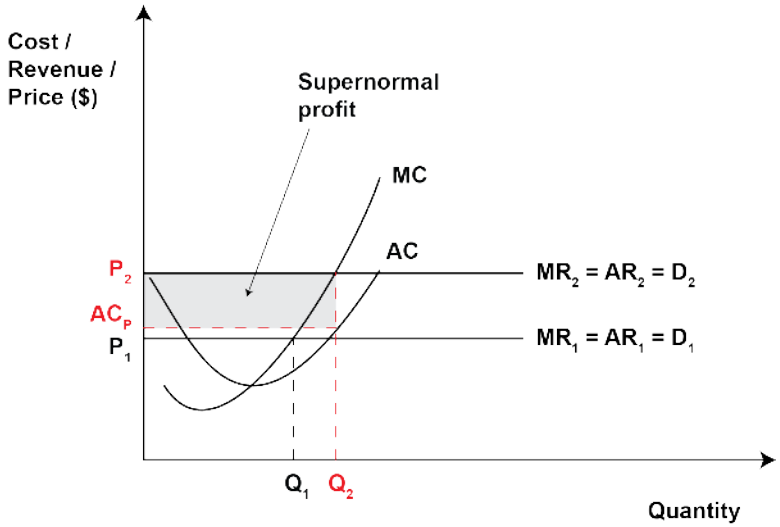


Question Two (b)(i)

Graph Four: A natural monopolist operating under marginal-cost pricing



Question Three (a)



Graph Five: perfect competition with an increase in demand

Question Five (b)(i) and (ii)

Graph Six: Monopoly with an increase in demand