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Level 3 Economics 2021

91400 Demonstrate understanding of the efficiency of different market structures using marginal analysis

Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of the efficiency of different market structures using marginal analysis.	Demonstrate in-depth understanding of the efficiency of different market structures using marginal analysis.	Demonstrate comprehensive understanding of the efficiency of different market structures using marginal analysis.

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should attempt ALL the questions in this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–8 in the correct order and that none of these pages is blank.

Do not write in any cross-hatched area ( ). This area may be cut off when the booklet is marked.

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QUESTION ONE: Natural monopoly

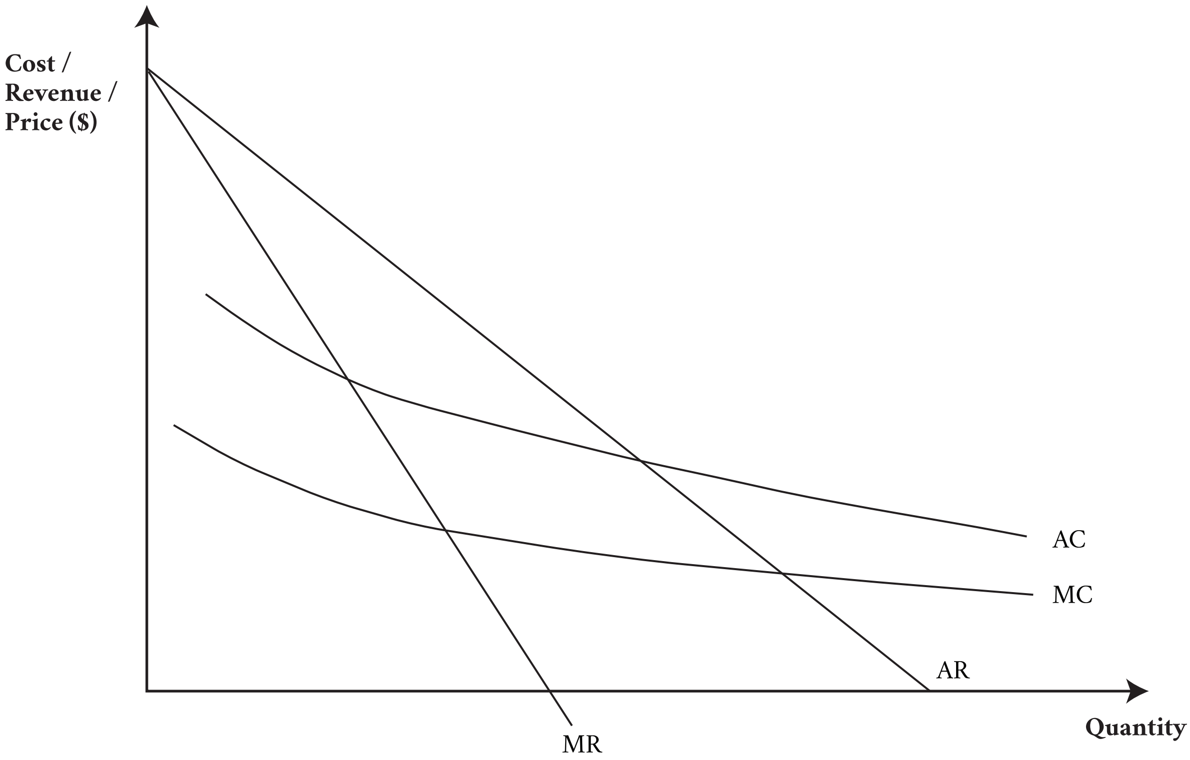
(a) On Graph One, below:

(i) label the price (P_{MC}) and quantity (Q_{MC}) if the natural monopolist is operating with a marginal cost pricing regulation set by the Government

(ii) shade and label the type of economic profit that would be earned by the natural monopolist with a marginal cost pricing regulation set by the Government

(iii) shade and label the consumer surplus if the natural monopolist is operating with a marginal cost pricing regulation set by the Government.

Graph One: A natural monopoly



(b) Using marginal analysis, explain why the natural monopolist would not operate at a price of P_{MC} and quantity of Q_{MC} if there was no pricing regulation set by the Government.

(c) Label the profit maximising price (P_2) and quantity (Q_2) if the monopolist was not operating with a marginal cost pricing regulation or any other pricing regulation.

(d) Compare and contrast the impacts of a marginal cost pricing regulation on consumers, the natural monopolist, the Government, and allocative efficiency. Refer to Graph One, and explain:

(i) How does marginal cost pricing impact consumer surplus and the economic profit earned by the natural monopolist?

(ii) How does marginal cost pricing impact the Government and allocative efficiency?

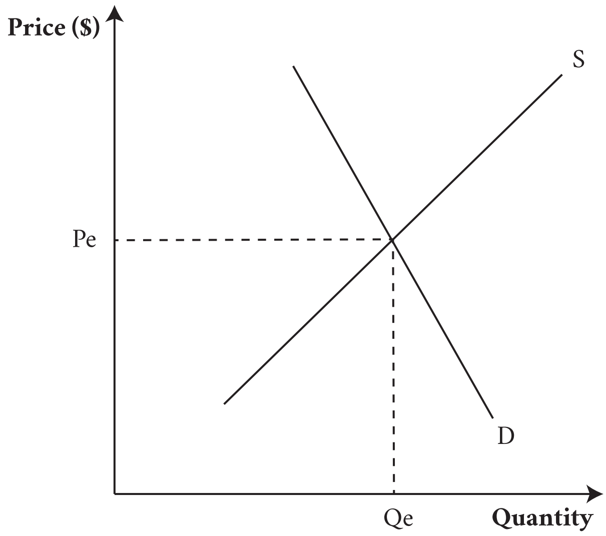
QUESTION TWO: Allocative efficiency and long-run equilibriums

An individual firm earning a short-run supernormal profit is in a perfectly competitive market structure.

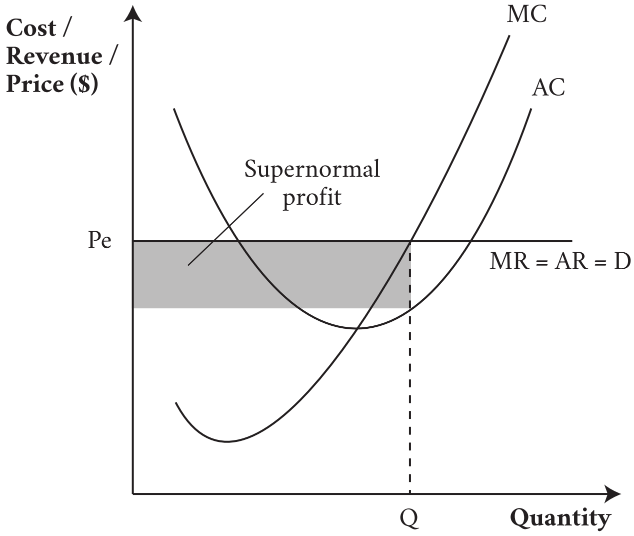
(a) (i) On Graph Two, below, show how the market will react to the supernormal profit in the long run. Label any curve shifts and changes in the market equilibrium price (P_2) and quantity (Q_2).

(ii) On Graph Three, below right, show how the long-run change in the market will affect the long-run profit-maximising equilibrium for the individual firm. Label any curve shifts and changes in the profit-maximising price (P_{LR}) and quantity (Q_{LR}).

Graph Two: The market

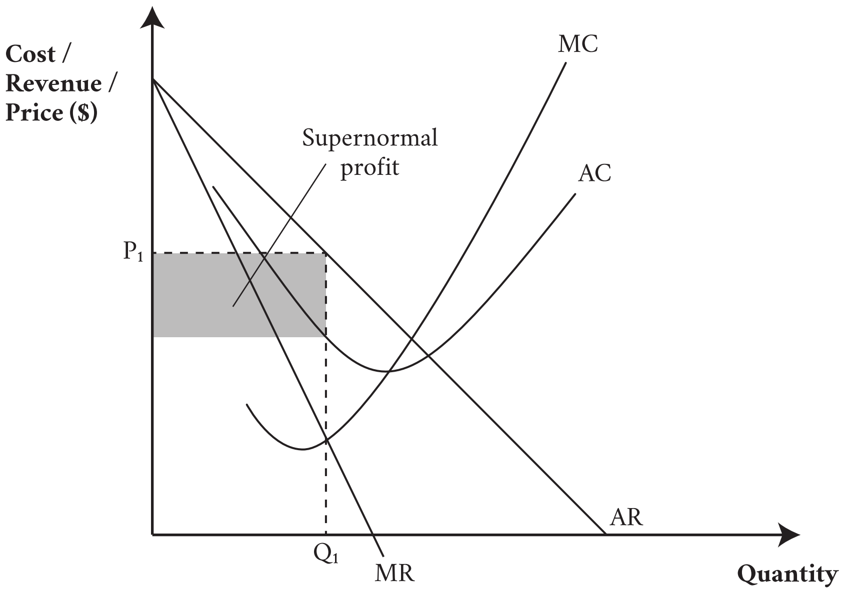


Graph Three: The individual firm



(b) On Graph Four, below, label the long-run profit-maximising price (P_4) and quantity (Q_4) for the monopolist.

Graph Four: A monopolist earning a supernormal profit in the short run



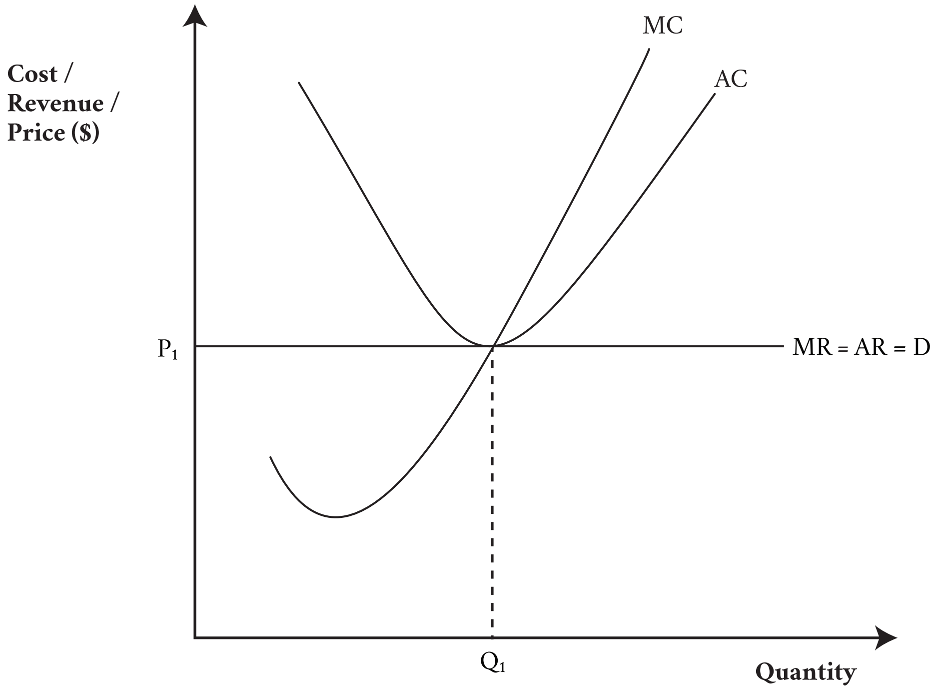
(c) Compare and contrast the allocative efficiency and long-run profits of the perfect competition and monopoly market structures. Refer to all three graphs on page 4, the characteristics of each market structure, and explain:

- why perfect competition is an allocatively efficient market structure
- why a monopoly is an allocatively inefficient market structure
- any changes in the long-run profit for the individual firm, and the monopolist.

QUESTION THREE: Changes in fixed and variable costs

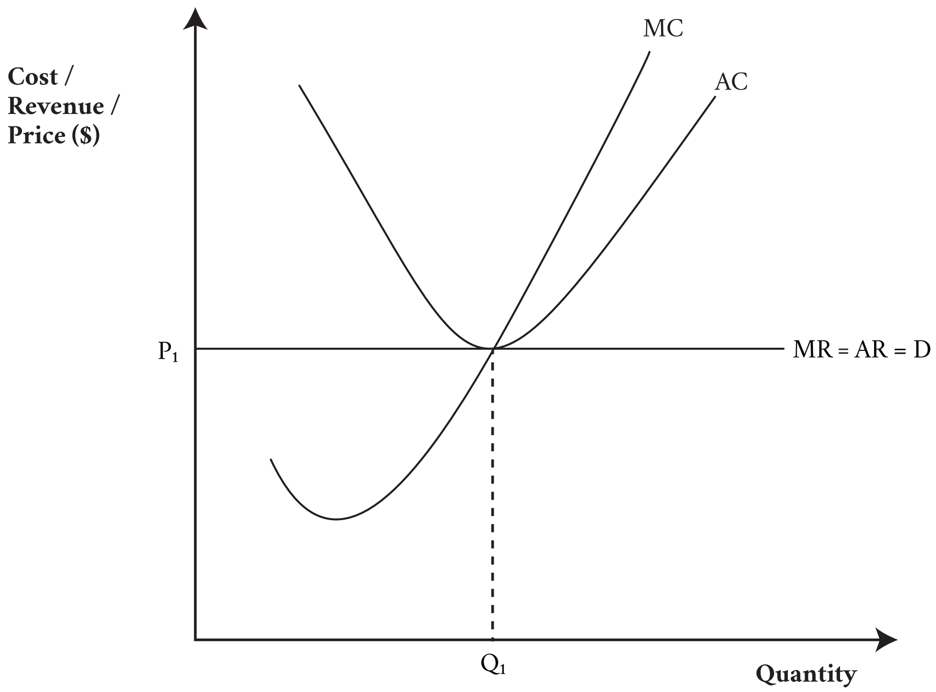
(a) On Graph Five, below, show the impact (if any) on the short-run price and output if there is an increase in fixed costs for the perfectly competitive firm. Label any curve shifts and changes in the profit-maximising price and quantity.

Graph Five: A perfectly competitive firm earning a normal profit



(b) On Graph Six, below, show the impact (if any) on the short-run price and output if there is an increase in variable costs for the perfectly competitive firm. Label any curve shifts and changes in the profit-maximising price and quantity.

Graph Six: A perfectly competitive firm earning a normal profit



(c) Use marginal analysis to compare and contrast the impacts of increased fixed costs with the impact of increased variable costs for a perfectly competitive firm. Refer to both graphs and the characteristics of perfect competition, and:

- use examples to explain the difference between fixed and variable costs
- explain the impact of increased fixed costs and increased variable costs on the short-run price and output levels of a perfectly competitive firm.

Extra space if required.
Write the question number(s) if applicable.

QUESTION NUMBER

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