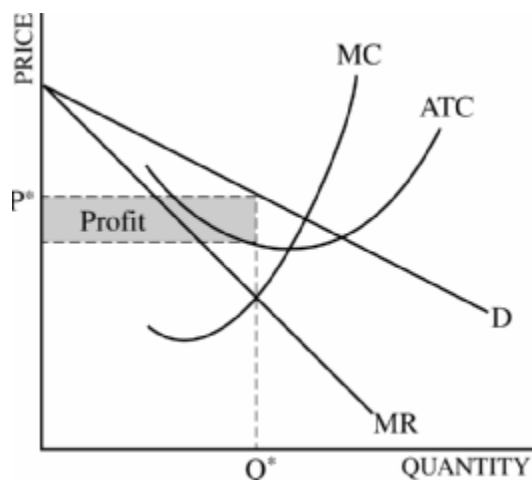


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**2007 SCORING GUIDELINES (Form B)**

**Question 1**

**12 points** (4 + 2 + 2 + 1 + 1 + 2)



(a) 4 points:

One point is earned for a correctly labeled graph with a downward-sloping demand curve and a marginal revenue curve below the demand curve.

One point is earned for showing the profit-maximizing  $Q^*$  at  $MC = MR$ .

One point is earned for  $P^*$  on the demand curve above  $MC = MR$ .

One point is earned for showing the correct area of profit,  $(P^* - ATC)Q^*$ .

(b) 2 points:

One point is earned for stating that it is price elastic (or "No").

One point is earned for the explanation that MR is positive so that TR rises if P is decreased.

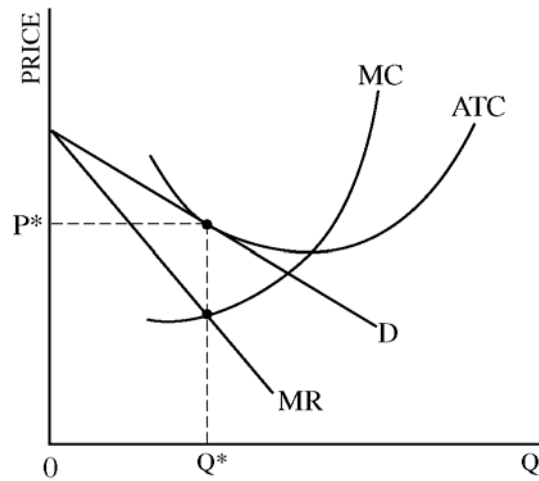
(c) 2 points:

One point is earned for stating that the demand curve for the typical firm would shift to the left.

One point is earned for the explanation that the entry of new firms reduces the market share of existing firms.

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**2007 SCORING GUIDELINES (Form B)**

**Question 1 (continued)**



(d) 1 point:

One point is earned for showing that long-run equilibrium occurs at the tangency of ATC and the demand curve at the profit-maximizing quantity.

(e) 1 point:

One point is earned for stating “No.”

(f) 2 points:

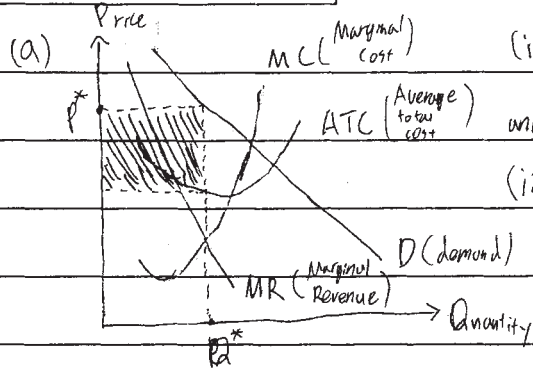
One point is earned for stating “No.”

One point is earned for the explanation that at the long-run equilibrium,  $P > MC$ .

1

Write in the box the number of the question you are answering on this page as it is designated in the exam.

1A



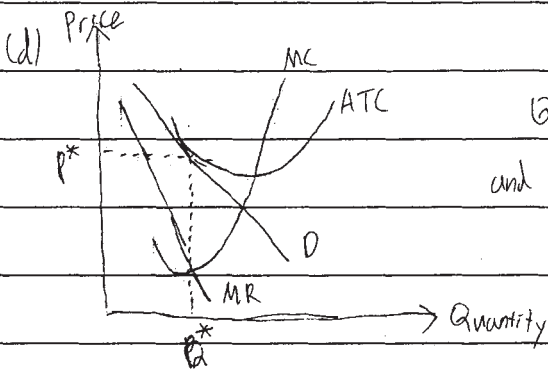
(i)  $Q^*$  is the profit-maximizing output

and  $P^*$  is the profit-maximizing ~~profit~~ price

(ii) The shaded area

(b) No, it would be price elastic since  $MR > 0$ .

(c) Because of the entry of other firms, Demand Curve moves to <sup>the</sup> left until it is tangent to the ATC curve.



$Q^*$  is the profit-maximizing output

and  $P^*$  is the profit-maximizing price.

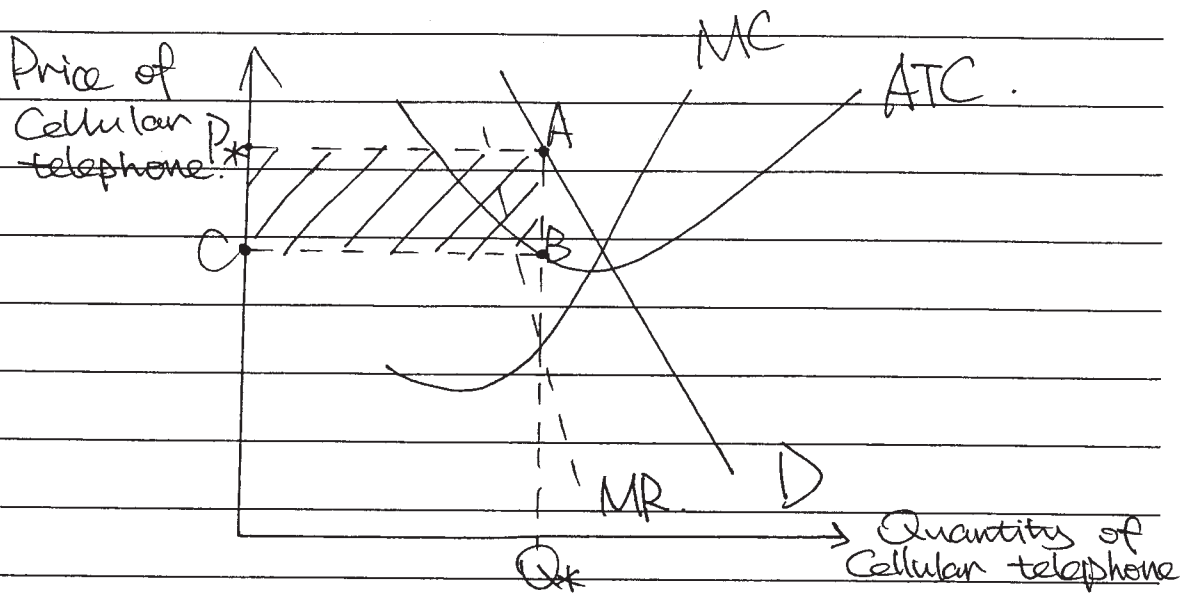
(e) No, the firm produces an ~~output level~~ output level which is the point where <sup>curve</sup>  $D^v$  is tangent to ATC curve, in the long run.

(f) No,  $P > MC$

Write in the box the number of the question you are answering on this page as it is designated in the exam.

1. a.

1B,



i) To maximize profit, the firm operates at the output level where  $MR = MC$ , which is  $Q^*$ . ~~The~~ Corresponding price is found from the point on  $D$  vertically above  $Q^*$ , which is  $P^*$ .

ii) The area representing economic profit is  $P^*CBA$ ,  $AB$  being economic profit per unit and  $BC$  being the ~~at~~ equilibrium quantity.

1. b.

Write in the box the number of the question you are answering on this page as it is designated in the exam.

1 B<sub>2</sub>

Yes. In a monopolistic market firms strive to differentiate their products and make the demand for their product less ~~so~~ price elastic. ~~Each~~ Products are not homogeneous and tend to have <sup>some</sup> branding and loyalty to have an inelastic demand curve.

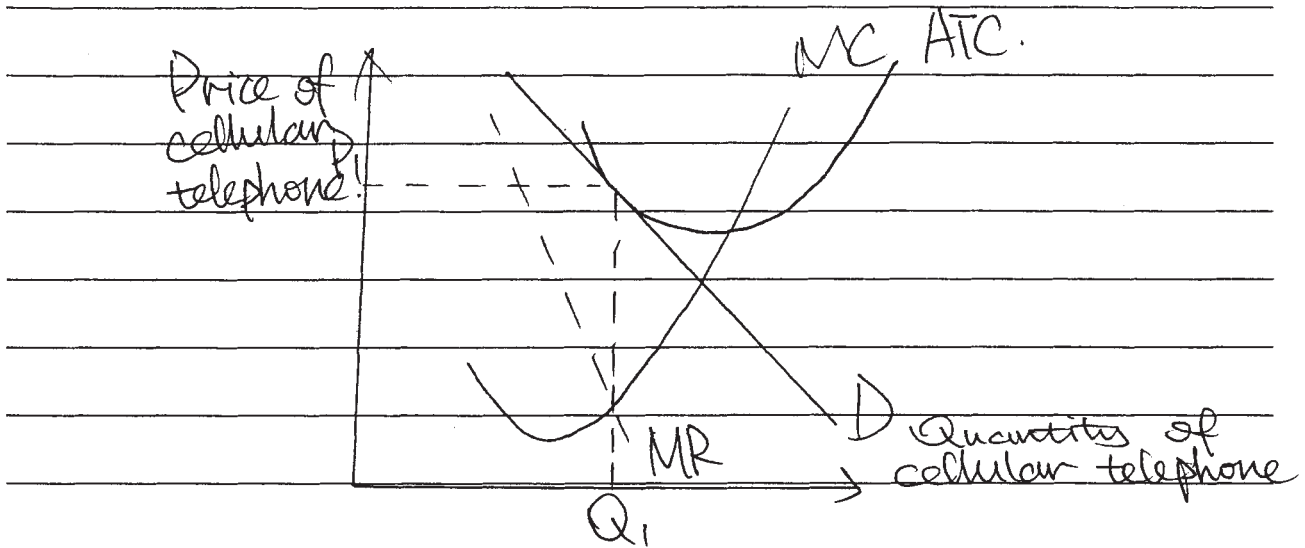
Write in the box the number of the question you are answering on this page as it is designated in the exam.

1.C. 1B<sub>3</sub>

As the existing firm is able to earn economic profits, new firms are attracted to enter the market, decreasing demand for the existing firm's product and causing their demand curve to shift inward until no economic profits could be earned.

1. d.

Write in the box the number of the question you are answering on this page as it is designated in the exam. 1B<sub>4</sub>



The firm operates at the profit-maximizing level where  $MR = MC$ , ~~at~~ with output  $Q_1$  and price  $P_1$ .

Write in the box the number of the question you are answering on this page as it is designated in the exam.

1.e. 1B<sub>5</sub>

No. Though the firm operates at the level where  $P=ATC$  so no economic profits are made ~~but~~,  $P \neq MC$  at this point and the firm does ~~not~~ not operate ~~at~~ where  $ATC$  is at its minimum.



1.f.

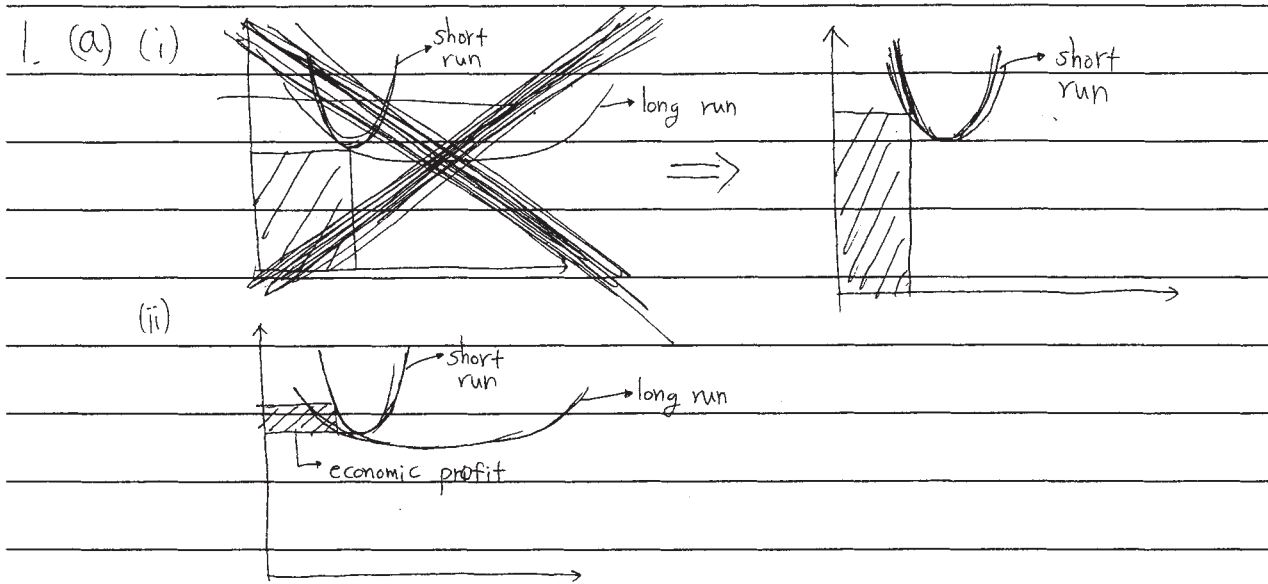
Write in the box the number of the question you are answering on this page as it is designated in the exam.

1B<sub>6</sub>

No. The firm is not operating ~~at~~ at the point where ATC is at its minimum. There is spare capacity and resources are not best employed to maximize output.

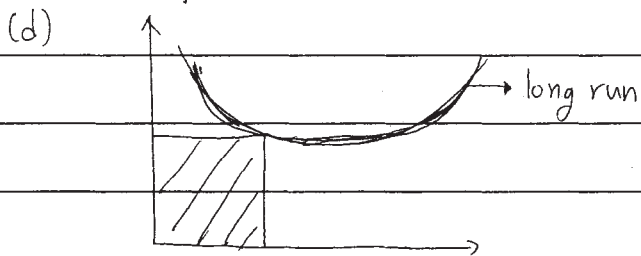
Write in the box the number of the question you are answering on this page as it is designated in the exam.

1 10



(b) Yes, the typical firm's demand curve is price inelastic. Because cellular telephone is very useful in our life and if we don't have it, our life is very not convenient, like inelastic agricultural products.

(c) In the long run, demand curve is not changed when output and price is pertinent.



(e) No, it doesn't. Only maximize.

(f) Yes, it does. Because it have an eye for future (long run). So, the typical firm produce the allocatively efficient level of output.

**AP<sup>®</sup> MICROECONOMICS**  
**2007 SCORING COMMENTARY (Form B)**

**Question 1**

**Sample: 1A**

**Score: 12**

The student earned all points in this question.

**Sample: 1B**

**Score: 9**

The student lost both points in part (b) for incorrectly stating that demand is “inelastic.” The student lost 1 point in part (f) because the answer does not properly explain allocative efficiency as price exceeding marginal cost at the long-run equilibrium.

**Sample: 1C**

**Score: 1**

The student earned 1 point in part (e) for correctly asserting that the typical firm does not produce an output level that minimizes its ATC in the long run. The incomplete statement “Only maximize” was ignored.