

AP[®] MICROECONOMICS
2010 SCORING GUIDELINES (Form B)

Question 1

10 points (2 + 2 + 1 + 2 + 2 + 1)

(a) 2 points:

- One point is earned for identifying the output as Q_2 .
- One point is earned for identifying the price as \$7.

(b) 2 points:

- One point is earned for identifying the output as Q_4 .
- One point is earned for identifying the price as \$0.

(c) 1 point:

- One point is earned for stating that the accounting profit is positive, because the firm earns zero economic profit. (Economic profit = Total revenue - Explicit costs - Implicit costs.)

(d) 2 points:

- One point is earned for identifying the break-even quantity as Q_3 .
- One point is earned for stating that the demand at Q_3 is relatively inelastic.

(e) 2 points:

- One point is earned for stating that the demand curve for bridge crossings will shift down or to the left.
- One point is earned for stating that the profit-maximizing output will fall.

(f) 1 point:

- One point is earned for stating that building a second bridge would be inefficient and for explaining that, because there are economies of scale, building a second bridge would raise the average total cost.

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

Question 1

1. (a) Marginal Cost = Marginal Revenue

(i) Output = Q_2

(ii) Price is the corresponding price on the demand curve for Q_2 output.

Price = \$7

(b) Price = Marginal Cost = 0

Output is the corresponding output on the demand curve for price = 0

(i) Output = Q_4

(ii) Price = 0

(c) At \$1 price, the municipality's accounting profit is positive.

Because:

Economic profit = Accounting profit - opportunity cost
When price = \$1, Average Total Cost = Price, so there's no economic profit.

Therefore, Accounting profit = opportunity cost > 0

(d) Average Total Cost = Price

Price = \$1, the corresponding output on the demand curve is Q_3

(i) The break-even output is Q_3 .

Question 1

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

(ii) By definition, the output of Q_2 is where unit elastic occurs ($|E|=1$). For any point on the right of Q_2 , the demand is relatively inelastic ($0 < |E| < 1$). $Q_3 > Q_2$, so at the output of Q_3 , the demand is relatively inelastic.

(e) (i) Watercraft is a substitute of bridge, so the demand curve will shift to the left.

(ii) The marginal revenue curve will also shift to the left, causing the profit-maximizing output to decrease.

(f) No, it won't be efficient.

Because the bridge is experiencing economies of scale, building another one will increase the average total cost, so it is not efficient.

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

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|-------|
| No. 1 |
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(a) (i) Q_2
(ii) 17

(b) (i) Q_4
(ii) 0

(c) zero

The total earned equals the average cost therefore all profit is used to cover costs,

(d)

(i) Q_3

(ii) relatively elastic

(e)

(i) decrease

(ii) decrease

(f)

Yes since cost decrease while output increase

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

1 C

Question 1.

(a) (i) The output will equal at the Q_2 , ~~and the Marginal Social~~
(ii) The price is unlimited.

(b) (i) on the condition, the output will equal to Q_2 .
(ii) The price will ~~be~~ point at Q_3 .

(c) The municipality's accounting is equal to zero, because it's greater than or equal to Average total cost.

(d) (i) The break-even output at Q_3 .

(ii) It's a relatively inelastic.

(e) (i) The demand curve for bridge crossings will shift left.

(ii) The profit-maximizing output will move along the curve and get a higher position.

(f) No, the marginal cost of the second bridge is greater than. Marginal benefit, and the ^{slope of} Marginal Social Benefit will decrease. It's cause a negative outcome.

AP[®] MICROECONOMICS
2010 SCORING COMMENTARY (Form B)

Question 1

Sample: 1A

Score: 10

The student earned all 10 points for this question.

Sample: 1B

Score: 7

The student lost 1 point in part (c) for stating that the accounting profit is “zero.” The student lost 1 point in part (d) for stating that the demand is “relatively elastic.” The student also lost 1 point in part (f) for incorrectly answering “Yes.”

Sample: 1C

Score: 4

The student earned 1 point in part (a)(i) for identifying the correct output. The student earned both points in part (d). The student earned 1 point in part (e)(i) for stating that the demand curve “will shift left.”