

## ARE 201 Sample Final Exam

Topics: Chapters 13-15 (60%), Chapters 1-9 (40%)

### MULTIPLE CHOICE (2 Points Each)

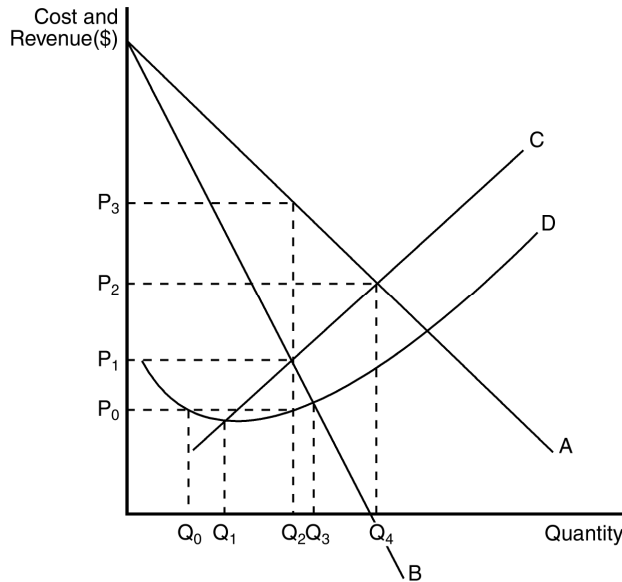
1. Profit is defined as
  - a. net revenue minus depreciation.
  - b. total revenue minus total cost.
  - c. average revenue minus average total cost.
  - d. marginal revenue minus marginal cost.
2. Which of the following is an implicit cost?
  - (i) the owner of a firm forgoing an opportunity to earn a large salary working for a Wall Street brokerage firm
  - (ii) interest paid on the firm's debt
  - (iii) rent paid by the firm to lease office space
  - a. (ii) and (iii)
  - b. (i) and (iii)
  - c. (i) only
  - d. All of the above are correct.
3. When adding another unit of labor leads to an increase in output that is smaller than increases in output that resulted from adding previous units of labor, we have the property of
  - a. diminishing labor.
  - b. diminishing output.
  - c. diminishing marginal product.
  - d. negative marginal product.
4. Marginal cost tells us the
  - a. value of all resources used in a production process.
  - b. marginal increment to profitability when price is constant.
  - c. amount by which total cost rises when output is increased by one unit.
  - d. amount by which output rises when labor is increased by one unit.
5. When marginal cost is less than average total cost,
  - a. marginal cost must be falling.
  - b. average variable cost must be falling.
  - c. average total cost is falling.
  - d. average total cost is rising.
6. When a firm has little ability to influence market prices it is said to be in what kind of a market?
  - a. a competitive market
  - b. a strategic market
  - c. a thin market
  - d. a power market
7. When a firm in a competitive market produces 10 units of output, it has a marginal revenue of \$8.00. What would be the firm's total revenue when it produces 6 units of output?
  - a. \$4.80

- b. \$6.00
- c. \$48.00
- d. \$60.00

Quantity	Total Revenue	Total Cost
0	\$ 0	\$ 10
1	9	14
2	18	19
3	27	25
4	36	32
5	45	40
6	54	49
7	63	59
8	72	70
9	81	82

8. At a production level of 4 units which of the following is true?
  - a. Marginal cost is \$6.
  - b. Total revenue is greater than variable cost.
  - c. Marginal revenue is less than marginal cost.
  - d. All of the above are correct.
  
9. When total revenue is less than variable costs, a firm in a competitive market will
  - a. continue to operate as long as average revenue exceeds marginal cost.
  - b. continue to operate as long as average revenue exceeds average fixed cost.
  - c. shut down.
  - d. always exit the industry.
  
10. For any given price, a firm in a competitive market will maximize profit by selecting the level of output at which price intersects the
  - a. average total cost curve.
  - b. average variable cost curve.
  - c. marginal cost curve.
  - d. marginal revenue curve.
  
11. A natural monopoly occurs when
  - a. the product is sold in its natural state (such as water or diamonds).
  - b. there are economies of scale over the relevant range of output.
  - c. the firm is characterized by a rising marginal cost curve.
  - d. production requires the use of free natural resources, such as water or air.
  
12. If a profit-maximizing monopolist faces a downward-sloping market demand curve, its
  - a. average revenue is less than the price of the product.
  - b. average revenue is less than marginal revenue.
  - c. marginal revenue is less than the price of the product.
  - d. marginal revenue is greater than the price of the product.

13. For a profit-maximizing monopolist,
- $P > MR = MC$ .
  - $P = MR = MC$ .
  - $P > MR > MC$ .
  - $MR < MC < P$ .



14. A profit-maximizing monopoly's total revenue is equal to
- $P_3 \times Q_2$ .
  - $P_2 \times Q_4$ .
  - $(P_3 - P_0) \times Q_2$ .
  - $(P_3 - P_0) \times Q_4$ .
15. The problem with monopolies is their ability
- to do away with barriers to entry.
  - to price their product at a level that exceeds marginal cost.
  - to restrict output below the socially efficient level of production.
- (i) and (iii)
  - (ii) and (iii)
  - (iii) only
  - All of the above are correct.
16. When the government redistributes income from the rich to the poor,
- efficiency is improved, but equity is not.
  - both rich people and poor people benefit directly.
  - people work less and produce fewer goods and services.
  - rich people consume fewer goods, but poor people consume more goods, resulting in no real change.

17. Suppose that the average income of a Kenyan is higher than the average income of a South African. You might conclude that
- South African firms are faced with stricter government regulations than Kenyan firms.
  - total income is divided among fewer workers in Kenya since it has a smaller labor force than South Africa.
  - Kenya's climate allows for longer growing seasons and therefore Kenya can produce large quantities of grain.
  - productivity in Kenya is higher than in South Africa.
18. The art of scientific thinking includes
- knowing how the major organs of the human body work.
  - understanding every scientific field—physics, biology and economics.
  - deciding which assumptions to make.
  - being able to mathematically express natural forces.
19. You know an economist has crossed the line from scientist to policy adviser when he
- explains just the facts.
  - makes positive statements.
  - makes normative statements.
  - can't reach a conclusion.

Labor Hours Needed to Make 1 Pound of:	Pounds produced in 40 hours:
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	Meat	Potatoes	Meat	Potatoes
Farmer	8	2	5	20
Rancher	4	5	10	8

20. According to the table, the opportunity cost of 1 pound of meat for the farmer is
- 1/4 hour of labor.
  - 4 hours of labor.
  - 4 pounds of potatoes.
  - 1/4 pound of potatoes.
21. Assume that Greece has a comparative advantage in fish and Germany has a comparative advantage in cars. If these two countries specialize and trade according to their comparative advantage
- all individuals in both countries will benefit.
  - Greece will specialize in and export cars.
  - Germany will produce more cars than in the absence of trade.
  - Germany will produce more fish than in the absence of trade.
22. A market is a
- group of demanders and suppliers of a particular good or service.
  - group of people with common desires.
  - place where only sellers meet.
  - place where only buyers come together.
23. An example of complementary goods would be

- a. hamburgers and hot dogs.
  - b. lawnmowers and automobiles.
  - c. hamburgers and fries.
  - d. Coke and Pepsi.
24. When the price of kittens was \$25 each, the pet shop sold 20 per month. When they raised the price to \$35 each, they sold 14 per month. The elasticity of demand for kittens would be
- a. 1.66.
  - b. 1.06.
  - c. 0.94.
  - d. 0.60.
25. Suppose that an increase in the price of carrots from \$1.20 to \$1.40 per pound raises the amount of carrots that carrot farmers produce from 1.2 million pounds to 1.6 million pounds. Using the midpoint method, what would be the elasticity of supply?
- a. 2.00
  - b. 1.86
  - c. 0.54
  - d. 0.50
26. With a binding price floor the market price will
- a. be lower than the price floor.
  - b. be higher than the price floor.
  - c. equal the price floor.
  - d. It is impossible to compare the market price with the price floor.
27. A tax on a good
- a. raises the price buyers pay and lowers the price sellers receive.
  - b. raises both the price buyers pay and the price sellers receive.
  - c. lowers both the price buyers pay and the price sellers receive.
  - d. lowers the price buyers pay and raises the price sellers receive.

**TRUE/FALSE (2 points each)**

1. The marginal cost curve intersects the average total cost curve at the minimum point of the average total cost curve.
2. When average total cost rises if a producer either increases or decreases production, then the firm is said to be operating at efficient scale.
3. For a firm in a competitive market, marginal revenue is always equal to average revenue.
4. A firm will shut down in the short run if revenue is not sufficient to cover all of its fixed costs of production.
5. Declining average total cost with increased production is one of the defining characteristics of a natural monopoly.
6. University financial aid can be viewed as a type a price discrimination.

7. A rational decisionmaker takes an action if and only if the marginal cost exceeds the marginal benefit.
8. If there is an improvement in the technology of producing a product, the supply curve for that product will shift to the left.
9. Rent subsidies and wage subsidies are better than price controls at helping the poor because they have no costs associated with them.

**SHORT ANSWER**

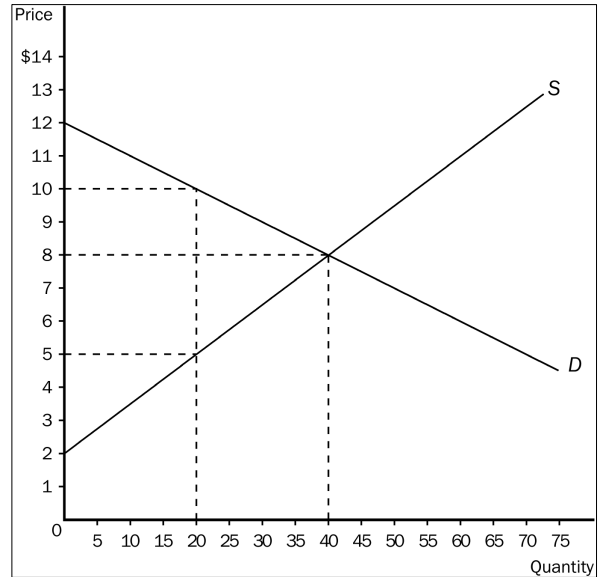
**APPLICATION/SCENARIO (6 points for No.1 and 11 points each for No.2 and No.3)**

1. Please complete the following table

Quantity produced	Fixed cost	Variable cost	Total cost	Averaged fixed cost	Average variable cost	Average total cost	Marginal Cost
0	1	0		-----	-----	-----	-----
1	1	0.2					
2	1	0.5					

2. Answer the following questions based on the graph that represents JR’s demand for ribs per week of ribs at Judy’s rib shack.

- a. At equilibrium price, how many ribs would JR be willing to purchase?
- b. How much is JR willing to pay for 20 ribs?
- c. How much would JR’s consumer surplus be at the equilibrium price?
- d. At the equilibrium price, how many ribs would Judy be willing to sell?
- e. How much must the price of ribs be for Judy to supply 20 ribs to the market?
- f. At the equilibrium price, what is total surplus in the market?
- g. If the price of ribs rose to \$10, what would happen to JR’s consumer surplus?
- h. If the price of ribs fell to \$5, what would happen to Judy’s producer surplus?
- i. Explain why the graph shown verifies the fact that the market equilibrium (quantity) maximizes the sum of producer and consumer surplus.



3. Use a graph to demonstrate the circumstances that would prevail in a competitive market where firms are earning economic profits. Can this scenario be maintained in the long run? Carefully explain your answer.