

1. Economists normally assume that the goal of a firm is to
 - (i) make profit as large as possible even if it means reducing output.
 - (ii) make profit as large as possible even if it means incurring a higher total cost.
 - (iii) make revenue as large as possible.
 - a. (i) and (ii)
 - b. (i) and (iii)
 - c. (ii) and (iii)
 - d. None of the above are correct.

2. Explicit costs
 - a. require an outlay of money by the firm.
 - b. include all of the firm's opportunity costs.
 - c. include income that is forgone by the firm's owners.
 - d. All of the above are correct.

3. An example of an explicit cost of production would be
 - a. the cost of forgone labor earnings for an entrepreneur.
 - b. the lost opportunity to invest in other capital markets when the money is invested in one's business.
 - c. the cost of flour for a baker.
 - d. None of the above are correct.

4. 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.

5. Economic profit is equal to
 - a. total revenue minus the explicit cost of producing goods and services.
 - b. total revenue minus the opportunity cost of producing goods and services.
 - c. total revenue minus the accounting cost of producing goods and services.
 - d. average revenue minus the average cost of producing the last unit of a good or service.

6. Economic profit is equal to
- (i) total revenue - (explicit costs + implicit costs).
 - (ii) total revenue - opportunity costs.
 - (iii) accounting profit + implicit costs.
- a. (i) only
 - b. (i) and (ii)
 - c. (ii) and (iii).
 - d. All of the above are correct.
7. Economists normally assume that the goal of a firm is to
- a. maximize its total revenue.
 - b. maximize its profit.
 - c. minimize its explicit costs.
 - d. minimize its total cost.

Use the following information to answer questions 8 through 11.

Tony is a wheat farmer, but he also spends part of his day teaching guitar lessons. Due to the popularity of his local country western band, Farmer Tony has more students requesting lessons than he has time for if he is to also maintain his farming business. Farmer Tony charges \$25 an hour for his guitar lessons. One spring day, he spends 10 hours in his fields planting \$130 worth of seeds on his farm. He expects that the seeds he planted will yield \$300 worth of wheat.

8. What is the total opportunity cost of the day that Farmer Tony incurred for his spring day in the field planting wheat?
- a. \$130
 - b. \$250
 - c. \$300
 - d. \$380
9. Tony's accountant would most likely figure the total cost of his wheat planting to equal
- a. \$25.
 - b. \$130.
 - c. \$300.
 - d. \$380.

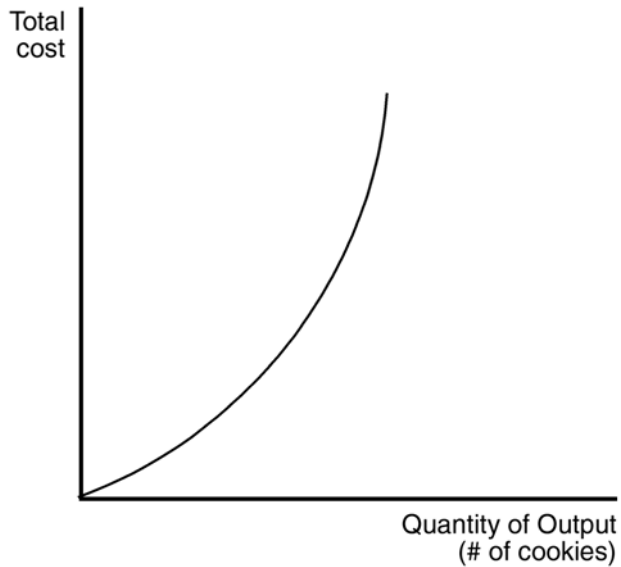
10. Tony's accounting profit equals
- \$-80.
 - \$130.
 - \$170.
 - \$260.

ANSWER: c. \$170.

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11. Tony's economic profit equals
- \$-130.
 - \$-80.
 - \$130.
 - \$170.
12. Dolores used to work as a high school teacher for \$40,000 per year but quit in order to start her own catering business. To buy the necessary equipment, she withdrew \$20,000 from her savings, (which paid 3 percent interest) and borrowed \$30,000 from her uncle, whom she pays 3 percent interest per year. Last year she paid \$25,000 for ingredients and had revenue of \$60,000. She asked Louis the accountant and Greg the economist to calculate her profit for her.
- Louis says her profit is \$34,100 and Greg says her profit is \$6,500.
 - Louis says her profit is \$34,100 and Greg says she lost \$6,500.
 - Louis says her profit is \$35,000 and Greg says she lost \$5,000.
 - Louis says her profit is \$33,500 and Greg says her profit is 33,500.
13. A production function is a relationship between
- inputs and quantity of output.
 - inputs and revenue.
 - inputs and costs.
 - inputs and profit.

The figure below depicts a total cost function for a firm that produces cookies. Use the figure to answer questions 14 through 17.



14. Which of the following is true of the production function (not pictured) that underlies this total cost function?
- (i) Total output increases as the quantity of inputs increases, but at a decreasing rate.
 - (ii) Marginal product is diminishing for all levels of input usage.
 - (iii) The slope of the production function decreases as the quantity of inputs increases.
- a. (i) only
b. (ii) and (iii)
c. (i) and (iii)
d. All of the above are correct.
15. The changing slope of the total cost curve reflects
- a. decreasing average variable cost.
 - b. decreasing average total cost.
 - c. decreasing marginal product.
 - d. increasing fixed cost.
16. Which of the following statements best captures the nature of the underlying production function?
- a. Output increases at a decreasing rate with additional units of input.
 - b. Output increases at an increasing rate with additional units of input.
 - c. Output decreases at a decreasing rate with additional units of input.
 - d. Output decreases at an increasing rate with additional units of input.

17. Which of the statements below is most consistent with the shape of the total cost curve?
- Producing an additional cookie is always more costly than producing the previous cookie.
 - Total production of cookies decreases with additional units of input.
 - Producing additional cookies is equally costly, regardless of how many cookies are already being produced.
 - Producing additional cookies becomes increasingly costly only when the number of cookies already being produced is large.
18. Total cost can be divided into two types. Those two types are
- fixed costs and variable costs.
 - fixed costs and marginal costs.
 - variable costs and marginal costs.
 - average costs and marginal costs.
19. Implicit costs
- do not require an outlay of money by the firm.
 - do not enter into the economist's measurement of a firm's profit.
 - are also known as variable costs.
 - All of the above are correct.
20. Which of the following measures of cost is best described as "the increase in total cost that arises from an extra unit of production?"
- variable cost
 - average variable cost
 - average total cost
 - marginal cost

Chapter 14.

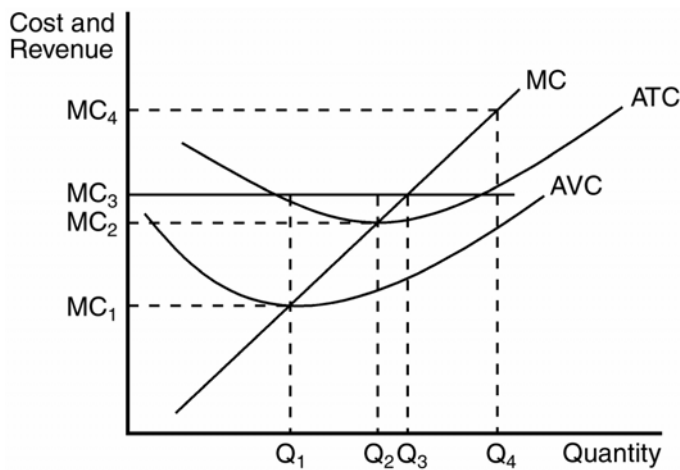
21. Of the following characteristics of competitive markets, which are necessary for firms to be price takers?

- (i) There are many sellers.
- (ii) Firms can freely enter or exit the market.
- (iii) Goods offered for sale are largely the same.

- a. (i) and (ii) only
- b. (i) and (iii) only
- c. (ii) only
- d. All are necessary.

22. 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



Note: On the above diagram, change the vertical-axis labels from MC_1 to P_1 , MC_2 to P_2 , etc.

23. When price is equal to P_3 , the profit-maximizing firm will produce what level of output?

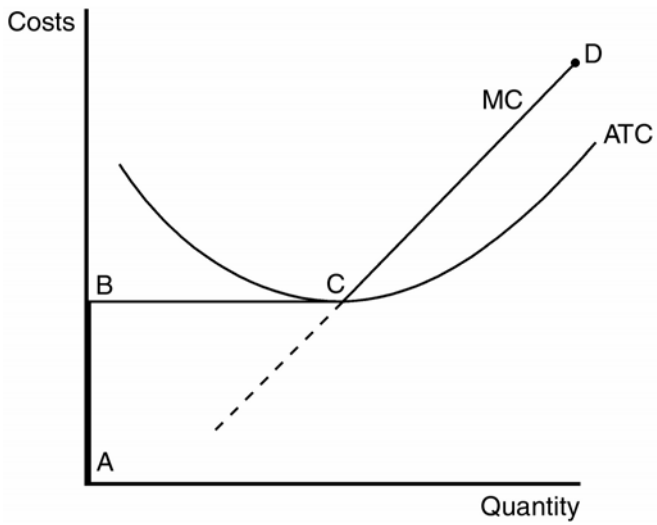
- a. Q_1
- b. Q_2
- c. Q_3
- d. Q_4

24. When market price is at P_2 , a firm producing output level Q_1 would experience

- a. profits equal to $(P_2 - P_1) \times Q_1$.
- b. losses equal to $(P_2 - P_1) \times Q_1$.

- c. losses because $P_2 < ATC$ at output level Q_1 .
 - d. zero profits.
25. When market price is at P_4 , a profit-maximizing firm will produce what level of output?
- a. Q_1
 - b. Q_2
 - c. Q_3
 - d. Q_4
26. When the price is P_2 and the firm maximizes its profit or minimizes its loss, the firm
- a. experiences a positive profit.
 - b. experiences a zero profit.
 - c. experiences a loss, but continues to operate.
 - d. shuts down.
27. When calculating marginal cost, what must the firm know?
- a. sunk cost
 - b. variable cost
 - c. fixed cost
 - d. All of the above are correct.
28. The additional revenue a firm in a competitive market receives if it increases its production by one unit equals its
- a. marginal revenue.
 - b. average revenue.
 - c. price per unit of output.
 - d. All of the above are correct.

The figure below depicts the cost structure of a profit-maximizing firm in a competitive market. Use the figure to answer questions 29 and 30.



29. Which line segment best reflects the long-run supply curve for this firm?
- AB
 - BC
 - CD
 - None of the above, the long-run supply curve requires knowledge of the average variable cost structure.
30. This firm will exit the market for any price on the line segment
- AB.
 - BC.
 - CD.
 - None of the above are correct.
31. When economists refer to a production cost that has already been committed and cannot be recovered, they use the term
- implicit cost.
 - explicit cost.
 - variable cost.
 - sunk cost.
32. A profit-maximizing firm in a competitive market produces small rubber balls. When the market price for small rubber balls falls below the minimum of its average total cost, but still lies above the minimum of average variable cost, the firm
- will experience losses but it will continue to produce rubber balls.
 - will shut down.

- c. will be earning both economic and accounting profits.
 - d. should raise the price of its product.
33. Which of the following statements best reflects the production decision of a profit-maximizing firm in a competitive market when price falls below the minimum of average variable cost?
- a. The firm will continue to produce to attempt to pay fixed costs.
 - b. The firm will immediately stop production to minimize its losses.
 - c. The firm will stop production as soon as it is able to pay its sunk costs.
 - d. The firm will continue to produce in the short run but will likely exit the market in the long run.

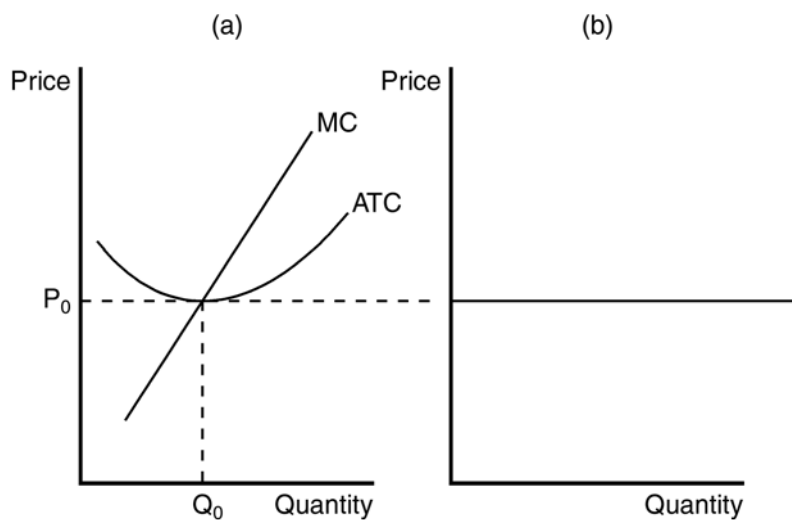
Refer to the following information to answer Questions 34 through 37.

Assume a certain firm is producing 1,000 units of output (so $Q = 1,000$). At $Q = 1,000$, the firm's marginal cost equals \$15 and its average total cost equals \$11. The firm sells its output for \$12 per unit.

34. At $Q = 1,000$, the firm's profit amounts to
- a. \$-200.
 - b. \$1,000.
 - c. \$3,000.
 - d. \$4,000.
35. At $Q = 999$, the firm's total cost amounts to
- a. \$10,985.
 - b. \$10,990.
 - c. \$10,995.
 - d. \$10,999.
36. At $Q = 999$, the firm's profit amounts to
- a. \$993.
 - b. \$997.
 - c. \$1,003.
 - d. \$1,007.
37. To maximize its profit, the firm should
- a. increase its output.
 - b. continue to produce 1,000 units.
 - c. decrease its output, but continue to produce.
 - d. shut down.

38. A firm will shut down in the short run if the total revenue that it would get from producing and selling its output is less than its
- opportunity costs.
 - fixed costs.
 - variable costs.
 - total costs.

Use the figures below to answer questions 39 and 40



39. If the figure in panel (a) reflects the long-run equilibrium of a profit-maximizing firm in a competitive market, the figure in panel (b) is most likely to reflect long-run market
- strategy.
 - production capacity.
 - demand.
 - supply.
40. If the figure in panel (a) reflects the long-run equilibrium of a profit-maximizing firm in a competitive market, the figure in panel (b) most likely reflects
- perfectly inelastic long-run market supply.
 - the idea that free entry and exit of firms in the market lead to only one market price in the long run.
 - the product of the individual supply curves for all firms in the market.
 - the fact that zero profits cannot be sustained in the long run.