I. Multiple Choice

1. The rate of return that owners of capital must receive in order to induce them to continue supplying the capital is often referred to as

   a. accounting profit.
   b. the normal or market rate of return.
   c. economic profit.
   d. the accounting rate of return.

2. The long-run average total cost curve

   a. is an envelope-shaped curve mapped out by the short-run average total cost curves for alternative plant sizes.
   b. intersects the minimum point of each short-run average total cost curve.
   c. rises throughout its entire range when increasing returns are present.
   d. falls throughout its entire range due to the law of diminishing returns.

3. Which of the following is an example of a "sunk cost"?

   a. the original purchase price of a house when deciding whether to repair fire damage or demolish the structure
   b. the price of tickets that must be bought when deciding whether or not to go to a concert
   c. the price you paid for a backyard swimming pool when deciding whether to fill in the pool and plant a garden
   d. both a and c

4. Within the framework of the price-taker model, a price taker will always produce a quantity of output that

   a. minimizes the per-unit cost of production.
   b. is expected to provide the largest possible total revenue.
   c. maximizes the difference between total revenue and total cost.
   d. brings average total cost and price into equality.
5. In general, firms will produce at a rate of output such that marginal revenue equals marginal cost because this output rate will

a. bring total revenue into equality with total cost.
b. maximize the difference between the revenue received from the last unit and the cost incurred in producing the last unit.
c. result in the lowest possible average total costs of production.
d. maximize the firm's profit.

6. When a competitive price-taker market is in long-run equilibrium,

a. the firms in the market will earn zero economic profit.
b. the average total cost of the firms in the market will be minimized.
c. every unit of the relevant good that is valued more than its opportunity costs will be produced and sold.
d. all of the above are true.

7. If a price-searcher firm can sell nine units at a price of $20, or it can sell ten units at a price of $17, what is the marginal revenue of the tenth unit?

a. minus $10
b. $10
c. $17
d. $20

8. Which of the following is true when long-run equilibrium conditions are present in price-taker and competitive price-searcher markets?

a. MR = ATC in both price-taker and competitive price-searcher markets.
b. P = ATC in price-taker markets; P = MC in competitive price-searcher markets.
c. P = MC in both price-taker and competitive price-searcher markets.
d. P = ATC in both price-taker and competitive price-searcher markets.

9. "A profit-maximizing firm with a secure monopoly in its market and no fear of regulation or new entrants will always charge a price on the inelastic portion of its demand curve." Economic theory suggests that this statement is

a. correct.
b. incorrect because a monopolist could always gain by raising its price if it was operating on the inelastic portion of its demand curve.
c. incorrect, except when the demand for the firm's product is declining.
d. incorrect, except when the demand for the firm's product is increasing.
10. Which of the following conditions is true in long-run equilibrium for both a competitive price searcher and a competitive price taker, but not necessarily for a monopolist?

a. \( P = MC \)

b. \( P = ATC \)

c. \( MR = P \)

d. \( MR < P \)

11. A profit-maximizing farmer will apply additional units of fertilizer until the marginal revenue product (MRP) of fertilizer is half the MRP of skilled labor when a unit of fertilizer

a. costs twice as much as a unit of skilled labor.

b. costs half as much as a unit of skilled labor.

c. is half as productive, on average, as a unit of skilled labor.

d. is twice as productive, on average, as a unit of skilled labor.

12. The marginal revenue product of a resource equals the marginal product of the resource multiplied by the price of the product in a (an)

a. monopolistic market.

b. oligopolistic market.

c. price-taker market.

d. price-searcher market.

13. Wages in the United States are higher than those in Italy primarily because

a. a larger proportion of the labor force is unionized in the United States.

b. output per worker is higher in the United States.

c. the human and physical capital of American workers is lower than that of their Italian counterparts.

d. all of the above are correct.

14. Real income cannot continually increase unless the

a. supply of money increases rapidly so that firms can pay the higher wages.

b. production of economic goods and services increases.

c. interest rate is kept high, so people will want to save.

d. interest rate is kept low, so firms will want to invest.
15. A cost-saving invention can even generate an increase in employment in the industry affected by the invention if the

   a. demand for the product is highly elastic.
   b. demand for the product is highly inelastic.
   c. supply of workers is inelastic.
   d. supply of the product is inelastic.

16. If we make additional investments in machines that enhance our ability to produce goods and services,

   a. the owners of the investments must borrow funds.
   b. the owners of the investments must reduce their current consumption.
   c. someone will have to reduce current consumption.
   d. future consumption will have to be reduced.

17. Which of the following statements is correct?

   a. Interest would not exist in a nonmonetary economy.
   b. An increase in the demand for goods now compared with goods in the future would cause the interest rate to rise.
   c. A "positive rate of time preference" means that an individual would rather save than consume.
   d. During an extended inflationary period, the money (or nominal) interest rate will usually be lower than the real rate of interest.

18. If the long-term interest rate (on investments of similar risk) was 8 percent, how much would you be willing to pay for an asset that you expected to earn $10,000 each year in the future?

   a. $8,000
   b. $80,000
   c. $125,000
   d. $400,000

19. Which of the following would add to this year’s GDP?

   a. the $500 you won playing poker with your friends
   b. your purchase of 100 shares of IBM stock
   c. the payments you make for the rental of a five-year-old house
   d. your purchase of a five-year-old car
20. An American-owned McDonald's opens in Russia. How would the net revenue earned by this restaurant affect the GDP and GNP of the United States?

   a. It would increase GNP and GDP.
   b. It would increase GNP and leave GDP unchanged.
   c. It would increase GDP and leave GNP unchanged.
   d. It would leave both GDP and GNP unchanged.

II. Critical Analysis

1. I am producing and selling 1000 widgets per week. In a price taker market I receive $1.00 per widget. The sum of my average fixed cost and average variable cost equals $1.00. My economic profit is zero. Using an appropriate, well-labelled diagram, reveal my current situation and advise me on a course of action. Note, my goal is to maximize profit.
2. I am producing and selling 2000 wimmydiddles per week. In a price searcher market, my price is $2.00 per wimmydiddle. My average total cost is $2.00 and is at its minimum value. My economic profit is zero. Using an appropriate, well-labelled, diagram, reveal my current situation and advise me on a course of action. Note, my goal is to maximize profit.

3. Using words and pictures (two of them: one for a representative price-taker firm and the other for the competitive market in which it operates) show and tell about a situation of equilibrium. Next assume an increase in market demand show and tell about the adjustment in the short- and long-run (assume constant costs of inputs).
4. **True or false and WHY?**

Barriers to entry are, without question, bad. They produce monopoly-like conditions and, thereby, prevent the benefits of competition. [Hint: good answers will consider both a static **and** a dynamic assessment].

Please sign the following: I have neither given, nor received unauthorized aid on this piece of work, nor have I knowingly tolerated any violation of the Honor Code.

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