1. Suppose that the market equilibrium quantity of output produced by a paper mill is 1000 reams. The 1000th ream has a value of $10 to society and a social cost of $15. If the private cost to the producer is $10 for the 1000th ream and the current price in the market is $10, then
   a. the market is in equilibrium, but output is greater than the social optimum.
   b. the market is in equilibrium, but output is smaller than the social optimum.
   c. quantity demanded is greater than quantity supplied.
   d. output and price are too low for equilibrium.
   e. output is too low and price is too high for equilibrium.

2. A steel mill has 8 tradable pollution permits. Each permit allows for 1 unit of pollution and has a market value of $800. With new production technology, the firm can eliminate 1 unit of its pollution at a cost of $725, a second unit at a cost of $750, and a third unit at a cost of $775. The firm can eliminate the remaining 6 units of pollution at a cost of $850 each. Assuming this firm wants to minimize its costs, it should
   a. sell 1 permit for 1 unit of pollution and invest in the new technology.
   b. sell 2 permits for 1 unit of pollution each and invest in the new technology.
   c. sell 3 permits for 1 unit of pollution and invest in the new technology.
   d. buy 3 additional permits and increase its level of pollution by 3 units.
   e. buy 8 permits and increase its level of pollution by 8 units.

3. The most efficient pollution control system would ensure that
   a. each polluter reduce its pollution an equal amount.
   b. those polluters with lowest cost of pollution abatement reduce their pollution most.
   c. regulators mandate the installation of the most technologically advanced abatement equipment.
   d. no new pollution of the environment be allowed.
   e. existing polluters are subject to less stringent standards than new entrants.

4. According to the Coase theorem, private parties can solve an externality problem if
   a. each affected party has equal power in negotiations.
   b. transactions costs are small relative to the external cost.
   c. all parties submit to binding arbitration.
   d. a large number of parties are equally affected, each one of whom is small relative the entire group.
   e. all parties have equal access the judicial system so they can resolve their dispute.
5. If the provision of a public good were left to the private sector,
a. the outcome would be more efficient, given that government is often an inefficient producer of goods and services.
b. the non-excludability of the good would cause less than the efficient quantity to be provided.
c. the free-rider problem would cause more than the efficient quantity to be produced.
d. the government would be forced to raise taxes.
6. Which of the following is a pure public good?
a. the Internet
b. a national park
c. national defense
d. an interstate highway
e. a television broadcast

7. Which of the following would NOT be the likely result of a common property resource?
a. trash thrown along a highway
b. over-grazing of a field owned by a group of farmers
c. under-fishing of a lake owned by the state of Indiana
d. congestion of an expressway at rush hour

8. Assuming that everyone prefers to live in a society without poverty, which of the following is/are true about private charity programs?
I. People who don’t contribute receive utility from the general reduction in poverty.
II. The actual level of charitable donations is greater than the socially optimal level.
a. I only
b. II only
c. Both I and II
d. Neither I nor II

9. According to “The Bloomberg Plan” discussed in your textbook, the mayor of New York proposed to solve the city’s congestion problem by
a. banning trucks from Manhattan.
b. building new subways.
c. building a light rail system around the perimeter of the city.
d. banning privately-owned vehicles from the Manhattan.
e. pricing the roads in the central business district.

10. Which of the following is most likely a variable cost in the short run?
a. Wages paid to workers who assemble computers
b. Payments to lease cars for the sales staff of a pharmaceutical company
c. Rental payments for space in a mall paid by a clothing store
d. Interest payments on funds borrowed to finance purchases of capital equipment
e. Salaries paid to managers of an auto parts manufacture
<table>
<thead>
<tr>
<th>Labor</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>2</td>
<td>46</td>
</tr>
<tr>
<td>3</td>
<td>72</td>
</tr>
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</table>

11. Over the range of output shown in the table above, the production process exhibits ______ marginal product of labor, and the marginal cost curve for this firm would be ______.
   a. increasing; downward sloping.
   b. increasing; upward sloping.
   c. decreasing; downward sloping.
   d. decreasing; upward sloping.
   e. constant; downward sloping then upward sloping.

Joey owns a small eyeglass factory. He can make 1000 glasses per year and sell them for $100 each. Joey pays $20,000 for raw materials to produce the 1000 eyeglasses. He invested a total of $100,000 in the building and equipment: $50,000 of his own savings and $50,000 borrowed at 10 percent; his own money was earning 10 percent interest too. Joey could work at a competing factory for $40,000.

12. According to the information above, Joey’s accounting profit is
   a. $30,000.
   b. $35,000.
   c. $70,000.
   d. $75,000.
   e. $80,000.

13. According to the information above, Joey’s economic profit is
   a. $30,000.
   b. $35,000.
   c. $70,000.
   d. $75,000.
   e. $80,000.
14. Consider the renovation of a private building done to repair damage caused by vandalism. Assume that the repair work restores the building to its original condition. Which of the following is an accurate statement?
   a. Since the damage is repaired, there is new value added and there is a net gain to society from the repair work.
   b. Since the workers employed to repair the damage do that kind of work for a living, the damage results in a gain to the workers that exactly offsets the loss of the owners of the building.
   c. The cost to the owner of the building is exactly equal to the gain of the repair workers, but the gain in utility of the vandals creates a net gain for society.
   d. None of the above is an accurate statement.

15. Pedro has spent $1800 building a tortilla stand based on estimated sales of $2000. At that point in the construction, Pedro discovers it will cost an additional $800 to finish and revenues will be less than $2000. Based on this information, Pedro would complete the tortilla stand as long as the estimated revenues are greater than
   b. $2600.
   c. $1200.
   d. $800
   e. Pedro will minimize his losses by abandoning the project.

<table>
<thead>
<tr>
<th>Quantity of Output</th>
<th>Fixed Costs</th>
<th>Variable Costs</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>$5</td>
<td>$0</td>
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<tr>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
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<td>26</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>36</td>
</tr>
</tbody>
</table>

16. According to the table above, the average total cost of producing three units is
   a. $1.67.
   b. $6.00.
   c. $7.67.
   d. $18.00.
   e. $23.00.

17. According to the table above, the marginal cost of producing the fourth unit is
   a. $1.25.
   b. $6.50.
   c. $7.00.
   d. $8.00.
   e. $2.00.
18. Which of the following represents an implicit cost?
(i) The owner of a firm gives up an opportunity to earn $110,000 to work for a Wall Street brokerage firm
(ii) Interest paid on a firm’s debt
(iii) Rent paid by the firm to lease office space

a. (i) only
b. (ii) only
c. (i) and (ii)
d. (ii) and (iii)
e. (i), (ii), and (iii)

19. Refer to the figure above. Which curve represents a typical marginal cost relationship?

a. A
b. B
c. C
d. D

20. If Corado Gini, owner of Corado’s Pizza Parlor, knows that the marginal cost of the 400th pizza is $2.30 and the average total cost of making 399 pizzas is $2.50, then

a. average costs are rising at Q = 400.
b. average costs are falling at Q = 400.
c. total costs are falling at Q = 400.
d. fixed costs are falling at Q = 400.
e. average fixed costs are rising at
21. Refer to the diagram above. Without government intervention, the equilibrium quantity would be
a. \( Q_1 \).
b. \( Q_2 \).
c. \( Q_3 \).
d. \( Q_4 \).

22. Refer to the diagram above. If this market is currently producing at \( Q_4 \), then total economic well-being would be maximized if output
a. increased beyond \( Q_4 \).
b. decreased to \( Q_2 \).
c. decreased to zero.
d. stayed at \( Q_4 \).
e. decreased to \( Q_3 \).

23. Which of the following goods is \textit{not} rival in consumption and \textit{not} excludable?
a. A hiking trail
b. A street light
c. A bicycle
d. A boat
e. An ocean fishery
24. At what level of output does this firm experience diseconomies of scale?
   a. Output levels above N
   b. Output levels below M
   c. Output levels between M and N
   d. At any output level, since the firm is operating in the long run

25. Since the 1980s, Wal-Mart stores have appeared in almost every community in America. Wal-mart buys its goods in large quantities and at cheaper prices than most other retailers. Wal-mart locates its stores where land prices are low, usually outside of a community’s central business district. Many customers shop at Wal-mart because of low prices. Local retailers, such as the neighborhood drug store, often lose customers to Wal-mart, and many go out of business. This scenario demonstrates that
   a. retail customers do not respond to price changes.
   b. diseconomies of scale exist in retail sales.
   c. economies of scale exist in retail sales.
   d. there are diminishing returns to producing and selling retail goods.
   e. short-run marginal cost is below average cost for Wal-Mart, but not for local retailers.
Answer Key for Sample Exam 3B
1A
2C
3B
4B
5B
6C
7C
8A
9E
10A
11A
12D
13A
14D
15D
16C
17D
18A
19A
20B
21C
22B
23B
24A
25C