Multiple Choice (75 points)

1. Market failure
   a. is the consequence of government involvement in the economy.
   b. occurs when the market is unable to allocate resources correctly.
   c. is something that never happens in a market economy.
   d. caused the collapse of centrally planned economies in Eastern Europe.

2. In the above figure which of the following is more likely to lead to the economy's attainment of point A?
   a. An increase in the working-age population
   b. A depletion of resources
   c. Increased consumption
   d. A decrease in education expenditures
   e. None of these since point A is impossible to attain.

3. Economics is a study of
   a. how to overcome scarcity.
   b. how interactions occur in order to avoid scarcity.
   c. how to avoid scarcity by making choices.
   d. how to make choices and interact in order to avoid scarcity.
   e. choices and interactions among people when resources are scarce.

4. If the quantity demanded of coffee increases when the price of coffee declines, then these two are
   a. variables; negatively related
   b. constants; positively related
   c. constants; negatively related
   d. variables; positively related
5. The term quantity demanded refers to
   a. the amount of a good people must forcibly demand from a producer in order to survive.
   b. the amount of a good consumers are willing to buy at a given price.
   c. the entire demand curve.
   d. that quantity where the supply and demand curves cross.
   e. a particular demand schedule.

6. According to the law of demand, if the price of compact disks decreased, ceteris paribus,
   a. the demand for compact disks would increase.
   b. the quantity demanded of compact disks would decrease.
   c. the quantity demanded of compact disks would increase.
   d. the demand for compact disks would decrease.
   e. the quantity demanded of compact disks would not change.

7. When incomes are rising, new car sales increase while used car sales decrease. This indicates that
   a. used cars and new cars are substitutes.
   b. used cars and new cars are complements.
   c. used cars are inferior and new cars are normal goods.
   d. used cars are normal and new cars are inferior goods.
   e. used cars and new cars are both normal.

8. Which of the following will not cause the demand for ice cream to change?
   a. A change in population size
   b. A change in the price of ice cream
   c. A change in seasons
   d. A change in the price of yogurt
   e. A change in consumer incomes

9. According to the law of supply, if the price of personal computers increased, ceteris paribus,
   a. the supply of personal computers would increase.
   b. the quantity supplied of personal computers would increase.
   c. the quantity supplied of personal computers would decrease.
   d. the supply of personal computers would decrease.
   e. the quantity supplied of personal computers would not change.

10. In which of the following statements are the terms demand, supply, quantity demanded, and quantity supplied used correctly?
    a. Changes in demand and supply cause changes in the equilibrium price.
    b. If the demand rises, supply rises.
    c. Oranges are cheaper in Florida; therefore, the demand is greater in Florida.
    d. When the quantity demanded exceeds supply, the equilibrium price will rise.
    e. Decreases in quantity demanded and quantity supplied often occur simultaneously.
11. Refer to the above figure. If price in this market is $9, 
a. price will rise because consumers want to buy more than producers 
   are willing to sell. 
b. price will fall because consumers will not buy as much as producers 
   are willing to sell. 
c. equilibrium is achieved since producers are able to sell all that 
   they make available in the market. 
d. quantity supplied exceeds the quantity demanded. 
e. producers are unable to sell all that they are willing to sell.

12. Refer to the above figure. A shortage of ____ units will result at a 
    price of ____.
    a. 30; $9 
    b. 30; $27 
    c. 42; $9 
    d. 25; $27 
    e. 32; $18
13. Which of the following statements about the minimum wage is false?
   a. The minimum wage is an example of a price floor.
   b. More unskilled individuals are willing to offer their services in the labor market with a minimum wage than would without it.
   c. The minimum wage is set above the equilibrium wage.
   d. The minimum wage increases unemployment among unskilled workers.
   e. The minimum wage causes a shortage of unskilled labor.

14. If the demand for bananas has a high price elasticity, then a 5 percent decrease in the price of bananas will result in
   a. a more than 5 percent increase in the quantity demanded.
   b. a less than 5 percent increase in the quantity demanded.
   c. a more than 5 percent decrease in the quantity demanded.
   d. a less than 5 percent decrease in the quantity demanded.
   e. no change in the quantity demanded.

15. Suppose that as the price of product H falls from $5 to $4, the quantity of H demanded increases from 2,000 to 6,000 units. In this case, what is the elasticity of demand, using the midpoint formula?
   a. 0.4
   b. 0.9
   c. 1.6
   d. 3.0
   e. 4.5

16. If some product has an elastic demand, then we can expect
   a. total revenue to rise if price falls.
   b. a price increase to increase total revenue.
   c. a smaller percentage change in the quantity demanded, given some percentage change in the price.
   d. the absolute value of the elasticity of demand coefficient to be less than one.
   e. there are few substitutes for this product.

17. When price changes, the effect on quantity demanded is larger as time passes at least partly because
   a. consumers are irrational in the short run.
   b. most consumers do not realize price has changed in the short run.
   c. fewer people consume in the long run than in the short run.
   d. government regulations affect the short run but not the long run.
   e. people are better able to search out alternatives in the long run.
18. Marginal utility is
   a. always greater than total utility.
   b. utility that is not as good as normal utility.
   c. the extra utility derived from consuming one additional unit of a good or service.
   d. always positive.
   e. not related to total utility.

19. If a consumer can spend a maximum of $100 on shirts and shoes and if the price of a pair of shoes is $20 and the price of a shirt is $10, then
   a. if $50 is spent on shirts, only 1 pair of shoes can be bought.
   b. 5 shirts and 10 pairs of shoes can be purchased.
   c. 2 shirts and 4 pairs of shoes can be purchased.
   d. 10 shirts and 5 pairs of shoes can be purchased.
   e. 4 shirts and 2 pairs of shoes can be purchased.

20. Consumer surplus is the difference between
   a. the minimum quantity consumers are willing to buy and the amount they actually buy.
   b. total utility and marginal utility for every unit of a good consumed.
   c. the total marginal benefit for every unit of a good consumed and total expenditures on the good.
   d. total revenue and total cost in a market for a good.
   e. the supply curve and the equilibrium price line in a supply/demand diagram.

21. Firms are assumed to maximize
   a. output.
   b. inputs.
   c. wages.
   d. output price.
   e. profits.

22. In moving down along a demand curve you know total revenue
   a. increases.
   b. decreases.
   c. stays constant.
   d. may increase, decrease, or stay constant.

23. The change in total output that occurs with a one-unit change in labor is called the
   a. total product of labor.
   b. average productivity of labor.
   c. marginal cost of labor.
   d. marginal benefit of labor.
   e. marginal product of labor.
24. Variable costs are those that
   a. vary with output.
   b. vary with input.
   c. are fixed when output changes.
   d. decrease when output increases.
   e. can change even when output is constant.

25. For a competitive firm, profit maximization occurs when
   a. price equals marginal revenue.
   b. price equals marginal cost.
   c. marginal revenue equals total cost.
   d. marginal cost equals total cost.
   e. total revenue equals total cost.

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<th>Quantity</th>
<th>Marginal Cost</th>
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<tr>
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<td>16</td>
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26. Suppose the firm illustrated in the above table has fixed costs of $30. What is the total cost if output is 5 units?
   a. $30
   b. $50
   c. $80
   d. $62
   e. $104
27. Refer to the above figure. The output level most likely to maximize profit is
   a. zero.
   b. \( Q_1 \).
   c. \( Q_2 \).
   d. \( Q_3 \).
   e. \( Q_4 \).

28. Refer to the above figure. Producer surplus in the market is illustrated by area
   a. A.
   b. B.
   c. C.
   d. \( A + B \).
   e. \( A + B - C \).
29. The competitive equilibrium model
   a. describes in detail how every individual behaves in a real-world market.
   b. explains how a health-care system can be properly managed.
   c. combines supply and demand to illustrate how prices are established.
   d. incorporates only the profit-maximization incentives of firms.
   e. incorporates only the utility-maximization incentives of individuals.

30. The change in a product's price when a per-unit tax is assessed on producers is greatest when
   a. demand is very steep (inelastic) and supply is very flat (elastic).
   b. demand is very flat (elastic) and supply is very steep (inelastic).
   c. both demand and supply are very flat (elastic).
   d. both demand and supply are very steep (inelastic).
   e. supply is perfectly inelastic.

31. Refer to the above figure. If the government has established a tax of $4 per bushel of wheat, the deadweight loss that results is represented by area
   a. A.
   b. B.
   c. C.
   d. D.
   e. F.

32. In the long run
   a. all of a firm's resources are variable.
   b. new technology cannot be introduced.
   c. at least one of the firm's resources is fixed.
   d. most of the firm's resources cannot be varied.
   e. none of the firm's resources are variable.
33. If a firm is currently producing zero output in the short run, total cost equals
a. zero.
b. marginal cost.
c. variable cost.
d. fixed cost.
e. average variable cost.

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<td>6</td>
<td>326</td>
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34. Average variable cost at 3 units of output in the above table is
a. $29.33.
b. $13.33.
c. $25.
d. $16.
e. $49.33.

35. Consider the following string of numbers: 20, 18, 14, 8, 2. Given the average of these numbers, what happens when the number 6 is included?
a. The average rises because 6 is greater than the last number in the set, 2.
b. The average rises because 6 is greater than the previous average.
c. The average falls because 6 is less than the previous average.
d. The average falls because 6 is less than 20, the first number in the set.
e. The average does not change because 6 is insignificant.
36. In the above figure, the curve marked II is the firm's
   a. average variable cost curve.
   b. average total cost curve.
   c. average fixed cost curve.
   d. marginal cost curve.
   e. total cost curve.

37. Refer to the above figure. If the market price is $10, the firm's
   profits are
   a. $3,000.
   b. -$450.
   c. $450.
   d. $1,200.
   e. -$1,200.
38. Refer to the above figure. At an output of 100 units, fixed costs equal
   a. $1000.
   b. $550.
   c. $200.
   d. $350.
   e. $450.

39. If a competitive firm is losing money in the short run, then it should
   a. shut down.
   b. shut down only if TR is greater than TVC.
   c. shut down only if its losses are greater than its fixed costs.
   d. never shut down in the short run.
   e. shut down only if P is less than ATC.

40. When firms exit an industry
   a. demand decreases and economic profits continue to decline.
   b. market supply decreases, increasing price and bringing firms back into the industry.
   c. market supply decreases, pushing market price higher.
   d. market supply decreases, decreasing the firm's output price.
   e. firm profits typically fall.
41. Refer to the above figure. When will firm entry occur?
   a. When price is $P_1$ or greater.
   b. When demand is at $D_3$.
   c. When demand is at $D_2$.
   d. When price is $P_2$ or less.
   e. When demand is at $D_1$.

42. In a competitive industry where the typical firm is making economic profit
   a. entry occurs until price equals marginal cost.
   b. entry occurs until price equals minimum average variable cost.
   c. entry occurs until supply equals demand.
   d. exit occurs as firms are sold to the highest bidders.
   e. entry occurs as long as economic profit can be made.

43. External economies of scale occur when
   a. an increase in firm output results in lower long-run average total costs.
   b. marginal product increases when input increases.
   c. all firms in an industry experience decreasing marginal costs.
   d. a firm's supply curve is downward-sloping.
   e. an increase in the number of firms in an industry causes production costs to decline.

44. When the monopoly's marginal revenue is positive, its
   a. total revenue increases with increases in quantity.
   b. total revenue decreases with increases in quantity.
   c. total revenue is at its maximum.
   d. elasticity of demand is less than 1.
   e. elasticity of supply is less than 1.
45. A monopoly will expand output until
a. marginal revenue equals marginal cost.
b. total revenue is maximized.
c. marginal revenue equals zero.
d. price elasticity is equal to 1.
e. average revenue is maximized.

46. Refer to the figure above. The profit-maximizing price and output are _____ and _____, respectively.
   a. $11; 20
   b. $11; 24
   c. $10; 20
   d. $10; 24
   e. $5; 20

47. Which of the following describes one of the differences in profit-maximizing behavior between a monopoly and a competitive firm?
   a. A monopoly produces more and charges the same price as a competitive firm.
   b. A monopoly produces more and charges a higher price than a competitive firm.
   c. A monopoly produces less and charges the same price as a competitive firm.
   d. A monopoly produces less and charges a lower price than a competitive firm.
   e. A monopoly produces less and charges a higher price than a competitive firm.

48. Which of the following is not a characteristic of monopolistic competition?
   a. Many firms
   b. Free entry and exit
   c. Firms reacting to others' actions
   d. Differentiated products
49. In the long run, a monopolistically competitive firm will
a. have a horizontal demand curve.
b. make a normal profit.
c. price above average total cost.
d. make an economic profit.
e. become a monopoly.

50. Oligopoly is an industry characterized by
a. free entry.
b. a few sellers.
c. independence of sellers.
d. no product differentiation.

<table>
<thead>
<tr>
<th>Firm A</th>
<th>Competitive Price</th>
<th>Monopoly Price</th>
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<tr>
<td></td>
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<tr>
<td>$15,000</td>
<td>-$10,000</td>
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51. In the figure above, if firm A prices at the monopoly price, firm B's best option is to price at the ______ price. If firm A prices at the competitive price, firm B's best option is to price at the ______ price.
a. monopoly; competitive
b. competitive; monopoly
c. monopoly; monopoly
d. competitive; competitive

52. A four-firm concentration ratio is
a. the percentage of total industry output produced by the largest four firms.
b. the percentage of total industry employment represented by the largest four firms.
c. the ratio of wealth possessed by the largest four firms divided by the total industry wealth.
d. the degree to which the largest four firms in an industry have achieved economies of scale.
53. Which of the following statements about the Sherman Antitrust Act is 
    false?
    a. It is a law passed in 1890 in the United States to reduce
       anticompetitive behavior.
    b. Section 1 of the act makes price fixing illegal.
    c. Section 2 of the act makes attempts to monopolize illegal.
    d. It established the Antitrust Division of the U.S. Justice
       Department.

54. The 1914 law aimed at preventing monopolies from forming through
    mergers is called the
    c. Robinson-Patman Act.
    e. Clayton Antitrust Act.

55. If 50 firms in an industry each have 2 percent market shares, the
    Herfindahl-Hirschman index is
    a. 4,600.
    b. 2,600.
    c. 1,090.
    d. 200.
    e. 500.

56. A situation in which the costs of producing or the benefits of
    consuming a good spill over onto those who are neither producing nor
    consuming the good is called a(an)
    a. transaction cost.
    b. public good.
    c. externality.
    d. property right.
    e. free-rider.

57. An example of an international negative externality is
    a. a U.S. firm causes acid rain that falls in Canada.
    b. a Midwest utility burns fuel that affects trees in upstate New York.
    c. a Mexico City firm dumps hazardous chemicals in a nearby river.
    d. a U.S. firm benefits from a Japanese firm's research.
    e. copyright protection of U.S. made software in China.

58. If burning coal creates a pollution externality, the government may
    impose a
    a. cost-benefit analysis on the polluter.
    b. user fee on the polluter's marginal external benefit.
    c. subsidy on coal.
    d. tax on coal.
    e. pollution right.
59. A governmentally granted license to pollute that can be bought and sold is called a(n)
   a. tradable permit.
   b. command and control.
   c. emission right.
   d. transactions right.

60. The article from the *Economist* titled, “The Price of Life,” made the point that safety standards are much lower in poor countries than rich ones. This reflects:
   a. a lack of moral outrage from richer countries
   b. a lower value of human life in poorer countries
   c. the human capital approach to valuing human life
   d. the willingness to pay principle

61. A major weakness in the willingness to pay principle for valuing human life is that:
   a. human life is too valuable to be measured
   b. people refuse to place accurate values on their own lives due to the principle-agent problem
   c. people are very bad at accessing relative probabilities
   d. it ignores the negative externalities associated with valuing life

62. The *Wall Street Journal* article, “Big Business” implies that:
   a. American business is currently on a trend towards greater dominance by oligopolistic firms
   b. the great merger wave of the 1990s is over
   c. oligopolies are characterized by large variable costs and low fixed costs
   d. diseconomies to scale are largely responsible for the current merger movement

63. In class, the case for legalizing currently illegal drugs was made on the basis of:
   a. the argument that drugs are good
   b. the public good nature of drug enforcement
   c. the positive externalities associated with drug use that is currently causing a misallocation of government resources, especially along our boarders
   d. the belief that a tax policy is a more efficient way to deal with the negative externalities associated with drug use
64. William Barnett, in his article “Making Game Theory Work in Practice,” made the point that:
   a. the Nash equilibrium is inconsistent with oligopolies playing cooperative games
   b. game theory is useful for managers who need to pay attention to interactions with competitors, customers and suppliers
   c. game theory is best understood within the context of a monopolistically competitive model where firms are allowed to interact in a strategic manner
   d. the Nash equilibrium is not stable

65. The models of oligopoly are necessarily more nebulous than other market structures because:
   a. decision making under oligopoly is strategic while under other forms of market structure it is not strategic.
   b. oligopolies don’t maximize profit while firms under other market structures do
   c. oligopolists face a variable price elasticity demand curve while the elasticity of demand is constant with other market structures
   d. the Nash equilibrium is stable for oligopolists while it is unstable for other market structures

66. The kinked-demand oligopoly model attempts to understand why:
   a. oligopolists collude
   b. oligopolists don’t collude
   c. oligopolists compete by product differentiation and advertising
   d. prices are sticky in oligopolistic industries

67. One of the general lessons to be learned from the models of market structure is that:
   a. profits act as a magnet that attracts competitors while firms who make economic profits try to erect barriers that shield them from potential competition
   b. firms with monopoly power maximize profits while competitive firms break-even
   c. market share, as determined by the 4-firm concentration ratio, is a better determinant of market power than profits
   d. antitrust policy is necessary to control the natural tendency to monopolize
68. Assume that a market is characterized by the following supply and demand equations:

Supply \quad P = Q + 100 \\
Demand \quad P = - \frac{1}{2} Q + 550

The market equilibrium quantity and price are:

a. 300, 400
b. 900, 800
c. 430, 530
d. 400, 300

69. Assume that a market is characterized by the following supply and demand equations

Supply \quad P = Q + 100 \\
Demand \quad P = - \frac{1}{2} Q + 550

A price floor of 500 will result in:

a. a surplus of 500
b. a shortage of 500
c. a surplus of 200
d. a surplus of 300

70. Suppose the demand curve is given by the following equation, \( P = -1Q + 10 \). The price elasticity of demand when \( Q = 7 \) is

a. not able to be determined given the information given
b. \( 14/6 \)
c. 1

d. \( 3/7 \)

71. Consumer equilibrium is achieved from the consumption of goods X and Y when:

a. \( \frac{MU_X}{MY_Y} = \frac{P_X}{P_Y} \)

b. a tangency is achieved between the marginal utility of X and marginal utility of Y schedules

\( \frac{MU_X}{P_X} > \frac{MU_Y}{P_Y} \)

c. income rises to the point when the consumer reaches the maximum of the marginal utility schedules
72. Suppose that supply and demand are given by the following equations:

\[
\text{Supply: } P = Q \\
\text{Demand: } P = -1Q + 10
\]

After a tax of $2.00 per unit sold is placed on the product, the equilibrium price and quantity will be:

a. not defined  
b. 6, 4  
c. 4, 6  
d. 5, 5

73. Firms price discriminate because:

a. they can  
b. it increases profit  
c. it shifts consumer surplus to the firm increasing profit  
d. all of the above

74. X-inefficiency is an example of

a. the free rider problem  
b. the principle-agent problem  
c. a negative externality  
d. a position externality

75. An example of X-inefficiency includes all of the following except

a. stealing from employers  
b. shoplifting by customers  
c. a three Martini lunch  
d. playing video games on the company computer