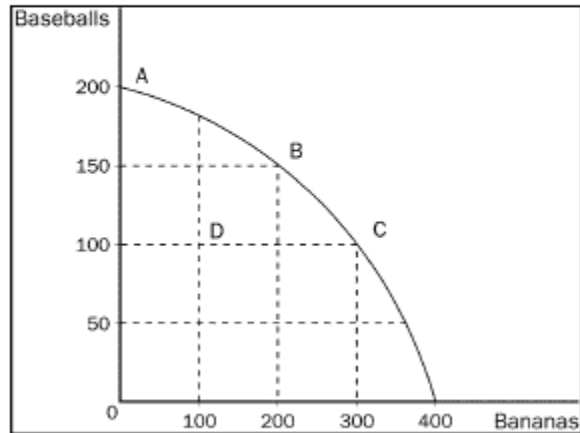1. Refer to Figure 1. The movement from point C to point D was most likely caused by
    a. unemployment.
    b. a decrease in society's preferences for bananas.
    c. fewer resources available for production.
    d. all of the above are correct.

Figure 1:

2. The difference between production possibilities frontiers that are bowed out and those that are linear is that
    a. bowed out production possibilities frontiers illustrate trade-offs where linear production possibilities frontiers do not.
    b. bowed out production possibilities frontiers show increasing opportunity cost where linear ones show constant opportunity cost.
    c. bowed out production possibilities frontiers are result of perfectly shift able resources where linear production possibilities frontiers are not.
    d. linear production possibilities frontiers illustrate real world conditions more than bowed out production possibilities frontiers.

3. Refer to Figure 2.5. The economy is currently at Point B. The opportunity cost of moving from Point B to Point A is the _____ laptop computers that must be forgone to produce _____ additional desktop computers.
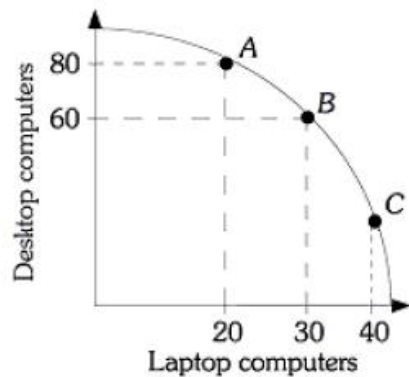   a. 10; 20.
    b. 10; 60.
    c. 20; 30.
    d. 20; 80.

Figure 2.5

4. Which of the following is CORRECT about the concept of scarcity?
   a. It does not apply to rich countries, such as the U.S. and Germany, but it applies to poor countries such as Mali and Mozambique.
   b. Robinson Crusoe lives in an island all by himself, and he catches all the food he eats and builds the shelter he lives in. Because he does not need money, the concept does not apply to him.
   c. Because we have limited time, energy, resources and we cannot do everything at the same time, scarcity applies to everyone.
   d. A government can raise more taxes from its people to pay for any of its additional expenses, therefore the concept does not apply to the government.

5. Which of the following would be considered as cross section data?
   a. Inflation rates between 1990 and 2010.
   b. The mortgage payments of Maria-Christina, George and Maria-Elena 2005 and 2010.
   c. The income and gasoline consumption of 1,000 residents in Montreal in 2012.
   d. The rise in the cost of living over the past five years.

6. In Japan, suppose the CPI for the year 2010 is 150 and the CPI for 2011 is 165. Japan has experienced ____ in the amount of ___% over this time period.
   a. Deflation; 15%.
   b. Inflation; 10%.
   c. Deflation; 10%.
   d. Inflation; 15%.

7. A basket of goods in 2005 costs $625, while the value of the same basket in 2010 costs $800. If the base year is 2005, what is the value of this price index in 2005?
   a. 78.125.
   b. 128.
   c. 155.

d. 100.

8. Which of the following will cause the demand curve to shift to the right?
    a. A decrease in income if the good is normal.
    b. An increase in the price of a complementary good.
    c. An increase in the price of a substitute good.
    d. An increase in income if the good is inferior.

9. The market for guitars is experiencing a shortage. You should predict that price will
    a. increase, quantity demanded will fall, and the quantity supplied will rise.
    b. increase, quantity demanded will rise, and the quantity supplied will fall.
    c. decrease, quantity demanded will rise, and the quantity supplied will fall.
    d. decrease, quantity demanded will fall, and the quantity supplied will rise.

10. Which of the following would result in an increase in equilibrium quantity and an ambiguous change in equilibrium price?
    a. an increase in supply and demand.
    b. an increase in supply and a decrease in demand.
    c. a decrease in supply and an increase in demand.
    d. a decrease in supply and demand.

11. The supply of a good is negatively related to the
    a. price of inputs used to make the good.
    b. demand for the good by consumers.
    c. price of the good itself.
    d. amount of profit a firm can expect to receive from sale of the good.

12. A technological improvement in the market for cars results in an increase in supply of cars. This will increase Total Revenue for Toyota only if
    a. Supply is price elastic.
    b. Supply is price inelastic.
    c. Demand is price elastic.
    d. Demand is price inelastic.

13. Suppose the value of the price elasticity of demand is -3. What does this mean?
    a. A 1% increase in the price of the good causes quantity demanded to increase by 3% .
    b. A 1% increase in the price of the good causes quantity demanded to decrease by 3%.
    c. A 3% increase in the price of the good causes quantity demanded to decrease by 1%.
    d. A $1 increase in price causes quantity demanded to fall by 3 units.

14. If Shiori receives an increase in her pay, we would expect

a. Shiori's demand for each good he purchases to remain unchanged.
b. Shiori's demand for normal goods to decrease.
c. Shiori's demand for luxury goods to increase.
d. Shiori's demand for inferior goods to increase.

15. Which of the following pairs of goods would most likely to have a positive cross price elasticity of demand?
    a. Coca Cola and Olive Oil.
    b. Bread and jam.
    c. iPods and MP3 players.
    d. None of the answers is correct.

16. Suppose Lauren, Leslie, and Lydia all purchase bulletin boards for their rooms for $15 each. Lauren's willingness to pay was $35, Leslie's willingness to pay was $25, and Lydia's willingness to pay was $30. What is the total consumer surplus for these three?
    a. $15.
    b. $25.
    c. $35.
    d. $45.

17. If a market is allowed to move freely to its equilibrium price and quantity, what will be the result of an increase in demand on producer surplus and consumer surplus?
    a. increased producer surplus and reduced consumer surplus.
    b. reduced producer surplus and reduced consumer surplus.
    c. increased producer surplus and uncertain change in consumer surplus.
    d. reduced producer surplus and uncertain change in consumer surplus.

18. Which of the following would NOT likely be considered a negative externality?
    a. Smelter Ltd. creates steel and pollution in Anytown, Canada.
    b. Your friend buys a new puppy that barks every night.
    c. You have an adverse reaction to a medication your doctor prescribed for you.
    d. Your neighbour purchases the most powerful stereo money can buy for his patio.

19. Suppose market demand is P= 25 - Q and market supply is P=5+Q . In order to support consumers government imposes a price ceiling of $10. How much is the producer's surplus after this policy?
    a. 12.5.
    b. 62.5.
    c. 50.
    d. 25.

20. Allen is planning for his long weekend. He has $100 to expend. He is interested to watch movies and also to have drinks. Price of renting a movie is $10 and price of a drink is $5.

With movies on the vertical axis and drinks on the horizontal axis, which of the following is correct?
a. The budget line Slope is -2 and its vertical intercept is 20.
b. The budget line Slope is -2 and its horizontal intercept is 20.
c. The budget line Slope is -0.5 and its vertical intercept is 10.
d. The budget line Slope is -0.5 and its horizontal intercept is 10.

21. Suppose a student spends all of her money on goods A and B. If she is maximizing her utility and her marginal utility per dollar for A is equal to 2, what would be her marginal utility for B when price of B is $5?
a. 10.
b. 2.5.
c. 2.
d. 5.

22. Because the marginal utility _____ with each additional unit consumed, the price of the good must _____ in order for consumers to buy more of the good. This explains why the demand curve is _____.
a. Increases; fall; negatively-sloped.
b. Increases; rise; positively-sloped.
c. Decreases; fall; negatively-sloped.
d. Decreases; rise; positively-sloped.

23. Refer to Figure 2, suppose solid line presents the original budget line for a student which spends her money on cola and candy. Due to a government policy, his new budget line could be presented by the dashed line. Then which of the following is true about this student's behavior?
a. Candy and cola are substitutes.
b. Candy and cola are complements.
c. Candy and cola are normal goods.
a. Candy is normal but cola is inferior.

Figure 2:
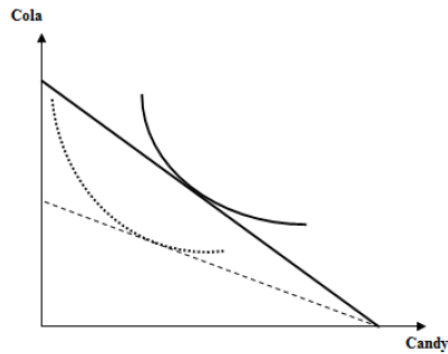
24. Jason is risk-averse while Alex is risk-neutral. They are both considering whether they should play this game: Win $200 with the probability of 80% or lose $1,000 with a probability of 20%. What can we predict?
    a. Only Jason will play the game.
    b. Neither Jason nor Alex will play the game.
    c. Both Jason and Alex will play the game.
    d. Only Alex will play the game.

25. Suppose a bond pays 5% of the purchase price after one year and you believe that the inflation in one year to be 3%. What would you do?
    a. Do not buy the bond because the real return is -2%.
    b. Do not buy the bond because the real return is -8%.
    c. Buy the bond because the real return is 2%.
    d. Buy the bond because the real return is 8%.

26. Which of the following statements is CORRECT?
    a. The lower the expected return, the lower the risk.
    b. The higher the variance, the higher the expected return.
    c. The higher the expected return, the higher the risk.
    d. The higher the variance, the higher the risk.

27. How is the marginal product curve of labour related to the marginal cost curve of the firm?
    a. When marginal product is rising, marginal cost is constant.
    b. When marginal product is rising, marginal cost is rising.
    c. The marginal product curve has a U shape, and the marginal cost curve has an inverted U shape.
    d. When marginal product is rising, marginal cost is falling.

28. When marginal cost exceeds average total cost, what do we know?
    a. Average fixed cost must be rising.

    b. Average total cost must be rising.

    c. Average total cost must be falling.

    d. Marginal cost must be falling.

29. Refer to Figure 3. Which of the following is true?
    a. At levels of output below M, firm experiences economies of scale (IRS), and
    b. any output level between M and N, could be minimum efficient scale output.
    c. At levels of output below M, firm experiences diseconomies of scale (DRS), and N is the minimum efficient scale output.
    d. c. At levels of output beyond N, firm experiences diseconomies of scale (DRS), and N is the minimum efficient scale output.
    e. At levels of output below M, firm experiences economies of scale (IRS), and N is the minimum efficient scale output.

30. Graphically, what defines the vertical distance between a firm's average total cost curve and average variable cost curve?
    a. The profit per unit at the associated output level.
    b. The average fixed cost at the associated output level.
    c. The total fixed cost at the associated output level.
    d. The average marginal cost at the associated output level.

31. Which of the following does NOT describe a perfectly competitive industry?
    a. There are a large number of consumers.
    b. The government prohibits new entrants into the industry.
    c. There are a large number of firms.
    d. The firms produce identical products.

32. A perfectly competitive firm will be interested in producing positive output only when the price of its product exceeds its _____.
    a. AFCmin.
    b. ATCmin.
    c. MCmin.
    d. AVCmin.

33. Suppose a perfectly competitive industry has 500 identical firms in the short run. Each firm faces a marginal cost curve given by MC = 2 + 0.5Q. If the price in the market is $7, what is the aggregate supply quantity?
    a. 10000.
    b. 3500.
    c. 4000.
    d. 5000.

34. The industry supply of a constant cost perfectly competitive industry is _____.
    a. Perfectly inelastic.

b. Very inelastic.
c. Perfectly elastic.
d. Very elastic.

35. Suppose a cost-saving technology is invented in a perfectly competitive industry. What will happen to the industry?
    a. A few firms may earn economic profits in the short run.
    b. Consumers may enjoy lower prices in the long run.
    c. Induces entry of firms into the industry in the long run.
    d. All of the answers are correct.

36. If a monopolist sells 4 units of output for $10 each and 5 units of output at $7 each, what is the marginal revenue associated with the 11th unit?
    a. -$3.
    b. $10.
    c. $7.
    d. -$5.

37. Compared to a perfectly competitive firm, a monopolist produces a ___ output level and charges a ___ price.
    a. Higher; higher.
    b. Higher; lower.
    c. Lower, lower.
    d. Lower; higher.

38. For a monopolist, where does resource allocation inefficiency arise from?
    a. Inability to perfectly price discriminate.
    b. The monopolist sets P > MC.
    c. The monopolist under-produces output.
    d. All of the answers are correct.

39. If a monopolist engages in price discrimination, which of the following rules should it follow in order to maximize profits?
    a. Charge consumers with low elasticity a low price and consumers with high elasticity a high price.
    b. Charge consumers with low elasticity a high price and consumers with high elasticity a low price.
    c. Depending on the magnitude of its marginal cost, it may only serve the consumer group with high elasticity.
    d. Depending on the magnitude of its marginal cost, it may only serve the consumer group with elasticity less than one, in absolute value.

40. Suppose a monopolist faces a demand equation given by P = 20 - Q, and MC=AVC=ATC=$6. What is the profit-maximizing price for the monopolist?

a. $2.
b. $13.
c. $1.
d. $6.

41. Which of the following examples best describe(s) an oligopoly market structure?
    a. Beer: Labatt's, Molson and Heineken.
    b. Mobile phones: Apple, Samsung and Nokia.
    c. Automobile: Ford, Toyota and Volkswagen.
    d. All of the answers are correct.

42. Firms X and Y want to decide whether to dump their production waste in the river
    (pollute strategy) or not (abate). Their net benefit from production, abatement cost and
    polluting penalty is summarized in the following table. Based on this information:
    a. Firm X will Pollute, Firm Y will abate.
    b. Firm Y will Pollute, Firm X will abate.
    c. Both firms will pollute.
    d. Both firms will abate

		Y	
		Pollute	Abate
X	Pollute	-2,-4	6,-5
	Abate	-4,5	3,3

43. Suppose there are two firms in the market, hence it is of a duopoly structure. If the firms
    do not collude, which of the following statements is (are) CORRECT?
    a. Each firm charges the monopoly price.
    b. Each firm produces less than half of the monopoly output.
    c. Each firm earns less than half of the monopoly profit.
    d. All of the answers are correct.

44. Which of the following can be considered as a barrier(s) to entry?
    a. Existing firms sign exclusive contracts with all of their input suppliers.
    b. Existing firms actively advertise the uniqueness of their products.
    c. Existing firms build very large plants even though they do not use all of its
       capacity.
    d. All of the answers are correct.

45. Suppose there are two firms in the market, Firm A and Firm B. The total market demand is given by P = 40 – 2.5Q, and MC=ATC=$10. What is the profit maximizing price for a cartel?
    a. $35.
    b. $20.
    c. $25.
    d. $30.

46. If Country A has absolute advantage in the production of all goods compared to Country B, what should these countries do?
    a. Do not trade because Country B will not gain.
    b. The countries should trade by exporting the product it has a lower opportunity cost in production and import the other product.
    c. When Country A trades with Country B, Country A will run a trade surplus.
    d. Do not trade because Country A will not gain.

47. According to the principle of comparative advantage, if two countries have the same opportunity costs in producing all goods and services, what should they do?
    a. Do not trade with any country.
    b. Trade exclusively with each other.
    c. Sign a free trade agreement with each other.
    d. Trade with other countries instead.

48. According to the principle of comparative advantage, if Canada exports natural gas and India exports clothing, which of the following statements would be INCORRECT?
    a. The production possibilities frontiers of Canada and India will shift out because of trade.
    b. Not everyone within Canada or China will benefit from trade.
    c. Canada can consume more of both goods with trade.
    d. India can consume more of both goods with trade.

49. Suppose Australia can produce 5 computers or 25 tons of wheat, while Canada can produce 3 computers or 9 tons of wheat. What can we conclude?
    a. Canada has a comparative advantage in wheat production.
    b. Australia has a comparative advantage in wheat production.
    c. Australia cannot gain from trading with Canada.
    d. Canada has an absolute advantage in wheat production.

50. Country A consumes wheat and its demand is given by P = 10 – 2Q and its supply is given by P = 5Q – 4. If a tariff of $2 is imposed and the world price is $1, what are imports?
    a. 1.4.
    b. 3.5.
    c. 2.1.
    d. 5.2.

Part II: Answer FOUR of the following FIVE questions. If more than four questions are answered, only the first four attempted will be marked.

1. Consider the Demand Curve P = 60 − 0.5Q and the Supply Curve P = 20 + 1.5Q.
   a. If the market is free (unregulated), what will be the equilibrium price and equilibrium quantity in the market? What are total revenues in this market? (4 marks)
   b. Calculate the point elasticity of demand at the equilibrium point and say whether it is elastic or inelastic. (4 marks)
   c. Given that the demand stayed the same find the new equilibrium price, equilibrium quantity and total revenues in the market. (4 marks)
   d. Calculate the point elasticity of demand at the new equilibrium point and say whether it is elastic or inelastic. (4 marks)
   e. In what case the market realizes higher total revenues, under the initial _smaller_ supply or under the new _increased_ supply? Explain the intuition using the concept of elasticity of demand. (4 marks)
   f. What should be the market's equilibrium price in order to have the highest possible total revenues in this market? Calculate the price elasticity of demand at this point and justify your answer. What are the highest possible total revenues for this market? (5 marks)

2. Suppose that the demand and supply functions for steel are given by P = 12-0.5Q and P = 2+0.5Q, respectively. However, the steel plant has begun dumping sludge into the river, so the fishing has become much less profitable because there are many fewer fish. As a result the marginal social cost of steel production is increased and is given by P = 4 + 0.5Q.
   a. Calculate the efficient (i.e., socially optimal) level of output. (6 marks)
   b. Suppose that the government wants to achieve the socially optimal quantity by imposing a tax on the producers. What would be the size of this tax in dollars per unit of steel? Find consumer's and producer's tax incidence. (6 marks)
   c. After using the corrective tax, calculate the post-tax consumer surplus (CS), post-tax producer surplus (PS), and post-tax government tax revenue (GR). (6 marks)
   d. Now assume alternatively, government decides to impose a quota equal to the socially optimal level of production to correct externality. Find the price and the producer's surplus after this policy. (7 marks)

3. Suppose in a good month you earn $2500 and in a bad month you earn $900. Good and bad month each have probabilities of 50%.
   a. What is your expected monthly income? (5 marks)

b. Suppose your utility function is U = I0:5, where I is your income in a given month. Calculate your expected utility in a given month. (5 marks)
c. Calculate the utility of your expected monthly income? (5 marks)
d. Based on your answers in b. and c. what is your attitude toward risk? (5 marks)
e. Suppose an insurance company offers to pay you $700 if you have a bad month, but charges you $X if you have a good month. How much at most are you willing to pay in a good month? (Hint: You pay $X in a good month so that you are equally happy buying or not buying the insurance.) (5 marks)

4. Suppose demand is given by $P = 40 - 2Q_d$, $MC = AVC = ATC = 10$.
   a. Solve for P, Q and profits for a monopolist. (4 marks)
   b. Solve for P, Q and profits for a perfectly competitive industry. (4 marks)
   c. Show your results in a. and b. in one graph. (4 marks)
   d. For a monopolist, find P, Q and profits. (4 marks)
   e. Now suppose $MC = 2Q$, and $ATC = Q + 1 = Q$:
      i. For a monopolist, find P, Q and profits. (4 marks)
      ii. For a perfectly competitive industry, find P, Q and profits in the short run. (4 marks)
      iii. Which one achieves the efficient market outcome? Explain. (5 marks)

5. Consider the following: Demand $P = 40 - 2Q$, $MC = ATC = 20$.
   a. Find the P, Q and profit for a monopolist. (4 marks) Suppose now there are two firms (duopoly). Their reaction functions are given by:

      Firm A: $Q1 = (40 - 2Q_2 - 20) = 4$
      Firm B: $Q2 = (40 - 2Q_1 - 20) = 4$

      For simplicity, assume that both firms have the same cost functions, and therefore they evenly split the market. Also note that $Q = Q_1 + Q_2$.
   b. Solve for the profit maximizing quantity for each firm. (4 marks)
   c. Solve for the price each firm will charge. (4 marks)
   d. Solve for the profits for each firm. (4 marks)
   e. How are their total profits compared to those of a monopolist? By how much do they differ? (4 marks)
   f. Explain intuitively why Firms A and B will not be able to share the collusion profits. (5 marks)