Name:

PART I – Multiple Choice Questions (Each question worth 2 points)

1. Which of the following would not shift the supply curve for mp3 players?
   a. an increase in the price of mp3 players
   b. a decrease in the number of sellers of mp3 players
   c. an increase in the price of plastic, an input into the production of mp3 players
   d. an improvement in the technology used to produce mp3 players

ANS: A

2. One economist has argued that rent control is "the best way to destroy a city, other than bombing." Why would an economist say this?
   a. He fears that low rents will cause low-income people to move into the city, reducing the quality of life for other people.
   b. He fears that rent control will benefit landlords at the expense of tenants, increasing inequality in the city.
   c. He fears that rent controls will cause a construction boom, which will make the city crowded and more polluted.
   d. He fears that rent control will eliminate the incentive to maintain buildings, leading to a deterioration of the city.

ANS: D

3. The bowed shape of the production possibilities frontier can be explained by the fact that
   a. opportunity cost of the products are constant
   b. economic growth is always occurring.
   c. the opportunity cost of one good in terms of the other depends on how much of each good the economy is producing.
   d. the only way to get more of one good is to get less of the other.

ANS: C
4. The midpoint method is used to compute elasticity because it
   a. automatically computes a positive number instead of a negative number.
   b. results in an elasticity that is the same as the slope of the demand curve.
   c. gives the same answer regardless of the direction of change.
   d. automatically rounds quantities to the nearest whole unit.

ANS: C

5. Suppose an economy produces two goods, food and machines. This economy always operates on its production possibilities frontier. Last year, it produced 1000 units of food and 47 machines. This year it experienced a technological advance in its machine-making industry. As a result, this year the society wants to produce 1050 units of food and 47 machines. Which of the following statements is correct?
   a. Because the technological advance occurred in the machine-making industry, it will not be possible to increase food production without reducing machine production below 47.
   b. Because the technological advance occurred in the machine-making industry, increases in output can only occur in the machine industry.
   c. In order to increase food production in these circumstances without reducing machine production, the economy must reduce inefficiencies.
   d. The technological advance reduced the amount of resources needed to produce 47 machines, so these resources could be used to produce more food.

ANS: D
6. Juanita and Shantala run a business that programs and tests cellular phones. Assume that Juanita and Shantala can switch between programming and testing cellular phones at a constant rate. The following table applies.

<table>
<thead>
<tr>
<th>Minutes Needed to</th>
<th>Number of Cellular Phones Programmed or Tested in a 40-Hour Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program 1 Cellular Phone</td>
<td>Test 1 Cellular Phone</td>
</tr>
<tr>
<td>Juanita</td>
<td>?</td>
</tr>
<tr>
<td>Shantala</td>
<td>10</td>
</tr>
</tbody>
</table>

Refer to Table Above. Which of the following points would be on Juanita's production possibilities frontier, based on a 40-hour week?

a. (120 cellular phones programmed, 295 cellular phones tested)
b. (130 cellular phones programmed, 225 cellular phones tested)
c. (140 cellular phones programmed, 155 cellular phones tested)
d. Both (a) and (b) would be on Juanita's production possibilities frontier.

ANS: B

7. If he devotes all of his available resources to cantaloupe production, a farmer can produce 120 cantaloupes. If he sacrifices 1.5 watermelons for each cantaloupe that he produces, it follows that

a. if he devotes all of his available resources to watermelon production, then he can produce 80 watermelons.
b. he cannot have a comparative advantage over other farmers in producing cantaloupes.
c. his opportunity cost of one watermelon is 2/3 of a cantaloupe.
d. his production possibilities frontier is bowed-out.

ANS: C

8. The following table contains some production possibilities for an economy for a given year:

<table>
<thead>
<tr>
<th>Cakes</th>
<th>Rolls (in dozens)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>5000</td>
</tr>
<tr>
<td>120</td>
<td>4600</td>
</tr>
<tr>
<td>140</td>
<td>?</td>
</tr>
</tbody>
</table>
Refer to Table Above. If the production possibilities frontier is bowed outward, then "?" could be

a. 4400.
b. 4300.
c. 4200.
d. 4100.

ANS: D

9. Fiona’s Fish Emporium increased its total monthly revenue from $1,500 to $1,800 when it raised the price of tropical fish from $5 to $9. The price elasticity of demand for Fiona’s Fish Emporium is
   a. 0.57.
b. 0.70.
c. 1.43.
d. 2.20.

ANS: B
10. Suppose that a worker in Caninia can produce either 2 blankets or 8 meals per day, and a worker in Felinia can produce either 5 blankets or 1 meal per day. Each nation has 10 workers. For many years, the two countries traded, each completely specializing according to their respective comparative advantages. Now war has broken out between them and all trade has stopped. Without trade, Caninia produces and consumes 10 blankets and 40 meals per day and Felinia produces and consumes 25 blankets and 5 meals per day. The war has caused the combined daily output of the two countries to decline by
   a. 15 blankets and 35 meals.
   b. 25 blankets and 40 meals.
   c. 35 blankets and 45 meals.
   d. 50 blankets and 80 meals.

ANS: A

11. Which of the following statements is not valid when the market supply curve is vertical?
   a. Market quantity supplied does not change when the price changes.
   b. Supply is perfectly inelastic.
   c. An increase in market demand will increase the equilibrium quantity.
   d. An increase in market demand will increase the equilibrium price.

ANS: C

12. Assume that Zimbabwe and Portugal can switch between producing toothbrushes and producing hairbrushes at a constant rate.

<table>
<thead>
<tr>
<th></th>
<th>Machine Minutes Needed to Make 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Toothbrush</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>3</td>
</tr>
<tr>
<td>Portugal</td>
<td>5</td>
</tr>
</tbody>
</table>

Zimbabwe has an absolute advantage in the production of
   a. toothbrushes and a comparative advantage in the production of toothbrushes.
   b. toothbrushes and a comparative advantage in the production of hairbrushes.
   c. hairbrushes and a comparative advantage in the production of toothbrushes.
   d. hairbrushes and a comparative advantage in the production of hairbrushes.

ANS: A
13. Which of the following demonstrates the law of demand?
   a. After Jon got a raise at work, he bought more pretzels at $1.50 per pretzel than he did before his raise.
   b. Melissa buys fewer muffins at $0.75 per muffin than at $1 per muffin, other things equal.
   c. Dave buys more donuts at $0.25 per donut than at $0.50 per donut, other things equal.
   d. Kendra buys fewer Snickers at $0.60 per Snickers after the price of Milky Ways falls to $0.50 per Milky Way.

ANS:  C

14. Suppose that the federal government is concerned about obesity in the United States. Congress is considering a plan that would require “junk food” producers to include warning labels on all junk food. If the warning labels are successful, we could illustrate the plan as producing a movement from
   a. Point A to Point B in Panel 1.
   b. Point B to Point A in Panel 1.
   c. Point A to Point C in Panel 2.
   d. Point C to Point A in Panel 2.

ANS:  A
15. Last month, sellers of good Y took in $100 in total revenue on sales of 50 units of good Y. This month sellers of good Y raised their price and took in $120 in total revenue on sales of 40 units of good Y. At the same time, the price of good X stayed the same, but sales of good X increased from 20 units to 40 units. We can conclude that goods X and Y are
   a. substitutes, and have a cross-price elasticity of 0.60.
   b. complements, and have a cross-price elasticity of 0.60.
   c. substitutes, and have a cross-price elasticity of 1.67.
   d. complements, and have a cross-price elasticity of 1.67.

ANS:  C

16. In the pizza market, there are two demanders; Mary and Joe. Mary’s demand for pizza is \( Q_{Mary} = 400 - 2P \) and Joe’s demand for pizza is \( Q_{Joe} = 300 - 2P \). Market supply is \( Q^s = P + 100 \). What is the equilibrium price and quantity in the market?
   a. \( P = 100, Q = 200 \)
   b. \( P = 100, Q = 220 \)
   c. \( P = 120, Q = 200 \)
   d. \( P = 120, Q = 220 \)

ANS: D

17. The market for diamond rings is closely linked to the market for high-quality diamonds. If a large quantity of high-quality diamonds enters the market, then the
   a. supply curve for diamond rings will shift right, which will create a shortage at the current price. Price will increase, which will decrease quantity demanded and increase quantity supplied. The new market equilibrium will be at a higher price and higher quantity.
   b. supply curve for diamond rings will shift right, which will create a surplus at the current price. Price will decrease, which will increase quantity demanded and decrease quantity supplied. The new market equilibrium will be at a lower price and higher quantity.
   c. demand curve for diamond rings will shift right, which will create a shortage at the current price. Price will increase, which will decrease quantity demanded and increase quantity supplied. The new market equilibrium will be at a higher price and higher quantity.
   d. demand curve for diamond rings will shift right, which will create a surplus at the current price. Price will decrease, which will increase quantity demanded and decrease quantity supplied. The new market equilibrium will be at a lower price and higher quantity.

ANS:  B
18. Which of the following sets of events must cause an increase in the equilibrium price of a new house?
   a. higher wages for carpenters, higher wood prices, increases in consumer incomes, higher apartment rents, increases in population, and expectations of higher house prices in the future
   b. lower wages for carpenters, lower wood prices, increases in consumer incomes, higher apartment rents, increases in population and expectations of higher house prices in the future
   c. lower wages for carpenters, higher wood prices, decreases in consumer incomes, higher apartment rents, decreases in population and expectations of higher house prices in the future
   d. higher wages for carpenters, lower wood prices, decreases in consumer incomes, lower apartment rents, decreases in population and expectations of lower house prices in the future

ANS: A

19. Suppose the government has imposed a price ceiling on cellular phones. Which of the following events could transform the price ceiling from one that is binding to one that is not binding?
   a. Cellular phones become more popular.
   b. Traditional land line phones become more expensive.
   c. The components used to produce cellular phones become more expensive.
   d. A technological advance makes cellular phone production less expensive.

ANS: D

20.
When a certain price control is imposed on this market, the resulting quantity of the good that is actually bought and sold is such that buyers are willing and able to pay a maximum of $P_1$ dollars per unit for that quantity and sellers are willing and able to accept a minimum of $P_2$ dollars per unit for that quantity. If $P_1 - P_2 = $3, then the price control is

a. a price ceiling of $2.00.
b. a price ceiling of $5.00.
c. a price floor of $5.00.
d. either a price ceiling of $2.00 or a price floor of $5.00.

ANS: D

21. For two individuals who engage in the same two productive activities, it is impossible for one of the two individuals to

a. have a comparative advantage in both activities.
b. have an absolute advantage in both activities.
c. be more productive per unit of time in both activities.
d. gain from trade with each other.

ANS: A

22. To determine whether a good is considered normal or inferior, one could examine the value of the

a. income elasticity of demand for that good.
b. price elasticity of demand for that good.
c. price elasticity of supply for that good.
d. cross-price elasticity of demand for that good.

ANS: A
23. The demand schedule below pertains to sandwiches demanded per week.

<table>
<thead>
<tr>
<th>Price</th>
<th>Harry’s Quantity Demanded</th>
<th>Darby’s Quantity Demanded</th>
<th>Jake’s Quantity Demanded</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>$5</td>
<td>1</td>
<td>2</td>
<td>x</td>
</tr>
</tbody>
</table>

Refer to Table 4-9. Suppose Harry, Darby, and Jake are the only demanders of sandwiches. Also suppose the following:

- $x = 2.$
- The current price of a sandwich is $5.00.
- The market quantity supplied of sandwiches is 10.
- The law of supply applies to the supply of sandwiches.

Then there is a

a. shortage of 5 sandwiches, and the price would be expected to rise from its current level of $5.00.
b. shortage of 5 sandwiches, and the price would be expected to fall from its current level of $5.00.
c. surplus of 5 sandwiches, and the price would be expected to rise from its current level of $5.00.
d. surplus of 5 sandwiches, and the price would be expected to fall from its current level of $5.00.

ANS: D

24. Two individuals engage in the same two productive activities. In which of the following circumstances would neither individual have a comparative advantage in either activity?

- One individual’s production possibilities frontier is steeper than the other individual’s production possibilities frontier.
- One individual is faster at both activities than the other individual.
- One individual’s opportunity costs are the same as the other individual’s opportunity costs.
- None of the above is correct; one of the two individuals always will have a comparative advantage in at least one of the two activities.

ANS: C

25. The figure represents the relationship between the size of a tax and the tax revenue raised by that tax.
If the economy is at point B on the curve, then an increase in the tax rate will

a. increase the deadweight loss of the tax and increase tax revenue.

b. increase the deadweight loss of the tax and decrease tax revenue.

c. decrease the deadweight loss of the tax and increase tax revenue.

d. decrease the deadweight loss of the tax and decrease tax revenue.

ANS: B

26. Suppose that the equilibrium price in the market for widgets is $5. If a law increased the minimum legal price for widgets to $6,

a. the resulting increase in consumer surplus would be larger than any possible loss of producer surplus.

b. the resulting increase in consumer surplus would be smaller than any possible loss of producer surplus.

c. any possible increase in producer surplus would be larger than the loss of consumer surplus.

d. any possible increase in producer surplus would be smaller than the loss of consumer surplus.

ANS: D

27. If the government passes a law requiring buyers of college textbooks to send $5 to the government for every textbook they buy, then
a. the demand curve for textbooks shifts downward by $5.

b. buyers of textbooks pay $5 more per textbook than they were paying before the tax.

c. sellers of textbooks are unaffected by the tax.

d. All of the above are correct.

ANS: A

28. Abraham drinks Sprite. He can buy as many cans of Sprite as he wishes at a price of $0.55 per can. On a particular day, he is willing to pay $0.95 for the first can, $0.80 for the second can, $0.60 for the third can, and $0.40 for the fourth can. Assume Abraham is rational in deciding how many cans to buy. His consumer surplus is

a. $0.50.

b. $0.60.

c. $0.70.

d. $1.00.

ANS: C

29. The size of the deadweight loss generated from a tax is affected by the

a. elasticities of both supply and demand.

b. elasticity of demand only.

c. elasticity of supply only.

d. total revenue collected by the government.

ANS: A
PART II - Short Answer Questions:

1) Consider two countries, A and B. In country A, while labor demand is not responsive to the change in wages (i.e. perfectly inelastic demand), labor supply is usual upward sloping curve. In country B, while labor supply is not responsive to the change in wages (i.e perfectly inelastic supply), labor demand is usual downward sloping curve. Both countries’ governments start to use binding minimum wage policy in labor market. Examine the impacts of the minimum wage policy in both countries by using supply-demand diagram *(graph is necessary)*. Discuss in which country minimum wage would cause more serious problem. WHY?

2) Assume that the government levies $1 per unit tax on seller in the market where demand is not responsive to the price changes (i.e. demand is perfectly inelastic) and supply is usual upward sloping curve. Illustrate the impact of the tax on supply and demand diagram (i.e. draw supply curve before and after tax, demand curve, equilibrium price and quantity before tax, price received by seller and price paid by buyer after tax, market quantity after tax). What is the tax incidence on buyer and seller?

3) Demand for the good is $Q^d = 20 - P$ and supply is $Q^s = P$.

   a. (4 points) Draw demand and supply curve.
   
   b. (6 points) Find consumer surplus, producer surplus and total surplus.
   
   c. (6 points) Government imposes per unit tax of $4. Find consumer surplus, producer surplus, tax revenue and total surplus.
   
   d. (2 points) What is the deadweight loss due to the tax?

4) Consider the market for new DVDs. If DVD players became more expensive, buyers expect that DVD prices decrease next month, used DVDs became cheaper, and inputs for DVDs gets costly. What would happen to equilibrium price and quantity if all those changes happen at the same time. Please illustrate your reasoning by supply and demand diagram.
Short Answer

1. In country A, unemployment is because of the new joiners to the labor force. "L^S-L^D" amount of people find it attractive to join labor force and work at a min-wage level. There is no job losses in country A.

But in country B, unemployment is because of the job losses. Some firms (L^D) no longer find it beneficial to offer "L^S" amount of jobs due to higher cost of workers (higher min-wage). So, there will be lay-offs and job losses which is more serious reasoning for unemployment.

2. 

<table>
<thead>
<tr>
<th>Before-tax</th>
<th>After-tax</th>
<th>Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS</td>
<td>A B</td>
<td>A</td>
</tr>
<tr>
<td>PS</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>T S</td>
<td>ABC</td>
<td>ABC</td>
</tr>
</tbody>
</table>

Tax burden on buyer = t = 1
Tax burden on seller = 0

No DWL
3) a) 

\[ \theta^3 = P \]

b) CS = 50

PS = 50

TS = 100

c) \[ \theta^{0}_{\text{tax}} = 20 - (P + 4) = 16 - P \]

\[ \theta^{3} = P \]

\[ \text{with } P \text{ and } \theta^{0}_{\text{tax}} = \theta^{3} \]

\[ 4 - P = P \Rightarrow P = 2 \]

\[ P_{s} = 12 \]

\[ P_{B} = 8 \]

\[ CS = 32 \]

\[ PS = 32 \]

\[ \theta^{3} = 8 \]

\[ \text{Tax} = 32 \]

\[ TS = 96 \]

d) Price = 4

4)

- DVD player (complementary) \( \Rightarrow \theta^{0}_{\text{DVD}} \uparrow \)

- DVD prices next month (expectation) \( \Rightarrow \theta^{0}_{\text{DVD}} \downarrow \)

- Used DVD (substitute) \( \Rightarrow \theta^{0}_{\text{used}} \downarrow \)

- Input prices \( \Rightarrow \theta^{3} \downarrow \)

Summary: \( \theta^{3} \) but P is ambiguous.

2)

\[ \text{case 1 (demand shift)} \]

\[ \text{case 2 (dominant S shift)} \]