ECO201: PRINCIPLES OF MICROECONOMICS

FIRST MIDTERM EXAMINATION

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October 5, 2011

FORM 1

Directions

1. Fill in your scantron with your unique-id and the form number listed on this page. Proper completion of this step of the directions is worth the equivalent of one question.

2. There are 41 multiple choice questions. All answers should be recorded on the scantron sheet. No credit will be given for answers placed elsewhere. Record your answers on the exam as well because this will be the record of your answers which you can use to determine which questions you got right or wrong on the exam.

3. A calculator is allowed. Cell phones or any other electronic device are prohibited. Access to any electronic device other than a calculator will be treated as a case of academic dishonesty.

4. You have until the end of the class period to finish the exam and complete the scantron. Additional time may be purchased at a price of 5 percentage points per minute.
To answer the next 6 questions, suppose there is a small island economy with 1 Hawkeye and 1 Buckeye. The production possibilities curves for one Hawkeye and one Buckeye are given below.

1) The absolute advantage in fish is held by the ______ and the absolute advantage in berries is held by the ______.
   a. Hawkeye; Buckeye   b. Hawkeye; Hawkeye   c. Buckeye; Buckeye   d. Buckeye; Hawkeye

2) The comparative advantage in fish is held by the ______ and the comparative advantage in berries is held by the ______.
   a. Hawkeye; Buckeye   b. Hawkeye; Hawkeye   c. Buckeye; Buckeye   d. Buckeye; Hawkeye

3) If the economy is organized efficiently and produces 8 fish per day, what is the maximum amount of berries it can produce in a day?
   a. 6 bushels   b. 9 bushels   c. 12 bushels   d. none of the above
4). Suppose the economy is operating on its production possibilities frontier and producing 8 fish per day. If it increases fish production by 1, the opportunity cost of the extra fish will be _____ bushels of berries.
   a. 1  b. 1.5  c. 2/3  d. none of the above

5). Suppose the Hawkeye and Buckeye agree to each specialize and produce what they have comparative advantage in. If the terms of trade are set at 2 fish per bushel of berries:
   a. neither the Hawkeye or the Buckeye will be willing to trade.
   b. the Hawkeye would be happy to trade at that exchange rate, but the Buckeye would not.
   c. the Buckeye would be happy to trade at that exchange rate, but the Hawkeye would not.
   d. both the Hawkeye and the Buckeye would be happy to trade at that exchange rate.

6). For the economy described, a combination of 8 fish and 12 bushels of berries would be:
   a. productively inefficient
   b. productively efficient
   c. allocatively efficient
   d. impossible to produce without more resources or better technology
7) Chicken wings and chicken legs are
a. complements in consumption, but substitutes in production
b. complements in production, but substitute in consumption
c. complements in consumption and production
d. substitutes in consumption and production.

8) If the demand for chicken wings increases, this should cause:
a. an increase in demand for chicken legs and an increase in supply of chicken legs.
b. an increase in demand for chicken legs but no change in the supply of chicken legs.
c. no change in demand for chicken legs but an increase in the supply of chicken legs.
d. an increase in demand for chicken legs and a decrease in the supply of chicken legs.

9) In the U.S., corn is used for the production of ethanol. Also, keep in mind that many farmers have land that can be used to grow either corn or beans. When the federal government increased the subsidy for ethanol production, we should have expected:
a. higher bean prices because the supply of beans will be reduced when the demand for corn rises.
b. lower bean prices because the supply of beans will be reduced when the demand for corn rises.
c. lower bean prices because the demand for beans will fall when the demand for corn rises.
d. both b and c.

10) When a sawmill cuts timber, it creates both lumber and sawdust. Consequently, if the demand for lumber rises, we should expect the equilibrium price of sawdust would ______ and the equilibrium quantity of sawdust to ______.
a. rise; fall  b. fall; rise  c. rise; rise  d. fall; fall

11) Over the past year the equilibrium price of gold rose. This could be explained by:
a. consumer expectations change and they believe gold prices will be higher in the future.
b. a decrease in the price of a substitute in consumption for gold.
c. falling incomes assuming gold is a normal good.
d. all of the above would cause gold prices to rise.

12) If apples are a normal good, an increase in income should cause: the equilibrium price of apples to ______ and the equilibrium quantity of apples to ______.
a. rise; rise  b. rise; fall  c. fall; rise  d. fall; fall

13) Suppose that the equilibrium price of gasoline is $3.50 per gallon. Which of the following would be true?
a. a price ceiling of $3.50 would lead to a shortage if the demand for gasoline increases.
b. a price floor of $3.50 would lead to a surplus if the demand for gasoline decreases.
c. a price ceiling of $3.50 would lead to a surplus if the demand for gasoline decreases.
d. all of the above.
14) Recently Netflix increased the price of its service by approximately 60 percent and saw its number of subscribers drop from about 23 million to 22 million. Based on this information, what is the price elasticity of demand for Netflix?
   a. .02   b. .07   c. 1.2   d. 13.5

15. Amazon.com has been increasing its presence in the market for video streaming and is now competing with Netflix. The entry of Amazon into this market should cause:
   a. the price elasticity of demand for Netflix to increase.
   b. the price elasticity of demand for Netflix to decrease.
   c. the income elasticity of demand for Netflix to increase.
   d. the income elasticity of demand for Netflix to decrease.

16) Amazon.com just introduced the Kindle Fire which is a tablet that some consumers may choose instead of Apple’s I-pad. Some commentators point out that the Fire could also increase demand for other Amazon products since the Kindle Fire will make it easier to purchase products from Amazon. With this information about the Kindle Fire, you can conclude that the cross price elasticity between the Fire and I-pad is _____ and the cross price elasticity between the Fire and other Amazon products is ______.
   a. positive; positive.
   b. positive; negative
   c. negative; negative.
   d. negative; positive.

17) Amazon.com is pricing its Kindle Fire at $199. If the price elasticity of demand for the Kindle Fire is 1.2, a 10 percent reduction in the price of the Kindle Fire would increase the number of units sold by
   a 12 percent and increase total sales revenue.
   b. 12 percent and decrease total sales revenue.
   c. 8 percent and decrease total sales revenue.
   d. 8 percent and increase total sales revenue.
18) The income elasticity of demand for an inferior good is ______ and for a luxury good is ______.
   a. negative; greater than one.
   b. negative; between zero and one.
   c. positive; greater than one.
   d. positive; less than negative one.

19) An increase in storage costs will make the price elasticity of supply ______ and cause the price of the product to be (more, less) responsive to a change in demand.
   a. greater; more.
   b. greater; less.
   c. smaller; more.
   d. smaller; less.

20) Joe is willing to pay $4 for his first slice of pizza and $3 for his second slice of pizza. If the market price is $2, on his two slices of pizza Joe receives a total consumer surplus of ______.
   a. $3.  b. $1.  c. $2.  d. $4.

21) The social marginal benefit curve for a product can be the same as the good's
   a. demand curve.
   b. supply curve.
   c. marginal cost curve.
   d. consumer surplus curve.

<table>
<thead>
<tr>
<th>Quantity (DVDs per week)</th>
<th>Marginal benefit (dollars per DVD)</th>
<th>Marginal cost (dollars per DVD)</th>
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<tbody>
<tr>
<td>1</td>
<td>24</td>
<td>16</td>
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<td>2</td>
<td>22</td>
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<td>5</td>
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<td>24</td>
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</tbody>
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22) The schedules in the table give the marginal benefit and marginal cost of a DVD. At the efficient quantity of DVDs, consumer surplus is ______ a week, and producer surplus is ______ a week.
   a. $4; $4  b. $66; $54  c. $6; $6  d. $20; $20

23) If resources are used efficiently, then ________.
   a. consumer surplus equals producer surplus
   b. consumer surplus plus producer surplus is maximized
   c. opportunity cost is minimized
   d. producer surplus is maximized
24) In the above figure, the total consumer surplus at the efficient level of output is ________.
   a. $2.5 million 
   b. $9.0 million 
   c. $8.5 million 
   d. $4.5 million 

25) In the above figure, the total producer surplus at the efficient level of output is ________.
   a. $2.5 million 
   b. $4.5 million 
   c. $9.0 million 
   d. $3.0 million
To answer the next 4 questions, refer to the diagram below describing the market for gadgets.

![Diagram](attachment:image.png)

26) Based on the diagram above, there must be a (positive, negative) externality of _____ for each gadget produced.
   a. positive; $4    b. positive; $8    c. negative $6    d. negative; $8.

27) Based on the diagram above, market equilibrium would produce _____ than the socially efficient amount to be produced and a deadweight loss of _____.
   a. 20 more; $80    b. 20 less; $80    c. 20 more; $160    d. 20 less; $160

28) Based on the diagram above, the market could be moved to the socially efficient outcome with a (subsidy, tax) of ____.
   a. subsidy; $8    b. subsidy; $4    c. tax; $4    d. tax; $8

29) If production of gadgets was increased from 180 to 200, the benefits of the extra gadgets to society would be _____ and the cost of the extra gadgets to society would be _____.
   a. $580; $660    b. $580; $500    c. $660; $500    d. none of the above
To answer the next 4 questions, refer to the diagram below describing an apartment rental market.

30) If a rent ceiling is set at $1000, there will be
a. a surplus of 2000 apartments.
b. a shortage of 2000 apartments
c. a surplus of 1000 apartments
d. none of the above.

31) Compared to the equilibrium price and assuming no search costs, a rent ceiling of $500 would be
a. better off by $375,000
b. better off by $500,000
c. worse off by $500,000
d. worse off by $375,000

32) Compared to the equilibrium price and assuming no search costs, a rent ceiling of $500 would make produceers
a. worse off by $750,000
b. worse off by $500,000.0
c. worse off by $625,000 of the above.
d. none of the above

33) With a price ceiling of $500 and assuming no search costs, there would be a deadweight loss of
a. $250,000
b. $500,000
c. $675,000
d. none of the above
Suppose that Cincinnati government imposes a hotel tax of $10 per room per night. To answer the questions below, assume that the market for hotel rooms in Cincinnati before the tax is imposed is described in the diagram below.

To examine the effect of the $10 tax, you should draw the new supply and/or demand curves on top of the diagram above. Be careful to account for the fact that the tax is $10 when determining where to draw the new curve.

34) If the $10 tax is imposed on the hotel customer,
   a. the supply curve would shift upward by $10 and the price (price + tax) to consumers would rise by $10.
   b. the demand curve would shift downward by $10 and the total price to consumers (price + tax) would rise by less than $10.
   c. the supply curve would shift upward by $10 and the price to consumers (price + tax) would rise by less than $10.
   d. none of the above.

35) How much tax revenue should the Cincinnati government expect from the $10 room tax?
   a. less than $20,000 per day    b. $20,000 per day.
   c. $40,000 per day.    d. more than $40,000 per day

36) The consumer’s share of this $10 tax is _____ and the producer’s share is _____.
   a. $5; $5.
   b. above zero but less than $5; more than $5
   c. more than $5; above zero but less than $5
   d. $10; 0.
37) Since Cincinnati is across the river from Kentucky, tourists have the option of going across the river to find a hotel. In Columbus, tourists have fewer options. This means that the demand for hotel rooms will be more _____ in Cincinnati than Columbus and the consumer’s share of any hotel tax will be _____ in Cincinnati.

a. inelastic; greater.
b. inelastic; lower
c. elastic; greater.
d. elastic; lower.

38) Suppose that the U.S. imposes a quota on the production of milk and this increases the price of a gallon of milk by $1 and U.S. purchases of milk drop from 100 to 90 million gallons per day. Draw a linear demand curve illustrating the effect of this quota. Using your diagram, how much worse off are consumers (per day) as a result of this quota?

a. $90 million  
b. $100 million  
c. $95 million  
d. none of the above.

Refer to the following information to answer the next two questions. The federal government currently offers a 10% tax credit for people who purchase energy saving appliances. For example, if you purchase a $1000 refrigerator that is rated as energy efficient, the federal government will pay for $100 of the cost of the refrigerator.

39) Assuming no externalities with energy saving appliances, the introduction of this tax credit should result in:

a. an increase in consumers surplus  
b. an increase in producers surplus  
c. a deadweight loss  
d. all of the above.

40) The cost of this tax credit to the federal government will be greater if appliance demand is more_____ or appliance supply is more______.

a. elastic; elastic.
b. elastic; inelastic  
c. inelastic; inelastic  
d. inelastic; elastic

41) If government attempts to achieve allocatively efficient outcomes in all markets, what is the best argument for subsidizing the purchase of energy saving appliances?

a. more efficient appliances use less energy and pollution is reduced.
b. appliance demand is highly elastic

c. appliances are a necessity for all households

d. increased appliance demand will create more jobs in the appliance industry.