ECO201: PRINCIPLES OF MICROECONOMICS

FIRST MIDTERM EXAMINATION

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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 40 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 5 questions, suppose there is a small island economy with 1 Hawkeye and 1 Buckeye. The production possibilities curves for the Hawkeye and the 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 4 fish per day, what is the maximum amount of berries it can produce in a day?
   a. 5 bushels   b. 10 bushels   c. 15 bushels   d. none of the above
4. The opportunity cost of a fish will be:
   a. 0.8 bushels of berries if the fish is produced by a Buckeye or 0.5 bushels of berries if the fish is produced by a Hawkeye.
   b. 1.25 bushels of berries if the fish is produced by a Buckeye or 2 bushels of berries if the fish is produced by a Hawkeye.
   c. 0.8 bushels of berries if the fish is produced by a Hawkeye or 0.5 bushels of berries if the fish is produced by a Buckeye.
   d. 1.25 bushels of berries if the fish is produced by a Hawkeye or 2 bushels of berries if the fish is produced by a Buckeye.

5. Suppose the economy is operating on its production possibilities frontier and producing 4 fish per day. If it increases fish production by 1, the opportunity cost of the extra fish will be _____ bushels of berries.
   a. 0.5  
   b. 0.8  
   c. 1.25  
   d. 2

6. 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 3 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.
7. Which of the following would cause the PPF to shift to right as illustrated in the diagram above?
   a. discovery of a better way to catch fish.
   b. discovery of a better way to gather berries
   c. more workers.
   d. all of the above.

8) Suppose there is a sharp increase in the price of natural gas and this leads to an increase in the demand for Brand X gas furnaces. Based on this, we can conclude that natural gas and Brand X furnaces are
   a. complements in consumption
   b. complements in production
   c. substitutes in consumption
   d. substitutes in production

9) Suppose that brand X detergent is an inferior good. This would mean that if there is an economic expansion and people’s incomes rise, the equilibrium price of brand X would _____ and the equilibrium quantity would _____.
   a. rise; fall  b. fall; rise  c. rise; rise  d. fall; fall
10) When a farmer harvests wheat, straw is created as a by-product. Consequently, if the demand for wheat declines, we should expect the equilibrium price of straw to ____ and the equilibrium quantity of straw to ____.
   a. rise; fall    b. fall; rise    c. rise; rise    d. fall; fall

11) Many farmers could use their resources to grow either wheat or barley. As a consequence, wheat and barley are considered ____ and an increase in the demand for wheat will cause ____.
   a. substitutes in production; a decrease in the supply of barley.
   b. substitutes in production; an increase in the supply of barley.
   a. complements in production; a decrease in the supply of barley.
   b. complements in production; an increase in the supply of barley.

12) Suppose that over the next year the equilibrium price of pork rises while the equilibrium quantity falls. These two simultaneous events could be explained by:
   a. an increase in consumer income if pork is an inferior good.
   b. lower priced pork feed.
   c. increased beef prices since farmers can use their resources to raise beef or pork
   d. none of the above.

13) Suppose that there is a freeze in California that wipes out much of the apple crop. This is likely to
   a. increase the equilibrium price but decrease the equilibrium quantity of apples
   b. increase the equilibrium price and quantity of oranges.
   c. increase the equilibrium price but decrease the equilibrium quantity of apple juice.
   d. all of the above.

14) If the elasticity of demand for parking passes at Miami is 0.7 and the price of parking passes is reduced by 5%, the number of passes sold would increase by:
   a. 7.1%    b. 5%    c. 3.5%    d. 0.7%

15) If the elasticity of demand for parking passes at Miami is 0.7 and the price of parking passes is reduced by 5%, the total revenue Miami collects from the sale of parking passes would:
   a. rise by 3%    b. rise by 1.5%    c. fall by 1.5%    d. fall by 3%

16) If a firm raises its price, total revenue will:
   a. always rise.
   b. rise only if demand is inelastic.
   c. rise only if demand is elastic.
   d. rise only if demand is unit elastic.
17) If two commodities have a positive cross price elasticity of demand, this suggests that the products are:
   a. substitutes in production.
   b. complements in production
   c. substitutes in consumption
   d. complements in consumption.

18) It is more expensive to store fresh tuna than canned tuna. As a consequence, we should expect that, compared to fresh tuna, the supply for canned tuna is
   a. more elastic and a change in demand will have a smaller effect on price.
   b. more inelastic and a change in demand will have a smaller effect on price.
   c. more elastic and a change in demand will have a greater effect on price.
   d. more inelastic and a change in demand will have a greater effect on price.
To answer the next 3 questions, consider the following hypothetical supply and demand curves for peaches.

19) What is the elasticity of demand for peaches over the price range of $.28 to $.30 per [each]?  
   a. 0.17  
   b. 0.32  
   c. 3.42  
   d. 5.80

20) At the equilibrium price, what is the value of consumer’s surplus in the peach market?  
   a. $1.6 million  
   b. $1.8 million  
   c. $2.4 million  
   d. $3.6 million

21) At the equilibrium price, what is the value of producer’s surplus in the peach market?  
   a. $1.6 million  
   b. $1.8 million  
   c. $2.4 million  
   d. $3.6 million
22) Suppose that a football ticket is sold on eBay for $80. The seller was willing to sell the ticket for as little as $50 and the buyer was willing to pay as much as $120. Based on this we can conclude that the ticket sale generated ___ of consumer’s surplus and ___ of producer’s surplus.

a. $40; $30  b. $30; $40  c. $50; $70  d. $70; $50

23) If the government wants to achieve allocative efficiency in markets, which of the following types of commodities would be best to subsidize?

a. vaccinations for contagious diseases because it helps prevent others from getting disease.

b. airport construction given the noise pollution that it generates for those near the airport.

c. oil exploration because of the high price of oil

d. food because it is a necessity for anyone to live.
To answer the next 4 questions, refer to the diagram below describing the market for gadgets.

24) Based on the diagram above, there must be a (positive, negative) externality of ____ for each gadget produced.
   a. positive; $4          b. positive; $10          c. negative $4          d. none of the above.

25) Based on the diagram above, market equilibrium would generate (more, less) than the socially efficient amount to be produced and a deadweight loss of ____.
   a. more; $100          b. less; $100          c. less; $40          d. more; $40

26) Based on the diagram above, the market could be moved to the socially efficient outcome with a (subsidy, tax) of ____.
   a. subsidy; $10          b. subsidy; $4          c. tax; $4          d. tax; $10

27) If production of gadgets was increased from 90 to 110, the benefits of the extra gadgets to society would be _____ and the cost of the extra gadgets to society would be _____.
   a. $1280; $1080          b. $640; $540
   c. $540; $640          d. $none of the above
28) When a person pumps water out of the ground, it lowers the water table and makes it more costly for his neighbors to get water. As a result, pumping water
a. creates a positive externality and if the market is unregulated, more than the socially efficient amount of water will be pumped.
b. creates a positive externality and if the market is unregulated, less than the socially efficient amount of water will be pumped.
c. creates a negative externality and if the market is unregulated, more than the socially efficient amount of water will be pumped.
d. creates a negative externality and if the market is unregulated, less than the socially efficient amount of water will be pumped.
Suppose there are no positive or negative externalities associated with the production or consumption of peanuts and the government imposes a price ceiling at $2.00 per pound.

29) This price ceiling will result in:
a. a shortage of 20 million pounds per year.
b. a surplus of 40 million pounds per year
c. a shortage of 40 million pounds per year
d. neither a shortage or a surplus since the ceiling won’t be binding.

30) Compared to the equilibrium price and assuming no search costs, with the $2.00 price ceiling consumers would be
a. worse off by $20.0 million
b. worse off by $12.0 million
c. better off by $15.0 million
d. none of the above

31) Compared to the equilibrium price and assuming no search costs with the $2.00 price ceiling producers would be
a. worse off by $12.5 million
b. worse off by $15.0 million
c. worse off by $5.0 million
d. none of the above.

32) With the price ceiling of $2.00 and assuming no search costs, there would be a deadweight loss of
a. $5.0 million
b. $10.0 million
c. $20.0 million
d. $30.0 million
Suppose that Cincinnati government imposes a tax of $20 on every airline ticket sold at its local airport. To answer the questions below, assume that the market for airline tickets in Cincinnati before the tax is imposed is described in the diagram below.

To examine the effect of the $20 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 $20 when determining where to draw the new curve.

33) If the $20 tax is imposed on the airlines,
   a. the supply curve would shift upward by $20 and the price to consumers would rise by $20.
   b. the demand curve would shift downward by $20 and the price to consumers would fall by less than $20.
   c. the supply curve would shift upward by $20 and the price to consumers would rise by less than $20.
   d. none of the above.

34) How much tax revenue should the Cincinnati government expect from the $20 ticket 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

35) If demand were more inelastic than shown in the above diagram, the consumer’s share of this $20 tax would be:
   a. more than $10, but less than $20   b. less than $10
   c. more than $20   d. zero.

36) This $20 tax on airline tickets will,
   a. make airline consumers worse off.
   b. make airline companies worse off
   c. create an excess burden of $10,000.
   d. all of the above.
37) Suppose that cigarette taxes are increased from $1.25 to $2.00 in Ohio. The consequences of this tax increase will vary with the elasticity of demand for cigarettes. As the demand for cigarettes becomes more elastic, the tax increase will cause:
   a. a smaller increase in cigarette prices
   b. a smaller increase in tax revenue, and perhaps a decrease in revenue.
   c. a larger decrease in cigarette sales.
   d. all of the above.

38) The U.S. government has restricted the import of sugar into the U.S. for decades. If this sugar quota was abolished, we should expect to see:
   a. a decrease in producer surplus for U.S. sugar producers
   b. an increase in producer surplus for U.S. sugar producers
   c. an increase in producer surplus for U.S. firms that use sugar in their products (e.g. candy manufacturers)
   d. a and c.

39) Suppose that abolishing the U.S. sugar quota causes sugar prices to drop $.20 per pound and consumption of sugar rises from 100 to 120 million pounds per year. This suggests that elimination of the sugar quota caused consumers surplus to increase by:
   a. $20 million per year
   b. $2 million per year.
   c. $22 million per year.
   d. $24 million per year.

40) Two economists disagree on how elastic the demand for sugar is. Economist A believes that there are many good substitutes available for sugar whereas economist B believes the opposite. Because of these differences in beliefs and the implication for the elasticity of sugar demand, economist A would predict that elimination of the sugar quota would cause sugar prices to drop ___ and sugar consumption to rise ___ than economist B believes.
   a. more; less.  
   b. more; more. 
   c. less; more.  
   d. less; less

BE SURE TO FILL IN YOUR UNIQUE ID AND FORM NUMBER ON THE SCANTRON. THIS IS WORTH THE EQUIVALENT OF ONE QUESTION.