ECO201: PRINCIPLES OF MICROECONOMICS

FIRST MIDTERM EXAMINATION

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FORM 1

Directions

1. There are 35 multiple choice questions. All answers should be recorded on the scantron sheet. No credit will be given for answers placed elsewhere.

2. You will receive credit for the equivalent of 1 question for properly filling in your uniqueid and form number on the scantron.

3. A calculator is allowed. Cell phones may not be used for calculators.

4. You have the entire class period to finish the exam. 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 50 Spaniards and 40 French. In a given day, a Spaniard can produce either 20 beaded necklaces or 4 straw hats. A French worker can produce either 30 beaded necklaces or 5 straw hats.

1) The absolute advantage in necklace production is held by the ______ and the absolute advantage in straw hat production is held by the ______.
   a. Spaniards; French.
   b. Spaniards; Spaniards.
   c. French; Spaniards.
   d. French; French.

2) The comparative advantage in necklace production is held by the ______ and the comparative advantage in straw hat production is held by the ______.
   a. Spaniards; French.
   b. Spaniards; Spaniards.
   c. French; Spaniards.
   d. French; French.

3) If the economy produces 1500 necklaces, what is the maximum number of straw hats it can produce in a day?
   a. 100
   b. 120
   c. 140
   d. none of the above

4. Suppose the economy is operating on its production possibilities frontier and producing 160 hats. If it increases production of hats by 50, the opportunity cost of the extra 50 hats will be _____ beaded necklaces.
   a. 200
   b. 260
   c. 300
   d. 380

5) If the economy is organized efficiently, the opportunity cost of an additional straw hat is
   a. 5 necklaces until rug production reaches 250, at which point the opportunity cost rises to 6 necklaces.
   b. 5 necklaces until hat production reaches 200, at which point the opportunity cost rises to 6 necklaces.
   c. 1/5 of a necklace until rug production reaches 200, at which point the opportunity cost drops to 1/6 of a necklace.
   d. none of the above.
6) Over the past few years, there has been a large increase in the demand for corn in the U.S. because of increases in ethanol production. Given that corn is used to feed dairy cattle, we should expect that this would result in
a. a decrease in the supply of milk and higher milk prices.
b. a decrease in the supply of milk, a decrease in the demand for milk, and higher milk prices.
c. a decrease in the demand for milk and lower milk prices.
d. an increase in the demand for milk and higher milk prices.

7) Which of the following statements is true?
a. a price ceiling above the equilibrium price causes a surplus.
b. a price ceiling below the equilibrium price causes a surplus.
c. a price floor above the equilibrium price causes a surplus.
d. a price floor below the equilibrium price causes a shortage.

8) Most farmers who plant corn could use the same land and machinery to plant beans. As a result, we should expect that the increased demand for corn resulting from greater ethanol production should lead to:
a. a decrease in the supply of beans and higher bean prices.
b. an increase in the demand for beans and higher bean prices.
c. an increase in the supply of beans and lower bean prices.
d. none of the above.

9) In 2006, there was an announcement that Chevron had discovered new oil deposits in the Gulf of Mexico that could increases oil reserves in the U.S. by as much as 50 percent. While that oil has not yet been tapped and is not on the market, given the effect of this discovery on future oil prices, we should have expected this announcement to cause oil prices in 2006 to ______ because oil supply in 2006 would _____ and oil demand in 2006 would ______ .
   a. fall; increase; increase.
   b. fall; decrease; not change.
   c. rise; increase; decrease.
   d. fall; increase; decrease.

10) Which of the following would cause the equilibrium price of shrimp to fall and the equilibrium quantity to fall?
a. an increase in the price of a substitute in consumption for shrimp.
b. an increase in the price of a complement in consumption for shrimp.
c. an increase in the price of a substitute in production for shrimp.
d. an increase in the wages paid to workers who catch shrimp.
11) A recent study estimates that the price elasticity of demand for airline tickets is 2.4. Based on this information, if the airline industry wants to increase the number of tickets sold by 20 percent, it would have to lower the price of tickets by
a. 4.8 percent
b. 8.3 percent
c. 48.0 percent
d. 83.3 percent

12) If the price elasticity of demand for cigarettes is .7, a 10 percent increase in the price of cigarettes would cause:
   a. the total revenue generated from cigarette sales to drop by approximately 3 percent
   b. the total revenue generated from cigarette sales to increase by approximately 3 percent
   c. the total revenue generated from cigarette sales to drop by approximately 7 percent.
   d. the total revenue generated from cigarette sales to increase by approximately 7 percent.

13) The price elasticity of demand for a product will generally be (greater, lesser) if there are more substitutes available for the product and will be (greater, lesser) if people spend a large fraction of their income on the product.
   a. greater; lesser.
   b. greater; greater
   c. lesser; lesser.
   d. lesser; greater.

14) The Cadillac Escalade gets an average of 16 miles per gallon (mpg) of gas whereas the Honda Civic gets an average 36 mpg. Based on this we should expect that the cross price elasticity of demand between gasoline and the Cadillac Escalade is likely to be _____ and that between gasoline and the Honda Civic is likely to be _____.
   a. positive; negative.
   b. positive; positive.
   c. negative; negative.
   d. negative; positive.

15) When refrigeration technology was discovered, it became much less costly to store beef. This should have caused the beef supply to become (more, less) elastic and resulted in (smaller, larger) price increases when the demand for beef increases.
   a. more; smaller.
   b. more; larger.
   c. less; smaller.
   d. less; larger.
16) Because cigarettes represent a larger share of the average person’s income in Mexico than the U.S., we should expect that the price elasticity of demand for cigarettes would be greater in Mexico; the U.S. and the price of cigarettes would change more in response to a change in supply in Mexico, the U.S. 

a. Mexico; the U.S. 

b. Mexico; Mexico. 

c. the U.S.; Mexico 

d. the U.S.; the U.S. 

To answer the next 5 questions, consider the following hypothetical supply and demand curves for long distance phone calls.

![Graph of supply and demand curves for long distance phone calls.]

17) What is the elasticity of demand for long distance phone calls over the price range of $.08 to $.10 per minute?

a. 0.33 

b. 3.00 

c. 1.50 

d. 0.67 

18) **If the price was $.08 per minute**, what would be the dollar value of consumer's surplus? (note that quantity is measured in millions of minutes).

a. $1 million 

b. $3 million 

c. $6 million 

d. none of the above.
Suppose there are no positive or negative externalities associated with long distance phone calls and the government imposes a price ceiling of $.06 per minute. Ignore any search costs or black markets that might emerge.

19) Compared to the equilibrium price of $.08 per minute, with the $.06 price ceiling consumers would be
a. better off by $0.5 million
b. better off by $5 million
c. worse off by $5 million
d. none of the above.

20) Compared to the equilibrium price of $.08 per minute, with the $.06 price ceiling producers would be (better off, worse off) by $_________.
   a. better off by $15 million
   b. worse off by $15 million
   c. worse off by $25 million
   d. none of the above.

21) With the price ceiling of $.06 per minute, there would be a deadweight loss of
   a. $0.5 million
   b. $1.0 million
   c. $1.5 million
   d. none of the above.
22) Suppose that the equilibrium price of a cigar is $5. Which of the following would be most likely to result in an increase in the time consumers spend searching costs for cigars?

a. a $5 price ceiling on cigars and a subsequent announcement that the cancer risks from smoking are very high.

b. a $5 price ceiling on cigars and an increase in consumer income assuming that cigars are normal goods.

c. a $5 price floor on cigars and an increase in consumer income assuming that cigars are normal goods.

d. a $5 price floor on cigars and an increase in the cost of tobacco used to produce cigars.
Suppose that initially there is no tax on imported oil, but the government introduces a new tax and the supply curve is shifted from S0 to S1 in the diagram below.

**NOTE THAT QUANTITY IS MEASURED IN MILLIONS.**

23) How much tax revenue would be generated by this tax?
   a. $0.5 billion  
   b. $1.0 billion  
   c. $2.0 billion  
   d. $4.0 billion  

24) This tax would make oil buyers worse off by
   a. $0  
   b. $1.25 billion  
   c. $1.75 billion  
   d. $2.50 billion  

25) The consumers’ share of this tax is _____ and the producers’ share is _____.
   a. $5; $5  
   b. $10; $10  
   c. $20; 0  
   d. none of the above  

26) The excess burden of a tax can be calculated as
   a. the total loss in consumer and producer surplus
   b. the tax revenue minus the cost of production.
   c. the total loss in consumer and producer surplus minus the tax revenue created.
   d. the total loss in consumer and producer surplus plus the tax revenue created.

27) As noted in the *Wall Street Journal* article titled “U.S. Farmers Rediscover the Lure of Tobacco”, the U.S. recently eliminated quotas restricting the amount of tobacco that farmers were allowed to grow. Based upon our analysis of how quotas affect markets, we should expect that elimination of the quota would cause tobacco prices to drop, consumers surplus to ______ and producers surplus to ______.
   a. definitely increase; either rise or fall.
   b. either rise or fall; definitely increase.
   c. definitely increase; definitely decrease.
   d. none of the above.

28) As noted in the *Wall Street Journal* article titled “U.S. Farmers Rediscover the Lure of Tobacco”, the U.S. recently eliminated quotas restricting the amount of tobacco that farmers were allowed to grow. The elimination of quotas resulted in:
   a. tobacco farms beginning in Illinois that are larger than most of the previous tobacco farms.
   b. an influx of migrant workers into Illinois.
   c. a reduction in the number of acres planted with tobacco in the U.S.
   d. all of the above.

29) Suppose that the government increases the tax on each gallon of gasoline from $.40 to $.50. The total tax revenue from the gas tax would:
   a. definitely decrease if the demand for gasoline is perfectly inelastic.
   b. definitely decrease if the demand for gasoline is perfectly elastic.
   c. remain the same if the demand for gasoline is unit inelastic.
   d. could either increase or decrease if the demand for gasoline is perfectly elastic.

30) If the demand for gasoline is perfectly elastic, an increase in the gas tax on sellers from $.40 to $.50 will cause:
   a. no change in the total price paid by consumers.
   b. an increase in the total price paid by consumers of $.10
   c. a decrease in the total price paid by consumers of $.10.
   d. none of the above.
31) The allocatively efficient amount of a commodity is the quantity where _______ and a competitive market will produce the quantity where
a. PMB=SMB; PMC=SMC
b. PMB=PMC; SMB=SMC
c. PMC=SMC; PMB=SMB.
d. SMB=SMC; PMB=PMC

32) Trees help reduce greenhouse gases and help reduce global warming. As a result, one can conclude that without any government intervention, the tree market equilibrium will result in:
   a. SMB>SMB and less than the allocatively efficient number of trees.
   b. PMB>PMC and less than the allocatively efficient number of trees.
   c. SMB<SMC and more than the allocatively efficient number of trees.
   d. PMB<PMC and more than the allocatively efficient number of trees.

33) When electrical utilities burn coal, they create greenhouse gases. As a result, coal burning facilities generate _______ externalities and if the government wishes to move the market for these facilities closer to the allocatively efficient level of production, it would (tax, subsidize) electricity generated by these coal burning facilities.
   a. negative; tax.
   b. positive; tax.
   c. negative; subsidize.
   d. positive; subsidize.
To answer the next two questions, refer to the diagram below describing the market for gadgets.

34) Based on the diagram above, the market equilibrium would generate (more, less) than the socially efficient amount to be produced and a deadweight loss of _____.
   a. more; $1000
   b. less; $1000
   c. less; $500
   d. more; $500

35) The market could be moved to the socially efficient outcome with a (subsidy, tax) of ____.
   a. subsidy; $20
   b. subsidy; $10
   c. tax; $10
   d. tax; $20