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 38 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 4 questions, suppose there is a small island economy with 20 Hawkeyes and 30 Buckeyes. Each Hawkeye is capable of producing either 10 bushels of berries or 5 fish in a given day. Each Buckeye can produce either 9 bushels of berries or 3 fish in a given day. Both Hawkeyes and Buckeyes can also split their time across activities to produce a mix of berries or fish in a given day.

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 100 fish per day, what is the maximum amount of berries it can produce in a day?
   a. 150 bushels
   b. 270 bushels
   c. 390 bushels
   d. none of the above

4. If the economy is organized efficiently and produces 100 fish per day, the opportunity cost of an additional fish would be:
   a. 2 bushels of berries
   b. 3 bushels of berries
   c. 5 bushels of berries
   d. 1/3 bushels of berries.
5) Which of the following would cause the PPF to shift outward 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.

6) If an economy is producing on its PPF, we know that:
   a. it has achieved productive efficiency
   b. it is impossible to produce more of one good without reducing production of another good
   c. resources must be allocated according to their comparative advantage
   d. all of the above
7) If an economy has achieved allocative efficiency,
a. the marginal cost of each good must equal its marginal benefit
b. it must be impossible to produce more of one good without giving up something that consumers value more highly
c. it must be impossible to increase the sum of consumer and producer surplus
d. all of the above

8) Suppose that brand X is an inferior good. This means that if people’s income fall, the equilibrium price of brand X should ____ and the equilibrium quantity should ____.
a. rise; rise
b. rise; fall
c. fall; rise
d. fall; fall

9) As discussed in class, the U.S. has recently imposed tariffs on the import of steel that was used for the pipes used in fracking for oil. This would cause the equilibrium price of oil in the U.S. to ____ and the equilibrium quantity to ____.
a. rise; rise
b. rise; fall
c. fall; fall
d. fall rise

10) When ethanol is produced from corn, a byproduct called “distillers grain” is created that can be fed to cattle. As a result, an increase in the demand for ethanol will cause the equilibrium price of distiller’s grain to ____ and the equilibrium quantity to ____.
a. rise; rise
b. rise; fall
c. fall; fall
d. fall rise

11) Suppose that over the next year the equilibrium price of gasoline rises but the equilibrium quantity falls. These two simultaneous events could be explained by:
a. an increase in consumer income if gas is a normal good.
b. higher priced ethanol which is a substitute in consumption for gas
c. an increase in the cost of oil which is an input in the production of gasoline.
d. none of the above.

12) If there is a surprise news release today indicating that the grape harvest several months from now will yield far more grapes than previously anticipated, this would:
a. not affect grape prices until after the harvest
b. increase grape prices today as supply decreases and demand increases
c. decrease grape prices today as supply increases but demand is unchanged
d. decrease grape prices today as supply increases and demand decreases
13) Suppose that a golf course raises its price 10% and finds that its total revenue from golfers rises 2%. Based on this information, we can conclude that the price elasticity of demand at the golf course is
a. 8
b. 0.8
c. 2
d. 0.2
e. none of the above

14) If a firm raises its price, total revenue will:
a. always rises.
b. rise only if demand is inelastic.
c. rise only if demand is elastic.
d. rise only if demand is unit elastic.

15) If a firm faces inelastic demand,
a. it would increase profits by raising price
b. it would increase profits by cutting price
c. it is impossible to say whether profits would rise or fall if it cut price without more information
16) The cross-price elasticity between hybrid cars and gasoline is likely to be ____ and the cross-price elasticity between SUVs (low gas mileage) and gasoline is likely to be ____.
   a. positive; zero  
   b. positive; negative  
   c. negative; positive  
   d. negative; zero.

17) The supply of a good tends to be more inelastic:
   a. if it is costly to store  
   b. the supply of inputs used to produce the goods is elastic  
   c. the time period for adjusting to price changes is longer  
   d. all of the above.

18) As supply becomes more inelastic, the effect of an increase in demand will be a (smaller, larger) increase in equilibrium price and a (smaller, larger) increase in equilibrium quantity.
   a. smaller; smaller  
   b. smaller; larger  
   c. larger; larger  
   d. larger; smaller
To answer the next 3 questions, refer to the diagram below describing the competitive market for turkey.

19. The price elasticity of demand for turkey between a price of $1.50 and $2.00 is
   a. 2
   b. 1
   c. 0.5
   d. none of the above

20. The demand for turkey is
   a. inelastic for all prices below $1.50
   b. elastic for all prices below $1.00
   c. inelastic for all prices between 0 and $3.50
   d. none of the above.

21. At the equilibrium price and quantity for turkey, consumers surplus (in millions of $) is
    ____ and producers surplus (in millions of $) is ____.
    a. 300; 300
    b. 300; 240
    c. 240; 300
    d. none of the above.
To answer the next 4 questions, refer to the diagram below describing the market for gadgets.

![Diagram of market for gadgets]

22) Based on the diagram above, there must be a (positive, negative) externality of ____ for each gadget produced.
   a. positive; $20
   b. positive; $10
   c. negative $10
   d. negative $20

23) 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; $500
   b. less; $500
   c. less; $250
   d. more; $250

24) Based on the diagram above, the market could be moved to the allocatively efficient outcome with a (subsidy, tax) of ____.
   a. subsidy; $10
   b. subsidy; $20
   c. tax; $10
   d. tax; $20

25) If production of gadgets was increased from 50 to 75, the benefits of the extra gadgets to society would be _____ and the cost of the extra gadgets to society would be _____.
   a. $2125; $2375
   b. $2125; $1875
   c. $1975; $1875
   d. $none of the above
26) When a company installs a security camera to monitor activity outside of their building, crime is reduced for the company and neighboring buildings. As a result, installation of security cameras creates a _____ externality and a competitive market for security cameras would result in (more, less_) than the efficient number of security cameras being installed.

a. positive; more  
b. positive; less  
c. negative; more  
d. negative; less
To answer the next 3 questions, consider the competitive market for rental apartments in a city named Alton described in the diagram below.

Suppose there are no positive or negative externalities associated with the production or consumption of rental housing and the government imposes a rent ceiling at $500 per apartment.

27) This price ceiling will result in:
   a. a shortage of 2,000 apartments per month.
   b. a surplus of 1,000 apartments per month
   c. a surplus of 2,000 apartments per month
   d. neither a shortage nor a surplus since the ceiling won’t be binding.

28) Compared to the equilibrium price and assuming no search costs, with the $500 rent ceiling consumers would be
   a. better off by $350,000
   b. better off by $500,000
   c. worse off by $125,000
   d. none of the above

29) Compared to the equilibrium price and assuming no search costs, with the $500 rent ceiling landlords would be
   a. worse off by $500,000
   b. worse off by $325,000
   c. worse off by $625,000
   d. none of the above
Suppose that Cincinnati government imposes a per night tax of $10 on hotel owners for each occupied hotel room. 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.

30) How much tax revenue should the Cincinnati government expect daily from the $10 hotel tax?
   a. $2,000
   b. $20,000
   c. $30,000
   d. none of the above.

31) If the hotel tax is imposed, each day consumers would be worse off by _____ and hotel owners would be worse off by _____.
   a. $12,500; $12,500
   b. $10,000; $12,500
   c. $12,500; $10,000
   d. $10,000; $10,000

32) The daily excess burden of the $10 hotel tax would be
   a. $2,500
   b. $5,000
   c. $7,500
   d. none of the above
33) If the bridges between Cincinnati and Covington are improved and visitors can move more easily between the two cities, we would expect that the consumer share of the hotel tax in Cincinnati would (rise, fall) because hotel demand in Cincinnati would become more (elastic, inelastic).
   a. rise; inelastic
   b. rise; elastic
   c. fall; inelastic
   d. fall; elastic;

34) The tax revenue generated from the hotel tax would be greater if demand was more ____ or if supply was more ____.
   a. elastic; elastic
   b. elastic; inelastic
   c. inelastic; inelastic
   d. inelastic; elastic

35) The excess burden (i.e. deadweight loss) from the hotel tax would be greater if demand was more _____ or supply was more _____.
   a. elastic; elastic
   b. elastic; inelastic
   c. inelastic; elastic
   d. inelastic; inelastic

36) Numerous cities limit the number of taxi cabs available in the city below what the private market would provide. The effect of such a “quota” on taxicabs is to:
   a. increase the price of cab rides
   b. makes consumers worse off
   c. potentially makes cab drivers better off, but they might be worse off
   d. all of the above

37) If a city increases the cab quota by 10% but it is still below what the market would provide, we would expect the decrease in the price of cab rides to be larger if:
   a. demand is more inelastic
   b. demand is more elastic
   c. supply is more elastic
   d. both b and c

38) Suppose that a city decides to subsidize bus rides for its citizens. Assuming no externalities from bus rides, the effect of the subsidy would be to:
   a. increase consumer’s surplus for bus riders
   b. increase producer’s surplus for bus companies
   c. increase taxpayer costs more than consumers and producers surplus rises
   d. all of the above.

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