Correct answers are indicated by an arrow →

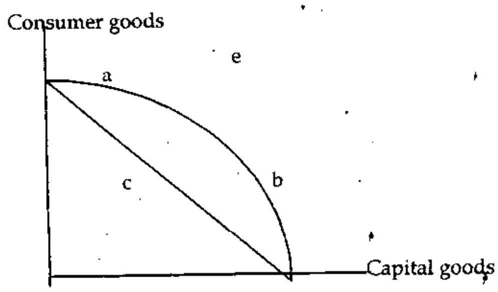
ECONOMICS 103
Exam I

Time: 50 minutes
Name: ______________________
ID number: ________________

April25, 2001
Instructor: _____________

1. Refer to the production possibility frontier in the figure below. Which point indicates that resources are not fully utilized?

a. a
b. b
→ c. c
d. e



2. A demand schedule differs from a demand curve in that

→ a. a demand schedule lists prices and quantities and a curve shows them on a graph.
b. income is not held constant on the demand schedule but is held constant on the demand curve.
c. income is held constant on the demand schedule but is not held constant on the demand curve.
d. the price of a good is held constant on the demand schedule but is not held constant on the demand curve.

3. Which of the following would <u>not</u> shift the demand curve for turkey?

a. An increase in income.
b. A decrease in the price of ham.
c. A change in tastes for turkey.
→ d. A change in the price of turkey.

4. A supply curve shows the relation between the quantity of a good supplied and

a. income. Usually a supply curve has a negative slope.
b. income. Usually a supply curve has a positive slope.
c. the price of the good. Usually a supply curve has a negative slope.
d. the price of the good. Usually a supply curve has a positive slope.

5. In brewing beer, corn and rice are substitutes. An increase in the price of rice will

a. decrease the demand for rice.
b. increase the demand for corn.
c. decrease the demand for corn.
d. increase the demand for rice.

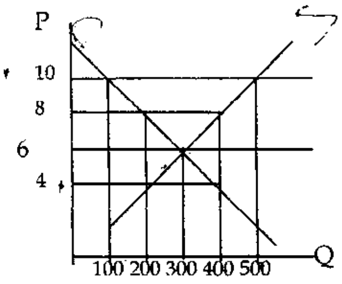
P↑rice, D↑

6. Which of the following would <u>not</u> shift the supply curve?

a. A technological advance.
b. A decrease in the wages of labor used in production.
c. A fall in the price of a substitute in production.
d. An increase in the price of the good.

7. The equilibrium price in the figure below is

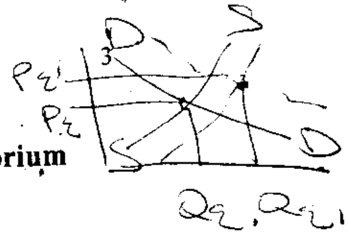
a. \$10
b. \$4
c. \$6
d. \$8



S↑D
400

8. At a price of \$10 in the figure above, there is

a. A surplus of 200 units
b. A shortage of 200 units
c. A surplus of 400 units
d. A shortage of 400 units



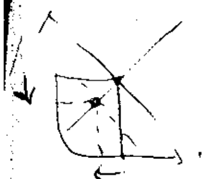
9. If both demand and supply increase, what will be the effect on the equilibrium price and quantity?

a. Both price and quantity will increase.
b. The quantity will increase but the price could either rise, fall, or remain the same.
c. The price will fall but the quantity will increase.
d. The price will rise but the quantity could either increase, decrease, or remain the same.

10. Which of the following will shift the Supply curve for good X to the left?

a. A fall in the wages of workers that produce good X
b. A shortage in the market for good X
c. Innovations that increase the efficiency of production of good X
d. An increase in the cost of equipment used in the production of good X

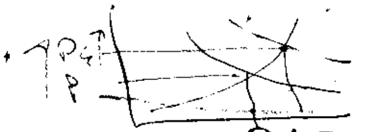
11. Pizza and hamburgers are substitutes for consumers. A fall in the price of pizza causes ______________ in the price of hamburgers and _________ in the quantity of hamburgers demanded.



P - ↓ = subs.

P ↓ pizza. D ↑ hamm..

a. a rise; an increase
b. a rise; a decrease
c. a fall; an increase
Ppizza ↓ d. a fall; a decrease



12. A surplus is likely to occur when the market price is:

a. less than the equilibrium price
b. equal to the equilibrium price
c. greater than the equilibrium price

13. An increase in the price of gasoline shifts the demand for tires to the

gas + tires = comp.

P ↑ gas D ↓ tires.

a. left, because gasoline and tires are substitutes
b. left, because gasoline and tires are normally used together
c. right, because gasoline and tires are substitutes
d. right, because gasoline and tires are normally used together

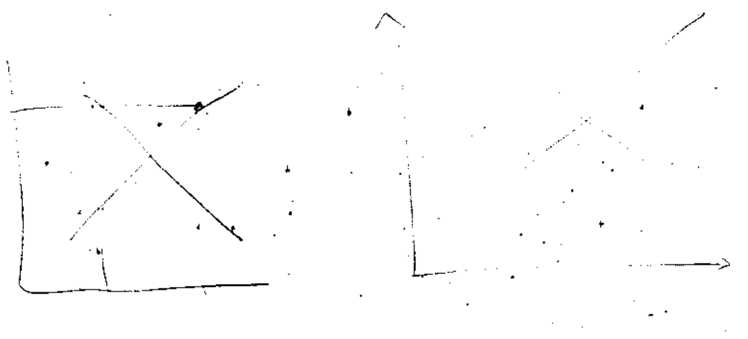
14. If orange juice prices double, there will be a

orange juice + grape fruit = subs.

a. Rightward shift in the demand for grapefruit juice
b. Rightward shift in the supply of grapefruit juice
c. Leftward shift in the supply of grapefruit juice
d. Leftward shift in the demand for grapefruit juice

P 2/ orange

D ↑ grape ↑



15. Assume that the figure below shows demand for soda. A decrease in the price of apple juice will change demand from

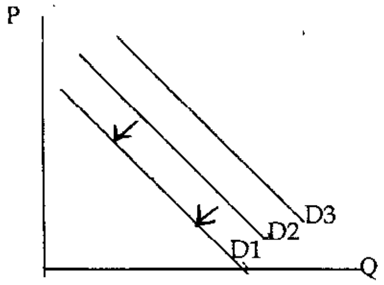
P apple juice

a. D1 to D2
b. D2 to D1
c. D2 to D3
d. D1 to D3

soda + apple juice = Dob

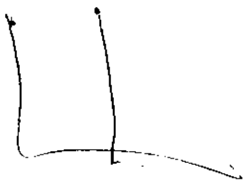
P ↓ apple, D ↓

↑ Qd apple



16. Which one of the following goods will have the most inelastic demand at any time?

a. Jewelry
b. Big Macs
c. Electricity
d. Pork shops



17. Assume the demand schedule for cookies is downward sloping. If the price of cookies falls from $1.5 to $1.25 per dozen,

a. the demand for cookies will fall
b. the demand for cookies will rise
c. a larger quantity of cookies will be demanded
d. a smaller quantity of cookies will be demanded

Elastic

18. A 10% increase in the quantity of spinach demanded results from a 20% decline in its price. The price elasticity of demand for spinach is:

a. -0.5
b. -2
c. -10
d. -20

10% ↑ ΔQd

20 ↓ ΔP

19. If the price of a radio set is increased from $40 to $60 and quantity supplied changes from 200 to 400 units, the price elasticity of supply is:

a. 1.667
b. 10.0
c. 2
d. 1.5

Supply Elast. $= \frac{\Delta QS}{\Delta P} = \frac{Q_1 - Q_2 / \left(\frac{Q_1+Q_2}{2}\right)}{P_1 - P_2 / \left(\frac{P_1+P_2}{2}\right)}$

1 5/3

$\frac{-2}{3} \cdot \frac{5}{-2} = 2/3$ ... $-2/5$

$\frac{-200/300}{-20/50}$

$\frac{(200-400)/\left(\frac{200+400}{2}\right)}{(40-60)/\left(\frac{40+60}{2}\right)}$

20. In a market with perfectly competitive firms, the market demand curve is usually ________________ and the demand curve facing each individual firms is ________________.

a. upward sloping; horizontal.
b. downward sloping; horizontal.
c. horizontal; downward sloping.
d. downward sloping; downward sloping.

21. In short-run equilibrium, a perfectly competitive firm:

a. May or may not earn a profit.
b. Always earns a profit.
c. Never earns a profit.
d. Earns a profit only if the firm has no fixed cost.

22. Under pure competition, the individual firms are:

a. Price takers.
b. Small relative to the total market.
c. Price searchers.
d. Producing a differentiated product.
e. Both a and b.

23. The perfectly competitive firm's short-run shut-down rule is to shut down immediately if:

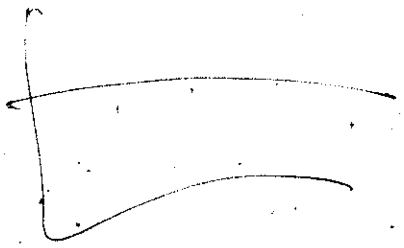
a. TR < TC
b. TR < SR FC
c. TR < SR VC
d. TR < MC

24. The economizing problem is essentially one of deciding how to make the best use of:

a. limited resources to satisfy virtually unlimited wants
b. unlimited resources to satisfy limited wants
c. limited resources to satisfy fairly limited wants
d. virtually unlimited resources to satisfy unlimited wants
e. None of the above adequately represents the economizing problem

25. If I can buy any quantity I please of a commodity at a fixed price, this means that the supply curve, which confronts me, is:

a. perfectly inelastic
b. perfectly elastic
c. unit-elastic
d. elastic, but not necessarily perfectly elastic
e. none of the above



26. Following the OPEC price rise, consumers of gasoline and oil reduced their purchases, but by a much smaller percentage than the price increase. This means that their demand curve for such products is:

a. was price elastic
b. shifted slightly to the right
c. was price inelastic
d. shifted slightly to the left
e. was unit-elastic with respect to price

P↑ Qd↓ (smaller amount)

27. Marginal revenue is
a. one minus marginal cost
b. wages minus economic profit
c. total revenue divided by total cost
d. the change in total revenue associated with selling an additional unit of a good

Refer to the adjacent table for questions 28 and 29

TC = FC + VC

28. The total variable cost of producing 5 units is:
a. $24
b. $37
a. $48
b. $61

Output	Total Cost
0	24
1	33
2	41
3	48
4	54
5	61
6	69
7	78

29. The marginal cost of producing the sixth unit of output is:
a. $28
b. $12
c. $16
d. $24
$8

ΔTC 69−61
ΔQ 6−5

30. Which of the following conditions always characterizes a firm that is in short – run Perfect Competitive equilibrium:
a. price equals minimum average total cost
b. price equals marginal cost
c. there are no economic profits
d. all of the above

31. If the firm's lowest average cost (AC) is $48 and the corresponding AVC is $24, what does it pay a perfectly competitive firm to do if the price is $35?
a. Continue operation because it is making profit
b. Shut down because it is incurring losses
c. Continue operation although it is making losses
d. None of the above

32. The following price-quantity coordinates for gold used by U.S. dentists were observed: 1980, P=$875/ounce and Q=342,000; 1987, P=$200/ounce, Q=706,000. These points most likely lie along the

P ↓ Q ↑

a. supply curve of gold for dental use
b. demand curve of gold for dental use
c. Total Cost Curve of gold for dental use
d. production possibility frontier curve of gold for dental use

Cofee + cocoa = sub.

33. How will an increase in the price of coffee affect the market for cocoa, a substitute good?

a. The supply of cocoa will increase, leading to an increase in both price and quantity demanded.
b. The supply of cocoa will decline, leading to an increase in price and a reduction in quantity demanded
c. The demand for cocoa will increase, leading to a decrease in price and an increase in quantity demanded
d. The demand for cocoa will decrease, leading to a reduction in price and quantity demanded
e. The demand for cocoa will increase, leading to an increase in price and an increase in quantity demanded

P cofee ↑
D coc ↑

34. In the pure competition model, what impact does the individual firm have on the price of the product?

a. The firm will be able to sell more units if it reduces its price.
b. The firm has no choice but to sell at the market-determined price.
c. The firm may raise or lower its price to a small extent, but sales revenues will tend to be pretty much the same regardless of price.
d. The firm may raise its price and thereby increase its revenues.
e. The firm may raise or lower its price to a considerable extent, but sales revenues will tend to be pretty much the same regardless of price.

35. The demand for a purely competitive firm is:

a. Perfectly elastic
b. Perfectly inelastic
c. Greater than zero but less than one.
d. Dependent upon the availability of substitutes for the product.
e. Both c and d.

36. If the price elasticity of demand for cars is –2, and the price elasticity of demand for insulin is –0.8, then the demand for cars is ------------, and the demand for insulin is --------------

a. Elastic, Elastic
b. Elastic, Inelastic
c. Unitary elastic, Elastic
d. Inelastic, Inelastic

|-2|

X

37. Which of the following is true?

?

a. When marginal costs are increasing, average total costs will also be increasing.
b. When marginal costs are less than average total costs, average total costs will be increasing.
c. When average fixed costs are falling, marginal costs must be less than average fixed costs.
d. When average fixed costs are rising, marginal costs must be greater than average total costs.
e. When marginal costs are greater than average total costs, average total costs will be increasing.

ATC
AVC

38. The change in total cost that results from the production of one additional unit is referred to as:

a. Marginal revenue.
b. Average variable cost.
c. Fixed cost.
d. Marginal cost.
e. Average total cost.

39. What is the shape of the fixed cost curve for a normal firm in the short-run?

a. S-shaped.
b. U-shaped.
c. A horizontal line.
d. A vertical line.
e. A downward sloping curve that approaches the x-axis when output is large.

40. Which one of the following industries most closely resembles the purely competitive model?

a. Telecommunications.
b. Retail clothing.
c. Automobile manufacturing.
d. Computer manufacturing.
e. Vegetable farming.

Extra questions:

41. In the pure competition model, what impact does the individual firm have on the price of the product?

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d. The firm may raise its price and thereby increase its revenues.
e. The firm may raise or lower its price to a considerable extent, but sales revenues will tend to be pretty much the same regardless of price.

42. The demand for a purely competitive firm is:

a. Perfectly elastic
b. Perfectly inelastic
c. Greater than zero but less than one.
d. Dependent upon the availability of substitutes for the product.
e. Both c and d.

43. Suppose that sharply higher coffee prices lead to an increase in demand for tea. As tea prices increases, tea producers experience short-run economic profit. If the tea industry is purely competitive, after sufficient time is allowed for the market to adjust fully to the increase in demand for tea, one would expect that the tea industry's:

a. Output to increase and economic profit to return to zero in the long-run.
b. Output to increase and economic profit to persist.
c. Output to decline and economic profit to persist.
d. Output to decline and economic profit to disappear.
e. Output to remain constant, and the firms to take advantage of the situation in order to earn long-term economic profit.

P ↑ cofee P ↑ tea

coffee & tea subst
Dtea ↑