HAND IN

Answers recorded on exam paper

EXAM COVER PAGE

QUEEN'S UNIVERSITY FINAL EXAMINATION

FACULTY OF ARTS & SCIENCE

DEPARTMENT OF ECONOMICS

ECON 111– Nam Phan

Winter 2023

INSTRUCTIONS TO STUDENTS:

This examination is 3 HOURS in length.

There are 110 multiple-choice questions.

Please answer all questions on the scantron

The following aids are allowed:

Calculators

Scrap papers

GOOD LUCK!

PLEASE NOTE:

Proctors are unable to respond to queries about the interpretation of exam questions.

Do your best to answer exam questions as written.

Question 1 (1 point)

Suppose the government imposes an excise tax on the market for aluminum rods. Which of the following statements is true?

A. If demand and supply are both elastic, then consumers tax burden is higher than producers.
B. If demand is more elastic then supply, then consumers tax burden is higher than producers.
C. If supply is more elastic then demand, then producers tax burden is higher than consumers.
D. All of the above.
E. None of the above.

Question 2 (1 point)

Which of the following statements is true?

A. The magnitude of the income elasticity for inferior goods is lower than normal goods.
B. Inferior goods are more elastic than normal goods.
C. The income elasticity of inferior goods is negative.
D. The income elasticity of inferior goods is positive.
E. None of the above.

Question 3 (1 point)

If tacos and pizza are substitute goods and are both normal, then which of the following is true?

A. The cross-elasticity of demand is positive.
B. The income elasticity is positive.
C. The own-price elasticity is negative
D. All of the above.
E. None of the abov

Question 4 (1 point)

Which of the following is true about a monopoly firm.

A. It creates a dead-weight-loss
B. It generates an inefficient level of output
C. It prices above marginal cost
D. All of the above
E. None of the above

Question 5 (1 point)

If the price of beer increases and beer and pizza are complementary goods, then which of the following will happen?

A. The price of pizza will tend to increase and the quantity demanded will tend to decrease.
B. The price of pizza will tend to decrease and the quantity demanded will tend to increase.
C. Both the price and the quantity demanded of pizza will tend to decrease.
D. None of the above.

E. Both the price and the quantity demanded of pizza will tend to increase.

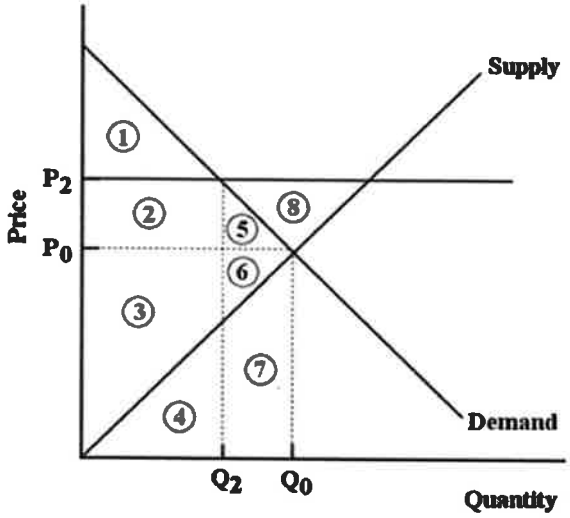
Question 6 (1 point)

Suppose a consumer with a given income can choose to consume three products: A, B, and C. Let MUx be the marginal utility of good x, Px be the price of good x, TU be the total utility of consuming good x. The consumer's utility maximizing condition is

A. $MU_A = MU_B$
B. $MU_A/P_A = MU_B/P_B$
C. $MU_A * P_A = MU_B * P_B$
D. $TU_A = TU_B$
E. None of the above

Question 7 (1 point)

What would the dead-weight-loss be if this market were unregulated?



A. Areas 1, 2 and 5 together
B. Areas 5 and 6 together
C. Area 8
D. Areas 3 and 6 together
E. None of the above

Question 8 (1 point)

The income effect causes quantity demanded to increase

A. for normal goods
B. for inferior goods
C. for all goods
D. A and B

E. None of the above

Question 9 (1 point)

Perfectly competitive markets have

A. non-differentiated products
B. firms that make zero economic profit in the long run
C. psychological barriers to entry only (no monetary barriers).
D. A and B
E. B and C

Question 10 (1 point)

If a country has an absolute advantage in the production of all goods, then

A. It can only benefit from trade if its trading partner does not benefit
B. There are gains from trade
C. It will specialize in the production every good
D. All of the above
E. None of the above

Question 11 (1 point)

For a market to be Pareto *efficient*, it must be the case that

A. the combination of goods produced is allocatively efficient
B. the government maximizes its tax revenue
C. firms can price discriminate among market segments
D. there is a monopoly producer that maximizes its profit
E. each firm is productively efficient and output is split equally among firms

Question 12 (1 point)

A basic underlying point in economics is that

A. people have unlimited wants in the face of limited resources
B. there are unlimited resources
C. people have limited wants in the face of limited resources
D. governments should satisfy the needs of the people
E. governments should never interfere in the workings of a market economy

Question 13 (1 point)

The price elasticity of demand for a product tends to be greater the

A. more broadly the product is defined
B. fewer close substitutes for it there are

C. shorter the time span being considered
D. more close substitutes for it there are
E. lower its price

Question 14 (1 point)

Consider the market for pulp and paper. Suppose, in an attempt to help this industry, the government sets a price floor above the free-market equilibrium price. The result will be:

A. a new free-market equilibrium at a higher price and lower output level.
B. increased government revenue
C. the quantity supplied will exceed quantity demanded and there will be a surplus in the market
D. a continuation of the market-determined equilibrium price and quantity
E. the quantity demanded will exceed quantity supplied and there will be a shortage in the market

Question 15 (1 point)

Suppose that the demand and supply curves in the market for carrots have the following functional forms: $Q_D = 250 - 4p$ and $Q_S = 10 + p$. The equilibrium quantity and price would then be

A. $Q = 92, p = 48$
B. $Q = 48, p = 58$
C. $Q = 68, p = 108$
D. $Q = 68, p = 98$
E. $Q = 58, p = 48$

Question 16 (1 point)

Consider two countries that can produce wheat and coffee. The gains from trade when the two countries have different opportunity costs are realized when

A. the two countries continue to produce the same quantities of wheat and coffee
B. resources are reallocated within the two countries such that each specializes in the production of the good in which it has a comparative advantage
C. each country has an absolute advantage in one of the two commodities
D. resources are reallocated within the two countries such that each specializes in the production of the good in which it has an absolute advantage
E. production possibility boundaries shift inward

Question 17 (1 point)

The following production possibilities schedule shows the quantities of soybeans and oil that can be produced in Canada and Mexico with one unit of equivalent resources.

	Soybeans (bushels)	Oil (barrels)
Canada	60	10
Mexico	24	8

The opportunity cost of one bushel of soybeans in Mexico is

A. 3 barrels of oil
B. indicative of Mexico's comparative advantage in soybean production
C. 0.33 barrels of oil
D. lower than the opportunity cost of soybeans in Canada
E. 0.4 bushels of soybeans

Question 18 (1 point)

Economists use the term "marginal utility" to describe the

A. inverse of the measure of total utility
B. average utility of each unit of a good consumed
C. price paid for every unit consumed
D. total satisfaction received from consumption of a good
E. change in total satisfaction caused by consumption of an additional unit of a good

Question 19 (1 point)

A monopolistically competitive firm is predicted to earn positive profits

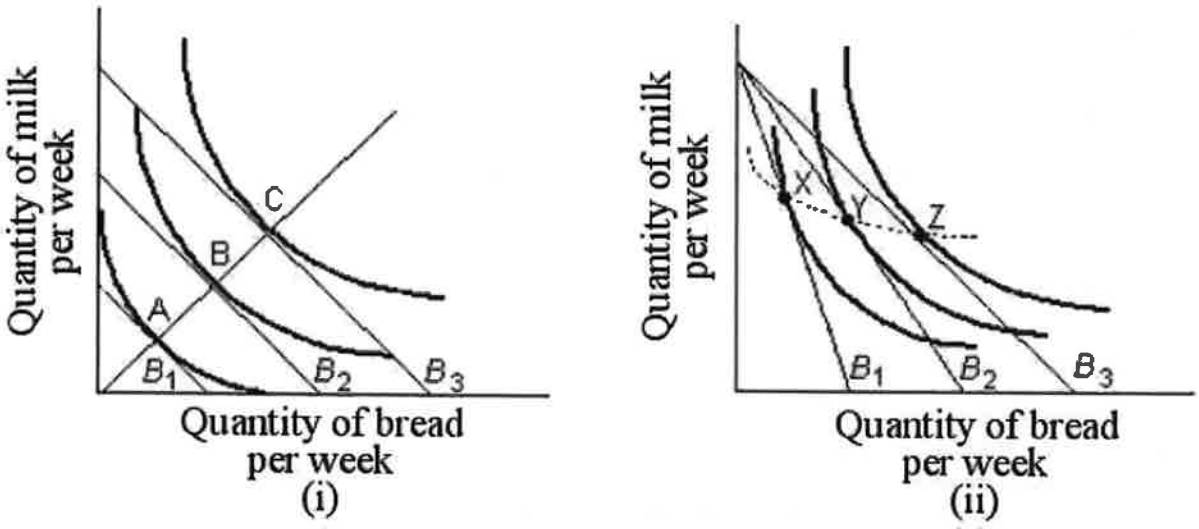
A. because there are barriers to entry.
B. only if it maintains excess capacity in the production of it product
C. only if it advertises its own product
D. only in the long run
E. only in the short run

Question 20 (1 point)

Suppose there are only two goods, A and B, and that consumer income is constant. If the price of good A falls and the consumption of good B rises, we can conclude that

A. B is a normal good
B. B is an inferior good
C. A is a normal good
D. Both A and B are normal goods
E. A is an inferior good

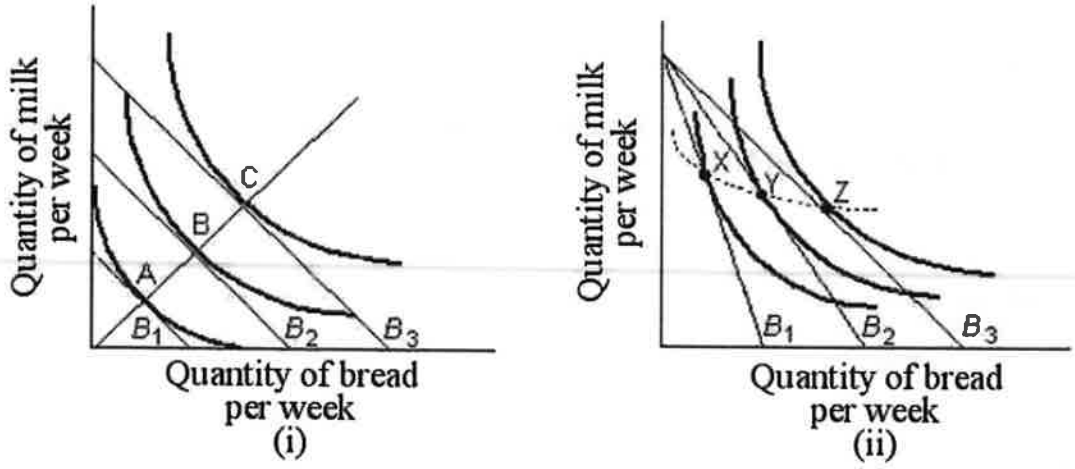
Question 21 (1 point)



The consumer's move from point Z to point Y is caused by

A. A decrease in the price of bread
B. An increase in the price of bread
C. Change in the consumer's preferences towards milk.
D. A decrease in money income
E. An increase in the price of milk

Question 22 (1 point)



The consumer is able to move from point A to point B because of

A. A decrease in the price of milk
B. A decrease in the price of bread
C. An increase in real income
D. A decrease in money income
E. A decrease in the price of one good and an increase in money income

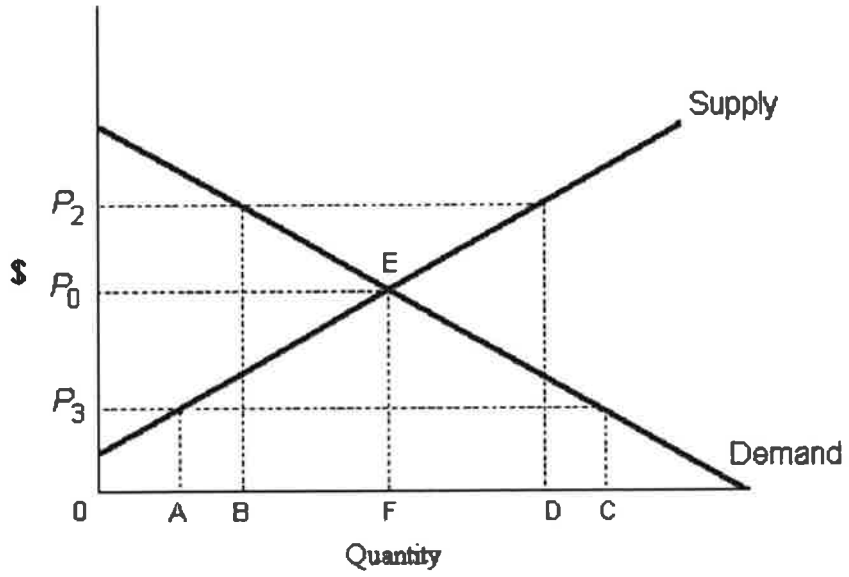
Question 23 (1 point)

Suppose that capital costs $8 per unit and labour costs $4 per unit. For a profit- maximizing firm operating at its optimal factor mix, if the marginal product of capital is 60, the marginal product of labour must be

A. 20
B. 120
C. 10
D. 90
E. 30

Question 24 (1 point)

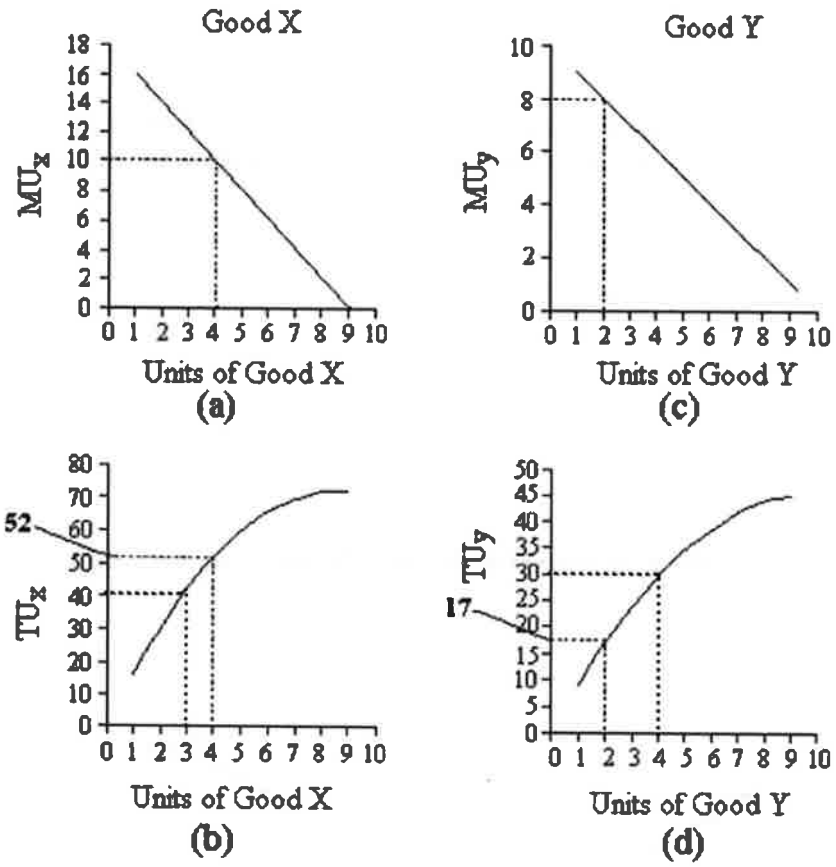
If the diagram applies to the market for rental housing and *P*3 represents the maximum rent that can be charged, then



A. Units applied will be reduced relative to the competitive equilibrium by AF rental units
B. There will be excess demand for rental units equal to FC
C. Windfall profits will be earned by landlords
D. There will be an excess supply of rental units equal to BD
E. There will be excess demand for rental units equal to AF

Question 25 (1 point)

Suppose the price of X is $2, the price of Y is $1, and the consumer's income is $10. The consumer is currently buying 4 units of good X and 2 units of good Y. In order to maximize his utility, he should



A. Buy more of X but the same amount of Y
B. Make no changes-he is already maximizing his total utility
C. By the same amount of X but less of Y
D. buy less of X and more of Y
E. buy more of X and less of Y

Question 26 (1 point)

Choose the statement that best describes how endogenous variables differ from exogenous variables.

A. An endogenous variable is explained within the theory, while an exogenous variable influences the endogenous variables but is determined outside the theory
B. An endogenous variable is explained outside the theory and influences an exogenous variable while an exogenous variable is explained within the theory
C. An endogenous variable is a function of the exogenous variable, and both are stock variables
D. An exogenous variable is a function of the endogenous variable, and both are flow variables
E. An endogenous variable is a flow, while an exogenous variable is a stock

Question 27 (1 point)

Price discrimination, if possible, allows a price-setting firm to increase its profits by

A. reducing costs through a reduction in output
B. charging different prices according to the willingness to pay of each consumer
C. raising the price above the competitive price
D. shifting its cost curves downward
E. charging different prices according to the different marginal cost on each unit

Question 28 (1 point)

Because resources are scarce, individuals are required to

A. improve production but not distribution
B. use resources inefficiently
C. improve distribution but not production
D. sacrifice production but not consumption
E. make choices among alternatives

Question 29 (1 point)

Consider a country that is initially autarkic and then engages freely in international trade. If a country has a comparative advantage in the production of soybeans, it will most probably

A. derive no advantage from any trade in soybeans
B. import soybeans
C. increase the production of soybeans to allow for the export of soybeans
D. decrease the production of soybeans for domestic consumption
E. increase the production of soybeans for domestic consumption.

Question 30 (1 point)

Disagreements over positive statements

A. never occur
B. are best handled by an appeal to the facts
C. cannot arise because positive statements are facts
D. arise from the failure to distinguish between a positive and a normative statement
E. are basically devoid of any emotion

Question 31 (1 point)

Suppose that the demand curves for goods A, B, and C have the following functional forms: where Q denotes quantity demanded and P denotes price:

$Q_A = 120 - 3.5\,P_A - 6P_B$

$Q_B = 100 - 2P_B + 3P_C$

$Q_C = 1500 - 0.5P_C$.

Based on these demand curves, which of the following pairs of goods are known to be complements?

A. B and C
B. A and B
C. A and C, and B and C
D. None of the pairs are complements
E. A and C

Question 32 (1 point)

Consider two demand curves and the same price change for both. If the resulting percentage change in quantity demanded is greater for one (*D*1) than the other (*D*2), we can conclude

A. that D2 is more elastic than D1
B. that D1 is more elastic than D2
C. that D1 is inelastic and D2 is elastic
D. nothing relevant
E. that D1 is elastic and D2 is inelastic

Question 33 (1 point)

Suppose the price elasticity of demand for some good is 1.4. A 10% increase in the price of the good results in

A. 1.4% increase in the quantity demanded
B. 14% decrease in the quantity demanded
C. 14% increase in the quantity demanded
D. There is not enough information to answer this question
E. 1.4% decrease in the quantity demanded

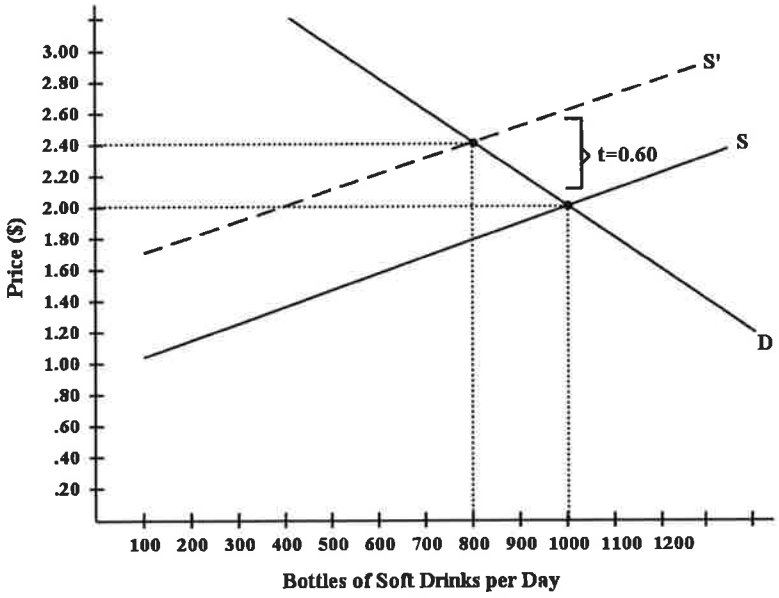
Question 34 (1 point)

The imposition of an excise tax usually causes the price paid by consumers to _____, while the price received by sellers _____.

A. Rise; remains unchanged
B. Fall; remains unchanged
C. Fall; falls
D. Rise; rises
E. Rise; falls

Question 35 (1 point)

Suppose the government imposes a tax of $0.60 per soft drink purchased. The change in total expenditure on soft drinks is



A. An increase of $480
B. A decrease of $160
C. No change in total expenditure
D. A decrease of $80
E. An increase of $320

Question 36 (1 point)

With respect to some commodity, X, if government objectives are to (1) restrict production and (2) keep prices down to protect consumers, then legislated price ceilings will

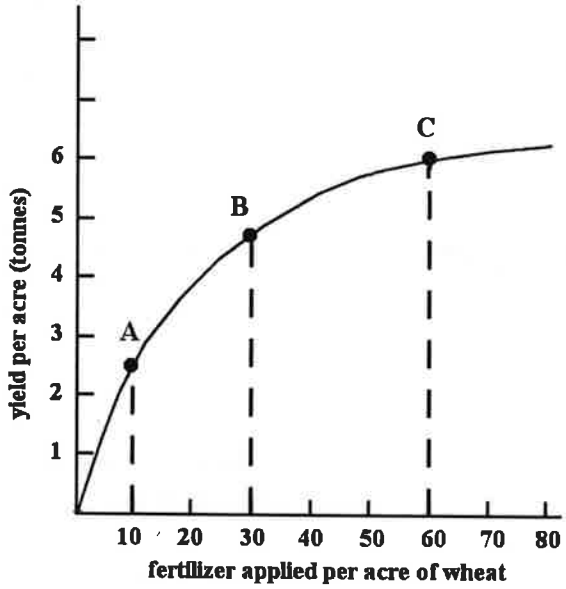
A. Be a dismal failure as neither goal can ever be achieved with price ceilings
B. Satisfy both goals as long as a black market does not develop
C. Satisfy both goals but only the black market develops
D. Satisfy only the second goal of the black market develops
E. Only have an effect on commodities at the international level

Question 37 (1 point)

Suppose the demand for eggs is inelastic and that the market-clearing price is $1.50 per dozen. Now suppose the government imposes a minimum price of $2.00 per dozen. Why might the government implement such a policy?

A. To decrease tax revenues for Mac farmers
B. To increase excess demand in the egg market
C. To reduce excess supply in the egg market
D. To make consumers better off
E. To increase the incomes of egg farmers

Question 38:



This non-linear function shows that over the range shown,

A. as the yield per acre increases, the amount of fertilizer required per acre is increasing
B. as more fertilizer is applied, the marginal response in yield is increasing
C. as more fertilizer is applied, the total yield per acre is diminishing
D. as more fertilizer is applied, the marginal change in yield is diminishing
E. as the yield per acre increases, the amount of fertilizer required per acre is diminishing

Question 39 (1 point)

Suppose that supply for some good increases and that simultaneously the demand for the same good decreases. The result would be

A. a decrease in Q and an indeterminate change in P
B. an increase in Q and an increase in P
C. an increase in Q and a decrease in P
D. no change in either P or Q
E. a decrease in P and an indeterminate change in Q

Question 40 (1 point)

The following data show the total output for a firm when different amounts of labour are combined with a fixed amount of capital. Assume that the wage per unit of labour is $10 and the cost of the capital is $50.

Labour per period	Total output per period
0	0
1	10
2	30
3	90
4	132
5	150

The marginal product of labour is at its maximum when the firm changes the amount of labour hired from

A. 2 to 3 units
B. 4 to 5 units
C. 3 to 4 units
D. 0 to 1 unit
E. 1 to 2 units

Question 41 (1 point)

A firm that is maximizing its profits by producing a certain level of output must also be

A. Minimizing its cost of producing that output
B. Maximizing its sales
C. Minimizing its variable costs
D. Maximizing its output
E. Maximizing its revenue

Question 42 (1 point)

Why will a perfectly competitive firm not sell its product below the prevailing market price?

A. The sellers in the market have agreed to not sell below a specified price
B. It faces inelastic demand.
C. Its costs would increase dramatically.
D. This would lead to a price war among sellers.
E. It can sell all it wishes at the market price

Question 43 (1 point)

If firms in a competitive industry are earning positive economic profits, in the long run we expect

A. there would be no change in the industry as long as P = MC for the individual firms.

B. the government would intervene and force the firms to lower prices.
C. the demand curve for the product will shift to the left, so that the price of the product will fall.
D. the individual firms will lower their price to discourage new firms from entering the industry.
E. the supply curve for the product will shift to the right as new firms enter the industry, causing industry output to increase and price to fall.

Question 44 (1 point)

A perfectly horizontal demand curve shows that the price elasticity of demand is

A. not defined
B. less than one
C. zero
D. unity
E. infinite

Question 45 (1 point)

If a product's income elasticity of demand is -1.7, then we can conclude that

A. a decrease in income will lead to an increase in demand for the product.

B. the product is certainly a necessity

C. an increase in income will lead to an increase in demand for the product

D. the product is a normal good

E. the product is a luxury good.

Question 46 (1 point)

Consider the income and substitution effects of price changes. If the price of a normal good changes, the income effect of the price change will

A. reinforce the substitution effect

B. produce a positively sloped demand curve.

C. oppose the substitution effect.

D. always be to increase quantity demanded.

E. always be larger than the substitution effect

Question 47 (1 point)

During the nineteenth and early twentieth centuries, millions of people immigrated to western Canada. The effect on the Canadian economy was to

A. shift its production possibilities boundary inward.

B. move it inside its new production possibilities boundary.

C. move it along an unchanged production possibilities boundary.

D. move it beyond its new production possibilities boundary.

E. shift its production possibilities boundary outward.

Question 48 (1 point)

Which of the following terms would best describe the price elasticity of demand facing a perfectly competitive firm?

A. Elastic
B. Perfectly elastic
C. Perfectly inelastic
D. Unit
E. Inelastic

Question 49 (1 point)
Consider a basket-producing firm with fixed capital. If the firm can produce 36 baskets per day with 3 workers and then increases productivity to 44 baskets per day with 4 workers, then which of the following statements is true?

A. The marginal product is above the average product.
B. The marginal product of the fourth worker is 11.
C. The firm has not yet reached the point of diminishing marginal productivity.
D. The firm has passed the point of diminishing average productivity.
E. With 4 workers, the firm's average product of labour is 13.

Question 50 (1 point)

Consider a firm with the following balance sheet (in $):

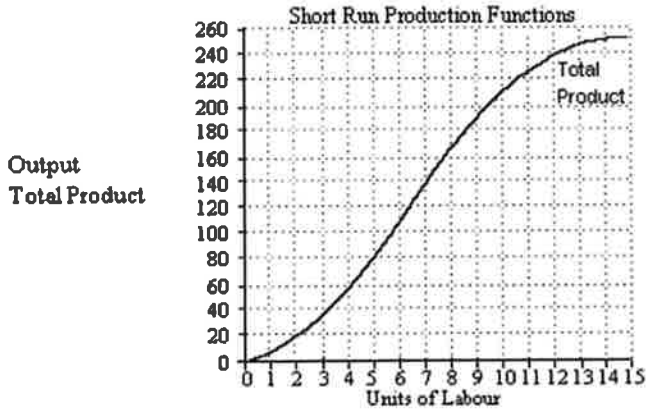
Total Revenues ($)	500 000
Total Costs ($)	
- wages and salaries	200 000

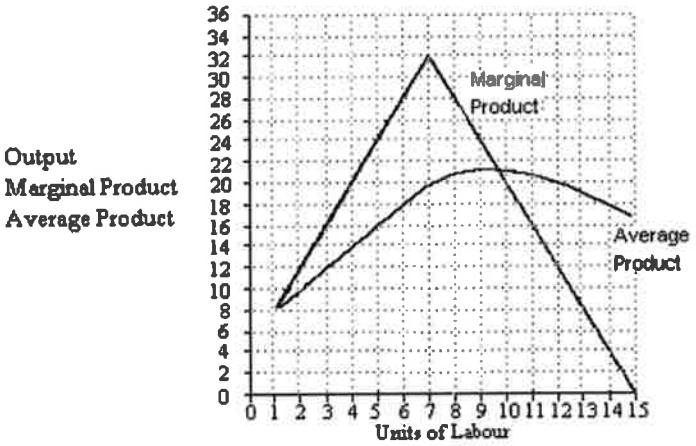
- risk-free return of 6% on owners' capital of 250 000	15 000
- rent	105 000
- depreciation of capital equipment	25 000
- risk premium of 8% on owners' capital of 250 000	20 000
- intermediate inputs	150 000
- forgone wages of owners in alternative employment	80 000
- interest on bank loan	10 000

The *explicit* costs for this family-owned firm are

A. $490,000
B. $605,000
C. $115,000
D. $505,000
E. $500,000

Question 51 (1 point)
The first figure plots Total Product against Unit of Labour. The second figure plots Marginal Product / Average Product against Unit of Labour.





Total product is increasing at an increasing rate:

A. From 0 to 32 units
B. Over the whole production range
C. From 0 to 140 units of output
D. Between 200 to 250 units of output
E. Between 140 to 200 units of output

Question 52 (1 point)

Which of the following statements about the relationship between marginal product and average product is correct?

A. When marginal product is falling, average product is falling.
B. Average product equals marginal product when marginal product is at its maximum.
C. When average product exceeds marginal product, marginal product must be rising.
D. When marginal product exceeds average product, average product must be rising.
E. Average product equals marginal product at marginal product's lowest point.

Question 53 (1 point)

Suppose a firm is employing labour (L) and capital (K) such that $MP_K/MP_L = P_K/P_L$. If the price of labour rises, the cost-minimizing firm should

A. do nothing.
B. employ more capital and less labour because $MP_K/MP_L < P_K/P_L$.
C. employ more capital and less labour because $MP_K/MP_L > P_K/P_L$
D. employ more labour and less capital because $MP_K/MP_L < P_K/P_L$
E. employ more labour and less capital because $MP_K/MP_L > P_K/P_L$.

Question 54 (1 point)

If a firm in a perfectly competitive market were to raise its price, its

A. revenue would fall to zero.
B. total costs would increase.
C. revenue would decrease if market demand were elastic.
D. revenue would increase if market demand were inelastic.
E. profits would increase as long as costs remained constant.

Question 55 (1 point)
If the price of tea falls and as a consequence the demand for sugar rises, then tea and sugar are

A. neutral goods
B. independent goods
C. substitute goods
D. complementary goods
E. luxury goods

Question 56 (1 point)
Suppose that a better way to produce a good is discovered, thus lowering production costs for the good. This will cause

A. a movement up the supply curve
B. a movement down the supply curve
C. an increase in supply (a rightward shift of the supply curve)
D. a decrease in supply (a leftward shift of the supply curve)
E. no change in the supply curve, only a change in price

Question 57 (1 point)
Suppose we observe that movie theatre prices are less during the daytime than in the evening. If the supply of movies does not change between daytime and evening, then the most likely explanation for this difference in price is

A. the evening demand curve is to the left of the daytime demand curve
B. the evening supply curve is to the right of the daytime supply curve

C. the evening demand curve is to the right of the daytime demand curve

D. the evening supply curve is to the left of the daytime supply curve

Question 58 (1 point)
Suppose there is a theory that several things influence the price of fish in Halifax, one of which is the weather during the fishing season. When examining the determinants of the price of fish, the weather is

A. an exogenous variable, as it is determined outside the theory.

B. a stock, as it influences the quantity of fish caught.

C. an endogenous variable, as it influences the price of fish.

D. an endogenous variable, as it is determined within the theory.

E. an uncontrollable event and, therefore, has no legitimate connection with the theory.

Question 59 (1 point)
Suppose that the price of wheat has fallen from $3 to $2 per bushel and that the price of newsprint has fallen from $200 to $100 per tonne. The relative price of wheat in terms of newsprint

A. is completely unrelated
B. has fallen
C. has risen
D. cannot be determined from the above data
E. remained constant

Question 60 (1 point)
Suppose that the quantity of a good demanded rises from 90 units to 110 units when the price falls from $1.20 to 80 cents per unit. Using the mid-point method, the price elasticity of demand for this product is

A. 1.0
B. 0.5
C. 2.0
D. 4.0
E. 1.5

Question 61 (1 point)
If household income increases by 50% and desired household expenditure on vacation travel increases by 15%, the *price* elasticity of demand for vacation travel is

A. Not determinable from the information given
B. Inelastic
C. Elastic
D. Unity
E. Positive

Question 62 (1 point)
Consumers will bear a larger burden of an excise tax if

A. both demand and supply are relatively elastic.

B. the tax is collected by firms rather than remitted directly to the government by consumers.

C. both demand and supply are relatively inelastic.

D. demand is relatively elastic and supply is relatively inelastic.

E. demand is relatively inelastic and supply is relatively elastic.

Question 63 (1 point)
If a product's income elasticity of demand is 2.0, then we can conclude that

A. an increase in income will lead to an increase in demand for the product.

B. the product is a normal good.

C. the product is a luxury good.

D. a decrease in income will lead to an increase in demand for the product.

E. the product is certainly a necessity.

Question 64 (1 point)
A binding price floor is a

A. maximum price, below equilibrium, which price is not allowed to exceed.

B. maximum price, above equilibrium, which price is not allowed to exceed.

C. any minimum price below which price is not allowed to fall.

D. minimum price, below equilibrium, below which price is not allowed to fall.

E. minimum price, above equilibrium, below which price is not allowed to fall.

Question 65 (1 point)
Consider a firm in the short run. If the Average Product curve is rising, then the Marginal Product curve

A. must lie below the average-product curve over this range.

B. must lie above the average-product curve over this range.

C. must be falling.

D. must lie above the average-product curve over this range and must also be rising.

E. can be either above or below the average-product curve, although it must be rising over the entire range.

Question 66 (1 point)
Suppose that a firm is using 100 units of labour and 50 units of capital to produce 200 fax machines per day. The price of labour is \$10 per unit and the price of capital is \$5 per unit. The MP_L equals 2 and the MP_K equals 5. In this situation,

A. the firm is minimizing its costs.

B. the firm should increase the use of both inputs.

C. the firm should decrease the use of both inputs.

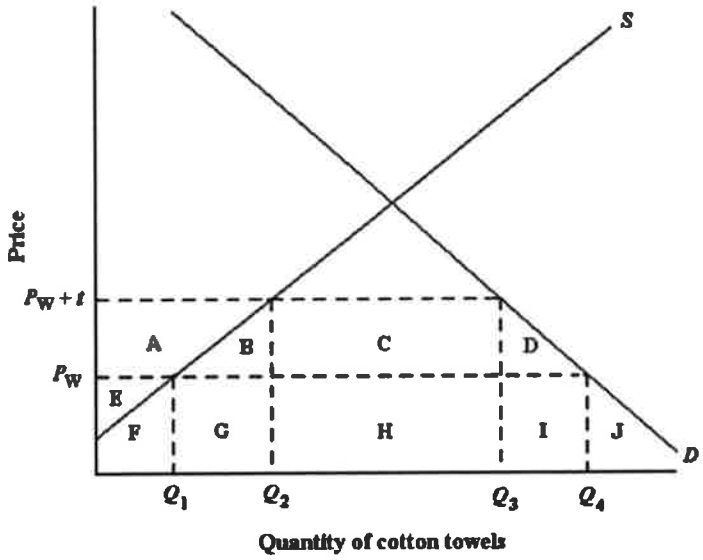
D. the firm could lower its production costs by increasing labour input and decreasing capital input.

E. the firm could lower its production costs by decreasing labour input and increasing capital input.

Question 67 (1 point)
Assume a firm is using 10 units of capital and 10 units of labour and is producing 10 widgets per hour. Now it doubles both inputs, resulting in output of 30 widgets per hour. This firm is experiencing

A. Constant returns
B. Increasing costs
C. Diseconomies of scale
D. Increasing returns
E. Decreasing returns

Question 68 (1 point)
The diagram below shows the domestic demand and supply curves for cotton towels in Canada. The prevailing world price of cotton towels is P_W. Assume that all cotton towels are identical.



If Canada imposes a tariff of $\$t$ per cotton towel, foreign producers' revenues from their Canadian sales will be equal to the area

A. C+H
B. H
C. G + H + I
D. B + C + D
E. B + C + D + G + H + I

Question 69 (1 point)
For a single-price monopolist, marginal revenue falls faster than price (as output rises) because

A. The firm has no supply curve
B. Profits are maximized when marginal cost equals marginal revenue
C. In order to sell additional units, the price must be lowered on all units
D. The cost of producing extra units of output increases as production is increased
E. None of the above – Marginal revenue does not fall faster than price

Question 70 (1 point). Consider the following demand schedule.

Price	Quantity Demanded
$8	5
$7	6
$6	7
$5	8
$4	9
$3	10
$2	11

For a single-price monopolist, the marginal revenue associated with increasing sales from 5 to 6 units is

A. 4
B. -2
C. 2
D. -4
E. 0

Question 71 (1 point)
At the profit-maximizing level of output for a single-price monopolist, price

A) exceeds marginal cost.

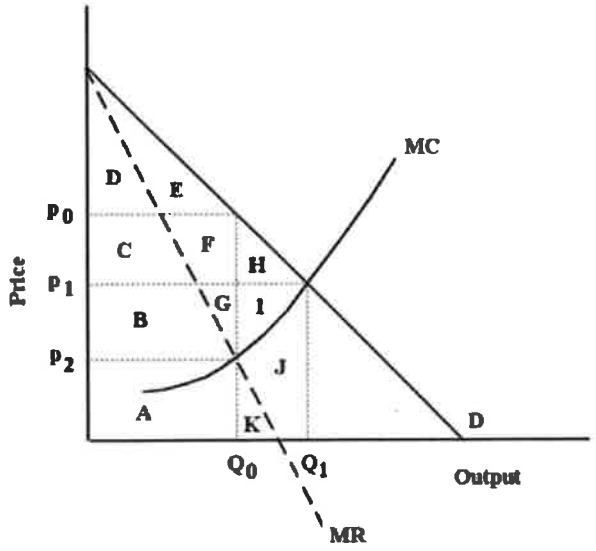
B) always exceeds average total cost.

C) equals marginal cost.

D) is below marginal revenue.

E) equals marginal revenue.

Question 72 (1 point)
Suppose a monopolist faces the demand curve and cost curves shown below:



A profit-maximizing single-price monopolist would charge the price:

A. P3
B. P2
C. P4
D. P1
E. P0

Question 73 (1 point)
Consider two countries that can produce rice and other products. If neither country has an absolute advantage in the production of rice,

A. there is no possibility that either country will import rice from the other.
B. there is no possibility that either country will import rice from the other.
C. rice will still be traded as long as one of the countries has a comparative advantage in its production
D. the opportunity cost of producing rice must be identical in the two countries
E. then rice should not be produced

Question 74 (1 point)
Suppose we have data for 1000 students for a period of one year. The data show that those students who spend more hours studying have a higher grade point average (GPA). We can say that

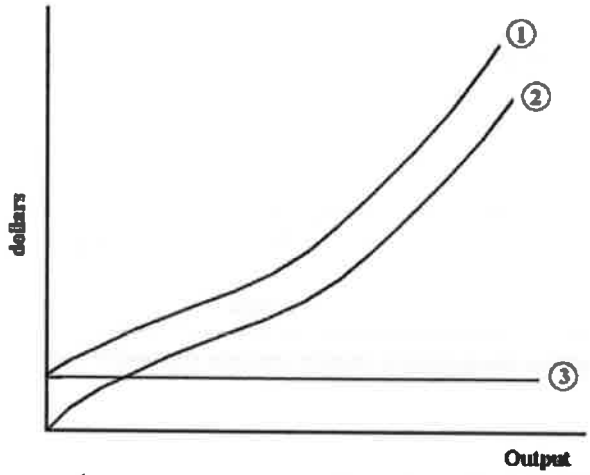
A. there is a positive correlation between hours of study time and GPA
B. having a higher GPA leads students to spend more time studying
C. there is a causal relationship between hours of study time and GPA
D. more hours spent studying leads to a higher GPA
E. if hours of study time increase, then GPA will automatically increase

Question 75 (1 point)
Assume the quantity of good X is measured on the horizontal axis and the quantity of good Y on the vertical axis. Initial prices are PX = $5 and PY = $10. The consumer's income is $100. If PY increases to $20, then

A. The budget line will rotate to the right with the slope changing from (1/4) to (1/2) (in absolute values).

B. The budget line will rotate to the left with the slope changing from (1/2) to (1/4) (in absolute values).
C. The entire budget line shifts parallel to the left
D. The entire budget line just parallel to the right.
E. The budget line will rotate to the left, slope remaining constant

Question 76 (1 point)



The diagram above shows some short-run cost curves for a firm. Which of the following choices correctly identifies the cost curves?

A. Curve 1 is the total cost curve.
Curve 2 is the total variable cost curve
Curve 3 is the average fixed cost curve
B. Curve 1 is the total marginal cost curve
Curve 2 is the total average cost curve
Curve 3 is the average fixed cost curve
C. Curve 1 is the total fixed cost curve
Curve 2 is the total variable cost curve
Curve 3 is the total cost curve
D. Curve 1 is the total cost curve
Curve 2 is the total variable cost curve
Curve 3 is the total fixed cost curve

Question 77 (1 point)

The following data show the total output for a firm when specified amounts of labour are combined with a fixed amount of capital. When answering the questions, you are to assume that the wage per unit of labour is $25 and the cost of the capital is $100.

Labour per unit of time	Total output
0	0
1	25
2	75
3	175
4	250
5	305

Diminishing marginal productivity of labour is first observed when the firm changes the amount of labour hired from

A. 0 to 1 unit.
B. 1 to 2 units.
C. 2 to 3 units.
D. 4 to 5 units.
E. 3 to 4 units.

Question 78 (1 point)
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B. 1 to 2 units.
C. 2 to 3 units.
D. 4 to 5 units.
E. 3 to 4 units.

Question 79 (1 point)
The following table shows the marginal products of capital (K) and labour (L) for various methods for Firm ABC to produce 1000 toys per day.

Production Method	MP_K	MP_L
A	50	4
B	45	8
C	40	12
D	35	16
E	30	20
F	25	24
G	20	28

Suppose capital costs $6 per unit and labour costs $4 per unit and the firm is employing production method A. How should this firm adjust its use of capital and labour to minimize costs?

A. employ more capital and more labour
B. There is insufficient information to know.
C. employ more capital and less labour
D. employ less capital and more labour
E. employ less capital and less labour

Question 80 (1 point)
The table below shows output, marginal cost, and average variable cost for the production of pairs of shoes. All costs are in dollars.

Output	Marginal Cost	Average Variable Cost
50	60	140
70	45	115
90	35	95
110	30	80
130	35	65
150	60	60
170	105	65
190	180	75
210	230	90
230	290	110

If the firm produces 130 pairs of shoes, and the fixed cost is $550, then the firm's total cost is

A. $12,000
B. $10,000

C. $8,000

D. $7,000

E. $9,000

Question 81 (1 point)
The table below shows output, marginal cost, and average variable cost for the production of pairs of shoes. All costs are in dollars.

Output	Marginal Cost	Average Variable Cost
50	60	140
70	45	115
90	35	95
110	30	80
130	35	65
150	60	60
170	105	65
190	180	75
210	230	90
230	290	110

Suppose this firm is producing 210 pairs of shoes per time period and that the variable factor of production is labour. Which of the following statements best describes this firm's production?

A. Marginal cost is higher than average variable cost, so average product must be rising.

B. The firm is producing below its capacity.

C. Marginal cost is higher than average variable cost, so marginal product must be rising.

D. Additional units of labour employed will increase the average variable cost of producing shoes.

E. Each additional unit of labour employed reduces the average variable cost of the pairs of shoes.

Question 82 (1 point)
The following table shows the marginal products of capital (K) and labour (L) for various methods for Firm ABC to produce 1000 toys per day.

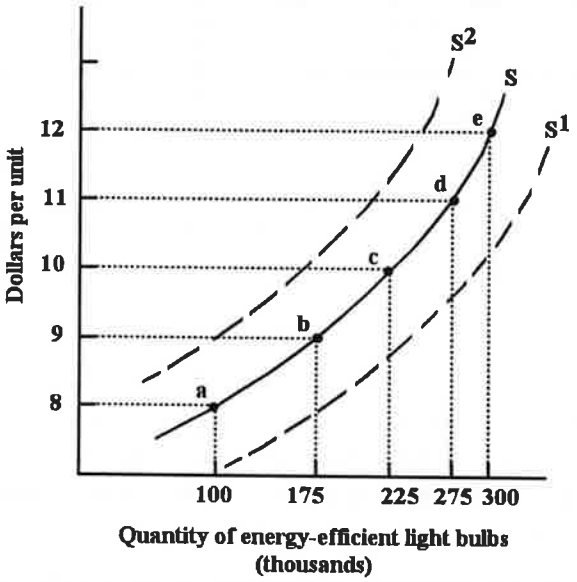
Production Method	MPK	MPL
A	50	4
B	45	8
C	40	12

D	35	16
E	30	20
F	25	24
G	20	28

As this firm switches from production method A to production method G, production is

A. becoming more profitable.
B. becoming more capital intensive and less labour intensive.
C. moving farther and farther away from cost minimization.
D. remaining at a cost-minimizing level of output.
E. becoming more labour intensive and less capital intensive.

Question 83 (1 point)



A shift of the supply curve for energy-efficient light bulbs from S to S2 could be caused by:

A. the elimination of existing government subsidies to suppliers of energy-efficient light bulbs.

B. an increase in the price of energy-efficient light bulbs.

C. an increase in the number of suppliers.

D. a decrease in the price of energy-efficient light bulbs.

E. a change in consumers' preferences away from ordinary light bulbs.

Question 84 (1 point)
Consider the following market

Price	Quantity Supplied	Quantity Demanded
$10	300	1100
$30	500	900
$50	700	700
$70	900	500
$90	1100	300
$110	1300	100

Suppose we begin in a free-market equilibrium. If the government then imposes a production quota of 500 units, total farmers' income

A. Decreases by $500
B. Decreases by $700
C. Increases by $800
D. Remains unchanged
E. Increases by $500

Question 85 (1 point)
Suppose there are three alternatives to attending a social event: read a novel (you value this at $10), go to work (you could earn $20), or watch videos with some friends (you value this at $25). The opportunity cost of attending the social event is

A. $10
B. $25
C. $45
D. Zero
E. $20

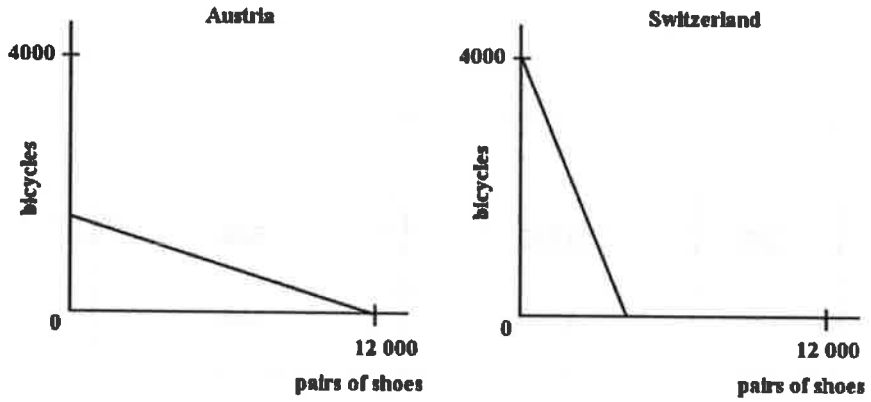
Question 86 (1 point)
That the production possibilities boundaries are drawn concave to the origin reflects the

A. decreasing opportunity cost of producing more of either good.
B. scarcity of resources in the economy.
C. increasing opportunity cost of producing more of either good
D. constant opportunity cost of producing more of either good.
E. unfair distribution of resources in the economy.

Question 87 (1 point)
Which of the following is a normative statement

A. Tuition fees should be waived for low-income students.
B. The higher is the level of taxes, the lower is consumption spending
C. The higher is the level of taxes, the higher are wage demands.
D. A reduction in export taxes on petroleum would result in higher wages.
E. A free-trade agreement between two countries will result in an increase in trade.

Question 88 (1 point)



The diagram above illustrates that Switzerland

A. has a comparative advantage in the production of shoes
B. has an absolute advantage in the production of shoes.
C. has a higher consumption of bicycles than Austria.
D. has an absolute advantage in the production of bicycles.
E. has a comparative advantage in the production of bicycles.

Question 89 (1 point)
Which of the following statements most accurately makes the distinction between the *long run* and the *very-long run* with respect to the long-run average cost (LRAC) curve?

A. In the long run, the firm is moving along the existing LRAC curve, whereas in the very long run, the LRAC curve is shifting up
B. In the long run, the LRAC curve is shifting down, whereas in a very long run the firm is moving along the existing LRAC curve.
C. In the long run, the firm is moving along the existing LRAC curve, whereas in the very long run, the LRAC curve is shifting down.
D. In the long run, the firm is moving along the existing LRAC curve, whereas in the very long run, the LRAC curve is shifting down.

Question 90 (1 point)
Suppose ABC Corp. is a firm producing newsprint in a perfectly competitive industry. Its output is 1500 tonnes per month, the marginal cost of the last tonne produced is $710, and the average revenue per tonne is $620. In the short run, this firm should

A. Increase output until average revenue is equal to marginal cost.
B. The price of the product is not known, so it is not possible to determine.
C. Definitely shut down.

D. Reduce output.

E. Increase output until marginal revenue is equal to marginal cost.

Question 91 (1 point)
Choose the statement that best describes how endogenous variables differ from exogenous variables.

A. An endogenous variable is a function of the exogenous variable, and both are stock variables

B. An endogenous variable is explained outside the theory and influences an exogenous variable while an exogenous variable is explained within the theory

C. An endogenous variable is explained within the theory, while an exogenous variable influences the endogenous variables but is determined outside the theory

D. An endogenous variable is a flow, while an exogenous variable is a stock

E. An exogenous variable is a function of the endogenous variable, and both are flow variables

Question 92 (1 point)
If some income earned by households is not spent on output, or if some income earned by firms is not spent on factor services, the circular flow of income will

A. stop

B. expand

C. contract

D. run over

E. explode

Question 93 (1 point)
In the short run, the profit-maximizing behaviour for a price-taking firm requires it to operate where

A. $P = TR = TC$.

B. $P = MC$, given that P is greater than or equal to AVC.

C. $AVC = AR$.

D. $P = MC$, given that P is greater than or equal to ATC.

E. $P > MR > MC$.

Question 94 (1 point)
A firm in a perfectly competitive industry

A. can improve its competitive position and sell more output by advertising its product.

B. will not produce at all if $P < ATC$.

C. will maximize its profit by producing where $P = AVC$.

D. will maximize its profit by producing where $P = ATC$.

E. will not produce at all if $P <$ the minimum of AVC.

Question 95 (1 point)

Consider butter and margarine, which are substitutes. When the price of butter falls, the demand curve for margarine is likely to

A. remain stationary, although its price will fall.
B. shift to the right.
C. remain stationary, although its price will rise.
D. remain stationary.
E. shift to the left.

Question 96 (1 point)
If the price of tea falls and as a consequence the demand for sugar rises, then tea and sugar are

A. complementary goods.
B. independent goods.
C. luxury goods.
D. neutral goods.
E. substitute goods.

Question 97 (1 point)
A fall in the price of raw milk (which is used in the production of ice cream) will

A. have no effect on the supply curve of ice cream but cause a downward movement along the supply curve of ice cream.
B. increase the supply of ice cream, causing the supply curve of ice cream to shift to the right.
C. decrease the supply of ice cream, causing the supply curve to shift to the right.
D. decrease the supply of ice cream, causing the supply curve of ice cream to shift to the left.
E. increase the supply of ice cream, causing the supply curve to shift to the left.

Question 98 (1 point)
Which of the following statements concerning long-run and short-run cost curves is correct?

A. The short-run average cost curve is tangent to the long-run average cost curve for all levels of output of the fixed factor.
B. The minimum point of the long-run average cost curve will correspond to the minimum point on a single short-run average cost curve.
C. A short-run average cost curve can fall below the long-run average cost curve.
D. Both the long-run and short-run average cost curves show the lowest cost of producing any output when all factors are variable.
E. The long-run average cost curve envelops a whole family of short-run marginal cost curves.

Question 99 (1 point)
The demand curve facing a perfectly competitive firm

A. depends on the firm's costs of production.
B. depends on the firm's output.

C. is the same as the industry or market demand curve.

D. depends on the firm's technology.

E. is almost perfectly elastic at the market price.

Question 100 (1 point)
Which of the following assumptions about perfectly competitive markets is primarily responsible for firms having zero economic profit in long run equilibrium?

A. each firm is small relative to the size of the industry

B. strategic behaviour

C. consumers are aware of all firms' prices

D. homogeneous product

E. freedom of entry and exit in the industry

Question 101 (1 point)
If a country's production possibilities boundary is drawn as a straight (downward-sloping) line it indicates

A. the use of the scarce resources in an economy

B. an unfair distribution of resources in an economy

C. increasing opportunity cost of producing more of either good

D. decreasing opportunity cost of producing more of either good

E. constant opportunity cost of producing more of either good

Question 102 (1 point)
On a diagram of a production possibilities boundary, the concept of scarcity is illustrated by the

A. points on the boundary
B. area within the boundary
C. distance from the origin to the boundary
D. unattainable points outside the boundary
E. negative slope of the boundary

Question 103 (1 point)
One of the reasons cartels are considered unstable is that

A) member firms reduce their investment, thereby becoming uncompetitive over time.

B) consumers seek out substitutes to the cartel product.

C) there are wide fluctuations in price as cartel members vary their output.

D) it is inefficient to manage individual firms collectively.

E) individual members of the cartel have an incentive to violate the cartel agreement.

Question 104 (1 point)
It is common for a cartel to collapse when one or more firms in the cartel

A) increase its price above the monopoly price.

B) exceed its output quota.

C) exit the industry.

D) produce more efficiently than other member firms.

E) is much larger than other cartel members.

Question 105 (1 point)
What is a Nash equilibrium?

A. a situation where all players are better off than they would be with any other combination of strategies
B. will in general produce the greatest payoff for the players
C. a situation where all players are maximizing their payoffs given the current behaviour of the other players
D. an example of a cooperative equilibrium
E. is an unstable equilibrium

Question 106 (1 point)
The payoff matrix below shows the payoffs for Firm A and Firm B, each of whom can either "cooperate" or "cheat." The numbers in parentheses are (payoff for A, payoff for B).

	Cooperate	Cheat
Cooperate	(30, 30)	(10, x)
Cheat	(x, 10)	(20, 20)

Of the choices provided below, what is the minimum value for x in order for both firms' cheating to be a Nash equilibrium

A. 70
B. 60
C. 25
D. 40
E. 80

Question 107 (1 point)
The payoff matrix below shows the payoffs to Firms A and B from producing different levels of output. The numbers in parentheses are (payoff to A, payoff to B).

		Firm B	
		Produce 1000 Units	**Produce 2000 Units**
Firm A	**Produce 1000 Units**	(100, 100)	(10, 150)
	Produce 2000 Units	(150, 10)	(30, 30)

From the payoff matrix we can infer that
A. it is optimal for Firm B to produce 1000 units of output regardless of what Firm A is doing.
B. it is optimal for Firm A to produce 1000 units of output regardless of what Firm B is doing.
C. it is optimal for Firm A to produce 2000 units of output regardless of what Firm B is doing.
D. there is no Nash equilibrium in the game.
E. both firms are indifferent between an equilibrium (Produce 1000 units, Produce 1000 units) and (Produce 2000 units, Produce 2000 units).

Question 108 (1 point)
"An objective of firms is to maximize profits." This statement

A) has been proven by empirical testing to be always true.

B) is an unrealistic assumption, and therefore of little use to economists.

C) is a normative statement and thus cannot be tested.

D) applies only to corporations.

E) is an assumption used by economists to predict the behaviour of firms.

Question 109 (1 point)
Economic profits are less than accounting profits because the calculation of economic profit

A) includes an explicit charge for risk taking.

B) includes an amount for depreciation.

C) is stipulated in regulations set forth by the Canada Revenue Agency.

D) includes the implicit charges for the use of capital owned by the firm and for risk taking.

E) includes the implicit charges for the use of capital owned by the firm and for income taxes.

Question 110 (1 point)
Consider a firm's short-run cost curves. If average total cost is increasing as output rises, then

A. average variable cost must be increasing
B. average fixed costs must be increasing
C. average total cost is no longer equal to the sum of average variable cost and average fixed cost
D. marginal cost must be below average total cost.
E. total fixed costs must be increasing