UGANDA MARTYRS UNIVERSITY

FACULTY OF SCIENCE

DEPARTMENT OF ECONOMICS

UNIVERSITY EXAMINATIONS

SEMESTER I, 2013/14

FIRST YEAR EXAMINATIONS FOR BACHELOR OF SCIENCE

(IT, FM, B.ECON & GEN)

MICROECONOMICS I

DATE: 11TH DECEMBER 2013

TIME: 10:00 – 1:00 PM

Instructions:

i) Section A is compulsory.

ii) Answer THREE questions from Section B.

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Select the **BEST** alternative

1. Under which of the following branches of economics can the scientific explanations of the working of an economy be best analyzed?
   A. Normative Economics
   B. Microeconomics
   C. Positive Economics
   D. Macro Economics

2. ....is an economic system in which the allocation of resources is by the government.
   A. Command economy
   B. Traditional economy
   C. Mixed economy
   D. Democratic economy

3. The following characterize a market economy except;
   A. High degree of consumer sovereignty
   B. Profit oriented production
   C. High degree of competition
   D. Communal ownership of resources

4. "When the price of a product rises, consumers shift their purchases to other products whose prices are now relatively lower." This statement describes;
   A. Inferior goods
   B. Substitute goods
   C. Rationing function of prices
   D. Complements

5. A concave Production possibility Frontier curve implies that;
   A. Opportunity cost decreases down the curve
   B. The slope increases in absolute terms down the curve
   C. The slope decreases in absolute terms down the curve
   D. Opportunity cost is constant along the curve

6. When there is shortage of a product, we expect price to;
   A. Increase, quantity demanded to increase, and quantity supplied to decrease
   B. Increase, quantity demanded to decrease, and quantity supplied to increase
   C. Increase, quantity demanded to increase, and quantity supplied to increase
   D. None of the above

7. The short run is a time period in which;
   A. Some resources are fixed and others are variable
   B. The size of the production plant is variable
   C. The level of output is fixed
   D. All resources are fixed

8. Which of the following is true in case price elasticity of demand for a commodity is less than unity?
   A. A proportionate change in quantity demanded is equal to that in price
   B. The cross elasticity of demand is equal to the marginal rate of product transformation
   C. A proportionate change in price is smaller than that in quantity demanded
   D. A proportionate change in quantity is smaller than that in price

9. Which of the following is NOT a property of indifference curves?
   A. They are convex to the origin
   B. They can intersect
   C. They are concave to the origin
   D. They show the same level of satisfaction

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10. The expansion path is analogous to the...........................in consumption theory.
    - A. Price consumption curve
    - B. Engel curve
    - C. Income consumption curve
    - D. Budget constraint

11. The following are the effects of a decrease in the market price of a commodity, except;
    - A. Decrease in consumer surplus
    - B. Decrease in producer surplus
    - C. Increase in quantity demanded
    - D. Decrease in quantity supplied

12. The cardinal utility theory assumes that;
    - A. Two commodities are consumed
    - B. Utility can be ranked
    - C. Divisibility of a commodity
    - D. Consistency in consumers' behavior

13. An economically efficient method of production is one that;
    - A. Produces the highest level of output
    - B. Uses more units of physical factor inputs
    - C. Increases prices of a commodity produced
    - D. Employs factor inputs with least costs

14. When Total Product of labour is falling;
    - A. Average product is zero
    - B. Average product is negative
    - C. Marginal product is zero
    - D. Marginal product is negative

15. Which of the following is an implicit cost?
    - A. Wages and salaries for workers in the firm
    - B. Cost incurred leasing a building for the firm
    - C. Wages foregone by the owner of the firm
    - D. Cost for production of supplies for the firm

16. Which of the following is not true about external economies of scale
    - A. Are in terms of rising average costs
    - B. Are enjoyed by each firm
    - C. Arise out of expansion of the industry
    - D. Can be in form of research economies

17. The relationship between a perfect market and an imperfect market is that in both.............
    - A. The slope of the total revenue function diminishes
    - B. Marginal revenues equals price
    - C. Average revenue equals price
    - D. The slope of the average revenue function diminishes

18. The labour supply curve is backward bending because of the following except
    - A. Existence of target workers
    - B. Income tax
    - C. Inflation
    - D. Unemployment

19. Which of the following applies to increasing returns to scale?
    - A. The distance between successive multiple isoquants increases
    - B. A firm needs less than double the factor input so as to double the output
    - C. The distance between successive multiple isoquants is constant
    - D. None of the above

20. The following are the effects of price discrimination except,
    - A. Reduction in consumer surplus
    - B. Increase in the profits of the producer
    - C. Redistribution of income
    - D. Increase in consumer's real incomes

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21. The profits of a firm are maximized at a point where;
    A. MC = MR
    B. MR = 0
    C. MR > MC
    D. MC > MR

22. The revenue function under perfect competition is linear because;
    A. Average Revenue = Price
    B. Marginal Revenue = Price
    C. Demand Curve = Price Line
    D. All the above

23. Which of the following is not true?
    A. Average product (AP) is equal to marginal product (MP) when MP is declining
    B. Firms under perfect oligopoly produce homogeneous products
    C. Total product is declining when marginal product is declining
    D. Under pure competition there is perfect knowledge

24. Natural monopoly is as a result of;
    A. Existence of a small market
    B. Limit pricing
    C. Patent rights
    D. None of the above

25. The following describes the production function of the firm except;
    A. It is a purely technological relationship which connects factor inputs and outputs.
    B. It describes the ability of the firm to transform inputs into outputs in a given period
    C. It describes factor inputs and their respective prices
    D. It represents the technology of a firm or an industry, or the economy as a whole.

Question 26

(a) (i) Explain how a consumer attains equilibrium under the cardinal utility theorem. (5 Marks)

    (ii) Describe any five properties of indifference curves. (5 Marks)

(b) Using an illustration explain the relationship between Marginal Costs (MC), Average Costs (AC) and Average Variable Costs (AVC). (5 Marks)

(c) (i) Given the following schedule for Total costs (TC) at different levels of output (Q);

TC	50	100	250	350	400	500
Q	0	1	2	3	4	5

Determine the Total Fixed Cost (TFC), Total Variable Cost (TVC) and Marginal Cost (MC) at all levels of output (8 Marks)

    (ii) Explain why the long run Average Cost curve is U-shaped (2 Marks)

Question 27

(a) Distinguish between point elasticity of demand and Arc elasticity of demand. (2 Marks)

(b) Given the demand and supply functions as $Q_d = 40 - 6P$ and $Q_s = 4P - 10$ respectively, find;

    (i) The Price Elasticity of Demand at equilibrium (7 Marks)

    (ii) The Price Elasticity of Supply at equilibrium (5 Marks)

(c) (i) Show that price elasticity of demand varies along a linear normal demand curve. (6 Marks)

    (ii) Define internal economies of scale and describe any three internal economies of scale. (5 Marks)

Question 28

Given the following demand and supply function; $Q_d = 800 - 5P$ and $Q_s = 5P - 200$

(a) Determine the value of consumer and producer surplus. (5 Marks)

(b) Suppose the government imposes a specific tax of Shs. 10, find;

    (i) The new equilibrium price and quantity. (5 Marks)

    (ii) The price received by the producer. (3 Marks)

    (iii) The price paid by the consumer. (3 Marks)

    (iv) The tax per unit paid by the consumer. (3 Marks)

    (v) The tax per unit paid by the producer. (3 Marks)

    (vi) Total tax revenue received by government. (3 Marks)

Question 29

(a) With the help of an illustration, explain the relationship between Total Product (TP), Average Product (AP) and Marginal Product (MP). (6 Marks)

(b) Given the following table showing production of soya beans at a given period in time,

Labour	0	1	2	3	4	5	6	7	8	9	10
Output	0	2	5	9	14	14	17	19	20	19	17

   (i) Obtain the marginal product schedule. (4 Marks)

   (ii) Obtain the average product schedule. (4 Marks)

(c) Briefly explain any three properties of an Isoquant (3 Marks)

(d) Show and explain the equilibrium conditions of a perfectly competitive firm in the;

   (i) Short run (4 Marks)

   (ii) Long run (4 Marks)

Question 30

(c) Explain the following

   (i)   Cartels (1 Mark)

   (ii) Economic profits (1 Mark)

   (iii) Oligopoly markets (1 Mark)

(d) The firm under perfect competition faces the cost function $C = 0.08Q^3 - 1.8Q^2 + 20Q + 10$. Assuming that the price is fixed at *40* dollars, determine the;

   (i) Profit maximizing level of output. (7 Marks)

   (ii) Maximum profits of the firm. (3 Marks)

(d) Consider a monopolist facing linear demand function given by $P = 100 - 4Q$ and his total cost function is given by $C = 50 + 20Q$.

   (i) Determine the optimal values of price, output and profits. (6 Marks)

   (ii) If the firm was under perfect competition, determine the optimal values of price, output and profits. (6 Marks)