INFORMATION & INSTRUCTIONS:

DURATION: THREE (3) HOURS    TOTAL MARKS: 300

INTERNAL EXAMINER: PROFESSOR D. MAHADEA

EXTERNAL EXAMINER: MR R. SIMSON

NB:
STUDENTS ARE REQUESTED IN THEIR OWN INTEREST TO WRITE LEGIBLY AND IN INK.

- THIS EXAMINATION IS MADE UP OF TWO SECTIONS:
- SECTION A: MULTIPLE CHOICE QUESTIONS. PLEASE ANSWER THIS SECTION ON THE ANSWER SHEET PROVIDED. FOUR (4) MARKS WILL BE AWARDED FOR A CORRECT ANSWER. THE MARK FOR THIS SECTION WILL BE CONVERTED TO A MARK OUT OF 200.
- SECTION B: ESSAY QUESTIONS. YOU ARE REQUIRED TO ANSWER TWO QUESTIONS PROVIDED IN THIS SECTION
- ALL QUESTION PAPERS ARE TO BE HANDED IN WITH THEIR ANSWER BOOKS.

THIS EXAMINATION PAPER CONSISTS OF 16 PAGES. PLEASE ENSURE THAT YOU HAVE THEM ALL.
SECTION A: MULTIPLE CHOICE QUESTIONS (200 MARKS)

1. Microeconomics is concerned with:
   A. establishing an overall view of the operation of the economy.
   B. a detailed examination of economic disaggregates or specific economic units which make decisions and interact in the economy.
   C. revealing detailed information regarding the economy as a whole.
   D. the division of the national income into its component parts such as rents, wages etc.
   E. the detailed examination of economic aggregates such as income, employment, the price level etc.

2. Which of the following is the best definition of economics?
   A. The study which focuses on the best way to use money.
   B. The application of scarce means (resources) to satisfy a limited number of wants.
   C. A study of the application of scarce means (economic resources) to satisfy virtually unlimited wants.
   D. An experimental science which deals with human behaviour.
   E. The study of the application of unlimited resources to satisfy virtually unlimited wants.

3. Which of the following is a positive statement?
   A. Increased prison sentences are the best way to reduce the crime rate.
   B. Poverty is a more serious problem than corruption in South Africa.
   C. Inflation is a more serious problem than is deflation.
   D. The national lottery is a good method to raise funding for charities.
   E. An increase in fuel prices leads people to carpool (share transportation) more.

4. Pure monopoly means:
   A. any market in which the demand curve to the firm is down sloping.
   B. a standardized product being produced by many firms.
   C. a single firm producing a product for which there are no close substitutes.
   D. a large number of firms producing a differentiated product.
   E. a large number of firms producing a homogenous product.

5. Which of the following is correct?
   A. Both purely competitive and monopolistic firms are "price takers."
   B. Both purely competitive and monopolistic firms are "price makers."
   C. A purely competitive firm is a "price taker," while a monopolist is a "price maker."
   D. A purely competitive firm is a "price maker," while a monopolist is a "price taker."
   E. A purely competitive firm earns above-normal profits only in the long run.
6. The concavity of the production possibilities curve to the origin of the graph indicates:
A. the existence of economic efficiency.
B. the existence of scarce resources and unlimited wants.
C. that resources are equally well suited to producing different goods.
D. the existence of decreasing opportunity costs in production.
E. the existence of increasing opportunity costs in production.

Refer to the diagram below to answer question 7.

7. At production point A on the above concave production possibilities curve, the opportunity cost to society of an additional helicopter is:
A. 1 tonne of bullets.
B. ½ tonne of bullets.
C. 2 tonnes of bullets.
D. \( \frac{5}{7} \) tonne of bullets.
E. 2 ½ tonnes of bullets.
ANSWER QUESTIONS 8 AND 9 ON THE BASIS OF THE FOLLOWING DIAGRAM:

8. The shift in the production possibilities frontier from AB to AC could most likely be caused by:

A. a decrease in the level of unemployment.
B. a reallocation of resources from point H to point D.
C. technological progress that lowers the costs of production in the construction (of schools) industry.
D. technological progress that affects the production of maize and schools equally.
E. an improvement in labour productivity in the farming sector of the economy only.

9. In the above production possibilities frontier diagram,

A. point A is inferior to point B.
B. point G is inferior to point A.
C. point G is less desirable than D.
D. point F is less desirable than point E.
E. points E and D are efficient points and more desirable than point H.

10. Pure monopolists may obtain economic profits in the long run because:

A. of price competition.
B. marginal revenue is constant as sales increase.
C. of barriers to entry and absence of competition.
D. of rising average fixed costs.
E. of limited control over sales.
11. Which of the following is ______ a characteristic of perfect competition?
A. close substitute products
B. barriers to entry
C. mobility of resources
D. large number of firms and buyers
E. free entry and exit

12. What do economies of scale, the ownership of essential raw materials, and patents have in common?
A. They must all be present before price discrimination can be practiced.
B. They are all barriers to entry.
C. They all help explain why a monopolist's demand and marginal revenue curves coincide.
D. They all help explain why the long-run average cost curve is U-shaped.
E. They all reflect the possibility of making a loss by the monopolist.

13. Which of the following is ______ a characteristic of oligopoly?
A. easy entry by firms
B. a homogenous product
C. product differentiation with a brand name
D. a fewer number of buyers than sellers
E. perfect mobility and perfect knowledge

14. If a firm in a perfectly competitive industry is confronted with an equilibrium price of R10, its marginal revenue:
A. may be either greater or less than R10.
B. will also be R10.
C. will be less than R10.
D. will be greater than R10.
E. may be between R10 and R15.

15. Price is constant or given to the individual firm selling in a perfectly competitive market because:
A. the firm's demand curve is downsloping.
B. of product differentiation reinforced by extensive advertising.
C. each seller supplies a negligible fraction of total supply and cannot influence price individually.
D. there are no good substitutes for its product.
E. all firms compete on non-price variables.
UNIVERSITY OF KWAZULU-NATAL: PIETERMARITZBURG
SCHOOL OF MANAGEMENT

EXAMINATIONS: JUNE 2011

COURSE AND CODE: ECONOMICS 101 (BBAPIE1P1)

STUDENT NUMBER: _____________________

16. For a purely competitive seller, price equals:
   A. average revenue.
   B. marginal revenue.
   C. total revenue divided by output.
   D. all of the above.
   E. none of the above.

17. The responsiveness of quantity demanded of a particular product to a change in income is referred to as:
   A. price elasticity of demand.
   B. income elasticity of demand.
   C. elasticity of supply.
   D. cross elasticity of demand.
   E. elasticity of substitution.

18. A perfectly elastic demand curve implies that the firm:
   A. must lower price to sell more output.
   B. can sell as much output as it chooses at the existing price.
   C. realizes an increase in total revenue which is less than product price when it sells an extra unit.
   D. is selling a differentiated product.
   E. can sell only a small quantity at the given price.

19. Marginal revenue is the:
   A. change in product price associated with the sale of one more unit of output.
   B. change in average revenue associated with the sale of one more unit of output.
   C. difference between product price and average total cost.
   D. change in total revenue associated with the sale of one more unit of output.
   E. change in total cost associated with the sale of one additional unit of output.

20. A competitive firm in the short run can determine the profit-maximizing output by equating:
    A. price and average total cost.
    B. price and average fixed cost.
    C. marginal revenue and marginal cost.
    D. price and marginal revenue.
    E. price with total revenue.
21. The MR = MC rule applies:
   A. to firms in all types of industries or market models.
   B. only when the firm is a "price taker."
   C. only to monopolies.
   D. only to purely competitive firms.
   E. only to duopolies

22. Fixed cost is:
   A. the cost of producing one more unit of capital, say, machinery.
   B. any cost which does not change when the firm changes its output.
   C. average cost multiplied by the firm's output.
   D. usually zero in the short run.
   E. the cost of raw materials.

23. Which of the following is most likely to be a variable cost?
   A. fuel payments and expenses for casual labour hired when someone is absent from work.
   B. pre-determined interest on business loans.
   C. rental payments on IBM equipment.
   D. fixed telephone rental charges.
   E. annual licence fee.

24. Marginal cost is the:
   A. rate of change in total fixed cost that results from producing one more unit of output.
   B. change in total cost that results from producing one more unit of output.
   C. change in average fixed cost that results from producing one more unit of output.
   D. change in average cost that results from producing one more unit of output.
   E. change in average cost with entry of competitors in an industry.

25. Average fixed cost:
   A. equals marginal cost when average total cost is at its minimum.
   B. may be found for any output by adding average variable cost and average total cost.
   C. graphs as a U-shaped curve.
   D. declines continually as output increases.
   E. is constant irrespective of the level of output produced.
26. Refer to the above diagram. At output level $Q$ total variable cost is:
   A. $0BEQ$.
   B. $BCDE$.
   C. $0CDQ$.
   D. $0AFQ$.
   E. None of the above.

27. Refer to the above diagram. At output level $Q$ total cost is:
   A. $0BEQ$.
   B. $BCDE$.
   C. $0BEQ$ plus $BCDE$.
   D. $0AFQ$ plus $BCDE$.
   E. None of the above.

28. Refer to the above diagram. The vertical distance between ATC and AVC reflects:
   A. the law of diminishing returns.
   B. the average fixed cost at each level of output.
   C. marginal cost at each level of output.
   D. the presence of economies of scale.
   E. opportunity cost.

29. The basic formula for the price elasticity of demand coefficient is:
   A. absolute decline in quantity demanded/absolute increase in price.
   B. percentage change in quantity demanded/percentage change in price.
   C. absolute decline in price/absolute increase in quantity demanded.
   D. percentage change in price/percentage change in quantity demanded.
   E. none of the above.
30. The demand for a product is inelastic with respect to price if:
   A. buyers are largely responsive to a per unit price change.
   B. the elasticity coefficient is greater than 1.
   C. a drop in price is accompanied by a decrease in the quantity demanded.
   D. a drop in price is accompanied by an increase in the quantity demanded.
   E. buyers are largely unresponsive to a per unit price change and buy much the same quantity as before the price change.

31. Assume that when the price of product A falls from R2.00 to R1.90 the quantity of A demanded increases from 100 units to 120. Then the price elasticity of demand is:
   A. 0.40.
   B. 2.09.
   C. 1.37.
   D. 3.94.
   E. 4.00

32. Assume that a firm can sell 300 units of product A at R10 per unit. A 10 percent decrease in the price of another product B causes the demand for product A to increase by 8 percent. One can then deduce that
   A. the price elasticity of demand for A is 0.8.
   B. A and B are complementary goods.
   C. the price elasticity of demand for B is 1.2.
   D. A is an inferior good.
   E. B is an inferior good.

33. When a consumer moves up along his negatively-sloped demand curve for fish, then that consumer’s:
   A. real income falls, but his money income is constant.
   B. real income and his money income both fall.
   C. real income is constant, but his money income falls.
   D. real income rises, but his money income is constant.
   E. real income falls, but his money income increases.
34. Consumer demand theory asserts that, ceteris paribus, consumers will be willing and able to purchase more of a good at lower prices than they will at higher prices. However, throughout the year 2010 consumers purchased more cars than in 2009 even though the price was rising. This means that:
   A. the theory is incorrect.
   B. the theory is incomplete.
   C. the theory rests on invalid assumptions in the case of cars.
   D. it is likely that variables other than price were changing in 2010.
   E. the theory needs to be modified to make it more useful to potential car owners.

35. For a linear demand curve:
   A. elasticity is constant along the curve.
   B. elasticity is unity at every point on the curve.
   C. elasticity of demand varies at every point on the curve.
   D. demand is inelastic at high prices.
   E. demand is perfectly elastic at an average price.

36. The price of product X is reduced from R400 to R350 and, as a result, the quantity demanded increases from 40 to 60 units. Therefore demand for X in this price range:
   A. has declined.
   B. is of unit elasticity.
   C. is elastic with a coefficient between 3 and 5.
   D. is inelastic
   E. has increased by 10 percent.

37. An example of a change in quantity demanded (as opposed to a change in demand) is:
   A. a change in purchases resulting from a shift in the supply curve.
   B. a change in purchases resulting from a change in the tastes of consumers.
   C. a change in purchases resulting from a change in consumer incomes.
   D. a change in purchases resulting from a change in the price of the good in question.
   E. a change in the price of a complementary good.
38. Referring to the graph above, a rise in the income of people who purchase Good A will cause:
A. the demand curve for Good A to definitely shift to the right.
B. the demand curve for Good A to definitely shift to the left.
C. the price and quantity traded of Good A to rise.
D. the price and quantity traded of Good A to fall.
E. there is insufficient information for any of the above statements to be unambiguously correct.
39. The figure above (see page 11) represents the market for lean meat products. People become increasingly aware that eating lean meat is better for their hearts and promotes a healthy lifestyle, which consumers and suppliers like. As a result, the:

A. demand curve shifts from D1 to D2 and the supply curve will not shift.
B. demand curve shifts from D1 to D2 and the supply curve shifts from S1 to S2.
C. demand curve will not shift, and the supply curve shifts from S1 to S2.
D. demand curve shifts from D2 to D1 and the supply curve will not shift.
E. demand curve shifts from D2 to D1 and the supply curve shifts from S2 to S1.

40. When economists refer to a good as being a “normal good”, they mean that:

A. a given decrease in income will cause a proportionately larger increase in the quantity of the good demanded at the current price.
B. a large decrease in income will cause a proportionately smaller increase in the quantity of the good demanded at the current price.
C. a small decrease in income will cause a proportionately equal increase in the quantity of the good demanded at the current price.
D. any increase in income will cause demand for the good to decrease at the current price.
E. any increase in income will cause demand for the good to increase at the current price.

41. The basic determinants of supply are:

i. Changes in resource prices
ii. Technological changes
iii. Taxes and subsidies
iv. Prices of raw materials
v. Expectations of future price changes
vi. Changes in level of corruption

A. i and ii only
B. ii and iii only
C. iii and iv only
D. v and vi only
E. i, ii, iii, iv and v
Consider the demand curves for fresh milk in the graph below. If the elasticity of demand for milk is compared at a common price (P*), the price elasticity of demand for fresh milk is highest at:

A. A
B. B
C. C
D. D
E. Price elasticity is the same at A, B, C and D

You are told that the cross-price elasticity for some pair of goods has a value of + 7.0. To which pair of goods is this coefficient most likely to apply?
A. petrol (not aviation fuel) and air-travel.
B. salt and petrol.
C. Ford and Toyota cars.
D. cars and bicycles.
E. petrol and cars.

Suppose the income of households increase by 10 percent and households’ demand for flatscreen television increases from 200 units to 250 units. The income elasticity of demand for flat screen television is:
A. 0.1
B. 0.2
C. 2.0
D. 2.5
E. 10
45. The law of diminishing marginal utility states that:
A. the marginal utility of a good which is sold will be lower than the marginal utility of a free good.
B. the utility of a good decreases more rapidly in consumption than in production.
C. the marginal utility of all goods diminishes as income increases.
D. the total utility from consumption increases at an increasing rate as consumption increases.
E. an additional unit of a good consumed does not bring as much satisfaction as the previous unit did.

46. In order to maximise utility, a rational consumer will allocate his/her monetary expenditure on two products, A and B, assuming other factors are constant, such that:

A. \( \frac{\text{MU}_B}{P_B} > \frac{\text{MU}_A}{P_A} \)
B. \( \frac{\text{MU}_A}{P_A} = \frac{\text{MU}_B}{P_B} \)
C. \( \text{MU}_A > \text{MU}_B \)
D. \( P_A = P_B \)
E. \( P_A < P_B \)

47. Elasticity of supply of a product refers to the:
A. responsiveness of demand to a change in price of a single product.
B. responsiveness of demand to a change in the price of related products.
C. responsiveness of supply to a change in the price of a product.
D. responsiveness of supply to a change in demand.
E. responsiveness of supply to a change in advertising expenditure.

48. Inferior goods are products the demand for which:
A. increases as income increases.
B. remains unchanged although income increases.
C. increases in same proportion as a price change.
D. decreases as income increases.
E. increases by a far greater proportion than the change in price.
49. The long run average total curve is U-shaped because of:
   A. economies of scale.
   B. diseconomies of scale only.
   C. marketing economies.
   D. economies and diseconomies of scale.
   E. specialisation of labour.

50. A single monopolist is replaced by a large number of producers operating under perfect competition. What will be the effect on price and output?

<table>
<thead>
<tr>
<th>Price</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Rise</td>
<td>Fall</td>
</tr>
<tr>
<td>B. Fall</td>
<td>Fall</td>
</tr>
<tr>
<td>C. Fall</td>
<td>Rise</td>
</tr>
<tr>
<td>D. Fall</td>
<td>Uncertain</td>
</tr>
<tr>
<td>E. Rise</td>
<td>Uncertain</td>
</tr>
</tbody>
</table>
SECTION B:

Answer any TWO questions. All questions carry equal marks.

**Question 1** (50 MARKS)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloth</td>
<td>100</td>
<td>80</td>
<td>60</td>
<td>40</td>
<td>20</td>
<td>0</td>
</tr>
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<td>Food</td>
<td>0</td>
<td>10</td>
<td>18</td>
<td>24</td>
<td>28</td>
<td>30</td>
</tr>
</tbody>
</table>

a) Draw the production possibilities frontier (PPF) corresponding to the above table of data. **Plot cloth on the x-axis.** (20 Marks)

b) Explain the PPF in terms of a choice between alternatives, the underlying assumptions on which the PPF is based and give the economic reasons for its shape. (25 Marks)

c) Predict and show on your diagram what would happen over time if the development of a new technology improves the output of food. (5 Marks)

**Question 2** (50 MARKS)

a) Explain the major factors influencing the price elasticity of demand. (30 Marks)

b) What are some of the practical uses of elasticity of demand? (20 Marks)

**Question 3** (50 MARKS)

a) Briefly explain the characteristics of perfect competition. (20 Marks)

b) Starting from a short run equilibrium position in which average revenue is greater than average cost, examine the process through which a perfect competitive firm can earn just normal profit in the long run. (30 Marks)