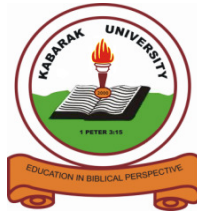


**KABARAK**



**UNIVERSITY**

## **UNIVERSITY EXAMINATIONS**

**FIRST SEMESTER, 2016/2017 ACADEMIC YEAR**

**EXAMINATION FOR THE DEGREE OF BACHELOR OF COMMERCE**

**ECON 110: INTRODUCTION TO MICROECONOMICS**

**STREAM: Y1S1**

**TIME: 9.00-11.00 A.M**

**EXAMINATION SESSION: DECEMBER**

**DATE: 5/12/ 2016**

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### **INSTRUCTIONS**

1. Answer question one
2. Attempt and other two questions

### **QUESTION ONE**

**(30 marks)**

- a) Clearly distinguish between each of the following pairs of concepts:
  - i) Marginal cost and opportunity cost. **(2 marks)**
  - ii) Budget line and isocost line. **(2 marks)**
  - iii) Change in quantity demanded and change in demand. **(2 marks)**
  - iv) Returns to scale and economies of scale. **(2 marks)**
  - v) Price floor and price ceiling. **(2 marks)**

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As members of Kabarak University family, we purpose at all times and in all places, to set apart in one's heart, Jesus as Lord. (1 Peter 3:15)

b) Suppose that the general demand and supply functions are:

$$Q = -600 + 10P$$

$$Q = 60 - 2P + 0.01M + 7P_R$$

Where: Q is Quantity;

P is Price;

M is average consumer income which is Shs. 40,000;

$P_R$  is price of a related good which is Shs. 20.

i) Identify which is the demand function and which is the supply function. Explain your answer.

**(2 marks)**

ii) Compute the equilibrium price and quantity.

**(4 marks)**

iii) From (i) above, compute and interpret the price elasticity of demand at equilibrium.

**(3 marks)**

c) The following table represents a simple, hypothetical economy that is producing rice and chicken.

| Type of product | Production alternatives |   |   |   |   |
|-----------------|-------------------------|---|---|---|---|
|                 | A                       | B | C | D | E |
| Rice            | 0                       | 1 | 2 | 3 | 4 |
| Chicken         | 10                      | 9 | 7 | 4 | 0 |

i) Explain what the point along the PPF implies.

**(2 marks)**

ii) What does a point inside the PPF mean?

**(2 marks)**

iii) Suppose the firm is producing at point B, what is the opportunity cost if the firm decides to move from point B to point C?

**(2 marks)**

d) The following table shows a total utility schedule for a consumer of chocolate bars

| Number consumed | Total utility |
|-----------------|---------------|
| 0               | 0             |
| 1               | 10            |
| 2               | 25            |
| 3               | 45            |
| 4               | 60            |
| 5               | 70            |
| 6               | 70            |
| 7               | 65            |

At what point does the consumer experience diminishing marginal utility? **(5 marks)**

### **QUESTION TWO**

a) Given a cost function  $TC = 2500 + 2Q^3$

i) Explain the variables in the above function **(2 marks)**

ii) Calculate average cost and marginal cost **(6 marks)**

b) Given that  $\pi = TR - TC$

Where:  $\pi$  = Profit, TR = Total revenue and TC = Total cost. Further, you are given that both TR and TC are dependent on output (that is,  $TR = f(Q)$  and  $TC = f(Q)$ )

i) Show the two conditions for profit maximization **(2marks)**

ii) Assuming a perfectly competitive market, use diagrams to show a profit-making and loss-incurring firm in the short run **(6 marks)**

c) Discuss the importance of marginal cost in economics **(4 marks)**

### **QUESTION THREE**

a) Use indifference curves to show the equilibrium condition. **(10 marks)**

- b) i) Distinguish between a normal good and an inferior good. **(2 marks)**
- iii) A consumer has a fixed income and two commodities (X and Y). Assuming that the price of commodity X changes, while the price of commodity Y is kept constant. Use appropriate diagram to show the price-consumption curve for a normal good **(8 marks)**

#### **QUESTION FOUR**

- a) Define oligopoly. **(2 marks)**
- b) The government of Kenya came up with a new policy in which Safaricom must give a 90-day notice before adjusting phone call prices. Suppose Safaricom decides to enter into a collusive agreement with Airtel, use diagrams to show their profit-maximizing price and output. **(10 marks)**
- c) Explain the shape of the long-run average total cost curve. **(8 marks)**

#### **QUESTION FIVE**

Compare and contrast a perfectly competitive industry with a monopolistically competitive industry (Note: use appropriate diagrams). **(20 marks)**