



**KABARAK**

**UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

**2008/2009 ACADEMIC YEAR**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN  
ECONOMICS & MATHEMATICS & BACHELOR OF  
COMMERCE**

**COURSE CODE: ECON 210**

**COURSE TITLE: INTERMEDIATE  
MICROECONOMICS**

**STREAM: Y2S1**

**DAY: TUESDAY**

**TIME: 8.30 – 10.30 P.M.**

**DATE: 5/8/2008**

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**INSTRUCTIONS:**

1. Answer **QUESTION ONE** and any other **TWO** questions.
2. Question **one** carries **30 marks** and the rest **20 marks each**.
3. Show all your workings clearly.

**PLEASE TURN OVER**

### QUESTION ONE

(a) Differentiate between the following pairs of concepts (Use diagram(s) where appropriate)

- (i) Variable costs and fixed costs **(2mks)**
- (ii) Implicit costs and explicit costs **(2mks)**
- (iii) Income consumption curve and price consumption curve **(2mks)**
- (iv) Partial equilibrium and general equilibrium. **(2mks)**

(b) Given the following utility function of a consumer

$$Y = X_1^{1/2} X_2^{1/2}$$

and further given  $M = 1000$ ,  $P_{X_1} = 30$ ,  $P_{X_2} = 40$

Where:  $M$  = Consumer's income

$P_{X_1}$  = Price of good  $X_1$

$P_{X_2}$  = Price of good  $X_2$

- (i) Calculate the amount of good  $X_1$  and  $X_2$  that is consumed at equilibrium. **(10mks)**
  - (ii) What is the maximum utility attained by the consumer. **(3mks)**
- (c) Using a well labeled diagram, explain the effects of supplementary income policy on the consumers welfare. **(9mks)**

### QUESTION TWO

(a) If a monopolist has two plants, Plant 1 is located in province A and Plant 2 in province B.

The cost function for Plant 1 is  $C_1 = 20q_1 + 0.4q_1^2$

The cost function for Plant 2 is  $C_2 = 10q_2 + 0.5q_2^2$

The monopolist's demand curve is  $P = 100 - 0.2Q$

Where,  $q_1$  and  $q_2$  are levels of output produced in Plant 1 and 2 respectively.

Find the following:

- (i) The profit-maximizing output levels for the two plants.
  - (ii) The resulting total profits of the monopolists
- (b) Explain in detail the main properties of a perfectly competitive market.

### **QUESTION THREE**

- (a) A firm produces two goods (wheat flour and maize flour), using two factors of production (Labour and capital) and with two individuals (Ali and Binia). Using the edge worth Box diagram, show clearly why points off the contract curve fail to satisfy
- (i) Efficiency in production.
  - (ii) Efficiency in exchange
- (b) Explain the marginal conditions that must be satisfied to enable an economy to attain Pareto-efficiency.

### **QUESTION FOUR**

- (a) State and explain the main features of Cobb-Donglas production function. **(4mks)**
- (b) Consider the following production

$$Q = AK^{\alpha_0}L^{\alpha_1}$$

Where:  $\alpha_0 = \alpha_1 = 0.5$ ,  $A = 100$ , and given also that  
 $C = 1000$ ,  $r = 80$ ,  $w = 60$

Where:  $C =$  Cost outlay  
 $W =$  Wage rate  
 $Y =$  Price of capital (interest rate).

- (i) Explain the significance of the constant A in the production function. **(2mks)**
- (ii) Determine the amount of labour and capital the firm should hire to maximize output. **(12mks)**
- (iii) What is the firm's maximum output? **(2mks)**

### **QUESTION FIVE**

- (a) With the help of a well labeled diagram, distinguish between the Substitution effect and income effect of a price decrease of an inferior good. **(12mks)**
- (b) Define the slusky theorem and derive the slusky mathematical equation showing clearly the substitution effect and income effect. **(8mks)**