



## MERU UNIVERSITY COLLEGE OF SCIENCE & TECHNOLOGY

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### University Examinations 2011/2012

SECOND YEAR, FIRST SEMESTER EXAMINATIONS FOR THE DEGREE OF  
BACHELOR OF COMMERCE AND YEAR TWO, SEMESTER TWO, BACHELOR OF  
PURCHASING AND SUPPLIES MANAGEMENT.

### HBC /HPS 2241 INTERMEDIATE MICRO ECONOMIC THEORY

DATE: APRIL 2012

TIME: 2 HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions

#### QUESTION ONE (30 MARKS)

- a. Explain the concept of equilibrium as used in economics (3 Marks)
- b. Differentiate between:
  - i. Changes in demand and changes in quantity demanded. (6 Marks)
  - ii. Diminishing marginal returns and decreasing returns to scale (6 Marks)
  - iii. Short run production function and the long run production function (5 Marks)
- c. Given two production functions  $Q = 2L^{0.7}$ ,  $K^{0.8}$ , which production function yields the highest output for any given increase in  $L$  and  $K$ ? (10 Marks)

#### QUESTION TWO (20 MARKS)

- a. Distinguish between perfectly competitive market and monopoly. (6 Marks)
- b. Suppose the demand and supply functions in a particular market are given as :  
 $Q_d = 400 - 4p$   
 $Q_s = 40 - 8p$   
**Required:**  
Find the equilibrium level of price and quantity. (6 Marks)
- c. Graphically show the relationship between MC, ATC and ATVC. (8 Marks)

#### QUESTION THREE (20 MARKS)

- a. Explain the term natural monopoly. (4 Marks)
- b. Discuss the main sources of monopoly power and specify what gives rise to natural monopoly. (6 Marks)

- c. Given the following total revenue and total cost functions, determine the profit maximizing output and the profits of the firm.

$$TR = 1000Q - 2Q^2$$

$$TC = Q^3 - 59 Q^2 + 131 Q + 2000 \quad (10 \text{ Marks})$$

**QUESTION FOUR (20 MARKS)**

- a. Discuss the three stages of production. (8 Marks)

- b. Given the following:

$$C = 0.05^2 x^3 - 0.6 x^2 + 20 x + 15$$

Where C = Total Cost

X = Output

**Required:**

Find TFC, AFC, TVC, AVC, ATC and MC. (12 Marks)

**QUESTION FIVE (20 MARKS)**

- a. Discuss the relevance of principle of non-exclusion in explaining the presence of public goods in an economy. (3 Marks)
- b. Explain the term pareto efficient allocation. (3 Marks)
- c. The initial endowments of two consumers Jackline and Nicholas is as follows:

Consumer	Bananas	Oranges	MRS
Jackline	2	8	-2
Nicholas	9	3	-1

- i. From the information provided would consider the allocation between the two consumers efficient? Explain (3 Marks)
- ii. If the allocation is not efficient what exchange between the two consumers would be mutually beneficial? (3 Marks)
- iii. Explain whether there is any other exchange that would also have been of benefit to both consumers. (3 Marks)