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**University Examinations 2016/2017**

SECOND YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR

OF COMMERCE AND BACHELOR OF ECONOMICS

SECOND YEAR SECOND SEMESTER BACHELOR OF PURCHASING AND SUPPLIES

MANAGEMENT AND AGRIBUSINESS MANAGEMENT

**BEC 3200: INTERMEDIATE MICROECONOMIC THEORY**

**DATE: DECEMBER 2016 TIME: 2HOURS**

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

**QUESTION ONE (30 MARKS)**

1. Explain key assumptions of consumer preferences (4 marks)
2. Explain the analytical framework used in modern economics (6 marks)
3. Discuss the behavior of marginal rate of substitution for various preferences (4 marks)
4. Distinguish between the weak and the strong axion of revealed preference (6 marks)
5. With the aid of diagram explain the concept of producer equilibrium and the expansion path (10 marks)

**QUESTION TWO (20 MARKS)**

1. Suppose the consumer has a demand function for good X of the form

X = 100 +M

20P

Let his original income be Ksh 1,500 per day. Let the price be 50 shillings per unit. Supposing the price falls to 40 shillings. Determine the substitution and income effect due to a price change (10 marks)

1. With the aid of diagram explain the hicks substitution effect (4 marks)
2. Suppose the short run total cost function and demand function of a monopoly are:

TC = 1/3Q – 10Q2 + 120Q +1000

P= 600 - 8Q

Calculate the profit maximizing output price and profits (6 marks)

**QUESTION THREE (20 MARKS)**

1. A consumer utility function for oranges (x) and mangoes (y) is given by the following cob-douglas function

U = X 0.5 Y0.5

Assuming that oranges cost ksh 10 each and mangoes cost ksh 25 each and the consumer has 250 kenya shillings to spend

Find the utility maximizing quantities of oranges and mangoes (10 marks)

1. Assume a monopolist is faced with the following demand function s

Q1 = 48 - 0.4 P1

Q2 = 20 – 0.1 P2

TC = 70 + 80 Q

Compute the price to be charged in the different markets (10 marks)

**QUESTION FOUR (20 MARKS)**

1. A firm has a production function of this nature

Q = 120 K2 L2

L = Labor units

K = Capital units

The cost of labor is 250 ksh per hour and the cost of capital is 400 ksh per machine hour

The four has a cost budget of 50,000 ksh.

Required:

1. Determine the least cost combination of inputs (6 marks)
2. Determine the optimal production level (6 marks)
3. With aid of diagrams explain the consumer equilibrium for various preferences

(8 marks)

**QUESTION FIVE (20 MARKS)**

1. Using the edge worth box illustrate the equilibrium in exchange and production

(10 marks)

1. With the aid of example and mathematical equations derive the slutsky equation

(10 marks)