UNIVERSITY OF SWAZILAND

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF ECONOMICS

MAIN EXAMINATION PAPER: DECEMBER 2016

TITLE OF PAPER : INTERMEDIATE MICROECONOMICS

COURSE CODE : ECO 201

TIME ALLOWED : TWO (2) HOURS

INSTRUCTIONS :

1. ANSWER QUESTION ONE (1) AND ANY OTHER TWO (2) QUESTIONS OF YOUR CHOICE.
2. QUESTION ONE (1) CARRIES FORTY (40) MARKS AND THE OTHER QUESTIONS CARRY THIRTY (30) MARKS EACH.
3. NON PROGRAMMABLE CALCULATORS ARE ALLOWED.
4. WHERE NECESSARY, FIGURES ARE TO BE ROUNDED TO TWO (2) DECIMAL FIGURES.

THIS QUESTION PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR

Question 1 – Compulsory   (Total = 40 Marks)

a) Using a suitable graph, distinguish between the concepts of **Diminishing Marginal Returns** and **Diminishing Returns** of a factor input.   [12 Marks]

b) Briefly explain the concepts of **Economies** and **Diseconomies of Scale**.   [5 Marks]

c) Discuss three (3) characteristics of isoquant curves in relation to producer theory.

[6 Marks]

d) Describe and graphically illustrate the concept of Returns to Scale.   [12 Marks]

e) Write short explanatory notes on the Long Run Expansion Path.   [5 Marks]

ANSWER ANY TWO (2) QUESTIONS FROM THE FOLLOWING:

Question 2   (Total = 30 Marks)

The output of Swazi Joy Bakeries can be determined by the following production function:

$B = 30K^{0.5}L^{0.5}$,

Where

B = Loaves of bread produced per day

K = Number of Ovens used

L = Amount of labour employed

If the price of an oven is indicated by P_K and the price of labour indicated by P_L, and total expenditure on ovens and labour indicated by M, then:

i)   Determine the functions for the optimum input combinations.   [15 Marks]

ii)   If $P_K = E20$, $P_L = E10$, and $M = E600$, calculate the firm's optimum input combination.   [6 marks]

iii)   What is the optimum production level?   [3 marks]

iv)   Diagrammatically illustrate this optimum input and production level.   [6 Marks]

Question 3   (Total = 30 Marks)

With the aid of diagrams compare and contrast how the income effect (IE), substitution effect (SE) and total effect (TE) of normal, inferior and Giffen goods differ. What implications does this have for the nature of the demand curve for a good? Use the case of a price fall to illustrate your answer.   [30 Marks]

Question 4   (Total = 30 Marks)

If the Total Cost Function of a firm is $TC = 300 + 50Q - 10Q^2 + Q^3$, Where Q is output per period,

(a) What are the Total Fixed Costs (TFC) and Total Variable Costs (TVC) of production for this firm?   [2 Marks]

(b) Write down the Average Fixed Cost (AFC) function of the firm. How does it behave with respect to output?   [3 Marks]

(c) What is the Average Total Cost (ATC) function of the firm?   [5 Marks]

(d) Using graph(s) explain the relationship between short run marginal costs, short run average costs and short run average total costs.   [20 Marks]