

**UNIVERSITY OF ESWATINI
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
MAIN EXAMINATION PAPER: DECEMBER 2018**

TITLE OF PAPER : MICROECONOMICS I
COURSE CODE : ECO 201/IDE ECO 201
TIME ALLOWED : TWO (2) HOURS

INSTRUCTIONS :

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

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

QUESTION 1 – COMPULSORY

(Total =40 Marks)

- a) Graphically illustrate and explain the effects of a minimum wage policy on unemployment in a country. [8 Marks]
- b) If a firm has the following market demand function $Q_d = 2000 - 5P$ and the output is 500 units:
- Find the price elasticity of demand for the product they are selling. [8 Marks]
 - Marginal revenue (MR) and price elasticity of demand (ϵ_D) can be linked by the formula $MR = P \left(1 + \frac{1}{\epsilon_D} \right)$. Using the elasticity obtained in (i) above, what would you advise the firm to do in order to increase total revenue (TR)? (Justify your answer) [8 Marks]
- c) A consumer derives utility by consuming two goods, namely Milk and Bread. The price per unit of the goods are E15 for Milk, and E10 for Bread. If the consumer has an income of E900, represent this information in a budget line. (Properly label, show the budget line equation and the slope of the line, for marks) [6 Marks]
- d) Briefly distinguish between the concepts of returns to scale and economies of scale. [10 Marks]

ANSWER ANY TWO (2) QUESTIONS FROM THE FOLLOWING:

QUESTION 2

- a) Illustrate and explain fully using diagrams the relationship between the total effect, substitution effect and the income effect for an inferior good that has experienced a decrease in price and a decrease in income. [15 Marks]
- b) With the aid of diagram(s) differentiate between the compensating variation and the equivalent variation for a normal good that has had a price increase. [10 Marks]
- c) What is an Engel curve? [5 Marks]

QUESTION 3

- a) Show mathematically that the producer equilibrium is attained where the slope of the isoquant equals the slope of the isocost line. Use the following production function:

$$Q = f(L, K)$$

[10 marks]

- b) Discuss the relationship that exists between the total product, marginal product and the average product curves. In your explanation also include an explanation on the law of diminishing marginal productivity of labour.

[20 Marks]

QUESTION 4

- a) Algebraically show and explain the inverse relationship between productivity and costs of production.

[10 Marks]

- b) Graphically illustrate and explain that short run average costs of production would be higher or at least as much as long run average costs of production.

[10 Marks]

- c) *“It may be cheaper for the firm to operate a bigger plant below capacity than a smaller plant at maximum capacity”*. With a graph, illustrate and explain that this statement is true.

[10 Marks]