

**UNIVERSITY OF ESWATINI
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
MAIN EXAMINATION PAPER: JUNE 2019**

TITLE OF PAPER : MICROECONOMICS II

COURSE CODE : ECO 204 / IDE-ECO 204

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) Provide mathematical proofs for the following:
- i) That for a monopolist, the marginal revenue always lies below the demand curve. **(10)**
 - ii) That for a monopolist, the slope of the marginal revenue is twice the slope of the demand curve. **(10)**
 - iii) That for a perfectly competitive firm, the marginal revenue is equal to its demand curve. **(5)**
- b) In the short-run a perfectly competitive firm will continue with production even though it cannot cover all its average costs. Graphically illustrate and explain the condition under which this statement is true. **(10)**
- c) Differentiate between pure monopoly and natural monopoly **(5)**

ANSWER ANY TWO (2) QUESTIONS FROM THE FOLLOWING:**QUESTION 2**

The Eswatini Electricity Company (EEC) is a government sponsored monopoly for electricity. EEC sells its products in two separate markets (the public and industries) and charges different prices. The demand function for the public is: $Q_p = 800 - 10P_p$. The demand function for the industries is: $Q_i = 1200 - 10P_i$. EEC's total cost function is: $C = 50Q + 10,000$. EEC is able to discriminate between the two markets.

- i) Calculate the profit maximizing quantities for each market. **(10)**
- ii) What will be the price level in each market? **(5)**
- iii) Calculate EEC's profits. **(5)**
- iv) Calculate the total costs EEC will incur? **(5)**
- v) Are the marginal revenues the same? **(5)**

QUESTION 3

A duopoly market has a demand function defined as: $Q = 120 - P$. Assume that costs are zero, i.e. $C_1 = C_2 = 0$. In this market one firm is a follower and the other firm acts as a leader.

- i) Determine the follower's reaction function. **(5)**
- ii) Determine leader's reaction function. **(5)**
- iii) Calculate the quantities produced by each firm. **(10)**
- iv) What are the profits in each market? **(6)**
- v) What is the prevailing price in the market? **(4)**

QUESTION 4

Graphically explain how profits are maximized in a monopolistic competition market in the short-run and in the long-run. **(30)**

******GOOD LUCK******