

UNIVERSITY OF SWAZILAND
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
MAIN EXAMINATION PAPER: MAY 2018

TITLE OF PAPER: MICROECONOMICS II

COURSE CODE: ECO 204

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS:

- 1. ANSWER QUESTIONS ONE (1) AND ANY TWO (2) QUESTIONS OF YOUR CHOICE.**
- 2. QUESTION (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 PLACES.**

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

QUESTION 1 – COMPULSORY**(Total =40 Marks)**

- a) Differentiate between Cournot behaviour and Bertrand behaviour. (10)
- b) Discuss how profits are maximized in a Monopolistic Competition market structure in the long-run. (10)
- c) Two quasi-competitive firms in Matsapha produce hair products commonly used by salons. The inverse demand function for the market is given as follows:

$$P = 100 - 0.5Q$$

The total cost functions for two firms are given as follows:

$$C_1 = 5Q_1$$

$$C_2 = 0.5 Q_2^2$$

- i) What type of a market structure is this? (2)
- ii) Determine the reaction functions for the two firms. (8)
- iii) What are the profit maximizing output levels for the two firms? (7)
- iv) Determine the price level prevailing in this market. (3)

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

Swaziland Water Services sells its products in two separate markets (the household and industries) and charges different prices. The industrial demand for water is $Q_i = 1200 - 10P_i$. The household demand for water is: $Q_h = 800 - 10P_h$. Swaziland Water Services's total cost function is: $C = 50Q + 10000$.

- i) Calculate the profit maximizing quantities for each market. (10)
- ii) What will be the price level in each market? (6)
- iii) Calculate Swaziland Water Services' profits. (4)
- iv) How much cost will Swaziland Water Services incur? (4)
- v) Are the marginal revenues for the two markets equal? Prove it. (6)

QUESTION 3

- a) In a perfectly competitive market all the firms make zero profits in the long-run. Explain why this is so. (8)
- b) Provide a mathematical proof that for a monopolist, the slope of the marginal revenue is twice the slope of the demand curve. (7)
- c) Compare and contrast the market conditions under perfect competition and monopoly. (15)

QUESTION 4

- a) Differentiate between a product market and a resource/factor market. (10)
- b) In a monopsony market, the monopsonist production function is a function of only labour and it is given as follows: $Q=10L - 0.05L^2$. The wage rate function is given as: $W = 155 + 35L$. If the monopsonist sells his output at price of $P = £300$.
 - i) What will be the profit maximizing output level? (10)
 - ii) What will be the profit maximizing wage rate? (3)
 - iii) How much profit will the monopsonist make? (3)
 - iv) Prove that the profit maximizing condition; $VMP = MC$ holds. (4)

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