**UNIVERSITY OF SWAZILAND**

**DEPARTMENT OF ECONOMICS**

**SUPPLEMENTARY EXAMINATION 2007**

**TITLE OF PAPER: INTRODUCTION TO MICROECONOMICS (1 & 2) – IDE**

**COURSE CODE: ECON 201 – 1& 2**

**INSTRUCTIONS:**

1. **ANSWER QUESTION 1 AND 3 QUESTIONS FROM SECTION B**
2. **ALL QUESTIONS CARRY 25 MARKS EACH**

**TIME ALLOWED: THREE (3) HOURS**

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

## SECTION A

**QUESTION 1**

(a) Explain how the problem of price rigidities under oligopoly can be solved. [8 marks]

(b) With the aid of a diagram, explain the decision rule of profit maximization for a firm under perfect competition. [10 marks]

(c) Discuss how a specific tax can be used to regulate a monopoly. In your answer, reveal the welfare effects. [7 marks]

## SECTION B

**QUESTION 2**

(a) Explain the determinants of market structures [7 marks]

(b) Explain how cartels may change the functioning of an oligopolistic market? [5 marks]

(c) Discuss the kinked demand analysis in oligopoly [13 marks]

**QUESTION 3**

The supply and demand functions of a sugar cane farmer are given as follows;

$$1220P = 1129 + 4Q_s$$
$$Q_d + 40.5P = 3000$$

(a) Determine the equilibrium price and quantity in the market [5 marks]

(b) If government decides to impose a 15% tax on the farmer, calculate the new equilibrium price and quantity [10 marks]

(c) If instead of a tax, the government pays a subsidy of E1.50 to the farmer for each tonne sold, determine the new equilibrium conditions and the total amount of the subsidy that has to be paid by the government. [10 marks]

**QUESTION 4**

(a) 'Whether short run or long run, a monopolist will always make profits'. Is this statement true or false? Discuss with an aid of a diagram [15 marks]

(b) A profit – maximizing monopolist has the following demand functions

$$P = 20 - 0.5Q$$

Cost function $$AC = \frac{20}{Q} + 4$$

(i) What is the firm's profit maximizing output level [8 marks]
(ii) How much profit will the firm earn? [4 marks]

**QUESTION 5**

(a) Discuss the determinants of price elasticity of demand [10 marks]

(b) Given the following consumer constrained maximization problem:

Maximize $U = X^{3/8}Y^{5/8}$

s.t. $10 = 3X + 5Y$

Use the lagrangian method to:

(i) Find the utility maximizing levels of X and Y [12 marks]
(ii) Determine the maximum level of utility [3 marks]

**QUESTION 6**

(a) Assume that Swaziland Post and Telecommunications (SPTC) was operating as a perfect competitive company and the government decides to make it a monopoly. Discuss with an aid of a diagram the effects of the monopolization of SPTC by the state. [12 marks]

(b) With an aid of a diagram, clearly show and discuss when a firm should shut down under perfect competition. [13 marks]