



**JAAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND  
TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2016/2017**

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE  
OF BACHELOR OF BUSINESS ADMINISTRATION WITH  
INFORMATION TECHNOLOGY**

**MAIN CAMPUS**

**AEC 101: INTRODUCTION TO MICROECONOMICS**

**Date:**

**Time: 2HRS**

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**INSTRUCTIONS**

1. Answer Question **ONE** and any other **TWO** questions.
2. Question **ONE** carries **30** marks, the rest **20** marks each
3. Marks will be awarded for being neat, clear and use of relevant illustrations

### QUESTION ONE

- (a) Explain the basic economic problems of any society and how they are solved in capitalists and socialists economies **(12marks)**
- (b) Differentiate between the following:
- (i) Producer and consumer equilibrium **(4marks)**
  - (ii) Economic and accounting profits **(4marks)**
  - (iii) Explicit and implicit costs **(4marks)**
- (c) Explain the determinants of elasticity of supply of a good or service. **(6marks)**

### QUESTION TWO

- (a) Distinguish between explicit and implicit costs of production and geometrically derive average and marginal products **(10marks)**
- (b) Explain the features of an oligopolistic market and the concept of kinked demand curve. **(10marks)**

### QUESTION THREE

Suppose that you are given a firm's demand function as

$$Q=2000-20P$$

And firm's cost function is given as:

$$TC=0.05Q^2 +10,000$$

- (i) Find the firm's total revenue (TR) and her marginal revenue (MR) **(4marks)**
- (ii) Calculate the firm's marginal costs (MC) **(2marks)**
- (iii) Calculate the firm's average costs **(2marks)**
- (iv) From the information given above, calculate the firm's profit maximizing output and price levels ( $Q^*$  and  $P^*$ ) **(8marks)**
- (v) Calculate the firm's maximum profit ( $\Pi$ ) **(2marks)**
- (vi) Show that this is the true maximum profit by using the second order conditions as a test **(2marks)**

### QUESTION FOUR

- (a) Using diagrams differentiate between the following:
- (i) Producer surplus and consumer surplus **(5marks)**
  - (ii) Budget and Isocost lines **(5marks)**
  - (iii) Price and income consumption curve **(5marks)**

(b) Using classical production function, explain the stages of production of a firm and advise on the best optimal stage of operation

**(5marks)**

### **QUESTION FIVE**

(a) Given a demand function of the form:

$$Q=1000-20P$$

Calculate the point elasticity of demand when

$$p=100 \text{ and } q=80$$

**(6marks)**

(b) Explain the features of an oligopoly market

**(8marks)**

(c) Explain the importance of price and income elasticity to a producer and government

**(6marks)**