

**UNIVERSITY OF SWAZILAND**

**DEPARTMENT OF ECONOMICS**

**SUPPLEMENTARY EXAMINATION 2005**

**TITLE OF PAPER: INTRODUCTION TO MICROECONOMICS**

**COURSE CODE: ECON 201**

- INSTRUCTIONS:**
- 1. ANSWER QUESTION 1 AND ANY THREE OTHER QUESTIONS.**
  - 2. ALL QUESTION CARRY 25 MARKS EACH.**

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

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

**Question 1**

- a) Explain the difference in resource allocation between Capitalist and Socialist economic systems. Discuss the pros and cons of using either of these two economic systems in solving the "economic problem" ( 10 marks )
- b) State and discuss the characteristics of indifference curves. ( 5 marks )
- c) Postulates underlying consumer behaviour enable us to construct the conventional consumer's "indifference map". Discuss ( 10 marks )

**Question 2**

- a) Discuss the conditions necessary for the existence of Perfect Competition. [ 12 marks]

Given the following information on revenue and costs for a perfectly competitive firm:

$$P = MR = E 100$$

$$AC = 204 - 3Q + 0.02Q^2$$

Where P = Product Price

MR = Marginal Revenue

AC = Average Cost

Q = Units of output produced per month

Find the profit maximizing level of output and calculate the level of profit. [ 13 Marks]

**Question 3**

- a) Compare and contrast the welfare effects of a non discriminating monopolist and a second degree price discriminator. [ 13 marks]
- b) A Monopoly Firm's demand function is given by:

$$Q = 330 - 60 P$$

**Given a constant marginal cost  $MC = 0.5$**

- (i) Calculate Equilibrium price and quantity. [ 8 marks]
- (ii) Calculate the level of profit [ 4 marks]

**Question 4**

Write short notes on each of the following:

- (i) Marshallian demand vs. Compensated demand. (8 Marks)
- (ii) What is the difference between value of marginal product ( VMP) and marginal revenue product ( MRP ) ( 7 marks )
- (iii) Distinguish between monopolistic exploitation and monopsonistic exploitation. (10 Marks)

**Question 5**

- a) Distinguish between profit maximization under conditions of monopolistic Competition and Oligopoly [ 15 marks]

The demand function of a profit maximizing monopolist is

$$Q + 2P = 40$$

And his average cost function is

$$AC = 20 Q^{-1} + 4$$

At what output will the monopolist maximise profits? [10 marks]

**Question 6**

A) With the aid of diagrams explain how the law of diminishing returns applies to the shape of the total variable cost curve [10]

B) A firm's isoquant curve is given by

$$Q = L^{2/5} K^{3/5}$$

Where Q = level of output

L = labour input

K = capita input

Assume  $P_L = 2$ ,  $P_K = 3$

Where  $P_L$  = price of labour

$P_K$  = price of capital

Utilizing the Lagrangian Method, calculate the minimum level of costs that is necessary to produce  $Q = 12$ . [15]

### Question 7

For each of the following statements indicate whether it is TRUE or FALSE and explain the reason for your choice. In all cases use diagrammatic illustrations to make answers clearer.

a) Producer equilibrium is attained when the producer's Marginal Rate of Technical Substitution is equal to the input price ratio.

[6 marks]

(b) For a homogeneous production function which exhibits Decreasing Returns to Scale the distance between consecutive multiple isoquants decreases.

[6 marks]

c) The law of variable factor proportions is characteristic of a Long Run production system,

[7 marks]

d) Indifference curves for a rational consumer never intersect.

[6 marks]

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