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UNIVERSITY OF SWAZILAND

DEPARTMENT OF ECONOMICS

FINAL EXAMINATION 2005

TITLE OF PAPER: INTRODUCTION TO MICROECONOMICS (2)- IDE

COURSE CODE: ECON 201- 2

INSTRUCTIONS:
1. ANSWER ANY THREE QUESTIONS
2. ALL QUESTIONS CARRY 25 MARKS EACH

TIME ALLOWED: TWO (2) HOURS

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

Question 1

a) Discuss the welfare effects of monopoly. [10 marks]

b) Mcibisholo is a monopoly firm and has the following operational information;

$0.75Q^2 + P = 26$
$TC = 4 + 2Q - 0.3Q^2$
Where TC = short run total costs
Q = output for a year
P = price changed by the firm

i) Determine the price and quantity that maximizes profits [9]
ii) How much profits will the firm make? [4]

c) How does a monopoly determine the price it charges? [2]

Question 2

A) For the following classes of Oligopolistic models, using suitable examples describe how prices and output are determined:

i) Perfect Collusion [8 marks]
ii) Imperfect Collusion [8 marks]
iii) Independent Action [9 marks]

Question 3

Suppose Mhlaba company sells its product in two markets.
The demand functions are as follows:

$Q_1 = 55 - 10 P_1$ **for Market 1**

$Q_2 = 23 - 2 P_2$ **for Market 2**

Where Q = is in thousands of units per year
P = price per year
Overall Costs of the product is given as

$$C = 800 + 1.5Q$$

Where $Q = Q_1 + Q_2$

a) (i) Calculate the profit-maximizing prices and quantities for Market 1 and Market 2. [13 marks]

(ii) What is the general economic term given to this kind of practice? [2 marks]

b) Suppose a new company, Muhle company enters the industry to produce the same product, now people have a choice to either buy from Mhlaba company or Muhle company. Thus Mhlaba company is forced to charge a single price. Determine the price and output that will maximize profits? In which station is the company better off? [10 marks]

Question 4

a) With the aid of diagrams describe how the employment and pricing of a resource is determined under the following scenarios; indicate clearly the type of exploitation the input is subjected to in each case:

i) Inputs are sourced from a perfectly competitive industry but output is distributed by a monopoly firm. [8 marks]

ii) Both input and output markets are imperfectly competitive [17 marks]

Question 5

The market demand function for a firm is given by

$$8P + Q - 64 = 0$$

and the firm's average cost function takes the form

$$AC = 8/Q + 6 - 0.4Q + 0.08Q^2$$

Determine the level of output Q, which

(i) Maximises the firm's total revenue [8 marks]
(ii) Maximises the firm's profits [9 marks]

(iii) Minimises the firm's marginal cost [8 marks]

Question 6

Baphumelelanjalo Hardware is a perfectly competitive firm whose total cost function is:

$$C = 200 + 4Q + 2Q^2$$

Calculate the optimum rates of output and profits earned at each of the following price levels:

(i) E24
(ii) E44
(iii) E52

[18 marks]

b) Comment on the level of profits earned at the different output levels. In the case where the firm is operating at a loss, would you advise the firm to continue to produce? Explain and show your calculations.

[7 marks]