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(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER

SPECIAL/SUPPLEMENTARY EXAM

FOR THE DEGREE OF BACHELOR OF COMMERCE

COURSE CODE: ECO201/ECO211/ECO310

COURSE TITLE: INTERMEDIATE MICROECONOMICS

DATE: 20TH JULY, 2022 TIME: 11.00AM – 1.00PM

INSTRUCTIONS TO CANDIDATES

1. Answer Question One in Section A and Any other TWO (2) Questions in Section B
2. Question **one** carries **30** marks and each of the other two questions carry **20** marks each.

TIME: 2 Hours

KIBU observes ZERO tolerance to examination cheating

This Paper Consists of 5 Printed Pages. Please Turn Over.

QUESTION ONE (30 MARKS)

- a) Highlight four assumptions about consumer preferences (8 Marks)
- b) Suppose that the industry demand curve is linear, $X(p)=a-bp$, and the industry curve is $Y(p,m)=mp/2$. Determine;
Where; X is the output, a is the constant b is the coefficient P is the price, Y is the income
- i) Determine the equilibrium price (4 Marks)
- ii) How does the equilibrium price change as m changes? (4 Marks)
- c) Perfectly competitive firm is faced with the following cost schedule:

Q	1	1	2	3	4	5	6	7	8	9	10
TC	9	20	30	39	47	54	60	67	77	90	109

- i) Determine the quantity of the output the firm has to produce in order to maximize profit if the market price is Ksh 13. (6 Marks)
- ii) What is the maximum profit? (4 Marks)
- iii) Suppose the market price falls to ksh 6. How much will the firm choose to produce now and what will be the profit? (4 Marks)

QUESTION TWO (20 MARKS)

- a) What assumptions should one take into account in trying to solve a duopolist problem assuming that there is no mutual benefit between the duopolist and the rival (8 Marks)
- b) Suppose that the industry demand is given as $P=100 -Q$ where P is the Price and Q is the quantity. Q is the sum output of firm A and B so $Q=A+B$
- i) Assuming that A and B are Cournot-Nash duopolists, derive algebraically the reactions curves of A and B and the logic behind your equation. (8 Marks)

- ii) Determine the optimal output for A for any choice of B in maximizing its total revenue. (4 Marks)

QUESTION THREE(20 MARKS)

- a) Given two isolated markets supplied by a single monopolist with the following demand functions

$$P_1=12-Q_1$$

$$P_2=20-3Q_2$$

Suppose the firms' total cost function is

$$C= 3+2(Q_1+Q_2)$$

- i) What will prices, sales and marginal revenue be in the two markets. (8mks)
- ii) Determine the maximum profit for this firm (4mks)
- b) Citing examples, explain the economies of scale that are enjoyed by large scale producers (8mks)

QUESTION FOUR(20 MARKS)

- a) Discuss the characteristics of a monopolistic competitive market. Using a graphical illustration, show how equilibrium position is determined under this market structure. (10 Marks)
- b) Using graphical approach, explain the stages of production of a firm and distinguish between the average product and marginal product of the production function (10 Marks)