



# MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

FOURTH YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF ECONOMICS AND STATISTICS

BACHELOR OF ECONOMICS

EAE 408: ECONOMICS OF INDUSTRY

DATE: 21/1/2021

TIME: 2.00-4.00 PM

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## INSTRUCTIONS:

- (i) Answer question one (Compulsory) and any other two questions
- (ii) Do not write on the question paper
- (iii) Show your working clearly

## QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain the differences between Analytical Industrial Economics and Descriptive Industrial Economics (4 marks)
- b) Explain three theoretical foundations of Industrial Economics (6 marks)
- c) Thika motors sell its auto mobiles in both Canada and London. Due to trade restrictions, a vehicle sold in one country cannot be resold in the other. The demand functions of the two countries are

$$\text{Canada} = 30,000 - 0.40Q$$

$$\text{London} = 20,000 - 0.20Q$$

The firms total cost function is  $TC = 10,000,000 + 12,000Q$ . What price should Thika motors charge in each country in order to maximize profit? What will be the total profit? (6 marks)

- d) Consider a perfectly competitive market in the short run. Assume that market demand is and market supply is  $P=Q_s$ . Denoting firm level quantity by  $q$ , assume  $TC=50+4q+2q^2$  so that  $MC=4+4q$ . 100 4 D P Q

- i. Determine the equilibrium quantity and price in this market (4 marks)
  - ii. Determine the number of firms in the industry in the short run (3 marks)
  - iii. Do firms make a profit or loss in the short run, and how much are these profits/losses? (3 marks)
- e) With aid of a well labeled diagram explain output-oriented measure of efficiency level (6 marks)

**QUESTION TWO (20 MARKS)**

- a) Explain Transactions Cost Theory of the firm (8 marks)
- b) Using a well labeled diagram show and explain the loss of welfare for a monopoly (6 marks)
- c) Explain features of market structures as suggested by Bain (6 marks)

**QUESTION THREE (20 MARKS)**

- a) Using a well labeled diagrams explain the equilibrium level for a perfect competitive market structure in the short run and long run (8 marks)
- b) Demonstrate that the optimal division of a pie ( $\pi$ ) of a random size (the profit) between a risk neutral party (the shareholders) and a risk averse one (the manager), has the risk neutral party bear all the risk if the incentive issues are not taken into consideration. (6 marks)
- c) With aid of a diagram explain the Property Rights theory of the firm (6 marks)

**QUESTION FOUR (20 MARKS)**

- a) The actual sales for 8 firma is as given in the table below:

Firm	Actual sales made in millions	Market share for firms
1	4	-
2	12	-
3	12	-
4	3	-
5	10	-
6	8	-

7	16	-
8	20	-

- i. Calculate the firm's respective market share (4 marks)
- ii. Calculate the cumulative market share starting from largest to smallest and show the information on the concentration curve (6 marks)
- b) Explain the market structure conduct- performance framework (5 marks)
- c) Explain main motives for all diversification types (5 marks)

**QUESTION FIVE (20 MARKS)**

- a) With aid of well labeled diagram, show and explain economic profit in the short-run for a monopolistic competition market. Also using a diagram show and explain the long-run equilibrium for a monopolistic competition market. (10 marks)
- b) The demand function of a monopolist is given by  $P = 50 - 2Q$  and the marginal cost is sh.10;

Required

- i. Compute the deadweight loss related with monopoly pricing (4 marks)
- ii. If  $P = 50 - 4Q$ , what is the dead weight loss (4 marks)
- iii. Based on your answers (i) and (ii) above, how is the dead weight loss related to the slope of the demand curve (2 marks)