MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF BUSINESS ADMINISTRATION

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

DOCTOR OF PHILOSOPHY IN BUSINESS.

BBA 920: ECONOMICS ANALYSIS FOR BUSINESS DECISIONS

DATE: 16/8/2021 **TIME: 9.00-12.00 PM**

INSTRUCTIONS:

ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS

QUESTION ONE (COMPULSORY) (30 MARKS)

Read the following case and answer the questions that follow.

Orient Ltd

Orient Ltd operates a lumber-processing mill in a remote area of Masaku South district. The company is one of the largest lumber producers in the area and has some market power in the sale of that product. A recent consulting study has indicated that the price elasticity of demand for the firm's product is about –3.0. The company is also a dominant employer in the local labour market and effectively can be considered as a monopsonist in the purchase of labour. The firm's labour demand is shown by the Marginal Revenue Product (MRP) function below:

$$MRP = 10{,}000 - 20L$$

Where L is the number of workers. Because of its size relative to the labour supply in the area, Orient Ltd, faces an upward sloping labour supply function,

$$W = 50 + 0.025L$$

Where W is the daily wage.

Once the company determines the optimal rate of labour input and the wage rate, the rate of output is determined. The company uses a cost-plus pricing formula that includes price elasticity of demand as a determinant in setting product price. The same study indicated that the average cost is about Kshs 3000 (10 board feet) of timber.

Required

a) Determine:

   i. The amount of labour that the company should employ in order to maximize profits. (2 marks)

   ii. The wage rate the company will have to pay. (2 marks)

   iii. The price the company will have to charge per unit output. (2 marks)

b) Suppose another lumber producer locates a plant in the same area thereby increasing competition and thus shifting the labour supply function facing Orient Ltd to $W = 50 + 0.04L$ and price elasticity of demand changes to –4.0.

   i. Determine the amount of labour that Orient Ltd should employ in order to maximize profits under this new labour market condition (2 marks)

   ii. Determine the new wage rate that the firm will have to pay (2 marks)

c) Discuss the major theories of Profit and critically examine profit maximization as an objective of business firms. (10 marks)

d) "The Management of any business organization must always strive to make decisions that are profitable to the business". Carefully present circumstances when management decisions are considered profitable. (10 marks)

QUESTION TWO (15 MARKS)

a) The total cost of a firm that produces its product on two assembly lines is give as $TC = 3x^2 + 6y^2 - xy$. The firm seeks to determine the least cost combination of output on assembly lines x and y subject to the side condition that output equals to 200.

   i. Algebraically, state the problem facing the firm (2 marks)

   ii. Solve for optimal values of x and y. (8 marks)

b) Explain the basis for profit being maximized at the point where MR=MC. (5 marks)

QUESTION THREE (15 MARKS)

a) Explain the role of elasticity in influencing the management's decision to adjust the price of a good or service. (5 marks)

b) The annual demand function for a particular motor car is estimated as: D = 16000-10P/3+ Y2/1000 where D =annual demand, P =price in £'s and Y =average disposable income. (i)

Given that the retail price next year will be £12 000, whilst average disposable income is expected to be £8000, estimate next year's annual demand. (4 marks)

i. If the manufacturer receives 80% of the retail price for each car sold, estimate the manufacturer's revenue next year. (2 marks)
ii. Find the retail price to maximize manufacturer's revenue next year. (2 marks)
iii. If the marginal cost per car is estimated to be £6000, find the price to maximize profit next year. (2 marks)

QUESTION FOUR (15 MARKS)

'The force of competition, the desires of managers and the needs of shareholders combine to ensure that firms maximize profit.' Discuss.

QUESTION FIVE (15 MARKS)

a) Explain why fiscal and monetary policies are often referred to as "demand management policies". (5 marks)
b) Carefully explain the tools employed under fiscal and monetary policies in Kenya. (10 marks)