MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF BUSINESS ADMINISTRATION

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

DOCTOR OF PHILOSOPHY IN BUSINESS.

BBA 920: ECONOMIC ANALYSIS FOR BUSINESS DECISIONS

DATE: 2/12/2019 **TIME: 9.00-12.00 PM**

INSTRUCTIONS:

ANSWER QUESTION ONE (1) AND ANY OTHER THREE

QUESTION ONE (COMPULSORY) (24 MARKS)

Gina Picareto is a production manager at the Rich Manufacturing Company. Each year her unit buys up to 100,000 machine parts from Bhagat incorporated. The contract specifies that Rich will pay Bhagat its production cost plus Kshs 5 markup (cost-plus pricing). Currently, Bhagat's costs per part are Kshs 10 for labour and Kshs 10 for other costs. Thus, the current price is Kshs 25 per part. The contract provides an option to Rich to buy up to 100,000 parts at this price. It must however, purchase a minimum volume of 50,000 parts.

Bhagat's workforce is heavily unionized. During recent contract negotiations, Bhagat agreed to a 30% pay raise for the workers. In this labour contract, wages and benefits are speficied. However, Bhagat is free to choose the quantity of labour it employs.

Bhagat has announced a Kshs 3 price increase for its machine parts. This mount represents the projected Kshs 3 increase in labour costs due to its new union contract. It is Gina's responsibility to evaluate this announcement.

a) Explain the process of price fixation under cost-plus pricing strategy (3 marks)

b) Why do many firms use cost-plus pricing for supply contracts? (2 marks)

c) What potential problems do you envision with cost-plus pricing? (3 marks)

d) Should Gina contest the price increase? Explain your answer (4 marks)

e) How will a Kshs 3 increase in the price of machine parts affect Gina's own production decisions? (4 marks)

f) How is elasticity useful in guiding management with regard to whether or not price adjustments are viable? (5 marks)

g) Besides cost plus pricing, discuss other methods of price fixing that can be used by firm management (3 marks)

QUESTION TWO (12 MARKS)

Mbevi Ltd operates a lumber-processing mill in a remote area of Mumbuni in Machakos County. 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 and the average cost is about Kshs 300 (10 board feet) of timber. 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 MRP function below:

MRP = 10000 – 20L

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

W = 500 + 0.25L

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 formular that includes price elasticity of demand as a determinant in setting product price.

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 (1 mark)

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 Mbevi Ltd to W = 500 + 0.4L and price elasticity of demand changes to –4.0.

i. Determine the amount of labour that Mbevi 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) Explain how Mbevi Ltd will determine optimal labour to employ in the long run (3 marks)

QUESTION THREE (12 MARKS)

a) Company Z had monthly sale of 10,000 pairs of Shoes (at Kshs. 100 per pair) before a price cut by its major competitors. After the competitor's price reduction, the sales of company Z declined to 8,000 pairs a month. From past experience, company Z has estimated the price elasticity of demand to be about –2.0 in this price-quantity range. If the company wishes to restore its sales to 10,000 pairs a month, what price should it charge per pair of shoes? (6 marks)

b) Globalization is a policy prescription aimed at remedying problems facing developing economies. Fully explain this statement. (6 marks)

QUESTION FOUR (12 MARKS)

"Fiscal and Monetary policies are generally referred to as Demand Management policies". Giving examples, explain what is meant by this statement and discuss the tools employed under each policy to effectively manage demand in an economy.

QUESTION FIVE (12 MARKS)

a) Makuti Carpets, a carpet manufacturing and exporting firm, has to supply an order for 2000 pieces of woolen carpets of two varieties X and Y to Machakos University Hotel for its conference rooms. The joint cost function for the two varieties of the carpets is given as:

$TC = 4X^2 + 9Y^2 - XY$

The quantity of X and Y are not specified and so the firm is forced to supply any combination. The firm wishes to minimize the cost of producing the carpets but meet the demand by Machakos University Hotel.

(i) Determine how many of each type of carpet the firm will produce to minimize costs. (6 marks)

(ii) What will be the minimum cost of production? (2 marks)

b) A firm's demand and cost function is given as:

$Qd = 70 - 0.5P$ (Demand)

$TC = 10 + 5Q^2$ (Total cost)

Where Q is output produced and sold and P is the market price. Determine level of output that;

i. Maximizes Total Revenue (2 marks)

ii. Maximizes Profits (2 marks)