



**PAN AFRICA CHRISTIAN UNIVERSITY**  
**SCHOOL OF LEADERSHIP, BUSINESS & TECHNOLOGY**  
**END OF SEMESTER EXAMINATION FOR THE DEGREE OF**  
**MASTER OF BUSINESS ADMINISTRATION**  
**SEPTEMBER-DECEMBER 2019**

**CAMPUS: ROYSAMBU**

**DEPARTMENT: BUSINESS STUDIES**

**COURSE CODE: MBA501**

**COURSE TITLE: MANAGERIAL ECONOMICS**

**EXAM DATE: MONDAY 2<sup>ND</sup> DECEMBER 2019**

**DURATION: 2 HOURS**

**TIME: 5:30PM-7:30PM**

**INSTRUCTIONS**

- Read the instructions and questions carefully before you write the answers.
- Write your **STUDENT NUMBER** in the Answer Booklet given
- *Write clearly and legibly.*
- This exam script consists of **Six (6)** questions.
- Answer **ALL questions in SECTION A (compulsory)** and **Any other FOUR (4)** questions from **SECTION B**
- *ALL PAC University's examination rules and regulations apply*

## SECTION A: [40 MARKS - COMPULSORY]

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### QUESTION ONE

- a) With the help of an illustration, explain the meaning of an inferior good [3 marks]
- b) Explain any three assumptions of Consumer behavior [6 mark]
- c) Explain any five factors that influence demand of a product/service [10 marks]
- d) By use of illustration, describe the meaning of the term indifference curves [5 marks]
- e) Identify and explain three types of price elasticity of demand [6 marks]
- f) Briefly explain four factors that influence price elasticity of demand [8 marks]
- g) Define the term cross elasticity of demand [2 marks]

## SECTION B [ANSWER ANY FOUR QUESTIONS]

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### QUESTION TWO

- a) A firm's demand curve is given by  $P = 120 - 0.5Q$  where  $P$  = price and  $Q$  = quantity. The cost function is given by  $C = 420 + 60Q + Q^2$ .

**Required:** Determine the firm's optimal

- i. Price [5 marks]
- ii. Profit [4 marks]
- b) Suppose instead that the firm can sell any and all of its output at the fixed market price  $P = 120$ . Find the firm's optimal output [6 marks]

### QUESTION THREE

The demand function of XYZ Ltd is given as  $P = 340 - 0.8Q$  where  $P$  = price and  $Q$  = quantity. The total cost function is further given as  $C = 120 + 100Q$ .

**Determine:**

- a) The total revenue function [3 marks]
- b) The profit maximizing quantities if:
  - i. Variable cost per unit increases from 100 to 200 [5 marks]
  - ii. The price function changes to  $P = 400 - 0.8Q$  [7 marks]

#### QUESTION FOUR

A retail store faces a demand equation for Roller Blades given by  $Q = 180 - 1.5P$ : where Q is the number of pairs sold per month and P is the price per pair in dollars.

- i. If management were to raise the price to \$100, determine the number of pairs sold at this price **[5 marks]**
- ii. Compute the point elasticity of demand at  $P = \$80$  and at  $P = \$100$  **[6 marks]**
- iii. Determine the price at which demand is more price-sensitive and justify **[4 marks]**

#### QUESTION FIVE

- a) Below table shows the relationship between price of a certain product and the quantity demanded at that price:

|                |     |     |     |     |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Price          | 250 | 265 | 270 | 280 | 285 | 290 | 320 | 350 | 380 | 400 |
| Demand(dozens) | 600 | 580 | 550 | 540 | 520 | 500 | 480 | 450 | 430 | 410 |

**Required:**

- i. Determine the demand equation of the above product **[10 marks]**
- ii. Use the equation to predict the number of dozens demanded when the price falls to Kshs 200 **[5 marks]**

## QUESTION SIX

MK Ltd estimates that its demand function is as follows:

$$Q = 400 - 12.5P + 25A + 14Y + 10P^*$$

Where: Q = Quantity demanded per month, P= price of the product, A = Advertising expenses per month in (000), Y = Disposable income (in 000 per month) and P\* = Price of the other product.

### Required:

- i. During the next five years, disposable income is expected to increase by \$5,000 and the price of the other product is expected to increase by \$12. Determine the effect of these changes on the sales quantities by MK Ltd **[4 marks]**
- ii. If MK wants to change its price by enough to offset the above effects, determine the amount by which it must do so **[ 4 marks]**
- iii. If MK's current price is \$60 and it spends \$10,000 per month on advertising, while per capita income is \$25,000 and AJ's price is \$70, calculate the price elasticity of demand with the price change. **[5 marks]**
- iv. Explain whether the other product is a substitute or complementary product **[2 marks]**