PAN AFRICA CHRISTIAN UNIVERSITY
SCHOOL OF LEADERSHIP, BUSINESS AND TECHNOLOGY
END OF TRIMESTER EXAMINATION

DEPARTMENT: BUSINESS
COURSE CODE: BUS1313/BCM101/BIT108/DSM101
COURSE TITLE: PRINCIPLES OF MICROECONOMICS

EXAM DATE: THURSDAY 11TH DECEMBER 2025
EXAM DURATION: 2 HRS
TIME: 8:30AM-10:30AM
INSTRUCTIONS

- Read all questions carefully before attempting.
- Write your **student number** on the answer booklet provided.
- Answer FOUR questions **ONLY, Question one is compulsory**

SECTION ONE
QUESTION ONE: (COMPULSORY)
Market Dynamics in the Fresh Milk Industry

In a semi-urban region, the fresh milk market is dominated by small local farmers who supply milk to consumers through roadside vendors. Recently, a new processing plant entered the market offering pasteurized and packaged milk at competitive prices. Following this entry:

- The quantity supplied by small farmers reduced slightly as some shifted to selling milk to the plant instead of directly to consumers.
- Consumers started switching from unprocessed to processed milk due to safety and convenience.
- The government is considering introducing strict quality regulations for all milk sellers, which may increase production costs for small farmers.

Required:

a) Using demand and supply analysis, explain the likely effects of the entry of the new processing plant on the equilibrium price and quantity of milk in the market. (10 mks)
b) Discuss THREE factors that may influence consumers' choice between unpackaged and packaged milk in the context of this market. (12 mks)

c) Evaluate any four government quality regulations on small-scale producers and overall market efficiency. (8 mks)

SECTION TWO

QUESTION TWO

Suppose the price of coffee increases by 20%, leading to a 10% decrease in the quantity demanded. At the same time, the supply of coffee increases by 15% due to favorable weather conditions.

a) Calculate the price elasticity of demand (PED). (2mks)
b) Explain the effect of these two changes on the equilibrium price and quantity. (2mks)
c) Assume the market demand and supply functions for coffee are given by:

Demand: $Qd=100-2P$

Supply: $Qs=20+3P$

Find the equilibrium,

i) Price and (3mks
ii) Quantity. (3mk)

QUESTION THREE

A firm's demand function is given by:

$Q = 80 - 4P$

Its total cost (TC) function is:

$TC = 20 + 8Q$

Required:

(a) Determine the firm's **profit-maximizing output and price**. (4Mks)
(b) Compute the **maximum profit**. (4mks)
(c) Comment on whether the firm is operating efficiently at this output level. (2Mks)

QUESTION FOUR

a) Explain with a diagram the distinction between **movements along** the demand curve and **shifts** of the demand curve. (5mks)
b) Describe **three causes of shifts** and **two causes of movement along** the demand curve. (5mks)

QUESTION FIVE

a) Explain the following market structures

i. Pure oligopoly (2mks)
ii. Differentiated oligopoly (3mks)

b) With relevant examples, describe the following theories as used in economics
i. Law of variable proportions (2mks)
ii. Law of returns to scale (3mks)