



PAN AFRICA CHRISTIAN UNIVERSITY

**CAMPUS: VALLEY ROAD
MAY-AUGUST SEMESTER, 2018 ACADEMIC YEAR**

**END OF SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF BUSINESS LEADERSHIP
BACHELOR OF BUSINESS INFORMATION TECHNOLOGY
BACHELORS OF COMMERCE**

**DEPARTMENT OF BUSINESS
BCM101: PRINCIPLES OF MICROECONOMICS**

**EXAMINATION SESSION: MONDAY 6th AUGUST 2018
TIME: 3 HRS [5.30PM – 8.30PM]**

INSTRUCTIONS

- This examination script consists of **six(6)** questions.
- Answer question **ONE** and ANY other **four** Questions.
- Do not write on the question paper
- Show your working clearly
- Write your **student number** on the answer booklet provided.

QUESTION ONE: COMPULSORY

(a) Distinguish following pairs of terms:

- (i) Consumer surplus and producer surplus [2mks]
- (ii) Marginal rate of substitution and marginal rate of technical substitution [2mks]
- (iii) Inferior and normal good [2mks]

(b) The demand and supply functions for commodity X are given as follows:

$$Q_d = 100 - 2p; \quad Q_s = 40 + 4p$$

Compute.

- (i) Equilibrium price [2mk]
- (ii) Equilibrium quantity [1mk]

Use diagrams to illustrate and explain the effect on the value in (bi and ii) from

- (iii) A fall in price of X 's substitute [3mks]
- (iv) A simultaneous increase in input prices and a rise in consumer's income [4mks]
- (c) Explain two differences between consumer behavior and production theory. [4mks]
- (d) Distinguish between short-run and long-run period as used in the production of goods by a firm. [3mks]
- (e) Using a well-labeled diagram, sketch and explain the total cost, total fixed cost and total variable cost of a firm in the short run. [5mks]
- (f) Explain three market systems that describe allocation of resources in an economy. [6mks]
- (g) Explain three basic economic questions that any economic system must consider when determining resource allocation. [6mks]

QUESTION TWO

(a) The demand and supply function for sugar consumption in Kenya is given by the following equations;

$$Q_d = 3550 - 266p$$

$$Q_s = 1526 + 240p$$

- (i) Determine the equilibrium price and quantity [2mks]
- (ii) Illustrate the demand and the supply curves as well as the equilibrium price and quantity on a graph. [3mks]
- (iii) Suppose the government sets price ceiling, explain what happens to the quantity supplied and quantity demanded. [5mks]
- (iv) Now suppose the government sets price floor, explain what happens to the quantity supplied and quantity demanded. [5mks]

QUESTION THREE

- (a) Explain four features of a perfect competitive market [7mks]
- (b) Using a well-labeled diagram explain the long run equilibrium of a firm under perfect competitive market. [8mks]

QUESTION FOUR

- (a) Giving examples, explain the concept of total utility and marginal utility. [4mks]
 (b) What are the assumptions of cardinal utility theory [5mks]

(c) Musa consumes two commodities x and z and has the following total utility;

$$U = 20x - 4z^2 + 40z - x^2.$$

His total income (Y) is Ksh.48. The price of commodity x denoted by P_x is Ksh.4 while the price of commodity z denoted by P_z is Ksh.2. Determine the equilibrium quantities of x and z that Musa should consume to maximize his utility. [6mks]

QUESTION FIVE

- (a) Explain the effect of government taxation policies and subsidies on the quantity supplied of commodity. [4mks]
 (b) A consumer is able to consume the following bundles of rice and beans when the price of rice is \$2 and the price of beans is \$3.

Rice	Beans
12	0
6	4
0	8

Determine the consumer's income and draw a budget constraint for the consumer with rice on x-axis and beans on y-axis. [5mks]

- (c) Distinguish between income and substitution effect of price change of normal good. [6mks]

QUESTION SIX

- (a) Distinguish between isoquant and isocostline. [2mks]
 (b) Use a well-labeled diagram to explain the law of diminishing returns. [4mks]
 (c) Consider the following output table

Labor	Output
1	2
2	6
3	16
4	29
5	43
6	55
7	58
8	60
9	59
10	56

- (i) Calculate marginal product and average product of labor [6mks]
 (ii) Within what ranges do we see increasing returns, decreasing returns and negative returns? [3mks]