

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF BIOMEDICAL
SCIENCE AND TECHNOLOGY**

BMET 336: INTRODUCTION TO PHARMACOLOGY

STREAMS:

TIME: 2 HOURS

DAY/DATE: FRIDAY 12/04/2019

11. 30 A.M – 1.30 P.M

INSTRUCTIONS

- Answer question one and any other two questions

QUESTION ONE (COMPULSORY) (30 MARKS)

(a) Describe five types of parenteral route of drug administration. [5 marks]

(b) Outline five factors that determine drug distribution in a biological system.

[5

marks]

(c) Discuss pharmacodynamics drug interactions. [8 marks]

(d) By use of graphical curves, discuss various types of dose –response relationships.

[5

marks]

(e) Differentiate between pharmacology and pharmacy. [2 marks]

(f) (i) Define selective toxicity. [1 mark]

(ii) Highlight four ways in which microbes may acquire resistance to antimicrobial drugs.

[4 marks]

QUESTION TWO (20 MARKS)

(a) Discuss in detail five factors that influence drug absorption and bioavailability.

[10

marks]

(b) Describe five conjugation reactions involved in drug biotransformation. [10 marks]

QUESTION THREE (20 MARKS)

- (a) Describe five types of adverse drug effects. [10 marks]
- (b) (i) Outline three factors to take into consideration in selection of antibiotics. [3 marks]
- (ii) Describe classification of antibiotics by mechanism of action. [7 marks]

QUESTION FOUR (20 MARKS)

- (a) Discuss various transport ways of drug across cell membrane. [10 marks]
- (b) Describe the processes involved in development and evaluation of new drug molecules.

[10

marks]
