

CHUKA

UNIVERSITY



UNIVERSITY EXAMINATIONS

RESIT/SPECIAL EXAM

**EXAMINATION FOR THE AWARD OF DEGREE
OF BACHELOR OF EDUCATION (ARTS & SCIENCE)**

BMET 336: INTRODUCTION TO PHARMACOLOGY

STREAM: BMET

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 18/11/2020

2.30 P.M. – 4.30 P.M.

INSTRUCTIONS: Answer question **one** and **any other two** questions

QUESTION 1 (COMPULSORY) (30 MARKS)

- a) Briefly describe the advantages and disadvantages of the following routes of drug administration:
- (i) Intravenous
 - (ii) Intramuscular. (5 marks)
- b) Define the following terms:
- (i) Half-life of a drug
 - (ii) Apparent Volume of distribution (AVD)
 - (iii) Adverse drug reactions. (6 marks)
- c) Discuss briefly pharmacodynamics drug interactions (5 Marks)
- d) By use of graphical curves, discuss various types of dose-response relationships. (5 Marks)
- e) Differentiate between pharmacology and pharmacy. (4 Marks)
- f) (i) What is selective toxicity? (1 Mark)
- (ii) Highlight four ways in which microbes may acquire resistance to antimicrobial drugs. (4 Marks)

QUESTION 2 (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 3 (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 4 (20 MARKS)

- a) Discuss various transport ways of a drug across cell membrane. (10 Marks)
 - b) Describe factors determining the rate of distribution of drugs in a biological system. (10 Marks)
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