

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATION

RESIT /SPECIAL EXAMINATION

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE

BMET 336: INTRODUCTION TO PHARMACOLOGY

STREAMS:

TIME: 2 HOURS

DAY/DATE: FRIDAY 05/11/2021

11.30 A.M – 1.30 P.M

INSTRUCTIONS:

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

Questions

Question 1 (Compulsory) (30 marks)

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