

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

RESIT/SPECIAL EXAMINATION

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN
BIOMEDICAL TECHNOLOGY

BMET 336: INTRODUCTION TO PHARMACOLOGY

STREAMS: BMET

TIME: 2 HOURS

DAY/DATE: MONDAY 01/02/2021

8.30 A.M – 10.30 A.M.

INSTRUCTIONS

- Answer question ONE and any other TWO questions.

Question 1 (Compulsory) (30 marks)

- Discuss briefly pharmacodynamics drug interactions (5 Marks)
- Explain how dosage forms influence drug bioavailability in a biological system. (6 Marks)
- Highlight 5 host factors to be considered in the selection an antibiotic. (5 Marks)
- Differentiate between zero order and first order kinetics in drug pharmacokinetics. (4 Marks)
- Outline five disadvantages of antibiotic combinations. (5 Marks)
- Describe 5 ways in which microbes may acquire resistance to antimicrobial drugs. (5 Marks)

Question 2 (20 marks)

- Describe factors that influence drug absorption and bioavailability. (10 Marks)
- Describe five conjugation reactions involved in drug biotransformation. (10 Marks)

Question 3 (20 marks)

- Discuss in detail five routes of drug excretion. (10 Marks)
- Individuals differ both in the degree and the character of the response that a drug may elicit and therefore the optimum dose of a drug which produces the desired therapeutic

effect varies from person to person. Describe 5 important factors which influence the effect of a drug in individuals. (10 Marks)

Question 4 (20 marks)

- a) Describe the processes involved in development and evaluation of new drug molecules. (10 Marks)
 - b) Describe five types of adverse drug effects. (10 Marks)
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