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University Examinations 2023/2024

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN BIOCHEMISTRY

SHC 3452: BIOCHEMISTRY OF PHARMACEUTICALS

DATE: APRIL 2024

TIME: 2 HOURS

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

QUESTION ONE (30 MARKS)

- a) Illustrate the general structure of cephalosporin's (6 marks)
- b) Briefly describe examples of carbapenem (6 marks)
- c) Briefly describe the effects of macrolides on microorganisms (6 marks)
- d) Explain the effects of vancomycin on microorganisms (6 marks)
- e) Briefly describe how antimicrobials that bind to the 30s ribosomal subunit accomplish their effects (6 marks)

QUESTION TWO (20 MARKS)

Using specific examples describe how some antibiotics act on cell wall to bring about their bacteriostatic or bacteriocidal effects

QUESTION THREE (20 MARKS)

Using structural illustrations, describe penicillins as a group of beta lactams class of antibiotics

QUESTION FOUR (20 MARKS)

Discuss mechanisms of antibiotic resistance