

# School of Medical and Allied Sciences

Pharmacy  
ETE - Jun 2023

Time : 3 Hours

Marks : 75

## Sem VI - BP601T - Medicinal Chemistry III Theory

*Your answer should be specific to the question asked*

*Draw neat labeled diagrams wherever necessary*

1. Define antibiotics? Also name the various classes of beta-lactams. K1 CO1 (2)
2. Select any two and draw its structure: K1 CO4 (2)
  1. Prontosil
  2. Mafenide
  3. Dapsone
3. Name the five docking software. K1 CO5 (2)
4. Draw the chemical structure of any two of the following list: K1 CO3 (2)
  1. Amantadine
  2. Rimantadine
  3. Methisazone
5. Summarize the two examples of cinchona alkaloids with its chemical structure. K2 CO2 (2)
6. List the ideal properties of prodrugs with an example. K1 CO2 (2)
7. Illustrate the chemical structure of any two penicillinase-resistant penicillins. K2 CO1 (2)
8. Illustrate the chemical structure of any two of the following: K2 CO3 (2)
  1. Norfloxacin
  2. Pipemidic acid
  3. Amifloxacin
9. Demonstrate the two advantage and disadvantage of QSARs. K2 CO5 (2)
10. Demonstrate the chemical structure of diethyl carbamazine and its uses. K2 CO4 (2)
- 11) Identify the SAR of cephalosporins. K3 CO1 (5)

### OR

- Identify the various classes of tetracycline antibiotics. K3 CO1 (5)
12. Analyze the nomenclature and MoA of penicillin. K4 CO1 (5)
  13. Identify the various classes of antitubercular agents. K3 CO3 (5)
  14. Write the SAR of chloramphenicol. K3 CO2 (5)
  15. Analyze the various classes of macrolide antibiotics with its chemical structure. K4 CO2 (5)

or

Outline the SAR of quinolines.
  - 16) Analyze the synthesis of nitrofurantoin. K4 CO3 (5)

### OR

- Analyze the MoA and synthesis of PASA. K4 CO3 (5)
17. Develop short notes on the de novo drug design methodology and its type. K6 CO6 (5)
  18. Evaluate the SAR of sulphonamides and also give a synthetic reaction for sulphacetamide. K5 CO4 (10)
  - 19) Discuss the hammett's relationship and tafts steric constant. K6 CO5 (10)

### OR

- Develop a short notes on the dock and autodock software and also discuss its limitations. K6 CO5 (10)