

QP Code: 621006

Reg. No.....

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations
November 2025
Medicinal Chemistry III
(2017 Scheme)

Time: 3 Hours

Max. Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

Essays

(2x10=20)

1. a) What are antibiotics. Classify cephalosporins with structural examples
b) Explain the mechanism of action and chemical degradation of cephalosporins
2. a) Classify antimalarial drugs with structural examples
b) Describe The Structural Activity Relationship (SAR) of quinoline class of antimalarials

Short Notes

(7x5=35)

3. Explain the Structural Activity Relationship (SAR) of penicillin class of antibiotics
4. Explain the applications of Prodrugs
5. Explain the Structural Activity Relationship (SAR) of quinolone class of anti-infective agents
6. Outline the synthesis and mechanism of action of
a) Paraamino salicylic acid b) Nitrofurantoin
7. Define and classify antifungal drugs
8. Give the synthesis, mechanism of action and uses of diethylcarbamazine citrate
9. Explain the concept and important applications of combinatorial chemistry

Answer Briefly

(10x2=20)

10. What are beta-lactamase inhibitors
11. Explain the mechanism of action of macrolide antibiotics
12. Outline the synthesis of chloramphenicol
13. Give the structures and uses of following
a) Nalidixic acid b) Acyclovir
14. Give the chemical synthesis of isoniazid
15. Explain the mechanism of action of sulphonamides
16. Give the structures and uses of
a) Dapsone b) Trimethoprim
17. Explain the importance of partition coefficient in relation to the drug action
18. Define molecular docking and mention their applications
19. Briefly explain the concept of pharmacophore modelling
