QP Code: 621006 **Reg. No……**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations
February 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) Explain the concept of combinatorial chemistry
   b) Explain in detail about pharmacophore modelling and docking
2. a) What are antibacterial sulphonamides. Classify them with structural examples
   b) describe the Structural Activity Relationship (SAR) of quinoline class of antimalarial drugs

Short Notes **(7x5=35)**

3. Describe the Structural Activity Relationship (SAR) of cephalosporin class of antibiotics
4. Explain the chemistry and mechanism of action of tetracyclines
5. Outline the chemical synthesis and mechanism of action of chloramphenicol
6. What are prodrugs. Explain the applications of prodrugs
7. Classify antitubercular drugs with structural examples
8. Explain the Structural Activity Relationship (SAR) of quinolone class of anti-infective agents
9. Outline the synthesis and mechanism of action of
   a) Metronidazole b) Diethylcarbamazine citrate

Answer Briefly **(10x2=20)**

10. Draw the structures of penicillin degradation products
11. Give a note on aminoglycosides
12. Outline the structures and uses of macrolide antibiotics
13. Explain the mechanism of action of acyclovir
14. Outline the chemical synthesis of ciprofloxacin
15. Outline the chemical synthesis of mebendazole
16. Outline the synthesis and mechanism of action of dapsone
17. What are anthelmintics
18. Outline the synthesis and mechanism of action of miconazole
19. Give the structure and uses of
    a) Trimethoprim b) Pyrimethamine

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