

**Sixth Semester B. Pharm Degree Regular/Supplementary  
Examinations May 2021  
Medicinal Chemistry**

**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. Classify penicillins with structural examples and explain the Structural Activity Relationship (SAR) of penicillins.
2. Explain the concept of prodrugs. Describe in detail about the pharmaceutical applications of prodrugs.

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

3. Explain the structural activity relationship (SAR) of antibacterial quinolones.
4. Antifungal antibiotics.
5. Explain the mechanism of action and chemical degradation of cephalosporins.
6. Classify antimalarial drugs with structural examples.
7. Give the structures and uses of
  - Paraamino salicylic acid
  - Ketoconazole
  - Cephalexin
  - Erythromycin
  - Sulphacetamide
8. Give the synthesis, mechanism of action and uses of acyclovir.
9. Solid-phase combinatorial synthesis.

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

10. What are beta-lactum antibiotics
11. Enumerate azole antifungal drugs with structures.
12. Give the structures and uses of following
  - Ciprofloxacin      • Nitrofurantoin
13. Outline the synthesis of isoniazid.
14. List four important Structural Activity Relationship (SAR) of antimalarial drugs.
15. Explain the mechanism of action of sulphonamides.
16. Give the structures and uses of Diethylcarbamazine and Miconazole
17. How the Hammett's parameter is useful in the drug design procedures.
18. Write the chemical synthesis of dapsone.
19. Explain the concept of docking.

\*\*\*\*\*