

QP Code: 422006

Reg. No.....

**Fourth Semester B.Pharm Degree Regular/Supplementary
Examinations December 2024
Medicinal Chemistry - 1
(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. Explain the term drug metabolism. Outline the phase II metabolic reactions with examples. Write a note on protein binding of drugs in relation to drug action.
2. Define and classify sedative and hypnotics with examples. Outline the chemical synthesis and mechanism of action of barbitol."

Short Notes

(7x5=35)

3. Explain the significance of hydrogen bonding and chelation of drugs in relation to biological activity.
4. What are beta-adrenergic blockers. Explain the Structural Activity Relationship (SAR) of beta-adrenergic blockers.
5. Outline the chemical synthesis of carbachol and neostigmine.
6. Classify antipsychotics with examples and structures.
7. Outline the chemical synthesis and mechanism of action of halothane.
8. Explain the mechanism of action of anti-inflammatory agents. Outline the synthesis of ibuprofen.
9. Outline the chemical synthesis and mechanism of action of fentanyl citrate.

Answer Briefly

(10x2=20)

10. Any two examples of bioisosteric replacement in relation to biological action.
11. Classify sympathomimetic agents.
12. Give a note on distribution of cholinergic receptors.
13. Outline the synthesis of dicyclomine hydrochloride.
14. Give the structure and uses of two ultra-short acting barbiturates
15. Explain the mechanism of action of carbamazepine.
16. Chemical structure and uses of gabapentin.
17. Explain the mechanism of action of ketamine hydrochloride.
18. Give the name and uses of a narcotic antagonist.
19. Write the structure and uses of meperidine.
