

2010 scheme

QP CODE: 401006

Reg. No:

Final Year B.Pharm Degree Supplementary Examinations September 2023

Pharmaceutical Chemistry - V (Medicinal Chemistry)

Time: 3 Hours

Total Marks: 100

- 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
- Write chemical structures wherever necessary.

Essays

(3x10=30)

1. Define sedatives, hypnotics and anti-anxiety agents. Explain the SAR of benzodiazepines. Write the synthesis and use of diazepam.
2. Chemistry and SAR of parasympathomimetic drugs. Synthesis of pyridostigmine.
3. Classify antineoplastic agents with examples. Give the mechanism of action of dihydrofolate reductase inhibitors and antimetabolites and outline the synthesis of 5-fluorouracil.

Short notes

(14x5=70)

4. Explain the effect of optical and geometrical isomerism in relation to biological action of drugs.
5. Give an account on QSAR and explain how it is useful in drug design.
6. Explain the mechanism of action high-ceiling/loop diuretics. Outline the synthesis of furosemide.
7. What are the general structural features required for a NSAID. Outline the synthesis of indomethacin.
8. Write the synthesis and uses of dicyclomine and paracetamol.
9. What are anti-thyroid drug. Give the mechanism of action and synthesis of carbimazole.
10. Write the mechanism of action and synthesis of metformin and tolbutamide.
11. Classify anti-tubercular agents. Outline the synthesis of PAS.
12. What are proton pump inhibitors. Explain the mechanism of action, structure and uses of any one proton pump inhibitor.
13. Write SAR of adrenergic drugs and give their various therapeutic uses.
14. Write the synthesis of chloramphenicol and ampicillin.
15. Applications of quantum mechanics.
16. Classify general anaesthetics with examples. Discuss on mechanism of action of inhalation anaesthetics and outline the synthesis of halothane.
17. Write the SAR of phenothiazines as antipsychotics and outline the synthesis of chlorpromazine.
