

Rajiv Gandhi University of Health Sciences, Karnataka

Fourth Semester B. Pharm Degree Examination – 04-Jun-2024

Supply

Time: Three Hours

Max. Marks: 75

MEDICINAL CHEMISTRY - I

Q.P. CODE: 5014

Your answers should be specific to the questions asked

Draw neat labeled diagrams wherever necessary

All the Questions are compulsory

LONG ESSAYS

2 x 10 = 20 Marks

1. What are adrenergic neurotransmitters? Give examples. Add a note on the adrenaline biosynthesis and outline the synthesis of Salbutamol and phenylephrine.

OR

Define and classify sedatives and hypnotics with examples. Give one structure from each class. Discuss the SAR of barbiturates. Write the synthesis of Barbitol.

2. Classify NSAIDs with structural example. Write the synthesis and uses of Ibuprofen and Mefenamic acid.

SHORT ESSAYS

7 x 5 = 35 Marks

3. Explain diagrammatically the role of Cytochrome P-450 and mono oxygenase in biotransformation of drugs.

OR

What is meant by solubility and partition co-efficient? Explain their influence on drug action.

4. Give an account on the chelation reactions involved in drug metabolism.

OR

Discuss about adrenergic beta receptor antagonists and give the synthesis of propranolol.

5. Discuss the SAR of parasympathomimetic agents.
6. Explain the role of cholinesterase enzyme. Write the Synthesis, mechanism of action and uses of neostigmine.
7. Give a brief account on cholinergic receptors. Outline the synthesis of dicyclomine hydrochloride.
8. Outline the synthesis of carbamazepine and Phenytoin. Mention their uses.
9. What are Narcotic antagonists? Write the structure and uses of any three of them.

SHORT ANSWERS

10 x 2 = 20 Marks

10. What is phase II biotransformation? Write any two examples for conjugation reactions.
11. Enlist the factors affecting drug metabolism.
12. Write the structure and uses of Terbutaline and Methyldopa.
13. Give the structure of any two drugs used for the treatment of asthma.
14. Write a note on alpha adrenergic receptors.
15. Give the synthesis and uses of carbachol.
16. What you mean by Cholinesterase reactivator? Give examples
17. Write the structure and uses of Malathion and Hyoscyamine sulphate.
18. Write the structure and specific uses of Lorazepam and Alprazolam.
19. Write the structure and specific uses Morphine and Codeine.
