

Rajiv Gandhi University of Health Sciences, Karnataka

Fifth Semester B. Pharm Degree Examination – 25-Apr-2025

Time: Three Hours

Max. Marks: 75 Marks

MEDICINAL CHEMISTRY - II

Q.P. CODE: 5018

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. Classify the antimetabolites for cancer therapy with examples. Write the structure and mechanism of action of one drug from each class. Write the synthesis and uses of 6-Mercapto purine.
OR
 - a) Define and classify local anaesthetics with examples. Write the structure and uses of Lidocaine and Cocaine.
 - b) Explain the SAR of local anaesthetics of ester type. Outline the synthesis of Procaine.
2.
 - a) Classify antihypertensives with structural examples. Give the structure, chemical name and uses of Guanethidine and Enalapril.
 - b) Discuss the SAR and therapeutic uses of cardiac active Dihydro pyridines. Write the structure of any three of them.

SHORT ESSAYS

7 x 5 = 35 Marks

3. What are steroids? Give an account on their stereochemistry and nomenclature.
OR

Classify antihyperlipidemics, giving examples. Write the structure, uses and mechanism of action of Lovastatin.
4. What are coagulants? Give two structural examples for each. Write a specific uses of Coumarins.
OR

Classify antiarrhythmics giving examples. Write the structure and uses of Amiodarone and Disopyramide.
5. Write the structure, mode of action and uses of Ethacrynic acid and Spiranolactone.
6. What are antihistaminics? Write structure and uses of Histamine. Write about histamine receptor and their distribution.
7. What are adrenocortical hormones? Give the name, structure and uses of any three corticosteroids.
8. What are orally active antidiabetic agents? Classify them with structural examples.
9. What are thyroid and antithyroid drugs? Give any two structures for each.

SHORT ANSWERS

10 x 2 = 20 Marks

10. Write the synthesis and uses of Isosorbide dinitrate.
11. What are Cardenolides? Give the structure and uses of any one.
12. Write the structure and uses of any two cardiac active beta blockers.
13. What are H₂ antagonists? Write the structure and uses of any one.
14. Outline the synthesis of Diphenhydramine, mention its uses.
15. What are carbonic anhydrase inhibitors? Give two examples with structures.
16. Write the structure, chemical name and uses of Triamterene and Amiloride.
17. Give the structure of Metformin and Chlorpropamide with their chemical name and clinical uses.
18. Write the structure and uses of Ethinyl estradiol and Diethyl stilbesterol.
19. What is neoplasm? Enlist the antineoplastic antibiotics.
