

Rajiv Gandhi University of Health Sciences, Karnataka
Fifth Semester B. Pharm Degree Examination – 28-May-2024

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. Discuss the chemistry and SAR of Thiazide diuretics. Explain how do they act. Outline the synthesis and uses of any one Thiazide.

OR

- a) Explain in detail insulin and its preparations.
b) Discuss the chemistry, SAR and mode of action of Sulphonylurea derivatives. Outline the synthesis of Tolubutamide.
2. a) Define and classify alkylating agents with structural examples. Explain their mechanism of action.
b) Enlist the antineoplastic plant products and antibiotics. Write the chemical nature and mode of action of vinca alkaloids.

SHORT ESSAYS

7 x 5 = 35 Marks

3. Write the structure, mechanism of action and uses of Clofibrate and Lovastatin.

OR

- What are steroids? Classify steroids with examples. Write the structure and functions of Testosterone and Progesterone.
4. • Classify anti-hypertensives giving examples. Write the structure and uses of Timolol and Guanethadine.
- OR**
- Outline the synthesis and uses of a) Warfarin sodium b) Disopyramide
5. Write the biological functions of thyroid hormones. Add a note on anti thyroid agents, with structures.
6. • What are H₂ antagonists? Write about their functions. Give the synthesis of Cimetidine.
7. • Classify anti arrhythmics with structural examples. Give the structure and cardiac activities of Quinidine and Tocainade.
8. Explain the structural requirements for local anaesthetics of ester types. Outline the synthesis of Procaine HCl.
9. Write the structure and uses of Betamethasone, Nandralone, Diethyl **stilbestrol**, **Prednesolone** and **Norgestril**.

SHORT ANSWERS

10 x 2 = 20 Marks

10. • What are anticoagulants? Write the structure of Clopidogrel.
11. • Name gastric proton pump inhibitors. Write the structure of any one.
12. • Write the structure and uses of Nifedipine and Bepridil.
13. **What are Cardiotonics? Give the structure and uses of any one.**
14. **Write the structure and specific uses of Nitroglycerin and Isosorbide Dinitrate.**
15. • Outline the synthesis of Promethazine HCl.
16. • What are potassium sparing diuretics? Give two examples with their structures.
17. Write the structure and uses of Chlorcyclizine and Cyproheptadine.
18. Name the drugs used for erectile dysfunction. Write the structure of any one.
19. Write the structure and use of Lignocaine and Dibucaine.