

Rajiv Gandhi University of Health Sciences, Karnataka

Second Semester B.Pharm Degree Examination – 17-May-2025

Time: Three Hours

Max. Marks: 75 Marks

Pharmaceutical Organic Chemistry-I

Q.P. CODE: 5006

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 elimination reactions? Discuss the kinetics, mechanism, orientation and reactivity of E₂ reaction.
OR
Explain kinetics, mechanism, stereochemistry and reactivity of SN₂ reaction.
2. Explain the mechanism of Benzoin condensation and Cannizzaro reaction.

SHORT ESSAYS

7 x 5 = 35 Marks

3. What is Isomerism? Discuss Structural isomerism with examples.
OR
Give any four methods of preparation of alkenes.
4. What is hybridization? Write a note on SP² hybridization in alkenes.
OR
Discuss the mechanism and stereochemistry of SN₁ reaction.
5. Give any four chemical reactions of alkyl halides.
6. Explain the reaction mechanism involved in crossed aldol condensation.
7. Explain the reaction and mechanism of Perkin condensation.
8. Carboxylic acids are acidic in nature, Why? Chloro acetic acid is more acidic than acetic acid. Give reason.
9. What are aliphatic amines? Discuss any three-general method of preparation for aliphatic amines.

SHORT ANSWERS

10 x 2 = 20 Marks

10. **Write the structure of a) Amphetamine b) Acetyl Salicylic Acid**
11. Write the structure of a) 1,3-butadiene b) 2,4,6-tribromo aniline.
12. Write a note on allylic rearrangement.
13. Write a note on ozonolysis with examples.
14. Give the structure and use of Trichloroethylene and Dichloromethane.
15. Write the structure and uses of acetone and chloralhydrate.
16. Write any one qualitative test for benzaldehyde and paraldehyde.
17. Write any two qualitative test for amines.
18. Write the structure and uses of oxalic acid and tartaric acid.
19. **Write a method for the conversion of carboxylic acid to ester.**
