

Rajiv Gandhi University of Health Sciences, Karnataka

Second Semester B.Pharm Degree Examination – 01-Jun-2023

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. Discuss about kinetics and mechanisms of E_1 and E_2 reactions.

OR

- a. Explain the acidity of carboxylic acid.
b. Write the mechanism of Perkin condensation.

2. Explain briefly the factors affecting SN^1 and SN^2 reactions.

SHORT ESSAYS

7 x 5 = 35 Marks

3. Write the IUPAC nomenclatures of Formic acid, Acetone, Isopropyl alcohol, ethylene and acetylene.

OR

Explain the rearrangement of carbocations.

4. Explain the basicity of aliphatic amines with suitable example.

OR

Write the qualitative test for Esters and Carboxylic acids.

5. Explain about stereochemistry of SN_1 and SN_2 reactions.
6. Define Markovnikov's rule. Give its mechanism.
7. Write the mechanisms of Aldol condensation.
8. Write two chemical tests for alcohols and amines.
9. What is Benzoin condensation? Give its mechanism.

SHORT ANSWERS

10 x 2 = 20 Marks

10. What is Diel's-Alder reaction? Give example.
11. What is metamerism? Give example.
12. Write the structure and uses of Lactic acid and benzyl benzoate.
13. Explain why methyl bromide undergone SN_2 reaction faster than isopropyl bromide.
14. Write the structures of iso-butyl chloride and tert-butyl bromide.
15. What is crossed canizzaro reaction?
16. Define electrophiles and Nucleophiles.
17. What is free radical? Classify
18. Write two quantitative tests to distinguish between aldehydes and ketones.
19. What is allylic rearrangement? Give example.
