

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B. Pharm Degree Examination – 05-Jun-2024

Time: Three Hours**Max. Marks: 70 Marks****PHARMACEUTICAL ORGANIC CHEMISTRY – I (RS4)****Q.P. CODE: 2628**

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two)**2 x 10 = 20 Marks**

1. Compare SN1 and SN2 reactions with respect to the mechanism, stereochemistry and kinetics
2. Explain Bayer's Strain theory of cycloalkanes and molecular orbital concept
3. Define and give the mechanism of Markovnikov's rule and Anti-markovnikov's addition

SHORT ESSAYS (Answer any Six)**6 x 5 = 30 Marks**

4. Define with example a) Electrophiles b) Nucleophiles
5. Discuss the dehydration of alcohol with a suitable example
6. Explain Diel's alder reaction with example
7. What are cycloalkanes? Write any three methods of preparation
8. Why conjugated dienes are more stable than non-conjugated dienes explain
9. Explain Cannizzaro condensation with the mechanism
10. Write the Haworth synthesis of Naphthalene
11. Outline the Mechanism of Perkin's condensation

SHORT ANSWERS**10 x 2 = 20 Marks**

12. What is Williamson's synthesis? Give an example
13. Write the structure and IUPAC name of a) Acetaldehyde b) Acetone
14. Define Hydrogen bonding with its application
15. What is a polar aprotic solvent?
16. Define acid and base with examples
17. Define carbene with example
18. What is Kolbe's reaction? Give one example
19. Write the structures of a) 2, 2-Dimethyl propane b) 3-Chloro pentanone
20. Define the inductive effect with example
21. Write the Bromination of methane
