

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B. Pharm Degree Examination – 23-Nov-2022

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 E1 and E2 reactions with respect to the mechanism, stereochemistry and kinetics
2. Explain Bayer's Strain theory of cycloalkanes with limitations
3. Define and give the mechanism a) Perkin's reaction b) Benzoin condensation

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

4. Define with example - a) Electrophiles b) Nucleophiles
5. Give the rules for the nomenclature of aliphatic compounds with examples.
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 crossed Cannizzaro condensation with the mechanism
10. Write the Haworth synthesis of Naphthalene
11. Outline the mechanism of Aldol condensation

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

12. What is Sandmeyer's synthesis? Give an example
13. Write the structure and IUPAC name of a) Acetaldehyde b) Acetone
14. Define carbanion. Write one method of formation of carbanion
15. What is a polar aprotic solvent?
16. Define Lowry Bronsted theory of acid and base with examples
17. Distinguish between functional and positional isomerism
18. What is meant by free radical? Give one example
19. Write the structures of a) 2, 2-Dimethyl propane b) 3-Chloro pentanone
20. How is aniline is converted to chlorobenzene?
21. Why aliphatic amines are more basic than aromatic amines?
