

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Pharm Degree Examination – 16-Sep-2020

Time: Three Hours**Max. Marks: 80 Marks**

PHARMACEUTICAL ORGANIC CHEMISTRY - I **(Revised Scheme - 2)** **Q.P. CODE: 1954**

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. Define Electrophilic and Free radical addition reactions? Give the mechanism of Markovnikov's and anti-Markovnikov's addition.
2. What are cycloalkanes? Describe any four methods of preparation of cycloalkanes. Write a note on Bayer's strain theory of cycloalkanes.
3. Define and give the mechanism of following reactions
(i) Cannizzaro reaction (ii) Fries re-arrangement

SHORT ESSAYS (Answer any Eight)**8 x 5 = 40 Marks**

4. Explain the mechanism and stereochemistry of SN^1 reaction.
5. Explain the aldol and crossed aldol condensation reaction.
6. Define and give the mechanism of Perkins reaction.
7. Describe the chlorination of methane along with its mechanism.
8. Write a note on acidity of carboxylic acids.
9. Explain the effect of halogen on electrophilic aromatic substitution reaction.
10. Define isomerism and list different types of isomerism with examples.
11. Explain the mechanism and importance of Sandmeyer reaction.
12. Explain Friedel crafts alkylation with its limitations.
13. Write note on dehydration of alcohols.

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

14. Define and explain diazotization reaction with an example.
15. Define carbocation and carbanion.
16. What are Lewis acids? Give examples.
17. Define resonance with suitable example.
18. Give Reformatsky reaction
19. Define free radicals with examples.
20. Write the structure and IUPAC names of a) Acetone b) Formic acid.
21. Define bond dissociation energy and dipole moment with example.
22. Write short notes on hydrogen bonding.
23. Give structure and uses of salicylic acid and dimercaprol.
