

Supply

Rajiv Gandhi University of Health Sciences, Karnataka
I Year Pharm-D Degree Examination – 06-May-2025

Time: Three Hours

Max. Marks: 70

PHARMACEUTICAL ORGANIC CHEMISTRY (RS2)

Q.P. CODE: 2877

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. Explain the effect of substituents on electrophilic aromatic substitution reaction with examples.
2. Discuss free radicals chain reaction of alkanes with mechanism and add a note on its stability.
3. Discuss stability of allyl radical with its orbital picture and explain nucleophilic substitution in vinylic substrates

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Explain Claisen condensation with example.
5. Explain cyclo addition reaction.
6. Explain Bayer's strain theory. Write its limitations.
7. Describe nitration of benzene.
8. Explain the mechanism involved in benzoin condensation.
9. Write the mechanism of dehydration of alcohol.
10. Write the structure, assay and uses of vanillin and citric acid.
11. Explain Friedel-Crafts alkylation mechanism and its limitations.

SHORT ANSWERS

10 x 2 = 20 Marks

12. Define and classify Hydrogen bonding with example
13. What are carbocations? Give example.
14. Write the structure of carboxylate ion
15. Write the structure and IUPAC name of a) Diethylether b) Acetone
16. Give example for structural isomerism.
17. Explain Williamson synthesis.
18. Give the structure and uses of salicylic acid.
19. Define polarity with examples.
20. Write an example of displacement reaction.
21. What is Hoffmann's elimination reaction?
