

Rajiv Gandhi University of Health Sciences, Karnataka

I Year Pharm-D Degree Examination – 05-Jun-2023

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. Discuss Friedel craft reaction with mechanisms. Give importance of acylation and alkylation notifying merits and demerits.
2. Discuss on reaction kinetics in nucleophilic aliphatic substitution mechanism. Write a note on factors involved in varying rate of reactions.
3. Classify the substituents in electrophilic aromatic substitution reactions. Discuss the orientation and reactivity of hydroxy group in benzene and nitro group in benzene.

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. What are cycloalkanes? Write any three methods of preparation.
5. State Markonikov's rule. Give the mechanism involved in addition of HBr in the absence of peroxide.
6. Explain Perkin's condensation reaction with mechanism.
7. What is isomerism? Emphasize on keto-enol isomerism
8. Write in detail on intermolecular forces.
9. Enumerate IUPAC rules for naming alkenes with examples.
10. Discuss 1) Phase transfer catalysis 2) Hydrogen bonding
11. Discuss the mechanism involved in Aldol condensation.

SHORT ANSWERS

10 x 2 = 20 Marks

12. Write the similarities between S_N1 and E_1 reactions.
13. Structure and uses of 1) Sodium Lauryl Sulphate 2) Vanillin
14. Write the structure and uses of 1) Mephensin 2) Aspirin
15. a) Give the structure for Neopentane
b) Give the IUPAC name for Ethyl methyl ketone
16. Write Diel's Alder reaction with example.
17. Discuss Acidity of acids.
18. Define polarity and dipole moment with example.
19. Write the structure of Ethyl acetate and Ethyl acetoacetate
20. Define oxidation and reduction with one example.
21. Discuss Cis and Trans isomer with respect to stability.
