

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**I Year Pharm D Degree Examination – MAY 2016**

**Time: Three Hours**

**Max. Marks: 70 Marks**

**PHARMACEUTICAL ORGANIC CHEMISTRY**

**Q.P. CODE: 2877**

Your answers should be specific to the questions asked  
Draw neat labeled diagrams wherever necessary. Answer all questions

**LONG ESSAYS (Answer any Two)**

**2 x 10 = 20 Marks**

1. Discuss on reaction mechanism and kinetics of both the SN reaction. Elaborate the different factors on which SN reactions depends upon.
2. Discuss on electrophilic aromatic substitution in benzene with respect to activating and deactivating groups. Write a note on resonance stabilization of benzyl radical. Add a note on side chain halogenation of alkyl benzene.
3. Discuss free radicals chain reactions of alkanes with mechanism in detail. Add a note on stability of free radicals.

**SHORT ESSAYS (Answer any Six)**

**6 x 5 = 30 Marks**

4. Discuss the mechanism involved in nitration and sulphonation of benzene.
5. Discuss the mechanism involved in Aldol and crossed Aldol condensation.
6. Explain the mechanism involved in anti-Markovnikov's rule
7. What is isomerism? Emphasize on keto-enol isomerism
8. Write the preparation of different acid derivatives with example.
9. Write a note on Phase transfer catalysis.
10. Write the mechanism of dehydration of alcohol.
11. Write the structure, assay and uses of 1. Dimercaprol 2. Saccharin sodium.

**SHORT ANSWERS**

**10 x 2 = 20 Marks**

12. What is hydrogen bonding? Give examples.
13. Write the meaning and importance of second order of reaction in reaction kinetics.
14. Nomenclature of aldehydes
15. Write some catalysis for oxidation and reduction reaction
16. Structure and uses of Sodium Lauryl Sulphate.
17. Conversion of acids to amides and anhydrides
18. What are Carbocations? Give example
19. Write the structure of Vinyl Bromide and Allyl iodide.
20. What is inversion of configuration? Give example.
21. Why water boiling point is more than ethanol and ethanol boiling point is more than acetone.

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