



**Rajiv Gandhi University of Health Sciences, Karnataka**  
**I Year Pharm. D Degree Examination – Jan 2014**

**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 theory of nitration and sulphonation.
5. Discuss the mechanism involved in Aldol and crossed Aldol condensation.
6. Discuss the mechanism involved in anti-Markownikoff's rule
7. What is isomerism? Emphasize on keto-enol isomerism
8. Write the preparation of different acid derivatives with example.
9. Discuss 1. Phase transfer catalysis 2. Hydrogen bonding.
10. Write in detail on intermolecular forces.
11. Write the structure, assay and uses of 1. Dimercaprol 2. Saccharin sodium.

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

12. Write the similarities between SN<sub>2</sub> and E<sub>2</sub>
13. Write the meaning and importance of second order of reaction in reaction kinetics.
14. Nomenclature of aldehydes
15. Write some catalysts for oxidation and reduction reactions
16. Structure and uses of SLS.
17. Add a note on diazotization reaction
18. What are Carbocations? Write example
19. Write the structure of Vinyl Bromide and Allyl iodide.
20. Walden Inversion
21. Why water boiling point is more than ethanol and ethanol B.P is more than acetone?

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