

Rajiv Gandhi University of Health Sciences, Karnataka

Second Semester B.Pharm Degree Examination – JAN-2019

Time: Three Hours**Max. Marks: 75 Marks**

Pharmaceutical Organic Chemistry-I

Q.P. CODE: 5006

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. What happens when propene is treated with hydrogen bromide? Discuss the mechanism involved in the presence and absence of peroxide.
2. Discuss the mechanism, stereochemistry and kinetics involved in unimolecular nucleophilic substitution reaction by selecting an appropriate example.
3. Explain the mechanism of Benzoin condensation and crossed Cannizzaro reaction.

SHORT ESSAYS (Answer any Seven)**7 x 5 = 35 Marks**

4. Give the structure of (a) 2,2-dimethyl propane (b) 3-chloro pentane-2-one (c) 1,3-butadiene (d) Ethyl methyl ketone (e) 2-bromo-3-methyl hexane.
5. Enlist the different types of hybridization in carbon compounds and explain any one type.
6. Explain the orientation and mechanism of E₂ reaction.
7. Enlist the concept of rearrangement reaction of carbocation with suitable examples.
8. Give any four qualitative tests for alcohol.
9. Explain the mechanism of Aldol condensation.
10. What are carbonyl compounds? Describe any two methods of preparation for aldehydes and ketones.
11. Explain the effect of substituents on acidity of carboxylic acids.
12. What are aliphatic amines? Explain any three chemical reactions of aliphatic amines.

SHORT ANSWERS (Answer All)**10 x 2 = 20 Marks**

13. Define functional isomerism with example.
14. Write the structure of a) Glycerol b) Methanol.
15. What are paraffins? Give two examples.
16. Explain the stability of alkene with examples.
17. Give the structure and use of Iodoform and chloroform.
18. Write the structure and uses of vanillin and benzaldehyde.
19. Write any one qualitative test for cinnamaldehyde and paraldehyde.
20. Write any two qualitative test for esters.
21. Write the structure and uses of succinic acid and oxalic acid.
22. Write the structure and uses of ethylenediamine and amphetamine.
