

# Rajiv Gandhi University of Health Sciences, Karnataka

## Second Semester B.Pharm Degree Examination – 07-Jan-2020

**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. Explain Kinetics, mechanism, stereochemistry and reactivity of SN2 reaction.
2. What are elimination reactions? Discuss the kinetics, mechanism, orientation and reactivity of E1 reaction.
3. Explain the Benzoin condensation and Cannizzaro condensation with mechanism.

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

4. Write the stability order of free radicals. Give reason.
5. What is Aldol condensation? Discuss the mechanism involved.
6. Write any three methods of preparation of Alkanes.
7. Write the mechanism of Perkin condensation.
8. Explain the mechanism of anti-Markovnikov's addition reaction with suitable example.
9. Explain Factor affecting E<sub>1</sub> reaction.
10. Explain in detail saytzeff's rule with suitable example.
11. Discuss the rearrangement of carbocation with suitable examples.
12. What is isomerism? Classify them with suitable examples.

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

13. Write the structure of a) 2-bromo 3-methyl hexane b) amphetamine.
14. What are Elimination and Substitution reactions?
15. Write the structure and IUPAC name of a) Ethyl methyl ketone b) Diethyl ether.
16. Define amines. Give the reason why amines are basic in nature.
17. Write structure and uses of Ethylenediamine and Formaldehyde.
18. Write qualitative test for Cinnamaldehyde and Acetone.
19. What are Nucleophiles? Give two examples.
20. Write two chemical tests for aldehydes.
21. What is Cross Aldol condensation?
22. Write structure and uses of Acetic acid and Lactic acid.

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