

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Pharm Degree Examination – Aug / Sep 2011

Time: Three Hours

Max. Marks: 70 Marks

PHARMACEUTICAL ORGANIC CHEMISTRY – I (Revised Scheme 3)

Q.P. CODE: 2604

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 the mechanism involved in (A) Aldol condensation (B) Claisen's condensation
2. Explain the mechanism, orientation and reactivity of E_1 & E_2 reaction by selecting appropriate examples
3. What do you mean by Nucleophilic addition? Discuss the mechanism involved in the addition of HCN to acetaldehyde

SHORT ESSAYS (Answer any Six)

6 x 5 = 30 Marks

4. Discuss the mechanism involved in Beckmanns rearrangement
5. What is Benzoin condensation? Discuss its mechanism
6. Comment on the effect of temperature on the 1, 2- and 1, 4- additions in conjugated dienes
7. What is Fries rearrangement? Explain the reaction with an appropriate example
8. Enumerate the factors affecting SN_1 and SN_2 reactions
9. Discuss the mechanism involved in the reaction between propene with hydrogen bromide in presence of peroxide
10. Outline the mechanism involved in perkins condensation
11. Why phenols are acidic in nature? Discuss the effect of substituents on their acidity

SHORT ANSWERS

10 x 2 = 20 Marks

12. What is smith reaction? Give an example
13. What are electrophiles? Give two examples.
14. Write down the structure and IUPAC names of (A) Carboic acid (B) Secondary butyl chloride
15. Why ethanol is having a higher boiling point than dimethyl ether even though both are having same molecular formula
16. Define acid according to Lewis theory with examples
17. What is Dipole moment? Give any one example which show dipole moment
18. What is Diel's – Alder reaction? Write an example
19. What are the products obtained on dehydration of Sec – Butyl alcohol
20. What is the significance of heat of hydrogenation? Explain
21. What are polar aprotic solvents? Give two examples
