

Rajiv Gandhi University of Health Sciences, Karnataka

I Year Pharm-D Degree Examination – 09-Dec-2020

Time: Three Hours

Max. Marks: 70 Marks

PHARMACEUTICAL ORGANIC CHEMISTRY (RS2)

Q.P. CODE: 2877

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 do you mean by addition reaction? What happens when propene is treated with hydrogen bromide? Discuss the mechanism involved. What is peroxide effect?
2. a) Define activating and deactivating groups with examples.
b) Discuss the mechanism of Nitration and sulphonation of benzene.
3. Explain Nucleophilic aliphatic substitution unimolecular reaction with:
(a) Mechanism (b) Kinetics (c) Stereochemistry (d) Substrate.

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Discuss the mechanism involved in chlorination of methane.
5. Discuss the Bayer's strain theory with limitations.
6. Write the kinetics and mechanism of E_1 reaction.
7. Discuss allyl cation as resonance hybrid with orbital picture.
8. Explain Cannizzaro condensation with mechanism.
9. Explain the effects of substituents on the acidity of carboxylic acids.
10. Write a note on Dehydration of Alcohols.
11. Discuss the mechanism involved in Aldol and Crossed Aldol condensation.

SHORT ANSWERS

10 x 2 = 20 Marks

12. What is Ketoenol tautomerism? Give an example.
13. What is polar protic solvent? Give two examples.
14. Write the IUPAC name of Neopentane and Formaldehyde.
15. Give an example for cyclo addition reactions.
16. Give an example for free radical halogenations alkenes.
17. Explain Reformatsky reaction.
18. Explain Kolbe's reaction.
19. Write diazotisation reaction with example.
20. Give an example for redox reaction.
21. Write structure and medicinal use of Dimercaprol.
