

Rajiv Gandhi University of Health Sciences, Karnataka
I Year Pharm-D Degree Examination – 23-Mar-2021

Max. Marks: 70 Marks

Time: Three Hours

PHARMACEUTICAL ORGANIC CHEMISTRY (RS2)
Q.P. CODE: 2877

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

2 x 10 = 20 Marks

LONG ESSAYS (Answer any two)

1. a) Explain the mechanism and evidences of E1 reaction.
b) Describe the mechanism of dehydration of alcohol.
2. a) What is Electrophilic aromatic substitution reaction? Discuss the mechanism of Nitration of benzene.
b) Explain the mechanism of Friedel-Craft's alkylation.
3. Discuss SN2 versus SN1 reactions with examples and mechanisms, kinetics, factors affecting.

6 x 5 = 30 Marks

SHORT ESSAYS (Answer any six)

4. Explain the mechanism of free radical addition reaction with suitable example.
5. What are cycloalkanes? Write any three methods of preparation.
6. Write the kinetics and mechanism of E2 reaction.
7. Discuss the mechanism of 1,2 & 1,4 addition reaction with examples.
8. Explain Cannizzaro condensation with mechanism.
9. Outline the mechanism of Perkin's condensation.
10. Describe sulphonation of Benzene.
11. Explain ionization of Carboxylic acid and write the structure of Carboxylate Anion.

10 x 2 = 20 Marks

SHORT ANSWERS

12. Define metamerism with example.
13. Define and classify hydrogen bond with example.
14. Write the structure and IUPAC name of: a) Ethyl alcohol b) Acetylene
15. Write the stability of free radicals with example.
16. Give an example for free radical substitution in alkenes.
17. Write crossed Aldol condensation.
18. Write the effects of substitution on acidity of Phenols.
19. What is Kolbe's reaction?
20. Define redox reaction.
21. Write structure and medicinal use of Dimercaprol and saccharin sodium.
