

Rajiv Gandhi University of Health Sciences, Karnataka

I Year Pharm-D Degree Examination – JUNE-2019

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. Write the kinetics, orientation and mechanism involved in E_1 and E_2 reactions.
2. Explain resonance theory and discuss the stability of allyl radical with its orbital picture.
3. Explain Markonikov's and Anti Markonikov's addition with examples.

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Discuss free radicals chain reactions of alkanes with mechanism in detail. Add a note on stability of free radicals.
5. Write any four methods of preparation of Cycloalkanes.
6. Explain SN_2 reaction with emphasis on its mechanism and stereochemistry
7. Write the mechanism for Friedel craft alkylation. Write its limitations.
8. Explain Claisen condensation with example
9. Write a note on effect of substituents on acidity of carboxylic acids.
10. What are cycloaddition reactions? Explain in detail.
11. Write a note on elimination vs substitution reaction of Alkyl halides.

SHORT ANSWERS

10 x 2 = 20 Marks

12. Give example for structural isomerism.
13. Define polarity with examples.
14. Write the structure of Methyl propionate and isobutene.
15. Give an example for 1,2 elimination.
16. Define free radical.
17. Write the conversion of acid to acid chloride.
18. Write Sandmeyer's reaction.
19. Explain Williamson synthesis.
20. Write comparison of aliphatic nucleophilic substitution with that of aromatic.
21. Write the structure and medicinal use of salicylic acid.
