



Rajiv Gandhi University of Health Sciences, Karnataka

I Year Pharm-D Degree Examination – NOV 2017

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. Explain the mechanism, orientation and reactivity for the addition of hydrogen halides to alkenes.
2. Explain 1,2 and 1,4 additions in conjugated dienes with mechanism. Add a note on effect of temperature.
3. Explain mechanism, kinetics and stereochemistry involved in the dehydrohalogenation of Alkyl halides by a base.

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Define and classify free radicals. Describe orientation and stability of free radicals.
5. Give any five methods of preparation of cycloalkanes.
6. Discuss the mechanism, kinetics and stereochemistry of S_N1 reaction.
7. Describe nitration of benzene with mechanism.
8. What is benzoin condensation? Discuss the mechanism.
9. Discuss Cannizzaro reaction with mechanism.
10. Explain side chain halogenations in Alkyl Benzene. Add a note on resonance in Benzyl Radical.
11. Explain the stability in Conjugated Dienes.

SHORT ANSWERS

10 x 2 = 20 Marks

12. Write a short note on intermolecular forces.
13. Explain Lewis theory of acids and bases.
14. Write the structures of the following
a. 1, 3- Pentadiene b. Ethyl acetate
15. Explain the conditions which favor elimination over substitution.
16. Explain allylic rearrangement with example.
17. Convert benzoic acid to methyl benzoate.
18. Compare the basicity among ammonia, ethylamine, tertiarybutylamine. Give reason.
19. How will you convert phenol to salicylic acid? Write reactions.
20. Give one example of oxidation and reduction reaction.
21. Give preparation and uses of aspirin.
