

Rajiv Gandhi University of Health Sciences, Karnataka

I Year Pharm-D Examination – MAY-2018

Time: Three Hours

Max. Marks: 70 Marks

PHARMACEUTICAL ORGANIC CHEMISTRY

Q.P. CODE: 2854

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 theory of orientation and reactivity in Electrophilic Aromatic Substitution.
2. Explain the mechanism of Markovnikov's and anti Markovnikov's rule with suitable example.
3. a) Explain the mechanism of 1, 4 and 1, 2 addition of conjugated dienes.
b) Discuss with suitable examples rearrangement in S_N1 reactions.

SHORT ESSAYS (Answer any Six)

6 x 5 = 30 Marks

4. Explain Lewis theory of acids and bases.
5. Discuss the stability of carbocations.
6. Give the mechanism of dehydration of alcohols.
7. Give an account of addition of carbene to alkene.
8. Give an account of Elimination versus substitution reactions.
9. Explain the concept of electron release via resonance.
10. What is Michael addition? Explain with mechanism.
11. Explain Cannizzaro reaction with mechanism.

SHORT ANSWERS

10 x 2 = 20 Marks

12. What are ring activators? Classify them with examples.
13. How will you convert benzene into m-bromonitro benzene?
14. What are Van der Waals forces?
15. Give any two methods of preparation of Cycloalkanes.
16. How will you assay citric acid?
17. Give the structure of 2-ethyl-3-butenic acid.
18. How will you convert a carboxylic acid to an ester?
19. Define dipole moment. Give example.
20. What are aprotic solvents? Give examples.
21. Give the IUPAC name for the following
a) $\text{CH}_3\text{-CH}_2\text{-CH=CH-CH}_3$ b) $\text{CH}_3\text{-CH=CH-CHO}$
