

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B. Pharm Degree Examination – JAN-2019

Time: Three Hours

Max. Marks: 70 Marks

PHARMACEUTICAL ORGANIC CHEMISTRY – I (RS - 4)

Q.P. CODE: 2628

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 kinetics, mechanism, stereochemistry and reactivity of SN_2 reaction.
2. a) Define electrophilic aromatic substitution reaction. Classify substituent groups with examples.
b) Explain the mechanism of Friedel-Craft's alkylation with their limitations.
3. What are elimination reactions? Discuss the kinetics, mechanism, orientation and reactivity of E_1 reaction.

SHORT ESSAYS (Answer any Six)

6 x 5 = 30 Marks

4. What are cycloalkanes? Write any three methods of preparation.
5. Explain dehydration of alcohol with mechanism.
6. Discuss the stability of conjugated dienes with examples.
7. Explain Cannizzaro condensation with mechanism.
8. Write the conversion of acid to acid chloride, amide and ester.
9. Explain the mechanism of Markovnikov's rule with suitable example.
10. What is Aldol condensation? Discuss the mechanism involved.
11. Write the Haworth synthesis of naphthalene.

SHORT ANSWERS

10 x 2 = 20 Marks

12. Write the structure of a) 2-bromo 3-methyl hexane b) Methanol
13. Define and classify hydrogen bond with example.
14. Write any one method for formation of free radicals with example.
15. Elimination vs Substitution reactions.
16. What is Crossed Aldol condensation reaction? Give example.
17. Why aliphatic amines are more basic than aromatic amines?
18. What is Sandmeyer's reaction?
19. Write the effects of substitution on acidity of Phenols.
20. Write the structure and IUPAC name of a) Acetone b) Diethyl ether
21. Define and classify free radicals with examples.
