

Rajiv Gandhi University of Health Sciences, Karnataka

Second Semester B.Pharm Degree Examination – 18-Nov-2022

Time: Three Hours

Max. Marks: 75 Marks

Pharmaceutical Organic Chemistry-I

Q.P. CODE: 5006

Your answers should be specific to the questions asked

Draw neat labeled diagrams wherever necessary

All the questions are compulsory

LONG ESSAYS

2 x 10 = 20 Marks

1. Explain the Kinetics, mechanism and stereochemistry of SN1 and SN2 reactions

OR

Explain the mechanisms of Markovnikov's Anti-Markovnikov's addition reactions

2. a. Explain the basicity and effect of substituents on basicity of amines.
b. Explain the effect of substituents on acidity of carboxylic acids

SHORT ESSAYS

7 x 5 = 35 Marks

3. Explain the factors affecting E₁ reaction

OR

Explain the Sp³ hybridization in alkanes with suitable example

4. What is Aldol condensation? Give its mechanism

OR

What is nucleophilic addition reaction? Explain electromeric effect on nucleophilic addition reaction.

5. What are free radicals? Give the mechanism of chlorination of methane.
6. Classify organic compounds with examples.
7. Write the mechanism of Benzoin condensation.
8. Explain the stability of conjugated dienes.
9. Explain the mechanism of cannizzaro reaction.

SHORT ANSWERS

10 x 2 = 20 Marks

10. What is Saytzeff's rule? Give its reaction.
11. What is positional isomerism? Give examples
12. Give the structure and uses of chlorobutanol and propylene glycol.
13. Write the structures of (a) Salicylic acid (b) Benzyl benzoate
14. What is Inductive effect? Give example.
15. Write the structure and uses of chloralhydrate and vanillin.
16. Write the structure and IUPAC name of a) acetone, b) diethylether
17. Give an example Diel's Alder Reaction.
18. Write any two qualitative tests for aldehydes and ketones.
19. Write the structure and uses of amphetamine.

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