

Rajiv Gandhi University of Health Sciences, Karnataka

Second Semester B.Pharm Degree Examination – 04-Jun-2024

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

- What are elimination reactions? Discuss the kinetics, mechanism, orientation and reactivity of E_1 reaction.

OR

Discuss the mechanism, stereochemistry and kinetics involved in bimolecular nucleophilic substitution reaction by selecting an appropriate example.

- Explain the mechanism of Perkin condensation and crossed Aldol condensation.

SHORT ESSAYS

7 x 5 = 35 Marks

- Give the IUPAC name of (a) Acetone (b) Acetic acid (c) Neopentane (d) Formaldehyde (e) Isobutane.

OR

What is peroxide effect? Explain its mechanism.

- Write the mechanism of 1,2 and 1,4 addition reactions of conjugated dienes.

OR

What are alkyl halides? Give any three chemical reactions of alkyl halides.

- Qualitative test for alcohol any three

- Explain the reaction and mechanism of Cannizzaro reaction.

- Explain the mechanism of Benzoin condensation.

- Write any two chemical tests to distinguish primary, secondary and tertiary amines.

- What are carboxylic acids? Discuss any three-general method of preparation of carboxylic acids.

SHORT ANSWERS

10 x 2 = 20 Marks

- What is Keto-enol tautomerism? Give Examples

- Write the structure and IUPAC name of: a) Tert-Butyl chloride b) Formamide.

- Give one example for rearrangement of carbocation.

- Why poly substituted alkenes are more stable than monosubstituted alkenes.

- Give the structure and use of Ethyl alcohol and Benzyl alcohol.

- Write any one qualitative test for vanillin and acetone.

- Write the structure and uses of cinnamaldehyde and paraldehyde.

- Explain why methyl amine is stronger base than ammonia.

- What is esterification? Give reaction.

- Write the structure and uses of benzyl benzoate and dimethyl phthalate.

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