QUESTION BANK FOR ORGANIC CHEMISTRY - II

UNIT I: CHEMISTRY OF CARBOHYDRATES

P ART: I

2 Marks:

1. What are the Manomers?.
2. What are carbohydrates? How are they classified?
3. What are uses of Cellulose nitrate?
4. Explain Epimers.
5. What are Monosaccharide's?
6. Write structure of Cellulose
7. How to prepare the Starch?
8. How can Sugar is converted into Glucose?
9. Write note on Ascending seriess?

P ART: II

5 Marks:

1. How is the ring structure of Glucose established?
2. Elucidate the structure of Glucose.
3. Write the structure of Maltose.
4. Expline the structure of Sucrose.
5. Write note on Mutarotation.

PART: III

10Marks:

1**.** How will you convert the Aldo Hexose to Aldo Pentose?
2. Write note on Epimerisation.
3. Explain the preparation and chemical properties of Glucose .
4. Explain the Pyranose form of Glucose.

UNIT II: CHEMISTRY OF PROTEINS AND VITAMINS

PART: I

2 Marks:

1. What is Zwitter ion?
2. Give two uses of Ascorbic acid.
3. What is Electric Point?
4. Explain the End Group analysis.
5. What are Amino acids?
6. Write structure of Nicotine.

7. How to prepare the Alanine?
8. Draw the structure of DNA.
9. Elucidate the structure of RNA.
10. Give two uses of Vitamins B_1 & B_2.

PART: II

5 Marks:

1. Explain the classification of Proteins.
2. Write note on Biological importance of Vitamins.
3. How is the structure of Ascorbic acid established.
4. Compare the structure of Cellulose & Starch.
5. Discuss the Primary structure of Proteins.

PART: III

10Marks:

1. Explain how the Proteins are classified?
2. Discuss the structure of Piperine.
3. How Pyridoxine synthesized?

UNIT III: CHEMISTRY OF ALKALOIDS AND TERPENOIDS

PART: I

2 Marks:

1. What is Isoprene rule?
2. What are the properties Terpenes?
3. Write any one synthesis of Conine.
4. Give the uses of Camphor.
5. What are Alkaloids?
6. Write structural formula of Citral.
7. Give two eg.for Monocyclic Monoterpenoid.
8. How Terpenes synthesized?

P ART: II

5 Marks:

1. Write the Biological & Toxic effect of Alkaloids.
2. Write the conversion of Terpinal to Terpic acid.
3. Write the properties of Alkaloids.
4. Explain the chemical properties of Menthol.

PART: III

10Marks:

1. Explain the Isolation of Geroniol?
2. Briefly explain the synthesis of Limonene.
3. Elaborate the synthesis of Citral.
4. Explain the synthesis of Conine.
5. Write the synthesis of Piprene.

UNIT IV: MOLECULAR REARRANGEMENTS

PART: I

2 Marks:

1. What is Curtius reaction?
2. Write the Lossen reaction?
3. What is Hoffmann's exhaustive methylation?
4. Write short note on Chemical Shift.
5. Give an Eg.for 1:2 Chemical Shift.
6. What is Nucleophilic rearrangement?
7. What is photochemical reaction?
8. Explain Intramolecular rearrangement?
9. What is Intermolecular rearrangement?
10. Write the types of Molecular rearrangement?

PART: II

5 Marks:

1. Write the Beckmanns rearrangement.
2. Write short note on Photochemical reaction.
3. Explain the Fries rearrangement.
4. How to prepare the Benzilic acid from Benzyl.
5. Elucidate the reaction of Norrish type I.
6. What you meant by Molecular rearrangement?

PART: III

10Marks:

1. Explain the Norrish type I & II reactions.
2. Write the Dienone Phenol rearrangement.
3. Elucidate the Claisen rearrangement.
4. Explain the Benzidine rearrangement.
5. Write the reaction of Hoffmann's degradation.

UNIT V: ORGANIC SPECTROSCOPY

PART: I

2 Marks:

1. What are types of Vibrations?
2. Short note is Coupling constant?
3. What is Magnetic shielding?
4. Write note is Stretching Vibrations?
5. What is Inductive effect?
6. What is NMR Spectroscopy?
7. What is Anisotropy?
8. Write note on Spin – Spin Coupling?
9. What is Solvent Effect?
10. Explain the Shielded Protons?
11. Note on Deshielded Protons?

PART: II

5 Marks:

1. Write the difference between IR & UV Spectroscopy.
2. Briefly explain the types of Vibrations.
3. How many signals obtained from N – Propyl Bromide?
4. Explain the IR frequency for Ketone Aldehyde.
5. Explain the Conjugation & Inductive effect.
6. Explain the Integral Splitting of Signals.

PART: III

10Marks:

1. Explain the IR Spectroscopy.
2. Elaborate the Solvent effect.
3. Elucidate the Woodward Fischer rule.
4. Discribe the Principles of NMR Spectroscopy.