

Paper : I CHN-701-(O) Organic Chemistry

Unit :-1

Ⓜ Carbohydrates :-

Type of Naturally occurring Sugars, Deoxy sugars, Amino sugars.

General method of structure and ring size determination with reference to Starch and Cellulose, Photosynthesis of Carbohydrates.

Ⓜ Purine & Nucleic Acid :-

Chemistry of Uric Acid, Adenine, Caffeine, Structure of Nucleotides, Nucleosides, DNA, RNA and Conformations, Protein synthesis, Perbiotic Chemistry.

Unit :- 2

Ⓜ Conformational Analysis :-

- Conformation of Cyclic System : Monocyclic compounds cyclo propane, cyclopropane 1,2 dicarboxylic acid, 2-OH-Methyl-1-cyclo propane dicarboxylic acid, 1,3 ditertiary butyl cyclohexane 4-OH cyclo hexane carboxylic acid, cyclohexanone, 2,-Br-cyclo hexanone, 2-Br-4-4 dimethyl cyclo hexanone, cyclohexanol Hexa-chloro cyclohexane, cyclhexane 1,2 di carboxylic acid- conformation of Disubstituted Cyclohexanes,
- Bridge ring system, Bicyclic (1,1,1) Pentane and Bicyclo(2,1,1) hexane, Bicyclo (2,2,1) heptane and Bicyclo (2,2,2) ocatane.

Unit :- 3

Ⓜ Steroids :-

- General Biosynthetic studies of steroids, chemistry of Ergosterol & Lanosterol.
- Oestrogens :- Oestrone, Oestriol and Oestradiol.
- Gestogens :- Progesterone.
- Adreno cortical hormones :- Cortisone.
- Diosgenin and its utility in hormone synthesis.
- Transformation in steroids molecules.

Unit :- 4

Ⓜ Advances in NMR :

Nuclear Overhauser effect, NMR shift reagents.

Correlation Spectroscopy, Theory, H-HCOSY, DQF H:H COSY, H-¹³C

COSY, HETCOR, HMBC, HMQC, TOCSY INADEQUATE