



SHREE H. N. SHUKLA GROUP OF COLLEGES

(AFFILIATED TO SAURASHTRA UNIVERSITY & GTU)

2-Vaishali nagar,
Near amrapali railway crossing,
Raiya road, Rajkot- 360 001.
Ph.No.-(0281) 2440478, 2472590

3-Vaishali nagar, Near
amrapali railway crossing,
Raiya road, Rajkot- 360 001.
Ph.No.-(0281) 2224362

Behind marketing yard,
Near Lalpari lake, Between
Amargadh-Bhichri,
Rajkot- 360 002.
Ph.No. 90990 63150

M.Sc. Chemistry Internal/prelims exam

Semester IV C-403 Stereo chemistry

Time: 1 hour

Date: --/--/----

Total marks: 30

Q-1 Give the answer of following questions (each question have 1 marks)

05 marks

1. Explain nucleophilic addition reaction of hydrocyanic acid (HCN) in acetone.
2. Define isomer. Explain stereoisomers and enantiomers with examples.
3. Explain Configuration and conformation.
4. Define racemic mixture and explain with suitable examples.
5. Write a short note on naturally occurring single enantiomerically pure isomer.

Q-2 Give the answer of following questions (each questions has 2 marks)

10 marks

1. Write short note on ephedrine and pseudo-ephedrine and explain diastereoisomerism which arise when configuration has more than one (two) stereogenic centers.
2. Explain stereochemistry of sugar with three stereogenic centers.
3. Explain zig-zag and Fischer projections of drawing configuration of D-ribose.
4. Explain the mystery of Feist's acid.
5. Write a short on stereoselective reaction.

Q-3 Give the answer of following questions (each questions has 5 marks)

15 marks

1. Define the term resolution or separation of racemic mixture/modification.
2. Explain prochirality, enantiotropic, diastereotropic and homotropic with citing suitable examples.



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3. Explain Nucleophilic attack of Ethyl magnesium bromide (Et-Mg-Br) (i), Aluminium tetrahydride (AlH₄), Enolate of methyl acetate (iii), Lithiated alkynes (iv) and heterocyclic chiral nitrogenated aldehyde.



*****All the best*****