

**MSC CHEMISTRY-II**  
**SEMESTER-IV**

**Course: (Elective-IV) Stereochemistry**

Note:-attempt all questions.

- Que1. Write details about the molecules with chiral axis and chiral planes.
- Que 2. What do you mean by the term homotopic, enantiotopic and diastereotopic. Explain  
With giving suitable examples.
- Que3. What is stereoselective and stereospecific? What is meant by the term optical purity  
and enantiomeric excess?
- Que4. What is enantioselective synthesis? Write the enantioselective synthesis in a chiral  
approach of reaction with hydride donor and Hydroboration.
- Que5. Write notes on: (any one)
- (i) Sharpless epoxidation
  - (ii) Diels Alder selective synthesis
- Que6. What is conformation? What is butane- gauche interaction? Write the conformation of  
n-butane
- Que7. Write down the chair and boat form of cyclohexane and discuss their relative  
Stability
- Que8. Write the conformation of cis and trans decalins.
- Que9. Write the stereochemistry of Allenes and Spiranes.
- Que10. Write the stereochemistry of Biphenyls.