

Pharmacy, Hyderabad
FACULTY OF PHARMACY**B. Pharmacy 2/4 I-Semester (Supplementary) Examination, April 2015****Subject : Pharmaceutical Organic Chemistry - I****Time : 3 Hours****Max. Marks: 70****Note: Answer all questions. All questions carry equal marks.**

- 1 (a) Explain sp , sp^2 and sp^3 hybridizations with suitable examples. (8)
(b) Define the terms : (6)
(i) Dipole moment (ii) Bond angle
(iii) Molecular orbitals and give their significance in organic chemistry
OR
(c) Explain : (i) Inductive effect (ii) Enantiomerism and diastereomerism (8)
(iii) Resonance giving suitable examples
(d) Explain energy diagrams of reactants and products during the course of the reaction. (6)
- 2 (a) Explain Markovnikov's and AntiMarkovnikov's addition with suitable examples. (7)
(b) Explain electrophilic addition in alkynes and conjugated dienes. (7)
OR
(c) Write a note on stereochemistry of cyclohexane. Write the structure of chair conformation showing axial and equatorial bonds. (7)
(d) Explain Bayer's strain theory. (7)
- 3 (a) Write any three general methods to prepare hydroxy (alcoholic) compounds. (4)
(b) Write mechanism, kinetics and stereochemistry involved in SN^1 and SN^2 reactions. (10)
OR
(c) Write mechanism involved in E^1 and E^2 eliminations. (5)
(d) explain Saytzeff rule and Hofmann rule. (5)
(e) Explain Williamson's synthesis of ethers. (4)
- 4 (a) Explain any four methods of preparation and reactivity of Carbonyl compounds. (7)
(b) Write any five important nucleophilic addition reactions which you have studied. (7)
OR
(c) Write any three general methods to prepare Carboxylic acids. (5)
(d) Explain why trichloroacetic acid is more acidic than dichloro and which in turn more acidic than monochloroacetic acid. (4)
(e) Write two applications each for Diethylmalonate and Ethylacetoacetate. (5)
- 5 (a) Explain basicity in aliphatic and aromatic amines. (5)
(b) Write any three reactions of amines. (5)
(c) Write the Hinsberg's method of separation of amines. (4)
OR
(d) Write different methods of preparation of Nitro compounds. (7)
(e) Explain the different reactions and synthetic utility of aryl diazonium salts. (7)

Pharmacy, Hyderabad