

2/ 4- "65)

Code No **4407**

EFFNT OF P MACY

B.Pharmacy II Year I Sem
PHARMA

(Supple* ry) Examination, April/May 2011
IC CHEMISTRY - I

Time : 3 Hours]

[Max. Marks : 70

Answer all questions.
All questions carry equal marks.

1. (a) (i) Explain the determination of configuration Isomers by physical and chemical methods with suitable examples. (9)
- (ii) Give a brief note on optical isomerism. (5)
- Or
- (b) Explain the following terms with suitable examples. (4x3.5=14)
- (i) Enantiomers (ii) Dipole movement
- (iii) Metamerism (iv) Resonance
2. (a) (i) Write any three methods of preparation of cyclo alkanes. (5)
- (ii) Explain the terms with suitable examples. (3x3=9)
- (A) Pyrolysis (B) Markonikov's addition
- (C) Peroxide effect.
- Or
- (b) (i) How will you synthesize the following: (3x2=6)
- (A) Ethane from acetic acid
- (B) n-butane from ethyl bromide
- (C) Benzene from n-Hexane
- (ii) Explain the mechanism of nitration of, alkanes. (4)
- (iii) Write a note on Baeyer strain theory. (4)
3. (a) (i) Discuss the mechanism of E₁ reaction of alkyl halides. (4)
- (ii) Write a note on Saytzeff rule. (4)
- (iii) Give the reasons for following statements : 3x2=6
- (A) Allyl chloride is less reactive than ethyl chloride.
- (B) Lower alcohols are soluble in water.
- (C) Methyl alcohol boils at lower temperature than water.

Or

[P.T.O.

- (b) (i) Write any four methods to prepare alcohols. (6)
- (ii) Explain Zeisels method. (4)
- (iii) Give the mechanism for Williamson's synthesis to synthesize ethers. (4)
4. (a) (i) Explain the acidity of carboxylic acid with examples. (6)
- (ii) How will you synthesize the following compounds from the indicated materials. (4x2=8)
- (A) Propanone from 2-propanol
- (B) Acetaldehyde from formic acid
- (C) Propionic acid from ethene
- (D) Ethyl acetate from acetic anhydride.

Or

- (b) (i) Write the reactivity and synthetic uses of ethyl acetoacetate. (5)
- (ii) Give the reasons for following statements. (3x3=9)
- (A) Esters are less reactive than acid halides.
- (B) Acetic acid is stronger than propionic acid.
- (C) Trichloroacetic acid is stronger than formic acid.
5. (a) (i) Write any three methods to synthesize nitroalkanes. (6)
- (ii) How do you differentiate between primary, secondary and tertiary amines with chemical reactions. (8)

Or

- (b) (i) Write the preparation and synthetic applications of benzene diazonium chloride. (5)
- (ii) Give the reasons for following statements. (3x3=9)
- (A) Methyl amine is a stronger base than ammonia.
- (B) Dimethylamine has a higher boiling point than trimethylamine.
- (C) Secondary amines are more basic than primary amines.