

Mock Test Question
2nd Year Honours
Subject: CHEMISTRY (Paper-V)
F.M.-35, Time-1 Hour & 20 Minutes

Answer Q No. 1 & any three from the rest

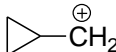
1. Answer the following MCQ (8 x 1 = 8)

- i) Which one undergo faster hydrolysis
(a) Acetyamide (b) Ethyl acetate (c) Acetyl chloride (d) Acetamide
- ii) Pyrrole to 3-chloro pyridine conversion is achieved
(a) :CCl₂ (b) :CHCl (c) CCl₄ (d) None

iii) Which of the following reaction is achieved by SnCl₂/ Conc. HCl

- (a) Stephen reduction (b) Kolbe rexn (c) Clemmensen reaction (d) Swern oxidation

iv) Which one of the following is non-classical carbonations –

- (a)  (b) H₂C=CH⁺ (c) Me₃C⁺ (d) Me₂CH⁻

v) RMgBr (2 equiv) on rxn with O₂ followed by hydrolysis (D₂O⁺) produces

- (a) RH (b) ROH (c) ROD (d) RD

vi) How many stereoisomers is possible for the compound 2,3-dibromo pentane?

- a) 2 (b) 3 (c) 4 (d) 6

vii) α-Diazo ketone to ketene is known as

- a) Arndt Eistert synthesis (b) Wolff rearrn (c) Stobbe cond (d) Curtious rearrn

viii) Acetaldehyde to EtOAc conversion can be carried out by

- a) Cannizaro reaction (b) Acyloin cond. (c) Aldol Cond. (d) Tischenko rexn

2. (a) F_3CCOCH_2COOH does not undergo easy decarboxylation? (b) RX on reaction with KCN gives RCN but if $AgCN$ is used then RNC is formed. Explain why? (c) Acetyl chloride undergo faster hydrolysis than acetamide. (d) Why addition of water decreases the rate of substitution reaction of RCH_2Br under aqueous medium. (2.5+2.5+2+2)

3. (a) Why excess ketone is used in Oppenauer oxidation reaction? (b) Convert cyclopentanone to cyclohexanone and vice versa. (c) Elimination reaction is favored w.r.t. substn by rise in temperature. (2+4+3)

4. Convert the following (3 x 3)

- (i) Benzaldehyde to benzanilide. (ii) Phthalimide to anthranilic acid (iii) Bromobenzene to *t*-butyl phenyl ether

5. Complete the following equations (Any three) (3 x 3)

