



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)

