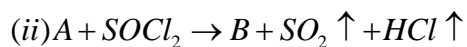
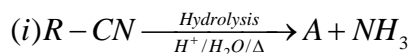


**CONVERSION QUESTIONS FOR FUNCTIONAL GROUP III-
ALDEHYDE ,KETONES,ACIDS & THEIR DERIVATIVES**

By- Priya Dube
KV Dhar

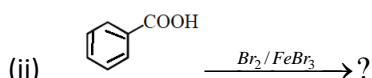
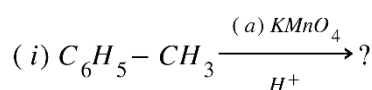
Q.1 In the following reactions, identify the compounds A and B



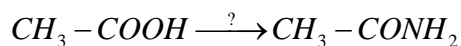
Q.2 How will you convert the following?

(i) Ethanal to 2-hydroxy propanoic acid (ii) Toluene to benzoic acid

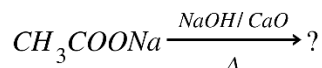
Q.3 Predict the products of the following reactions:



Q.4 Write the reagents required in the following reaction :



Q.5 Predict the product of the following reaction:



Or

Illustrate the decarboxylation reaction giving a suitable example.

Q.6 Complete the following reaction:



Q.7 Convert

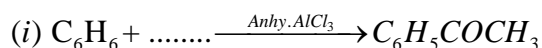
(i) Benzonitrile to acetophenone (ii) 1,2- dicyclohexylethene to cyclohexanone

Q.8 Give names of the reagents to bring about the following transformations.

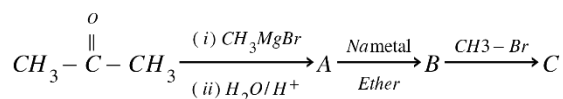
(a) Benzoyl chloride to benzaldehyde (b) Benzene to benzaldehyde

(c) Benzene to acetophenone

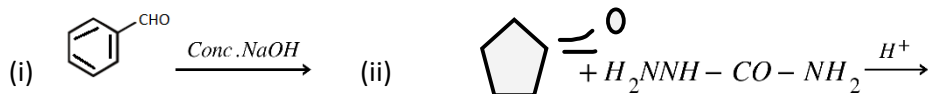
Q.9 Complete the following equations, giving the names of the reactants and products.



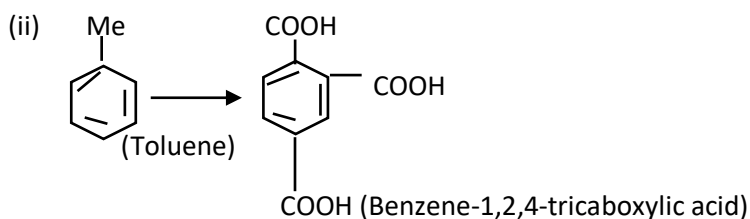
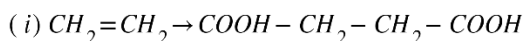
Q.10 Complete the following reaction sequence.



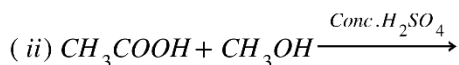
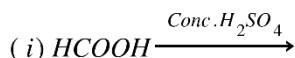
Q.11 Write the products of the following reactions



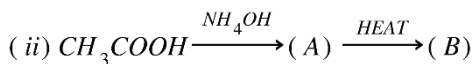
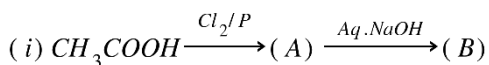
Q.12 How will you bring about the following conversions ?



Q.13 Complete the following reaction and explain the formation of products.



Q.14 Identify the products A and B in the following reactions



Q.15 (i) Write the products formed when CH_3CHO reacts with the following reagents:

- (a) HCN (b) H_2N-OH (c) CH_3CHO in the presence of dilute $NaOH$.

(ii) Write the chemical equations to illustrate the following name reactions.

- (a) Rosenmund's reduction (b) Cannizaro reaction

(iii) Out of $CH_3CH_2-CO-CH_2-CH_3$ and $CH_3CH_2-CH_2-CO-CH_3$ which gives iodoform test?

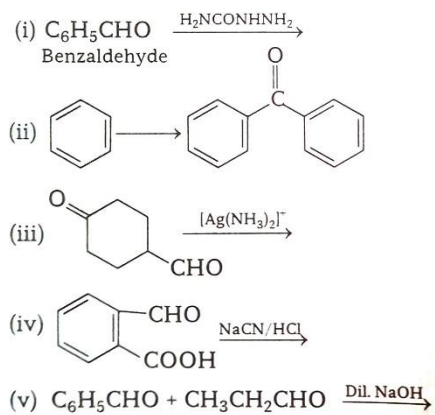
Q.16 Predict the products formed when cyclohexane carbaldehyde reacts with following reagents.

- (i) $PhMgBr$ and then H_3O^+ (ii) Tollen's reagent (iii) Semicarbazide and weak acid
(iv) Excess ethanol and acid (v) Zinc amalgam and dilute hydrochloric

Q.17 What is meant by the following terms? Give an example of the reaction in each case.

- (i) Hemiacetal (ii) Oxime (iii) Ketal
(iv) Imine (v) Schiff's base

Q.18 Complete each synthesis by giving missing starting material, reagent or products.



Q.19 How will you convert

(a) benzene to acetophenone?

(b) Propanone to 2 – methylpropan -2-ol ?

Q.20 Write structures of compounds A,B and C in each of the following reactions.

