

22241

11819

3 Hours / 70 Marks

Seat No.

--	--	--	--	--	--	--	--	--

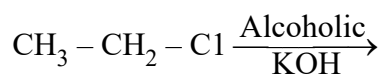
- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.

Marks

1. Attempt any FIVE of the following :

5 × 2 = 10

- (a) Define :
 - (i) Substitution reaction
 - (ii) Elimination reaction
- (b) Name the types of organic reactions.
- (c) List the applications of methane & ethane.
- (d) Name the product in the given reaction & give its chemical formula.

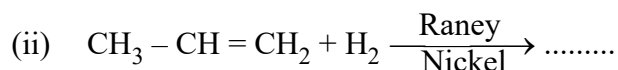
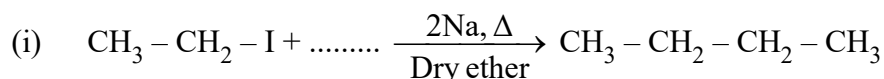


- (e) Define power alcohol and absolute alcohol.
- (f) Distinguish between aldehyde and ketone.
- (g) Draw the structure of first four carboxylic acids in homologous series.

2. Attempt any THREE of the following :

3 × 4 = 12

- (a) Explain Homolytic and Heterolytic fission reaction with example.
- (b) Define functional group. Write the method for determination of acid.
- (c) Observe the following reaction and identify the reactant and product.



- (d) Explain the method of preparation of acetylene from calcium carbide with suitable chemical reaction.

3. Attempt any THREE of the following :

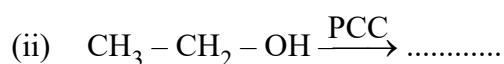
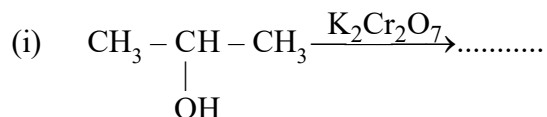
3 × 4 = 12

- (a) Give the classification of organic compound based on their structure.
- (b) Describe the method of preparing ethane by Kolbe method.
- (c) What is the reaction taking place when
- (i) 2-Phenol is reacted with conc. HCl
- (ii) Ethanol reacts with Acetic acid in presence of acidic medium
- (d) Explain Rosenmund reaction with suitable example.

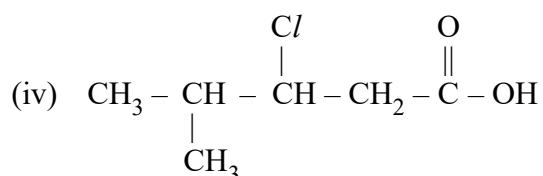
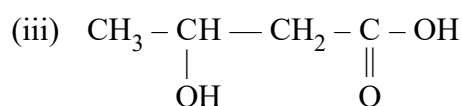
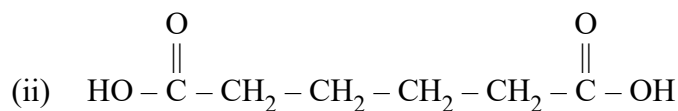
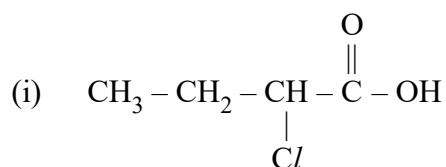
4. Attempt any THREE of the following :

3 × 4 = 12

- (a) Given alkaline halide on heating with alcoholic solution of KOH form propylene. Predict the reactant and describe the process with chemical reaction.
- (b) Observe and complete the following :

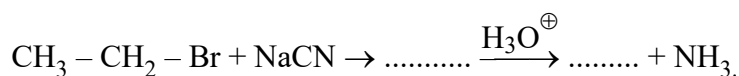


(c) Write the IUPAC Nomenclature of the following :



(d) State the uses of acetic acid. Explain its uses in textile wet processing.

(e) Predict the product of the following reaction. Identify name of reactants and products.



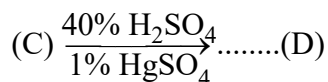
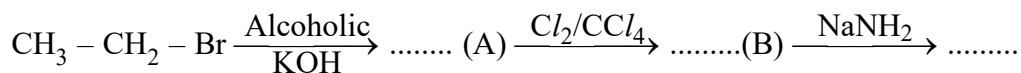
5. Attempt any TWO of the following :

2 × 6 = 12

(a) Explain the mechanism of S_N2 reaction. Draw the energy profile diagram of S_N1 and S_N2 reaction.

(b) A given organic saturated compound contain four carbon atoms. One of the carbon is attached to one amino group. Predict the possible structures of compound.

(c) Identify the compound A, B, C, D in the following series of reaction.



Write the applications of Acetylene.

P.T.O.

6. Attempt any TWO of the following :

2 × 6 = 12

- (a) Predict the reaction taking place in following cases :
- (i) Sodium acetate is react with sodium hydroxide in presence of CaO.
 - (ii) Ethane undergo pyrolysis.
 - (iii) 1-propane react with Hydrogen Bromite in absence of H_2O_2 .
- (b) Give the preparation of ethylene glycol from ethylene and ethylene dioxide.
Write the physical and chemical properties of glycol.
- (c) Write any two methods of preparing ketone with suitable example.
-