

22241

21819

3 Hours / 70 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data, if necessary.
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following: 10

- Define organic compounds
- Write types of organic compounds
- State the general formula of representing alkane and alkenes.
- Identify the product and write their names.



- Write any two industrial uses of alcohol
- Write any two points of differentiation between aldehyde and ketones
- Write any two physical properties of alcohol.

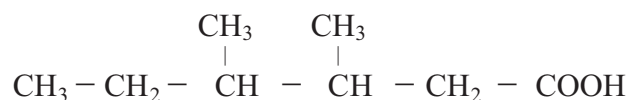
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2. Attempt any THREE of the following: 12
- State four characteristic of organic compounds.
 - Describe the method of preparation of ethane by Hurtz synthesis.
 - What is the action of water on calcium carbide? Give balanced chemical equations
 - Write any four industrial uses of aldehydes and ketone.
3. Attempt any THREE of the following: 12
- Describe the method of preparation of ethane from sodium salts of carboxylic acids.
 - Explain homolytic bond fission with suitable examples
 - Give any four physical properties of alkanes.
 - How will you prepare acetic acid from Grignard reagent?
4. Attempt any THREE of the following: 12
- Explain elimination reaction with suitable example.
 - Predict the products in the following reactions.
 - $$\text{CH}_3 - \underset{\text{O}}{\underset{\parallel}{\text{C}}} - \text{H} + \text{HCN} \rightarrow \text{---?---}$$
 - $$\text{CH}_3 - \underset{\text{O}}{\underset{\parallel}{\text{C}}} - \text{CH}_3 + \text{HCN} \rightarrow \text{---?---}$$
 - Write any four industrial uses of alkynes.
 - Define functional group. Write method for determines of acidic group.
 - Write the reaction of esterification of carboxylic acid.

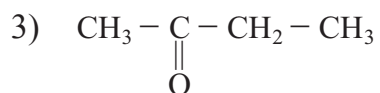
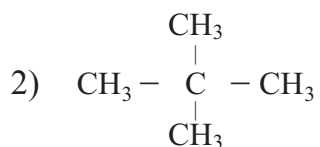
5. Attempt any TWO of the following:

12

- a) (i) Explain mechanism of SN^2 reaction draw energy for profile diagram for the same.
- (ii) Name the following compounds.



- b) (i) Identify and name the following organic compound according to IUPAC system.

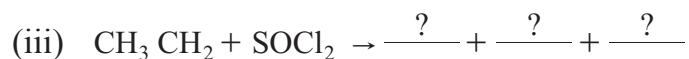


- (ii) Classify organic compound based on their structure.
- c) (i) How will you prepare ethanol by reduction of acetaldehyde
- (ii) Draw the structure of:
- 1) Ethanol
 - 2) Ethylene glycol.

6. Attempt any TWO of the following:

12

a) Identify and write name of products



b) How will you prepare acetone from isopropyl alcohol and acetylene. Explain with help of reaction.

c) How will you prepare acetic acid from decarboxylation of malonic acid and hydrolysis of ethylacetate.
