

17312

11718

3 Hours / 100 Marks

Seat No.

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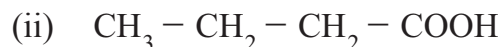
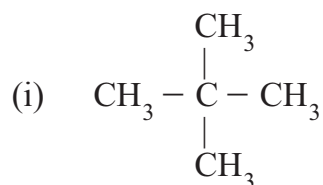
- Instructions* – (1) All Questions are *Compulsory*.
(2) Answer each next main Question on a new page.
(3) Illustrate your answers with neat sketches wherever necessary.
(4) Figures to the right indicate full marks.
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any TEN of the following:

20

- a) Define homologous series.
b) Write the common and IUPAC names of the following:



- c) State any two physical properties of alkane.
d) Define nitration and reduction.
e) Distinguish between alkanes and alkenes.
f) Write the preparation of benzene from phenol.
g) Write the uses of aromatic compounds.
h) Distinguish between aliphatic and aromatic compounds.

P.T.O.

- i) Write the sulphonation reaction of benzene.
- j) Define Grignard's reagents? State its General formula.
- k) Define indicators? Give examples.
- l) State two characteristics of an ideal solution.

2. Attempt any FOUR of the following: 16

- a) Distinguish between organic and inorganic compounds with suitable examples.
- b) State any four rules of nomenclature of organic compounds.
- c) Explain Wurtz's reaction to prepare alkane.
- d) Define pyrolysis'. Explain it with suitable reaction.
- e) Explain Friedel Craft's reaction.
- f) Distinguish between primary, secondary and tertiary alcohol with suitable example.

3. Attempt any FOUR of the following: 16

- a) Explain the following:
 - (i) Combustibility
 - (ii) Isomerism
- b) Explain any two methods of preparation of alkanes.
- c) Explain preparation of benzene by:
 - (i) by heating an aromatic acid
 - (ii) by hydrolysis of sulphuric acid with super heated steam.
- d) Write two methods of preparation of monohydric phenol.
- e) Explain the action of alcohol with
 - (i) PCl_3 and
 - (ii) PCl_5
- f) Explain Quinonoid theory for indicators.

4. Attempt any FOUR of the following:**16**

- a) Explain the following:
 - (i) Closed chain compound
 - (ii) Melting point.
- b) Write the reaction to prepare alkyne by dehydrohalogenation of vicinal dihalides.
- c) Explain nitration reaction of benzene.
- d) Classify alcohols with suitable examples from each category.
- e) Draw p – x diagram for an ideal mixture of two liquid. Explain in brief.
- f) Explain Ostwald's theory for indicator.

5. Attempt any FOUR of the following:**16**

- a) Define organic compound and state any two functional groups.
- b) State two uses of each of phenols and aromatic compounds.
- c) Write the preparation of alcohol from aldehydes and ketones.
- d) Explain minimum boiling azeotropic mixtures with diagram.
- e) Explain how vapour pressure of solvent can be lowered by addition of non-volatile solute.
- f) Explain the action of water and sulphuric acid on acetylene.

6. Attempt any FOUR of the following:**16**

- a) Explain preparation of cyclohexane from benzene.
 - b) Explain two types of aromatic hydroxy compounds.
 - c) Write the sulphonation reaction of ethane and state two uses of methane.
 - d) Define:
 - (i) Hydrogen ion indicators
 - (ii) Acid base indicators
 - e) Explain Ostwald's theory.
 - f) Write the reaction of ethyl bromide and ethyl iodide with benzene.
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