

# 312334

**12526**

**3 Hours / 70 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 answer with neat sketches wherever necessary.
  - (4) Figures to the right indicate full marks.
  - (5) Assume suitable data, if necessary.
  - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

- 1. Attempt any FIVE of the following: **10****
- a) Define Hydrogen Bond.
  - b) State full form of IUPAC.
  - c) Define Asymmetric carbon atom.
  - d) Draw the structure of 3-bromo Pentane.
  - e) List any two process of purifying monomers.
  - f) Write any two characteristics of organic compound.
  - g) Define Inhibitor. Give it's two example.

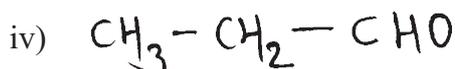
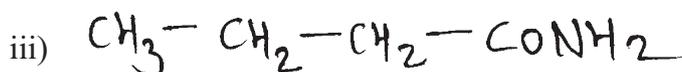
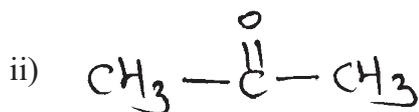
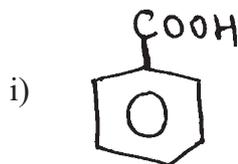
P.T.O.

2. Attempt any THREE of the following: 12

- Define Electronegativity. Explain factors affecting on it.
- Explain mechanism of chlorination of Benzene.
- Draw and explain classification of organic compound based upon functional group.
- State and explain Carother's limiting equation.

3. Attempt any THREE of the following: 12

- Explain Friedel-Craft's Alkylation of benzene.
- Identify functional group of the following compounds.



- Distinguish between aliphatic and aromatic compound. (Any four points)
- Compare the behaviour of Benzene and polythylene on heating, provide diagrams for comparison.

4. Attempt any THREE of the following: 12

- Describe sulphonation of Benzene.
- Explain with example IUPAC rules for naming ketone.
- Explain Hydrogenation reaction of benzene.
- Explain importance of organic chemistry in petroleum and plastic industry.

- e) List any four aromatic compounds from ancient India in Rasashala of Nagarjuna.

5. Attempt any TWO of the following:

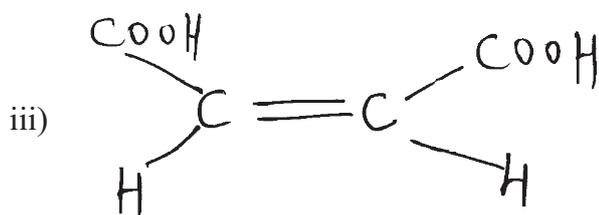
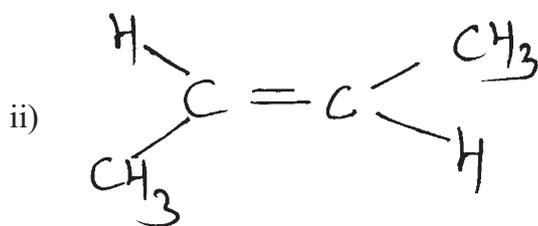
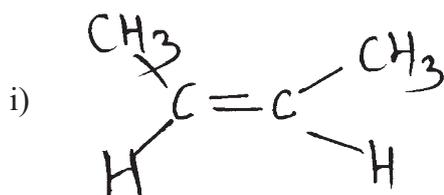
12

- a) Define Isomerism. Discuss different types of Isomerism with example.
- b) Write the chemical name of Lactic acid. Explain optical isomerism of Lactic Acid.
- c) Draw correct structural formula of following organic compounds:-
- 2 - Butanol
  - 3, 3 - Dibromo pentane
  - 1 - Methyl Cyclopropane.

6. Attempt any TWO of the following:

12

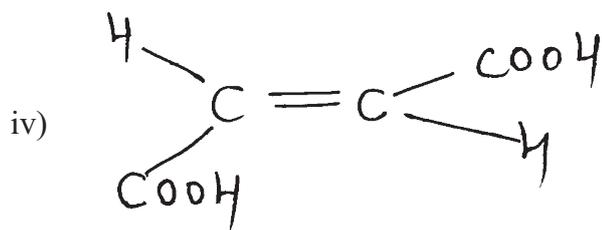
- a) An organic compound contains 20.6% of carbon. 1.56% of hydrogen and 54.97% of chlorine. Calculate empirical formula of this organic compound (Atomic weight of C = 12, Hydrogen = 1, Oxygen = 16 and Chlorine = 35.5)
- b) Write correct cis or trans isomer of following organic compounds. (Any three)



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Marks



- c) Write correct IUPA name of following organic compounds. (Any three)

