

22229

11920

3 Hours / 70 Marks

Seat No.

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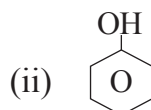
- Instructions* –
- (1) All Questions are *Compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Use of Non-programmable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

Marks

1. Answer any FIVE of the following:

10

- a) Define atom and molecule.
- b) Define organic compound.
- c) State full form of IUPAC.
- d) Identify the functional group of following

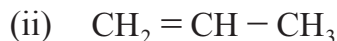


Name the compounds

- e) Define isomerism. List any two type of isomerism.
- f) Define monomer and polymer.

P.T.O.

g) Identify the following monomers



2. Answer any THREE of the following: 12

a) State any two properties and two applications of ionic bond.

b) Explain addition reaction with an example.

c) Compare the behaviour of heating of benzene and polyethylene.

d) Explain reversible and irreversible reaction with an example of each.

3. Answer any THREE of the following: 12

a) Define polarity. Explain it with examples.

b) State IUPAC rule for naming alkyl halides.

c) Explain geometrical isomerism in alkanes.

d) Explain the behaviour of the solubility of sodium chloride and polyvinyl alcohol.

4. Answer any THREE of the following: 12

a) Explain homogeneous and heterogeneous reaction with an example each.

b) Give one example of each of the following compounds in general formula.

(i) amine

(ii) ester

(iii) ether

(iv) ketone

c) Explain optical isomerism of lactic acid.

d) Explain the process of purification of styrene monomer.

e) An organic compound on analysis shows C = 28.42%, H = 2.33% and remaining is oxygen. Calculate the empirical formula of this compound

(Atomic weight - H = 1, C = 12, O = 16)

5. Answer any TWO of the following:**12**

- Explain chlorination of benzene giving reaction mechanism.
- Distinguish between sulphonation and hydrogenation reaction with example.
- Define functionality. Explain its effect on structure of polymer.

6. Answer any TWO of the following:**12**

- State any six characteristics of an aromatic compound.
- Explain the formation of formula of the aldehyde and amide group with carbon.
- Identify the functional group and state functionality of the following compounds. Name the compound.

