

22610

21222

3 Hours / 70 Marks

Seat No.

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15 minutes extra for each hour

- 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) 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) Write any two industrial application of polyvinyl chloride.
- b) Name any four synthetic organic polymers.
- c) Give the name of different types of Resins.
- d) Write the names of different properties of Elastomers.
- e) Name any four plastic processing equipments.
- f) Write any four application of yarn.
- g) Write any two industrial application of blow moulding.

P.T.O.

- 2. Attempt any THREE of the following. 12**
- a) Discuss addition polymerisation and condensation polymerisation with one example.
 - b) Write the raw materials and reactions involved in manufacturing of polyethylene by high pressure process.
 - c) Write properties and use of epoxy resin. (any four point of each)
 - d) Describe working of blow moulding process with neat sketch.
- 3. Attempt any THREE of the following. 12**
- a) Write principle of wet and dry spinning.
 - b) Describe extrusion moulding process.
 - c) Describe different type of pollution and its effect on environment due to polymers.
 - d) Draw the process flow diagram of manufacturing of polyethylene by high pressure process.
- 4. Attempt any THREE of the following. 12**
- a) Describe manufacturing process of polyvinyl chloride process with process flow diagram.
 - b) Discuss any four properties of elastomers.
 - c) Explain principle of scouring of textile fibre.
 - d) Discuss about sizing and dyeing treatment used in fiber treatment.
 - e) Describe working of injection moulding process.
- 5. Attempt any TWO of the following. 12**
- a) Write about raw materials and reactions involved in manufacturing of polyvinyl chloride (PVC)
 - b) Describe suspension polymerisation process
 - c) Describe compression moulding process.

22610

[3]

Marks

6. Attempt any TWO of the following.

12

- a) Describe calendering moulding process with neat diagram.
 - b) Write properties and uses of textile fibre. (any four point each)
 - c) Explain principle of vulcanization used in elastomers.
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