

22389

12425

03 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. **Attempt any FIVE of the following :** **10**
- a) State the function of breaker plate and screen pack assembly.
 - b) Enlist the names the types of winder and puller used in extrusion.
 - c) Enlist the components of extruder screw drive system.
 - d) State the applications of blow moulding.
 - e) State the importance of parison wall thickness control.
 - f) State the difference between scaling and welding.
 - g) State any two applications of dip coating technique.

P.T.O.

- 2. Attempt any FOUR of the following :** **12**
- a) Draw neat sketch of single screw and explain the various zones of single screw.
 - b) Differentiate between co-rotating and counter rotating twin screw extruder.
 - c) Explain the blown film extrusion process and state its applications.
 - d) Explain in detail the flocking technique.
 - e) Explain in detail the open and close cell foam.
- 3. Attempt any FOUR of the following :** **12**
- a) Describe laser marking method along with its applications.
 - b) State any two applications and properties of polyurethane foam.
 - c) State the problems in pipe extrusion and suggest remedial measures for them. (Any two)
 - d) Draw a neat sketch of extruder pelletizer and explain its working.
 - e) Differentiate between AC and DC drive systems of screw.
- 4. Attempt any THREE of the following :** **12**
- a) Explain the important blow moulding process parameters and their effect on quality of the product.
 - b) Describe continuous blow moulding with neat sketch.
 - c) Describe the hot plate welding technique.
 - d) Explain the process of adhesive bonding in detail.
 - e) Explain the wire and cable coating process with neat sketch.

- 5. Attempt any THREE of the following :** **12**
- a) State any four defect with their remedies observed in Blown film extrusion process.
 - b) Identify the blow moulding process to manufacture cold drink bottle and explain in detail.
 - c) State any four causes with remedies for any four defects in blow mouldings.
 - d) Identify and explain the welding technique used to weld inflatables and shower curtains.
 - e) Explain with neat sketch the corona-discharge process.
- 6. Attempt any TWO of the following :** **12**
- a) Select the joining method to join PVC pipe and explain the method in detail.
 - b) Identify and explain process used to decoration of jewelry components, bottle caps and trophies with neat sketch.
 - c) Select and explain the manufacturing process of foam used to packaging of washing machine.
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