

313355

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 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) Enlist different forms of moulding compound used in compression moulding.
  - b) State function of pot in transfer moulding process.
  - c) Define the term day light opening.
  - d) Define plasticizing capacity and state its unit.
  - e) Enlist Rotational moulding machine.
  - f) Name any four Rotomoulded products.
  - g) List down thermofarming methods.

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- 2. Attempt any THREE of the following:** **12**
- a) Describe construction and working of upstroke type compression press.
  - b) State the effect of any two process parameter on quality of compression moulded products.
  - c) With neat sketch explain plunges type transfer moulding.
  - d) State causes and remedies for any four defects observed in transfer moulding.
- 3. Attempt any THREE of the following:** **12**
- a) Explain the concept of preheating and prefarming. State its advantages.
  - b) Describe various steps in compression moulding process.
  - c) Compare transfer moulding with compression moulding with respect to operation and process parameter.
  - d) Describe the effect of following factors on quality of transfer moulded product:
    - i) Bulk factor
    - ii) Curing time
    - iii) Flow properties.
- 4. Attempt any THREE of the following:** **12**
- a) Explain any four faults with their causes and remedies observed in injection moulding.
  - b) Describe working of automatic injection moulding machine with neat sketch.
  - c) Explain working of batch type rotational moulding with neat sketch.
  - d) Explain any four merits and demerits of rotamoulding.
  - e) Explain duel sheet farming technique with neat sketch.

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

- a) Compare hydraulic and mechanical clamping system of injection moulding machine.
- b) State any four advantages, limitations and applications of injection moulding technique.
- c) Describe heating and cooling system for rotamoulding along with neat sketch.

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

- a) Draw neat sketch of injection unit and state function of each part of unit.
  - b) With neat sketch describe working of independent arm type rotamoulding machine and state its application.
  - c) Explain:
    - i) Vacuum forming
    - ii) Plug assist forming with neat sketch.
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