

22351

11920

3 Hours / 70 Marks

Seat No.

--	--	--	--	--	--	--	--

- Instructions* – (1) All Questions are *Compulsory*.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data, if necessary.
- (5) Use of Non-programmable Electronic Pocket Calculator is permissible.
- (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
- (7) Use of Steam tables, logarithmic, Mollier's chart is permitted.

Marks

1. **Attempt any FIVE of the following:** **10**
- a) State the types of preheating in injection moulding.
- b) State any four plastic materials which are processed in injection moulding.
- c) Define outgassing in compression moulding.
- d) State any four advantages of compression moulding.
- e) State any two merits and demerits of plunger type transfer moulding.
- f) State any four moulding materials used in transfer moulding.
- g) State any two merits and demerits of carousel type rotational moulding.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Describe the postcuring process in injection moulding.
 - b) Explain automatic screw preplasticating process for compression moulding.
 - c) Describe trouble shooting for any two defects, their causes and their remedies in transfer moulding.
 - d) Explain plug and ring forming method with neat figure.
- 3. Attempt any THREE of the following:** **12**
- a) Explain the concept of preheating in injection moulding with justification.
 - b) Describe with neat figure the oil heating system for rotational moulding.
 - c) Explain pressure forming method with neat figure.
 - d) State any four advantages and limitations of injection moulding.
- 4. Attempt any THREE of the following:** **12**
- a) Explain in-line thermoforming machine with neat figure.
 - b) Explain with neat figure the hand operated injection moulding machine.
 - c) Explain with neat figure the pot type transfer moulding machine.
 - d) Explain with neat figure the batch type rotational moulding.
 - e) State any four defects and their causes in thermoforming.

5. Attempt any TWO of the following: 12

- a) Draw neat labelled figure of automatic injection moulding machine. Describe its construction with its setting parameters.
- b) Describe any three defects, their causes and their remedies in compression moulding machine.
- c) Suggest and explain with neat figure the process for the manufacturing of 5000 litre capacity storage vessel.

6. Attempt any TWO of the following: 12

- a) Describe any three defects, their causes and their remedies in injection moulding machine.
 - b) Describe constructions and setting parameters for upstocking type compression moulding with neat figure.
 - c) Draw neat figure of screw type transfer moulding machine. Describe its construction and working.
-