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April 2024

Time – Three hours
(Maximum Marks: 100)

- [N.B.** 1. Answer all questions under Part-A. Each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART – A

1. List any three advantages of preheating.
2. What are the types of transfer moulding process?
3. What are the types of nozzles?
4. What are the remedies to avoid flash in injection moulding?
5. Write the function of the sizing unit.
6. Mention the types of plastic foam.
7. How to control the parison length?
8. Mention any three limitations of thermoforming.
9. What is crowning effect?
10. List out any three advantages of rotational moulding.

[Turn over.....

PART - B

11. (a) Explain the cause and give remedy to avoid the following defects in compression moulding:

(i) Flash (ii) Blister (iii) Short shot (iv) Uneven product dimension

(Or)

(b) Explain about any one transfer moulding process along with the cycle time.

12. (a) Discuss the processing of thermoset material in injection moulding machine.

(Or)

(b) Explain the hydraulic clamping system in injection moulding with a neat labelled sketch.

13. (a) What is structural foam? Give any ten applications of EPS foam.

(Or)

(b) Explain the sheet extrusion process with a neat sketch.

14. (a) Explain with a neat and labelled sketch about (i) Drape forming technique (ii) Snap back forming technique.

(Or)

(b) What is the principle behind thermoforming? Discuss the various sources of heating in thermoforming.

15. (a) Explain about the measures to control the sheet thickness in calendering process.

(Or)

(b) Explain the adhesive bonding method. Give its advantages and limitations.
