



17550

15162

3 Hours / 100 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.*

Marks

1. A) Attempt **any three** of the following. **12**
 - a) Write the principle of rotational moulding process. Write steps of rotomolding process.
 - b) Define outgassing. What are its causes? Also state its advantages.
 - c) Compare compression moulding and transfer moulding (any 4 points).
 - d) Define calendering. Draw new calender train diagram and explain its working.

- B) Attempt **any one** of the following. **6**
 - a) List the methods of solvent cementing. What are the precautions to be considered during solvent cementing of plastics? State its advantages.
 - b) Explain working of flexographic printing with neat sketch. Also write its limitations.

2. Attempt **any four** of the following. **16**
 - a) Draw and explain working of carousel type machine.
 - b) What are the causes of post curing? Write its precautions.
 - c) Write the limitations of transfer moulding process.
 - d) List the materials used for calendering. State applications of calendered films or sheets.
 - e) Suggest a materials to be joined by hot plate welding. What are the applications and advantages of hot plate welding?
 - f) Explain corona discharge technique of surface treatment.

3. Attempt **any two** of the following : **16**
 - a) Explain construction and working of mills and strainer with neat sketch.
 - b) What are the general rules to be observed in cementing of plastics? How is tongue joint designed?
 - c) What is vacuum metallizing? Draw a neat diagram of it and explain working of vacuum metallizing.

P.T.O.



4. A) Attempt **any three** of the following. 12
- a) State a trouble shooting guide for rotomolding.
 - b) Write the advantages and disadvantages of compression molding.
 - c) Compare calendering and extrusion.
 - d) Define welding. How are welding classified? Write the applications of hot gas welding.
- B) Attempt **any one** of the following. 6
- a) Explain construction and working of Jacketed mold machine with neat sketch.
 - b) Suggest moulding compounds or materials used in compression moulding. Compare sheet moulding compound and dough moulding compounds.
5. Attempt **any two** of the following. 16
- a) Compare high speed blending and ribbon blending.
 - b) Explain sanding of following thermoplastics
 - i) ABS
 - ii) PC
 - c) Explain the process of flocking with neat diagram. Also state the advantages of hot transfer processes.
6. Attempt **any four** of the following. 16
- a) Explain in brief modes of heat transfer.
 - b) Compare hand operated compression moulding and automatic compression moulding.
 - c) Draw a diagram of screw type transfer machine and explain its working.
 - d) Define
 - i) Ashing
 - ii) Buffing
 - iii) Polishing
 - iv) Grinding
 - e) Explain screen printing process.
 - f) Explain the working of embosser.
-