

Total No. of Questions : 12]

SEAT No. :

P1081

[4659] - 157

[Total No. of Pages : 2

**B.E. (Production/ Sandwich)
d: PLASTIC ENGINEERING
(2008 Pattern) (411124) (Elective - I) (Semester - I)**

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) *Answer any three questions from each section.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume suitable data if necessary.*

SECTION - I

- Q1)** a) What is polymerization? Discuss commonly used thermoplastic materials. [9]
b) Give the classification of plastic materials. [9]

OR

- Q2)** a) Explain the commonly used alloys & blends in plastic. [9]
b) Discuss commonly used additives in plastic. [9]

- Q3)** a) Write a short note on cavity & core inserts used in injection moulding? [8]
b) Explain injection moulding design consideration? [8]

OR

- Q4)** a) Write a short notes on cooling of injection moulds? [8]
b) Write short notes on mould ability features & ejection of moulds. [8]

- Q5)** a) Explain blown film extrusion with a neat sketch? [8]
b) Explain in brief about the extrusion coating & lamination. [8]

OR

P.T.O.

- Q6)** a) Explain the extrusion problems & extruder performance? [8]
b) Discuss coextrusion of films & sheets? [8]

SECTION - II

- Q7)** a) Explain basic principles of blow moulding. [9]
b) What are the different materials which are used for blow moulding. [9]

OR

- Q8)** a) Explain stretch blow moulding with a suitable sketch. [9]
b) Explain bottle design concept used in blow moulding. [9]

- Q9)** a) Explain with a neat sketch vacuum forming technique. [8]
b) Discuss about various factors which effect the thermoforming process. [8]

OR

- Q10)**a) Explain twin sheet thermoforming process. [8]
b) Explain thermoforming process with suitable sketch? [8]

- Q11)**a) Write a short notes on trimming & routing of thermosetting and thermoplastics? [8]
b) Write short notes on buffing & Polishing of thermosetting & thermoplastic? [8]

OR

- Q12)**a) Discuss guide lines of tool geometry. [8]
b) Explain turning & milling with neat sketch. [8]

