

11146 : Polymer Processing-II : 8 PP 01

P. Pages : 2

Time : Three Hours

**AW - 3505**

Max. Marks : 80

- Notes :
1. Answer **three** question from Section A and **three** question from Section B.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Diagrams and chemical equations should be given wherever necessary.
 5. Illustrate your answer necessary with the help of neat sketches.
 6. Discuss the reaction, mechanism wherever necessary.
 7. Use of pen Blue/Black ink/refill only for writing the answer book.

SECTION – A

1. What do you mean by extrusion? Explain in detail the principle of extrusion and discuss in detail with sketch, nomenclature of extrusion. **13**

OR

2. a) Explain in detail mechanism of different zones of an extrusion. **7**
b) Explain in detail, cast film manufacturing process. **6**
3. a) Explain twin screw extrusion and compare with single screw extrusion. **7**
b) Explain co-extrusion. **6**

OR

4. a) Explain Blown film manufacturing process using side fed dies. **7**
b) Explain in detail comparison of extruder and Injection molding machine. **6**
5. a) What do you mean by blow molding? Explain in detail, wheel type continuous EBM. **8**
b) Explain blow molding cycle. **6**

OR

6. a) Explain in detail with sketch, Injection blow molding process. **7**
b) Explain in detail Parision programming methods used in EBM. **7**

SECTION – B

7. a) What do you mean by calendering ? Explain with neat sketch calendering process using inverted 'L' type four roll calenders. **7**
b) Explain two roll, three roll and four roll calendering process. **7**

OR

8. a) Explain in detail, different types of deformation compensation methods used for controlling quality. 7
- b) Compare calendering and extrusion process. 7
9. Explain in detail. 13
- i) Screen printing
- ii) Hot stamping.

OR

10. a) Explain vacuum metallization process for plastics. 7
- b) Explain solvent cementing process. 6
11. Explain in detail 13
- i) Wet spinning of plastics
- ii) Equipments used in vacuum forming.

OR

12. a) What do you mean by spinning? Explain in detail with sketch., melt spinning of plastics. 7
- b) What do you mean by vacuum forming? Explain with sketch, Drape forming process. 6
