

[This question paper contains 2 printed pages.]

3149

Your Roll No. ....

M.E.

J

POLYMER TECHNOLOGY

Paper – CH.553

(Polymer Technology – II)

Time : 3 Hours

Maximum Marks : 100

*(Write your Roll No. on the top immediately  
on receipt of this question paper.)*

*Attempt any five questions.*

*All questions carry equal marks.*

1. (a) Explain the role of runner in injection molding machine. Detail the different parts of injection mold.  
  
(b) Write an detail the various products obtained by the injection molding technique. (20)
2. (a) What do you understand by extrusion technique? Discuss the operating characteristics of an extruder.  
  
(b) Explain the different modifications in an extruder to get qualitative output. (20)
3. (a) Distinguish between rolling and calendering technique.  
  
(b) Describe the construction, operation and parameters which control calenders. (20)

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4. (a) Name four flame retardants for polyolefines. What are the various side effects involved in the use of flame retardants ?
- (b) How do you classify fillers and reinforcements ? (20)
5. Differentiate between the following :
- (a) Batch vulcanization & continuous vulcanization
- (b) Compression and transfer moulding (20)
6. (a) What are blowing agents ? What is their role and mode of action in processing operations ?
- (b) Write the difference between internal and external mixers. (20)
7. (a) Explain the factors involved in melt processing of thermoplastics.
- (b) Write the roles of accelerators and retarders in processing techniques. Give examples. (20)
8. Write short notes on any **three** of the following :
- (a) Peptisers
- (b) Laminates
- (c) Casting
- (d) Lubricants
- (e) Reaction Injection Molding
- (f) Nucleating & clarifier agents (20)