

Paper Id: **187504**

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BTECH
(SEM V) THEORY EXAMINATION 2019-20
PLASTIC MATERIALS -1

Time: 3 Hours**Total Marks: 70****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief. 2 x 7 = 14**

a.	Define Polymer and Plastic
b.	Draw the structure of PS and PMMA
c.	Name the monomers of copolymers of styrene based polymers
d.	Define Spherulites
e.	Name the characterization technique by which Molecular weight of a polymer can be find out
f.	What is Autoacceleration?
g.	Name the different types of movements takes place in polymers when temperature is given to polymers

SECTION B**2. Attempt any three of the following: 7 x 3 = 21**

a.	What is Tg? Explain the Factors which affects the Tg with Examples
b.	How Tacticity affects the properties of polymers, explain with examples.
c.	Name the important Co polymers of Vinyl Chloride and mention the important properties
d.	What is Impact PP. Draw the flow diagram of it.
e.	What are the different methods used for determining the molecular weights of polymers? Explain any one method

SECTION C**3. Attempt any one part of the following: 7 x 1 = 7**

(a)	Discuss UNIPOL process for PP
(b)	Discuss PHILLIPS process for PE

4. Attempt any one part of the following: 7 x 1 = 7

(a)	Describe manufacturing process and Flow behavior of PVC by SUSPENSION Polymerization process
(b)	Describe manufacturing process and Flow behavior of PS by MASS Polymerization method

5. Attempt any one part of the following: 7 x 1 = 7

(a)	Describe manufacturing process and Flow behavior of PVC by EMULSION Polymerization process
(b)	Describe manufacturing process and Flow behavior of PS by SUSPENSION Polymerization process

6. Attempt any one part of the following: 7 x 1 = 7

(a)	Write short note on Biopolymers
(b)	Write short note on the manufacturing of RAYON

7. Attempt any one part of the following: 7 x 1 = 7

(a)	What are the important Co-polymers of Styrene, Write important properties and applications
(b)	What are the important Co-polymers of Olefins, Write important properties and applications.