

Paper Id:

187701

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BTECH
(SEM VII) THEORY EXAMINATION 2019-20
TESTING OF PLASTICS MATERIAL and PRODUCT

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.	Name two most important Voluntary Organizations
b.	Define Specification and Standards
c.	Write ASTM Number for VST and ESCR
d.	Write the formula for the calculation of Flexural Strength and Impact Energy with units.
e.	Define two types of Co-efficient of Friction.
f.	Write color of flame and kind of smoke of PS and Epoxy resin
g.	Define Specular Gloss

SECTION B

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

a.	Write the Bending behavior and Odour of any five thermoplastic materials
b.	What is MFI? Discuss the factors which the test results of MFI.
c.	Discuss Short term and Long term Stress-Strain curve
d.	Differentiate between HDT and VST
e.	Discuss volume and Surface Resistivity of Plastics.

SECTION C

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

(a)	What are the major environmental factors that seriously affect plastics. Discuss any one.
(b)	What is Polymer Degradation, discuss the types of polymer degradation

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

(a)	How the Crystalline plastics becomes translucent and also discuss Refractive Index.
(b)	Discuss ASTM D1003 with Diagram

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

(a)	Discuss Principle and Significance of CTI
(b)	Discuss Principle and Significance of Dielectric Strength

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

(a)	What are Composites and what are role of constituents which takes part in the preparation of polymer composites
(b)	Discuss briefly different types of Reinforcement materials

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

(a)	Discuss any one test for Pipe and Fitting test
(b)	What is Stress Relaxation? Explain with Diagram.