

- Q.27 What is MFI Explain its testing and importance.
- Q.28 What is bulk density? How is it determined?
- Q.29 Explain Heat distortion temperature.
- Q.30 Give difference between ASTM and DIN testing standards.
- Q.31 Give visual examination test for PE and ABS.
- Q.32 Discuss milling punching and templates techniques for plastic specimen preparation.
- Q.33 Explain vicat softening test of plastics.
- Q.34 What is DSC? Where it is used.
- Q.35 Explain root cause analysis.

Section-D

Note: Long answer type questions. Attempt any two questions out of three Questions. (2x10=20)

- Q.36 Explain FTIR its application and working with schematic diagram.
- Q.37 Write short note on :
 a) Flame test b) Test specimen preparation
- Q.38 Explain with neat sketch, various types of pendulum impact test with standard specifications.

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4th Sem. Branch : Plastic Engineering Subject : Plastic Testing - I

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice Questions. All Questions are compulsory. (10x1=10)

- Q.1 BIS Stands for _____.
 a) Bureau of India Standards
 b) Basic of Indian Standards
 c) British International Standards
 d) None of these
- Q.2 _____ is the change in length per unit of the original length.
 a) Stress b) Density
 c) Viscosity d) Strain
- Q.3 MFI value indicated in _____.
 a) g/1 min b) g/100 min
 c) g/10 min d) None of these
- Q.4 ASTM D2240 is the standard for _____ test.
 a) Tensile test
 b) Rockwell hardness test
 c) Durometer hardness test
 d) Brinell hardness test

- Q.5 Which plastic material burns with fishy smell?
 a) UF b) MF
 c) Polyethylene d) PF
- Q.6 What is the deformation per unit length?
 a) Strain b) Stress
 c) Toughness d) Resilience
- Q.7 _____ possesses strong intermolecular bonding.
 a) Thermoplastic b) Elastomer
 c) Liquid resin d) Thermosetting plastic
- Q.8 _____ increases with increasing molecular weight of polymer.
 a) Creep b) Flexibility
 c) Cracking d) Degree of entanglement
- Q.9 What is the reason of orange-peel effect?
 a) Coarse grain structure b) Fine grain structure
 c) Inclusions d) Impurities
- Q.10 The tendency of a deformed solid to regain its actual proportions instantly on unloading of force is known as _____.
 a) Perfectly elastic b) Delayed elasticity
 c) Inelastic effect d) Plasticity

Section-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 TGA Stands for _____.
- Q.12 Define bulk density.

- Q.13 Which type of flame is observed when Polyvinyl chloride burns?
- Q.14 Expand HDT.
- Q.15 Expand ISO.
- Q.16 _____ test is used to check the impact strength of plastic specimen.
- Q.17 Define Milling.
- Q.18 Define tear strength.
- Q.19 ASTM D790 is the standard test number for _____.
- Q.20 Which type of flame is observed when Polyvinyl chloride burns?

Section-C

Note: Short answer type Questions. Attempt any twelve questions out of fifteen Questions. (12x5=60)

- Q.21 How will you measure moisture contents in plastics.
- Q.22 Explain fatigue bending resistance test and its importance.
- Q.23 Explain test specimen preparation for tensile testing machine.
- Q.24 Discuss Six-Sigma technique for quality control analysis.
- Q.25 Explain Rockwell hardness test for plastics.
- Q.26 Explain compression test for plastics.