

- Q.27 Explain test specimen preparation for tensile testing machine.
- Q.28 Name four tests performed on plastic sheets.
- Q.29 Explain immersion test for plastics.
- Q.30 Explain test procedure for oxygen index test.
- Q.31 Discuss flammability test.
- Q.32 Explain anti static test.
- Q.33 Explain criteria used for evaluation of Bio-degradability of plastics.
- Q.34 Discuss impact drop tester for plastic films.
- Q.35 Name three major accelerated weathering tests.

SECTION-D

Note: Long Answer type question. Attempt any two questions. (2x10=20)

- Q.36 Explain statistical quality control. How it is useful in controlling the quality of standardization in testing.
- Q.37 Discuss :
- Cone and plate rheometer
 - Rockwell-Hardness test
- Q.38 With neat sketch explain test procedure for:
- Light transmittance
 - Arc resistance test

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122242/032254/2252

4th Sem / Plastic Engineering Subject : Plastic Testing, Characterization & Quality control (PTCQC)

Time : 3 Hrs.

M.M. : 100

SECTION-A

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

- Q.1 ASTM D1003 is the test standard used for:
- Haze
 - Outdoor weathering test
 - Water absorption test
 - Gas permeability test
- Q.2 ASTM D 1693 is the test standard used for:
- Water absorption test
 - Outdoor weathering test
 - Water absorption test
 - Gas permeability test
- Q.3 ASTM D570 is the test standard used for:
- Haze
 - Outdoor weathering test
 - Water absorption test
 - Gas permeability test
- Q.4 Abbe refractometer is used in measurement of _____

- a) Gloss b) Haze
c) Refractive Index d) All of these
- Q.5 UTM stands for_____?
a) Universal test method
b) Urea test method
c) Universal testing machine
d) Unlimited test method
- Q.6 _____ is self-extinguishing in nature
a) SAN b) PVC
c) PP d) None of these
- Q.7 _____ is a measure of light reflected by the surface of a plastic film
a) Birefringence b) Gloss
c) Light transmittance d) None of these
- Q.8 Deformation that occurs due to stress over a period of time is known as _____
a) Wear resistance b) Fatigue
c) Creep d) Fracture
- Q.9 In a charpy test, high hammer velocity ensures____
a) High strain rate
b) Local stresses
c) Ductility in fracture
d) Low stress concentration
- Q.10 As the crystallinity increases, the brittleness of the polymer_____
a) Increases b) Decreases
c) Moderate d) Remains constant

SECTION-B

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

- Q.11 Give ASTM standard for fatigue bending test_____.
- Q.12 _____ should be the minimum temperature for condition of plastic specimens.
- Q.13 Expand DIN standard.
- Q.14 TGA stands for _____.
- Q.15 PE burns with _____ flame.
- Q.16 Name two optical properties of polymer.
- Q.17 _____ is the ASTM code for Arc resistance test.
- Q.18 Name four mechanical tests for plastics.
- Q.19 ASTM D 638 is the test standard for _____
- Q.20 Name two flammability test for plastics.

SECTION-C

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

- Q.21 How testing helps in improving the quality of product.
- Q.22 Discuss templates and punching.
- Q.23 How will you measure moisture contents in plastics.
- Q.24 Define creep and stress relaxation.
- Q.25 Explain fatigue bending resistance test and its importance.
- Q.26 What is DSC? Where it is used.