

- 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. $(2 \times 10 = 20)$

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

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note : Multiple choice questions. All questions are compulsory. $(10 \times 1 = 10)$

- 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 _____

- Q.5 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.