

- Q.25 Discuss any one test method and standard for bio degradable plastics.
  - Q.26 Discuss water absorption test.
  - Q.27 Define Haze. State its importance.
  - Q.28 Discuss surface resistivity.
  - Q.29 Explain different types of sampling methods.
  - Q.30 Write the physical properties of Solvent resistance.
  - Q.31 Discuss concept of statistical quality control.
  - Q.32 How will you check weathering properties of plastic?
  - Q.33 Discuss abrasion resistance test for plastics.
  - Q.34 Explain Rockwell hardness test for plastics
  - Q.35 Define the term cutting from sheets or films.

## **SECTION-D**

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

- Q.36 Explain test procedure for:

  - Tensile strength
  - Luminous transmittance

Q.37 Discuss :

  - ESCR test
  - Limiting oxygen index test

Q.38 Write short note on:

  - Various types of pendulum impact test
  - Histogram, as quality control tool

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**4th Sem / Plastic  
Subject:- Plastic Testing, Characterisation and Quality  
Control**

Time : 3Hrs.

M.M. : 100

## **SECTION-A**

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

- Q.1 ASTM D 256 is the test standard for \_\_\_\_\_.  
a) Tensile testing  
b) Dielectric strength Testing  
c) Izod testing  
d) None of these

Q.2 \_\_\_\_\_ is self-extinguishing in nature.  
a) SAN                                    b) PVC  
c) PP                                      d) None of these

Q.3 What is SI unit of hardness?  
a) kg/m<sup>3</sup>                                b) kg/m<sup>2</sup>  
c) g/m<sup>2</sup>                                    d) N/m

Q.4 ASTM D 1238 is the standard for \_\_\_\_\_ test.  
a) Tensile test                             b) flexural test  
c) flame test                                d) MFI

Q.5 \_\_\_\_\_ does not melt on re-heating.

- a) Thermoplastic
- b) Thermoset
- c) Both a & b
- d) None of these

Q.6 If we drop a piece of sample in water & it simply floats that it may be \_\_\_\_\_.

- a) PE
- b) UF
- c) Nylon
- d) MF

Q.7 Haze is measured in \_\_\_\_\_.

- a) Percentage
- b) Newton's
- c) MPa
- d) Kg

Q.8 ASTM D790 is the standard for \_\_\_\_\_ test.

- a) Tensile test
- b) flexural test
- c) flame test
- d) MFI

Q.9 Creep is a \_\_\_\_\_ dependent phenomenon.

- a) Temperature
- b) Time
- c) Load
- d) Stress cycle

Q.10 DSC stands for \_\_\_\_\_.

- a) Digital scanner calculator
- b) Duty standard cause
- c) Digital surface calorimeter
- d) Differential Scanning calorimeter.

## SECTION-B

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

Q.11 Refractive index of glass is \_\_\_\_\_.

Q.12 Expand ESCR.

Q.13 When polyethylene burnt it will give \_\_\_\_\_ appearance of flame.

Q.14 (ASTM D 1709) is the test standard for which test procedure?

Q.15 Give two solvents for PMMA.

Q.16 Expand ASTM.

Q.17 Name four optical tests for plastics

Q.18 PVC turns \_\_\_\_\_ over heating

Q.19 Define ESCR test

Q.20 Define milling.

## SECTION-C

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

Q.21 How will you check weathering properties of plastic?

Q.22 Explain tests for checking electrical insulation resistance of plastics.

Q.23 What is refractive index? Explain its importance in plastic products.

Q.24 Explain flammability of cellular plastics.