

- Q.26 Explain abrasion resistance test of plastic materials.
  - Q.27 How to identify the plastics. Explain any one of them
  - Q.28 Write test procedure of compression strength of plastic material.
  - Q.29 Explain Charpy test of plastic material.
  - Q.30 Explain melt flow index of plastic materials.
  - Q.31 Explain test of cone and plate rheometer.
  - Q.32 How to conduct VST test of plastic sample.
  - Q.33 Explain water absorption test for plastic material.
  - Q.34 What are the basic concept of Statistical Quality Control (SQC) and their tools?
  - Q.35 Explain P chart and C chart of quality control.

## **SECTION-D**

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

- Q.36 Define thermal properties of plastic materials.  
Explain Differential Scanning calorimetry (DSC) techniques in detail.

Q.37 Write short note on  
a) Refractive index      b) Melting point

Q.38 Write short note on  
a) Solubility test      b) Tear test

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4th Sem / Plastic  
Subject:- Plastic Testing - I

Time : 3Hrs.

M.M. : 100

## **SECTION-A**

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

- Q.1 Density is defined

  - a) Mass/volume
  - b) Volume/Mass
  - c) Both A& B
  - d) None

Q.2 Unit of melt flow index

  - a) gram/min.
  - b) gm/10 min
  - c) gm/20 min
  - d) None

Q.3 Thermoplastic are crosslinked

  - a) True
  - b) False
  - c) Cannot say
  - d) None

Q.4 Non recyclable plastic is

  - a) Thermoset
  - b) Thermoplastics
  - c) Both A & B
  - d) None

Q.5 Which material is heat sensitive

  - a) PVC
  - b) ABS
  - c) PP
  - d) PTFE

- Q6** The ability of material to withstand tensile force without breaking is known as  
 a) Tensile strength      b) Yield strength  
 c) Compressive strength  
 d) None
- Q7** Which one of the following decreases the tensile strength  
 a) Temp.                  b) Cold working  
 c) Both A & B            d) None
- Q8** Standard specimen has V notch of \_\_\_\_\_ Depth  
 a) 1 mm                  b) 2 mm  
 c) 3 mm                  d) 4 mm
- Q9** Time dependent properties  
 a) Creep  
 b) Tensile strength  
 c) %age elongation at breaks  
 d) None
- Q10** Specific gravity of PVC is  
 a) 1.32                  b) 1.45  
 c) 2.48                  d) 3.0

## **SECTION-B**

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Expand BIS.  
 Q.12 Expand FTIR.  
 Q.13 Expand DIN.  
 Q.14 Define standard.  
 Q.15 Define Specification.  
 Q.16 Write formula of percentage of water absorption.  
 Q.17 Write SI unit of tensile strength.  
 Q.18 Write conditioning of plastic testing.  
 Q.19 Define kaizen.  
 Q.20 Define bulk density.

## **SECTION-C**

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 How to conduct flexural strength of plastics material.  
 Q.22 Explain HDT test of plastic materials.  
 Q.23 Write down factors affecting the test result of tensile strength.  
 Q.24 Write short note on six sigma.  
 Q.25 Write short note on stress relaxation.