

- Q.28 Discuss any one test method and standard for bio degradable plastics.
- Q.29 Name four test performed plastic foams. Explain any one.
- Q.30 Briefly explain ignition properties of plastics.
- Q.31 Discuss luminous transmittance test.
- Q.32 Discuss arc resistance test and its importance.
- Q.33 What is Dielectric constant? Explain its measurement.
- Q.34 Discuss oxygen index test.
- Q.35 Name four tests performed on plastic water tank.

#### SECTION-D

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

- Q.36 Explain:
- Various factors affecting light transmittance and haze
  - Environmental stress cracking Resistance.
- Q.37 Explain test specimen preparation and procedure for specular gloss (with diagram).
- Q.38 Discuss various test procedures used to ensure better quality of plastic pipes.

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### 5th Sem / Plastic Engineering Subject : Plastic Testing-2

**Time : 3 Hrs.**

**M.M. : 100**

#### SECTION-A

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

- Q.1 When moulded component is dropped on hard surface, creates sound \_\_\_\_\_ is known as
- Cut test
  - Drop test
  - Finishing test
  - None of these
- Q.2 Thermoset materials are generally \_\_\_\_\_ in colour.
- Dark
  - Light
  - Transparent
  - None of these
- Q.3 Melting characteristics of Poly ethylene is :
- Softens but not drip
  - Melt and drips
  - Melts & turns brown
  - None of these
- Q.4 Abbe refractometer is used in measurement of \_\_\_\_\_.
- Gloss
  - Haze
  - Refractive Index
  - All of these
- Q.5 \_\_\_\_\_ material extinguishes immediately on removal of flame.
- PVC
  - PE
  - PS
  - PET

- Q.6 PMMA produces \_\_\_\_\_ odour, when burned.  
 a) Pungent smell      b) Fruity smell  
 c) Waxy smell      d) Acetic acid smell
- Q.7 Haze is measured in percentage of light that deviates by more than \_\_\_\_\_ from incident light.  
 a)  $5^0$       b)  $3^0$   
 c)  $2.5^0$       d)  $1.5^0$
- Q.8 W.V.T. Stands for \_\_\_\_\_.  
 a) Waste volatile treatment  
 b) Water Vapour transmission  
 c) Waste Vapour transmission  
 d) None of these
- Q.9 ASTM D1434 is the test standard used for :  
 a) Haze  
 b) Outdoor weathering test  
 c) Water absorption test  
 d) Gas permeability test
- Q.10 Ratio of viscosity of the solution to that of solvent is known as :  
 a) Reduced viscosity    b) Relative viscosity  
 c) Inherent viscosity    d) Intrinsic viscosity

### SECTION-B

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

- Q.11 ASTM D 638 is the test standard for \_\_\_\_\_.  
 Q.12 Expand ISO.

- Q.13 Refractive index of reference black piece in gloss test is \_\_\_\_\_.  
 Q.14 Expand ESCR.  
 Q.15 Name any one biodegradable plastic.  
 Q.16 \_\_\_\_\_ is the ASTM code for visual colour Evaluation.  
 Q.17 \_\_\_\_\_ is the ASTM code for Arc resistance test.  
 Q.18 Name four optical tests for plastics.  
 Q.19 Name two tests required for testing of electrical cables.  
 Q.20 Name four tests performed on HDPE films.

### SECTION-C

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

- Q.21 Explain test method for colour measurement of plastics.  
 Q.22 Discuss various environmental factors affecting plastic properties.  
 Q.23 Explain Arc resistance test for Poly carbonate.  
 Q.24 How will you determine Haze in plastic samples?  
 Q.25 Explain tests for checking electrical insulation resistance of plastics.  
 Q.26 What is refractive index? Explain its importance in plastic products.  
 Q.27 Explain volume and surface resistivity tests.