Q.25 Discuss Charpy impact strength test.

Q.26 Discuss various visual identification techniques of plastic giving suitable examples.

Q.27 Explain Heat distortion temperature.

Q.28 Explain thermal conductivity test for plastics.

Q.29 Discuss milling, punching and templates techniques for plastic specimen preparation.

Q.30 Discuss Six-signa technology of quality control.

Q.31 Explain tear test.

Q.32 What is MFI? Explain its testing and importance.

Q.33 What is bulk density? How it is determined?

Q.34 Discuss solubility test for plastics.

Q.35 Explain various factors affecting impact strength of plastics.

SECTION-D

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

Q.36 Discuss:

a) Falling weight impact test

b) Abrasion resistance testing for plastics.

Q.37 How will you measure hardness of plastics material? Explain various types of hardness used for plastic samples.

Q.38 Name various tests carried out for determining the flammability characteristics of plastics. Explain any two in detail.

Roll No.....

4th Sem, Branch : Plastic Engineering
Subject : Plastic Testing-I

Time : 3 Hrs. **M.M. : 100**

SECTION-A

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

Q.1 ASTM code for tear testing of plastics is _____

a) D638 b) D570

c) D1004 d) D665

Q.2 ASTM D2240 is the standard for _____ test.

a) Tensile test

b) Rockwell hardness test

c) Durometer hardness test

d) Brinell hardness test

Q.3 BIS stands for _____

a) Bureau of Indian Standards

b) Basic of Indian Standards

c) British International standards

d) None of these

Q.4 _____ gives fruity small when burn.

a) PE b) PP

c) PMMA d) PET

Q.5 MFI value indicated in _____

a) g/1 min b) g/100min

c) g/10min d) None of these

Q.6 The ability of materials to develop a characteristic behaviour under repeated loading known as _____

a) Toughness b) Resilience

c) Hardness d) Fatigue

Q.7 In a Charpy test, high hammer velocity ensures_____

a) High strain rate

b) Local stresses

c) Ductility in fracture

d) Low stress concentration

Q.8 What is the approximate ratio of fatigue strength to the tensile strength?

a) 1:2 b) 1:3

c) 1:4 d) 2:1

Q.9 _____is the change in length per unit of the original length.

a) Stress b) Density

c) Viscosity d) Strain

Q.10 The flame which gives green colour confirms_____

a) Presence of ethylene group

b) Presence of aliphatic group

c) Presence of halogen group

d) None of these

SECTION-B

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

Q.11 Expand DIN.

Q.12 ASTM D792 is the standard test number for _____ test.

Q.13 PMMA burns with _____ flame.

Q.14 The needle in VSP test penetrates to _____ mm in specimen.

Q.15 DSC stands for _____.

Q.16 Which type of flame is observed when Polyvinyl chloride burns?

Q.17 The weight of melt in grams flowing through the capillary in 10 minutes is the _____

Q.18 TGA stands for _____.

Q.19 Define Mar resistance.

Q.20 PVC gives _____ odour, when burned.

SECTION-C

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

Q.21 Explain fatigue bending test.

Q.22 Discuss preconditioning of specimen preparations for plastic testing.

Q.23 Discuss water absorption test.

Q.24 Explain Rockwell hardness and Brinell hardness test.