

- Q.27 Write four applications of HDPE.
  - Q.28 Write short note on various constituents present in rubber latex.
  - Q.29 Give properties and applications of epoxy resin.
  - Q.30 Write main applications of Polypropylene material.
  - Q.31 Give difference between crystalline and amorphous plastics.
  - Q.32 Give properties and applications of Polystyrene.
  - Q.33 Explain preparation and properties of Nylon 6.
  - Q.34 Explain important characteristics of Poly-carbonate.
  - Q.35 Write short note on SBR rubber.

## **SECTION-D**

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

- Q.36 Explain properties and applications of:  
a) EPDM rubber      b) LLDPE

Q.37 Discuss (atleast 06 point) difference between thermoplastic and thermoset plastics.

Q.38 Explain:  
a) PVC and its copolymers  
b) Cellulose plastics.

No. of Printed Pages : 4 182235/122235/032235  
Roll No. ....

**3rd Sem / Plastic Engineering  
Subject:- Plastic Material and Properties - I**

Time : 3Hrs. M.M. : 100

M.M. : 100

## **SECTION-A**

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

- Q.1 What is approximate density of the polypropylene?

a) 0.56 g/cm<sup>3</sup>      b) 0.90 g/cm<sup>3</sup>  
c) 1.9 g/cm<sup>3</sup>      d) 0.68 g/cm<sup>3</sup>

Q.2 \_\_\_\_\_ is the specialized application of PMMA, regarding its excellent optical clarity and high atmospheric resistance?

a) hard contact lenses  
b) construction  
c) decoration of appliances  
d) insulation wires

Q.3 What is the approximate density of the polymer poly tetra fluoro ethylene?

a) 1.8 g/cm<sup>3</sup>      b) 2.2 g/cm<sup>3</sup>  
c) 0.6 g/cm<sup>3</sup>      d) 1.5 g/cm<sup>3</sup>

Q.4 Name the polymer formed by the ring opening polymerization of caprolactum?

- a) nylon 6                  b) nylon 6.6  
c) nomex                  d) abs
- Q.5 Which polyamide can be used as substitute of steel in belted radial tires?  
a) kevlar                  b) nomex  
c) nylon 12                  d) nylon 11
- Q.6 Which of the following is not an example of thermoplastic resin?  
a) PE                  b) Nylon  
c) PVC                  d) Bakelite.
- Q.7 Plastics are the example of \_\_\_\_\_.  
a) anhydride                  b) ceramics  
c) polymeric material                  d) elastomers
- Q.8 Polypropylene is preferred to polythene, because the former is  
a) Non-inflammable                  b) Harder  
c) Stronger                  d) Both c & d
- Q.9 Polystyrene is a light, transparent, thermoplastic material used for making  
a) Toys and combs                  b) Packaging bags  
c) Non-sticking utensils                  d) Electrical insulation
- Q.10 Thermoplastic resin usually  
a) Remain hard as long as they are hot  
b) Cannot be reclaimed from waste  
c) Permanent setting resins  
d) Less brittle than thermosetting resins.

## SECTION-B

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

- Q.11 Resin identification code for PP is \_\_\_\_\_.  
Q.12 \_\_\_\_\_ polymer is self extinguishing in nature.  
Q.13 Soft drink bottles are mainly made up of \_\_\_\_\_ plastic.  
Q.14 Expand UHMWHDPE.  
Q.15 Give two applications of HDPE.  
Q.16 Name monomer of PVC.  
Q.17 EPDM stands for \_\_\_\_\_.  
Q.18 Give two applications of NBR rubber.  
Q.19 Give monomers of Nylon 6,6.  
Q.20 Name two commodity plastics.

## SECTION-C

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

- Q.21 Write four applications of PMMA.  
Q.22 Give properties and applications of Melamine formaldehyde.  
Q.23 State properties and applications of PET.  
Q.24 Give properties and applications of ABS.  
Q.25 Write short note on Polyurethane.  
Q.26 Explain properties and characteristics of LDPE.