

- Q.27 State various applications of Nylon material.
  - Q.28 Write short note on PMMA.
  - Q.29 Explain Cellulose plastics and their types.
  - Q.30 Give properties and applications of PET.
  - Q.31 Explain properties and applications of unsaturated polyester resin.
  - Q.32 Give five applications of silicone rubber.
  - Q.33 Explain properties and uses of Nitrile rubber.
  - Q.34 Give properties and applications of Phenol formaldehyde
  - Q.35 Write short note on :-Silicon rubber

## **SECTION-D**

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

- Q.36** Write short note on :-

- a) Thermoplastic materials
  - b) Elastomers
  - c) Crystalline polymers

- Q.37** Discuss properties and applications of:

- a) Urea formaldehyde
  - b) Polyurethane (PU)

- O.38 Write short note on :

- a) Chloroprene rubber
  - b) UHMWHDPE

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## **Plastic Engineering**

### **Subject:- Plastic Materials and Properties - I**

Time : 3Hrs.

M.M. : 100

## **SECTION-A**

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

- Q.1 Nitrile butadiene rubber (NBR) is \_\_\_\_\_.

  - A natural rubber
  - Another name of silicone rubber
  - A synthetic polymer
  - None of these

Q.2 Buna-S is a \_\_\_\_\_ material.

  - Fibrous
  - Plastic
  - elastomer
  - gel

Q.3 Polypropylene compared to polythene is \_\_\_\_\_.

  - Harder
  - Stronger
  - Lighter
  - All of these

Q.4 Which of the following is not a thermoplastic material?

  - Epoxy polymer
  - PVC
  - Polystyrene
  - Polythene

- Q.5 \_\_\_\_\_ is the approximate density of HDPE?
- a) 1.8 g/cm<sup>3</sup>      b) 2.2 g/cm<sup>3</sup>  
c) 0.92 g/cm<sup>3</sup>      d) 1.5 g/cm<sup>3</sup>
- Q.6 Full form of EPDM is \_\_\_\_\_.
- a) Ethylene polymer diene monomer  
b) Ethylene Propylene diene - monomer  
c) Expended polymer diene monomer  
d) none of the above
- Q.7 Select commodity plastic from following?
- a) Polyactals      b) ABS  
c) Polypropylene      d) Nylon
- Q.8 Thermosetting polymers as compared to thermoplastic polymers \_\_\_\_\_.
- a) Are formed by addition polymerization  
b) Have three dimensional structure  
c) Have linear structure  
d) None of these
- Q.9 \_\_\_\_\_ scrap can be recycled again.
- a) Bakelite      b) Poly-ethylene  
c) Epoxy resin      d) None of these
- Q.10 Common name of PMMA is \_\_\_\_\_.
- a) Bakelite      b) Lunax  
c) Acrylic      d) None of these

### SECTION-B

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

- Q.11 Give monomers of Nylon 6,6.
- Q.12 Electric switches are generally made up of which material?
- Q.13 Expand PVC.
- Q.14 Give an important application of PET.
- Q.15 Bakelite is the trade name of \_\_\_\_\_.
- Q.16 Plastic ropes are generally made up of \_\_\_\_\_.
- Q.17 Expand UHMWHDPE.
- Q.18 Give two important applications of HDPE.
- Q.19 SBR stands for \_\_\_\_\_.
- Q.20 Expand PMMA.

### SECTION-C

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

- Q.21 Give properties and applications of LDPE
- Q.22 Explain four important applications of HDPE
- Q.23 Discuss preparation and properties of PVC
- Q.24 Write short note on Copolymers of PVC
- Q.25 State properties and applications of PP
- Q.26 Give two special properties and applications of Poly carbonate.