

- Q.25 Describe application of polymers.
- Q.26 What is monomer explain the any three monomers.
- Q.27 Give five example of commodity plastics.
- Q.28 Write different steps in chain Polymerization.
- Q.29 What is the role of additives in polymer processing?
- Q.30 Write monomer for polyester and polystyrene.
- Q.31 Write polymerization of bakelite.
- Q.32 Write the raw materials, reactions and condition in nylon manufacturing.
- Q.33 What is weighted Average molecular weight.
- Q.34 What are the use of urea formaldehyde.
- Q.35 What is bulk polymerization.

#### **SECTION-D**

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

- Q.36 Explain different types of polymerizations with suitable example.
- Q.37 Describe any two polymer processing techniques with example.
- Q.38 Describe the condensation and addition polymerization with help of suitable example.

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#### **4th Sem / Chemical Engineering Subject : Polymer Technology**

**Time : 3 Hrs.**

**M.M. : 100**

#### **SECTION-A**

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

- Q.1 Condensation polymerization of \_\_\_\_\_ produces bakelite.
- Phenol & formaldehyde
  - Phenol and acetaldehyde
  - Propylene
  - None
- Q.2 \_\_\_\_\_ scrap can be recycled and reutilised
- Bakelite
  - Epoxy resin
  - Polythene
  - None
- Q.3 Which of the following is a natural polyamide fibre.
- Wool
  - Silk
  - Cotton
  - None
- Q.4 Most commonly used rubber vulcanization agent is

- a) Sulphur                  b) Bromide
- c) Platinum                  d) None
- Q.5** Polystyrene is a plastic at room temperature.
- a) Ducktile                  b) Brittle
- c) Malleable                  d) None
- Q.6** \_\_\_\_\_ is a thermosetting plastic.
- a) PVC                        b) Polythene
- c) Bakelite                    d) None
- Q.7** \_\_\_\_\_ is an addition polymer
- a) Nylon                      b) Bakelite
- c) Polythene                 d) None
- Q.8** \_\_\_\_\_ is a natural fibre
- a) Cellulose                 b) Dacron
- c) Nylon-6                   d) None
- Q.9** Bakelite is a/an.
- a) Addition polymer         b) Elastomer
- c) Thermosetting             d) None
- Q.10** Buna-S is also called
- a) Polyurathane              b) SBR
- c) Teflon                     d) Bakelite

### **SECTION-B**

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

- Q.11 Define monomer.
- Q.12 Define step polymerization.
- Q.13 Write one natural fibers.
- Q.14 Give examples of one free radical.
- Q.15 Write example of thermosetting polymer.
- Q.16 Write monomer of polyester.
- Q.17 Write example of bulk polymerization.
- Q.18 Write structure of polythene.
- Q.19 Write example of suspension polymerization.
- Q.20 Write units of Viscosity.

### **SECTION-C**

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

- Q.21 Explain solution polymerization and its disadvantage.
- Q.22 Explain calendering.
- Q.23 What is degree of polymerization.
- Q.24 Draw schematic representation of Block co-polymer.