1. **Polymeric materials**

***Objective Questions:***

**1.** Polymerization in which two or more chemically different monomers takes part is called [ b]

**a.** Homopolymers **b.** Copolymer

**c.** Solids **d.** Fabrics

**2.** A thermoplastic is formed by the phenomenon of [b]

**a.** Chlorination **b.** Condensation polymerization

**c.** Nitration **d.** Addition polymerization

**3.** Phenol-formaldehyde resin is commercially known as: [c]

**a.** PVC **b.** Elastomer

**c.** Bakelite **d.** Nylon

**4.** A plastic which can be softened on heating and hardened on cooling is called [d]

**a.** Thermoelastic **b.** Thermite

**c.** Thermosetting **d.** Thermoplastic

**5.** Natural rubber is basically a polymer of [b]

**a.** Propylene **b.** Isoprene

**c.** Ethylene **d.** Propane

**6.** Which of the following element is used for vulcanization [c]

**a.** Nitrogen **b.** Chlorine

**c.** Sulphur **d.** Phosphorus

**7.** One of the important uses of bakelite is for making: [b]

**a.** Cables **b.** Electrical switches

**c.** Cloth **d.** Hose pipe

**8.** The fiber obtained by the condensation of hexa methylene diamine and adipic acid is [a]

**a.** Nylon-6:6 **b.** Dacron

**c.** Rayon **d.** Nylon-6

**9.** In conducting polymer P-doping is done by which of the following reaction. [a]

**a.** Oxidation **b.** Reduction

**c.** Hydration **d.** Redox

**10.** Which monomer is used for the synthesis of the Teflon? [b]

**a.** Tetra chloro ethylene **b.** Tetra fluoro ethylene

**c.** Tetra bromo ethylene **d.** Tetra iodo ethylene

**11.** Which of the following is not an example of addition polymer? [d]

**a.** Polystyrene **b.** PVC

**c.** Polypropylene **d.** Nylon-6:6

**12.** Which one is used to make nonstick cookware? [a]

**a.** Poly Tetra fluoro ethylene **b.** PVC

**c.** Polypropylene **d.** Polystyrene

**13.** Which of the following is a synthetic polymer? [b]

**a.** Cellulose **b.** PVC

**c.** Proteins **d.** Nucleosides

**14.** Terylene is a [d]

**a.** Polyamide **b.** Polyethylene

**c.** Polyvinyl chloride **d.** Polyester

**15.** The only rubber that cannot be vulcanized is [b]

**a.** Butyl rubber **b.** Thiokol rubber

**c.** Polyisoprene **d.** Neoprene

***Fill in the blanks:***

1. In conducting polymer n type of doping is done by **Reduction .**
2. Addition polymerization is also called **\_Chain growth \_** polymerization.
3. **Dimethyl terephthalate / Terephthalic acid\_&\_Ethylene glycol\_**chemicals are required for the preparation of Decron.
4. **\_Thermo plastics\_\_** Type of plastics are remoulded.
5. **\_2-methyl 1, 3-Butadiene\_** is the chemical name of Isoprene.
6. Buna-S is a co-polymer of **\_1, 3-Butadiene \_\_\_**&**\_ Styrene\_.**
7. **\_Ethylene chloride\_\_**&**\_\_Sodium poly sulphide\_**chemicals are required for the preparation of Thiokol rubber.
8. Example for the Conducting polymer is **\_\_Poly acetylene / poly aniline .**
9. Example for the Biodegradable polymer is **\_Poly vinyl alcohol \_/ poly lactic acid.**
10. **\_1, 3-Butadiene / Isoprene\_**&**\_Iso Butene\_\_**chemicals are required for the preparation of Butyl rubber.
11. **\_2-methyl 2-Butadene\_\_** is the chemical name of Polyisoprene.
12. **\_Thiokol \_** rubber is used in making hose pipe.
13. \_**Cis poly isoprene**  is also called natural rubber.
14. \_**Trans poly isoprene**  is also called gutta-percha rubber.
15. **\_Vinyl benzene\_** is the chemical name of Styrene.