Polymer

Self Evaluation Test -30

- 1. Nylon-6 is made from [MP PMT 2002; BHU 2002]
 - (a) Butadiene
- (b) Chloroprene
- (c) Adipic acid
- (d) Caprolactum
- **2.** A polymer containing nitrogen is

[UPSEAT 2004; MP PET 2003]

- (a) Bakelite
- (b) Dacron
- (c) Rubber
- (d) Nylon-66
- 3. Cellulose acetate is a

[JIPMER 2002]

- (a) Natural polymer
- (b) Semisynthetic polymer
- (c) Synthetic polymer
- (d) Plasticiser
- 4. Ethylene-propylene rubber can be
 - (a) Vulcanized by sulphur
 - (b) Vulcanized by peroxides
 - (c) Both (a) and (b)
 - (d) Non-vulcanizable
- 5. Buna-S is a polymer of [CPMT 1987; JIPMER 1999]
 - (a) Butadiene and styrene
 - (b) Butadiene
 - (c) Styrene
 - (d) Butadiene and chloroprene
- **6.** Nylon is generic name for all synthetic fibre forming
 - (a) Polyesters
- (b) Polymeric amides
- (c) Polystyrene
- (d) Polyethylene
- 7. Polymerisation in which two or more chemically different monomers take part is called [MP PMT 1991, 93]

- (a) Addition polymerisation
- (b) Copolymerisation
- (c) Chain polymerisation
- (d) Homopolymerisation
- **8.** Whether small molecules liberate in addition polymerisation
 - (a) Yes
- (b) No
- (c) Sometimes
- (d) Only H_2O
- 9. Orlon has a unit
- [AFMC 2004]
- (a) Vinyl cyanide
- (b) Acrolein
- (c) Glycol
- (d) Isoprene
- 10. The common acid used in the manufacture of rayon and plastics is [Kerala (Engg.) 2002]
 - (a) Methanoic acid
- (b) Ethanoic acid
- (c) Propanoic acid
- (d) Butanoic acid
- **11.** Buna-s rubber is which of the following of 1-3-butadiene and styrene [Pb. PMT 2000]
 - (a) Polymers
- (b) Copolymer
- (c) Addition
- (d) Condensation
- polymer
- **2.** Which one of the following polymers will not catch fire

[MP PET 1994]

(a)
$$(-CF_2 - CF_2 -)_n$$

(b)
$$(-CH_2 - CH_2 -)_n$$

(c)
$$(-CH - CH -)_n$$

(d)
$$(-CH_2 - CH_1 -)_n$$

Answers and Solutions

(SET -30)

1. (d) Caprolactun is the monomer of nylon -6.

2. (d) Nylon-66- It is a polymer containing alitrogen

$$\begin{bmatrix} H & H & O \\ -N - (CH_2)_6 - N - C - (CH_2)_4 - C - \\ 0 \\ O_{\text{Nylon-66}} \end{bmatrix}$$

3. (b) Because cellulose is a natural polymer.

4. (b) It is vulcanized by peroxide because it requires the more electronegative element to form cross - link structure.

5. (a) $nCH_2 = (CH - CH = CH_2) + n(CH_2 = CH - CH_2) + n(CH_2 = CH_$

It is also called SBR (styrene butadiene rubber).

6. (b) Nylon is a polyamide fibre representing the polyamide linkage.

7. (b) e.g. Adipic acid + Hexamethylene diamine \rightarrow

Nylon - 66

8. (b) In addition polymerization simple addition of monomer unit takes place without any loss of small molecules.

9. (a) Orlon is prepared by polymerization of vinyl cyanide in

$$nCH_2 = CHCN \xrightarrow{\text{Polymerisation}} \begin{bmatrix} -CH_2 - CH - \\ | \\ | \\ CN \end{bmatrix}_n$$

10. (b) Ethanoic acid is used in the manufacture of regin and plastics.

11. (b) Buna-*S* is a coplymer of 1, 3- butadiene and styrene.

12. (a) Teflon $(-CF_2 - CF_2 -)_n$ is stable upto 598 K.