

Polymers

1. Of the following which one is classified as polyester polymer?

[CBSE AIPMT-2011]

- 1) Nylon-66 2) Terylene 3) Bakelite 4) Melamine

2. Which type of polymer is Bakelite?

[Guj. CET-2011]

- 1) Addition polymer 2) Homopolymer
3) Condensation polymer 4) Biopolymer

3) Neoprene is

[CPMT-2010]

- 1) A monomer of rubber 2) Synthetic Rubber
3) Natural Rubber 4) Vulcanized Rubber

4) Teflon is a polymer of

[CPMT, Guj.CET-2010]

- 1) Vinyl Chloride 2) Tetrachloroethylene
3) Tetrafluoroethylene 4) Buta-1, 3-diene

5. Buna-N synthetic rubber is a copolymer of

- 1) $\text{H}_2\text{C}=\text{CH}-\text{CH}=\text{CH}_2$ and $\text{H}_5\text{C}_6-\text{CH}=\text{CH}_2$ (A-2009)
2) $\text{H}_2\text{C}=\text{CH}-\text{CN}$ and $\text{H}_2\text{C}=\text{CH}-\text{CH}=\text{CH}_2$
3) $\text{H}_2\text{C}=\text{CH}-\text{CN}$
4) $\text{H}_2\text{C}=\text{CH}-\text{CH}=\text{CH}_2$

6. Among the following substituted silanes the one which will give rise to cross linked silicone polymer on hydrolysis is (A-2008)

- 1) R_4Si 2) RSiCl 3) R_2SiCl_2 4) R_3SiCl

7. Bakelite is obtained from phenol by reacting with

- 1) $(\text{CH}_2\text{OH})_2$ 2) CH_3CHO (A-2008)
3) CH_3COCH_3 4) HCHO

8. The secondary structure of a protein refers to (A-2007)

- 1) Fixed configuration of the polypeptide backbone
- 2) α -helical backbone
- 3) Hydrophobic interactions
- 4) Sequence of α -amino acids

9. Which of the following is fully fluorinated polymer (A-2005)

- 1) PVC
- 2) Thiokol
- 3) Teflon
- 4) Neoprene

10. Which of the following is a polyamide? (A-2005)

- 1) Bakelite
- 2) Terylene
- 3) Nylon-66
- 4) Teflon

11. Nylon threads are made of (A-2003)

- 1) Polyester Polymer
- 2) Polyamide Polymer
- 3) Polyethylene Polymer
- 4) Polyvinyl Polymer

12. Polymer formation from monomers starts by (A-2002)

- 1) Condensation reaction between monomers
- 2) Coordinate reaction between monomers
- 3) Conversion of monomer to monomer ions by proton
- 4) Hydrolysis of monomers

13. If \bar{M}_w is the weight average molecular weight and \bar{M}_n is the number average molecular weight of a polymer, the poly dispersity index (PDI) of the polymer is given by (E-2008)

- 1) $\frac{\bar{M}_n}{\bar{M}_w}$
- 2) $\frac{\bar{M}_w}{\bar{M}_n}$
- 3) $\bar{M}_w \times \bar{M}_n$
- 4) $\frac{1}{\bar{M}_w \times \bar{M}_n}$

14. Which of the following is a biodegradable polymer (E-2007)

- 1) Polythene
- 2) Bakelite
- 3) PHBV
- 4) PVC

15. If the number average molecular weight and weight average molecular weight of a polymer are 40,000 and 60,000 respectively, the polydispersity index of the polymer will be (E-2010)

- 1) >1 2) <1 3) 1 4) Zero

16. The polymer containing strong intermolecular forces e.g. hydrogen bonding, is (A - 2010)

- 1) Natural Rubber 2) Teflon
3) Nylon 6, 6 4) Polystyrene

17. Thermosetting polymer, Bakelite is formed by the reaction of phenol with (A-2011)

- 1) $\text{CH}_3\text{CH}_2\text{CHO}$ 2) CH_3CHO
3) HCHO 4) HCOOH

KEY

- 1) 2 2) 3 3) 2 4) 3 5) 2
6) 3 7) 4 8) 2 9) 3 10) 3
11) 2 12) 1 13) 2 14) 3 15) 1
16) 3 17) 3