POLYMERS

1. Of the following which one I 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) tetrachloro ethylene 3) tetrafluoro ethylene 4) butta-1,3-diene

5. Buna-N synthetic rubber is a copolymer of: (A-2009)

1) $H_2C=CH–CH=CH_2$ and $H_5C_6–CH=CH_2$ 2) $H_2C=CH–CN$ and $H_2C=CH–CH=CH_2$
3) $H_2C=CH–CN$ and 4) and $H_2C=CH–CH=CH_2$

6. Among the following substituted silanes the one which will gives 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 (A-2008)

1) $(CH_2OH)_2$ 2) CH_3CHO 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) -helical backbone
3) Hydrophobic interactions
4) Sequence of -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 polymide ? **(A-2005)**

1) Bakellite 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) CH_3CH_2CHO 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