Government of Maharashtra's
Ismail Yusuf College of Arts, Science and Commerce, Mumbai 400060

NAAC reaccredited A grade

Department of Chemistry

Sample Multiple Choice Questions

1. Polymeric molecules_____ a definite crystalline structure.

    a) have

    b) do not have

    c) completely having

    d) partially having

2. As the crystallinity increases the brittleness of the polymer _____.

    a) increases

    b) decreases

    c)moderate

    d) remains constant

3. A polymeric molecule possess a molecular weight _____.

    a) different

    b) fixed

    c) that can not be defined

    d)may be determined

4. _____ is the property of recovering original shape after the removal of deforming strain.

    a) rigidity modulus

    b) youngs modulus

    c) elasticity

    d) bulk modulus

5. The impact strength is measured as _____.

    a) elasticity

    b) strength

    c) permeability

    d) toughness

6. If the polymer is in the room temperature it is _____.

a)brittle

b) viscofluid state

c) amorphous

d) rubbery

7. The strength of the polymer increases with _____ in molecular weight.

a) increase

b) decrease

c) no change

d)slightly decrease

8. Which of the following techniques is used to measure the number of conjugated double bonds and aromatic conjugation within the various polymer molecules?

a) fourier transform infrared

b) differential scanning calorimetry

c) UV visible spectroscopy

d) thermo gravimetric analysis

9. Differntial scanning calorimetry is useful for determining the _____.

a) melting temperature,glass transition temperature,heat of fusion

b) volatilities of plasticizers and other additives

c) quantitative determination of additives in polymers

d) structural imperfections

10. Differntial scanning calorimetry comes under the category of_____.

a) spectral analysis

b) morphological analysis

c) thermal analysis

d) geological analysis

11. The study of fracture surfaces of polymeric material is done using _____.

a) atomic force microscopy

b) x-ray diffraction

c) thermo gravimetric analysis

d) scanning electron microscopy

12. Elastic deformation in polymers is due to _____.

a) slight adjust of molecular chains

b) slippage of molecular chains

c) straightening of molecular chains

d) severe of covalent bonds

13. Properties of polymer is affected by the _____.

a) chain length

b) intermolecular forces

c) both a) and b)

d) none of these

14. Crystallisation of polymers is an undesirable property. Crystallisation of celluloid is prevented by adding _____

a) glycerol

b) nitro cellulose

c) camphor

d) none of these

15. Visco-elastic behavior exhibited by plastics is a _____ like behavior.

a) solid

b) liquid

c) combination of solid and liquid

d) neither solid nor liquid

16. Nylon threads are made of

a) polyester polymer

b) polyamide polymer

c) polyethylene polymer

d) polyvinyl polymer

17. Which of the following is a branched polymer?

a) low density polymer

b) polyester

c) high density polymer

d) nylon

18. On the basis of mode of formation polymers can be classified:

a) as addition polymers only

b) as condensation polymers only

c) as copolymers

d) as addition and condensation polymers

19. The process of heat softening, moulding and cooling to rigidness can be repeated for which plastics?

a) thermoplastics

b) thermosetting plastics

c) both (a) and (b)

d) neither (a) nor (b)

20. Which of the following monomers form biodegradable polymers?

a) 3-hydroxybutanoic acid + 3-hydroxypentanoic acid

b) Glycine + amino caproic acid

c) ethylene glycol + phthalic acid

d) both a and b

21. In addition polymer, monomer used is

a) unsaturated compounds

b) saturated compounds

c) bifunctional saturated compounds

d) trifunctional saturated compounds

22. Polymer formation from monomer starts by

a) the condensation reaction between monomers

b) the coordinate reaction between monomers

c) conversion of monomer to monomer ions by protons

d) hydrolysis of monomers

23. Which of the following statements is not correct for fibres?

a) Fibres possess high tensile strength and high modulus

b) Fibres impart crystalline nature

c) Characteristic features of fibres are due to strong intermolecular forces like hydrogen bonding

d) All are correct

24. Which of the following does not undergo additional polymerization?

a) vinyl chloride

b) butadiene

c) styrene

d) all of the above undergoes addition polymerizations

25. Which one of the following is not a condensation polymer?

a) Dacron

b) Neoprene

c) Melamine

d) Glyptal

26. Which of the following statements is false?

a) The repeat unit in natural rubber is isoprene.

b) Both starch and cellulose are polymers of glucose.

c) Artificial silk is derived from cellulose.

d) Nylon-66 is an example of elastomer.

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

a) Nylon-66

b) Terylene

c) Backelite

d) Melamine

28. Which polymers occur naturally?

a) Starch and Nylon

b) Starch and Cellulose

c) Proteins and Nylon

d) Proteins and PVC

29. Bakelite is obtained from phenol by reacting with ___

a) HCHO

b) (CH2OH)2

c) CH3CHO

d) CH3COCH3

30. Which one of the following statements is not true?

a) Natural rubber has the trans-configuration at every double bond

b) Buna-S is a copolymer of butadiene and styrene

c) Natural rubber is a 1, 4-polymer of isoprene

d) In vulcanization, the formation of sulphur bridges between different chains make rubber harder and stronger.