

CH=15 Polymers

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Extras

1) Regenerated fibres are _____

- a) Synthetic fibres b) Plant fibres
c) Semi-synthetic d) Animal fibres

⇒ (c) =: These fibres are obtained from plant fibres (cellulose) after their chemical treatment.

2) Thermoplastics are _____

- a) Linear polymers b) Highly cross-linked polymers
c) Either linear or branched chain polymers d) Crystalline

⇒ (c)

3) Polythene is a/an _____

- a) Addition copolymer b) Addition homopolymer
c) Condensation polymer d) Thermosetting plastic

⇒ (b)

4) Ziegler-Natta catalyst is _____

- a) $\text{Co}(\text{CO})_8$ b) $(\text{Ph}_3\text{P})_3\text{RhCl}$
c) $\text{Al}(\text{C}_2\text{H}_5)_3 + \text{TiCl}_4$ d) Co-Th alloy.

⇒ (c)

5) Symbolic name for teflon is _____

- a) PTFE b) HDPE
c) PVC d) LDPE

⇒ (a)

6) ϵ -Caprolactum on polymerization gives _____

- a) Nylon-6, 6 b) Nylon-6
c) Terylene d) Rayon.

⇒ (b)

7) Bakelite is formed by _____

- a) HCHO & ethylene b) HCHO & phenol
c) Phenol & ethylene d) Phenol & methyl
 $\Rightarrow$ (b)

- 8) Natural rubber is a polymer of -----
a) Buta-1,3-diene b) Ethylene
c) 2-methylbuta-1,3-diene d) Styrene
 $\Rightarrow$ (c)

- 9) The IUPAC name of adipic acid is ---
a) Tetramethylene-2,4-dioic acid.
b) Tetramethylene dicarboxylic acid.
c) Hexane-1,6-dicarboxylic acid.
d) Hexane-1,6-dioic acid
 $\Rightarrow$ (d)

- 10) The IUPAC name of $\text{H}_2\text{N}-(\text{CH}_2)_6-\text{NH}_2$ is ---
a) Hexamethylene-1,6-diamine.
b) 1,6-Diamino hexamethylene
c) Hexane-1,6-diamine.
d) Hexamethylene diamine.
 $\Rightarrow$ (c)

- 11) Letter 'N' in Buna-N stands for ---
a) Sodium b) Nitrogen
c) Nitrile d) Sodium
 $\Rightarrow$ (c)

- 12) Orlon has a unit ---
a) Vinyl cyanide b) Acrolein
c) Glycol d) Isoprene
 $\Rightarrow$ (a)

- 13) Hexamethylene diammonium adipate in inert atmosphere at 553-573K

undergoes ----- reaction.

- a) Hydrolysis b) disproportionation
c) polymerisation d) transesterification

→ (c)

4) * Dacron is the other name of -----.

- a) Nylon-6,6 b) nylon-6
c) rayon d) terylene

→ (d)

5) * Bakelite is obtained from phenol by reacting with -----.

- a) CH_3CHO b) CH_3COCH_3
c) HCHO d) $(\text{CH}_2\text{OH})_2$

→ (c)

6) * Which polymer is used in the manufacture of paints & lacquers?

- a) Bakelite b) Glyptal
c) Polypropene d) Poly vinyl chloride

→ (b)

7) * Hemp is a/an ----- fibre.

- a) Vegetable b) animal
c) synthetic d) none of these

→ (a)

8) * The necessary condition for a compound to form fibre is -----.

- a) Its molecules must be linear.
b) its molecules must be spherical.
c) its molecules must be rectangular.
d) its molecules must be hexagonal

→ (a)

9) Which polymer among the following polymers

does not soften on heating?

- a) Bakelite b) polythene
c) polystyrene d) PVC

⇒ (a)

20) Which of the following is regenerated fibre?

- a) Nylon b) Nylon-6 c) Rayon d) Terylene

⇒ (c)

21) The fibre that cannot be attacked by moth is

- a) Cotton b) Silk
c) Jute d) Terylene

⇒ (d)

22) Which of the following fibre has water repellent property?

- a) Jute b) Silk
c) Dacron d) Acetate rayon

⇒ (c)

23) Which of the following fibre is used for stitching during surgical operation?

- a) Terylene b) Cotton
c) Nylon-2-nylon-6 d) Acetate rayon

⇒ (c)

24) Fibre used in making magnetic recording tape is

- a) Nylon-6 b) Nylon-6,6
c) Terylene d) Viscose rayon

⇒ (c)

25) Bakelite is not used in the preparation of

- a) Electrical appliances b) Combs & fountain pens
c) Handles of cooker d) Paints & varnishes
⇒ (d)

26) Which of the following is obtained as latex?

- a) Polymer of 2-chlorobuta-1,3-diene.
b) Polymer of 2-methylbuta-1,3-diene.
c) Polymer of buta-1,3-diene & styrene.
d) both (A) & (B)

⇒ (b) =: Natural rubber (polymer of 2-methylbuta-1,3-diene) is obtained as latex which is a colloidal suspension of rubber in water.

27) Which of the following is a naturally occurring substance but not a polymer?

- a) DNA b) cellulose c) ATP d) Protein

⇒ (c) =: DNA is deoxyribose nucleic acid & it is a polymer of nucleotides. ATP is adenosine triphosphate & is a biomolecule. Cellulose is a polysaccharide whereas proteins are polypeptide chains.

28) Treatment of rubber with sulphur is called _____

- a) Vulcanization b) Sulphonation
c) Hybridization d) all of these

⇒ (a)

29) PHBV polymer contains _____

- a) Amide linkage b) Ester linkage
c) Ether linkage d) Both (a) & (b)

⇒ (b)

30) Which of the following is fully fluorinated

polymer?

- a) Amylopectin b) Glycogen
c) Teflon d) Neoprene

⇒ (c)

31) The rubber which bubble gum contains

- a) Rayon b) Styrene butadiene
c) Olefins d) Orlon

⇒ (b)

32) Which polymer is used as a substitute for glass?

- a) Perspex b) Neoprene
c) Nylon d) Buna-S

⇒ (a)

33) Nylon salt is

- a) sodium adipate b) disodium adipate
c) Hexamethylene ammonium adipate
d) Hexamethylene diammonium adipate

⇒ (d) = $\text{H}_3\text{N}^+(\text{CH}_2)_6\text{NH}_3^+\text{OOC}(\text{CH}_2)_4\text{COO}^-$
Hexamethylene diammonium adipate

34) In vulcanisation of rubber

- a) sulphur reacts to form new compound
b) sulphur cross-links are introduced
c) sulphur forms a very thin protective layer over rubber.
d) all of these.

⇒ (b)

35) Phenol is used in the manufacture of

- a) Bakelite b) Polystyrene
c) Nylon d) PVC

6) (a)

6) The process of vulcanization makes rubber _____.

- a) soluble in water b) soluble in alcohol.
c) Hard d) Soft

7) (c)

7) Cotton blended with terylene forms _____.

- a) Terrycof b) Synthetic cotton.
c) Terrywool d) Synthetic wool

8) (a)

8) Wash & wear clothes are manufactured using _____.

- a) Nylon fibres b) Cotton mixed with nylon.
c) Terylene fibres d) Wool fibres

⇒ (c) =: Terylene fibres are resistant to crease. Also they absorb very little water & hence dry quickly. These fibres are thus used in the manufacturing of wash & wear clothes.

9) Lucite is a polymer of _____.

- a) Bakelite b) Acrylonitrile.
c) Methylmethacrylate d) Sulphur.

10) (c)

10) The polymers derived from unsaturated hydrocarbons are called as _____.

- a) Polyamides b) Polydienes
c) Polyethylene d) Polyolefins.

11) (d)

11) _____ is a good plasticizers.

- a) Melamine-formaldehyde copolymer b) Polymer of glucose

→ c) Thermosetting polymer d) Step growth
(a)