

JEE CHEMISTRY

Topic: Biomolecules & Polymer

- Which of the following is not a monosaccharide?
(A) Fructose (B) Ribose
(C) Glucose (D) Pectins
- Which of the following is vitamin – E?
(A) Retinol (B) Calciferol
(C) Tocopherol (D) Ascorbic acid
- Most important energy carrier in all living cell is
(A) ADP (B) ATP
(C) AMP (D) UDP
- Which of the following is sweetest?
(A) Sucrose (B) Glucose
(C) Fructose (D) Lactose
- α – helix structure is
(A) Primary structure (B) Secondary structure
(C) Tertiary structure (D) Quaternary structure
- Denaturation of protein takes place by
(A) Heating (B) Addition of acid or base
(C) Addition of urea (D) All of these

7. Maltose is made up of
- (A) α – D – glucose
 - (B) D – fructose
 - (C) Glucose and fructose
 - (D) α – D – Glucose and β – D – glucose
8. Monomer units of starch are
- (A) α – glucose
 - (B) β – glucose
 - (C) Galactose
 - (D) Pyranose
9. Which of the following is essential amino acid?
- (A) Threonine
 - (B) Valine
 - (C) Lysine
 - (D) All of these
10. Which of the following is essential fatty acid?
- (A) Oleic acid
 - (B) Linoleic Acid
 - (C) Linolenic Acid
 - (D) All of these
11. Tertiary structure of protein contains which type of forces
- (A) Electrostatic forces only
 - (B) Electrostatic as well as hydrogen bonds
 - (C) Electrostatic, hydrogen bonds and vander wall forces
 - (D) Electrostatic hydrogen bond, Vander wall forces, dipole-dipole attractions and disulphide cross-linkage
12. Primary structure of protein contains which type of bonds
- (A) Only hydrogen
 - (B) Only covalent
 - (C) Only vander wall
 - (D) All of these
13. Which of the following is optically inactive amino acid?
- (A) Alanine
 - (B) Lysine
 - (C) Glycine
 - (D) Arginine

14. Deficiency of vitamin E causes

- (A) Beri-beri (B) Scurvy
(C) Antifertility (D) All of these

15. In the given reaction

Glucose + n phenyl hydrazine \rightarrow osazone. Value of n

- (A) Three (B) Two
(C) One (D) Four

16. Which of the following compounds will not show mutarotation?

- (A) Methyl - α - D - glucopyranoside (B) β - D (+) galactopyranose
(C) β - D (+) glucopyranose (D) α - D (+) glucopyranose

17. The monomer of neoprene is

- (A) chloroprene (B) isoprene
(C) sebaccic acid (D) none of these

18. Which biomolecule act as catalyst?

- (A) Carbohydrate (B) Nucleic acid
(C) Protein (D) Hormones

19. $P - Cl - C_6H_4NH_2$ and $ph NH_3^+Cl^-$ can be distinguished by

- (A) NaOH (B) $AgNO_3$
(C) Zn (D) $LiAlH_4$

20. Write the sequence of bases on mRNA molecule synthesized on the following strand of DNA, TACAGTAAC

- (A) ATGTCATTG (B) UTGTCUTT
(C) AUCACATTG (D) AUGUCAUUG

21. Which of the following polymers do not involve cross linkages?

- (A) Meimac (B) Bakelite
(C) Polyethene (D) Vulcanized rubber

22. Polymer which has amide linkage is

- (A) Nylon - 66 (B) Terylene
(C) Teflon (D) Bakelite

23. Glyptal polymer is obtained from glycerol by reacting with

- (A) Malonic acid (B) Phthalic acid
(C) Maleic acid (D) Acetic acid

24. Caprolactic acid is a monomer of

- (A) Nylon - 6 (B) Nylon - 66
(C) Dacron (D) Neoprene

25. Terylene is condensation polymer of ethylene glycol and

- (A) Benzoic acid (B) Phthalic acid
(C) Salicylic acid (D) Terephthalic acid

26. Teflon, polystyrene and neoprene are all

- (A) Copolymers (B) Condensation polymers
(C) Homopolymers (D) Monomers

27. The catalyst used for the polymerization of olefins is

- (A) Ziegler-Natta catalyst (B) Wilkinson's catalyst
(C) Pd-catalyst (D) Zeise's salt complex

28. The monomer of Teflon is

- (A) ethane (B) difluoro, dichloroethene
(C) tetrachloroethene (D) tetrafluoroethene

29. Which of the following is a polyamide molecule?

- (A) Terylene (B) Rayon
(C) Nylon - 6 (D) Polystyrene

30. Which of the following is/are acrylic acid polymers?

(B) PMMA

(B) PMAA

(C) PEAA

(D) all

ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10
Ans.	D	C	B	C	B	D	A	A	D	D
Que.	11	12	13	14	15	16	17	18	19	20
Ans.	D	B	C	C	A	A	A	C	B	D
Que.	21	22	23	24	25	26	27	28	29	30
Ans.	C	A	B	A	D	C	A	D	C	D