

NEET : CHAPTER WISE TEST-11

SUBJECT :- CHEMISTRY

CLASS :- 12th

CHAPTER :- BIOMOLECULES

DATE.....

NAME.....

SECTION.....

(SECTION-A)

1. $\begin{array}{c} \text{-N - C-} \\ | \quad || \\ \text{H} \quad \text{O} \end{array}$ group is characteristic of-
- (A) Cellulose (B) Nucleic acid
(C) Proteins (D) Phospholipids
2. The process of formation of RNA from DNA is known as-
- (A) Translation (B) Transcription
(C) Replication (D) Mutation
3. Starch is changed into disaccharide in presence of-
- (A) Amylase (B) Maltase
(C) Lactase (D) Zymase
4. α -Helical structure refers to the-
- (A) Primary structure of protein
(B) Secondary structure of protein
(C) Tertiary structure of protein
(D) Quaternary structure of proteins
5. Mark the globular protein in the following-
- (A) Collagen
(B) Myoglobin or Haemoglobin
(C) Myosin
(D) Fibroin
6. Which one is the complimentary base of adenine in one strand to that in the other strand of DNA?
- (A) Cytosine (B) Guanine
(C) Uracil (D) Thymine
7. Ptyalin of saliva acts in:
- (A) Slightly acidic medium
(B) Slightly alkaline medium
(C) Neutral medium
(D) All types of medium
8. Ascorbic acid is called as:
- (A) Vit. C (B) Vit. A
(C) Vit. D (D) Vit. B
9. Cyanocobalamin is the chemical name of:
- (A) Vitamin B₁ (B) Vitamin B₂
(C) Vitamin B₆ (D) Vitamin B₁₂
10. Which is incorrect in following?
- (A) Polysaccharides are amorphous, insoluble in water and tasteless
(B) Raffinose on hydrolysis gives glucose, fructose and galactose
(C) Monosaccharides cannot be hydrolysed to simpler compounds
(D) None of these
11. Glucose can be tested by following –
- (A) Tollen's reagent
(B) Fehling's solution
(C) Both of these
(D) None of these
12. Glucose on oxidation with nitric acid as well as gluconic acid both gives –
- (A) Saccharic acid (B) n-Hexane
(C) Fructose (D) Glucosazone
13. Anomers of glucose (α -form & β -form) are differ in the stereochemistry at which carbon –
- (A) C-1 (B) C-2
(C) C-3 (D) All of these
14. Glucose occurs in nature in form of –
- (A) Pyranose (B) Furanose
(C) L-form (D) 1 & 2 both
15. Which is known as milk sugar?
- (A) Lactose (B) Maltose
(C) Both of these (D) None of these'
16. Which statement is/are true for starch?
- (a) Starch may called Amylum
(b) Starch is obtained from wheat, maize, rice, potatoes, barley and sorghum
(c) Starch is a white amorphous powder, insoluble in cold water.
(d) Water solution of starch give blue colour with iodine solution.
- (A) a, b & c (B) a & b
(C) a & d (D) a, b, c, d
17. Which statement is/are incorrect?
- (A) Natural starch has approximately 10-20% of amylose and 80-90% of amylopectin.
(B) Amylose is water soluble and gives blue colour with iodine
(C) Amylopectin is a branched chain polysaccharides insoluble in water and does not give blue colour with iodine
(D) Starch is not hydrolysed by enzyme amylase present in saliva

18. Cellulose molecules can not be break in Human stomach while breaks down in stomach of cattle or sheep because –
 (A) Stomach of cattle or sheep does not contains cellulase enzyme while human stomach contains cellulase enzyme
 (B) Human stomach does not contain cellulase enzyme while stomach of cattle, sheep contains this enzyme
 (C) Molecular mass of cellulose is in range of 50,000 to 500,000 so not breaks by enzymes
 (D) None of these
19. True statements for amino acids are –
 (a) Classified as α, β, γ or δ amino acids
 (b) Amino acids are generally represented by three letter symbol
 (c) Only α -amino acids are obtained on hydrolysis of proteins
 (A) a & c (B) a & b
 (C) a, b & c (D) None of these
20. Optically active compounds are –
 (A) α -amino acetic acid
 (B) Glycine
 (C) Both of these
 (D) None of these
21. Zwitter ion is –
 (A) neutral ion
 (B) positive charge ion
 (C) negative ion
 (D) None of these
22. Neutral amino acids have isoelectric point in the range of pH –
 (A) 3.3 to 5.5 (B) 5.5 to 6.3
 (C) 6.3 to 8.3 (D) 12 to 14
23. In acidic & alkaline solution amino acids exists as a–
 (A) Positive ion & negative ion respectively
 (B) Negative ion & positive ions respectively
 (C) Neutral in both medium
 (D) None of these
24. Which is incorrect for peptides?
 (A) Ala-Gly-Phe is named as tripeptide :
 (B) Shorter peptides are known as poly peptides while longer peptides are called oligo peptides
 (C) Polypeptides are basic in nature
 (D) None of these
25. A tripeptide on complete hydrolysis gives glycine, alanine and phenyl alanine. Using three letter symbols which sequence of tripeptide is not valid –
 (A) Gly-Ala-Phe (B) Phe-Phe-Gly
 (C) Ala-Ala-Gly (D) 2 & 3 both
26. In β -sheet of proteins, conformers are held together by (Secondary structure of protein)
 (A) Intermolecular H-bond
 (B) Intramolecular H-bond
 (C) Conformers not held together
 (D) None of these
27. Protein moleculer shape globular exists in –
 (A) Silk (B) Collagen
 (C) Haemoglobin (D) All of these
28. Which of following statement is not true for enzyme?
 (A) Some enzymes can be non proteins also
 (B) Prothetic groups which get attached to enzyme at the time of reaction are known as cofactor.
 (C) Enzymes provides lower activation pathways there by increasing the rate of reaction
 (D) None of these
29. An enzyme molecule may contain a non-protein component, which is known as –
 (A) Coenzymes
 (B) Prosthetic group
 (C) Inverted enzyme
 (D) None of these
30. Mainly DNA is localized in –
 (A) Cytoplasm (B) Nucleus
 (C) Mitochondria (D) Chloroplasts
31. Complete hydrolysis of DNA or RNA yields following –
 (A) Ribose in RNA & deoxyribose in DNA
 (B) Heterocyclic nitrogenous purines base
 (C) Heterocyclic nitrogenous pyrimidines
 (D) All of these
32. Which of following is true for double helical structure for DNA?
 (A) $(A+G \neq C+T)$ total amounts of purines was not equal to total amount of pyrimidines
 (B) Hydrophilic interactions between stacked bases are responsible for stability and maintenance of double helix.
 (C) DNA helices can be right handed as well as left handed.
 (D) The β Conformation of DNA having the left handed helices is most stable.

33. Which types of RNA carries a message to the ribosome, where protein synthesis actually takes place?
 (A) tRNA (B) mRNA
 (C) rRNA (D) None of these
34. Enzymes are –
 (A) Proteins (B) Mineral oils
 (C) Oil or fats (D) All of these
35. Which is incorrect for lipids?
 (A) Lipids are soluble in organic solvents while insoluble in water
 (B) Phosphorous containing lipids are called phospholipids
 (C) Lipid term is used fats, oils, waxes
 (D) Glycolipids may contain nitrogen as well as phosphorous

(SECTION-B)

36. Glucagon hormone is a:
 (A) Non steroids amino acid derivative
 (B) Non steroids peptide hormone
 (C) Adrenal cortical hormones
 (D) Steroids male sex hormone
37. Insulin is known as hypoglycemic factor because:
 (A) It inhibits anabolic processes and promotes catabolic processes
 (B) It decreases glucose concentration in blood
 (C) It does not facilitate entry of glucose into the cells
 (D) None of these
38. Thyroidal hormones like thyroxine are formed in:
 (A) Pituitary gland (B) Pineal
 (C) Thyroid (D) Testes
39. Deficiency of riboflavin causes
 (A) Dark red tongue (glossitis)
 (B) Fissuring at corners of mouth and lips
 (C) Both of these
 (D) None of these
40. Vitamin K
 (A) Is phyloquinone
 (B) Soluble in oils and fats
 (C) Deficiency lengthens the blood clotting
 (D) All of these
41. Metabolism of carbohydrates lipids and proteins are controlled by :
 (A) Thyroid gland
 (B) Adrenal cortical hormones
 (C) Estrone
 (D) None of these

42. Hydrolysis of raffinose gives :
 (A) Glucose (B) Fructose
 (C) Galactose (D) All of these
43. Which of the following hormones contains iodine ?
 (A) Thyroxine (B) Insulin
 (C) Testosterone (D) Adrenaline
44. Which of the statements about 'Denaturation' given below are correct ?
Statements
 (A) Denaturation of proteins causes loss of secondary and tertiary structures of the protein
 (B) Denaturation leads to the conversion of double strand of DNA into single strand.
 (C) Denaturation affects primary structure which gets distorted
Options :
 (A) (a), (b) and (c) (B) (b) and (c)
 (C) (a) and (c) (D) (a) and (b)
45. Deficiency of vitamin B1 causes the disease
 (A) Cheilosis (B) Sterility
 (C) Convulsions (D) Beri-Beri
46. Which of the following is non reducing sugar ?
 (A) Sucrose (B) Maltose
 (C) Lactose (D) Mannose
47. The functional group, which is found in amino acid is -
 (A) –COOH group
 (B) – NH₂ group
 (C) – CH₃ group
 (D) Both (A) and (B)
48. RNA contains –
 (A) Uracil, Ribose
 (B) Thymine, Ribose
 (C) Cytosine, Deoxyribose
 (D) Adenine, Deoxyribose
49. Insulin production and its action in human body are responsible for the level of diabetes. This compound belongs to which of the following categories ?
 (A) A co-enzyme (B) A hormone
 (C) An enzyme (D) An antibiotic
50. Biuret test is not given by -
 (A) proteins (B) carbohydrates
 (C) polypeptides (D) urea