

Topic :- Biomolecules

- Starch on hydrolysis by a dilute inorganic mineral acid gives:
a) Sucrose b) Glucose c) Fructose d) Maltose
- Oleic, stearic and palmitic acids are:
a) Nucleic acids b) Amino acids c) Fatty acids d) None of these
- Oils contain a higher percentage of :
a) Stearin b) Butyrin c) Olein d) Palmitin
- Which of the following pairs give positive Tollen's test?
a) Glucose, sucrose b) Glucose, fructose
c) Hexanal, acetophenone d) Fructose, sucrose
- The total number of basic groups in the following form of lysine is

The structure shows a lysine molecule with a protonated amino group (H₃N⁺) at the end of a four-carbon chain, followed by a central chiral carbon bonded to a hydrogen atom (H₂N) and a carboxylate group (COO⁻).

a) 1 b) 2 c) 3 d) 4
- Glucose or aldohexose contains:
a) One -CHO group
b) Five -OH groups
c) One primary alcoholic group and four secondary alcoholic groups
d) All are correct
- The monosaccharides having anomeric carbon atom are
a) Geometrical isomers b) α - and β - optical isomers
c) Having symmetrical carbon atoms d) None of the above
- The charring product formed when C₆H₁₂O₆ is heated with conc. H₂SO₄ is due to:
a) Oxidation b) Reduction c) Dehydration d) Dehydrogenation

9. The unused fat present in the body is:
 a) Converted into carbohydrates
 b) Removed as waste from the body
 c) Reconverted into animal fat and stored in different parts of the body
 d) Easily destroyed by certain enzymes present in the body
10. Which amino acid have more than one stereogenic centre?
 a) Aspartic acid b) Lysine c) Arginine d) Histidine
11. Ligase is an enzyme required for
 a) Renaturation of DNA b) Proof-reading c) Joining DNA bits d) Breaking of DNA
12. Surfactants and detergents have the same common property of.....in them.
 a) Detergency b) Surface activity c) Viscosity d) None of these
13. Vitamin B₆ is known as
 a) Pyridoxin b) Thiamine c) Tocopherol d) Riboflavin
14. Sucrose on hydrolysis gives
 a) Glucose and maltose b) Glucose and lactose c) Glucose and fructose d) Only glucose
15. Detergents are better cleansing agent than soaps because:
 a) They wash clothes better
 b) Absorb the hardness of water
 c) They are less affected by hard water
 d) They are less soapy
16. The molecular formula of a monobasic saturated fatty acid is:
 a) C_nH_{2n}O₂ b) C_nH_{2n-1}O₂ c) C_nH_{2n+2}O₂ d) C_nH_{2n+1}O₃
17. The reason for double helical structure of DNA is operation of
 a) Van der Waals' forces b) Dipole-dipole interaction
 c) Hydrogen bonding d) Electrostatic attractions
18. Beri-Beri is caused due to:
 a) Vitamin A b) Vitamin B₁ c) Vitamin C d) Vitamin D
19. Which of the following is not present in a nucleotide?
 a) Cytosine b) Guanine c) Adenine d) Tyrosine
20. At pH=4, glycine exists as
 a) $\text{H}_3\text{N}^+ - \text{CH}_2 - \text{COO}^-$ b) $\text{H}_3\text{N}^+ - \text{CH}_2 - \text{COOH}$ c) $\text{H}_2\text{N} - \text{CH}_2 - \text{COOH}$ d) $\text{H}_2\text{N} - \text{CH}_2 - \text{COO}^-$

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