

Topic :- Biomolecules

- Identify the correct statement regarding enzymes
 - Enzymes are specific biological catalysts that can normally function at very high temperatures ($T \sim 1000$ K)
 - Enzymes are normally heterogeneous catalysts that are very specific in their action
 - Enzymes are specific biological catalysts that cannot be poisoned
 - Enzymes are specific biological catalysts that possess well defined active sites
- Which statement is not correct for an enzyme?
 - It acts as a biocatalyst
 - Its aqueous solution is colloidal
 - It can catalyse any chemical reaction
 - Its catalytic efficiency is temperature dependent
- The vector for genetic code is called
 - Messenger RNA
 - Transfer RNA
 - Ribosomal RNA
 - Viral DNA
- Vitamin A is also known as:
 - Xerophthol
 - Thiamine
 - Riboflavin
 - Pyridoxine
- Fructose is prepared commercially by...a polysaccharide which occurs in dahlia tubers and Jerusalem artichokes.
 - Inulin
 - Cellulose
 - Lactose
 - None of these
- Sugars are characterized by the preparation of osazone derivatives. Which sugar have identical osazones?

- a) Glucose and lactose
b) Glucose and fructose
c) Glucose and arabinose
d) Glucose and maltose
7. Which one of the following is an example of a non-reducing sugar?
a) Sucrose b) Lactose c) Maltose d) Cellobiose
8. Epimers are pair of diastereoisomeric aldoses which differ only in configuration at position:
a) C₅ b) C₂ c) C₄ d) C₃
9. Which one of the following compounds is not a vitamin?
a) Ascorbic acid b) Thiamine c) Testosterone d) Riboflavin
10. The presence or absence of hydroxyl group on which carbon atom of sugar differentiates RNA and DNA?
a) 1st b) 2nd c) 3rd d) 4th
11. Turpentine oil is obtained from:
a) Oak tree b) Pine tree c) Birch tree d) Lemon tree
12. Protein gives blue colour with
a) Benedict reagent b) Iodine solution c) Ninhydrin d) Biurete
13. The red colouring matter of blood which transport oxygen contains an element in a system of rings. The element is:
a) Iron b) Magnesium c) Cobalt d) Calcium
14. Proteins are
a) Polypeptides with low molecular weights b) Polypeptides with high molecular weights
c) Polymers of amides d) Polymers of secondary amines
15. A substance forms Zwitter ion. It can functional groups
a) —NH₂, —COOH b) —NH₂, —SO₃H c) Both (a) and (b) d) None of these
16. A chemical substance acts as the currency of energy metabolism in a cell. It is:
a) Adenosine triphosphate

- b) Adenosine diphosphate
- c) Adenosine monophosphate
- d) Glucose

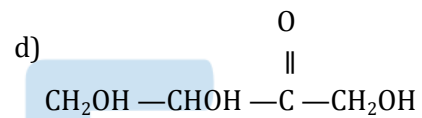
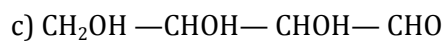
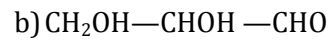
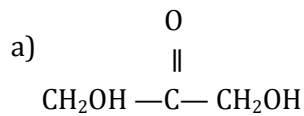
17. Artificial sweetner used in soft drinks is:

- a) Glucose
- b) Fructose
- c) Cellulose
- d) Aspartame

18. DNA multiplication is called

- a) Translation
- b) Transduction
- c) Transcription
- d) Replication

19. Which of the following is the first member of monosaccharides?



20. Which is not a reducing sugar?

- a) Glucose
- b) Fructose
- c) Mannose
- d) Sucrose