

Date :

Marks :

TEST ID: XIICH1401

CHEMISTRY

BIOMOLECULES

Single Correct Answer Type

- 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:
 - Xerophythol
 - Thiamine
 - Riboflavin
 - Pyridoxine
- Fructose is prepared commercially by...a polysaccharide which occurs in dahlia tubers and Jerusalem arthichokes.
 - Inulin
 - Cellulose
 - Lactose
 - None of these
- Sugars are characterized by the preparation of osazone derivatives. Which sugar have identical osazones?
 - Glucose and lactose
 - Glucose and fructose
 - Glucose and arabinose
 - Glucose and maltose
- Which one of the following is an example of a non-reducing sugar?
 - Sucrose
 - Lactose
 - Maltose
 - Cellobiose
- Epimers are pair of diastereoisomeric aldoses which differ only in configuration at position:
 - C_5
 - C_2
 - C_4
 - C_3
- Which one of the following compounds is not a vitamin?
 - Ascorbic acid
 - Thiamine
 - Testosterone
 - Riboflavin
- The presence or absence of hydroxyl group on which carbon atom of sugar differentiates RNA and DNA?
 - 1st
 - 2nd
 - 3rd
 - 4th
- Turpentine oil is obtained from:
 - Oak tree
 - Pine tree
 - Birch tree
 - Lemon tree
- Protein gives blue colour with
 - Benedict reagent
 - Iodine solution
 - Ninhydrin
 - Biurete
- The red colouring matter of blood which transport oxygen contains an element in a system of rings. The element is:
 - Iron
 - Magnesium
 - Cobalt
 - Calcium
- Proteins are
 - Polypeptides with low molecular weights
 - Polypeptides with high molecular weights
 - Polymers of amides
 - Polymers of secondary amines
- A substance forms Zwitter ion. It can functional groups

- a) —NH_2 , —COOH b) —NH_2 , $\text{—SO}_3\text{H}$ 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?
 a)
$$\begin{array}{c} \text{O} \\ || \\ \text{CH}_2\text{OH—C—CH}_2\text{OH} \end{array}$$

 b) $\text{CH}_2\text{OH—CHOH—CHO}$
 c) $\text{CH}_2\text{OH—CHOH—CHOH—CHO}$
 d)
$$\begin{array}{c} \text{O} \\ || \\ \text{CH}_2\text{OH—CHOH—C—CH}_2\text{OH} \end{array}$$
20. Which is not a reducing sugar?
 a) Glucose b) Fructose c) Mannose d) Sucrose
21. Fats and oils are formed from:
 a) Glycerol and long chain unsaturated acids only
 b) Glycerol and long chain saturated acids only
 c) Glycerol and long chain saturated and unsaturated acids
 d) Ethylene glycol and long chain saturated and unsaturated acids
22. A solution of D-glucose in water rotates the plane of polarized light
 a) To the left b) To the right c) To either side d) None of these
23. Ordinary soaps are defined as:
 a) Al salts of higher fatty acids
 b) Na salts of lower fatty acids
 c) Na salts of higher fatty acids
 d) Mg salts of lower fatty acids
24. Cellulose is a linear polymer of:
 a) α -glucose b) β -glucose c) α -fructose d) None of these
25. Cofactors (non-proteinic prosthetic groups) used to bond conjugated proteins are:
 a) Carbohydrates b) Phosphoric acid c) Iron pigments d) All are correct
26. Genetic code determines
 a) Sequence of amino acids in a peptide chain b) Sequence of variable amino acids in a protein chain
 c) Structure of human cells d) Morphology of traits
27. Acetone may be obtained from starch by the action of :
 a) Acid b) Bacteria c) Oxidizing agent d) None of these
28. Fat on hydrolysis gives which alcohol?
 a) Glycerol b) Propanol c) Butanol d) Ethanol
29. Which one of the following sets of monosaccharides forms sucrose?
 a) β -D-Glucopyranose and α -D-fructofuranose
 b) α -D-Glucopyranose and β -D-fructopyranose
 c) α -D-Galactopyranose and α -D-Glucopyranose
 d) α -D-Glucopyranose and β -D-fructofuranose
30. Simple proteins bonded with a non-proteinic prosthetic group (acting as cofactor) are called:
 a) Simple proteins b) Conjugated proteins c) Proteonic proteins d) None of these



SMARTLEARN
COACHING