

Chapter:9 Biomolecules

True and False			
Q.No	Question	Answer True/ False	Typology
Q.1	P^H for Zwitter ion formation is different for different amino acids	True	Understanding
Q.2	Valine is a basic amino acid	False	Remembering
Q.3	Quaternary structure is found in Haemoglobin	True	Remembering
Q.4	Collagen is the most abundant protein in animal world	True	Remembering
Q.5	All Enzymes are Protein in nature.	False	Understanding
Q.6	Uracil is present in DNA	False	Evaluating & Analysis
Q.7	Starch is a hetero-polysaccharide.	False	Understanding
Q.8	Two water molecules are released during peptide bond formation.	False	Understanding
Q.9	Living state is a non-equilibrium steady state to be able to perform work.	True	Understanding
Q.10	The property of competitive inhibition of an enzyme is often used in the control of bacterial pathogen.	True	Application
Q.11	Enzymes are good biocatalysts because they increase activation energy of chemical reaction.	False	Creating
Q.12	Half of V_{max} is also called as K_m Constant of Enzyme.	True	Remembering
Q.13	Only a few carbon compounds which we get from living tissues are called Biomolecules.	False	Understanding
Q.14	Simplest amino acid is Glycine.	True	Remembering
Q.15	Lecithin is a phospholipid found in cell membrane.	True	Remembering
Q.16	Nitrogen Bases attached with Pentose sugar are called nucleosides	True	Evaluating & Analysis
Q.17	Lipids are Biomacromolecules	False	Understanding

Chapter:9 Biomolecules

Q.18	Dietary Proteins are source of essential amino acid.	True	Remembering
Q.19	Inulin is a polymer of Fructose	True	Remembering

Multiple Choice Questions

Q.No	Question	Answer	Typology
Q.1	The most abundant Protein in the whole biosphere is (A) Collagen (B) RuBisCO (C) Keratin (D) Fibrin	B	Remembering
Q.2	Which of the following statement is incorrect (A) The building blocks of lipids are Amino Acid (B) Inulin is a homopolymer of Fructose (C) Amino acids exist in Zwitter-Ion form at specific P ^H (D) Glycine is the simplest Amino Acid	A	Remembering
Q.3	The "repeating unit" of Glycogen is (A) Glucose (B) Fructose (C) Maltose (D) Sucrose	A	Understanding
Q.4	Which of the following Carbohydrate is not a disaccharide (A) Sucrose (B) Maltose (C) Lactose (D) Fructose	D	Remembering
Q.5	Chitin is a (A) Polysaccharide (B) Nitrogenous Polysaccharide (C) Lipoprotein (D) Protein	B	Remembering

Chapter:9 Biomolecules

Q.6	DNA strands are antiparallel to facilitate the formation of (A) Hydrogen bond (B) Peptide bond (C) Disulphide bond (D) Phosphate-diester bond	A	Evaluating & Analysis
Q.7	Which of the following is not a Pyrimidine (A) Uracil (B) Guanine (C) Thymine (D) Cytosine	B	Remembering
Q.8	The competitive inhibitor of Succinic dehydrogenase is (A) Glutamic acid (B) Malate (C) Malonate (D) Oxaloacetic acid	C	Remembering
Q.9	Coenzyme is (A) Always a Protein (B) Often a Vitamin (C) Always an inorganic compound (D) Often a metal	B	Remembering
Q.10	The Alpha Helix and Beta sheets are the example of which level of Protein Organization (A) Primary structure (B) Secondary structure (C) Tertiary structure (D) Quaternary structure	B	Remembering

Fill in the Blanks

Q.No	Question	Answer	Typology
Q.1	Amino acids are organic compounds containing _____ and _____ group as substituents on the same carbon.	Amine and Carboxylic acid	Remembering
Q.2	A Phospholipid found in cell membrane is _____.	Lecithin	Remembering
Q.3	Living state is _____ steady state.	non-equilibrium	Understanding

Chapter:9 Biomolecules

Q.4	The most abundant Protein in animal world is _____.	Collagen	Remembering
Q.5	Inulin is a polymer of _____.	Fructose	Remembering
Q.6	If a living tissue is burnt then the organic fraction is lost as _____ and other gases.	CO ₂	Understanding
Q.7	Ash of burnt living tissue can be used for study of _____ compounds.	inorganic	Understanding
Q.8	The building blocks of Nucleic acid is _____.	Nucleotide	Remembering
Q.9	Monosaccharides are popularly known as _____ sugars.	reducing	Remembering
Q.10	In polysaccharides right end is called _____ end and left end is called _____ end.	Reducing and non-reducing	Remembering

Match the Following

Q.No	Question		Answer		Typology
Q.1	Column A a. Aromatic amino acid b. Purine	Column B i) Glutamic Acid ii) Tryptophan iii) Adenine iv) Thymine	Column A a. b.	Column B ii) iii)	Remembering
Q.2	Column A a. Neutral amino acid b. Pyrimidine	Column B i) Valine ii) Lysine iii) Uracil iv) Guanine	Column A a. b.	Column B i) iii)	Remembering
Q.3	Column A a. Polysaccharide b. Cellulose	Column B i) Polymer of Fructose ii) Long chain of sugars iii) Polymer of Glucose iv) Long chain of amino acids	Column A a. b.	Column B ii) iii)	Remembering

Chapter:9 Biomolecules

Q.4	Column A a. Secondary metabolite b. Glycosidic bond	Column B i) Protein ii) Alkaloids iii) Polysaccharide iv) Monosaccharide	Column A a. b.	Column B ii) iii)	Remembering
Q.5	Column A a. Bond between Adenine and Thymine b. Bond between Guanine and Cytosine	Column B i) One Hydrogen bond ii) Two Hydrogen bonds iii) Three Hydrogen bonds iv) Ionic bond	Column A a. b.	Column B ii) iii)	Understanding
Q.6	Column A a. Apoenzyme b. Coenzyme	Column B i) Protein part of enzyme ii) Non-protein part of enzyme iii) loosely bound non protein part of an enzyme iv) Tightly bound protein part of an enzyme	Column A a. b.	Column B i) iii)	Remembering
Q.7	Column A a. Carboxypeptidase b. NAD & NADP chemical constituent	Column B i) Zinc as cofactor ii) Iron as cofactor iii) Niacin iv) Riboflavin	Column A a. b.	Column B i) iii)	Remembering
Q.8	Column A a. Ligase b. Lyases	Column B i) Catalyses transfer of a group ii) Catalyses hydrolysis of ester iii) Catalyses the linking of 2 compounds iv) Catalyses removal of a group	Column A a. b.	Column B iii) iv)	Remembering

Chapter:9 Biomolecules

Q.9	Column A a. Disaccharide b. Monosaccharide	Column B i) Starch ii) Maltose iii) Fructose iv) Glycogen	Column A a. b.	Column B ii) iii)	Remembering
Q.10	Column A a. Structural polysaccharide b. Storage polysaccharide	Column B i) Glycogen ii) Cellulose iii) Fructose iv) Mannose	Column A a. b.	Column B ii) i)	Understanding
Q.11	Column A a. K_m is high b. K_m is low	Column B i) Low enzyme activity ii) High enzyme activity iii) Doesn't affect enzyme activity iv) May depend upon temperature	Column A a. b.	Column B i) ii)	Understanding