

## MDCAT Biology Chapter 3 Biological Molecules Online Test

Sr	Questions	Answers Choice
1	Glycosidic bond is formed by the	A. Removal of Oxygen B. Addition of Water C. Addition of Oxygen D. Removal of Water
2	The Organic biomolecule which is widespread in bacterial animal and plant cells is	A. Wax B. Glucose C. Acyl glycerol D. Phospholipids
3	In a phospholipid molecule, phosphoric acid is attached to the carbon number _____ of glycerol.	A. 1 B. 2 C. 3 D. 4
4	The simplest mono saccharide containing keto group is:	A. Glyceraldehyde B. Glucose C. Dihydroxyacetone D. Ribose
5	Pick a non-reducing sugar	A. Lactose B. Sucrose C. Glucose D. Fructose
6	Which of the following reaction is reverse of others	A. Hydrolysis B. Decondensation C. Decomposition D. Condensation
7	_____ gives blue color with iodine	A. Glycogen B. Dextrin C. Cellulose D. Starches
8	Which of the following sugar does not form a ring structure in a solution	A. Glyceraldehyde B. Ribose C. Glucose D. Fructose
9	Which of the following is not a homopolysaccharide?	A. Starch B. Chitin C. Pectin D. Glycogen
10	RNA and Proteins are components of	A. Chromosomes B. Receptors C. Secretions D. Ribosome
11	Pick the odd one	A. Cellulose B. Galactose C. Agar D. Pectin
12	Pick up ester bond present in nucleotide	A. P-O-C B. C-O-C C. N-O-C D. S-O-C
13	Which of the following is correct option	A. Nucleoside does not contain phosphate B. Nucleotide has three sub-units C. Ester bond is present in acylglycerols D. All
14	Glycerol, fatty acids and phosphoric acid give rise to:	A. Phospholipid B. Phosphatidic acid C. Phosphatidyl choline D. Phosphatidylethanoline
15	_____ are important components of brain and plasma membrane:	A. Nucleoproteins B. Glycolipids C. Lipoproteins D. Phospholipids

## D. Phospholipids

16	In a phospholipid molecule, fatty acid is attached to the carbon number _____ of glycerol.	A. 1 B. 2 C. Both D. 3
17	Secondary structure is the ultimate structural level of which of the following proteins?	A. Trypsin B. Insulin C. Keratin D. Glucose
18	The next to simplest amino acid is	A. Alanine B. Glycine C. Serine D. Glutamine
19	Insulin is a/an:	A. Osmotic Protein B. Transport Protein C. Regulatory Protein D. Catalytic Protein
20	Which part of amino acid give its physical and chemical properties	A. Amino group B. Carboxylic group C. Alpha carbon D. Alkyl group
21	Highest number of carbons are present in	A. Butyric acid B. Acetic acid C. Palmitic acid D. Oleic acid
22	Both Glycoprotein and glycolipids are components of	A. Plant Cell walls B. Algal Cell Walls C. Fungal Cell Wall D. Biological Membranes
23	F. Sanger was the first scientist who determined the ____ structure of a protein molecule	A. Primary B. Secondary C. Tertiary D. Quaternary
24	Pick out the phospholipid from the following	A. Phosphatidylserine B. Lecithin C. Phosphatidylcholine D. All
25	Which level of protein structure is responsible for maintenance of helix shape of an enzyme	A. Primary B. Secondary C. Tertiary D. Quaternary
26	Lipids store double amount of energy as compared to same amount of carbohydrates, because of	A. Higher proportion of C-H bonds B. Higher proportion of C-N bonds C. Higher proportion of C-O bonds D. Lower proportion of C-O-P bonds
27	In a DNA duplex , what will be distance in between two consecutive base pairs:	A. 3.4 Angstrom B. 34 Angstrom C. 0.34 Angstrom D. 340 Angstrom
28	Which of the following sugar is abundant in muscle fibres	A. Myoglobin B. Starch C. Glycogen D. Oxygen
29	The amount of DNA in _____ is one half to that of _____:	A. Somatic cells, Germ cells B. Osteocytes, Somatic cells C. Germ cells, Somatic cells D. Somatic cells, Gametocytes
30	The compound formed by the combination of a base and a pentose sugar is called:	A. Nucleoside B. Nucleic acid C. Nucleotide D. Nuclein
31	In free state Glucose is present in:	A. Grapes B. Dates C. Figs D. All Fruits
32	All carbon atoms in a monosaccharide _____ have hydroxyl group	A. Except one B. Except Two C. Without Exception D. Except last

33	Pick up the example of a dinucleotide:	<p>A. ATP</p> <p>B. GTP</p> <p>C. ADP</p> <p>D. NAD</p>
34	Pick up the wrong statement from the following	<p>A. Oils are lighter than water</p> <p>B. Animal fats are solid at room temperature</p> <p>C. Specific gravity of fats is higher than water</p> <p>D. Fats containing saturated fatty acids are solid</p>
35	The bond formed between glucose and fructose to form sucrose	<p>A. <math>\alpha</math> 1 , 4 Glycosidic bond</p> <p>B. <math>\beta</math> 1 , 4 Glycosidic bond</p> <p>C. <math>\alpha</math> 1 , 2 Glycosidic bond</p> <p>D. <math>\beta</math> 1 , 2 Glycosidic bond</p>
36	How many nitrogen atoms are found in lecithin	<p>A. 1</p> <p>B. 2</p> <p>C. 3</p> <p>D. 4</p>
37	Which of the following does not contain peptide bond	<p>A. Hemoglobin</p> <p>B. Myoglobin</p> <p>C. Insulin</p> <p>D. Cutin</p>
38	In tertiary structure, presence of hydrophilic amino acids at the surface of proteins and hydrophobic amino acids buried inside, indicate	<p>A. Nature of bonding</p> <p>B. Function of protein</p> <p>C. Nature of medium</p> <p>D. Shape of protein</p>
39	Chemical formula of pentose sugar present in DNA	<p>A. <math>C_5H_9O_5</math></p> <p>B. <math>C_5H_{10}O_5</math></p> <p>C. <math>C_5H_{10}O_4</math></p> <p>D. None</p>
40	Nucleotide is to ____ as amino acid is to ____	<p>A. Nucleic acids, Lipids</p> <p>B. Nucleic acids, Proteins</p> <p>C. Proteins, Lipids</p> <p>D. Lipids, proteins</p>
41	When Fructose form ring structure, It is	<p>A. 6 Cornered</p> <p>B. 5 cornered</p> <p>C. 4 cornered</p> <p>D. 3 cornered</p>
42	Most of the proteins are composed of _____ types of amino acids	<p>A. 170</p> <p>B. 150</p> <p>C. 25</p> <p>D. 20</p>
43	Which of the following is dimer of glucose	<p>A. Sucrose</p> <p>B. Fructose</p> <p>C. Maltose</p> <p>D. Cellulose</p>
44	Monosaccharides are major component of	<p>A. DNA, ATP, RuBP, Lecithin</p> <p>B. DNA, NAD, Insulin</p> <p>C. DNA, NAD, ATP, RuBP</p> <p>D. DNA, RNA, Myosin</p>
45	What is the theoretical number of chemically different dipeptide that can be made from 2 different amino acids	<p>A. 1</p> <p>B. 2</p> <p>C. 4</p> <p>D. 8</p>
46	Which of the following nitrogenous base have methyl group	<p>A. Adenine</p> <p>B. Guanine</p> <p>C. Uracil</p> <p>D. Thymine</p>
47	Glycine can be converted to alanine by	<p>A. Addition of carbon and 2 hydrogens</p> <p>B. Removal of carbon and 2 hydrogens</p> <p>C. Addition of Methyl group</p> <p>D. Removal of hydrogen and 2 carbons</p>
48	Which of the following bond is not present in tertiary structure of proteins	<p>A. Peptide</p> <p>B. Hydrogen</p> <p>C. Ionic</p> <p>D. Ester</p>
49	In deoxyribose, oxygen is removed from carbon number	<p>A. 1</p> <p>B. 2</p> <p>C. 3</p> <p>D. 4</p>