



BIOLOGICAL MOLECULES

1. Which one is a protein?
 - (A) Cholesterol
 - (B) ATP
 - (C) There is no way of knowing without knowing the chemical reaction
 - (D) Cellulase
2. Glycogen is an example of:
 - (A) Both a polysaccharide and a carbohydrate
 - (B) Phospholipid
 - (C) Polysaccharide (only)
 - (D) Carbohydrate (only)
3. A triglyceride is a:
 - (A) Protein
 - (B) Nucleic acid
 - (C) Simple sugar
 - (D) Lipid
4. Which is an organic molecule?
 - (A) NO_2
 - (B) $\text{C}_6\text{H}_{12}\text{O}_6$
 - (C) H_2O
 - (D) H_2SO_4
5. Which class of molecule is the major component of cell membrane?
 - (A) Cellulose
 - (B) Phospholipid
 - (C) Wax
 - (D) Triglyceride
6. Peptide bonds are found in:
 - (A) Proteins
 - (B) Inorganic compounds
 - (C) Lipid
 - (D) Carbohydrate

7. **Glycerol is the backbone molecule for:**
(A) ATP (B) DNA
(C) Triglycerides (D) Disaccharides
8. **When a protein undergoes a hydrolysis reaction the end-products are:**
(A) Amino acid (B) Nucleotides
(C) Fatty acid (D) Monosaccharide's
9. **To produce Lactose:**
(A) Glucose and galactose must undergo a dehydration reaction.
(B) Glucose and fructose must undergo a hydrolysis reaction.
(C) Two amino acids must form a peptide bond.
(D) Pairing of nitrogenous bases must occur between nucleotides.
10. **The biological function of a protein is determined by its:**
(A) Primary structure (B) Quaternary structure
(C) Secondary structure (D) Tertiary structure
11. **Enzymes are:**
(A) Proteins (B) Triglycerides
(C) Steroids (D) Polysaccharides
12. **The function of ATP is to:**
(A) Store energy
(B) Act as a catalyst
(C) Determine the function of a cell
(D) Act as a template for production of protein
13. **All organic compounds contain the elements:**
(A) Iron and oxygen (B) Carbon and hydrogen
(C) Carbon and nitrogen (D) Carbon and oxygen
14. **All of the following are organic compounds except:**
(A) Water (B) Enzyme
(C) ATP (D) Glucose
15. **Which of the following is considered to be neutral?**
(A) Cytoplasm (B) HCl
(C) Urine (D) Pure water

16. **Glyceraldehyde is one example of a group of sugars called:**
(A) Pentose (B) Tetrose
(C) Triose (D) Octose
17. **Nitrogen bases such as choline, ethanolamine and serine are important of:**
(A) Sphingolipid (B) Phospholipid
(C) Phosphatidycholine (D) Phosphodiester
18. **Which molecule is used for short term energy storage?**
(A) Chitin (B) Fat
(C) Cellulose (D) Glycogen
19. **The functional group COOH is:**
(A) Basic (B) Never ionized
(C) Acidic (D) All A, B and C
20. **Which of these is an example of hydrolysis?**
(A) Dipeptide + H₂O → amino acid + Amino acid
(B) Amino acid + Amino acid → Dipeptide + H₂O
(C) Neither of these is correct
(D) Both of these (A) and (B) are correct
21. **A fatty acid is unsaturated if it:**
(A) Contain double bonds (B) Contains an acidic group
(C) Bonds to hydrogen (D) Contain hydrogen
22. **Which is not a lipid?**
(A) Polysaccharides (B) Wax
(C) Steroid (D) Fat
23. **Nucleotide contains:**
(A) Sugar, nitrogen base and carbon
(B) Sugar, nitrogen – containing base and a phosphate molecule
(C) Monomer for fat and Polysaccharide
(D) Sugar, glycerol and phosphate

24. **ATP:**
(A) Has a helical structure (B) is an amino acid
(C) Provide enzyme for metabolism (D) is a high – energy molecule
25. **A hormone is an example of which functional class of proteins?**
(A) Regulatory (B) Catalytic
(C) Contractile (D) Structural
26. **The Sugar found in R.N.A. is:**
(A) Galactose (B) Fructose
(C) Ribose (D) Deoxyribose
27. **Steroids are classified as:**
(A) Lipids (B) Protein
(C) Carbohydrate (D) Nucleic acid
28. **Hemoglobin is an example of which functional class of protein?**
(A) Regulatory (B) Contractile
(C) Transport (D) Structural
29. **In RNA the Nitrogen base that takes the place of thymine is:**
(A) Adenine (B) Guanine
(C) Cytosine (D) Uracil
30. **Which of the following represent accurate pairing in D.N.A. molecules?**
(A) Adenine to cytosine and guanine to thymine
(B) Adenine to uracil and cytosine to guanine
(C) Adenine to adenine and guanine to guanine
(D) Adenine to thymine and cytosine to guanine
31. **The Suffix that denotes a sugar is:**
(A) ide (B) ase
(C) ose (D) amide
32. **The melting points of palmitic acid is:**
(A) 80°C (B) 72°C
(C) 63.1°C (D) 70°C

33. **Polar molecules:**
- (A) Have a positive charge at one end and a negative charge at the other end
 - (B) Are found at the ends of other molecules
 - (C) Are pointed at both ends
 - (D) None of the above
34. **Metabolic activities included:**
- (A) Photosynthesis
 - (B) Respiration
 - (C) Digestions
 - (D) All of the above
35. **Large molecules with skeletons of carbon atoms are said to be:**
- (A) Carbonic
 - (B) Inorganic
 - (C) Carboxylate
 - (D) Organic
36. **The Combining capacity of an atom or ion is called:**
- (A) pH
 - (B) Valency
 - (C) Elemental balance
 - (D) Bonding capacity
37. **DNA model was suggested by:**
- (A) Wilkins and Franklin
 - (B) Hershey & Chase
 - (C) Watson and crick
 - (D) Char gaff
38. **Conjugated Histon Proteins are:**
- (A) Transport protein
 - (B) Only structured protein
 - (C) Only regulatory protein
 - (D) Structural and (Functional) regulatory protein
39. **Branch of biology, which deals with the study of chemical components and chemical process in the living organism, is called:**
- (A) Ecology
 - (B) Physiology
 - (C) Biochemistry
 - (D) Histology
40. **Basis element of organic compound is:**
- (A) Water
 - (B) Aldo – sugar
 - (C) Solid
 - (D) Carbon

41. **Carbohydrates are also called:**
(A) Saccharides (B) Glycogen
(C) Glycosidic bond (D) Ribofuranose
42. **The sugar with aldehyde group is called:**
(A) Aldo-sugar (B) Keto-sugar
(C) Acylglycerol (D) Glycogen
43. **Ribose form a ring structure when in solution known as:**
(A) Hydrolysis (B) Biochemistry
(C) Ribofuranose (D) Carbon
44. **Oligosaccharides yield from two to ten monosaccharides on:**
(A) Polymerization (B) Hydrolysis
(C) Glycosidic bond (D) Condensation
45. **The covalent bond between two monosaccharides called:**
(A) Phosphodiester linkage (B) Peptide bond
(C) Hydrophobic interactions (D) Glycosidic bond
46. **Starches have unbranched chains of glucose and soluble in hot water are:**
(A) Acylglycerol (B) Amylase
(C) Amylopectin (D) Herbivores
47. **Starches have branched chains and are insoluble in hot or cold water are:**
(A) Amylopectin (B) Amylose
(C) Phospholipids (D) Acylglycerol
48. **Animal starch is:**
(A) Carboi (B) Amylose
(C) Glycogen (D) Amylopectin
49. **Cellulose is digested because of microorganism in their tract by:**
(A) Omnivores (B) Carnivores
(C) Herbivores (D) Macrophages
50. **The nature of Lipids is:**
(A) Inorganic (B) Carbon
(C) Heterogeneous (D) Proteinaceous

51. These are composed of glycerol and fatty acids:
- (A) Phospholipids (B) Waxes
(C) Acylglycerol (D) Terpenoids
52. In animal fatty acids are:
- (A) Solid (B) Ringed
(C) Straight (D) None of these
53. Solubility of fatty acids in organic solvents and their melting points increase with increasing number of:
- (A) Carbon (B) Hydrogen
(C) Oxygen (D) All of the above
54. At room temperature animal Fats are:
- (A) Solid (B) liquids
(C) Semi-solid (D) All of these
55. Fats and oils are lighter than:
- (A) Air (B) Oil
(C) Glycerol (D) Water
56. Derivatives of phosphatidic acid are.
- (A) Waxes (B) Terpenoids
(C) Phospholipids (D) Acylglycerols
57. Terpenoids are made up of simple repeating units called:
- (A) Isoprenoid units (B) Amino acid
(C) Peptide unit (D) Glycosidic unit
58. Most abundant organic compound to be found in the cells is:
- (A) Proteins (B) Carbon
(C) Nucleic acid (D) Lipids
59. Protein's polymers are:
- (A) Nucleotides (B) Amino acid
(C) Glucose (D) Fatty acids
60. Number of peptide bonds in a dipeptide:
- (A) Four (B) Three
(C) Two (D) One

61. Which structure of protein comprises the number and sequence of amino acid in a protein molecule?
- (A) Primary (B) Secondary
(C) Tertiary (D) Quaternary
62. Each alpha chain of hemoglobin contains _____ amino acid.
- (A) 141 (B) 142
(C) 139 (D) 140
63. Oxygen carrying protein of red blood cells exhibits quaternary structure of protein.
- (A) Hemoglobin (B) Myoglobin
(C) Insulin (D) Fibrinogen
64. In tertiary structure of protein polypeptide chain bends and folds upon itself forming a shape:
- (A) Ellipsoidal (B) Square
(C) Globular (D) Triangular
65. In aqueous medium fibrous proteins are:
- (A) Soluble (B) least soluble
(C) Insoluble (D) readily soluble
66. Globular proteins are ellipsoidal or:
- (A) Helix (B) linear
(C) Fiber like (D) Spherical
67. DNA and RNA are made up of:
- (A) Nucleoside (B) Amino acids
(C) Nucleotide (D) Nucleic acid
68. A 5 carbon monosaccharide, a nitrogen base and a phosphoric acid are three sub units of:
- (A) Nucleoside (B) Nucleotide
(C) Nucleic acid (D) Carbohydrates
69. The compound formed by combination of a base and a pentose sugar is called:
- (A) Nucleic acid (B) ATP
(C) Nucleotide (D) Nucleoside

70. DNA is?
- (A) Heredity material (B) proteinaceous material
(C) Fatty material (D) Cellular material
71. Nicotinamide adenine dinucleotide abbreviated as:
- (A) DNA (B) NADH
(C) NAD (D) DAN
72. The amount of DNA is fixed for a particular species as:
- (A) Centromere (B) Chromatids
(C) Chromosomes (D) Histones
73. Heamophilus influenzae is?
- (A) Virus (B) Fungi
(C) prion (D) Bacteria
74. RNA synthesis by DNA is known as:
- (A) Translation (B) Transcription
(C) Replication (D) Semi conservative replication
75. t RNA comprises about 10 to 20% of the:
- (A) Chromosome RNA (B) Conjugated RNA
(C) Cellular RNA (D) Globular RNA
76. Two different molecule belonging to different categories, usually combine together to form:
- (A) Protein molecules (B) Cellular molecules
(C) Conjugated molecules (D) Lipids molecules
77. The nucleohistone is present in:
- (A) Chromosome (B) Centromere
(C) Nucleus (D) Homologues Chromosomes
78. Which one pick amino acid and transfer them to ribosome where they linked to form protein:
- (A) rRNA (B) tRNA
(C) mRNA (D) RNA

79. **Nonpolar organic molecule:**

- (A) CO_2
- (B) NAD
- (C) H_2O
- (D) dGTP

80. **Covalent bond:**

- (A) Result when atoms complete their electronic shell by sharing electron
- (B) Result when atoms complete their electronic shell by donating electron
- (C) Both A and B
- (D) None of these

81. **Cane sugar is a/an:**

- (A) Polysaccharides
- (B) Oligosaccharides
- (C) Monosaccharides
- (D) None of these

82. **A nucleotide of DNA:**

- (A) Serine
- (B) ATP
- (C) dGTP
- (D) CTP

83. **Carbon is:**

- (A) Bivalent
- (B) Tetravalent
- (C) Trivalent
- (D) All of the above

84. **Translation:**

- (A) Synthesis of RNA
- (B) Three adjacent nucleotide on mRNA
- (C) Synthesis of protein
- (D) Structural component of ribosome

85. **Codon:**

- (A) Structural component of ribosome
- (B) Histone
- (C) Three adjacent nucleotide on mRNA
- (D) Purine of DNA

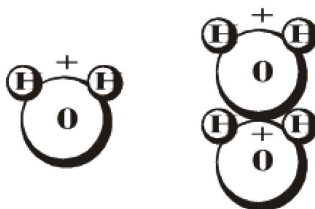
86. **Adenine:**

- (A) Synthesis of protein
- (B) Histone
- (C) Purine of DNA
- (D) Pyrimidine of DNA

87. **rRNA:**
(A) Structural component of ribosome
(B) Histone
(C) Purine of DNA
(D) Synthesis of protein
88. **Protein attach to chromosome:**
(A) Three adjacent nucleotide on mRNA
(B) Purine of DNA
(C) Histone
(D) Structural component of ribosome
89. **Deoxyribose:**
(A) Pentose sugar (B) Pyrimidine of DNA
(C) DNA (D) DNA model
90. **Contain an anticodon:**
(A) tRNA (B) DNA model
(C) mRNA (D) DNA
91. **Watson and crick:**
(A) DNA (B) DNA model
(C) Nucleotide (D) Pentose sugar
92. **Double helix:**
(A) DNA (B) Pentose sugar
(C) tRNA (D) DNA model
93. **Nucleoside + Phosphate:**
(A) tRNA (B) DNA
(C) Nucleotide (D) mRNA
94. **Steroids and triglycerides are example:**
(A) DNA (B) Lipids
(C) pH7 (D) Disaccharide
95. **Starch:**
(A) pH7 (B) Give blue colour with iodine
(C) Phospholipid (D) Monosaccharide

96. **Sucrose and Lactose are example of:**
(A) Lipids (B) Phospholipid
(C) Monosaccharide (D) Disaccharide
97. **Glucose and fructose are example of:**
(A) Monosaccharide (B) pH7
(C) Lipids (D) Disaccharide
98. **Nutral solution:**
(A) Disaccharide (B) pH7
(C) Lipids (C) Give blue colour with iodine
99. **The cell energy currency:**
(A) $(\text{CH}_2\text{O})_n$ (B) Fibrous protein
(C) ATP (D) Water
100. **Carboxyl group:**
(A) COOH (B) Fibrous protein
(C) ATP (D) Globular protein
101. **Fibrin:**
(A) COOH (B) ATP
(C) Fibrous protein (D) Globular protein
102. **Monosaccharide:**
(A) COOH (B) $(\text{CH}_2\text{O})_n$
(C) Water (D) Fibrous protein
103. **Act as solvent for ionic compounds in body fluid:**
(A) Water (B) Globular protein.
(C) A_1P (D) COOH
104. **The branch of biology that deals with the study of in-organic and organic molecules that make up the body of a living organism is:**
(A) Pharmacology (B) Biochemistry
(C) Both (A) and (B) (D) Pharmaco-dynamics
105. **The six bio-elements that make up 98% of protoplasm are:**
(A) C, H, O, N, Mg^+ , K^+ (B) C, H, O, N, Mg^+ , Na^+
(C) C, H, O, N, Cl^- , K^+ (D) C, H, O, N, P, S

106. What is shown in the diagram below?



- (A) Even charge distribution (B) Uneven charge distribution
(C) Polarity within water molecule (D) Both (B) and (C)
107. Atoms form bonds by:
- (A) Gaining of electrons (B) Losing of electrons
(C) Sharing of electrons (D) All (A), (B) and (C)
108. If atoms of different elements combine, the molecule can also be called a:
- (A) Polymer (B) Monomer
(C) Compound (D) All choices are incorrect
109. A _____ occurs as bonds are formed or broken between atoms, ions or molecules.
- (A) Chemical reaction (B) Physical reaction
(C) Thermal reaction (D) None of the above
110. Electrolytes that release hydrogen ions in water are called:
- (A) Acids (B) Bases
(C) Amphoteric (D) All options are correct
111. It is the most abundant compound in living organisms and makes up two-thirds of the weight of adults:
- (A) Protein (B) Water
(C) Carbohydrate (D) Nucleic acid
112. ATP releases energy when:
- (A) It undergoes a condensation reaction
(B) A hydroxyl group is added to it
(C) A phosphate group is added to it
(D) A phosphate group is removed from it

113. A fatty acid is a compound made of a chain of carbon atoms plus:
- (A) An acid group at one end (B) Acid group at both ends
(C) An amino group (D) Amino group at both ends
114. A bond that forms between a positively charged hydrogen atom of one molecule and a negative charged region of another molecule is an:
- (A) Ionic bond (B) Hydrogen bond
(C) Covalent bond (D) Basic bond
115. Dehydration and hydrolysis reactions involve removing or adding _____ to macromolecule subunits.
- (A) CH and NH_2 (B) C and H
(C) $-\text{COOH}$ and H (D) OH and H
116. A chemical “buffer”:
- (A) can donate a H^+ when the solution becomes too basic
(B) can absorb a H^+ when the solution becomes too acidic
(C) is utilized in living systems to maintain correct pH
(D) all of the above are correct
117. Nucleotides have a nitrogenous base attached to a sugar at the:
- (A) 1' carbon (B) 3' carbon
(C) 4' carbon (D) 5' carbon
118. If three molecules of a fatty acid, each having the formula $\text{C}_{16}\text{H}_{32}\text{COOH}$, were joined to a molecule of glycerol ($\text{C}_3\text{H}_8\text{O}_3$), the resulting molecule would have the formula:
- (A) $\text{C}_{48}\text{H}_{96}\text{O}_6$ (B) $\text{C}_{48}\text{H}_{74}\text{O}_6$
(C) $\text{C}_{54}\text{H}_{71}\text{O}_6$ (D) $\text{C}_{54}\text{H}_{68}\text{O}_9$
119. This amino acid is called:
- $$\begin{array}{c} \text{CH}_3 \\ | \\ \text{NH}_2 - \text{CH} - \text{COOH} \end{array}$$
- (A) Glycine (B) Alanine
(C) Leucine (D) Valine

120. **Monosaccharides contain carbon atoms:**
(A) 3-7 (B) 3-6
(C) 3-9 (D) 3-10
121. **Stearin is:**
(A) Fatty acid (B) Saturated acylglycerol
(C) Unsaturated acylglycerol (D) None of these
122. **Energy absorbed to change water from liquid to gas is called:**
(A) Latent heat of fusion (B) High surface tension
(C) Heat of vaporization (D) High heat capacity
123. **The sources of carbohydrates are green plants. These are primary product of:**
(A) Respiration (B) Catabolism
(C) Photosynthesis (D) All (A), (B) and (C)
124. **It is most abundant carbohydrate in the nature:**
(A) Glycogen (B) Chitin
(C) Lignin (D) Cellulose
125. **It is the most abundant organic component in living cells:**
(A) Lipid (B) Carbohydrate
(C) Water (D) Protein
126. **Each of the 20 naturally occurring amino acids has a different:**
(A) NH_2 group (B) $-\text{COOH}$ group
(C) R group (D) $-\text{OH}$ group
127. **The sum of all the chemical reaction that occurs in the body is known as:**
(A) Anabolism (B) Metabolism
(C) Catabolism (D) Differentiation
128. **Which is an organic molecule?**
(A) H_2O (B) H_2SO_4
(C) NO_2 (D) $\text{C}_6\text{H}_{12}\text{O}_6$
129. **Which class of molecule is the major component of cell membrane?**
(A) Phospholipid (B) Cellulose
(C) Wax (D) Triglyceride

- 130. Peptide bonds are found in:**
- (A) Protein (B) Carbohydrate
(C) Lipids (D) Inorganic compounds
- 131. Glycerol is the back bone molecule for:**
- (A) Disaccharides (B) DNA
(C) Triglycerides (D) ATP
- 132. When a protein undergoes a hydrolysis reaction the end-products are:**
- (A) Amino acids (B) Monosaccharides
(C) Fatty acids (D) Nucleotides
- 133. Which of the following is considered to be neutral?**
- (A) Urine (B) Pure water
(C) Cytoplasm (D) HCl
- 134. The functional group -COOH is:**
- (A) Acidic (B) Basic
(C) Never ionized (D) all options are correct
- 135. Which of these is an example of hydrolysis?**
- (A) Amino acid + Amino acid \rightarrow Dipeptide + H_2O
(B) Dipeptide + $\text{H}_2\text{O} \rightarrow$ Amino acid + Amino acid
(C) Both (A) and (B)
(D) Neither of these is correct
- 136. A fatty acid is unsaturated if it:**
- (A) Contains hydrogen (B) Contains double bonds
(C) Contains an acidic group (D) Bonds to glycogen
- 137. A hormone is an example of which functional class of proteins:**
- (A) Contractile (B) Structural
(C) Regulatory (D) Cyclic
- 138. The sugar found in RNA is:**
- (A) Fructose (B) Galactose
(C) Deoxyribose (D) Ribose

- 139. Steroids are classified as:**
- (A) Carbohydrates (B) Lipids
(C) Proteins (D) Nucleic acids
- 140. Hemoglobin is an example of which functional class of protein:**
- (A) Contractile (B) Structural
(C) Regulatory (D) Transportive
- 141. In RNA the Nitrogen base that takes the place of thymine is:**
- (A) Adenine (B) Cytosine
(C) Uracil (D) Guanine
- 142. The Suffix that denotes a sugar is:**
- (A) ase (B) ose
(C) ide (D) amide
- 143. Two different molecule belonging to different categories, usually combine together to form:**
- (A) Homomer molecule (B) Macro molecule
(C) Conjugated molecule (D) All options are correct
- 144. It is an animal storage product that accumulates in the vertebrate liver and muscles:**
- (A) Cellulose (B) Chitin
(C) Glycogen (D) Fructose
- 145. Asymmetrical lipid molecules with a hydrophilic head and a hydrophobic tail, with a phosphate group in place of one of the three fatty acid chains:**
- (A) Wax (B) Terpenoid
(C) Steroid (D) Phospholipid
- 146. Triglycerides that are solid at room temperature:**
- (A) Fats (B) Oils
(C) Linoleic acid (D) None of these
- 147. Triglycerides that are liquid at room temperature:**
- (A) Fats (B) Oils
(C) Stearin (D) All of these

148. A chemical group composed of a central phosphorous bonded to four oxygens:
(A) Carbonyl group (B) Sulfhydryl group
(C) Carboxylic (D) Phosphate group
149. Nucleic acids are polymers composed of monomer units known as:
(A) Amino acids (B) Nucleosides
(C) Nucleotides (D) Nitrogenous bases
150. There are _____ nitrogenous bases.
(A) Four (B) Five
(C) Six (D) Three
151. The form of RNA that delivers information from DNA to be used in making a protein is:
(A) mRNA (B) rRNA
(C) tRNA (D) All of these
152. RNA occurs in:
(A) Nucleus (B) Cytoplasm
(C) Both (A) and (B) (D) Nucleoplasm
153. The monomer that makes up polysaccharides is:
(A) Amino acids (B) Glucose
(C) Fatty acids (D) Glycerol
154. Which of these is not a function of lipids?
(A) Long term energy storage (B) Structures in cells
(C) Sex hormones (D) Enzymes
155. All living things use the same _____ amino acids.
(A) 4 (B) 20
(C) 100 (D) 64
156. Which of these is not a nucleotide base found in DNA?
(A) Uracil (B) Adenine
(C) Guanine (D) Thymine
157. ATP consists of the _____, ribose sugar, and phosphate group, PO_{4-2} plus two other phosphate groups.
(A) Cytosine base (B) Guanine base
(C) Thymine base (D) Adenine base

- 158. Membrane carbohydrates when linked to lipids are called:**
(A) Sphingolipids (B) Glycolipids
(C) Phospholipids (D) Sterols
- 159. Lactose is present in:**
(A) Sugarcane (B) Fruits
(C) Milk (D) Egg
- 160. A disaccharide that gives two molecules of glucose on hydrolysis is:**
(A) Sucrose (B) Lactose
(C) Maltose (D) None of these
- 161. In sugar cane and sugar beet, the storage product is:**
(A) Maltose (B) Sucrose
(C) Lactose (D) Isomaltose
- 162. One molecule of glucose and one molecule of galactose form:**
(A) Maltose (B) Sucrose
(C) Lactose (D) Isomaltose
- 163. Nucleic acids are related with:**
(A) Respiration (B) Photosynthesis
(C) Heredity (D) None of these
- 164. Waxes form protective coating on:**
(A) Leaves (B) Fruits
(C) Animal's skin (D) All of these
- 165. The four nitrogenous bases which form the code words for DNA language are:**
(A) ACTU (B) UTAC
(C) AGTU (D) AGCT
- 166. DNA and RNA differ in:**
(A) Sugar only (B) Sugar and purines
(C) Sugar and pyrimidines (D) Sugar and phosphate
- 167. A bond formed between carboxylic acid and alcohol is:**
(A) Ester bond (B) Amide bond
(C) Phosphate bond (D) Ionic bond

168. When amino acids in a polypeptide chain are arranged in spiral manner, it is called:
- (A) Primary structure (B) Secondary structure
(C) Tertiary structure (D) Quaternary structure
169. The step of protein synthesis in which the information contained specific segment of DNA is copied into RNA is called:
- (A) Transduction (B) Translation
(C) Transformation (D) Transcription
170. Choose the pair of terms that completes this sentence: nucleotides are to _____ as _____ are to proteins.
- (A) Amino acid Polypeptides (B) Genes Enzymes
(C) Nucleic acids Amino acids (D) Polymers Peptides
171. Which of these terms includes all others in the list?
- (A) Nucleic acid (B) Purine
(C) Nucleotide (D) Nitrogenous base
172. The compounds made up of simple repeating isoprenoid units are called:
- (A) Neutral lipids (B) Terpenoids
(C) Waxes (D) All of these
173. The term Protein was coined by:
- (A) Berzelius (B) G.J. Murlder
(C) Bloor (D) T.H. Morgan
174. Water molecule has characteristics of:
- (A) Acid (B) Base
(C) Both acid and base (D) None of these
175. The amount of heat must be absorbed or lost by 1g of that substance to change its temperature by 1°C:
- (A) Specific heat (B) Heat of vaporization
(C) Both (A) and (B) (D) None of these
176. During the conversion of ATP into ADP, energy release is.
- (A) 31.81 KJ / mole (B) 7.3 K.Cal / mole
(C) 61.8 KJ / mole (D) Both (A) and (B)

177. **Molecular formula of Stearin fat is:**
- (A) $C_{57}H_{110}O_6$ (B) $C_{57}H_{98}O_6$
(C) $C_{57}H_{104}O_8$ (D) $C_{57}H_{104}O_6$
178. **The carbohydrate molecule which yield 2 to 10 monosaccharide molecules on hydrolysis are:**
- (A) Polysaccharides (B) Oligosaccharides
(C) Monosaccharides (D) Heterosaccharides
179. **It is estimated that a person of average size contains 16 kg of fat which is equivalent to:**
- (A) 244000 K.Cal of energy (B) 164000 K.Cal of energy
(C) 144000 K.Cal of energy (D) 188000 K.Cal of energy
180. **The four interconnected rings of steroid molecule have:**
- (A) 12 carbons (B) 15 carbons
(C) 16 carbons (D) 17 carbons
181. **ATP is an example of:**
- (A) Mononucleotide (B) Dinucleotide
(C) Polynucleotide (D) None of these
182. **The process of making a polypeptide sequence from the genetic code of mRNA molecule associated with a ribosome is termed as:**
- (A) Transduction (B) Translation
(C) Transformation (D) Transcription
183. **NAD is an example of:**
- (A) Mononucleotide (B) Dinucleotide
(C) Coenzyme (D) Both (B) and (C)

Answers

Sr.	Ans.	Sr.	Ans.	Sr.	Ans.	Sr.	Ans.	Sr.	Ans.
1.	(D)	2.	(A)	3.	(D)	4.	(B)	5.	(B)
6.	(A)	7.	(C)	8.	(A)	9.	(A)	10.	(D)
11.	(A)	12.	(A)	13.	(B)	14.	(A)	15.	(D)
16.	(C)	17.	(B)	18.	(D)	19.	(C)	20.	(A)
21.	(A)	22.	(A)	23.	(B)	24.	(D)	25.	(A)
26.	(C)	27.	(A)	28.	(C)	29.	(D)	30.	(D)
31.	(C)	32.	(C)	33.	(A)	34.	(D)	35.	(D)
36.	(B)	37.	(C)	38.	(D)	39.	(C)	40.	(D)
41.	(A)	42.	(A)	43.	(C)	44.	(B)	45.	(D)
46.	(B)	47.	(A)	48.	(C)	49.	(C)	50.	(C)
51.	(C)	52.	(C)	53.	(A)	54.	(A)	55.	(D)
56.	(C)	57.	(A)	58.	(A)	59.	(B)	60.	(D)
61.	(A)	62.	(A)	63.	(A)	64.	(D)	65.	(C)
66.	(D)	67.	(D)	68.	(B)	69.	(D)	70.	(A)
71.	(C)	72.	(C)	73.	(B)	74.	(B)	75.	(C)
76.	(C)	77.	(A)	78.	(B)	79.	(C)	80.	(A)
81.	(B)	82.	(C)	83.	(B)	84.	(C)	85.	(C)
86.	(C)	87.	(A)	88.	(C)	89.	(A)	90.	(A)
91.	(B)	92.	(D)	93.	(C)	94.	(B)	95.	(B)
96.	(D)	97.	(A)	98.	(B)	99.	(C)	100.	(A)
101.	(C)	102.	(B)	103.	(A)	104.	(B)	105.	(D)
106.	(D)	107.	(D)	108.	(C)	109.	(A)	110.	(A)
111.	(B)	112.	(D)	113.	(A)	114.	(B)	115.	(D)
116.	(D)	117.	(A)	118.	(C)	119.	(B)	120.	(A)

Sr.	Ans.	Sr.	Ans.	Sr.	Ans.	Sr.	Ans.	Sr.	Ans.
121.	(B)	122.	(C)	123.	(C)	124.	(D)	125.	(D)
126.	(C)	127.	(B)	128.	(D)	129.	(A)	130.	(A)
131.	(C)	132.	(A)	133.	(B)	134.	(A)	135.	(B)
136.	(B)	137.	(C)	138.	(D)	139.	(B)	140.	(D)
141.	(C)	142.	(B)	143.	(C)	144.	(C)	145.	(D)
146.	(A)	147.	(B)	148.	(D)	149.	(C)	150.	(B)
151.	(A)	152.	(C)	153.	(B)	154.	(D)	155.	(B)
156.	(A)	157.	(D)	158.	(B)	159.	(C)	160.	(C)
161.	(B)	162.	(C)	163.	(C)	164.	(D)	165.	(D)
166.	(C)	167.	(A)	168.	(B)	169.	(D)	170.	(C)
171.	(A)	172.	(B)	173.	(A)	174.	(C)	175.	(A)
176.	(D)	177.	(A)	178.	(B)	179.	(C)	180.	(D)
181.	(A)	182.	(B)	183.	(D)				