

# QB365 Question Bank Software Study Materials

## Bio - Botany - Biomolecules 50 Important 1 Marks Questions With Answers (Book Back and Creative)

11th Standard

Biology

Total Marks : 50

### Multiple Choice Question

50 x 1 = 50

- 1) Water is a polar molecule because\_\_\_\_.
 

(a) **They have uniform charge distribution** (b) They have negative charge (c) The hydrogen have slight negative charge  
(d) They have uneven distributions of electrical charge
- 2) The  $\beta$  - D Glucose units in cellulose are linked together by\_\_\_\_.
 

(a) N-acetyl side chains (b) N-acetyl D-glucosamine (c) 1  $\rightarrow$  3 Linkage (d)  **$\beta$  - (1,4) glycosidic linkage**
- 3) Chitin is a linear polymer of \_\_\_\_\_ joined together by  $\beta$  - 1,4 glycosidic linkages.
 

(a)  $\beta$  - D - glucose units (b) **N - acetyl - D Glucosamine units** (c)  $\alpha$  -1,4 - glucanmaltohydrolase  
(d) D - glycuronic acid
- 4) The net charge of Zwitter ion is\_\_\_\_.
 

(a) **Zero** (b) Positive (c) Negative (d) 100
- 5) Watson and Crick model of DNA double helix is \_\_\_\_\_ form.
 

(a) A (b) C (c) H (d) **B**
- 6) The most basic amino acid is
 

(a) **Arginine** (b) Histidine (c) Glycine (d) Glutamine
- 7) Membrane lipids are \_\_\_\_\_.
 

(a) **Phospholipids** (b) Steroids (c) Waxes (d) Wax
- 8) Which of the following is not a steroid?
 

(a) **Cortisone** (b) Progesterone (c) Glycolipid (d) Ergosterol
- 9) Chitin is a \_\_\_\_\_.
 

(a) Polysaccharide (b) **Nitrogenous polysaccharide** (c) Lipoprotein (d) Protein
- 10) Starch and Cellulose are the compounds made up of many units of \_\_\_\_\_.
 

(a) **Simple sugar** (b) Fatty acid (c) Glycerol (d) Amino acid
- 11) Which is an organic component found in most cells?
 

(a) **Glucose** (b) Lignin (c) Sodium chloride (d) Oxygen
- 12) The primary structure of proteins is due to \_\_\_\_\_.
 

(a) Ionic bonds (b) **Peptide bonds** (c) Hydrogen bond (d) S-S Linkages
- 13) \_\_\_\_\_ is used as an anticoagulant.

- (a) Agar (b) keratan sulphate (c) **Heparin** (d) Insulin
- 14) Which one is Purine base of RNA?  
(a) **Guanine** (b) Thymine (c) Uracil (d) Cytosine
- 15) Lipids do not include \_\_\_\_\_  
(a) Steroid (b) Waxes (c) **Enzymes** (d) phospholipids
- 16) Phospholipids serve as major structural component of \_\_\_\_\_  
(a) Feathers (b) **Cell membrane** (c) Leaves (d) Skin
- 17) NADP serves as \_\_\_\_\_  
(a) Apoenzyme (b) Holoenzyme (c) **Coenzyme** (d) None of the above
- 18) Two electronegative atoms of oxygen share a \_\_\_\_\_ bonds of two water molecule.  
(a) Water (b) **Hydrogen** (c) Organic compounds (d) Primary metabolites
- 19) \_\_\_\_\_ may be small and simple.  
(a) Water (b) Metabolites (c) Secondary metabolites (d) **Organic molecules**
- 20) All macromolecules, except lipids are formed by the process of \_\_\_\_\_  
(a) Macromolecules (b) **Polymerisation** (c) Polymers (d) Carbohydrate
- 21) Lipids are not formed by the process of \_\_\_\_\_  
(a) Macromolecules (b) **Polymerisation** (c) Polymers (d) Carbohydrate
- 22) \_\_\_\_\_ are insoluble in water.  
(a) Disaccharides (b) Hydrolysis (c) Glycosidic bond (d) **Polysaccharides**
- 23) \_\_\_\_\_ is an example built from repeated units of glucose monomer.  
(a) Polysaccharide (b) Glycosidic bond (c) **Cellulose** (d) Starch
- 24) In cellulose,  $\beta$ -glucose units are held together by 1,4 \_\_\_\_\_ linkage.  
(a) Glycogen (b) Cellulose (c) **Glycosidic** (d) Chitin
- 25) The term protein was coined by \_\_\_\_\_  
(a) Cholesterol (b) Waxes (c) Proteins (d) **Gerardus Johannes Mulder**
- 26) The net charge of the entire molecule is zero, pH at which is known as the \_\_\_\_\_  
(a) Amino acids (b) Amphoteric (c) Dipolar ion (d) **Isoelectric point**
- 27) \_\_\_\_\_ is the loss of 3D structure of protein.  
(a) **Denaturation** (b) Hydrogen bond (c) Ionic bond (d) Hydrophobic bond
- 28) Opposite charges attract to form \_\_\_\_\_  
(a) Denaturation (b) **Hydrogen bond** (c) Ionic bond (d) Hydrophobic bond
- 29) \_\_\_\_\_ affects the ability of the substrate to bind to the enzyme.  
(a) **Allosteric inhibitors** (b) Feedback allosteric inhibitor (c) End-product inhibition (d) Cofactors
- 30) \_\_\_\_\_ is an active enzyme with its non protein component.  
(a) **Holoenzyme** (b) Apoenzyme (c) Inorganic ions (d) Coenzymes
- 31) \_\_\_\_\_ is the inactive enzyme without its non protein component.

- (a) Holoenzyme (b) **Apoenzyme** (c) Inorganic ions (d) Coenzymes
- 32) \_\_\_\_\_ help to increase the rate of reaction catalysed by enzymes.  
 (a) Holoenzyme (b) Apoenzyme (c) **Inorganic ions** (d) Coenzymes
- 33) \_\_\_\_\_ are organic compounds which act as cofactors.  
 (a) Holoenzyme (b) Apoenzyme (c) Inorganic ions (d) **Coenzymes**
- 34) \_\_\_\_\_ is a polymeric molecule essential in various biological roles.  
**(a) Ribonucleic acid** (b) messenger RNA (c) Prokaryotic mRNA (d) transfer RNA
- 35) \_\_\_\_\_ carries coding sequences for many polypeptides.  
 (a) Ribonucleic acid (b) messenger RNA (c) **Prokaryotic mRNA** (d) transfer RNA
- 36) Number of sugar units in oligo-saccharides are \_\_\_\_\_  
 (a) 6 to 10 (b) 1 to 10 (c) 2 to 8 (d) **2 to 10**
- 37) Benedicts solution is nothing but \_\_\_\_\_  
**(a) Copper II sulphate** (b) Cuprous sulphate (c) Cupric sulphate (d) Copper I sulphate
- 38) Which type of DNA was described by Watson & Crick?  
 (a) Z-DNA (b) a-DNA (c) **B - DNA** (d) A - DNA
- 39) According to Chargaff's rule, the hydrogen bonding between Adenine and Thymine is \_\_\_\_\_  
**(a) 2** (b) 3 (c) 4 (d) Nil
- 40) Diameter of DNA helix is \_\_\_\_\_  
 (a)  $34\text{\AA}$  (b) 20 nm (c) 34 nm (d)  **$20\text{\AA}$**
- 41) Which RNA is also called as soluble RNA?  
 (a) rRNA (b) **tRNA** (c) mRNA (d) ssRNA
- 42) The amino acids which are not synthesized in the body are called \_\_\_\_\_  
 (a) Non-essential (b) **Essential** (c) Deaminated (d) All of them
- 43) Hydrolysis of starch occurs with the help of \_\_\_\_\_  
 (a) Sucrose (b) **Amylose** (c) Peptidas (d) Lipase
- 44) Which enzyme converts glucose into alcohol?  
 (a) Zymase (b) Diastase (c) **Invertase** (d) Lipase
- 45) Catabolic reaction is \_\_\_\_\_  
**(a) Breaking down of larger molecules** (b) Building up of organic molecules (c) Energy activation  
 (d) Breaking down of smaller molecules
- 46) Carbohydrates, the most abundant biomolecules on earth, are produced by \_\_\_\_\_  
**(a) some bacteria, algae and green plant cells** (b) fungi, algae, green plant cells (c) all bacteria, fungi and algae  
 (d) viruses, fungi and bacteria
- 47) Which one of the following is a non-reducing carbohydrate?  
 (a) Maltose (b) **Sucrose** (c) Lactose (d) Ribose 5-phosphate
- 48) Which of the following biomolecules does have a phosphodiester bond?

- (a) **Nucleic acids in a nucleotide** (b) Fatty acids in a diglyceride (c) Monosaccharides in a polysaccharide  
(d) Amino acids in a polypeptide

49) A non-proteinaceous enzyme is \_\_\_\_\_

- (a) Lysozyme (b) **Ribozyme** (c) Ligase (d) Deoxyribonuclease

50) The percentage of water in the total cellular mass is \_\_\_\_\_

- (a) 50% (b) 60% (c) **70%** (d) 80%