

Class : XI<sup>th</sup>  
Date :

Subject : BIOLOGY  
DPP No. : 9

## Topic :- Biomolecules

- In which one of the following sets of three items each belong to the category mentioned against them?
  - Lysine, glycine, thiamine – Amino acids
  - Myosin, oxytocin and gastric – Hormones
  - Rennin, helicase and hyaluronidase – Enzymes
  - Optic nerve, oculomotor, vagus – Sensory nerves
- The inhibitor which binds to the enzyme at site other than the active site and do not resemble the substrate in structure is called
  - Activator
  - Substrate analogue
  - Competitive inhibitor
  - Non-competitive inhibitor
- Biomolecules are constantly being changed into some other biomolecules and are made from ....
  - Amino acids
  - Biomolecules only
  - Monosaccharides
  - Enzymes
- A physical change, during a chemical reaction refers to
  - Change in shape without breaking of bonds
  - Change in state of matter
  - Change in the bond energy during the chemical reaction
  - Both (a) and (b)
- Identify, in which of the following carbon compounds, heterocyclic rings can be found?
  - Proteins
  - Amino acids
  - Nitrogen bases
  - Lipids
- Hydrolysis of lipid yields?
  - Fats
  - Fatty acids and glycerol
  - Mannose and glycerol
  - Maltose and fatty acids
- If all the peptide bonds of protein are broken, then the remaining part is
  - Amide
  - Oligosaccharide
  - Polypeptide
  - Amino acid

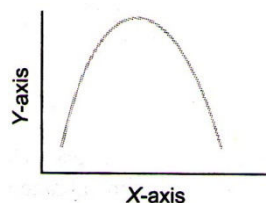


17. After grinding a living tissue in trichloroacetic acid and then straining it, you would obtain two fractions : acid soluble pool and acid insoluble fraction. Acid insoluble fraction does not contains

- a) Nucleic acids  
 b) Polysaccharides  
 c) Lipids  
 d) Flavonoids and alkaloids

18. The curve given below shows enzymatic activity with relation to three conditions (pH, temperature and substrate concentration)

What do the two axes (X and Y) represent?



	X-axis	Y-axis
a)	Temperature	Enzyme activity
b)	Substrate concentration	Enzymatic activity
c)	Enzymatic activity	Temperature
d)	Enzymatic activity	pH

19. Choose the correct options

- a)  $E + S \rightarrow ES \rightarrow E + P \rightarrow EP$   
 b)  $E + S \rightleftharpoons ES \rightarrow E - P \rightarrow E + P$   
 c)  $E + S \rightarrow ES \rightleftharpoons E - P \rightarrow E + P$   
 d)  $E + S \rightleftharpoons ES \rightleftharpoons E - P \rightleftharpoons E + P$

20. Which of the following statement(s) are/is correct?

- I. In the process of metabolism, all organic biomolecules are constantly being broken down but not being built up through chemical reactions  
 II. A product of metabolism is called a metabolite, but not always  
 III. Metabolism is always known to built up new products  
 IV. Metabolism is the characteristic feature of non-living things
- a) All are incorrect  
 b) All are correct  
 c) Only IV is correct  
 d) II and IV are correct