

Yashwantrao Chavan College of Science, Karad
B.Sc. - I
Paper I- Basics of Biotechnology I
Question Bank

Q 1) Answer the following questions choosing the correct alternatives given below them

- 1) Enzymes function as
A) Organic catalyst B) Inorganic catalyst
C) Inhibitors D) All of these
- 2) The optically inactive amino acid is
A) Serine B) Threonine
C) Valine D) Glycine
- 3) The enzyme minus its coenzyme is referred to as the
A) Isoenzyme B) Metaloenzyme
C) Apo enzyme D) All of the above
- 4)is an example of epimers
A) Glucose and ribose B) Glucose and Mannose
C) Galactose, Mannose and Glucose D) Glucose, Ribose and Mannose
- 5) is not a coenzyme.
A) NAD B) NADP
C) FAD D) ATP
- 6) Sulphur containing amino acid is
A) Methionine B) Leucine
C) Valine D) Asparagine
- 7) Non protein organic part of the enzyme is
A) Apo enzyme B) Coenzyme
C) Cofactor D) Isoenzyme
- 8) Isoelectric pH of alanine is
A) 6.02 B) 6.6
C) 7.2 D) 6.8
- 9) Amino acids are building blocks of.....
A)Carbohydrates B) Lipids
C)Nucleic acids D) Proteins

- 10) when two or more polypeptide structures combined to form protein , then the combined structure is known as a
- A) Quaternary structure
 - B) Primary structure
 - C) Tertiary structure
 - D) Secondary structure
- 11)are those carbohydrates that cannot be hydrolyzed into simpler carbohydrates
- A) Polysaccharides
 - B) Monosaccharides
 - C) Oligosaccharides
 - D) Disaccharides
- 12) The word enzyme had been proposed by
- A) Lewis
 - B) Kuhne
 - C) Koshland
 - D) Lederberg
- 13) Ais the protein part of an enzyme
- A) Apoenzyme
 - B) Cofactor
 - C) cosubstrate
 - D) prosthetic group
- 14) The enzymes which are produced in the cell and function outside the cell are called as
- A) Intracellular enzymes
 - B) Inducible
 - C) Extracellular enzymes
 - D) Holoenzymes
- 16)t-RNA is small RNA molecules made by aboutRibonucleotides
- A) 15-35
 - B) 200-300
 - C) 74-95
 - D) 50-80
- 17) According to lock and key hypothesis the lock representsand key represents.....
- A) Enzyme,substrate
 - B) Substrate,lock
 - C) Substrate,enzyme
 - D) Enzyme,key
- 18) of the following is the most abundant biomolecule on earth
- A) Lipids
 - B) Proteins
 - C) Carbohydrates
 - D) Nucleic acids
- 19)of the following has reducing properties
- A) Mucic acid
 - B) Glucaric acid
 - C) Gluconic acid
 - D) Glucurinic acid

20) The nature of enzyme is

A) Lipid

C) Carbohydrates

B) Vitamin

D) Protein

2) Long answer

1) Define biotechnology and explain in brief history and scope biotechnology

2) Define carbohydrates. Classify them with suitable examples.

3) Classify amino acid and explain biological functions.

4) Explain in detail branches of Biotechnology

5) Explain types of enzymes

3) Write a short note

1) Holo enzyme

2) Cofactor

3) Structure of peptide bond

4) Branches of biotechnology

5) Biological functions of carbohydrates

6) Structure and function of three biochemically important disaccharides.

7) Ring Formation in monosaccharide

8) Structural levels of proteins

9) Biological functions of proteins

10) Chemical properties of carbohydrates

