PAPER CODE:5016

M.Sc. Sem- III

July-Sep-2021

CHN – 604 (E)- Bio-organic Chemistry(Old course)

કુલ સમય :– ૩૦ મીનીટ કુલ પ્રશ્નો : ૩૫ વિદ્યાર્થીએ ટીક કરવાના પ્રશ્નો : ૧૮

નોંધ : વિદ્યાર્થીએ માત્ર ૧૮ પ્રશ્નો જ ટીક કરવાના રહેશે. જો વધારે ટીક કરેલ હશે તો પ્રથમ ૧૮ પ્રશ્નો જ ગણતરીમાં લેવામાં આવશે.

1. The general mechanism is that an enzyme act by:
(A) Reducing the activation energy (B) Increasing activation energy
(C) Decreasing PH value (D) Increasing PH value
2. Zn^{+2} is an inorganic activator for enzyme:
(A) Carbonic anhydrase (B) Phosphatase (C) Chymotripsin (D) Maltase
3. Non-protein component of enzyme are known as:
(A) Cofactor (B) Activator (C) Coenzyme (D) All of these
4. The model proposed by Koshland is:
(A) Fluid mosaic model (B) Induced fit model
(C) Lock and key model D) Reflective index model
5. Which of the following is not a co-enzyme:
(A) NAD (B) NADP (C) FAD (D) Mn^{++}
6. The lock and key hypothesis is attempts to explain the mechanism of:
(A) Vacnole formation (B) Pinocytosis (C) Sharing of electrons (D) Enzyme specificity
7. DDT and Parathion are inhibitors of key enzymes in:
(A) Nervous system (B) Respiratory system (C) Digestive system (D) Circulatory system
8. Which of the following enzyme would digest a fat ?
(A) Sucrase (B) Protease (C) Ligase (D) Lipase
9. Vitamins are essential to the survival of organisms because vitamins mainly function as:
(A) Substrates (B) Nucleic acids (C) Co-enzymes (D) Nucleosides
10. The enzymes was first isolated and purified in the form of crystals:
(A) Urase (B) Pepsin (C) Amylase (D) Ribonuclease
11. Which among the following is the nature of enzyme :
(A) Lipid (B) Vitamin (C) Carbohydrate (D) Protein
12. The enzyme which hydrolyses starch to maltose is:
(A) Protease (B) Amylase (C) Lactase (D) Maltase
13. Zymogen is a:
(A) Modulator (B) Vitamin (C) Enzyme precursor (D) Hormone
14. Blocking of enzyme action by blocking its active site is called as:
(A) Allosteric inhibition (B) Feedback inhibition
(C) Competitive inhibition (D) Non-competitive inhibition
15. The co-enzyme is:
(A) Often a metal (B) Always a protein
(C) Often a vitamin (D) Always an inorganic compounds
16. Majority of enzymes are inactivated at the temperature:
(A) At 25 ^{0}C (B) At 15 ^{0}C (C) Between 30 - 40 ^{0}C (D) Above 70 ^{0}C
17. Which type of restriction enzymes are commonly used in r- DNA technology ?
(A) Type I (B) Type II (C) Type III (D) Type IV
18. Selective degradation of single strand DNA carried out by the enzyme:
(A) Nuclease (B) Ribonuclease
(C) SI nuclease (D) Deoxyribonuclease
19. PCR technique was invented by:
(A) Kary Mullis (B) Boyer (C) Sanger (D) Cohn
20. Which bacterium used in the production of insulin by genetic engineering ?
(A) Saccharomyces (B) Rhizobium
(C) Escherichia (D) Mycobacterium
21. Soya off flavor removal may be achieved using:
(A) Diacetyl reductase (B) β-amylase
(C) Aldehyde oxidase (D) Protease

22. α-amylase is an endo enzyme which requires:
(A) Ca (B) Cu (C) Mn (D) Mg
23. …….. is the product of biotechnology.
(A) Bacteria (B) Skin (C) Vaccine (D) Plants
24. Maximum number of existing transgenic animals of:
(A) Fish (B) Cow (C) Pig (D) Mice
25. The mechanism of enzyme activity is termed as:
(A) Hydrolysis (B) Catalysis (C) Proteolysis (D) Hydration
26. The covalent catalysis aided by one of the following method is:
(A) General acid-base catalysis (B) Specific acid-base catalysis
(C) Nucleophilic catalysis (D) Substrate collision theory
27. The study of rate of chemical reactions that are catalyzed by enzyme is referred to as:
(A) First order reaction kinetics (B) Zero order reaction kinetics
(C) n-order reaction kinetics (D) Second order reaction kinetics
28. The model that states specific shapes are possessed by substrate and enzyme is known as :
(A) Lock and key model (B) Deduction model
(C) Arrow and shield model (D) Induction model
29. Which of the following is produced with the combination of apoenzyme and co-enzyme ?
(A) Holoenzyme (B) Enzyme substrate complex
(C) Prosthetic group (D) Enzyme product complex
30. Diastage take part in digestion of which one:
(A) Protein (B) Starch (C) Amino acid (D) Fat
31. Enzymes are:
(A) Biocatalyst (B) Emulsifier (C) Antibodies (D) Hormones
32. Co-factor in the enzyme is:
(A) Inorganic ion (B) Organic molecule
(C) Both (A) and (B) (D) None of these
33. Optimum PH value for pepsin is:
(A) 5.5 (B) 7.4 (C) 4.1 (D) 1.4
34. Among the following is not proteolytic enzyme:
(A) Trypsin (B) Chymotripsin (C) Papain (D) Invertase
35. The SI unit for enzyme activity is:
(A) Bel (B) Mho (C) Hertz (D) Katal