Biology - FSC Part 1 Biology English Medium Chapter 3 Preparation

Q1. Differentiate between apoenzyme and holoenzyme.

Ans 1: Apoenzyme: The proteins part of enzyme is called apoenzyme or enzyme without non protein part is called apoenzyme.

Ans 2: Holoenzyme: A completely enzyme including co factor is called holoenzyme.

Q2. How does high temperature effect enzyme activity?

Ans 1: The rate of enzyme controlled reaction may increase with increase in temperature but up to a certain limit.All enzymes can work at their maximum rate at a specific temperature called optimum temperature.
Heat provide activation energy and therefore chemical reaction are accelerated at high temperature.

Q3. Differentiate between enzyme and co enzyme?

Ans 1: Enzyme: Enzyme are called biological catalyst they tremendously increase the rate of reaction,decrease the energy of activation and the are produced by the living organisms.

Ans 2: Co.Enzyme: If co factor is loosely attached to the proteins part it is called co enzyme,It is closely related to vitamins which represent the essential raw material from which co enzymes are made.

Q4. What is cofactor?Give its role.

Ans 1: Some enzymes consists of solely of proteins.Other have a non proteins part known as co-factor.which is essential for the proper functional of the enzymes..The cofactor usually acts as a bridge between the enzymes and its substrate,often it contributes directly to the chemical reaction which bring about catalysis.

Q5. What is active site of an enzyme?

Ans 1: An enzyme and its substrate react with each other through definite charge bearing site called active site.The active site of an enzyme is a three dimensional cavity bearing a specific charge by which the enzyme reacts with its substrate.

Q6. What is NAD?

Ans 1: NAD stands for nicotinamide adenine di nucleotide.It is and important enzyme.

Q7. Give difference between prosthetic group and activator.

Ans 1: Prosthetic Group:Covalently bounded non protein part is called prosthetic group.

Ans 2: Activator: The detachable cofactor is known as activator if is an inorganic ions.

Q8. What is the role of pH on enzyme activity?

Ans 1: A slight change in pH can change the ionization of the amino acid at the active site.Moreover it may effect the ionization of the substrate.Under these changed condition enzyme activity is either retarded blocked completely.

Q9. Write four characteristics of enzyme.

Ans 1: 1.All enzymes are globular proteins.
2.They increase the rate of reaction without themselves being used up.
3.Their presence does not affect the nature of properties of end products.
4.Even a small amount of enzymes can bring about the change in large amount of the substrate.

Q10. What is enzyme to enzyme chain?

Ans 1: In certain cases enzyme act in series of chemical reaction in a particular order to complete the metabolic pathway such as respiration or photosynthesis.The successive enzyme containing these reactions are normally present together in a precise order of reaction such that substrate molecule can be literally handed on form one enzyme to another forming a enzyme,coenzyme chain.
