Biology (New Book) - 9th Class Biology Urdu Medium Chapter 7 Preparation

Q1. Which protein digestign enxyme functions in acidic medium?

Ans 1: Pepsin is a protein digesting enzyme whcih functions in acidic medium.

Q2. How does pH affect enzyme activity.

Ans 1: Enzymes are sensitive to hydrogen ion concentration of he fuid in which they work. They show maximum acticity at a speecific pH. called their optimum pH.

Q3. Define an enzyme. What is its role in metabolism.

Ans 1: Define: Enzymes are biologicla catalysts that speed up chemical reactions in living organisms without being consumed in the process. They ar eprimarily proins and highly specific to their substrates.

Ans 2: Role:Enzymes play an important role in controlling cellular metaboiism. An enzyme function sby lowering the activation enery of a chemicla reaction inside the cells. Activation enery is the minimum amount of energy needed to from or break chemical bounds and convert reactants to products.

Q4. Which type of enzyme inhibitors inhibit the enzymes without attaching to the active site.

Ans 1: Non-competitive inbibitors do not attache to the active site of an enxyme. Rather, they attach to some other locationof enzyme.

Q5. Difference between Catalyst and enzyme.

Ans 1: Catalyst :
Catalyst is a substance that increases rate of a chemical reaction without iteslf undergoing any permanent chemical change.

Ans 2: Enzyme:
Enzymes ar eprotins that speed up biochemical reations and are not changed during the reaction.

Q6. What do you mean by saturation of active sites.

Ans 1: When all the active sites of the enzymes are occupied and adding more substrate molecule do not find free active siges, this state is called saturation of active sites and the reaction rate does not increase.

Q7. What do you mean by Optimum pH.

Ans 1: Optimum pH is a measure of how acidic or basic a substance or solution is . It is neasured on pH scale of 0 to 14 with 7 being nautral.
Enzymes show maximum aactivity at a specific pH. called their optimum pH

Q8. What do you mean by Optimum Temperature

Ans 1: Optimum temperature:
Each enzyme works at maximum rate at a specific temperture calle doptimum temperature. The optimum temperature for most of human enzyme in 37 oC

Q9. Provide an example of a specific enzyme substrate pair.

Ans 1: The enxyme protease will not work on starh which is broken down by an enzyme amylase.

Q10. Define co -factors.Give two example.

Ans 1: Some enxymes require non -Protein molecules or ions to work, these molecules or ions are called cofactors. Co factors can either be inorganic e.g metal ions or organic e.g. Flavin and haem.
