FAQs

- **What are enzymes? Give an example**.

  Enzymes are biocatalyst that catalyses the conversion of a specific set of substrate into a specific product and they are neither consumed nor altered permanently.

  e.g. urease, protease, etc.

- **What are ribozymes?**

  Ribonucleic Acid (RNA) molecules that possess the ability to catalyze biochemical reactions are called as Ribozymes.

- **Difference between apoenzyme and holoenzyme**.

  The protein part of an enzyme is the apoenzyme, whereas the complete enzymes that contain both the protein part (apoenzyme) and the organic or metallo-organic molecule (cofactor/coenzyme) are called as holoenzymes.

- **Difference between catalytic site and binding site.**

  The site of an enzyme that contains amino acid residues to form a temporary bond with the substrate is called the binding site whereas, specific residues that catalyses the change in the substrate for the production of the specific product is known as catalytic site.

- **Michaelis - Menten equation**

  The equation derived from the hypothesis that rate limiting step in an enzyme catalyzed reaction is the conversion of the enzyme-substrate complex (ES) into the product (P) and free enzyme.

- **What is encapsulation of enzymes?**

  Confining enzymes within the lattices of polymerized gels allowing the free diffusion of low molecular weight substrates and reaction products.

- **Usage of enzyme immobilization**

  Increase in functional efficiency of the enzyme, cost effective, reusable immobilized products, more stability of the product, less laborious, less chance of contamination.

- **Define competitive inhibitor**

  Competes with the substrate for the active site of an enzyme, occupies the active site and prevents binding of the substrate to the enzyme.

- **Define uncompetitive**

Binds at a site distinct from the substrate active site and binds only to the Enzyme Substrate complex.

- **What is mixed inhibitor**

  Binds at a site distinct from the substrate active site, but it binds to either to the Enzyme or to the Enzyme Substrate complex.

- **What are allosteric enzymes**

  Enzymes that function through reversible and noncovalent binding of regulatory compounds, which are generally smaller metabolites or cofactors (called as allosteric modulators/ effectors).