

**Virtual Lab: Enzyme Controlled Reactions
Worksheet**

1. Which of the following does NOT apply to an enzyme:
 - a. Catalyst
 - b. Inorganic
 - c. Protein
 - d. All of the above apply to an enzyme

2. When an enzyme catalyzes a reaction:
 - a. Substrate(s) bind in the active site
 - b. Products bind in the active site
 - c. The shape of the enzyme remains unchanged
 - d. The enzyme is consumed by the reaction

3. Which of the following would interfere most with the ability of an enzyme to catalyze a reaction?
 - a. Reduced concentration of substrate available
 - b. Reduced concentration of product available
 - c. Increased concentration of substrate available
 - d. A change in the pH

4. Feedback mechanisms regulate the rate of enzyme activity, effectively “turning off” an enzyme in a reversible way until more product is needed. Which of the following would be most effective as a feedback mechanism?
 - a. Reduced concentration of product
 - b. Increased concentration of substrate
 - c. A change in pH
 - d. Temporary binding of a non-substrate molecule in the active site

5. Which of the following statements is accurate in describing the activity of the lactase enzyme?
 - a. Lactase can function equally effectively at many different pH levels
 - b. The shape of lactase does not change during the reaction
 - c. Lactase is converted to glucose and galactose by the reaction
 - d. One lactase enzyme can catalyze many reactions