

### Enzyme Practice Quiz/Living Environment

1. Which of the following enzymes would digest a fat? (1.) sucrase (2.) lactase (3.) protease (4.) lipase
2. At high temperatures, the rate of enzyme action decreases because the increased heat (1.) changes the pH of the system (2.) alters the active site of the enzyme (3.) neutralizes the acids and bases in the system (4.) increases the concentration of the enzyme
3. Enzymes influence chemical reactions in living systems by (1.) providing the substrate required for the reaction to occur (2.) affecting the rate at which reactions occur (3.) absorbing water released when polymers are formed (4.) combining with excess hydrogen to form gaseous water
4. Which group of organic compounds includes the enzymes? (1.) proteins (2.) starches (3.) carbohydrates (4.) lipids
5. The "lock and key hypothesis" attempts to explain the mechanism of (1.) vacuole formation (2.) photosynthesis (3.) sharing of electrons (4.) enzyme specificity
6. Any substance that is acted upon by an enzyme is called a(n): (1.) coenzyme (2.) substrate (3.) vitamin (4.) polypeptide
7. An enzyme that hydrolyzes proteins will not act upon starch. This fact is an indication that enzymes are (1.) hydrolytic (2.) specific (3.) catalytic (4.) synthetic
8. At 25°C, the optimum reaction rate of a certain enzyme occurs at a pH of 7. A greater reaction rate could probably be attained by (1.) increasing the temperature to 35°C and keeping the pH at 7 (2.) increasing both the temperature and the pH (3.) decreasing the pH and increasing the temperature (4.) increasing the pH and keeping the temperature at 25°C.