Enzymes Quiz PDF

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Which part of the enzyme binds to the substrate?

- ◯ Inhibitor site
- ◯ Allosteric site
- ◯ Regulatory site
- ◯ Active site

Which model describes the enzyme's active site changing shape to fit the substrate?

- ◯ Lock and Key Model
- ◯ Competitive Model
- ◯ Non-competitive Model
- ◯ Induced Fit Model

How does feedback inhibition help regulate metabolic pathways in cells?

Which statements about enzyme inhibitors are true? (Select all that apply)

- ☐ Competitive inhibitors bind to the active site
- ☐ Non-competitive inhibitors bind to the active site
- ☐ Allosteric inhibitors change enzyme shape
- ☐ Inhibitors always increase enzyme activity

What happens to an enzyme when it is denatureD?

- ◯ It becomes more active
- ◯ It binds more substrates
- ◯ It speeds up reactions
- ◯ It changes shape and loses function

Which of the following factors can affect enzyme activity? (Select all that apply)

- ☐ Temperature
- ☐ pH
- ☐ Substrate concentration
- ☐ Enzyme concentration

Which type of enzyme catalyzes the transfer of functional groups?

- ◯ Hydrolases
- ◯ Oxidases
- ◯ Isomerases
- ◯ Transferases

Explain how enzymes lower the activation energy of a chemical reaction.

Discuss how temperature can both positively and negatively affect enzyme activity.

Which enzyme type is primarily involved in oxidation-reduction reactions?

- ◯ Hydrolases
- ◯ Transferases
- ◯ Isomerases
- ◯ Oxidases

In feedback inhibition, what inhibits the enzyme activity?

- ◯ Substrate
- ◯ Intermediate product
- ◯ External inhibitor
- ◯ End product

What is allosteric regulation, and how does it influence enzyme activity?

Provide examples of how enzymes are used in medical applications.

What are the effects of enzyme denaturation? (Select all that apply)

- ☐ Loss of enzyme activity
- ☐ Permanent change in shape
- ☐ Increased substrate binding
- ☐ Enhanced reaction rate

Which enzymes are involved in rearranging atoms within a molecule? (Select all that apply)

- [ ] Hydrolases
- [ ] Isomerases
- [ ] Oxidases
- [ ] Transferases

Describe the role of the active site in enzyme specificity.

What is the primary role of enzymes in biological systems?

- ◯ Provide energy
- ◯ Serve as biological catalysts
- ◯ Store genetic information
- ◯ Act as structural components

What are the roles of enzymes in industrial applications? (Select all that apply)

- [ ] Brewing
- [ ] Cheese-making
- [ ] Data storage
- [ ] Biofuel production

Which factor does NOT affect enzyme activity?

- ◯ Temperature
- ◯ Substrate concentration
- ◯ Color of the enzyme
- ◯ pH

Which of the following are characteristics of enzymes? (Select all that apply)

- [ ] They are consumed in reactions
- [ ] They are proteins
- [ ] They lower activation energy

- [ ] They are specific to substrates