A plot of enzyme activity (y-axis) versus substrate concentration (x-axis) with other variables constant is a?

Select one:

- [ ] a. Straight line with an upward slope.
- [ ] b. Line with an upward slope and a long flat top.
- [ ] c. Line with an upward slope followed by a downward slope.
- [ ] d. Straight horizontal line.
- [ ] e. S-shaped curve

Question 2

Not yet answered

Marked out of 1.00

Flag question

When [S] = Km, the velocity of an enzyme catalyzed reaction is about?

Select one:

- a. 0.1 Vmax
- b. 0.9 Vmax
- c. 0.4 Vmax
- d. 0.7 Vmax
- e. 0.5 Vmax

One of the following descriptions best describes an induced fit?

Select one:

- a. Alteration of the shape of enzyme such that it is ready to accept a substrate.
- b. Adopting the correct binding conformation of the substrate before entering an active site.
- c. Substrate binding to an active site and the alteration of its shape of.
- d. Adopting of the active site correct conformation by shape of enzyme and substrate alteration.
- e. Adopting the active site correct conformation by metal ions

Not yet answered

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Flag question

For an enzyme that follows Michaelis-Menton kinetics, Km is equal to?

Select one:

- a. The [s] at one-half Vmax
- b. The v at one-half Vmax
- c. The [s] at one-half v
- d. The v at one-tenth Vmax
- e. Two times the Vmax

Not yet answered

Marked out of 1.00

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Marked out of 1.00

Flag question

The enzyme kinetic that describes a theoretical value achieved when all enzyme substrate binding sites are occupied by the substrate?

Select one:

- a. Km
- b. Km/k1+k2
- c. K-1/ Km
- d. K1+k2/k-1+k-2
- e. Vmax

Flag question

Each enzyme can speed up only one particular reaction. This specificity is due to the?

Select one:

- [ ] a. Shape of both the enzyme and the substrate
- [ ] b. Lowering of the energy of activation
- [ ] c. pH of the surrounding medium
- [ ] d. Temperature of the surrounding medium
- [ ] e. Permanent binding of the enzyme-substrate complex

Which of the following statements about Michaelis-Mentenkinetics is correct?

Select one:

- a. Michaelis-Menten kinetics assumes covalent binding occurs between enzyme and substrate.
- b. Michaelis-Menten kinetics assumes the formation of ES complex first.
- c. Michaelis-Menten kinetics is applied to the zero order reaction only.
- d. Michaelis-Menten kinetics is applied to all enzymes including allosteric enzymes.
- e. Michaelis-Menten kinetics is applied to the first and zero order reactions.

In reversible non-competitive inhibition of enzyme activity, which of the following statements is correct?

Select one:

- [ ] a. Km is decreased
- [ ] b. Amount of ES complex is not changed
- [ ] c. Concentration of active enzyme is reduced
- [ ] d. Amount of ES complex is increased
- [ ] e. Vmax is increased

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QUIZ NAVIGATION

Flag question

Coenzymes, the cofactors that are loosely attached to the enzyme and acting as recyclable shuttles?

Select one:

- a. Heat stable, dialyzable, protein organic molecules
- b. Each one is not specific for only one enzyme
- c. Soluble, colloidal, protein molecules
- d. Structural analogue of enzymes
- e. Different forms of enzyme

Next page

Not yet answered

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Flag question

What enzymes help pathogens avoid host defenses or promote their multiplication in tissue?

Select one:

- a. Induced enzymes
- b. Exoenzymes
- c. Endoenzymes
- d. Coenzymes
- e. Constitutive enzymes

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Flag question

An allosteric activator that affects Km but not Vmax does so by?

Select one:

- a. Altering enzyme conformation to promote substrate binding
- b. Altering enzyme conformation to increase Vmax
- c. Altering enzyme conformation to prevent binding of a competitive inhibitor
- d. Altering enzyme conformation to prevent E+P→ES
- e. Altering enzyme conformation to dissociate ES into E+S

Next page

Flag question

Aspirin is a suicidal inhibitor of cyclooxygenase enzyme by?

Select one:

- a. Adding methyl group to the active site of the enzyme
- b. Blocking a functional group in the active site of the enzyme
- c. Causing conformational changes in the active site of the enzyme
- d. Blocking the active site preventing the release of the product
- e. Denaturing the enzyme

Next page

Which of these statements regarding enzymes is false?

Select one:

- [ ] a. Enzymes provide activation energy for the reactions they catalyze.
- [ ] b. Enzymes are proteins that function as catalysts.
- [ ] c. The activity of enzymes can be regulated by factors in their immediate environment.
- [ ] d. Enzymes display specificity for certain molecules to which they attach.
- [ ] e. An enzyme may be used many times over for a specific reaction.

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The effect of non-competitive inhibition on a Lineweaver-Burk Plot is that?

Select one:

- a. It can move the entire curve to the right
- b. It can change the y-intercept
- c. It can change the x-intercept
- d. It can move the entire curve to the left
- e. It can change both the x- and y-intercepts

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Flag question

Which type of regulation occurs in the slowest time frame?

Select one:

- a. Regulation through covalent modification
- b. Allosteric regulation
- c. Synthesis of new enzyme through gene induction
- d. Feedback regulation
- e. Feedback inhibition

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