Unit 10 - Week 8

Assignment 8

The due date for submitting this assignment has passed. Due on 2019-03-27, 23:59 IST.
As per our records you have not submitted this assignment.

1) The site where the catalytic activity of an enzyme generally takes place is known as:
   a. Enzyme site
   b. Active site
   c. Activity site
   d. Reaction site

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   b.

2) When the velocity of enzyme activity is plotted against substrate concentration, which of the following shape is obtained?
   a. parabolic
   b. hyperbolic
   c. straight line with positive slope
   d. straight line with negative slope

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
Given that $\Delta G^\circ$ for the reaction $S \rightleftharpoons P$ is negative in the direction of $S \rightarrow P$, reaction equilibrium favors the formation of which substance(s)?

a. P  
b. S  
c. both S and P equally  
d. initially P and later S

No, the answer is incorrect.  
Score: 0  
Accepted Answers: 

For the reaction $S + E \rightleftharpoons ES \rightarrow E + P$, where S, E and P stand for substrate, enzyme and product respectively, the quantities that can be measure experimentally are

a. substrate, product and total enzyme  
b. bound substrate, bound product and bound enzyme  
c. only substrate and product  
d. only free product

No, the answer is incorrect.  
Score: 0  
Accepted Answers: 

For a given enzymatic reaction: Substrate + Enzyme $\rightarrow$ Product + X, which of the following best describes X?

a. X is the substrate  
b. X is deformed substrate  
c. X is the other form of the product  
d. X is the enzyme itself

No, the answer is incorrect.  
Score: 0  
Accepted Answers: 

6)
To measure enzyme kinetics which of the following is varied?

a. Enzyme concentration.
b. Substrate concentration.
c. Product concentration.
d. pH of the buffer in which reaction is taking place.

No, the answer is incorrect.
Score: 0
Accepted Answers: 

7) Which of the following determines substrate specificity of an enzyme?

a. Complementary geometry of the substrate and enzyme.
b. Complementary electrostatics of the substrate and enzyme.
c. Degree of hydrophobicity of the substrate.
d. Degree of hydrophilicity of the substrate.

No, the answer is incorrect.
Score: 0
Accepted Answers: 

8) In Michaelis-Menten kinetics Km is defined as the

a. Concentration of substrate required to reach maximum velocity
b. Concentration of enzyme required to reach maximum velocity
c. Concentration of substrate required to reach half of the maximum velocity
d. Concentration of enzyme required to reach half of the maximum velocity

No, the answer is incorrect.
Score: 0
Accepted Answers: 

9)
The advantage of using Lineweaver–Burk plot is

a. It linearizes the Michaelis Menten equation.
b. It is easier to extrapolate a straight line.
c. The errors in $K_m$ and $V_{max}$ are small.
d. The important parameters can be determined from the intercepts in two steps.

No, the answer is incorrect.
Score: 0
Accepted Answers: 
a. b. d.

10) In the Lineweaver–Burk plot, the y-intercept gives

a. $V_{max}$
b. $1/V_{max}$
c. $K_m$
d. $1/K_m$

No, the answer is incorrect.
Score: 0
Accepted Answers: 
b.

11) For competitive inhibition the maximum velocity can be obtained at

a. increased enzyme concentration
b. increased substrate concentration
c. lower substrate concentration
d. half of enzyme concentration

No, the answer is incorrect.
Score: 0
Accepted Answers: 
b.

12)
During non-competitive inhibition the inhibitor binds to the site which is called

a. active site
b. allosteric site
c. inhibition site
d. binding site

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

13)
With increase in concentration of the inhibitor the $K_m$ value increases in case of

a. competitive inhibition
b. non-competitive inhibition
c. un-competitive inhibition
d. irreversible inhibition

No, the answer is incorrect.
Score: 0
Accepted Answers:
a.

14)
While monitoring the activity of the enzyme in UV-spectrophotometer which two parameters are monitored in the instrument?

a. Absorbance (X-axis) vs wavelength (Y-axis)
b. Time (X-axis) vs wavelength (Y-axis)
c. Absorbance (X-axis) vs time (Y-axis)
d. Time (X-axis) vs absorbance (Y-axis)

No, the answer is incorrect.
Score: 0
Accepted Answers:
d.
When a sliced apple is kept in open air, it becomes brownish which is due to the:

a. oxidation of phenolic compounds in apple by enzyme o-diphenol oxidase
b. reduction of phenolic compounds in apple by enzyme o-diphenol oxidase
c. inhibition of enzyme o-diphenol oxidase
d. inhibition of phenolic compounds in apple by enzyme o-diphenol oxidase

No, the answer is incorrect.
Score: 0
Accepted Answers:
a.