socrative by MasteryConnect

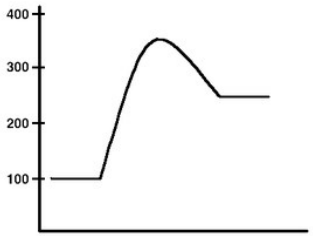
Rate and Equilibrium

Total Questions: 16

Most Correct Answers: **#1**

Least Correct Answers: **#11**

1. From this energy profile diagram, what is the value of the activation energy?



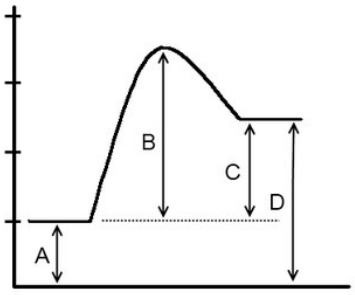
0/22 A 100

0/22 B 200

19/22 C 250

2/22 D 350

2. Which measurement on this energy profile diagram represents the enthalpy change?



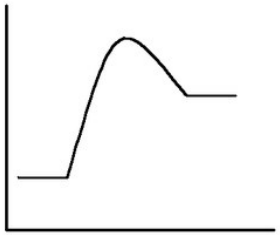
2/22 A A

0/22 B B

17/22 C C

1/22 D D

3. Which of the following statements about this energy profile diagram is true?



1/22 A The reaction is exothermic

1/22 B The enthalpy change is negative

2/22 C The x-axis represents time

16/22 D This reaction makes the surroundings colder

4. Which of the following does not affect the frequency of collisions?

0/22 A Temperature

1/22 B Pressure

15/22 C Catalyst

2/22 D Surface area

3/22 E Concentration

5. Which of the following does not affect the productivity of collisions?

0/22 A Temperature

2/22 B Catalyst

3/22 C Enzymes

15/22 D Concentration

6. Which of the following about enzymes is not true?

0/22 A They decrease the activation energy

17/22 B They decrease the enthalpy change

0/22 C They are biological catalysts

3/22 D They provide an alternate reaction pathway

7. For which of the following sets of graph axes would slope represent rate of reaction?

2/22 A "Enthalpy" against "Course of reaction"

15/22 B "Concentration" against "Time"

2/22 C "Yield" against "Temperature"

0/22 D "Kinetic energy" against "Temperature"

8. Which of the following conditions is not required for dynamic equilibrium?

1/22 A Closed system

0/22 B Fixed temperature

1/22 C Reversible reaction

18/22 D Equal amount of reactants and products

9. If temperature is increased for an equilibrium system, the net reaction to oppose the change will:

0/22 A Increase the temperature

6/22 B Decrease the temperature

15/22 C Absorb energy

0/22 D Release energy

10. If temperature is increased for an exothermic reaction at equilibrium, the net reaction will be:

5/22 A Forwards

15/22 B Backwards

0/22 C In the exothermic direction

0/22 D Zero

11. If pressure is increased for an equilibrium system, the equilibrium position will shift in the direction that:

2/22 A Increases the molecules of gas

10/22 B Decreases the molecules of gas

1/22 C Increases the number of total particles

6/22 D Decreases the number of total particles

12. If reactant concentration is increased for an equilibrium system, the net reaction will favour:

1/22 A The formation of reactants

17/22 B The formation of products

2/22 C The side with the least particles

0/22 D The side with the most particles

13. If reactant concentration is decreased for an equilibrium system, the net reaction will be:

5/22 A Forwards

16/22 B Backwards

0/22 C Left-to-right

1/22 D Zero

14. If a reaction is at equilibrium, increasing the concentration of a reactant will:

1/22 A Increase Kc

0/22 B Decrease Kc

3/22 C Temporarily alter Kc, but it will return to the original value over time

16/22 D Not affect Kc at all

15. If an endothermic reaction is at equilibrium, increasing the temperature will:

12/22 A Increase Kc

3/22 B Decrease Kc

1/22 C Temporarily alter Kc, but it will return to the original value over time

4/22 D Not affect Kc at all

16. An industrial reaction which is exothermic and has more reactant gas molecules than product gas molecules will have highest yield when:

3/22 A Temperature is high and pressure is high

2/22 B Temperature is high and pressure is low

15/22 C Temperature is low and pressure is high

0/22 D Temperature is low and pressure is low