YUKON CHEMISTRY 12 (MCH--12) · UNIT A

Reaction Rates — Practice Test

Yukon Chemistry 12 (MCH--12) • 10 questions

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **Food spoils more slowly in a refrigerator than at room temperature because**

- A cold destroys the catalyst in food
- B the activation energy becomes larger in the cold
- C lower temperature means fewer collisions reach the activation energy
- D refrigeration removes all reactants

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2 **An inhibitor slows a reaction by**

A lowering the activation energy

B raising the activation energy or blocking the catalyst

C increasing reactant concentration

D raising the temperature

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3 **The concentration of a reactant falls from 0.60 mol/L to 0.30 mol/L in 15 seconds. The average rate of consumption, in mol/L/s, is**

A 0.020

B 0.010

C 0.030

D 0.040

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4 **For the reaction 2A → B,**
if [A] falls by 0.40 mol/L, then [B] rises by, in mol/L

- A 0.10
- B 0.40
- C 0.80
- D 0.20

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5 **A higher pressure speeds up a gas phase reaction because**

- A the activation energy falls to zero
- B the gases become liquids
- C gas particles are closer together and collide more often
- D the products are removed

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6 **Which change increases both the frequency and the energy of collisions**

A adding a catalyst

B grinding a solid reactant

C diluting a solution

D raising the temperature

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7 **The rate law for a reaction is rate = k[A][B]. If both [A] and [B] are doubled, the rate will**

A increase by a factor of 2

B increase by a factor of 4

C increase by a factor of 8

D stay the same

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8 **A reaction profile shows products below reactants. The reaction is**

A exothermic

B endothermic

C at equilibrium

D catalyzed

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9 **Stirring a mixture can increase the reaction rate because**

A it lowers the activation energy

B it brings reactant particles into contact more often

C it changes the enthalpy of reaction

D it acts as a catalyst

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10 **Which statement about reaction rates is false**

A the rate is always the same throughout a reaction

B the rate depends on temperature

C the rate depends on concentration

D a catalyst can change the rate

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ANSWER KEY

1.	C	**5.**	C	**9.**	B
2.	B	**6.**	D	**10.**	A
3.	A	**7.**	B		
4.	D	**8.**	A		

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