

Reaction Kinetics

Sr	Questions	Answers Choice
1	Unit of k for second order reaction is	A. mol dm ⁻³ B. s ⁻¹ C. mol ⁻¹ dm ³ s ⁻¹ D. mol ⁻² dm ⁶ s ⁻¹
2	Increasing the temperature of a chemical reaction increases the rate of a reaction because.	A. Both the collision frequency and collision energies of reactant molecules increase B. Collision frequency of reactant molecule increases C. Activation energy increase D. Activation energy decrease
3	Higher pressure increases rate for	A. Solids B. Gases C. Liquids D. All phases
4	Which one reduces activation energy.	A. Catalyst B. Inhibitor C. Product D. Reactant
5	Rate = k [A] ; defines	A. Stoichiometry B. Reaction order C. Reaction mechanism D. Titration
6	If we double the concentration of a reactant, the rate increases by four times, the reaction is.	A. First Order B. Second Order C. Third Order D. Zero order
7	Which increases with rise in temperature?	A. Activation energy B. Enthalpy C. Collision frequency D. Molecular weight
8	Rate of reaction is measured as.	A. Increase Temperature B. Change in concentration per unit time C. Total energy of reactants D. Change in volume per mole
9	First order reactions are best studied using.	A. log [A] vs time B. Pressure vs time C. [A] vs time D. Titration
10	In an energy profile, peak represents.	A. Reactants B. Activated complex C. Products D. Catalyst
11	In energy profile diagram a catalysts.	A. Increase activation energy B. Decreases activation energy C. Provide new pathway D. Both b and c
12	On a Boltzmann distribution curve, the activation energy is represented by	A. The height of the peak B. The area under the entire curve C. A vertical line drawn at a specific kinetic energy value D. The difference between the peak and the X axis
13	On Boltzmann distribution curve, the area under the curve represents.	A. Activation energy of the reaction B. Total number of molecules in the sample C. Average kinetic energy of the molecules D. Rate constant of the reaction

14	Rate of fastest	B. In middle C. At end D. After completion
15	A zero order reaction has rate	A. Proportional to [A] B. Independent of [A] C. Proportional to time D. Zero
16	Collision frequency depends on	A. Pressure B. Concentration C. Temperature D. All of these
17	Enzyme is a	A. Solid catalyst B. Homogeneous catalyst C. Biological catalyst D. Promoter
18	Rate constant dependent of	A. Time B. Temperature C. Concentration D. Catalyst
19	Which factor affects rate of reaction.	A. Concentration B. Temperature C. Surface Area D. All of these
20	At equilibrium Delta G is	A. Zero B. Positive C. Negative D. Maximum