

Reaction Kinetics

Sr	Questions	Answers Choice
1	Rate determining step controls	A. Overall rate B. Temperature C. Volume D. Final yield
2	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
3	Rate law is an expression involving.	A. Concentration B. Pressure C. Temperature D. Catalyst
4	k has unit s ⁻¹ for	A. First order B. Second order C. Third order D. zero order
5	Which one reduces activation energy.	A. Catalyst B. Inhibitor C. Product D. Reactant
6	Catalyst usually act in	A. Initiation step B. Rate determining step C. Fast step D. Intermediate formation
7	Increase in surface area	A. Increases rate B. Decreases rate C. No effect D. Stops reaction
8	In energy profile diagram a catalysts.	A. Increase activation energy B. Decreases activation energy C. Provide new pathway D. Both b and c
9	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
10	Reaction rate by conductometry depends on	A. Ionic conductivity B. Pressure C. colour D. Temperature
11	Which increases with rise in temperature?	A. Activation energy B. Enthalpy C. Collision frequency D. Molecular weight
12	A flat curve in rate vs time graph indicate.	A. Reaction completed B. High rate C. Constant rate D. Temperature increase
13	The units of the rate constant (k) for a reaction depend on the	A. Activation energy of the reaction B. Temperature of the reaction C. Overall order of the reaction D. Stoichiometry of the balanced chemical equation
14	Unit of rate constant for first order reaction is	A. mol dm ⁻³ B. mol ⁻¹ dm ³ s ⁻¹ C. s ⁻¹ D. J mol ⁻¹
		A. Both the collision frequency and

15	Increasing the temperature of a chemical reaction increases the rate of a reaction because.	<p>collision energies of reactant molecules increase</p> <p>B. Collision frequency of reactant molecule increases</p> <p>C. Activation energy increase</p> <p>D. Activation energy decrease</p>
16	Unit of half life is	<p>A. mol</p> <p>B. s</p> <p>C. mol dm⁻³</p> <p>D. J</p>
17	Higher pressure increases rate for	<p>A. Solids</p> <p>B. Gases</p> <p>C. Liquids</p> <p>D. All phases</p>
18	Intermediates are	<p>A. Reactants</p> <p>B. Products</p> <p>C. Short lived species formed and consumed</p> <p>D. Stable compounds</p>
19	Which of the following methods measures reaction rate.	<p>A. Conductivity</p> <p>B. Titration</p> <p>C. Volume of gas</p> <p>D. All of these</p>
20	In an energy profile, peak represents.	<p>A. Reactants</p> <p>B. Activated complex</p> <p>C. Products</p> <p>D. Catalyst</p>