

Reaction Kinetics

Sr	Questions	Answers Choice
1	k has unit s ⁻¹ for	A. First order B. Second order C. Third order D. zero order
2	In presence of catalyst ΔH	A. Increases B. Decreases C. Double D. Unchanged
3	Overall order is sum of	A. Coefficients B. Exponents in rate law C. Moles D. Products
4	Reaction rate by conductometry depends on	A. Ionic conductivity B. Pressure C. colour D. Temperature
5	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
6	Mechanism supports	A. Hess's law B. Kinetic data C. Le chatelier's principle D. Boyle's law
7	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
8	Rate constant can be determined by	A. Titration B. spectroscopy C. conductometry D. all of these
9	Which one reduces activation energy.	A. Catalyst B. Inhibitor C. Product D. Reactant
10	In a chemical reaction, a catalyst.	A. Alters ΔH B. Lowers activation energy C. Is consumed D. Forms product
11	Rate constant dependent of	A. Time B. Temperature C. Concentration D. Catalyst
12	In color change reactions, which method is best	A. Colorimetry B. Titration C. Conductometry D. Manometry
13	Which of the following methods measures reaction rate.	A. Conductivity B. Titration C. Volume of gas D. All of these
14	Half life is time in which	A. Rate becomes zero B. Concentration reduces to 1/4 C. Concentration reduces to half D. Product is half formed
15	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

16 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

17 Which factor affects rate of reaction.

- A. Concentration
- B. Temperature
- C. Surface Area
- D. All of these

18 Unit of rate constant for zero order reaction is

- A. $\text{mol dm}^{-3} \text{ s}^{-1}$
- B. s^{-1}
- C. $\text{mol}^{-1} \text{ dm}^3 \text{ s}^{-1}$
- D. $\text{mol}^{-2} \text{ dm}^6 \text{ s}^{-1}$

19 The rate determining step in a multistep reaction is

- A. The slowest step
- B. Always the first step
- C. Always the last step
- D. The fastest step

20 Half life formula for 1st order reaction is

- A. $0.693 / k$
- B. $k \times t$
- C. $1 / k$
- D. $2 k$