

PPSC Chemistry Full Book Test

Sr	Questions	Answers Choice
1	The large increase in the rate of a reaction on rise in temperature is due to.	A. The lowering of activation energy B. The decreases in mean free path C. The increase in collision frequency D. The increase in the number of molecules having more than the threshold energy
2	A catalyst increases the rate of a reaction because.	A. It provides the necessary energy to the colliding molecules to cross energy barrier B. It decreases the heat of the reaction C. It decreases the order of the reaction D. It provides a different path of lower activation energy.
3	The half life period of any first order reaction.	A. Is half the specific rate constant B. Is independent of the initial concentration C. Is always the same whatever the reaction D. Is directly proportional to the initial concentration of the reactant
4	The hydrolysis of methyl acetate is a reaction of.	A. First order B. Second order C. Third order D. Fourth order
5	For a chemical reaction $A \rightarrow \text{products}$, the rate of the reaction doubles when the concentration of A is increased by 4 times the order of the reaction is.	A. 0 B. 1 C. $1/2$ D. 4
6	The minimum amount of energy that the reacting molecules must possess at the time of collisions in order to produce effective collisions is called.	A. Free energy B. Threshold energy C. Activation energy D. External energy
7	Point out the incorrect statement.	A. Rate law is an experimental fact whereas law of mass action is a theoretical in nature. B. Rate law is always different from the expression of law of mass action C. Rate law is more informativeness than law of mass action D. Order of the reaction is equal to the sum of the exponents of concentration terms in the case law.
8	Which of the following statement about molecularity is not correct.	A. It cannot be fraction B. It can be obtained from balanced equation C. It may be or may not be equal to the order of the reaction D. it can not be more than 3
9	Which of the following is an acceptable value for the molecularity.	A. 0 B. 2 C. 6 D. $3/2$
10	For an elementary reaction $2A + B \rightarrow C + D$ The molecularity of the reaction is.	A. 1 B. 2+ C. 3 D. 4
11	The second order rate constant can have units.	A. $\text{dm}^{-6} \text{mol}^2 \text{s}^{-1}$ B. $\text{dm}^3 \text{mol}^{-1} \text{s}^{-1}$ C. $\text{dm}^3 \text{mol}^{-2} \text{s}^{-1}$ D. $\text{dm}^6 \text{mol}^{-1} \text{s}^{-1}$

12	The rate constant for 3rd order reaction has the dimensions of.	A. $\text{mol}^{-2} \text{s}^{-1}$ B. $\text{l}^2 \text{mol}^{-2} \text{s}^{-1}$ C. $\text{mol l}^{-1} \text{s}^{-1}$ D. $\text{l}^{-1} \text{mol}^{-1} \text{s}^{-1}$
13	The rate constant of a reaction has same units as the rate of the reaction The reaction is of.	A. Second order B. First order C. Three order D. Zero order
14	The dimensions for first order rate constant are.	A. s^{-1} B. s mol^{-1} C. $\text{mol}^{-1} \text{s}^{-1}$ D. s
15	The rate constant of a reaction depends on	A. Concentration of reactants B. Concentration of products C. Temperature D. Time
16	The rate at which a substance reacts depends on its.	A. Molecular mass B. Active mass C. Equivalent mass D. Molar mass
17	Usually the rate of the reactions is expressed as.	A. mol dm^{-3} B. $\text{mol dm}^{-3} \text{s}^{-1}$ C. $\text{mol dm}^{-2} \text{s}^{-1}$ D. $\text{mol}^2 \text{dm}^{-3} \text{s}^{-1}$
18	The change in the concentration of the reactant or product per unit time is called.	A. Order of the reaction B. Molecularity of the reaction C. Rate of reaction D. None of the above
19	Which of the following factors does not effect the rate of the reaction.	A. Pressure B. Temperature C. Concentration D. Catalyst E. All of the above
20	The branch of chemistry which deals with the rate of reaction as well as mechanism is known as	A. Wave mechanism B. Classical thermodynamics C. Chemical kinetics D. Photochemistry
21	A compound with an congruent melting point decomposes on heating into.	A. A liquid of the same composition as the solid B. A new solid phase and a solution with a composition from that of the solid phase C. A new solid phase and a solution with the same composition as that of the solid phase D. A solution of fixed composition
22	The temperature of which the compound melts into a liquid to the same composition as the solid is called the	A. Congruent melting point B. Incongruent melting point C. Peritectic temperatures D. Metastable point
23	The number of degree freedom at the triple point for the water system is.	A. One B. Two C. Three D. Zero
24	The number of degrees of freedom and number of components for a system of containing undissolved salt, in equilibrium with water vapor are.	A. 2, 2 B. 3, 2 C. 1, 1 D. 1, 2
25	For a single -component system, the maximum degree of freedom is	A. 1 B. 2 C. 3 D. Between 3 and 6
26	Sulphur can exist in	A. One phase B. Two phase C. Three phase D. Four phase
27	The maximum degree of freedom for a pure substance under equilibrium conditions is	A. 1 B. 2 C. 3 D. zero
28	In a one -component system the maximum number of phase that can exist in equilibrium is.	A. 1 B. 2 C. 3

29	In a system , when the chemical potential of each component is the same for all phases. the equilibrium is said to be in	A. Metastable equilibrium B. Thermal equilibrium C. Composition equilibrium D. Mechanical equilibrium
30	The phase rule was deduced by	A. Gibbs B. Thomson C. Trouton D. Henry