

## NAT II Physical Science Chemistry

Sr	Questions	Answers Choice
1	Which of the following statement regarding catalyst is not true?	A. A catalyst remains unchanged in composition and quantity at the end of the reaction B. A catalyst can initiate a reaction C. A catalyst does not alter the equilibrium in a reversible reaction D. Catalysts are sometimes very specific in respect of reaction.
2	A zero order reaction is one whose rate is independent of	A. Temperature of the reaction B. The concentration of the reactants C. The concentration of the products D. The material of the vessel in which the reaction is carried out
3	The dimension of rate constant of second order reaction involves	A. Neither time nor concentration B. Only time C. Time and concentration D. Time and square of concentration
4	The rate at which a substance reacts depends on its	A. Atomic weight B. Equivalent weight C. Molecular weight D. Active mass
5	The rate of a reaction that does not involve gases, does not depend upon	A. Pressure B. Temperature C. Concentration D. Catalyst
6	For most of the chemical reactions the rate of reaction	A. Increase as the reaction proceeds B. Decrease as the reaction proceeds C. May increase or decrease during the reaction D. Remains constant as the reaction proceeds
7	The unit rate of a reaction can be increased in general by all the factors except by	A. Using a catalyst B. Increasing temperature C. Increasing the activation energy D. Increasing the conc. of reactants
8	When $\text{KClO}_3$ is heated, it decomposes into $\text{KCl}$ and $\text{O}_2$ . If some $\text{MnO}_2$ is added, the reaction goes much faster because	A. $\text{MnO}_2$ decomposes to give $\text{O}_2$ B. $\text{MnO}_2$ provides heat by reacting C. Better contact is provided by $\text{MnO}_2$ D. $\text{MnO}_2$ acts as a catalyst.
9	The rate of reaction between A and B increases by a factor of 100, and when the concentration with respect to A is increased 10 folds, the order of reaction w.r.t. A is	A. 10 B. 1 C. 4 D. 2
10	A certain current liberates 0.5 g of hydrogen in 2 h. How many grams of copper can be liberated by the same current flowing for the same time in a copper sulphate solution?	A. 12.7 gm B. 15.9 gm C. 31.8 gm D. 63.5 gm
11	A current of 9.65 ampere flowing for 10 minutes deposits 3.0 g of the metal which is monovalent. The atomic mass of the metal is	A. 10 B. 50 C. 30 D. 96.5
12	A solution of sodium sulphate was electrolysed using some inert electrodes. The products at the electrodes are	A. $\text{O}_2$ , $\text{H}_2$ B. $\text{O}_2$ , $\text{Na}$ C. $\text{O}_2$ , $\text{SO}_2$ D. $\text{O}_2$ , $\text{S}_2\text{O}_8^{2-}$
13	A cell constant is generally found by measuring the conductivity of aqueous solution of	A. $\text{BaCl}_2$ B. $\text{KCl}$ C. $\text{NaCl}$ D. $\text{MgCl}_2$

D.  $\text{MgCl}_2$

14

An electrolyte

- A. Forms complex ions in solution
- B. Gives ions only when electricity is passed
- C. Possesses ions even in solid state
- D. Gives ions only when dissolved in water

15

When electricity is passed through molten  $\text{Al}_2\text{O}_3 + \text{Na}_3\text{AlF}_6$  and 13.5 gms of Al are deposited, the number of faraday must be

- A. 0.5
- B. 1.0
- C. 1.5
- D. 2.0