

Equilibria

| Sr | Questions | Answers Choice |
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| 1 | At what temperature , rate of ammonia formation and decomposition is the highest. | A. 200 ^o C B. 300 ^o C C. 400 ^o C D. 500 ^o C |
| 2 | An Inorganic chemistry places one mole of PCl_5 in container A and one mole of each Cl_2 and PCl_3 in container B. Both the containers were sealed and heated to the same temperature to reach the site of equilibrium. Guess about the composition of mixtures in both the containers. | A. Both the containers will have zero concentration of its reactants. B. Both the containers will have the same composition of mixtures C. Container A will have more concentration of PCl_3 than B. D. Container A will have less concentration of PCl_3 than B. |
| 3 | The forward reaction takes place from | A. Right to left B. Left to right C. Both a and b D. None of these |
| 4 | CaO or lime is used extensively in steel, glass and paper industries. It is produced in an exothermic reversible reaction by the decomposition of lime. Choose the conditions to produce maximum amount of lime. | A. Heating at high temperature in an open vessel B. Heating at high temperature in a closed vessel C. Cooling it in a closed vessel D. Cooling it in an open vessel |
| 5 | In chemical reaction, the substances that combine are called. | A. Masses B. Materials C. Products D. Reactants |
| 6 | The new substance formed in a chemical reaction is. | A. Reverse B. Reactant C. Forward D. Product |
| 7 | A complete reaction is in which | A. Only 10% reactants convert into products B. All the reactants convert into products C. All the reactants do not convert into products D. Half reactants convert into products |
| 8 | Why the gas starts coming out when you open a can of fizzy drink. | A. Because the solubility of the gas increases B. Because the gas is dissolved under pressure hence it comes out when pressure is decreased C. Because the gas is insoluble in water D. Because the solubility of the gas decreases at high pressure. |
| 9 | How much heat is absorbed when NH_3 decomposes into N_2 and H_2 ? | A. 90.4 kJ/mol B. 92.4 kJ/mol C. 94.2 kJ/mol D. 95.2 kJ/mol |
| 10 | The colour of hydrated cobalt(II) chloride solid is | A. White B. Black C. Blue D. Pink |
| 11 | Which of the following does not happen, when a system is at equilibrium state. | A. Reaction continues to occur in both the directions B. Concentration of reactants and products stop changing C. Forward and reverse reactions stop D. Forward and reverse rates become equal |
| 12 | In the beginning the rate of reverse reaction is. | A. Slow B. very fast |

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| | | C. Moderate D. Negligible |
| 13 | When the rate of the forward reaction takes place at the rate of reverse reaction the composition of the reaction mixture remains constant. It is called. | A. Chemical Equilibrium B. Static equilibrium C. Both a and b D. None of the above |
| 14 | Such reaction which continue in both directions are called. | A. Dynamic B. Irreversible C. Reversible D. Non-reactive |
| 15 | What will happen to the concentrations of the product if a reversible reaction at equilibrium is not disturbed. | A. They will keep on increasing B. They will keep on decreasing C. They will remain constant D. They will remain constant for some time and then start decreasing |
| 16 | In an irreversible reaction equilibrium is. | A. The forward reaction will be favoured B. No effect on forward or backward reaction C. No effect on backward reaction D. The backward reaction will be favoured |
| 17 | The colour of hydrated copper (II) sulphate solid is. | A. Black B. Pink C. White D. Blue |
| 18 | In an irreversible reaction equilibrium | A. Never established B. Established quickly C. Established slowly D. Established when reaction stops |
| 19 | Formation of ammonia from Nitrogen and hydrogen is an. | A. Exothermic reaction B. Endothermic reaction C. Both a and b D. No heat change |
| 20 | What condition should be met for the reversible reaction to achieve the state of equilibrium. | A. The concentration of all the reactants and the product should become constant B. all the reactants should be converted into the product C. 50% of the reactant should be converted into products. D. One of the products should be removed from the reaction mixture. |