Chemistry (New Book) - 9th Class Chemistry English Medium Chapter 6 Preparation

Q1. Define dynamic equilibrium.

Ans 1: When the rate of the forward reactin becomes exactly equlas ot the rate of reverse reaction, then this state of the reaction is called dynamic equilirbrium.

Q2. Write down the conditions for equilibrium.

Ans 1: The following physicla cidnitions for eqilibrium is.
1. The concentration of reactant on product remains unchanged.
ii. The temperature fo the system remains constant.
iii. The pressure or volume of the system remains constant.
iv. Reaction must happen in closed system.

Q3. What is a menat by reversible reaction.

Ans 1: Can proceed in forward as well as in backward directions are called reversibel reactions.

Q4. What is meant by irreversibel reaction.

Ans 1: The reactions which cannot reversed are called irreversibel reaction e.g. $C + O2$ ----------$CO2$

Q5. How is dynamic equilirbium different from the static equilirbrium?

Ans 1: Dynamic Equilibrium:
When reactin does not stop, only the rate of forward and reverse reactions become equal to each but takes place in opposite direction. This is called dynamic equilibrium

Static Equilibrium:
When reaction ceases to proceed it is called static equilibrium This happen mostly in physical phenomenon for example building remains standing rather than falling down becasue all the forces acting on it are balanced. This is an example of static equilibrium.

Q6. Define equilibrium mixture.

Ans 1: The concentration of reactants and products are called eqiulibrium concentratio and the mixture is called equilibrium mixture.

Q7. Questions

Ans 1: Ans:

Q8. What is anhydrous susbtance.

Ans 1: Substance containing no water molecules, like CuSO4

Q9. What will happen if we add Cl4 gas to the equilibrium mixture.

Ans 1: Equilirbium will be disturbed and Reaction will move backward direction.

Q10. How can you decrease the time to attain the position of equilibrium in a reversible reaction?

Ans 1: Adding the catalyst can decrease the time to attain the position of equilibrium in a reversibel reaction. Adding a catalyst provides an alternative pathway for the reaction with a lower activation energy, which speeds up both the toward and reverse reaction without being consumed in the process.