

Chemistry (New Book) - 9th Class Chemistry English Medium Chapter 4 Preparation

Q1. Define chemical bond.

Ans 1: A chemical bond is defined as a force of attraction between atoms that holds them together in a molecule.

Q2. What is meant by Covalent bond?

Ans 1: This type of bond, which is formed due to mutual sharing of electron.

Q3. What is meant by bonding electron?

Ans 1: The valence electrons, which are involved in chemical bonding, are termed as bonding electrons.

Q4. Why ice floats on the surface of water?

Ans 1: Floating of ice on water is because of hydrogen bonding. The density of ice at 0°C is less than that of liquid water at 0°C

Q5. Why a covalent bond becomes polar?

Ans 1: When there is a difference of electronegativity between two covalently bonded atoms there will be unequal attraction for the bond pair of electrons between such atoms. It will result in the formation of polar covalent bond.

Q6. Why big size covalent molecules have high melting and boiling points.

Ans 1: Bigger molecules with three dimensional bonding form covalent crystals which are very stable and have high melting and boiling points.

Q7. Metals are good conductor of electricity. Why?

Ans 1: Metals are good conductors of electricity because metals have free electrons which are mobile in nature. Spaces are present among the atoms. Mobile electrons can move freely in these spaces. Hence, movement/flow of electrons is known as electricity that's why metals are good conductor of electricity.

Q8. What is relationship between electronegativity and polarity?

Ans 1: Electronegativity values of the atoms play a very important role in polarity of compounds. These two terms have direct relationship with one another, because of electronegativity difference is high then more polar bond will be and vice versa.

Q9. Write two difference between ionic and covalent compounds?

Ans 1: Ionic bond.
It has high polarity
its melting point was high

Ans 2: Covalent bond.
It has low polarity
its melting point was low.

Q10. Why the electrons move freely in metals?

Ans 1: This is because the valence shell electrons loosely held by nucleus of an atom. there is the weak force of attraction present between nucleus and the mobile valence electrons. Therefore valence electrons move freely in metals.
