

QUESTION # 2

PART # 6

What is Black Hole and how is it formed?

BLACK HOLE

'Black hole is a dark heavenly body where gravitational pull is so strong that light can not pass it and get captured by its gravitational force.'

Black hole is dense body whose presence was predicted by Theory of Relativity, but it was discovered in 1971 and later proved by event horizon telescope (EHT). Its name was coined by John Wheeler in 1967, much earlier than its discovery.

Formation of Black Hole

The method of creation of primordial black holes is unknown. But,

black hole. In today's universe, are generally formed by the collapse of a star under its own gravitational pull to a singularity.

As a star gets old, it burned its fuel to keep going. But, by the age, fuel of star ran out and there comes a point where star does not have enough fuel left. So, the star collapsed under its own gravity through an explosion called super nova. If the size of star is above critical threshold, it collapses to singularity and becomes a black hole.

When a star collapses under its own gravity, it can form a black hole. Black hole is dense body and it does not even allow light to pass by it. Its evidence was found when light suddenly changed its way and disappeared into this darker body.

PART # d

Distinguish Ionic and Covalent Bond with Example.

Defining Ionic Bond :-

'Ionic bond is a chemical bond that is formed by the complete transfer of an electron from one element to another element.

NaCl , MgCl_2 and CaCl_2 are its commonly known examples

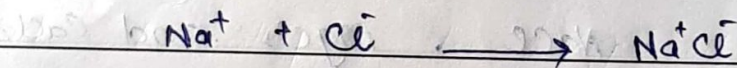
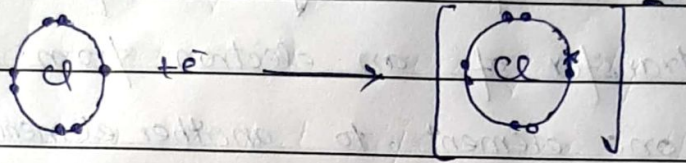
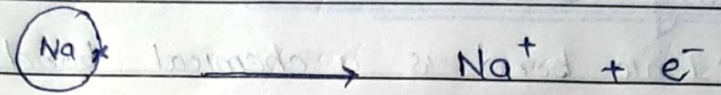
Defining Covalent Bond :-

'Covalent bond is a chemical bond that is formed by the sharing of electrons among elements to form a molecule.

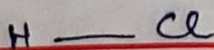
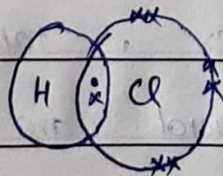
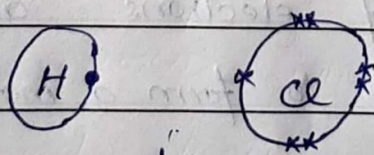
water, table sugar and hydrochloric acid are commonly known examples of covalent bond

How NaCl can be distinguished from HCl?

NaCl (an ionic compound) is formed by the complete transfer of electron from sodium to chlorine.



While HCl is formed by the electron sharing among the hydrogen and chlorine.



NaCl is an ionic compound that is formed by the complete transfer of electron from sodium to chlorine, while HCl is a covalent compound that is formed by the mutual sharing of electrons among hydrogen and chlorine.
