Q- Why two atoms want Chemical bonding? Explain any three types.

Ans, **Chemical Bonding:-**

Chemical bonding is that bonding which is made with the electronic force of attraction between atoms.

**Reason of Chemical Bonding:-**

The reason of chemical bonding is that the atoms only satisfy to fill their valence shells according to the octet rule, having eight electrons in the outermost shell.

**Types of Chemical Bonding:-**

There are some types of chemical bonding which are given below.

1- **Ionic Bond:-**

The Ionic is derived

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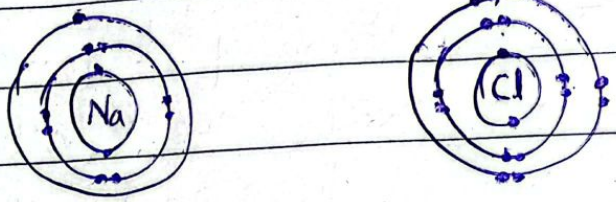
from the word "ion" which means "any charged specie". Ionic bond is that bond which is formed by sharing of one electron from one atom to another completely.

For example, Sodium and Chloride make ionic bond with each other.




Sodium has 11 electrons and chloride has 17 electrons usually, but here chloride has 16 electrons. Now, chloride, in order to, to stabilize itself wants chemical bonding. Sodium is ready to give its one electron to ~~that~~ chloride because Sodium will be stable after sharing it to chloride. So,

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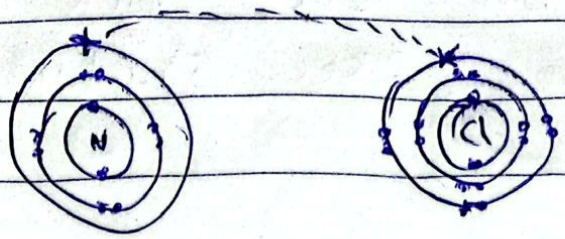
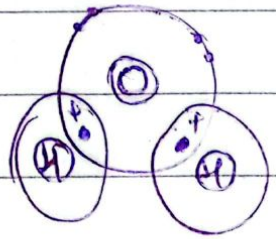
Sodium will share its electron to chloride and chloride is now stable as it is shown below.




## 2. Covelant Bond

Covelant bond is that kind of bond which is formed by the mutual sharing of electrons in atoms. Just as water molecule, Hydrogen and oxygen form covelant bonds in order to fulfil the octet rule.




So, they make covedant bond together to fulfill ther valence shells.

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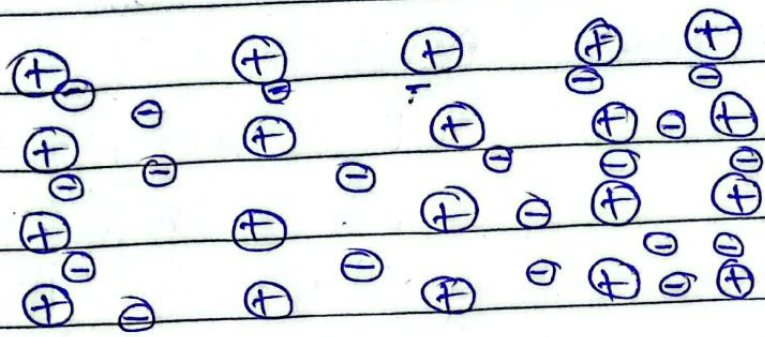
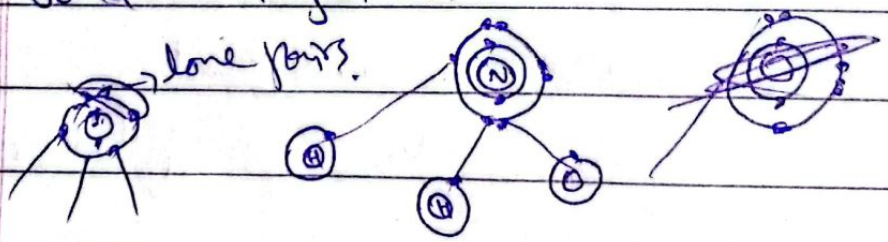
## 3. Metallic Bond:-

Metallic bond is that bond which is formed between positively charged electrons and free electrons. The ions and and electrons both form a ~~net~~ lattice like structure.



## (4) Coordinate Covelant Bond

This kind of bond is made by sharing lone pairs of electrons with other atoms. Just like ~~in~~ in amonia, hydrogen and nitrogen make coordinate covelent bond together.



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Q- What are istopes, isotrones and isobars. Give examples of istopes of Hydrogen.

Ans, Isotopes:-

Istopes are those atoms which have same number of protons but different number of neutrones.

Isobars:-

Isobars are those atoms which have same number of protons.

Isotones:-

Isotones are those atoms which have equal number of ~~protons~~ neutrons.

Isotopes of Hydrogen:-

The Isotopes of Hydrogen are

Tritium(A=3), Protium(A=1) and deuterium (A=2)

# What is GIS?

GIS is a computer system which is used to monitor, measuring, directing, mapping, capturing, storing, analyzing and displaying geographicall information provided and identified on the basis of the given data.

## Components:-

The components of GIS are;

## Hardware:-

Hardware is the main part and system of computer which helps in procesing the whole process.

## Software:-

Software is that micro-soft system which helps

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the whole process by different apps and system which directs the hardware to do an action.

**Data:-**

Data which is provided by the source on which basis the whole process is functioned. If there is no data, there will be no function. So, it is the basic element.

**People:-**

The people is the main force behind all system. They help to make the whole function possible by performing different functions at different levels.

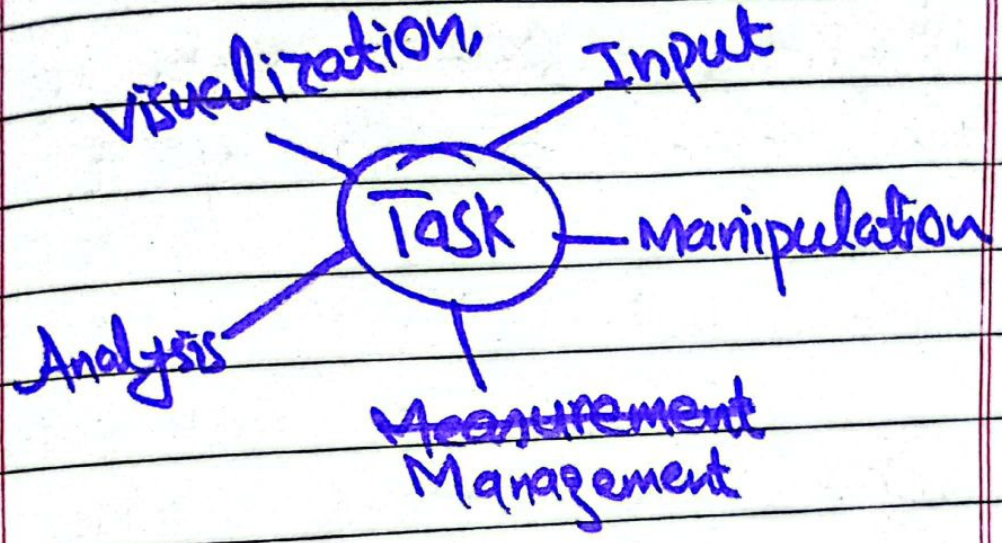
**Procedures:-**

GIS is functioned according to a proper procedure which is well-

defined to reach an organized piece of information.

## Tasks of GIS:-

There are five main tasks that GIS perform, which are




## Types

### Desktop GIS:-

Desktop GIS is a Software mapping that needs to be installed into the Computer which ~~for~~ then enables to perform certain functions. It is used to analyse

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Spatial data.

## Geobrowser:.

It can be understood as an internet explorer for geographic information. It is used to combine geographical information from various locations. Google earth is the main example of it.

## Web-based GIS:.

It is the most accurate system to define data and analyzing it. It is the online webbased system which is excellent data analysis tool system.

## Applications of GIS

Urban Management | Zoning, land acquisition, law enfo-

economic development, Tax assessment crime analysis.

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Environmental sciences,

Political sciences
1, Redirecting
analysis of election results

Civil Engineering utility
↳ Locating underground facilities,
Alignment for free transit etc

Business
1, Demographic analysis
Site selection,