1. Expand IUPAC
IUPAC - International Union of pure and Applied chemistry

2. Differentiate between Compound and Mixture.

Compound	Mixture
1. A compound is a pure substance.	1. A mixture is an impure substance.
2. It is always homogeneous	2. It may be homogeneous or heterogeneous
3. Formation of a compound involves change in energy.	3. Formation of a mixture does not invole any change in energy
4. Compounds have definite molecular formulae.	4. Mixtures have no definite formulae.
5. Elements of compounds can be separated only by complex chemical processes.	5. Components of mixtures can be separated by simple physical methods.

3. What do you mean by separation? On what factors the principle of separation depends

The process by which constituents of a mixture are set apart form one another to get pure substances is called separation.

The principle of separation depends on the

- type of mixture
- characteristic properties of mixtures such as size, shape, colour, density, melting point, boiling point, volatility

4. Mention any three characteristics of a mixtures.

1. ~~In m~~ Mixtures do not have any specific set of properties
2. Mixtures can be heterogeneous or homogeneous.
3. Components of mixtures can be separated by simple physical methods.

5. What are metalloid? Give examples
Metalloids are the elements that show some properties of metals and some properties of non-metals, They are hard solids.
Eg. - Boron, silicon, arsenic

6. Write a short note on Noble gases.

These elements do not react chemically with other elements or compounds, so they are known as noble or inert gases. They are found in air, in traces. They are only six in number - helium, neon, argon, krypton, xenon and radon.