1/7/23

Q1. ~~Define~~
~~Mixture~~ Question / Answers

Q1. Differentiate between Homogeneous and Heterog Heterogeneous mixture with one example of each

(ii) Compounds and mixture (method of seperation)

Q2. Ans

Q2 Classify the following into element, compounds and mixtures
Germanium, Silicon dioxide, Honey, Tapwater Ammonia, Kerosene and water, Sugar solution Mercury, Carbon Dioxide, Helium, milk, Brass,

Answers

Q1. (i) Homogeneous mixture In this type of mixture the components are uniformly distributed throughout its volume and cannot be seen seperately. Eg Eg - Milk, ~~Air~~	Heterogeneous mixture In this type of mixture the components are not uniformly distributed throughout its volume and can be easily seen seperately. Eg - Sand and stone,

(ii)

Compound	Mixture
Compounds can be seperated only by chemical processes	Mixtures can be seperated by simple physical methods of seperation

(2)

Elements	Compounds	Mixtures
Germanium	Silicon dioxide	Brass, Milk
Mercury	Carbon dioxide	Honey
Helium	Ammonia	Tap water
		Milk
		Tapwater and kerosene
		Sugar solution

Q3. Why is it necessary to seperate the components of a mixture.

ans It is necessary to seperate components of mixture as to :-

-> remove unwanted and harmful substances.

-> To obtain pure and useful substance

Method of Seperation

Types of mixture	Methods	Principal of Seperation	And Excample
1. Solid - Solid mixtures	① Mechanical removal / hand picking	This method is used when the quantity of mixture is small and the substance to be seperated is in less amount in the mixture	mixture of stones and rice
	② Magnetic seperation	It is used when one of the components is magnetic in nature.	Mixture of iron and sulphur
	③ Gravitational method	This method is used when one of the component is much heavier than water and the other component is much lighter than water	sand + saw dust.
	④ Sublimation	This method is used when one component can sublime on heating	mixture of iodine and sand

Type of mixture	Method	Principle of separation	Example
⑤	Solvent Extraction method	This method is used when one or of the component of mixture is soluble in a particular liquid.	mixture of sodium chloride and calcium carbonate.
⑥	Fractional crystallisation	This method is used when the solubility of solid component of a mixture is different in the same solvent.	mixture of common salt and potassium nitrat.