Chapter-5
Pure Substances & Mixtures; Separation of Mixtures

Exercise-1

(1-) Select homogeneous and heterogeneous mixtures from the following:
Salt solution, petrol and water, sand and charcoal, alcohol and water, air dissolved in water, air, sea water, fruit juices, mist, brass

Ans: Homogeneous mixtures
Salt solution
Alcohol and water
air dissolved in water,
sea water, brass.

Heterogeneous mixtures
Sand and charcoal
air
fruit juice
mist
petrol and water

(2-) Define the following with an example for each
(a) Pure substance: Pure substance is either element or compound. It contains the same kind of atom or molecules and has a definite set of physical and chemical properties.
Example of pure substance is water.
(b) Impure substance: A substance in which some other substances are also present in smaller or larger amounts is called an impure substance. Mixtures are

impure substance.
Example of impure substance is air

(c) Alloy : A homogenous solid mixture of two or more metals or a non-metal is called an alloy.
Example of alloy is phosphor

(d) Solution : The homogeneous mixture of water (or any other solvent) and a substance soluble in it is called a solution.
Example of solution is salt water mixture

(e) Heterogeneous mixture : A mixture in which the components are not uniformally distributed through its volume and can be easily seen separately is called heterogeneous mixture.
Example of heterogeneous mixture is mist

(f) Homogeneous mixture : A mixture in which the components are uniformally distributed throughout its volume and cannot be seen separately is called a homogeneous

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mixture.