

## Exercise II

- a) Filtration: The process of separating solid particles from liquid by allowing it to pass through a filter paper.
- b) Sublimation: The process in which a solid changes directly into its vapour state either by ~~exposing it to~~ on heating.
- c) Evaporation: Process of converting a liquid into its vapour state either by exposing it to air / by heating.
- d) Crystallisation: Evaporation of liquid from a homogeneous liquid-solid mixture and collecting solid in the form of crystals ~~is called~~.
- e) Miscible liquids: Homogeneous liquid-liquid mixtures are called miscible liquids.
- f) Immiscible liquids: Heterogeneous liquid-liquid mixtures are called immiscible liquids.

20) We need pure substances because of the following reasons: A pure substance has a fixed melting & fixed boiling point. A pure substance has its characteristic taste, colour & odour. Pure substances can't be broken further into more simple substances by any physical means.

21) a) Iron & Sulphur.

b) Sand & water, rice & water

c) Sugar from its solution in water

22) a) Filtration - Gypsum & sugar on dissolving in water & filtering, gypsum separates out as residue on the filter paper. Filtrate of sugar solution is heated to remove water by evaporation, sugar is collected as crystals.

b) Magnetic Separation: With the help of a magnet, iron filings can be separated leaving behind chalk powder.

c) Winnowing: It separates chaff (lighter) from heavier grains in 2 different heaps.

d) Evaporation: This method is used to separate the components of a homogeneous solid-liquid mixture, like salt from seawater.

2. water is collected in shallow beds and allowed to evaporate in the sun. When all the water is evaporated, salt is left behind.  
Sublimation - Camphor sublimates on heating leaving behind sand.

Evaporation - Wheat and Sugar are put in water in a beaker. Sugar dissolves in water. It is filtered through strainer & separated & dried. Sugar is obtained by evaporating sugar solution.

50) Camphor & Naphthalene

i) Sugar & Salt

ii) Sand and chalk powder

iii) Filter paper, i) a bed of sand, iii) charcoal

iv) A piece of muslin cloth

51) Because in hand picking method substances should be large enough in size to be recognized & picked out by hand but sand and saw dust particles are very small in size so they can't be picked by hand. It can be separated by filtration.

52) Mixtures of iron & sulphur can be separated by moving a magnet over them. Iron gets attached to the magnet & is separated.

# Objective Type

- constituents / components
- evaporation / crystallisation
- heterogeneous (liquid in gas)
- loading & decantation
- decantation
- Crystallisation
- sublimation
- filtrate, residue
- decantation
- filtration

- 1) True
- 2) false
- 3) false
- 4) false
- 5) false
- 6) true
- 7) false

MCQ

- 1) loading
- 2) evaporation
- 3) a heterogeneous mixture that looks uniform
- 4) tap water
- 5) boiling
- 6) alloy, ink, honey, ice cream
- 7) steel
- 8) distilled water