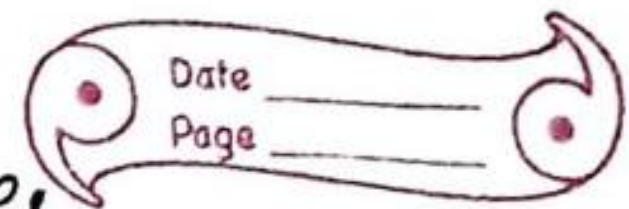


Chemistry
Worksheet

Chapter - Elements, compounds and mixtures

Dt - 25/09/2021

Very short questions



Q1. What is the main purpose for the separation of a mixture?

Ans. The main purpose for the separation of a mixture is after separation we can get the pure substance back that can be useful for many purposes.

Q2. Define Hand picking?

Ans. Hand Picking is a separation technique used to remove unwanted impurities ^{by} from hand-exs stones from rice.

Q3. Define Winnowing?

Ans. Winnowing is a process of separating light solid from heavy solids by the help of air ex. Rice, husk.

Q4. Define Magnetic Separation:

Ans. The Process in which ~~the~~ one component of mixture is magnetic in nature gets attracted towards the a magnet ex. Mixture of Iron Sulphur.

Q5. Define Sublimation?

Ans. The Process in which a solid changes directly into vapours on heating is called Sublimation.
ex. Mixture of common salt and ammonium chloride.

Give one word for the following

- (6) The solid particle that remains on the filter paper after filtration Residue
- (7) The liquid which evaporates and then condenses during the process of distillation distillate
- (8) The process of transferring the clean liquid after the solid settles at the bottom of the container decantation
- (9) The process by which two miscible liquids are separated Distillation

MCQ (1x5=5)

(1) A pure liquid from a solution by

- (a) Evaporation
- ☒ (b) Distillation
- (c) Filtration
- (d) Crystallisation

Ans. Distillation

(2) Component of crude petroleum can be separated by

- (a) Distillation
- (b) Evaporation
- (c) Filtration
- ☒ (d) Fractional distillation

Ans. Fractional distillation

(3) Examples of a homogenous mixture is

- (a) Tap water
- (b) Distilled water
- (c) Sand and water
- (d) Water and oil

(Ans) Tap water

(4) In chromatography the filter paper is

- (a) Stationary Phase
- (b) Mobile Phase
- (c) Mixture
- (d) None of the above

(Ans) stationary Phase

(5) A Set of Mixture is

- (a) Ink, honey, Ice cream, Milk
- (b) Tap water, gold, common salt, alloy
- (c) Milk, brass, silver, honey
- (d) Butter, Petroleum, tapwater, iron

(Ans) Ink, honey, Ice cream, Milk

Short Question

(1) What do you understand by

(i) Metalloids

Ans. Metalloids ~~show~~ are elements which show the properties of both metals and non metals.
Ex. Germanium, antimony etc...

(ii) ~~non metals~~ Noble Gas

Ans. These elements do not react chemically with each other elements or compounds; so they are known as noble gas. Ex. helium, neon etc.

(2) Name the main metal present in

(a) Haemoglobin : Iron

(b) Chalk : Calcium

(3) Mention any two characteristics of Compound?

The two characteristics of compound are

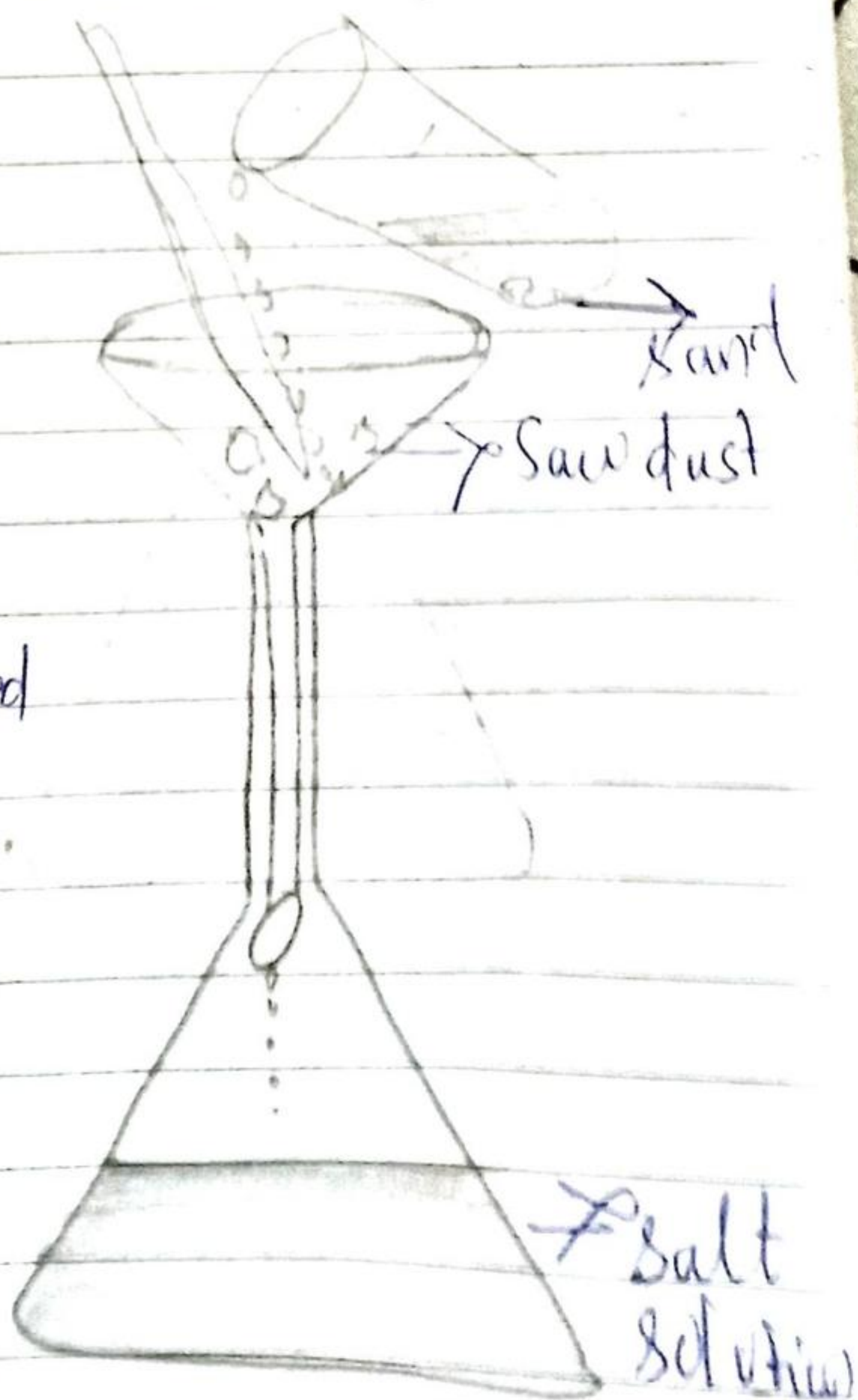
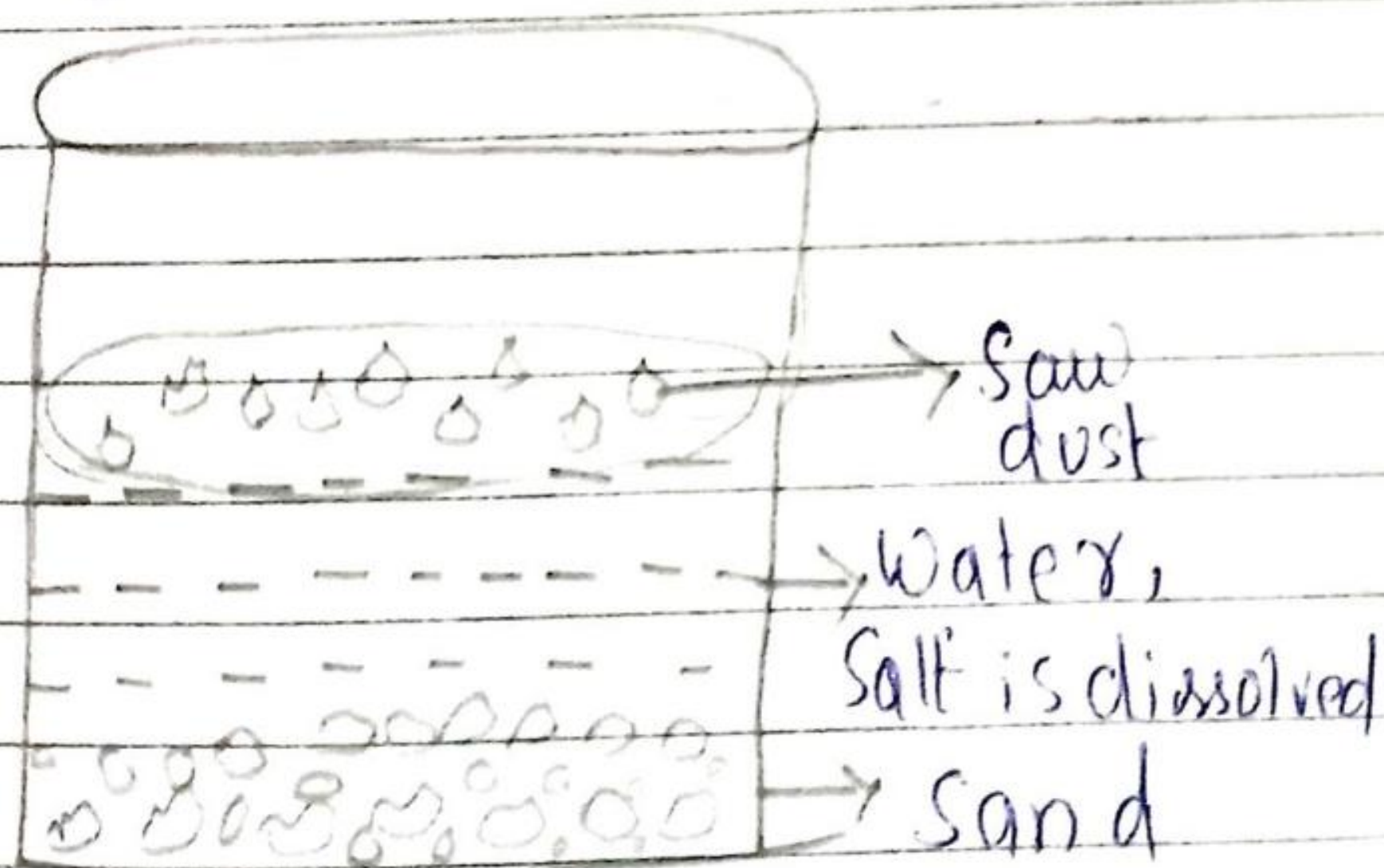
→ Constituent atoms combine chemically
→ constituent can be separated by chemical method

→ It involve significant energy.

Long Questions

(4) Explain with a diagram how can you separate a mixture of Sand, Saw-dust and Salt

Take the mixture into glass beaker and water is added to it. The beaker ~~and water~~ is then allowed to stand undisturbed for sometime. Salt dissolves in water, forming a salt solution because it is soluble in water. Sawdust being lighter floats on the surface of water while sand being heavier settles down. Now salt solution along with sawdust is decanted slowly on the filter paper fixed in a funnel such that sand is left in the beaker as sediment. Salt solution pass through the filter paper while sawdust remains on it. The salt solution is evaporated to get salt from the water.



5) What is crystallisation? Explain by giving an example. Mention how is it better technique as compared to Evaporation

Crystallisation is a process used for the Purification of solid substance. It is the Process of formation of solid crystals of a substance precipitating from a homogeneous solution. Ex- Pure sugar is obtained from its solution in water by process of crystallisation. At first the sugar is heated to evaporate water at a faster speed. When very less of water is left, the solution is cooled, the sugar dissolved in it starts separating out in the form of crystals.

Crystallisation technique is better than Evaporation because :-

- In Evaporation, we allow the solution to heat to make the solvent evaporate but this may degrade the solute into some another compound.
- Extent of Purification in case of crystallisation technique is very high.