Dt -
30/8/21

Date
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WORKSHEET

1) What is the main purpose for the separation of mixture?

Ans: The main purpose for the separation of mixtures are:

i) To remove harmful and undesirable substances.

ii) To get completely pure substances for preparing other harmful substances.

2) Define handpicking.

Ans: Handpicking method of separation can be used when the quantity of a mixture is small and the substance to be separated forms a small portion of the mixture.

3) Define winnowing.

Ans: The process of separation of light solid particles from heavier ones with the help of wind is called winnowing.

4) Define Magnetic separation.

Ans: Magnetic separation is the process that is used when one of the components of the mixture is magnetic in nature.

5) Define sublimation.

Ans: The process in which solid directly changes into gaseous state is called sublimation.

Give one word for the following

6) The solid particles that remains on the filter Paper after the 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. Fractional Distillation

MCQs

1) A pure liquid is obtained from a solution by:
a) Evaporation b) Distillation
c) Filtration d) Crystallization

2) Components of crude petroleum can be separated by:
a) Distillation b) Evaporation
c) Filtration d) Fractional Distillation

3) Examples of a homogeneous mixture is:
a) Tap water b) Distilled water
c) Sand and water d) Water and oil

4) In chromatography the filter Paper is:
a) Stationary Phase b) Mobile Phase
c) Mixture d) None of the above

5) A set of mixtures is:
a) Ink, honey, ice cream milk b) Tap water, common salt, gold, air
c) Butter, petroleum, tap water, iron d) Milk, brass, silver, honey

Short Questions

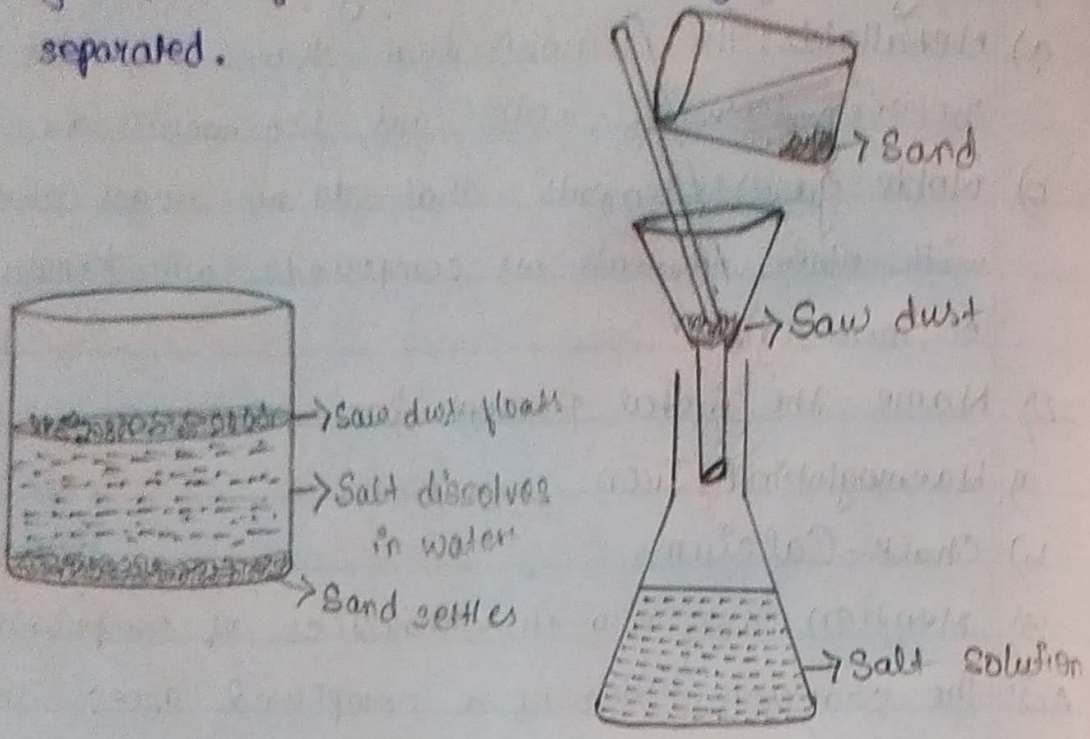
1) Why do you understand by?
a) Metalloids: The elements that have properties intermediate between those of metals and non-metals are metalloids.
b) Noble gases: Elements that do not react chemically with other elements or compounds are known as noble or inert gases

2) Name the metal present in
a) Haemoglobin - Iron
b) Chalk - Calcium

3) Mention any two characteristics of compound.
Ans: The characteristics of a compound are:
i) They have a fixed melting point, boiling point, etc.
ii) The constituents can be separated only by chemical processes

4) Explain with diagram how can on separate a mixture of Sand, Saw-dust and Salt.
Ans: The mixture is taken in a beaker and water is added to it. The beaker is then allowed to sand undisturbed. Salt dissolves in water 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 on the filter Paper such that sand is left in the beaker as sediment.

Salt Solution Passes through the filter paper while sawdust remains on it. The salt solution is evaporated to get salt from water. This way, all the components get separated.



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

Ans: Crystallisation is a separation and purification method, which involves the precipitating of solid crystals from its saturated solution on cooling.

Example: Pure sugar is obtained from its solution in water by the process of crystallisation.

Crystallization is a better method than evaporation, because on evaporation, some solid particles in mixture get decomposed leaving behind impurities. Whereas, in crystallisation, pure crystals of solids are obtained.