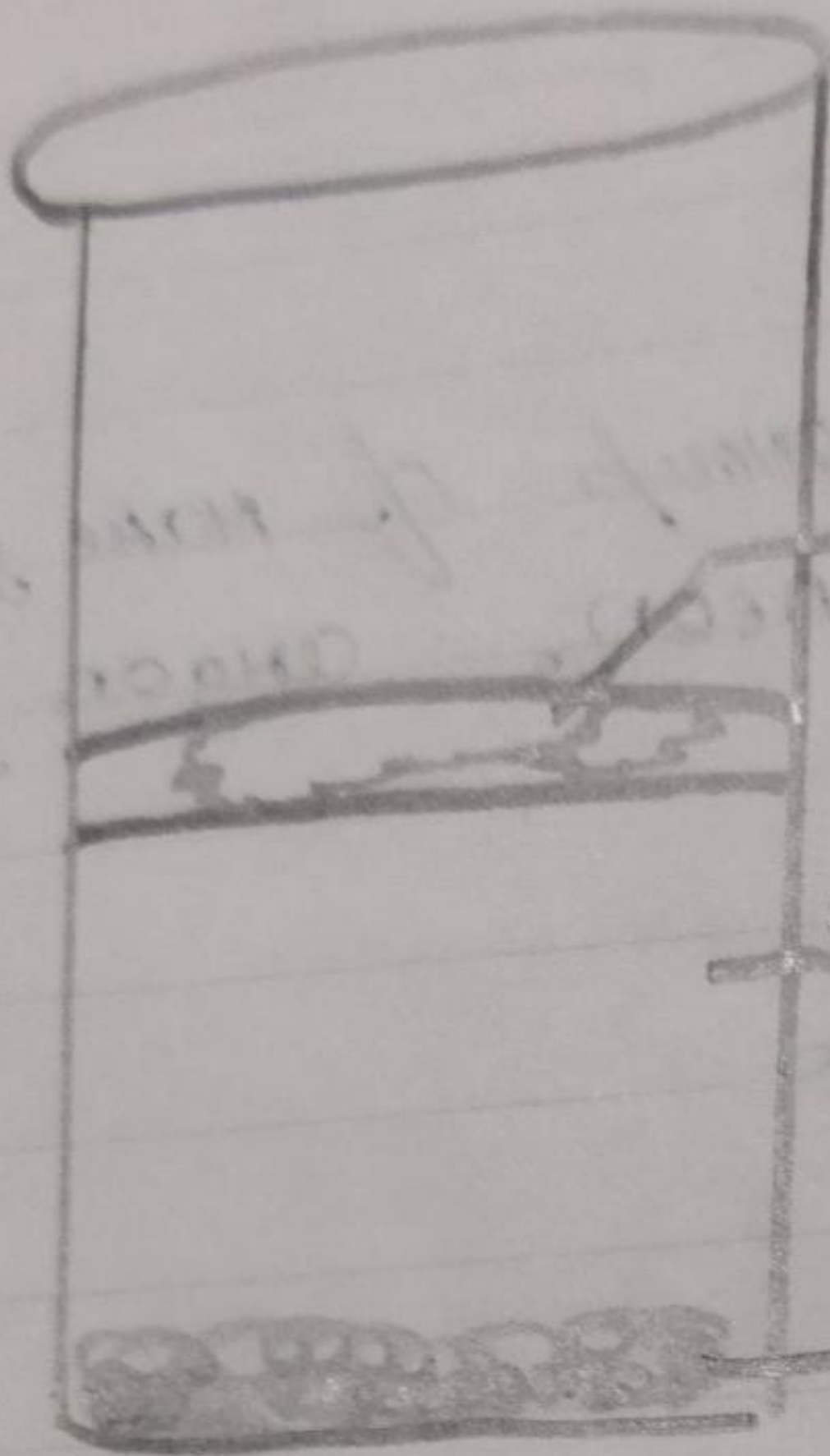


Some impurities may remain dissolved in the solution even after filtration on evaporation contaminates the solid.

Example - Chemical formula for hydrated copper is $\text{CuSO}_4 \cdot x\text{H}_2\text{O}$.

Diagram

(4)



Saw dust floats

Water

Sand settles down

Long questions

44 Explain with diagram how can one separate a mixture of sand, saw-dust and salt.

Ans: sand, saw-dust and salt can be separated by adding water to the mixture & stir & stir the mixture well with water and allow it to stand some time sand settles down of the beaker, saw dust floats on water and salt dissolve in water.

50 What is crystallization? Explain by giving an example & mention how it is a better technique as compared to evaporation.

Ans: Crystallization is a process that separate a pure ~~solid~~ solid in the form of its crystals from a solution. Crystallization is better than evaporation because during evaporation some solids decompose etc some like sugar get charred on hitting dryness.

Example - Silicon

Q. Noble gases - any of a group of nine gases that include helium, neon, argon, krypton or xenon

Q. Name the main metal present

a. Haemoglobin

b. Chalk

Answers

a. The main metal is present in Haemoglobin is iron

b. Main element present in chalk is calcium

Q. Mention any two characteristics of compound.

Ans. It is a pure substance

• It is always a homogeneous

46 In chromatography the filter paper is :

a) stationary phase (✓)

b) mobile phase

c) mixture

d) none of the above

50 A set of mixtures is

a) Ink, honey, ice-cream, milk (✓)

b) Tap water, gold, common salt, alloy

c) milk, brass, silver, honey

d) Butter, petroleum, tap water, iron

Short questions

14 What do you understand by

a) metalloids

b) noble gases

Answers

a) Metalloids are elements which show some properties of metals and some properties of non-metals.

90 The process by which two miscible liquids are separated.

Answer: Fractional distillation.

Multiple choice questions

10 A pure liquid is obtained from a solution by

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

20 Components of crude petroleum can be separated by

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

30 Examples of homogeneous mixtures

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

Air fresheners used in our day to day life is an example of sublimation where solid compound changes directly into gas.

Give one word answers

60 The solid particles that remain on the filter paper after the filtration.

Ans: Solid particles that remain in the filter paper form the residue, while the solution that passes through the filter paper is known as filtrate.

70 The liquid which evaporates and then condenses during the process of distillation.

Ans: The liquid which evaporates and then condenses during the process of distillation is called distillate.

80 The process of transferring the clear liquid after solid settles at the bottom of the container.

Ans: Decantation.

Husk is lighter than grains, so it gets removed by the force of air from the grains.

Example - Dirt particles can be removed from grains by winnowing.

40 Define magnetic separation

Ans Magnetic separation is which separating components of mixtures by using magnet to attract magnetically susceptible materials. This separation technique can be useful in iron as it is attracted to a magnet.

Example - Removing iron bearing minerals from silica sand used in the production of glass.

50 Define sublimation.

Ans Sublimation is the process in which a solid changes directly into gas without changing any liquid. Example - Ammonium chloride, Iodine and both changed from solid to gas directly when heated.

Worksheet
Elements, compound and mixture

Ch. 8

very short questions

16. What is the main purpose for the separation of mixture?

17.

18. Define handpicking.

19. The process used to separate slightly larger particles from a mixture by hand is called handpicking.

20. Examples - Stone pieces can be separated from wheat or rice by handpicking.

21. Define winnowing.

22. Winnowing a separation of heavier substance from lighter substance of a mixture using current of air or by blowing air.

23. Winnowing is ~~used~~ ~~used~~ technique used since ancient times to separate grains from chaff. Farmers used to separate chaff from heavy grains.