

**Class: VII**  
**Subject: Chemistry**  
**Topic: Separation of Substances**  
**No. of Questions: 22**

1. Name the process that is being done in the given picture.



2. How do we get common salt from sea water?
3. Which type of impurities can be separated by using the method of handpicking?
4. (a) Is it possible to separate a mixture of salt and sugar using water as the solvent?  
(b) How will you separate a mixture of iron fillings, chalk powder and common salt?
5. What will be the effect of temperature on solubility of gases in water? State its Consequences.

6. Where is winnowing process used?
7. The flow diagram shows how people extracted pure, dry salt from rock salt.

Crushing → Dissolving → Filtration → \_\_\_\_\_

Give a word that completes the flow diagram.

8. How will you separate a mixture of chalk powder and common salt?
9. Which type of process is being done in the given picture?



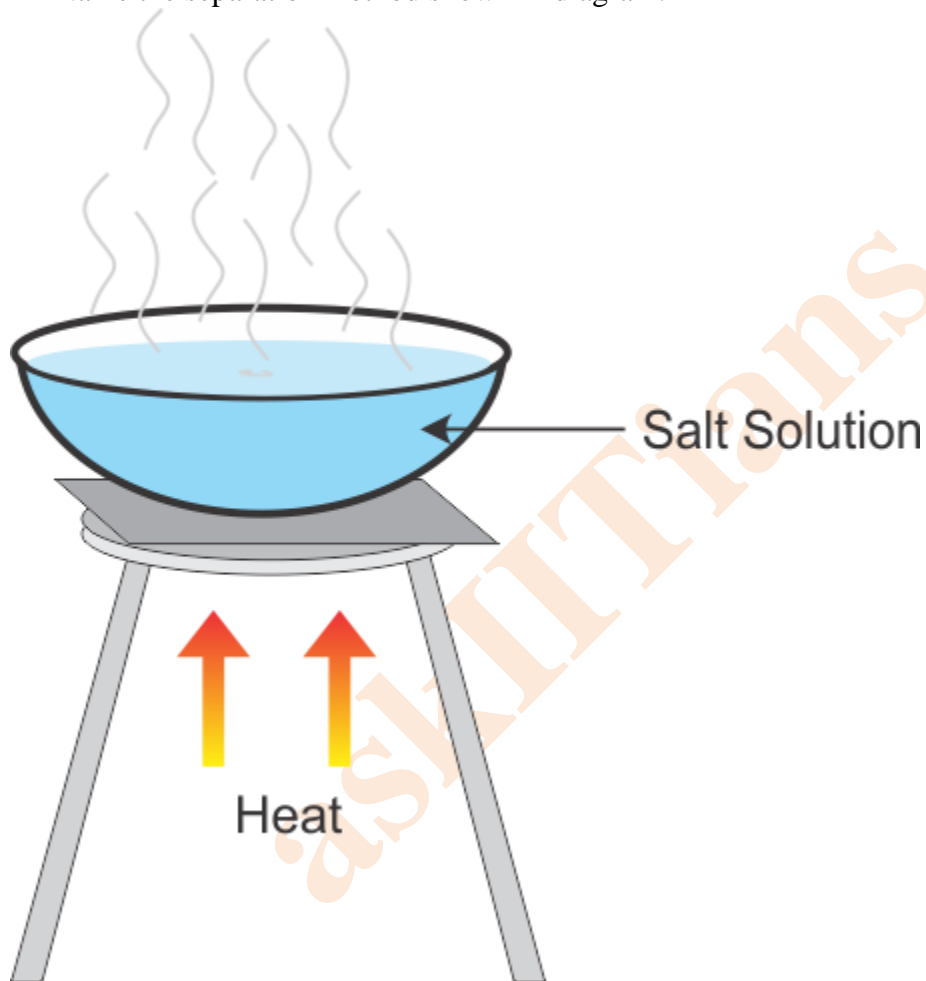
10. Which process is used to separate husk from heavier seeds of grain?
11. When milk cooled after boiling is poured onto a piece of cloth, the cream is left behind on it. What is this process called?
12. What is sedimentation?
13. Which will be more soluble in water?  
Potassium nitrate - 32 grams (solubility in water)  
Sodium chloride - 36 grams (solubility in water)

14. The following figure shows two processes. Identify and write their names.



15. Why do we need to separate different components of a mixture?
16. Explain how lighter husk particles are separated from heavier seeds of grain using winnowing.
17. (a) Define a saturated solution.
- (b) The solubility of sodium chloride in water is 36 grams at  $20^{\circ}\text{C}$ . What do you mean by this statement? What will happen if 45 grams of sodium chloride is added to water at  $20^{\circ}\text{C}$ ?
- (c) What will happen if the saturated solution of a substance in water is (i) heated, and (ii) cooled?

18. Lemonade is prepared by mixing lemon juice and sugar in water. You wish to add ice to cool it. Should you add ice to the lemonade before or after dissolving sugar? In which case would it be possible to dissolve more sugar?
19. Name the separation method shown in diagram:



- a. Condensation
- b. Sieving
- c. Sedimentation
- d. Evaporation

20. During threshing, the stalks are converted into:
- Seeds
  - Fodder
  - Husk
  - Hay

Ans. (d)

During threshing, stalks are converted into very small pieces called hay.

21. Which of the following will be used for separating sand and water?
- Nylon cloth
  - Butter paper
  - Filter paper
  - None of the above.

Ans. (c)

Filter paper is used for separating sand and water. The pore size of the filter paper is smaller than sand and hence its particles remain on the paper and water passes through the paper.

22. Solubility in water is always calculated for a solute with respect to:
- 50 grams of water
  - 1000 grams of water
  - 100 grams of water
  - 100 grams of solute