



# CHEMISTRY

## BOOKS - ICSE

### ELEMENTS , COMPOUNDS AND MIXTURES

**Check Your Progress Fill In The Blanks**

1. Elements are represented by \_\_\_\_



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2. The symbol of sodium is \_\_\_\_\_



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3. The elements present in common salt are  
\_\_\_\_\_ and \_\_\_\_\_



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4. A \_\_\_\_\_ is a substance made up of two or more elements.



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5. The properties of a compound are different from those of its constituent \_\_\_\_\_



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[Check Your Progress Answer These Questions](#)

1. Name the processes you would use to separate a mixture of calcium carbonate and common salt.



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2. Name the process by which sand is separated from its mixture in water.



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3. Name the process used to separate a mixture of two miscible liquids.



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4. Oil and water can be separated by using a separating funnel. What differences in their properties make this possible?



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**Exercise Tick The Most Appropriate Answer**

1. What is the symbol for Iron → .....

A. I

B. Fe

C. In

D. Na

**Answer:**



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2. Which of the following is a homogeneous mixture?

A. brass

B. muddy water

C. milk

D. chalk powder in water

**Answer:**



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3. What is the settling down of the insoluble heavy solid particles in a solid-liquid mixture called?

- A. decantation
- B. sieving
- C. sedimentation
- D. winnowing

**Answer:**



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4. Which process can be used to obtain common salt from sea water?

- A. evaporation
- B. sublimation
- C. sedimentation
- D. filtration

**Answer:**



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5. Which of the following is used to obtain pure copper sulphate in the form of crystals from its saturated solution?

A. evaporation

B. fractional distillation

C. distillation

D. crystallization

**Answer:**



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6. Which of the following processes works on the basis of the difference in the boiling points of liquids?

A. sedimentation

B. filtration

C. decantation

D. fractional distillation

**Answer:**



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7. Which of the following is used to separate oil from water?

- A. evaporation
- B. filtration
- C. separating funnel
- D. distillation

**Answer:**



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8. Which of the following is used to separate complex mixtures like coloured dyes from ink?

- A. evaporation
- B. chromatography
- C. separating funnel
- D. distillation

**Answer:**



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## Exercise Fill In The Blanks

1. The \_\_\_\_\_ of an element is the abbreviation of its full name.



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2. Natrium is the Latin name of \_\_\_\_\_



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3. A \_\_\_\_\_ is always made up of different elements combined in a fixed ratio by mass.



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4. The number of atoms present in one molecule of an element is called its \_\_\_\_\_



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5. The insoluble solid left behind on the filter paper during filtration is called \_\_\_\_\_



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6. Miscible liquids are separated by the process of \_\_\_\_\_ distillation.



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7. A separating funnel is used to separate two \_\_\_\_\_ liquids.



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## Exercise Write True Or False Correct The False Statements

1. The IUPAC approves the names and symbols of new elements.



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2. A compound is made up of one element.



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3. The properties of a compound are different from those of its constituent elements.



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4. A mixture has a fixed melting or boiling point.



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5. The constituents of a mixture can be separated by simple physical means.



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6. Give the principle of separation in fractional distillation.



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7. Miscible liquids are separated by using a separating funnel.



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## Exercise Match The Columns

### 1. Match the columns

- |  |                            |
|--|----------------------------|
| 1. Separating kerosene from water        | a. fractional distillation |
| 2. Separating alcohol from water         | b. evaporation             |
| 3. Separating chalk powder from water    | c. separating funnel       |
| 4. Separating camphor from common salt   | d. magnetic separation     |
| 5. Separating common salt from sea water | e. filtration              |
|  | f. sublimation             |



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## Exercise Answer The Following In Short

1. What is a compound?



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2. What is an alloy?



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3. Name the methods of separation of the components of solid-solid mixtures.



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4. What is sublimation?



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5. What is loading?



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6. Differentiate between residue and filtrate.



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7. Distillation and fractional distillation



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**Exercise Answer The Following In Detail**

1. State three characteristics of a compound.



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2. Differentiate between elements and compounds



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3. Differentiate between suspension and emulsion with the help of examples.





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4. State the characteristics of mixtures.



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5. Give the principle of separation in fractional distillation.



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**Think And Answer**

1. Air and tap water are mixtures. Explain.



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2. Is Oil in water is a heterogeneous mixture?



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3. Alum increases the rate of sedimentation.

Why?





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