

NCERT Solutions for Class 10 Science CHEMISTRY – Metals and Non-Metals



NTSE | CBSE | State Boards | Class 8th - 10th

#### NCERT ANNEXURE

Given below are subjective type questions and answers for your reference:

- 1. Explain the meaning of malleable & ductile.
- **Ans.** Metals can be hammered into thin sheets. This property is called malleability and the metals are called malleable.

Metals can be drawn into thin wires. This property is called ductility and the metals are called ductile.

2. Samples of four metals A, B, C & D were taken and added to following solutions one by one. The results obtained have been tabulated as follows:

Metal	Iron (II) Sulphate	Copper (II) Sulphate	Zinc Sulphate	Silver Nitrate
A	No reaction	Displacement	-	-
В	Displacement		No reaction	-
С	No reaction	No reaction	No reaction	Displacement
D	No reaction	No reaction	No reaction	No reaction

Use the table above to answer the following questions about metals A, B, C & D:

- (a) Which is the most reactive metal out of A, B, C & D?
- (b) What would you observe when B is added to a solution of copper (II) Sulphate?
- (c) Arrange the metals A, B, C & D in order of decreasing reactivity.
- **Ans.** (a) B is most reactive metal.
  - (b) Since metal B is more reactive than iron as it can displace iron, it will also displace copper from copper sulphate & the blue colour of copper sulphate will change.
  - (c) B > A > C > D
- 3. Ionic compounds have high melting & boiling points.

**Ans.** Ionic compounds have high melting & boiling points because a lot of heat is required to break the strong electrostatic force of attraction between the ions.











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4.	<b>Define</b>	the	terms	•
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- (i) Mineral
- (ii) Ore
- (iii) Gangue
- **Ans.** (i) **Mineral:** The elementary state or the compounds in the form of which the metals occur in nature are called minerals.
  - (ii) Ore: The mineral from which the metal can be extracted conveniently & economically is called an Ore.
  - (iii) Gangue: The earthy, sandy & rocky impurities associated with the mineral are called Gangue.

## 5. What are alloys?

**Ans.** The homogeneous mixtures of metals or, metals with non–metals, made to improve the properties of a metal are called alloys.

For example, stainless steel is an alloy of Iron, Chromium and Nickel.

### NCERT EXEMPLAR

Given below are objective type questions and answers for your reference:

1. Which of the following properties is generally not shown by metals?

(A) Electrical conduction

(B) Sonorous in nature

(C) Dullness

(D) Ductility

Ans. (C)

- 2. Aluminium is used for making cooking utensils. Which of the following properties of aluminium are responsible for the same?
  - (i) Good thermal conductivity
  - (ii) Good electrical conductivity
  - (iii) Ductility
  - (iv) High melting point
  - (A) (i) and (ii)
- (B) (i) and (iii)
- (C) (ii) and (iii)

(D) (i) and (iv)

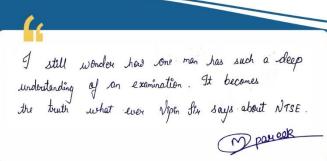
Ans. (D)

- 3. What happens when calcium is treated with water?
  - (i) It does not react with water.
  - (ii) It reacts violently with water.
  - (iii) It reacts less violently with water.
  - (iv) Bubbles of hydrogen gas formed stick to the surface of calcium.
  - (A) (i) and (iv)
- (B) (ii) and (iii)
- (C) (i) and (ii)

(D) (iii) and (iv)

Ans. (D)









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- 4. Which one of the following properties is not generally exhibited by ionic compounds?
  - (A) Solubility in water
  - (B) Electrical conductivity in solid state
  - (C) High melting and boiling points
  - (D) Electrical conductivity in molten state

Ans. (B)

- 5. Metals are refined by using different methods. Which of the following metals are refined by electrolytic refining?
  - (i) Au
  - (ii) Cu
  - (iii) Na
  - (iv) K
  - (A) (i) and (ii)
- (B) (i) and (iii)
- (C) (ii) and (iii)
- (D) (iii) and (iv)

Ans. (A)

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