Class 10



RBSE

PREVIOUS YEAR QUESTIONS



CHAPTER-WISE



Science

All Questions of Last 12 Years of Rajasthan Board

- 🕨 Also available for Hindi Medium
- Based on Rationalized NCERT 2023-24
- Questions from 2013-2024
- For RBSE Examination 2025



921-6765-400













Chemical Reactions and Equations

Chapter-1

1. Write one difference between displacement and double displacement reaction.

[1M]

(RBSE 2013, 2014)

2. Write the balanced equation of combustion of methane.

[1M]

(RBSE 2013)

3. Identify X, Y and Z in the following equations :

[3M]

- i) $Cu + CO_2 \xrightarrow{\text{moisture}} Green compound (X)$
- ii) $Ag + Y \xrightarrow{air} Black compound (Ag_2 S)$
- iii) $FeSO_4 \xrightarrow{heat} Fe_2O_3 + SO_3 + Z$.

(RBSE 2013)

4. What happens when -

[3M]

- i) $CuSO_4(aq) + Fe(s) \longrightarrow ?$
- ii) $Zn(s) + H_2SO_4(l) \longrightarrow ?$
- iii) $Na(s) + O_2(g) \longrightarrow ?$

(RBSE 2013)

- 5. (a) Give one example of redox reaction.
 - (b) Draw the labelled diagram of electrolytic decomposition of water.

[2M]

(RBSE 2014)

6. (a) What is displacement reaction?

(RBSE 2013)

[3M]

(b) Identify *A* in the following reactions :

Give one more example of such type of reaction.

- (i) $Zn + CuSO_4 \longrightarrow A + Cu$
- (ii) $Na_2SO_4 + BaCl_2 \longrightarrow A + 2NaCl$

(RBSE 2014)

(RBSE 2015, 2016, 2023)

7. Write combination reaction and decomposition reaction with one example each.

[2M]

8. In the reaction $CuO + H_2 \longrightarrow Cu + H_2O$ which substance gets oxidised and which gets

reduced?

[3M]

(RBSE 2015)

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9.	What is combination r	eaction? Write o	combination reaction	of quick lime with water.	[2M]
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(RBSE 2015, 2016, 2023)

10. What is redox reaction? In the reaction
$$ZnO + C \longrightarrow Zn + CO$$
 which substance gets oxidised and which gets reduced? [3M

(RBSE 2014, 2016)

[1M]

12.
$$2Mg + O_2 \longrightarrow ?$$
 complete the above reaction.

[1M]

13. (a) What is done to prevent rancidity in foods containing fats?

(b)
$$CuO + H_2 \longrightarrow Cu + H_2O$$

In the above reaction which substance is being oxidized and which is reduced?

[3M]

(RBSE 2017)

- 14. (a) Write formula of bleaching powder. Explain its bleaching process.
 - (b) Draw labelled diagram of chemical reaction of Zn metal with dilute H₂SO₄.

[4M]

(RBSE 2018)

[1M]

(RBSE 2019)

16. In the following chemical equations -

$$C + O_2 \xrightarrow{CO_2 - \dots -} (i)$$

$$2H_2O \xrightarrow{Electric Current} 2H_2 + O_2 - \dots - \dots - (ii)$$

- a) Identify equation (i) and (ii) and write its types.
- b) Write any one difference between equation (i) and (ii).

[2M]

(RBSE 2019)

18. Define endothermic and exothermic reactions. [2M]

(RBSE 2022)

- 19. i) Explain the oxidation reaction with example.
 - ii) Balance the following chemical equation

$$NH_3 + CuO \longrightarrow Cu + N_2 + H_2O$$

[3M] (RBSE 2022)

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- 4
- 20. i) Explain the reduction reaction with example.
 - ii) Balance the following chemical equation.

$$NaOH + H_2SO_4 \longrightarrow Na_2SO_4 + H_2O$$

[3M] (RBSE 2022)

21. $CuO + H_2 \xrightarrow{Heat} Cu + H_2O$

Write the name of reactant reduced in above reaction.

[1M]

(RBSE 2023)

22. Explain the following by giving one example of each -

[3M]

- i) Combination reaction
- ii) Decomposition reaction

(RBSE 2015, 2016, 2023)

23. Fe + $H_2O \longrightarrow Fe_3O_4 + H_2$

Coefficient of Fe in balanced equation of the above reaction will be

[1M]

- (A) 1
- (B)2
- (C) 3
- (D) 4

(RBSE 2024)

24. Name of the nitrogen containing gas obtained by thermal decomposition of lead nitrate is _____.[1M]

(RBSE 2024)

- 25. (i) Write name of the gas obtained on burning of coal.
 - (ii) Copper (II) oxide + Hydrogen \longrightarrow Copper + Water

Write balanced chemical equation for above word-equation.

(iii) Draw the systematic equipment for exhibition of oxidation of copper into copper oxide.

[4M]

(RBSE 2024)

- 26. (i) Define reduction.
 - (ii) Iron + Copper sulphate → Iron sulphate + Copper

Write balanced chemical equation for above word-equation.

(iii) Draw the systematic equipment for exhibition of reaction of iron nails dipped in solution

of

copper sulphate.

[4M] (RBSE 2024)

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