

Class: X Name of Student.....

Assertion and Reason

For question number 1,2,3,4 and 5, two statements are given- one labeled **Assertion (A)** and the other labeled **Reason (R)**. Select the correct answer to these questions from the codes a, b, c and d. as given below. **Darken the circle against the correct option of the following questions with pencil/pen:** **1 X 5**

- a. Both A and R are true, and R is correct explanation of the assertion.
- b. Both A and R are true, but R is not the correct explanation of the assertion.
- c. A is true, but R is false.
- d. A is false, but R is true

1. **Assertion(A):** Quicklime reacts vigorously with water releasing a large amount of heat.

Reason(R): The above chemical reaction is an exothermic reaction

- a. ☐ b. ☐ c. ☐ d. ☐

2. **Assertion(A):** $\text{Fe}_2\text{O}_3 + 2\text{Al} \xrightarrow{\hspace{1cm}} \text{Al}_2\text{O}_3 + 2\text{Fe}$

The above chemical equation is an example of displacement reaction.

Reason(R): Aluminium being more reactive than Iron(Fe), displaces Iron(Fe) from its oxide.

- a. ☐ b. ☐ c. ☐ d. ☐

3. **Assertion(A):** White silver chloride turns grey in sunlight.

Reason (R): Decomposition of silver chloride in presence of sunlight takes place to form silver metal and chlorine gas.

- a. ☐ b. ☐ c. ☐ d. ☐

4. **Assertion(A):** The balancing of chemical equations is based on law of conservation of mass.

Reason (R): Total mass of reactants is equal to total mass of product.

- a. ☐ b. ☐ c. ☐ d. ☐

5. **Assertion(A):** Respiration is an exothermic reaction.

Reason(R): Respiration is a process in which glucose combines with oxygen and decompose to carbon dioxide and water. This reaction also release some energy.

- a. ☐ b. ☐ c. ☐ d. ☐

Multiple choice questions:

Darken the circle against the correct option of the following questions (6 -10) with pencil/pen: **1 X 5**

6. Combustion of methane is an example of-

- a. Exothermic reaction ☐
- b. Endothermic reaction ☐
- c. Combustion ☐
- d. Decomposition reaction. ☐

7. When an iron nail is put in an aqueous solution of Copper Sulphate. The colour of Copper Sulphate changes to

- a. Green to blue ☐
- b. Blue to green ☐
- c. Green to colourless ☐
- d. Blue to colourless ☐

8. The solution of a substance 'X' is used for white wash. Substance 'X' is -

- a. Calcium oxide ☐
- b. Calcium hydroxide ☐
- c. Calcium chloride ☐
- d. Calcium carbonate ☐

9. What type of chemical reactions take place when electricity is passed through water?

- a. Displacement ☐
- b. Combination ☐
- c. Decomposition ☐
- d. Double displacement ☐

10. Give the ratio in which hydrogen and oxygen are present in water (by volume).

- a. 1:2 ☐
- b. 1:1 ☐
- c. 2:1 ☐
- d. 1:8 ☐