Science

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(Class – IX)

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Question 2:

Hydrogen and oxygen combine in the ratio of 1 : 8 by mass to form water. What mass of oxygen gas would be required to react completely with 3g of hydrogen gas?

Answer 2:

It is given that the ratio of hydrogen and oxygen by mass to form water is 1:8. Then, the mass of oxygen gas required to react completely with 1g of hydrogen gas is 8g. Therefore, the mass of oxygen gas required to react completely with 3g of hydrogen gas is $8 \times 3g = 24$ g.

Question 3:

Which postulate of Dalton's atomic theory is the result of the law of conservation of mass?

Answer 3:

The postulate of Dalton's atomic theory which is a result of the law of conservation of mass is "Atoms are indivisible particles, which can neither be created nor destroyed in a chemical reaction".

Question 4:

Which postulate of Dalton's atomic theory can explain the law of definite proportions?

Answer 4:

The postulate of Dalton's atomic theory which can explain the law of definite proportion is "The relative number and kind of atoms in a given compound remains constant".

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