

01 When a solution of substance X is added to a solution of sodium sulphate, then a white solid separates out from the solution.

- (a) What is substance X most likely to be?
- (b) What does a white solid consist of ?
- (c) Which characteristics of chemical is observed by this example ?
- (d) Write a balanced chemical equation for the reaction which takes place. Mention the physical state of all the reactants and products involved in the chemical equation.

Your solution here:

02 Gas P which is the major cause of global warming, combines with hydrogen oxide Q in nature in the presence of an environment factor R and a green material S to form a six carbon organic compound T and a gas U. The gas U is necessary for breathing.

- (a) What is gas P ?
- (b) What is the common name of Q ?
- (c) What do you think could be R ?
- (d) What is material S ? Where is it found?
- (e) Name the organic compound T.
- (f) What is gas U ? Name the natural process during which it is released.

Your solution here:

03 A metal X forms a water soluble salt XNO_3 . When an aqueous solution of XNO_3 is added to common salt solution, then a white precipitate of compound Y is formed alongwith sodium nitrate solution. Metal X is said to be the best conductor of electricity and it does not evolve hydrogen when put in dilute hydrohloric acid.

- What is metal X ?
- What is salt XNO_3 ?
- Name the compound Y.
- Write the chemical equation of the reaction which takes place on reacting with XNO_3 solution and common salt solution giving the physical states of all the reactants and products.
- What type of chemical reaction is indicated by the above equation ?

Your solution here:

04

Given below is a redox reaction.

When copper oxide is heated with hydrogen, then copper metal and water are formed :



- Which substance is oxidised.
- Which substance is reduced ?
- Name the oxidising agent and reducing agent.

Your solution here:

05 A strip of metal X is dipped in a blue coloured salt solution YSO_4 . After some time, a layer of metal Y from the salt solution is formed on the surface of metal strip X. Metal X is used in galvanisation whereas metal Y is used in making electric wires. Metal X and metal Y together form an alloy Z.

- Guess. What could metal X be ?
- Which metal is Y ?
- Name the metal salt YSO_4 .
- What type of chemical reaction took place when metal X reacts with salt solution YSO_4 ?
- Name the alloy Z.

Your solution here: