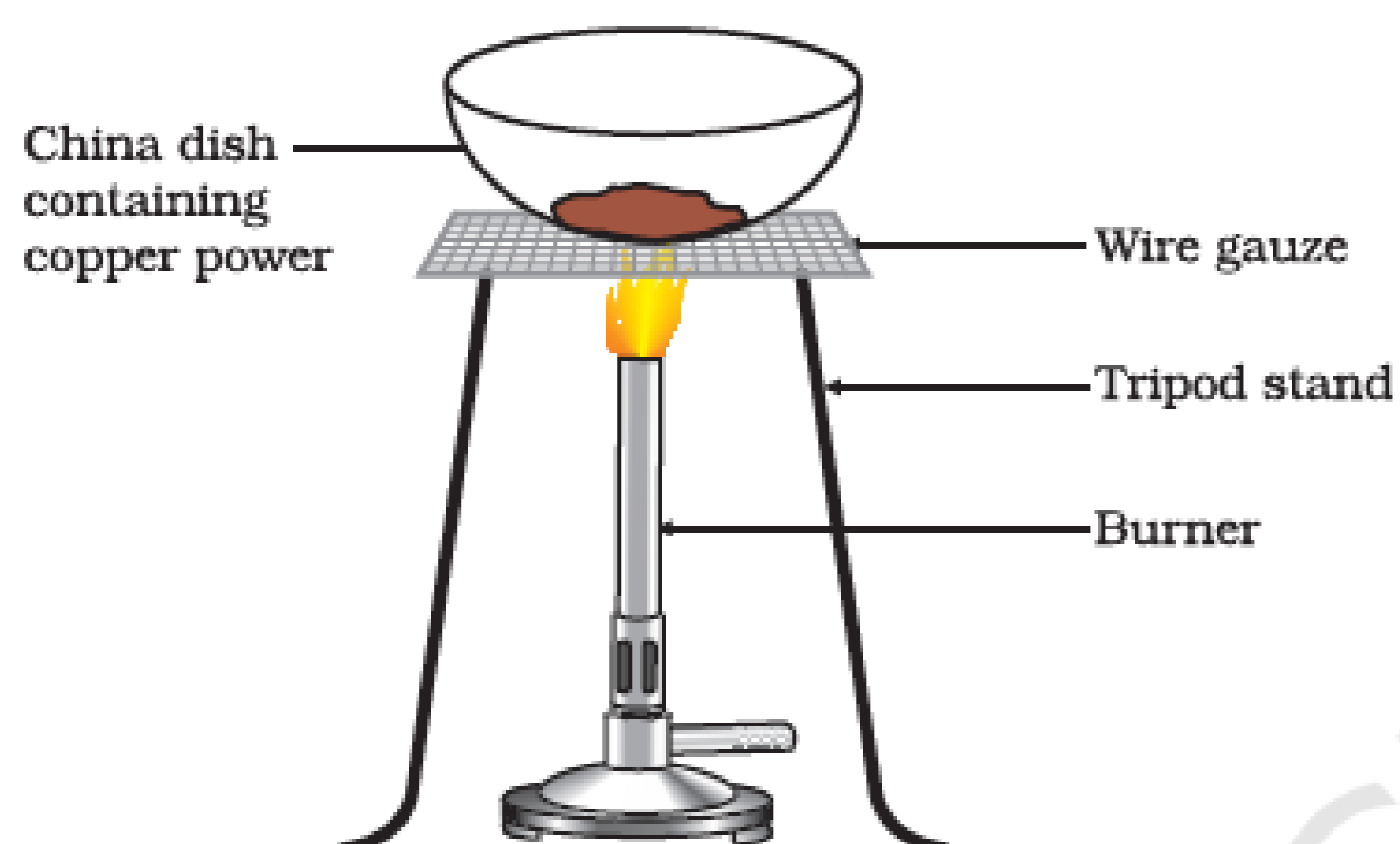


Case study based questions  
10th Science

## Chemical Reactions and Equations

Passage - 1

5 Marks



In the above image, an experiment is performed where the china dish containing about 1.2 g of copper powder is heated. We observe that the surface of the copper powder becomes black.

Q1. (4) Oxidation

Q2. (1) TRUE

Q3. (2) Brown

Q4. (3) Oxidation

Q5. (2) It gives oxygen

Passage - 2

5 Marks



You must have observed that iron articles are shiny when new, but get coated with a reddish brown powder when left for some time. This process is commonly known as rusting of iron or corrosion. Some other metals also get tarnished in this manner.

Q1. (1) TRUE

Q2. (4) All of the above

Q3. (4) All of the above

Q4. (4) Corrosion can take place in vacuum

Q5. (4) All of the above

Passage - 3

5 Marks

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Ravi is very curious to know why the bags of chips are half filled, he asks this question to his friend ramu and ramu tells that chips manufacturers usually flush bags of chips with gas to prevent the chips from getting spoiled.

Q1. (2) Rancidity

Q2. (4) All of the above

Q3. (2) FALSE

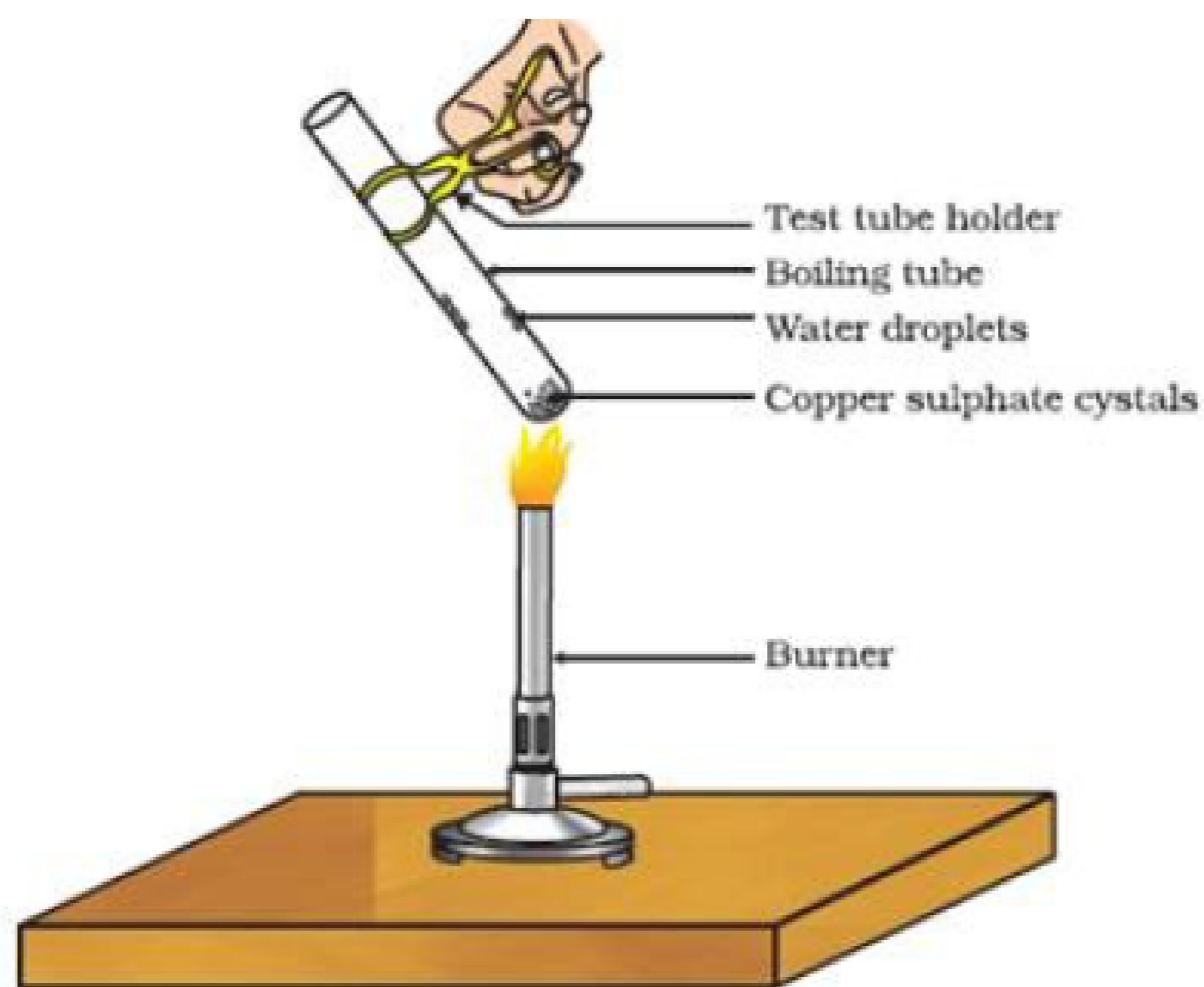
Q4. (4) All of the above

Q5. (2) Nitrogen

---

## Passage - 4

5 Marks



In the above image, an experiment is performed where the Copper sulphate crystals are heated. When we heat the crystals, they turn white. If you moisten the crystals again with water, you will find that colour of the crystals reappears.

Q1. (1) Five

Q2. (2) Gypsum

Q3. (3) Blue

Q4. (4)  $CuSO_4 \cdot 5H_2O$

Q5. (2) FALSE

## Passage - 5

5 Marks



Chemical reactions are characterized by the change in the state, colour and the temperature. Many changes which happens around us are the result of the chemical reaction. Therefore, the chemical reactions are classified into various categories to simplify their study .

Q1. (4) All of the above

Q2. (3) 3

Q3. (4) Combustion of Liquefied Petroleum Gas (LPG)

Q4. (4) Heating copper wire in the presence of air at high temperature

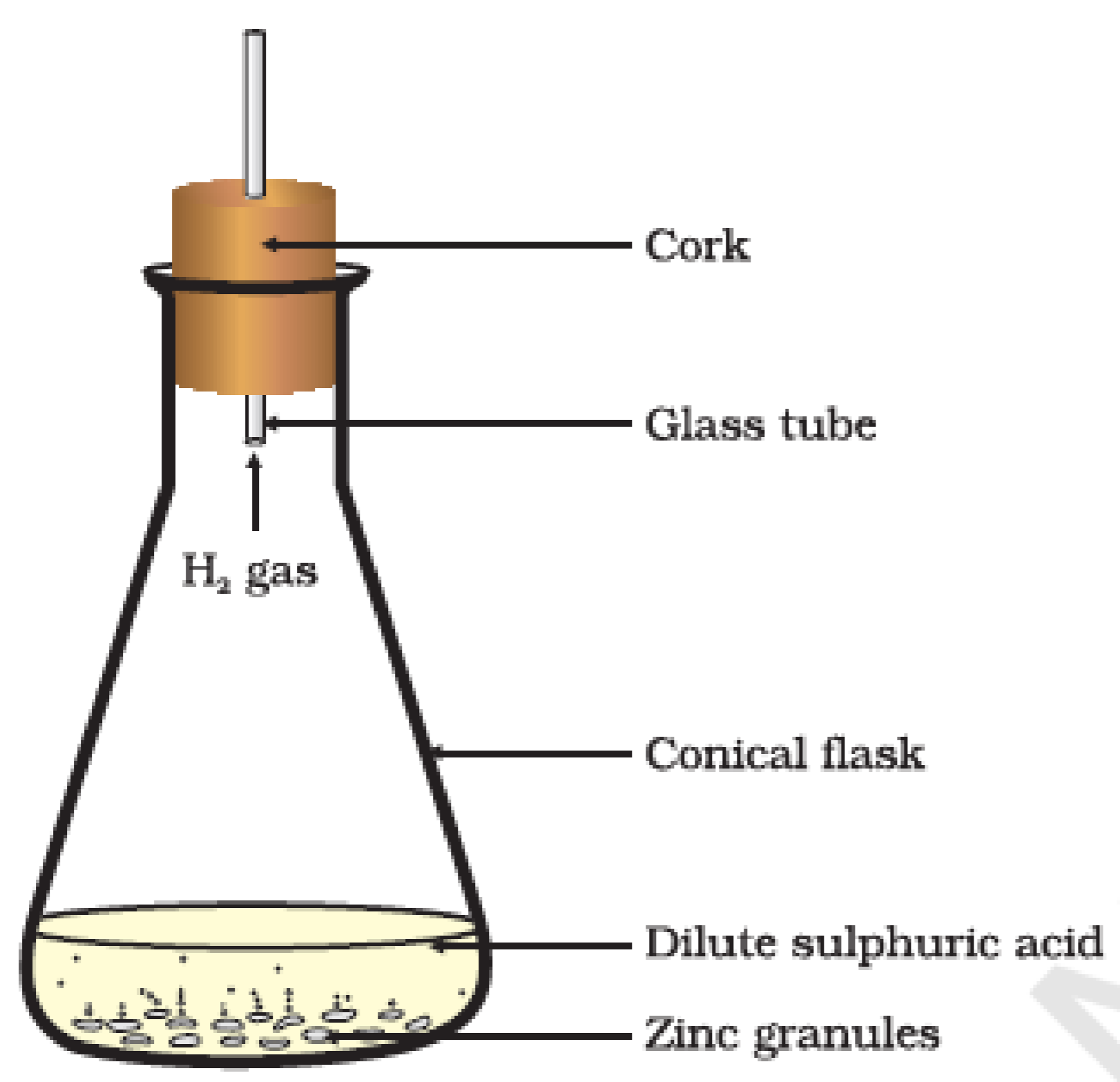
Q5. (1) Double displacement reaction

Case study based questions  
10th Science

## Chemical Reactions and Equations

Passage - 1

5 Marks



In the above image, an experiment is performed where the few zinc granules are added in a conical flask. Then dilute sulphuric acid is added to the conical flask.

Q1. (3) Both (1) and (2)

Q2. (1) Less than 7

Q3. (3) Both (1) and (2)

Q4. (2) FALSE

Q5. (4) None of the above

Passage - 2

5 Marks



The main gate of ravi's house is developing a powdery brown film of substance which is slowly deteriorating the gate. He asked his friend ramu for help who told him to paint the gate in order to protect it from deteriorating.

Q1. (1)  $Fe_2O_3 \cdot xH_2O$

Q2. (2) Silver

Q3. (3) All of the above

Q4. (1) TRUE

Q5. (1) TRUE

Passage - 3

5 Marks

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Samuel has a silver coin that turned black. He kept the coin in the bowl lined with aluminium foil. Then he filled the bowl with water and boiled it. After some-time, he found that the coin has become new.

Q1. (1) Silver sulphide

Q2. (2) AgS

Q3. (3) Both (1) and (2)

Q4. (3) Aluminium sulphide

Q5. (1) TRUE

Passage - 4

5 Marks



In the above image, the given substance is used intensively in the cement industry. This element is also present in the bones and it is an oxide of group 2 element.

Q1. (1) CaO

Q2. (1) Quick lime

Q3. (2) Basic

Q4. (3)  $Ca(OH)_2$

Q5. (2) FALSE

Passage - 5

5 Marks



In the above image, the chemical reaction is shown which happens on heating Copper oxide in presence of hydrogen gas. Based on the reaction answer the questions given below.

Q1. (2)  $H_2$

Q2. (1) CuO

Q3. (1) CuO

Q4. (2)  $H_2$

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Q5. (3) Redox reaction

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