



# VIDYANIKETAN COACHING CLASSES, GHANSAWANGI

Class: - 10<sup>th</sup>

Sub.-: Science -1

Mark's:- 25

Time:- 1:30 Hr

**Q.1) (A) Choose the correct alternative:**

[3]

i) ..... is a chemical change.

(A) Ice changing to water (B) Condensation of steam (C) Sublimation of camphor (D) Ripening of fruits

ii) When..... Is passed through fresh lime water, it turns milky.

(A) H<sub>2</sub> (B) CO<sub>2</sub> (C) CO (D) SO<sub>2</sub>

iii) Rusting of an iron nail is a.....reaction.

(A) Combination (B) Displacement (C) Decomposition (D) Double displacement

**(B) Answer the following:**

[2]

i) State true or false:

The conversion of  $FeO$  to  $Fe_2O_3$  is reduction reaction.

ii) Find odd one out:

Melting of Ice, Corrosion of Iron, Photosynthesis in Plants, Conversion of Milk to Curd.

**Q.2) Answer the following Question :( Any three)**

[6]

i) Explain the following terms with example.

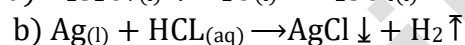
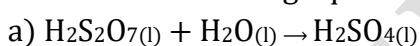
a) Balanced equation b) Combination reaction

ii) How can the rate of chemical reaction, namely, decomposition of hydrogen peroxide be increased?

iii) Mention the factors that affect the rate of a chemical reaction.

iv) Distinguish between: Physical change and chemical change.

v) Balance the following equation:



**Q.3) Answer the following (Any three)**

[9]

i) When the solution of sodium carbonate is added to the solution of calcium chloride, a precipitate is formed.

a) What is the colour of the precipitate formed?

b) Name the precipitate.

c) What is the type of the chemical reaction?

ii) It takes time for pieces of Shahabad tile to disappear in HCL, but its power disappears rapidly.

iii) Explain the term reactant and product giving example.

iv) Find whether the following conversion are oxidation or reduction reaction.

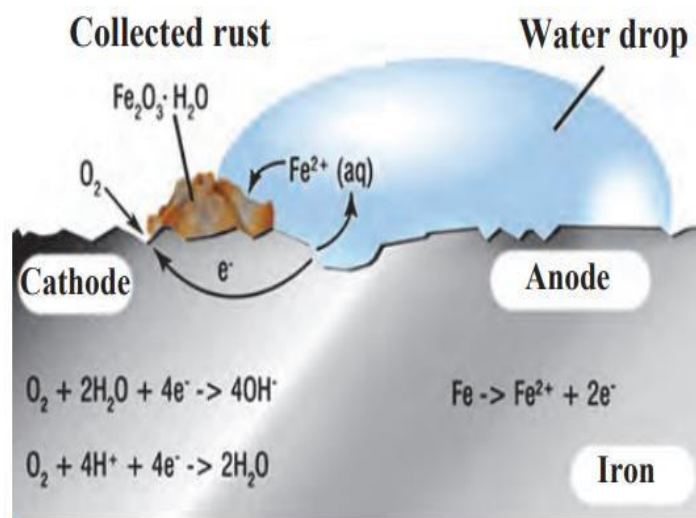
|    | Conversion                    | Oxidation or Reduction |
|----|-------------------------------|------------------------|
| a. | $Fe^{2+} \rightarrow Fe^{3+}$ |                        |
| b. | $Fe \rightarrow Fe^{2+}$      |                        |
| c. | $Cu^{2+} \rightarrow Cu$      |                        |
| d. | $Mn^{4+} \rightarrow Mn^{2+}$ |                        |
| e. | $Zn \rightarrow Zn^{2+}$      |                        |
| f. | $Ni^{2+} \rightarrow Ni$      |                        |

- v) Explain the following chemical reactions and write the balanced chemical equations.
- Zinc granules are added to copper sulphate solution.
  - Silver nitrate is added to sodium chloride.
  - Electrolysis of acidulated water.

**Q.4) Attempt any one.**

[5]

- Explain the types of reaction with reference to oxygen and hydrogen. Illustrate with example.
- Observe the following picture and answer the following questions:
  - What is a rust?
  - Write the chemical formula of rust.
  - Write the reaction of oxidation of iron at anode.
  - Write the reaction of oxidation of iron at cathode.
  - What is corrosion?



Best of luck.....

For more info visit: [www.vidyaniketan.org.in](http://www.vidyaniketan.org.in)