**MJCET**

**Question bank**

**CORROSION AND ITS CONTROL**

**PART-A**

1. Define the term ‘corrosion’ of a metal.
2. Though aluminum is above iron in the galvanic series. Yet aluminum corrodes to a small extent. Explain why?
3. A pure metal rod immersed vertically in water starts corroding at bottom. Give reasons.
4. Why should Nickel plated steel articles be free from pores and pin holes?
5. What happens when cathodic coatings breaks?

6.Why does severe corrosion occur in steel pipe connected to copper tank?

7. A copper equipment should not posess small steel bolt. Why?

8. Account for the following:

* A nail hammered in a block of wood gets its stem rusted but not head.
* In Cathodic coating base metal gets severely corroded when crack appears compared to anodic coating.
* A plumber fixes a copper bolt in Iron structure. Which part gets corroded? Explain..

1. Which type of oxide film is most protective against corrosion.
2. Most of the metals undergo severe corrosion in acidic environment than in alkaline/neutral environment. Why?

**PART-B**

1. Write a note on galvanic series, compare with electrochemical series.
2. **What is corrosion in metals.Explain electrochemical theory of corrosion**.
3. **What are the various types of corrosion**.
4. Corrosion of water filled steel tanks occurs below the waterline. Explain.
5. **Discuss the factors that affect the rate of corrosion of a metal.**
6. Explain how rate of corrosion of a metal is affected by the following factors a) Position of metal in galvanic series b) Ratio of anodic &cathodic areas .c) influence of PH.
7. Write a note on a) water-line, b) pitting corrosions.
8. **Write a brief note on cathodic protection by impressed current method.**
9. **What is sacrificial anode?**
10. What are anodic and cathodic metallic coatings? Explain with suitable examples.
11. What is a metallic coating? How are metallic coatings classified? Give examples.
12. Explain hot dipping methods for galvanizing .
13. Expalin the mechanism of corrosion in metals by-1) hydrogen evolution and 2) oxygen absorption type.