

FR. C. RODRIGUES INSTITUTE OF TECHNOLOGY  
BASIC SCIENCES AND HUMANITIES DEPARTMENT  
INTERNAL ASSESSMENT-1 FEBRUARY 2017

APPLIED CHEMISTRY-II

Total Marks: 15  
Duration: 1 hr

Note: Attempt all the questions.

Q 1. Attempt any five questions: -

- i) What is corrosion? How does overvoltage affect the rate of corrosion? (2x5) [FEC203.2]
- ii) What are the different types of oxide films formed on the surface of the metal? Explain with the help of examples. [FEC203.1]
- iii) Part of a metal underneath the impurities corrodes. Identify the type of corrosion and explain with the help of diagram and reactions. [FEC203.1]
- iv) Write a note on:-Season cracking. [FEC203.2]
- v) Coating of zinc on iron is better than that of tin. Justify. [FEC203.2]
- vi) What is cathodic protection? Give principle and diagram of impressed current method [FEC203.2]
- vii) What are the important features of intergranular corrosion? Explain with the help of diagram. [FEC203.1]

Q 2. Answer any one:

Explain the process of anodic protection method with the help of following points:-

- i) Principle
- ii) What is Passivation current (IP)? Explain with reference to current potential curve
- iii) Diagram for experimental set up
- iv) Function of potentiostat v) Applications [FEC203.2]

OR

What are the conditions required for wet corrosion? Explain the mechanism of rusting of iron with the help of reactions and diagram. [FEC203.1]