

**DEPARTMENT OF CHEMISTRY  
NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA  
THEORY EXAMINATION  
Date: 12-04-2024**

**Mid-Term II (for ECE and EE)**

**Subject: Chemistry**  
**Maximum marks: 5x4 =20**

**Course code: CHIC-13**  
**Time allowed: 50 mins**

**Answer to all question**

1. What is oxidation corrosion? Describe the mechanism of oxidation corrosion (4 marks.)
2. How does the pitting corrosion occur on the surface of the iron and write any two prevention methods. (4 marks.)
3. Write a note on a) Molten carbonate fuel cells b) Alkaline fuel cells (4 marks)
4. Explain construction, working and application of Lead-acid battery along with reactions involved during charging and discharging. (4 marks)
5. A) Give two examples for secondary batteries (1 mark)  
B) How is a fuel cell different than a battery (1 mark)  
C) Write down the name of electrolyte and operating temperature range of SOFC (1 mark)  
D) Write down the anodic and cathodic reaction involved in water line corrosion (1 mark)