PADRE CONCEIÇÃO COLLEGE OF ENGINEERING

Verna - Goa

First Year of Engineering

Internal Test – I

Semester & Scheme : I (RC 2019)
Course : FE 120 Chemistry
Course Instructor : Cynthia Noronha

Date: 30/11/2021
Time: 9.30 am. – 10.30 a.m.
Max Marks: 25

Instructions: *Attempt all questions. All questions carry equal weightage. Assume missing data, if any and justify.*

		Marks	CO	CL
Q1.	Sketch the electrochemical cell and write the cell reactions if Zn electrode is dipped in 0.05M Zn^{2+} Solution and Mg electrode dipped in 0.01M Mg^{2+} solution. **Calculate** the EMF of the cell. (Data given: E^0 Zn= -0.76V and E^0Mg= -2.37V).	[7]	FE 120 .1	CL2
Q2.	What is Single electrode Potential? With the help suitable example and neat labeled diagram **explain** the measurement of electrode potential	[6]	FE 120 .1	CL2
Q3.	A Concentration Cell is constructed by dipping Copper rods in 0.001M and 0.1M $CuSO_4$ Solutions, write the Cell representation ,**Calculate** the EMF of the cell and **explain** the working principle of the Cell.	[6]	FE 120 .1	CL2
Q4.	**Explain** 'Electrochemical Theory of Corrosion'	[6]	FE 120 .2	CL2

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