**SIDDAGANGA INSTITUTE OF TECHNOLOGY, TUMKUR - 572 103.**

**(An Autonomous Institution under VTU)**

**Academic Year: 2024 -25**

**Subject: Chemistry**

**Assignment**

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| **UNIT - I: ELECTRODE SYSTEMS AND APPLICATIONS** | |
| Sl. No | Question |
| 1 | What are electrochemical cells? Explain the classification of cells with examples. |
| 2 | Define single electrode potential or standard electrode potential.   1. With neat sketch, explain the origin of single electrode potential. 2. Derive Nernst equation for single electrode. |
| 3 | Explain the construction & working of a galvanic cell or Daniel cell or electrochemical cell. |
| 4 | What are concentration cells?   1. Explain the construction & working of concentration cells. 2. Give an example. Derive an expression for EMF of concentration cell. |
| 5 | What are reference electrodes? Explain, the construction & working of 1. Calomel electrode 2. Silver - silver chloride electrode. |
| 6 | What is a glass electrode or what are ion selective electrodes? Explain the determination of pH of a solution using glass electrode. |
| 7 | Any one problem. |

Name of the Faculty: **Dr. Raghu G K**