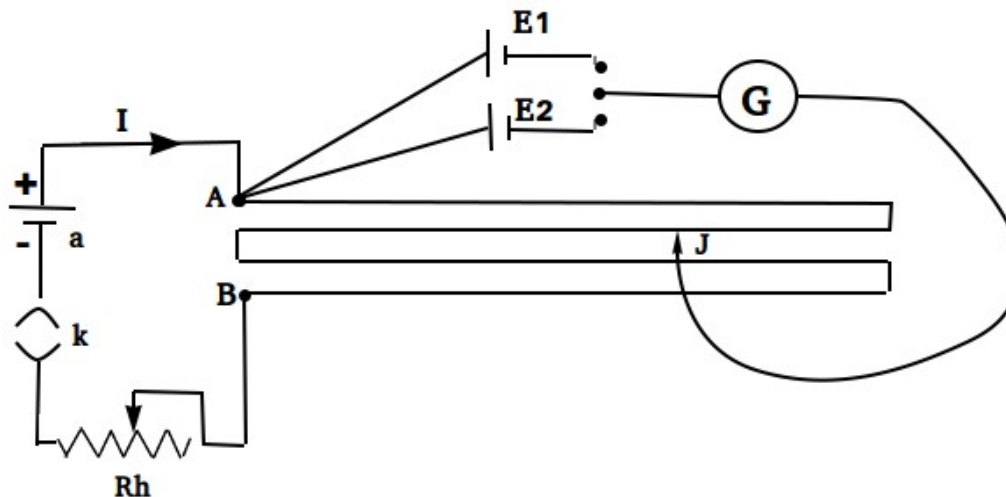Experiment No: Date:

Potentiometer I

Aim:

    To compare the emf's of two primary cells using Potentiometer

Apparatus:

    Potentiometer, Accumulator, Daniel Cell, Leclanche Cell, Rheostat, Key, Jockey, Connecting wires etc.

Theory:

    When a steady current flows through a resistance wire, the potential difference developed in the wire is directly proportional to the length of the wire,

If E_1 and E_2 are the emf's of a Daniel Cell ans Leclanche Cell and l_1 and l_2 are their respective balancing lengths, then

$$E_1 \, \alpha \, l_1 \text{ and } E_2 \, \alpha \, l_2$$

that is $\dfrac{E_1}{E_2} = \dfrac{l_1}{l_2}$

Observations:

Sl No	Balancing Length for (cm)		$\dfrac{E_1}{E_2} = \dfrac{l_1}{l_2}$
	Daniel Cell (E1)	Leclanche Cell	
1			
2			
3			
4			
5			
6			
7			

The Ratio of emf's   =

Result: The Ratio of emf's   =