Experiment No: Date:

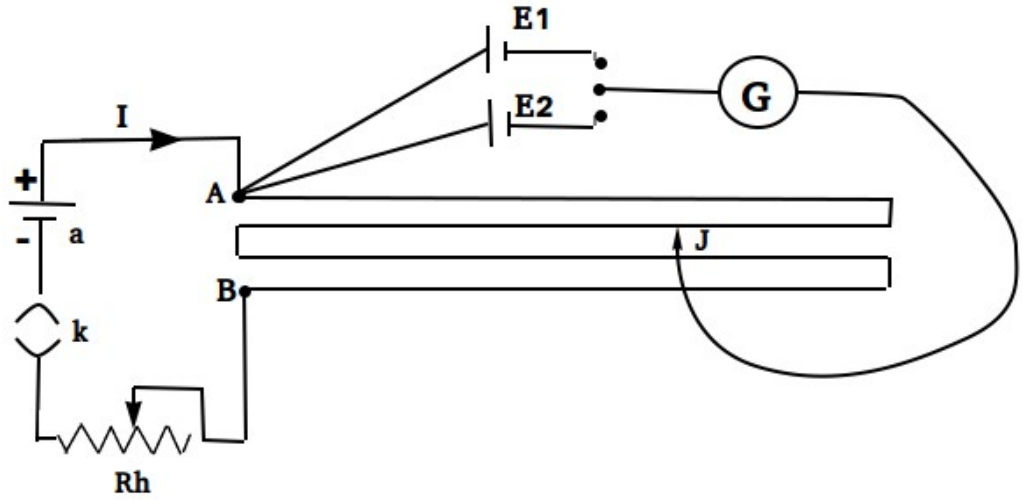
Potentiometer I

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 $\mathbf{E_1}$ and $\mathbf{E_2}$ are the emf's of a Daniel Cell ans Leclanche Cell and $\mathbf{l_1}$ and $\mathbf{l_2}$ are their respective balancing lengths, then

$\mathbf{E_1 \alpha l_1}$ and $\mathbf{E_2 \alpha\ l_2}$

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

Observations:

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

The Ratio of emf's =

Result: The Ratio of emf's =