OBSERVATIONS:-

To Calibrate the given voltmeter Length of the wire balancing the e.m.f of the Daniel cell $(l_0) = \underline{291 \times 10^{-2} m}$

S. No	Voltmeter reading (V) volt	Balancing Length (ℓ) m	Calculated Voltmeter reading. $V' = \frac{1.08}{l_0} \times l$ (volt)	Correction $(V'-V)$ volt
1	0.1	41.1	0.1525	0.0525
2	0.2	65.9	0.2445	0.0445
3	0.3	93.7	0.3477	0.0477
4	0.4	123.7	0.4590	0.059
5	0.5	153.3	0.5689	0.0689
6	0.6	160.7	0.5964	-0.0036
7	0.7	197.7	0.7337	0.0337
8	0.8	225.8	0.8380	0.038
9	0.9	233.9	0.8680	-0.032
10	1	260.7	0.9675	-0.0325

Calculation:-

1. $V' = \frac{1.08}{291 \times 10^{-2}} \times 41.1$

$\underline{V' = 0.1525}$

2. $V' = \frac{1.08}{291 \times 10^{-2}} \times 65.9$

$\underline{V' = 0.2445}$

$\underline{V'-V}$

1. $0.1525 - 0.1$

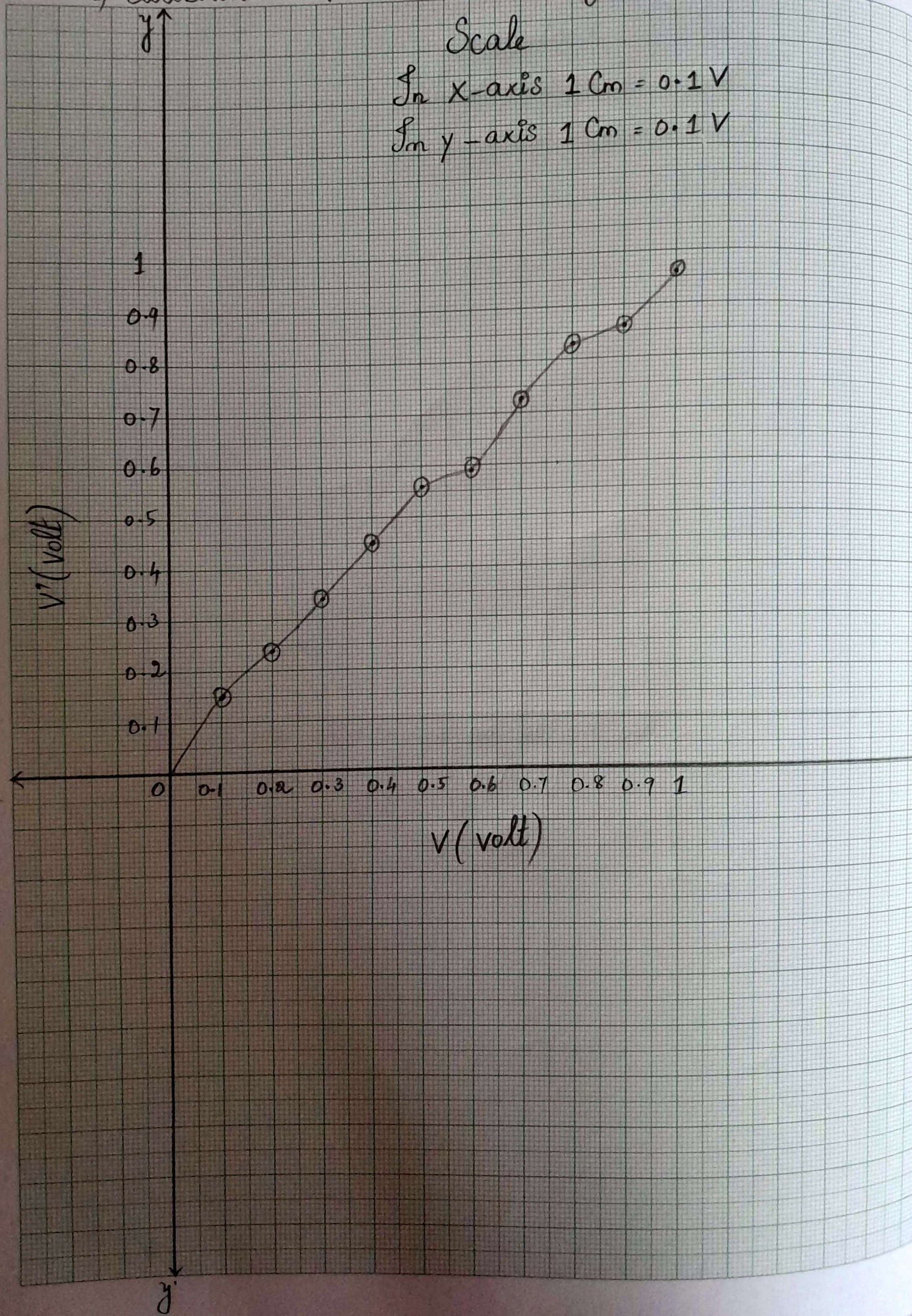
$\underline{V'-V = 0.525}$

2. $V'-V = 0.2445 - 0.2$

$\underline{V'-V = 0.0445}$

Ex. No: 4

07.11.2022 1) Calibration of Voltmeter using Potentiometer



Ex. No: 4
07.11.2022

2) Calibration of voltmeter using Potentiometer