OBSERVATIONS :-

To Calibrate the given ammeter

Balancing length of $l_0 = \underline{206} \times 10^{-2}$ m

(Length of the wire balancing the emf of the Daniel cell).

S.No	Ammeter reading i(A)	Length balancing the P.d across 1 ohm coil l_m	Calculated ammeter reading $i' = \dfrac{1.08}{l_0} \times l$ (A)	Correction $(I' - i)$ (A)
1	0.2	35.6	0.1866	-0.0134
2	0.3	55.3	0.2899	-0.0101
3	0.4	80.3	0.4209	0.0209
4	0.5	101.3	0.5310	0.031
5	0.6	123.9	0.6495	0.0495
6	0.7	144.3	0.7565	0.0565
7	0.8	171.1	0.8970	0.097
8	0.9	196.9	1.0322	0.1322
9	1.0	223.5	1.1717	0.1717

Calculation :-

$I' - i$

1. $i' = \dfrac{1.08}{206} \times 35.6$

   $i' = 0.1866$

2. $i' = \dfrac{1.08}{206} \times 55.3$

   $i' = 0.2899$

1. $I' - i = 0.1866 - 0.2$

   $I' - i = -0.0134$

2. $I' - i = 0.2899 - 0.3$

   $I' - i = -0.0101$

1) Calibration of ammeter using Potentiometer

Scale

In x-axis 1 cm = 0.1 I

In y-axis 1 cm = 0.1 I

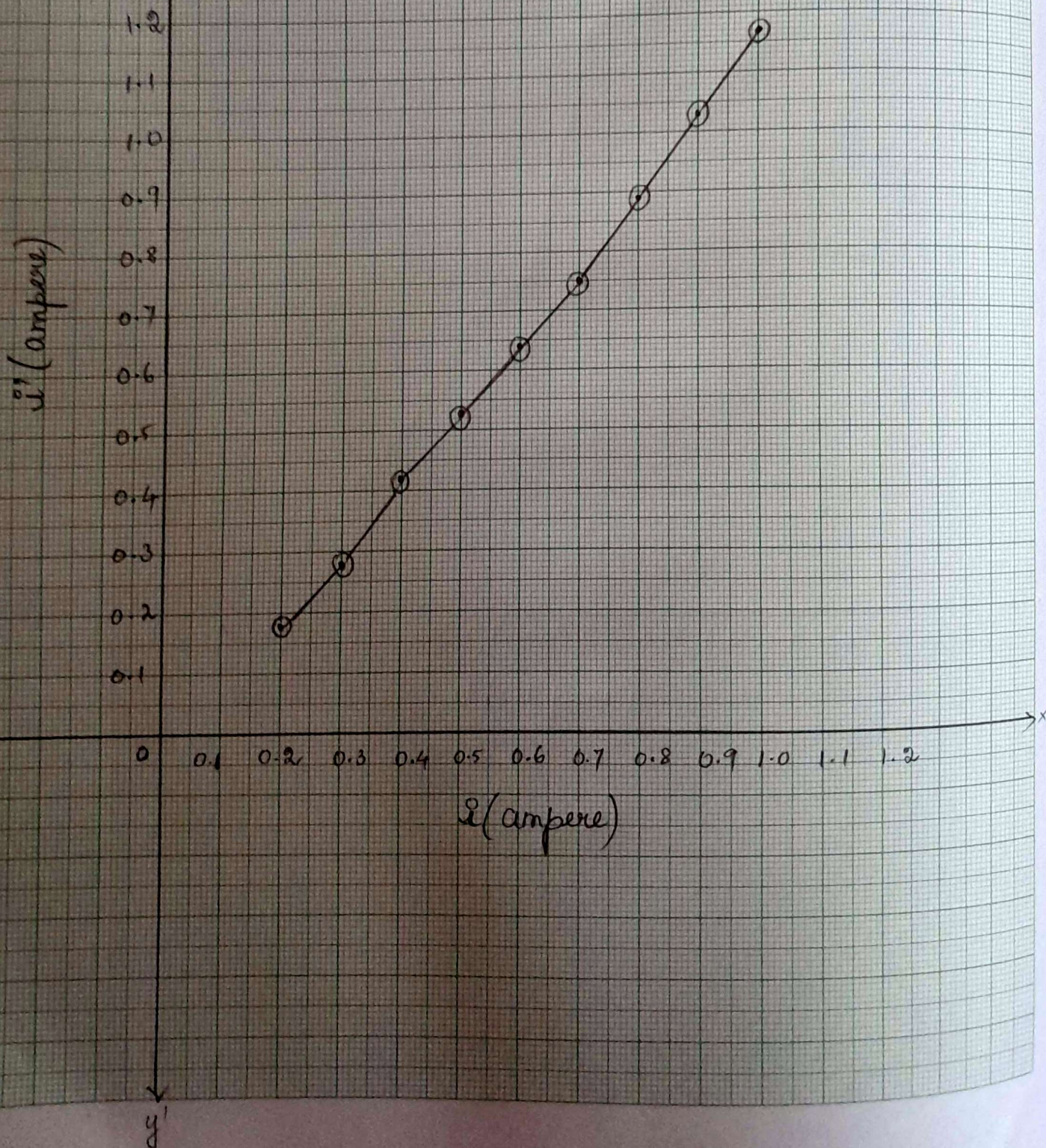i (ampere)

Ex. No. 6

21.11.22   2) Calibration of ammeter using Potentiometer

Scale

In X-axis 1 cm = 0.1 I

In Y-axis 1 cm = 0.01 I