MARKING SCHEME

PHYSICS PAPER 3 (PRACTICAL)

232/3

<u>**QUESTION ONE**</u>

ii)Y = 3.0V$\pm$1 ✔**1**

vi)

Length L(cm)	10	20	30	40	50	60	70	80	
Current I (A)	0.6	0.5	0.45	0.4	0.35	0.3	0.25	0.2	✔**3** (½mk for each correct value-max 6)
P. d. (V)	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	✔**3**(½for each correct values-max 6)
$\underline{Y - V}$ (V)									✔**1**(1mk for all correct 8 values)
$\underline{V}$ Y - V									✔**1**(1mk for all correct 8 values)
V/I =R(Ω)									✔**1**(1mk for all correct 8 values)

vii) a)   graph : - Axis (both)labelled with units (1mark)

- uniform scales (1mark)

- plotting :   8 to 6 points   (2marks) [5 points (1mark)]

- straight line through most of the points (1mark)

[TOTAL = 5 MARKS]

b) i) slope = $\underline{2.1 - 0.8}$✔**1**   =   0.05✔**1** *(1 mark for Extraction from graph, 1mark for substitution)*

 8 - 2

c) Slope = $\underline{M}$ = 0.05

5

M = 0.25✔**1**

D = y – intercept = 0.36✔**1***(Check the graph)*

<u>QUESTION 2</u>

Table 2

Angle of incidence i	10	20	30	40	50	60	
Distance ,d (cm)	1.8	3.0	4.8	6.8	9.2	11.4	Accuracy±0.2 ✓6(1mk each)
Sin i							✓3($^1/_2$mk each)
Sin ^{2} i							✓3($^1/_2$mk each)

o) Graph: Axis labeled (1mark)

Uniform scales (1mark)

Plotting - 6 to 5points (2marks)

- 4points   (1mark)

- 3points and below , no mark

Straight line through most of the points (1mark)

[TOTAL = 5 MARKS]

p) slope = $\underline{0.65-0.5}$✓2*(1mk for extraction from graph, 1mk for correct substitution)*
                        10-8

=   0.075 cm^{-1}✓1