DISTRICT EXAMINATIONS

MARKING GUIDE OF S5ALL_ALTERNATIVE TO PHYSICS PRACTICAL EXAM

1. (a) $l_0 = 2.0cm$ (**1 mark**) $and\ l_s = 6.2cm$ (**1 mark**)

(both to one decimal place)

(b) Suitable method:

Measure distance from bench at each end and check equal. (**2 marks**)

(c) (i) GRAPH:

-Title of the graph **(1mark)**

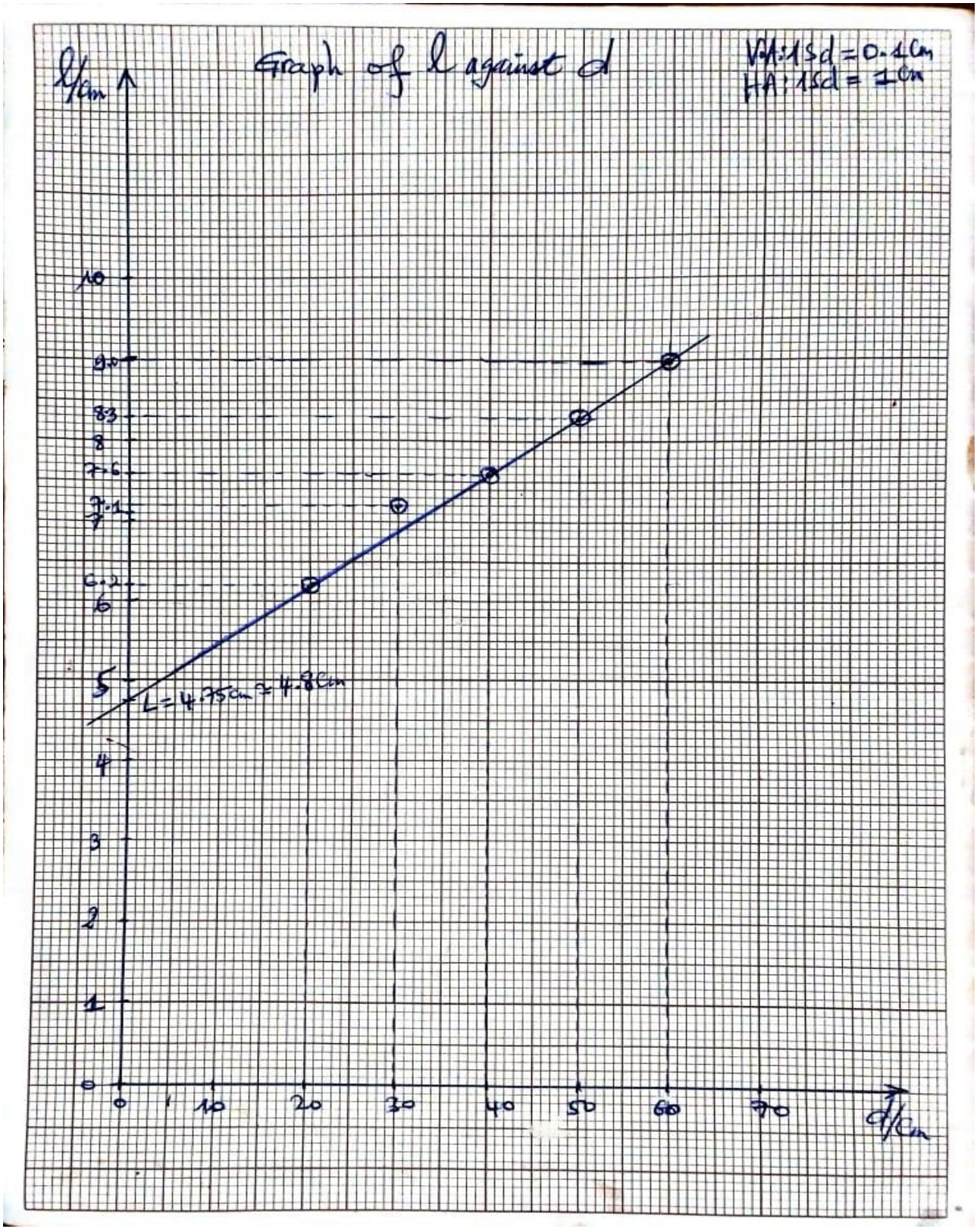
-Two labelled axes with arrows **(0.5 marks x 2=1mark)**

-Two suitable scales on the axes **(1mark x 2=2marks)**

-Plotted points **(1mark x 5=5marks)**

-Well-judged best fit line and thin and extended to axis **(1mark)**

allow at least 3 good plots on line


Graph of l against d
VA: 1sd = 0.1cm
HA: 1sd = 1cm
l/cm
d/cm
L = 4.75cm ≈ 4.8cm
10
9
8.3
8
7.6
7.1
7
6.2
6
5
4
3
2
1
0
10
20
30
40
50
60
70

(ii) L read correctly from graph, $L\ in\ range\ [4.6cm - 4.8cm]$ and consider the unit.

(2 marks)

(iii) $W_R\ in\ range\ [1.3N - 1.6N]$ and consider the unit. **(2 marks)**

(d) (i) Suspend load from loop of thread **(1mark)**

or any other suitable method to avoid standing load over marks on metre rule.

(ii) Valid source of uncertainty: **(1 mark)**

-test load not exactly 1.0N

-spring extension not linear

-metre rule not uniform.