GOLDEN ELITE EXAMINTIONS 2020

MARKING SCHEME
PHYSICS PAPER 3
PRACTICAL

Question 1

1. b

Length l(cm)	100	80	60	40	20	0
Voltage	0.10	0.15	0.20	0.2	0.45	1.00
Current I (A)	0.04	0.05	0.07	0.09	0.12	0.16

(7 marks)

d) The bulb lights more brightly.   (2 marks)
e) Graph should be a smooth curve with positive slope
    A -   1mk
    S -   1mk
    P -   2 mks
    C -   1 mk
    Total (5 mks)
f) The resistance of the bulb.   (2 marks)
g) Voltage at length L = 70cm
    Candidate value from the his/her graph.
    showing how to get it ....(1 mark) $0.75 \pm .1$
    Writing the value ....1 mark

f) as the current increases, the resistance also increases hence the bulb glows more brightly

Question 2

a) L = 0.3m (1 mark)
c) t = 5.82s (1 mark)
e)

Θ (^{0})	60	70	80	90	100	110
Time for 10 oscillations t(s)	5.82	6.42	6.96	7.54	8.28	10.59
Periodic time (T) (s)	0.582	0.642	0.696	0.754	0.828	1.059
T^2 (s²)	0.3387	0.4122	0.4844	0.5685	0.6856	1.1215
$1/_{T}^2$ (s²)	2.9525	2.4260	2.0644	0.5685	1.4586	0.8917
$Cos^1/_2\Theta$	0.8660	0.8192	0.7660	0.7071	0.6428	0.5736

f) graph is a straight line graph with a positive gradient (slope)
    A............. 1mk
    S 1mk
    P............. 2 mks
    L............. 1 mk
            5 mk