JJEB MARKING GUIDE FOR PHYSICS 535/3, 2020

QN.1	R1 - Recording initial pointer position y_0 -(any value) and unit	1
	R2 - Recording new pointer position y	1
	T1 - Design a closed table of 6 columns	1
	T2 - Labels of columns: m(kg), y(m), x(m), t(s), T(S), $T^2(S^2$	2
	T3 - Record 5 more values of y:	5
	T_4 Record 6 values of x in metres	3
	T_5 Record 6 values of t	3
	T_6 Record 6 values of T	1
	T_7 Record 6 values of T^2	1

m(kg)	y(m)	x(m)	t(s)	T(S)	$T^2(S^2)$
0.100			8 - 10		
0.200			11 - 13		
0.300			14 - 16		
0.400			17 - 19		
0.500			19 - 20		
0.600			21 - 22		

	G1 - Title = A graph of T^2 against x	1
	G2 - Label of axes	2
	G3 - Suitable and convenient scales	2
	G4 - Plot 6 points correctly	3
	G5 - Draw the best straight line	1
	G6 - Draw large right angled triangle	1
	C1 - Calculate slope S - correct substitution – - correct arithmetic	1
	C_2 - Calculate g - correct substitution and arithmetic - value (9 - 11)ms^{-2}	1
		30

Qn. 2	R1- Record length l = (14 - 16)cm	1½
	T1 - Design a closed table with 5 columns	1
	T2 - Label of the columns: x(cm), (l + x)(cm), y(cm), (y - l)(cm), $1/(y - l)(cm^{-1})$	2½
	T3 - Record 5 values of x correctly calculated	2½
	Record 5 values of (l + x)	2½
	Record 5 values of y decreasing	2½
	Record 5 values of (y - l) decreasing	2½
	Record 5 values of 1/(y - l)	2½
		17½

x (cm)	(l +x) (cm)	y (cm)	(y - l) (cm)	$1/(y - l) (cm^{-1})$
6.5 - 8.5		41.5 - 43.5		
14.0 - 16.0		27.0 - 29.0		
21.5 - 23.5		22.5 - 24.5		
29.0 - 31.0		20.5 - 22.5		
36.5 - 38.5		19.0 - 21.0		

	G1 - Title: A graph of x against 1/(y - l)	1
	G2 - Labels of axes	2
	G3 - Suitable and convenient scales	2
	G4 - Plot 5 points correctly	2½
	G5 - Draw the best straight line	1
	G6 - Draw a right angled triangle	1
	C1 - Calculation of slope S - correct substitution	
	- correct arithmetic	1
	C2 - Calculation of f - correct substitution	
	- correct arithmetic	
	- value (14 - 16) cm	2
		12½
		30

Qn.3	R1 - Record volmeter reading v = 3.0 V	2
	T1 - Design a closed table with 2 columns	1
	T2 - Label of columns : I (m), V (V)	2
	T3 - Record 7 values of V increasing	7

I (m)	V (V)
0.100	0.2 - 0.4
0.200	0.4 - 0.6
0.300	0.6 - 0.8
0.400	0.8 - 1.0
0.500	0.9 - 1.1
0.600	1.2 - 1.4
0.700	1.4 - 1.6

	G1 - Title: A graph of V against I	1
	G2 - Labels of axes	2
	G3 - Suitable and convenient scales	2
	G4 - Plot 7 points correctly	7
	G5 - Draw the best straight line	1
	G6 - Draw a large right angled triangle	2
	C1 - Calculation of slope S - correct substitution	
	- correct arithmetic	1
	C2 - Calculation of r - correct substitution	
	- correct arithmetic (value = (1.5 - 2.2)	2
		30

END