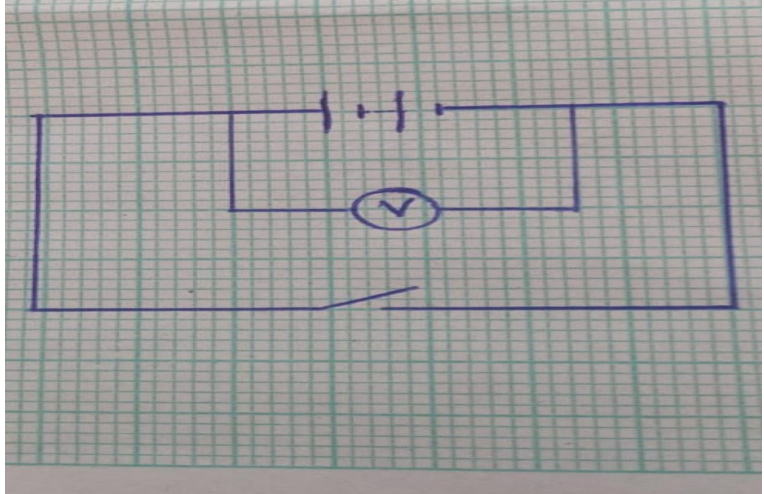
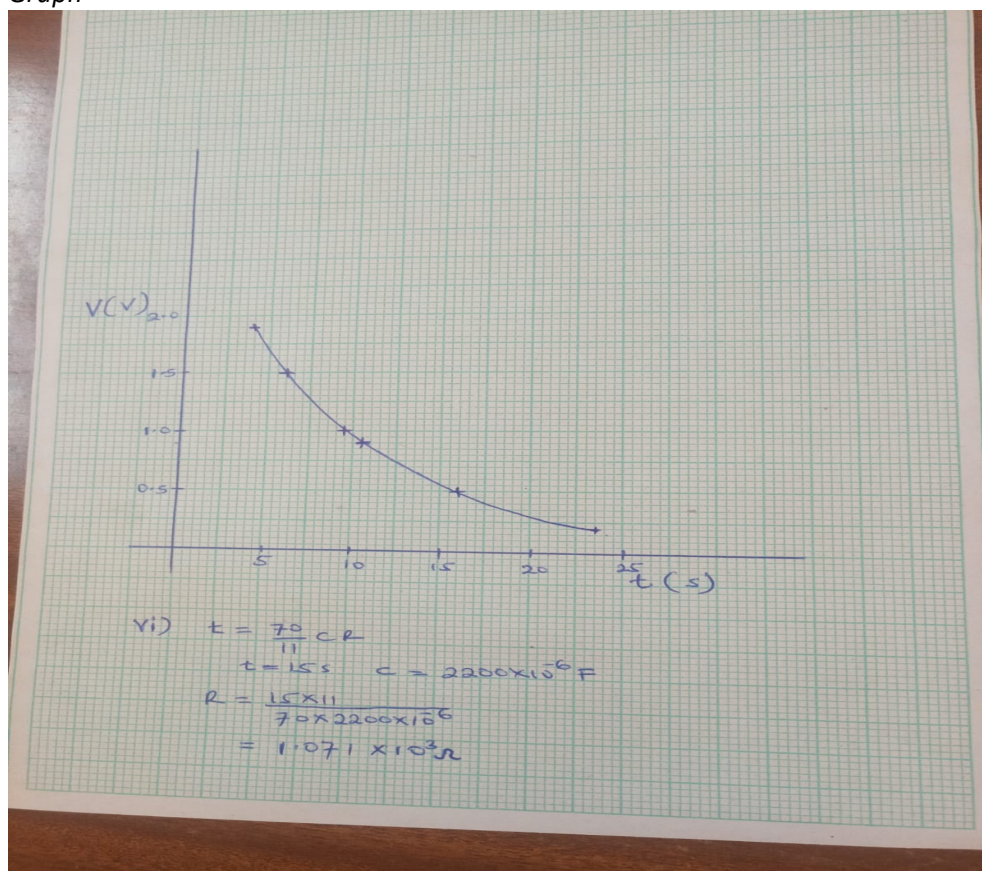


232/3
 Physics
 Paper 3
 SEPTEMBER 2021
 Time: 2 ½ Hours

BURAMU II –PHYSICS PAPER 3 MARKING SCHEME

QUESTION		ANSWER	MARKS																					
QUESTION 1 A	(i)	$V = 1.4V - 1.6V$	1mark																					
	(ii)	$V = 1.25V - 1.35V$ (at least 1d.p) $I = 0.09A - 0.11A$ (2 d.p.)	1mark 1mark																					
	(iii)	Correct substitution of student own values of V and I Correct answer with units (to 4 s.f or exact)	1mark 1mark																					
QUESTION 1B	(i)a.		2marks																					
	b.	$E = 2.9V - 3.2V$ (2 or 3d.p.)	1mark																					
	(ii)	$V_{MAX} = 2.9V - 3.0V$	1mark																					
	(iii)	$t = 24.00s - 25.00s$	1mark																					
	(iv)	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>V(V)</td> <td>0.2</td> <td>0.5</td> <td>0.8</td> <td>1.0</td> <td>1.5</td> <td>1.8</td> </tr> <tr> <td>T(s)</td> <td>24.20</td> <td>16.00</td> <td>11.50</td> <td>9.30</td> <td>6.00</td> <td>4.00</td> </tr> <tr> <td></td> <td>24.80</td> <td>16.90</td> <td>12.20</td> <td>10.30</td> <td>6.60</td> <td>4.80</td> </tr> </table> <p>Values of t must be to 2d.p. $\frac{1}{2} \times 6 = 3marks$</p>	V(V)	0.2	0.5	0.8	1.0	1.5	1.8	T(s)	24.20	16.00	11.50	9.30	6.00	4.00		24.80	16.90	12.20	10.30	6.60	4.80	3marks
V(V)	0.2	0.5	0.8	1.0	1.5	1.8																		
T(s)	24.20	16.00	11.50	9.30	6.00	4.00																		
	24.80	16.90	12.20	10.30	6.60	4.80																		

(v) Graph



A=1

S=1

P=2

C=1

(vi) Above

3marks

QUESTION TWO

(a)	(i)	D = 2.94cm	½ mark																					
	(ii)	H = 1.80cm	½ mark																					
		V = AH	1mark																					
		Density = mass/volume	1mark																					
(b)		G = 49.0 – 51.0 (must be to one decimal place)	1mark																					
(c)		<table border="1"> <tr> <td>x(cm)</td> <td>5</td> <td>10</td> <td>15</td> <td>20</td> <td>25</td> <td>30</td> </tr> <tr> <td>d(cm)</td> <td>4.3</td> <td>7.0</td> <td>11.5</td> <td>16.0</td> <td>20.5</td> <td>25.0</td> </tr> <tr> <td></td> <td>4.7</td> <td>11.0</td> <td>15.5</td> <td>20.0</td> <td>24.5</td> <td>29.0</td> </tr> </table>	x(cm)	5	10	15	20	25	30	d(cm)	4.3	7.0	11.5	16.0	20.5	25.0		4.7	11.0	15.5	20.0	24.5	29.0	3marks
x(cm)	5	10	15	20	25	30																		
d(cm)	4.3	7.0	11.5	16.0	20.5	25.0																		
	4.7	11.0	15.5	20.0	24.5	29.0																		
		½ x 6 _{max}																						

(d)

Graph

