		Answer		
This question assesses a student's ability to show a coherent and logically structured answer with linkages and fully-sustained reasoning. Marks are awarded for indicative content and for how the answer is structured and shows lines of reasoning. The following table shows how the marks should be awarded for indicative content.				
IC points	IC mark	Max linkage ma	rk Max final mark	
6	4	2	6	
5	3	2	5	
4	3	1	4	
3	2	1	3	
2	2	0	2	
1	1	0	1	
0	0	0	0	
		how the marks shou	lld be awarded for structure and	
			Number of marks awarded for structure of answer and sustained line of reasoning	
Answer shows a coherent and logical structure with linkages and fully sustained lines of reasoning demonstrated throughout				
Answer is partially structured with some linkages and lines of reasoning				
Answer has no linkages between points and is unstructured 0				
 Resistan Due to i So the re Or This e.m.f. of And due The pow (IC2 – allow (IC4 – allow) 	ace of LDR dencrease in nuresistance of cresults in great the circuit is to $P = VI$ Over dissipated "number of cresults"	mber of (conduction in cuit decreases eater current in circle the same $\mathbf{r} P = I^2 R \mathbf{Or} P = V$) by the circuit increases the carriers or voltage/p.d." for "	cuit/LDR/resistor 2/R (for whole circuit) eases 4 charge carrier density") e.m.f.")	6
	Answer show structure with lines of reason Answer is partial lines of reas	6 4 5 3 4 3 3 2 2 2 2 1 1 1 0 0 0 The following table shows lines of reasoning. Answer shows a coherent structure with linkages and lines of reasoning demons Answer is partially structure linkages and lines of reasoning demons Answer has no linkages be is unstructured Indicative content • Resistance of LDR development of the circuit is e.m.f.	6 4 2 5 3 2 4 3 1 3 2 1 2 2 0 1 1 0 0 0 0 0 The following table shows how the marks shoulines of reasoning. Answer shows a coherent and logical structure with linkages and fully sustained lines of reasoning demonstrated throughout Answer is partially structured with some linkages and lines of reasoning Answer has no linkages between points and is unstructured Indicative content Resistance of LDR decreases Due to increase in number of (conductions of the circuit is the same) And due to $P = VI$ Or $P = I^2R$ Or $P = V$ The power dissipated by the circuit increase in content of the circuit increase in the same of the circuit is th	$ \begin{array}{ c c c c c }\hline 6&4&2&6\\\hline 5&3&2&5\\\hline 4&3&1&4\\\hline 3&2&1&3\\\hline 2&2&0&2\\\hline 1&1&0&0&1\\\hline 0&0&0&0&0\\\hline \end{array} $ The following table shows how the marks should be awarded for structure and lines of reasoning. $ \begin{array}{ c c c c c c }\hline &Number of marks awarded for structure of answer and sustained line of reasoning \\\hline\hline &Answer shows a coherent and logical structure with linkages and fully sustained lines of reasoning demonstrated throughout \\\hline\hline &Answer is partially structured with some linkages and lines of reasoning \\\hline\hline &Answer has no linkages between points and is unstructured \\\hline\hline &Resistance of LDR decreases \\\hline &Due to increase in number of (conduction) electrons \\\hline &So the resistance of circuit decreases \\\hline ⩔ This results in greater current in circuit/LDR/resistor \\\hline &e.m.f. of the circuit is the same \\\hline ⩓ due to P=VI Or P=P^2R Or P=V^2R (for whole circuit) \\\hline &The power dissipated by the circuit increases \\\hline &(IC2-allow "number of charge carriers" or "charge carrier density") (IC4-allow "total circuit voltage/p.d." for "e.m.f.") (IC6-needs to be related to correct V.I.R for whole circuit)$