

Question number	Answer	Notes	Marks
3 (a) (i)	voltmeter in parallel with component X;		1
(ii)	light dependent resistor / LDR;		1
(b) (i)	evidence of use of graph; 1700 (ohms);	accept range 1650-1750 (ohms) allow full marks for 1700	2
(ii)	evidence of use of voltage = current x resistance; substitution; evaluation; correct answer = 3.1 (V) e.g. $V = IR$ $V = 0.0018 \times 1700$ $V = 3.06 \text{ (V)}$	allow use of standard symbols e.g. $V = I \times R$ accept v , V , i , I , r , R allow ECF from (i)	3
(iii)	brightness decreases; plus ONE from: resistance (of circuit) increases; current in circuit decreases;	reject reference to covering the lamp reducing the brightness of the lamp	2

(Total for Question 3 = 9 marks)