Question number			Answer	Notes	Marks
7	(a)	(i)	B – joule per coulomb; A is incorrect because this is not a correct unit for volt C is incorrect because this is not a correct unit for volt D is incorrect this is not a correct unit for volt		1
		(ii)	energy (transferred) = charge × voltage;	allow standard symbols and rearrangements	1
		(iii)	substitution; conversion of kV to V; evaluation; e.g. energy = $1.6 \times 10^{-19} \times 150 \times 10^{3}$ energy = 2.4×10^{-14} (J)		3
	(b)	(i)	charge = current × time;	allow standard symbols and rearrangements	1
		(ii)	substitution and re-arrangement; conversion of ms to s; evaluation; e.g. charge = current × time current = 2.9×10^{-8} / 0.68×10^{-3} current = 4.3×10^{-5} (A)	accept conversion to microamps or milliamps provided micro- (μ) or milli- (m) clear on answer line allow 4.265×10^{-5} (A)	3

Total for Question 7 = 9 marks