Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic : 10_Electricity

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Name of the Student:_____
Max. Marks : 16 Marks **Time : 16 Minutes**

Mark Schemes

Q1.

Question Number	Answer	Acceptable answers	Mark
(a)	repel (1) charge (1) positive (1) electrons (1)		**(4)**

Question Number	Answer	Acceptable answers	Mark
(b)(i)	An explanation linking any **three** from the following: • Droplets have same charge (1) • (droplets) repel (one another) (1) • (This produces) a fine spray/mist (1) • attraction between droplets and plant (1) • This improves coverage OR Spray covers whole [leaf /plant] top and underside of leaf/ gives a fine coating/ even coat (1) • Less spray used/wasted/ falls onto soil (so saves money) (1)	Ignore references to attracting or repelling insects. ignore droplets are positive /negative droplets spread out (produce an) even spray droplets attracted to negative/opposite charge (on plant) or spray will stick to leaves/plant better/more chance of spray landing on/hitting plant or spray (lands) evenly on plant none is wasted/Less will run off the leaves/Same amount of spray will cover a larger area(so saves money)	**(3)**

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Question Number	Answer	Acceptable answers	Mark
(b)(ii)	10 minutes = 600 seconds (1) substitution 0.008 x 600 (1) evaluation 4.8 (C) (1) Ignore any unit given by the candidate	 ECF from their time eg 2 marks for 0.08 if their time is 10 0.8/8/8.0/80 gains 1 mark (bod POT error) Power of ten error max of 2 marks eg 480 gains 2 marks Award 3 marks for correct answer, no working No power of ten error mark if answer less than 0.008 as probably dividing Award 2 marks for 0.08, no working	**(3)**

(Total for Question =10 marks)

Q2.

Question number	Answer	Additional guidance	Mark
(i)	An answer that combines the following points of understanding to provide a logical description: the situation which caused the charge separation (1) where the spark travelled {from/to} (1)	examples when refuelling, spark between end of {fuel/pipe} and vehicle =2 spark {between/from /to} person comb/clothes/metal handle and, when combing hair/removing clothing/opening door = 2 lightning flash, between cloud and cloud/plane/ground, =2 ignore between plug and socket/jump leads	**(2)**

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Question number	Answer	Additional guidance	Mark
(ii)	unit conversion (1) $0.22\ \mu C = 0.22 \times 10^{-6}$ C and $2\ ms = 2 \times 10^{-3}$ s substitution (1) 0.22×10^{-6} = current $\times 2 \times 10^{-3}$ s rearrangement (1) current = $0.22 \times 10^{-6} / 2 \times 10^{-3}$ evaluation (1) 1.1×10^{-4} (A)	Substitution and re-arrangement in either order both needed ecf award full marks for correct answer without working power of ten error only loses one mark, if the rest is correct	(4)

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