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

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Name of the Student:_____
Max. Marks : 18 Marks **Time : 18 Minutes**

Mark Schemes

Q1.

Question number	Answer	Additional guidance	Mark
			(2)
	d.c. - (current) in one direction only (1)	one way	**AO1**
	a.c. - (current) changes direction (1)	both ways	

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Q2.

Question number	Answer	Additional guidance	Mark
(i)	A description including as the potential difference (voltage) increases so does the current (1) idea of gradient of graph decreasing as V increases (1)	 positive correlation at a decreasing rate non-linear not directly proportional	(2) AO3

Question number	Answer	Additional guidance	Mark
(ii)	Award one mark for each row of the table	ignore any units added in the boxes	(2) AO2

	voltage / V	current in mA
point P	1(.00)	20
point Q	3.4 ±0.1	43 ±1

Question number	Answer	Additional guidance	Mark
(iii)	substitution (1) (R=) $\frac{4.5}{51(\times 10^{-3})}$ evaluation (1) 88.(2) (Ω)	 0.088(2) or 8.8(2) or 0.88(2) or 0.09 seen scores 1 mark 0.088(2) kΩ or 0.09 kΩ scores 2 marks award full marks for correct answer without working	(2) AO2

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Question number	Answer	Additional guidance	Mark
(iv)	an explanation linking any three of: identification of resistance increasing (1) heating (of the filament) (1) because of more collisions (1) of electrons (with ions / atoms / other electrons) (1)	 temperature increases	**(3)** **AO1**

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Q3.

Question number	Answer	Additional guidance	Mark
	a diagram of a circuit including **all** of the following: power supply / cell(s) / battery, identifiable resistance wire an ammeter a voltmeter (1) plus any **two** from ammeter in series (1) voltmeter in parallel (1) indication of tapping off / using 50cm of resistance wire (1)	accept symbols accept ohmmeter with resistance wire only ignore lamp(s) / additional resistors allow ohmmeter (across wire) instead of ammeter and voltmeter for 1 mark e.g. (crocodile) clips	**(3)** **A02**

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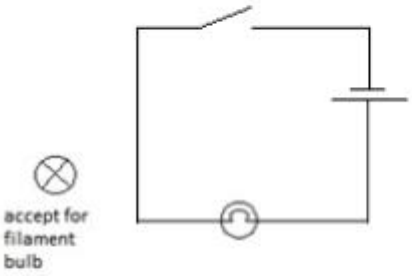
Q4.

Question number	Answer	Additional guidance	Mark
	 battery/cell symbol (1) lamp symbol (1) switch symbol (1) then complete series circuit shown (1)	ignore polarity of battery	**(4)** **AO3**

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