Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic : 11_Static Electricity

Name of the Student:_____
Max. Marks : 20 Marks **Time : 20 Minutes**

Mark Schemes

Q1.

Question number	Answer	Mark
	B negative | positive	**(1)**

Q2.

Question number	Answer	Additional guidance	Mark
	B charge A, C and D are incorrect force or property associations		**(1)** **AO1**

Q3.

	Answer	Acceptable answers	Mark
(a)	an explanation linking: balloons repel (1) (because) they have like charges (1)	balloons repulse / push away (from each other/to the side) same charge / both positive / both negative accept like charges repel for 2 marks	**(2)**
(b)(i)	☒ **D** an equal positive charge		**(1)**
(b)(ii)	an explanation linking any two of friction (between cloth and balloon) (1) transfer of electrons (1) (electrons/negative charges move) from cloth to balloon (1)	charge/electrons move accept balloon gains electrons from the cloth for 2 marks	**(2)**
(b)(iii)	a description including **two** from the following: • balloon becomes discharged (1) • metal /cabinet is a conductor (1) • electrons move through / on to metal / cabinet (1)	earthed / neutral (negative) charge for electrons accept electrons move to earth for 2 marks	**(2)**
(b)(iv)	(surface of) wall (becomes) positively charged /charged by induction (1)	charges on the wall separate charge closest to the surface of the wall is opposite to the charge on the balloon	**(1)**

Q4.

	Answer	Acceptable answers	Mark
(i)	An explanation linking • (friction/it) produces charges (at the end of the pipe) (1) • charge jumps to fuel tank (1) • (charge/friction) causes a spark (1) • can cause a fire /explosion (1)	static (electricity) builds up	**(2)**
(ii)	An explanation linking • (excess) charge / electrons (1) • Removed/ conducts away (1)	static charge discharged/ neutralised discharge current scores both marks	**(2)**

Q5.

Question Number:	Answer	Additional guidance	Mark
(i)	an explanation linking 3 of the following: friction (between cloth and comb) (1) transfer of electrons / charge {from plastic comb / on to the cloth} (1) electrons carry a negative charge (1) leaving **excess** positive charge on the comb (1)	reference to positive electrons or positive charge moving loses that mark point electrons/charges are rubbed off comb (on to cloth) leaving cloth with negative charge more protons than electrons (on the comb)	**(3)** AO 2 1

Question Number:	Answer	Additional guidance	Mark
(ii)	an explanation linking: a negative charge is induced (1) on the part of the paper closest to the comb (1) opposite charges attract (1)	allow a clear description of induction ignore references to positive charge being moved in this context only force of attraction sufficient to pick up the pieces of paper	**(3)** AO 2 1