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

Name of the Student:_____
Max. Marks : 26 Marks **Time : 26 Minutes**

Mark Schemes

Q1.

Question number	Answer	Additional guidance	Mark
(i)	An explanation that combines identification - understanding (1 mark) and reasoning - understanding (1 mark): charges move (1) because of friction (1)	 (negative) electrons transfer glass loses electrons	(2)

Question number	Answer	Mark
(ii)	An explanation that combines identification understanding (1 mark) and reasoning - understanding (1 mark): (negative) electrons are rubbed off the glass (on to the silk) (1) giving the silk a negative charge (1)	(2)

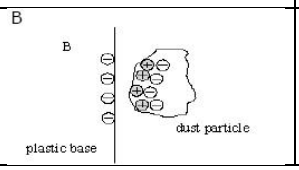
Q2.

Question Number:	Answer	Mark
	A  **The only correct answer is A** ***B*** *is not correct because the arrows are in the wrong direction* ***C*** *is not correct because the field is not circular* ***D*** *is not correct because the field is not circular*	**(1)** AO 1 1

Q3.

Question number	Answer	Additional guidance	Mark
	rub the rod with (a cloth) (1)	friction	**(1)** **AO1**

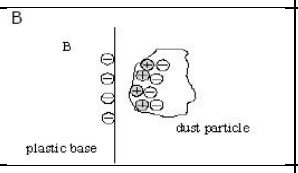
Q4.

	Answer	Acceptable answers	Mark
(i)	B electrons		**(1)**
(ii)	An explanation linking (negative) electrons transfer (1) because of friction/from cloth (to base) (1)	negative charge (reject protons and positive charge for this mp) moves cloth loses electrons/negative charge (to base) = 2	**(2)**
(iii)	A suggestion to include charge (any) could move through cup /metal (1) (cup is) earthed (1)	cup/metal is a conductor ignore metal is not an insulator to earth/ ground / to/ through student's hand	**(2)**
(iv)			**(1)**

Q5.

	Answer	Acceptable answers	Mark
(i)	☒ **D** an equal positive charge		**(1)**
(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)**
(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)**
(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)**

Q6.

	Answer	Acceptable answers	Mark
(a)(i)	B electrons		**(1)**
(a)(ii)	An explanation linking (negative) electrons transfer (1) because of friction/from cloth (to base) (1)	negative charge (reject protons and positive charge for this mp) moves cloth loses electrons/negative charge (to base) = 2	**(2)**
(a)(iii)	A suggestion to include charge (any) could move through cup /metal (1) (cup is) earthed (1)	cup/metal is a conductor ignore metal is not an insulator to earth/ ground / to/ through student's hand	**(2)**
(a)(iv)			**(1)**
(b)	A description to include the situation which caused the charge separation (1) where the spark travelled from or 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)**