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

Name of the Student:_____
Max. Marks : 19 Marks **Time : 19 Minutes**

Mark Schemes

Q1.

Question	Answer	Additional guidance	Mark
(i)	substitution (1) (P =) $\frac{130\,000}{87}$ evaluation (1) (P =) 1494 (W) value to 2sf (1) 1500 (W)	award two marks for the correct answer without working independent mark for **any** number to 2sf	**(3)** **AO2.1**

Question	Answer	Additional guidance	Mark
(ii)	substitution (1) (efficiency =) $\frac{96\,000}{130\,000}$ evaluation (1) (efficiency =) 0.74	 accept values that round to 0.74 e.g. 0.7385 accept 74 % for 2 marks allow 74 without % sign for 1 mark only allow 0.73 or 73% for 1 mark award full marks for the correct answer without working	**(2)** **AO2.1**

Q2.

Question	Answer	Additional guidance	Mark
	substitution (1) $P = 9.0 \times 230$ evaluation (1) 2100 (W)	 allow values that round to 2100 (W) e.g. 2070 (W) award full marks for the correct answer without working	**(2)** **AO2.1**

Q3.

Question Number	Answer	Additional guidance	Mark
	substitution (1) (Q=)0.9 x 50 evaluation (1) 45 unit (1) coulomb	 award 2 marks for the correct answer without working If no substitution seen 4.5 or 450 scores 1 mark only independent mark C, c, As Accept recognisable spellings of coulomb	**(3)**

Q4.

Question number	Answer	Additional guidance	Mark
(i)	Substitution and evaluation (1) 15 (Ω)		**(1)** **A02**

Question number	Answer	Additional guidance	Mark
(ii)	select / recall (1) (power =) V x I or (power =) I^2 x R or (power =) $\frac{V^2}{R}$ substitution and evaluation (1) (power =) 1.4 (W)	 (power =) 4.5 x 0.3 0.3^2 x 15 $\frac{4.5^2}{15}$ allow 1.3(5) (W) award full marks for the correct answer without working	**(2)** **A02**

Q5.

Question number	Answer	Additional guidance	Mark
	substitution (1) 1.56 = 0.45 x R rearrangement and evaluation (1) (R =) 3.5 (ohms)	alternative method rearrangement (1) (R =) $\frac{V}{I}$ **or** (R=) $\frac{1.56}{0.45}$ (substitution and) evaluation (1) (R =) 3.5 (ohms) allow values that round to 3.5 e.g. 3.46(666) 3.47 etc award full marks for the correct answer without working	**(2)** **AO2**

Q6.

Question number	Answer	Additional guidance	Mark
(i)	substitution (1) (charge) = 0.46 x 30 evaluation (1) (charge) = 14 (C)	 any number that rounds to 14 e.g. 13.8 award full marks for the correct answer without working	**(2)** **AO2**

Question number	Answer	Additional guidance	Mark
(ii)	substitution (1) (energy transferred) = 0.46 x 6.0 x 60 evaluation (1) (energy transferred) = 170 (J)	 allow (energy transferred) = 0.46 x 6.0 x 1 or (energy transferred) = 0.46 x 6.0 x 30 any number that rounds to 170 e.g. 165.6 or 166 allow answers that round to 2.8 or 83 e.g. 2.76 or 82.8 for 1 mark only award full marks for the correct answer without working	**(2)** **AO2**