Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic: Electricity (Standard demand)

Merit Minds
www.merit-minds.com
Exam Preparation and Free Resources

Name of the Student:_____
Max. Marks : 22 Marks **Time : 22 Minutes**

Mark Schemes

Q1.

(i) power = current × voltage
or any correctly transposed version

accept watts = amps × volts
accept P = IV
do not credit P = CV
accept p.d. for voltage triangle acceptable only if used correctly in (ii)

1

(ii) 2 000 000 (1)

2000 kilowatts/kW (2)
accept KW

watts/W (1)

2 megawatts/MW (2)
*do not credit mW (1) if correct method is clearly shown but answer is numerically incorrect **or** unit is absent **or** incorrect*
do not credit any working from an incorrect equation in (d)(i) but an appropriate unit should be credited

2

[3]

Q2.

(a) 0.9

1

1.1

accept the value of A_4 + 0.2

1

(b) V = I R **or** 12 = 0.6 R **or** $\frac{12}{0.6} = ?$

accept V = A R
V = I × ohm's sign
do not credit Ohm's law triangle

2

R = 20

correct numerical answer earns both marks

ohms

1

(c) $A_3 = 0.3$

$A_4 = 0.3$

accept the same numeric value as A_3

$A_5 = 0.5$

accept the value of $A_4 + 0.2$

3

[8]

Q3.

(a) A = battery (of cells)/cells/cell
B = thermistor/temperature dependent resistor
C = transistor
D = LED/light emitting diode
E, F, G = resistors

each for 1 mark

5

(b) *ideas that* (resistance) falls from 3000 to 200 units – ohms/Ω – referred to at least once

each for 1 mark

(*credit quickly at first then more slowly with 2 marks*) (*max 4 for part (b)*)

4

(c) any figure in the range 22 – 26 (inclusive)

gains 1 mark

but 24

gains 2 marks

2

[11]