Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic: Electricity (High Demand)

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

Mark Schemes

Q1.

(a) 125

*allow **1** mark for obtaining time period = 0.008 (s)*
or
frequency = 1 / time period (or their calculated time period)

2

hertz
or
Hz

*do **not** accept hz*

1

(b) 50 (hertz)

1

[4]

Q2.

(a) alternates

accept switches
accept (constantly) changes
accept goes up and down

1

between positive and negative

1

(b) potential difference between the neutral and earth (terminal)

accept voltage for p.d

or potential of the neutral terminal with respect to earth

1

(c) (i) 0.025 (s)

1

(ii) 40 (Hz)

accept 1 ÷ their (a)(i)

1

[5]

Q3.

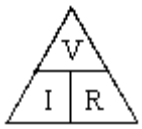
(a) (i) potential difference = current × resistance

*accept voltage **or** pd for potential difference*

accept $V = I \times R$

accept correct transformation

*do **not** accept $V = C \times R$*
*do **not** accept $V = A \times R$*

accept 

provided

subsequent use of Δ correct

*do **not** accept an equation expressed in units*

1

(ii) 46

*credit correct transformation for **1** mark*

allow 1 mark for use of 11.5 V or division of final resistance by 20

*a final answer of 920 gains **2** marks only*

3

ohm(s)

accept symbol Ω
*do **not** accept Ω s*

unit / symbol mark can be awarded in (iii) provided unit / symbol is omitted in (ii)

1

(iii) 920 (ohms) **or** their (a)(ii) × 20

1

(b) as temperature increases, resistance increases

accept hotter for temperature increase

*do **not** accept a reference to resistance only i.e. it / resistance goes up*

1

[7]

Q4.

(i) power = potential difference × current

accept voltage for potential difference

accept $P = V \times I$

***or** correct transposition*

accept 

provided subsequent method correct

1

(ii) 8

*allow **1** mark for correct substitution or transformation **or** an answer 2.67 / 2.7*

2

[3]