Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic: Energy (Low Demand)

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

Name of the Student:_____
Max. Marks : 23 Marks **Time : 23 Minutes**

Mark Schemes

Q1.

(a) LED

1

(b) the same as

1

(c)

*an answer of 600 (thousand) or 600 000 scores **2** marks*
*two correct readings from the graph scores **1** mark*

1500 − 900

allow a range of 1480 to 1520 and a range of 880 to 920

1

600 (thousand)

allow an answer in the range of 560 (thousand) to 640 (thousand) consistent with their allowed readings

1

(d) repeat the experiment using exactly the same method

1

(e) power = 0.80 × 0.020

1

power = 0.016 (W)

1

*an answer of 0.016 (W) scores **2** marks*

(f) power = (current)^2 × resistance

1

(g) temperature increases

1

(h)

*an answer of 3.6 (C) scores **2** marks*

Q = 0.020 × 180

1

Q = 3.6 (C)

1

[11]

Q2.

(a) to stop the metal case of the toaster becoming live if a fault occurs

1

(b) yellow

1

brown

1

blue

1

(c) E = 850 × 120

1

E = 102 000 (J)

1

*an answer of 102 000 (J) scores **2** marks*

(d) elastic potential

1

kinetic

1

(e) gravitational potential energy = mass × gravitational field strength × height

or

$E_p = m\ g\ h$

allow gpe

1

allow any correct re-arrangement

(f) 0.049 = 0.050 × 9.8 × h

1

$$h = \frac{0.049}{0.050 \times 9.8}$$

1

h = 0.10 (m)

1

*an answer of 0.10 (m) scores **3** marks*

[12]