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

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

Mark Schemes

Q1.

(a) E = 15 000 × 36

1

E = 540 000

1

E = 540 (kJ)

*an answer of 540 (kJ) scores **3** marks*

1

(b) (the motor in) scooter **B** has a higher power

1

therefore

(because both motors have the same efficiency) scooter **B** will have a greater kinetic energy

1

(c) the battery in scooter **B** has a greater store of chemical energy

1

(d) energy transferred = power × time

allow E = P × t

1

(e) 20 × 60

1

E = 1 200 × 700

1

E = 840 000 (J)

*an answer of 840 000 (J) scores **3** marks*

1

[10]

Q2.

(a) thermometer

1

stopclock / stopwatch

accept measuring cylinder
accept top pan balance

1

(b) independent: type of oil

1

dependent: temperature rise in °C

1

(c) wear safety goggles

1

oil not heated directly

accept any reasonable comment about not handling hot apparatus.

1

(d) repeat the experiment

1

and calculate the mean temperature rise

OR

heat the oil for a longer period of time (1)

to get a wider range of temperatures (1)

1

(e) (17 + 17 + 18) / 3 (= 17.33)

1

temperature rise = 17 (°C)

1

*accept 17 (°C) with no working shown for **2** marks*
*allow 17.33 with no working shown for **1** mark*

(f) E = 0.025 × 1800 × 20 (J)

1

E = 900 (J)

1

*allow 900 without working shown for the **2** calculation marks*

Joule

1

[13]