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

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

Mark Schemes

Q1.

(a) biofuel

1

geothermal

1

(b) it is predictable

1

(c) 2.8 MW

1

(d) any **two** from:
- visual pollution
- noise pollution
- dangerous to birds
- may lower house prices

2

(e) **Level 2:** Relevant points (reasons / causes) are identified, given in detail and logically linked to form a clear account.

3–4

Level 1: Points are identified and stated simply, but their relevance is not clear and there is no attempt at logical linking.

1–2

No relevant content

0

Indicative content

- less fossil fuel burnt
- more nuclear fuel used
- more renewables used
- gas remained the same
- less carbon dioxide released
- less greenhouse gases
- less global warming
- less acid rain
- less environmental pollution
- more hazardous waste produced (nuclear)
- the percentage generated by coal has decreased 8%
- the percentage generated by renewables has increased by 6%
- the percentage generated by nuclear has increased by 2%

[10]

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Q2.

(a) $E_p = 50 \times 9.8 \times 4.0$

1

$E_p = 1960$ (J)

allow an answer rounded to 2000 (J)

1

*allow a maximum of **1** mark if g = 10 N/kg is used*

*an answer of 1960 scores **2** marks*

(b) $E_k = 0.5 \times 50 \times 7^2$

1

$E_k = 1225$ (J)

allow 1200 or 1230 (J)

1

*an answer of 1225 scores **2** marks*

(c) some energy is wasted

1

the g.p.e of the girl is not zero

1

(d) reduces the amount of friction

*do **not** accept reference to friction between the wheels and the ramp*

1

so more energy is usefully transferred

*allow less energy is wasted **or** less heating*

1

greater kinetic energy

1

[9]

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