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

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

Mark Schemes

Q1.

(i) reduces

for 1 mark

1

(ii) less heat/energy/power wasted (in power lines)

for 1 mark

1

(iii) for safety

for 1 mark

1

[3]

Q2.

Read all the answer first. See below.

Mark the first two advantages and disadvantages (√ or *X*) ignoring

neutral answers. Only allow a third advantage if there is only one disadvantage given. Only allow a third disadvantage if only one advantage is given.

max. 3 advantages (e.g. cheap fuel, good availability, saving fossil fuels, low running costs, reliable, more energy / kg, less fuel needed, no greenhouse gases emitted, no SO_2 causing acid rain)

max. 3 disadvantages (e.g. danger to health of local community, non renewable, high cost of decommissioning, long half life of waste materials, need for safe storage of waste, high cost of commissioning, danger involved in transporting fuel / waste)

max. 4 marks

[4]

Q3.

newton **or** N

metre **or** m

joules **or** J

all three correct 2 marks
two or one correct 1 mark

[2]

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Q4.

(a) insulation

allow example e.g fibreglass

1

double glazing

allow curtains

1

draught excluder

allow double glazing / close fitting door

allow turning down thermostat once only / turn down the heating

1

(b) transfers more useful energy

allow converts more energy into light / less into heat / less energy wasted

1

[4]

Q5.

(a) mark independently

(from) gravitational

accept potential

do not credit stored

1

(to) kinetic

accept movement

1

(b) **advantage**

* the current can be low (for the same power)

* less energy **or** heat loss **or** power loss

accept the cables do not have to be (so) thick

accept less cost to support higher (rather than heavier) cables

accept aluminium can be used and aluminium is cheaper than copper

*do not credit efficient **or** cheaper*

do not credit no loss of energy

do not credit electricity loss

2

disadvantage

* it is difficult to insulate high voltage

* pylons have to be taller and so more expensive

...to give a good separation between them and the ground /people/high vehicles

***or** ... to prevent/reduce the danger of electric shock **or** lethal*

do not credit dangerous

do not credit get a shock

*do not credit reference to step down transformers **or** electromagnetic field*

2

[6]

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