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

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

Name of the Student:_____
Max. Marks : 20 Marks **Time : 20 Minutes**

Mark Schemes

Q1.

(a) hydrogen converted to helium

1

(nuclear) fusion

1

((small) loss in mass) which is converted to large amount of energy

1

(b) (i) any **two** from

it is running out/ takes millions of years/finite
not *non renewable*
allow acid rain ***do not*** *allow waste*

pollution **or** problem with CO_2 production
allow a specific example

more responsible to use fossil fuels for (important) chemical functions

2

(ii) any **three** from

need lots of land for generators **or** many generators needed

generators may not be conveniently located

uncertainty of supply
accept the wind may not always blow

social resistance **or** visual pollution

noise pollution

high initial costs

(possible) interference with (local) radio and TV signals

3

[8]

Q2.

(a) internal **or** thermal **or** heat **or** kinetic **or** movement

electrical

*both answers required for **one** mark*

1

(b) (i) Sun **or** solar

*do **not** accept sunshine*

1

(ii) any **one** of the follow:

- wind turbines produce no (gaseous) pollutants
- wind turbines use renewable energy
- wind turbines produce no (solid) waste
- reduced running costs

*do **not** allow safety*

1

a supporting statement **or** comparison **or** explanation

1

[4]

Q3.

To gain marks the candidate must

1. Select one option — Advantages) Max 4
2. State 8 valid advantages/disadvantages/relevant comparisons with either of the alternatives — Disadvantages) Min 1 Comparisons)
   If no A or D or C then Max 4
   No option then Max 4

Look for As, Ds for chosen scheme.
Then for Cs compared with A/D for chosen scheme.

Below are listed some of the relevant mark scoring points.

	Advantages	Disadvantages
Wind	Land available to North No pollution Close/low transmission costs No fuel costs Renewable energy resource	Initial cost Many windmills/much land Calm day problem Few long term jobs
Coal	Waste land to North Prevailing wind to East Good road/rail transport Close/low transmission costs Save coal industry Overall labour intensive	Pollution Initial costs Fuel costs Non-renewable energy Resource
Hydroelectric	No pollution Mountains/lake/river nearby No fuel costs Renewable energy source	Possible drought Distant/transmission costs Few jobs created Possible expensive underground transmission cable Construction of dam

affects environment

[8]