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

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Name of the Student:_____
Max. Marks : 17 Marks **Time : 17 Minutes**

Mark Schemes

Q1.

(a) very little cloud cover

allow high intensity sunlight

1

favourable wind speed

allow high wind speed

1

(b) 35.4×10^9

allow 35 400 000 000

1

$E = 35.4 \times 10^9 \times (20.8 / 100)$

1

$E = 7.4 \times 10^9$(J)

*an answer of 7.4×10^9(J) or 7 400 000 000 scores **3** marks*

allow 7 400 000 000

1

(c) nuclear

1

(d)

Level 3: Relevant points (reasons/causes) are identified, given in detail and logically linked to form a clear account.	4-6
Level 2: Relevant points (reasons/causes) are identified, and there are attempts at logically linking. The resulting account is not fully clear	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 **step up transformer** • increases the potential difference • decreases the current • reduces heating of transmission cables	

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• less wasted energy • more efficient energy transfer **transmission cables** • low resistance • reduces heating • reduces wasted energy **step down transformer** • increases the current • decreases the potential difference • to a safe level • the level is suitable for domestic appliances	

6

(e) P = E / t

P = 18 000 000 / 3 600

1

P = 5 000

1

P =I V

I = P / V

1

I = 5 000 / 230

1

I = 22 (A)

allow an answer that rounds to 22 (A)
*an answer of 22 (A) scores **5** marks*

1

[17]

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