

Name of the Student: _____

Max. Marks : 19 Marks

Time : 19 Minutes

Mark Schemes

Q1.

- | | | |
|-----|--|---|
| (a) | fan | 1 |
| | drill | 1 |
| | washing machine | |
| | <i>four circled including correct three scores 1 mark</i> | |
| | <i>five circled scores zero</i> | 1 |
| (b) | Appliances only transfer part of the energy usefully | 1 |
| | The energy transferred by appliances makes the surroundings warmer | 1 |

[5]

Q2.

- | | | |
|-----|---|---|
| (a) | gas (burning) | 1 |
| (b) | (i) (transmission) cables and (step-up and step-down) transformers | |
| | <i>if transformers are named ie step-up transformer then both step-up and step-down must be given</i> | |
| | <i>mention of power station or consumer negates mark</i> | 1 |
| | (ii) voltage | 1 |
| | more efficient | 1 |
| (c) | increase | 1 |

[5]

Q3.

- | | | |
|-----|-----|-----|
| (a) | (i) | 0.6 |
| | | or |

60%

allow 1 mark for correct substitution ie $\frac{720}{1200}$ provided no subsequent step shown
an answer of 0.6 / 60 with a unit gains 1 mark only
an answer of 60 gains 1 mark only

2

(ii) heat

allow thermal

1

(b) 12 000 p
or
£120

to score both marks the unit must be consistent with the numerical answer
answers 12 000 and 120 gain 1 mark only
allow 1 mark for correct substitution ie 800×15 or 800×0.15
provided no subsequent step shown

2

[5]

Q4.

(a) (i) solar and wind

both required for mark either order

1

(ii) 37(%)

*accept their **two** sources in a(i)*
correctly added as an error carried forward (ecf)

1

(b) A

1

(c) gas is non-renewable

*do **not** accept they are not all renewable*
statements such as gas produces CO_2 $_2$ is neutral

1

[4]