

Name of the Student: _____

Max. Marks : 18 Marks

Time : 18 Minutes

Mark Schemes

Q1.

- | | | | |
|-----|--|---|------------|
| (a) | condensation | 1 | |
| (b) | larger (exposed) surface area | 1 | |
| | (so) water can evaporate faster | | |
| | or | | |
| | (so) more water (molecules) can escape | | |
| | <i>allow more water can evaporate</i> | 1 | |
| | | | [3] |

Q2.

- | | | | |
|-----|-------------------------------------|---|------------|
| (a) | balls are far apart from each other | 1 | |
| | balls move randomly | 1 | |
| (b) | solid | 1 | |
| | gas | 1 | |
| | | | [4] |

Q3.

- | | | | |
|-----|--|---|------------|
| (a) | 400(kWh) | | |
| | <i>65850 – 65450 gains 1 mark provided no subsequent step shown</i> | 2 | |
| (b) | (i) reflectors | 1 | |
| | (ii) insulator | 1 | |
| (c) | 100 000(J) | | |
| | <i>correct substitution i.e. $50 \times 1000 \times 2$ gains 1 mark provided no subsequent step shown</i> | 2 | |
| | | | [6] |

Q4.

- (a) water

allow H_2O / OH_2

1

- (b) water (filled heater)

allow 3kW

1

highest power (output) / most powerful / highest number of watts

only scores if first marking point correct

allow highest energy / heat output

allow has more power

ignore stores most energy / references to heat

1

- (c) $E = m \times c \times \theta$

27 000

allow 1 mark for correct substitution into correct equation:

$2 \times 900 \times 15$

or

$2000 \times 900 \times 15$

or

27 000 000

2

[5]