Name of the Student:_____
Max. Marks : 24 Marks **Time : 24 Minutes**

Mark Schemes

Q1.

…….. conduction
…….. convection
…….. insulation
…….. radiation

for 1 mark each

[4]

Q2.

(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]

Q3.

(a) (heat) is conducted through the glass

the answers must be within the context of the question

1

(heat) passes through glass and air by radiation

both glass and air required

1

(heat) crosses the air gap by convection

mention of conduction through air is neutral

1

(b) any **one** from

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light

accept sunlight

gamma rays

X-rays

radio

accept sound ***or*** *ir* ***or*** *microwaves* ***or*** *electromagnet waves*

1

(c) any **two** from

cuts down convection currents

accept stops air moving

air pockets trap air (from moving)

accept has air pockets
do not accept stops heat moving ***or*** *traps heat*

foam is a poor conductor

air in the foam is a good insulator

accept air is a good insulator in air pockets for both marks

2

(d) evaporation (of the water)

do not accept rain is cold

1

takes energy from the house

accept takes heat away ***or*** *higher energy molecules leave first*

1

[8]

Q4.

(a) radiates
absorbs / conducts
reflects

for 1 mark each

3

(b) C make sure the lamp is the same distance from both tubes
B switch on the lamp
A switch off the lamp
E wait for the temperature to stop rising
D read the thermometers

for 1 mark each

5

[8]

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