

Name of the Student: _____

Max. Marks : 18 Marks

Time : 18 Minutes

Mark Schemes

Q1.

- (a) (i) **D** 1
- (ii) plastic or rubber
accept a specific type of plastic
accept electrical insulator 1
- (b) 460
allow 1 mark for correct substitution ie 2×230 2
- (c) any **two** from:
- not all appliances need a 13 A fuse
idea that 13 A is (much) bigger than required by many appliances
*do **not** accept some appliances require more than 13 A*
*do **not** accept 13 A fuse will blow*
 - can choose the most suitable fuse (for the appliance)
accept install correct fuse for the appliance
 - (in the event of a fault) 13 A fuse may allow too much current to flow through an appliance
or
fuse may not melt (before appliance is damaged)
 - may already have the fuse
idea of reusing a fuse
*do **not** accept cheaper unless explained correctly* 2
- [6]**

Q2.

- (a) radio
radio must be chosen for reason to score 1
- gives out sound
inclusion of other forms of energy negates mark
or

others give out heat / thermal energy

1

(b) Kettle

accept 2.5 (kW)

1

(c) 60 (p)

accept £0.6(0)

allow 1 mark for correct substitution ie 4×15

substitution only scores if no subsequent step shown

£60 scores 1 mark

2

(d) (bigger volume) takes more time (to boil)

accept explanation using data from graph

1

(so) more energy transferred

*do **not** accept electricity for energy*

1

(and) this costs more money

ignore references to cost of water

1

[8]

Q3.

(a) switch

allow answer circled in box

1

(b) 24

1

(c) equal to 0.25 A

1

(d) 4

1

[4]