

Name of the Student: _____

Max. Marks : 18 Marks

Time : 18 Minutes

Mark Schemes

Q1.

(a) iron 1

hairdryer 1

kettle 1

answers can be in any order

(b) (i) Y 1

(ii) bar drawn with any height greater than Y
ignore width of bar 1(c) (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 reference to cost of water
wasting more money because heating more water than needed is insufficient 1**[8]****Q2.**(a) £16.50
allow 1 mark for correct substitution ie 110×15
*an answer of 1650 gains **both** marks*
*an answer of 43.80 gains **both** marks*
allow 1 mark for 292×15 2(b) 292
allow 1 mark for correctly using the reading 53490

Q3.

- (a) (i) connect the earth wire (to pin)
answers must be in terms of correcting the faults

1

screw cable grip (across cable)
accept tighten the cable grip

1

- (ii) any **two** from:

- fuse gets (very) hot
- fuse melts
accept blows for melts
*do **not** accept break / snap fuse / blow up*
- circuit breaks / switches off
accept stops current flowing

2

- (b) any **two** from:

- hairdryer is plugged into mains (electricity socket)
it refers to hairdryer
hairdryer works from the mains
- or**
hairdryer is using 230 V
accept 240 for 230
- water conducts electricity
*do **not** accept water and electricity don't mix*
- radio is low power / current / pd / voltage
accept radio not connected to the mains
*do **not** accept radio is waterproof*
- (the current in / pd across) hairdryer more likely to give a (fatal) electric shock
accept the idea of electrocution if hairdryer is wet
accept the idea of radio not causing electrocution if wet

2