Name of the Student:_____
Max. Marks : 21 Marks **Time : 21 Minutes**

Mark Schemes

Q1.

(a) (i) earth wire

1

(ii) double

1

(b) if too much current flows through the wire

accept power for current
*do **not** accept electricity for current*
accept if more than 20 amps flows through the wire

1

the fuse (overheats and) melts

accept 'blows' for melts
do not accept explodes / breaks / snaps etc

1

breaking the circuit

accept stopping the current flow

1

[5]

Q2.

Fan C

1

Kettle B

1

Lamp D

1

Radio E

1

[4]

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) 6

1

(ii) variable resistor

1

(iii) voltmeter

1

(b) (i) point at 3 V ringed

1

(ii) The student misread the ammeter.

1

(iii) 1 (volt)

accept every volt

1

(c) as one increases so does the other
or
directly proportional
or
positive correlation

accept a numerical description, eg when one doubles the other also doubles

1

[7]