

Practice Question Set For GCSE  
Subject : Physics  
Paper-1 Topic: Electricity (Low Demand)

Name of the Student: \_\_\_\_\_

Max. Marks : 21 Marks

Time : 21 Minutes

Mark Schemes

**Q1.**

- (a) (i) TV 1
- (ii) hairdryer and sandwich toaster  
*both required either order but no others* 1
- (b) (i) 1.2  
*allow 1 mark for correct substitution*  
*ie  $0.4 \times 3$  provided that no subsequent step is shown* 2
- (ii) 18  
*accept £0.18 for both marks*  
**or**  
their (b)(i)  $\times 15$  correctly calculated  
*an answer 0.18 scores 1 mark*  
*allow 1 mark for correct substitution*  
*ie 1.2 or their (b)(i)  $\times 15$  provided that no subsequent step is shown* 2

[6]

**Q2.**

- (a) **A** 1  
*only scores if A chosen*
- it is alternating / a.c.  
*accept because B and C are d.c.*
- or**  
it changes direction/p.d.  
*accept voltage for p.d.*  
*it goes up and down is insufficient*  
*it is constantly changing is insufficient*  
*an answer B and/or C with the reason because it is direct current/d.c*  
*scores 1 mark* 1
- (b) too much current (through socket)  
*accept electricity for current*

*accept too much power*  
*accept socket/circuit overloaded*  
*do not accept voltage/p.d for current*

1

wiring / socket gets hot

*accept melts for gets hot*

*accept risk of fire*

*risk of fire in appliances is insufficient*

*ignore reference to sparking*

*overloaded plugs and plugs getting hot or fuses melting is insufficient*

1

[4]

### Q3.

(a) fan

1

drill

1

washing machine

*four circled including correct three scores 1 mark*

*five circled scores zero*

1

(b) Appliances only transfer part of the energy usefully

1

The energy transferred by appliances makes the surroundings warmer

1

[5]

### Q4.

(a) (i) A

1

(ii) bar drawn with correct height

*ignore width of bar*

1

(b) (i)  $E = P \times t$

2.4

*allow 1 mark for correct substitution*

*ie  $1.2 \times 2$*

*provided no subsequent step shown*

2

(ii) 36 or their (b)(i)  $\times 15$  correctly calculated

**or**

their (b)(i)  $\times 0.15$  correctly calculated with an answer given in £

*allow 1 mark for correct substitution*

*ie  $2.4 \times 15$*

**or**

*their (b)(i)  $\times 15$*

*allow **1** mark for correct substitution*

*provided no subsequent step shown*

*an answer £0.36 gains both marks*

2

[6]