Name of the Student:_____
Max. Marks : 23 Marks **Time : 23 Minutes**

Mark Schemes

Q1.

(a) (i) 13A

for 1 mark

1

(ii) fuse heated melts owtte / blows / burns out **Not** explodes / burns
circuit breaks

any 2 for 1 mark each

2

(b) (i) 2750 × 6 or 2.75 × 6

gains 1 mark

but
16.5

gains 2 marks

2

(ii) 2750 × 6 × 7 or 2.75 × 6 ×7 or (b)(i) × 7 or kW h × cost / kW h

gains 1 mark

but
115p or 116p or 115.5p or £1.16 or £1.15

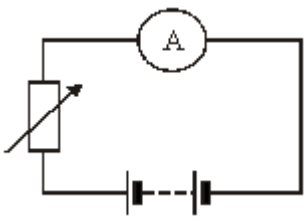
gains 2 marks

2

[7]

Q2.

(a)



3

one mark for each symbol
allow more than 2 cells joined

max. 2 marks if symbols incorrectly allow rheostat arrow in either direction

(b) current will decrease

1

since resistance greater

1

[5]

Q3.

(a) (i) power ÷ voltage = current **or**
2800 ÷ 240 = 11.6 – 11.7 **or** 12
2 marks for correct answer 1 mark for 2.8 ÷ 240

2

(ii) resistance = voltage ÷ current

240 ÷ 11.7
(efc here)

1

20.5 **or** 20.57 **or** 20.6 **or** 21
2 marks for correct answer

1

ohms **or** Ω
do not credit R

1

(b) 850 ÷ 1500 × 100
marks only available for division of power

1

= 56.7
2 marks for correct answer
for 1 mark accept 5670

1

[7]

Q4.

(a) changes the sound wave(s)

to a varying **or** changing (electric) potential difference **or** p.d. **or** voltage **or** current **or** to an irregular alternating current or a.c. **or** transfers sound energy to electrical energy (1) mark is vibrations **or** pulses **or** of sound **or** in air become electrical waves
*do not credit just 'to electricity' **or** 'to a.c'*

2

(b) (i) decrease **or** reduce the amplitude
accept less amplitude nothing else added

1

(ii) increase the frequency **or** decrease wavelength
accept higher frequency nothing else added

1

[4]