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Exam Preparation and Free Resources

Name of the Student:_____

Max. **Marks : 20 Marks**   **Time : 20 Minutes**

Mark Schemes

Q1.

level drops as petrol used;
causes circuit resistance to increase;
causes current to decrease
for 1 mark each

or if change not specified;
(one correct and two vague statements gains 2 marks,
three vague statements gains 1 mark)
e.g. level changes;   )
so resistance changes;) = 1 mark
so current changes   )

[3]

Q2.

(a)   Current = 0.4A (1)
R = V/I or 240/0.4 (1)
R = 600 ohm (1)

3

(b)   Doubles
gets 2 marks

OR gets bigger
gets 1 mark

2

(c)   P = V.I or 240 × 0.4
P = 96W
for 1 mark each

2

(d)   1 = 0.2A
P = 48W
for 1 mark each
BUT may get equation mark here if not in (c)

2

(e)   P = V.I.t (1)
P = 240 × 0.2 × 6 × 3600
OR P = 48 × 6 × 3600
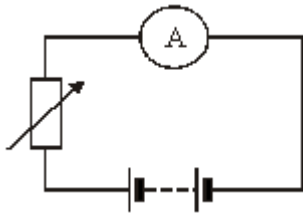*gets 1 mark*

P = 1036800 W

gets 1 mark

3

[12]

Q3.

(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]