6/10/20

Deven Jadhav Class 10 C Roll, no 10

Physics
MT Revision - (1)

1. a) Current

The SI unit of electric current is ampere named after the French scientist Andre-marie ampere.

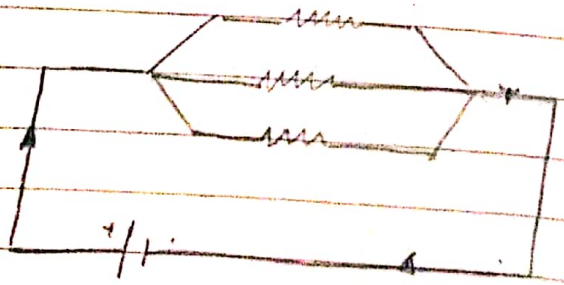
b) Potential Difference

The SI unit of P.D is volt (V) named after Alexandra Volta - an Italian physicist.

Resistance :

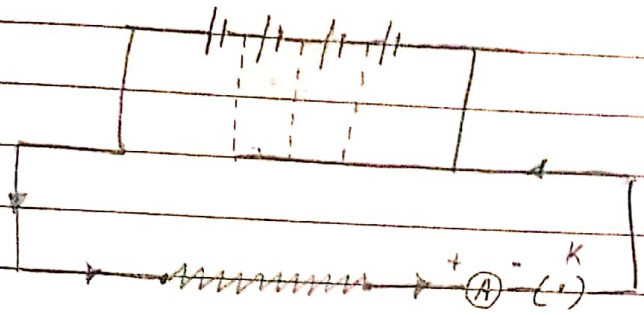
The SI unit of resistance is ohm (Ω) named after Georg simon ohm, a German physicist.

2. a) Resistors in parallel.



(PTO)

b) Ohm's Law



3. The advantages of using parallel arrangements are:

Ans) i) A parallel circuit divides the current through the current the electrical gadgets.

ii) The total resistance in parallel circuits is decreased.

iii) This is helpful & particularly when any gadget has different resistance and ~~must~~ requires different current to operate properly.

4. A) Ohm's Law:

- The potential difference V across the ends of a given metallic wire in an electric circuit is directly proportional to the current flowing through it provided its temperature remains same.

i.e. $V \propto I$

$\frac{V}{I} \Rightarrow$ constant $\Rightarrow \frac{V}{I} = R$

$V = IR$, $R = \frac{V}{I}$ $\rightarrow$ $I = \frac{V}{R}$

where R is a constant for given metallic wire
[illegible] and is known as resistance

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B) Joule's law:

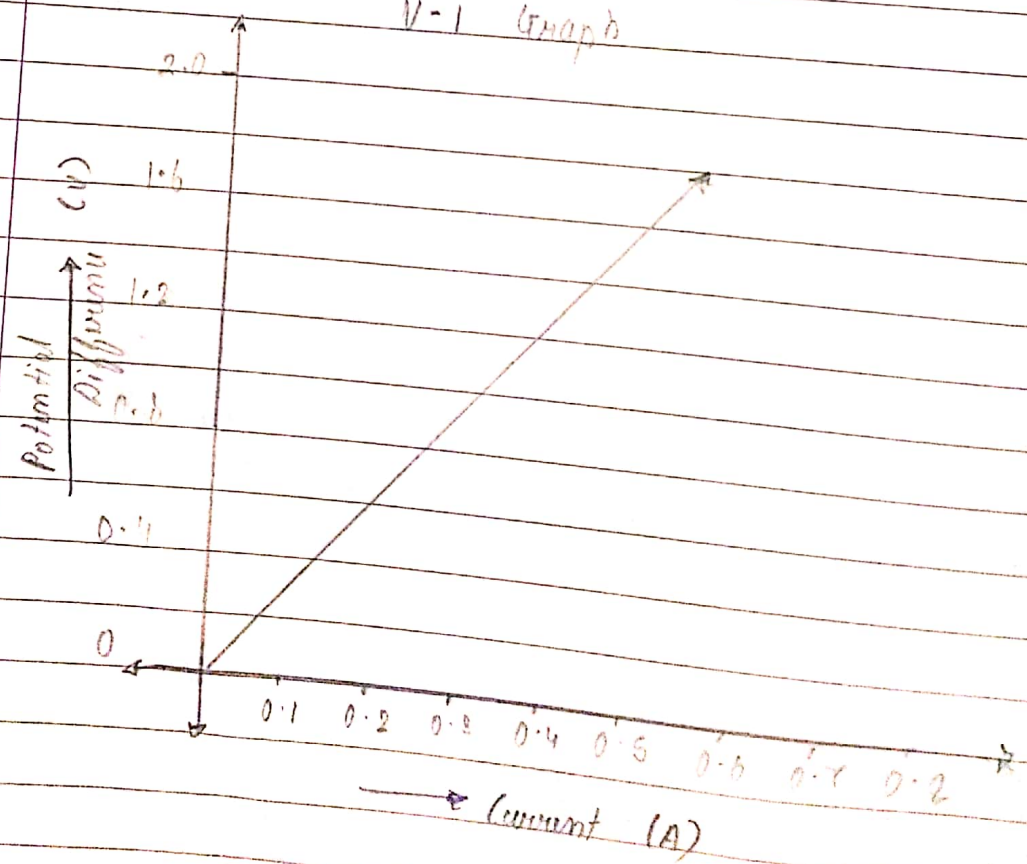
The heat produced in a resistor is →

1. i7 directly proportional to the square of a current for given resistance.

ii7 Directly proportional to the resistance for given resistance

iii7 Directly proportional for time for which the current flows through it.

5. V - I graph:



2.