K Education Centre

GCSE Physics – Particles

P4: Electric Circuits – Assignment 1

Assignment Questions

P4 : Electric Circuits(Current and Charge)

Q: What is current? Define 1 Ampere of current

Q: A charge of 20.0 C passes through a bulb in 10 secs. Calculate the current through the bulb.

Q: State what is variable resistor is used for.

Q: Explain with the diagram, the energy transfer of an electron around the circuit when the switch is closed.

Q: Calculate the resistance of the torch bulb when current through it is 0.20 A and potential difference across is 12.0 V.

 Also calculate the charge passing through it in 3 mins and energy delivered to the bulb in this time.

Q: Calculate the missing values in following table:

Resistor	Current (A)	Potential Difference(V)	Resistance (ohms)
A	3.0	12.0	
B	5.0		20
C		8.0	2.0