

Qns-7:- Factors which affect Resistance:-

Resistance of a material has depends on several factors :-

① Types of materials :-

→ All material have some resistance, But some resist more or less than others like plastic → high Resistance → called Electric Insulators.

★ Metals → Low Resistance → Electric Conductor.

② Width :-

★ wide wire → ^{Less} ~~more~~ resistance than a narrow wire with same material, because more current flows through a wide wire than narrow wire.

③ Length :-

★ Long wire → more resistance than short. Because in long wire current flows to far distance & chances to collide with particles of matter are more.

④ Temperature :-

★ cooler wire → less resistance than warmer.

Because, cooler wire have less kinetic energy, so they move slowly, ∴ less chance to collide with moving e^- in current.

material like superconductor has virtually no resistance when they are cooled to extremely low temp.ⁿ.