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ELECTRICITY AND MAGNETISM

DIRECT CURRENT

Current -----

Relation between Drift speed and Current -----

Resistance and Resistivity -----

Microscopic View of Ohm's Law (Resistivity - Atomic View) -----

Solved Examples -----

Exercise -----

MAGNETIC EFFECT OF CURRENT

Source of Magnetic Field -----

Magnetic Field -----

Magnetic Field and Force -----

Gauss Law for Magnetism -----

Permeability -----

Hall Effect -----

Biot and Savart Law -----

Right Hand Rule -----

Application of Biot Sovert Law -----

Magnetic field due to long straight conductor carrying current -----

Magnetic field due to a current in a circular loop -----

Magnetic field due to a current in a circular arc of wire -----

Magnetic field due to solenoid -----

Force on a Conductor in Magnetic Field -----

Force between parallel conductors -----

Amperes Theorem -----

Application of Amperes circuital law -----

Magnetic field due to long straight conductor carrying current -----

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Solved Examples -----

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ELECTROMAGNETIC INDUCTION

Faradays Law of Induction -----

Lenz's Law -----

Induced Electric Field -----

Self Induction -----

Inductance of a Solenoid -----

Self Inductance of Toroid -----

LR Circuit -----

Energy Stored in Magnetic Field -----

Energy Density of Magnetic Field -----

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