



### ACROSS

- 1 \_\_\_\_\_'s law of induction states that the induced EMF in a closed loop equals the negative of the time rate of change of magnetic flux through the loop.
- 3 The \_\_\_\_\_-electromotive force is the voltage, or electromotive force, that pushes against the current which induces it.
- 8 The \_\_\_\_\_ is the SI unit of inductance.
- 9 A \_\_\_\_\_ is an electrical switch that periodically reverses the current in an electric motor or electrical generator.
- 11 \_\_\_\_\_ force or potential of a body is the work done in joules to bring a unit electric charge from infinity to the body.
- 13 The \_\_\_\_\_ effect is a process by which an EMF is induced in which a changing electric current in a primary coil creates a changing magnetic field that induces a current in a secondary coil.
- 14 A resistor-inductor circuit, a \_\_\_\_\_ circuit, consists of a resistor and an inductor, either in series or in parallel, driven by a voltage source.

### DOWN

- 1 Magnetic \_\_\_\_\_ is a measure of quantity of magnetism, taking account of the strength and the extent of a magnetic field.
- 2 A \_\_\_\_\_ circuit consists of an inductor and a capacitor.
- 4 A \_\_\_\_\_ current is caused when a moving or changing magnetic field intersects a conductor, or vice-versa, causing a circulating current within the conductor.
- 5 An electric \_\_\_\_\_ converts electrical energy into mechanical energy.
- 6 Electromagnetic \_\_\_\_\_ is the production of voltage across a conductor situated in a changing magnetic field or a conductor moving through a stationary magnetic field.
- 7 An electrical \_\_\_\_\_ is a device that converts kinetic energy to electrical energy, generally using electromagnetic induction.
- 10 The \_\_\_\_\_ is the SI unit of magnetic flux.
- 12 \_\_\_\_\_'s law states that induced EMF opposes the change in flux producing it.