



### ACROSS

- 3 \_\_\_\_\_ energy refers to the energy due to the interaction of electric charges with an electric field, and the energy stored in that field.
- 7 The \_\_\_\_\_ is the SI unit of capacitance.
- 8 \_\_\_\_\_ is the difference of electrical potential between two points of an electrical or electronic circuit, expressed in volts.
- 9 A \_\_\_\_\_, or electrical insulator, is a substance that is highly resistant to the flow of an electric current.
- 14 Electric \_\_\_\_\_ is the positional energy per unit of charge associated with a static electric field, typically measured in volts.
- 15 A \_\_\_\_\_ charge is an idealized model of a charged particle as being located within a mathematical point with no dimensions.
- 16 \_\_\_\_\_'s law states that the magnitude of the electrostatic force between two point electric charges is directly proportional to the product of the magnitudes of each charge and inversely proportional to the square of the distance between the charges.

### DOWN

- 1 \_\_\_\_\_ is the branch of physics that deals with the electrical phenomena which can be observed with stationary electric charges.
- 2 Electric \_\_\_\_\_ is a fundamental conserved property of some subatomic particles, which determines their electromagnetic interaction.
- 4 A \_\_\_\_\_ is an electrical device that can store energy in the electric field between a pair of closely spaced conductors.
- 5 The linear, surface, or volume charge \_\_\_\_\_ is the amount of electric charge in a line, surface, or volume, measured in coulombs per metre, square metre, or cubic metre, respectively.
- 6 The \_\_\_\_\_ is the SI derived unit of electric potential difference or electromotive force.
- 10 Electrical \_\_\_\_\_ difference is the voltage present between two points, or the voltage drop transversely over an impedance.
- 11 Michael \_\_\_\_\_ was an English chemist and physicist who contributed significantly to the fields of electromagnetism and electrochemistry. He established the basis for the magnetic field concept in physics.
- 12 The space surrounding a charged particle or in the presence of a time-varying magnetic field has a property called a \_\_\_\_\_ field, which exerts force on other charged particles.
- 13 The \_\_\_\_\_ is the SI unit of electric charge.