

1. ohm	unit of electrical resistance	16. volt	the amount of work required to move a unit charge between two points in a circuit or field; the unit for potential difference
2. kilowatt-hour	unit of electrical energy used by utilities to sell electricity	17. ampere	the unit of electrical current
3. series circuit	an electrical circuit or portion of a circuit with a single path of current flow through a connected set of electrical components	18. electrical resistance	the property of all electrical circuit elements that impedes the flow of current to some extent
4. parallel circuit	an electrical circuit with multiple parallel paths so that the current must split up to flow through each load in the circuit	19. resistor	an electrical circuit component whose specific purpose is to impede current flow or to create a potential difference between two points in the circuit
5. short circuit	a location in an electrical circuit where current bypasses a circuit's load to take a low-resistance path back to the current's source	20. Ohm's Law	states that in a DC-circuit components of resistance, the voltage equals the resistance times the current ($V = IR$)
6. overcurrent protection	an electrical device designed to open the circuit and stop the current when a high-current situation exists due to a fault in the circuit	21. semiconductor	material that allows limited electron flow so it can act as either an insulator or a conductor
7. circuit breaker	overcurrent protection device that opens a switch when current exceeds a certain value; can be reset	22. electrical discharge	the loss of static charge on an object as the surroundings supply or absorb charges to restore a neutral condition
8. arc-fault circuit interrupter	overcurrent protection device that opens a switch when the pulsing, high-current conditions associated with arcing are detected; can be reset	23. lightning rod	metal rod attached to the highest point of a building designed to conduct a lightning discharge safely through cables into the ground
9. fuse	one-time-use overcurrent protection device that breaks a circuit when the conductor strip melts due to the current becoming too high	24. Leyden jar	early charge-storage device
10. ground-fault circuit interrupter	an electrical device that instantly opens the circuit when it senses that an abnormal path for the current to ground exists	25. capacitor	modern charge-storage device used in electrical circuits that has two or more conductive plates separated by an insulator
11. electrical circuit	complete path for an electrical current; includes a current source, a conductor, a load, and a point at which the current returns to the source	26. electrical current	a continuous flow of electrical charges
12. electrical load	a device that purposely converts electrical energy to another form of energy in an electrical circuit	27. cathode-ray tube	a hollow, vacuum-filled and sealed glass device containing electrical plates with opposite charges at high voltages
13. switch	device that opens or closes a gap in an electrical circuit to control the flow of current	28. electrical potential energy	energy or work that can be done by charges moving between two points of different voltages
14. battery	source of electrical potential consisting of one or more voltaic cells connected in series	29. conventional current	the flow of positive charges through a conductor or electrolytic solution
15. electrochemical cell	a device that creates electrical potential by either releasing or absorbing electrons or both through chemical reactions	30. direct current	electrical current that flows in only one direction
		31. static electricity	all electrical phenomena relating to stationary electrical charges and the forces they exert
		32. electrostatic force	a field force exerted by electrical charges
		33. law of charges	states that like charges repel and unlike charges attract
		34. coulomb	unit of electrical charge

35. lines of force	imaginary lines used to model electric and magnetic fields
36. electrical induction	creation of a charged region on a neutral object when exposed to a nearby electrical charge
37. dipole	object or particle with two electrical or magnetic poles of opposite nature
38. electroscope	an instrument that can detect electrical charge
39. electrical conductor	any material through which heat and electricity easily flow
40. electrical insulator	a material that does not easily conduct thermal energy or electricity