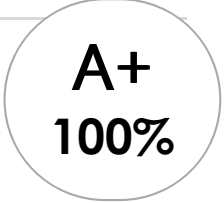


## 28 Multiple choice questions



**A+**  
**100%**

1. the energy used by a 1 kilowatt appliance operating for 1 hour
  - a. voltmeter
  - b. motor
  - c. watt (W)
  - d. **CORRECT: kilowatt-hour**
  
2. a meter used to measure the potential difference between two points
  - a. voltage (V)
  - b. **CORRECT: voltmeter**
  - c. volt (V)
  - d. motor
  
3. the ratio of the applied voltage across a conductor to the current through it is a constant;  $R=V/I$ 
  - a. Ohm
  - b. **CORRECT: Ohm's law**
  - c. magnetism
  - d. power (P)
  
4. a measure of the work done per unit charge as a charge is moved between two points in an electric field
  - a. voltage (V)
  - b. potential energy
  - c. **CORRECT: potential difference (V)**
  - d. positive charge
  
5. a device that changes electrical energy into mechanical (kinetic) energy
  - a. **CORRECT: motor**
  - b. Ohm
  - c. neutral
  - d. voltmeter

6. a region around a magnet where a magnetic force would be felt
  - a. magnetic poles
  - b. magnetism
  - c. **CORRECT: magnetic field**
  - d. line of force
  
7. the sum of the currents into any point in a circuit is equal to the sum of the currents out of that point
  - a. Kirchoff's second (voltage) law
  - b. Ohm's law
  - c. **CORRECT: Kirchoff's first (current) law**
  - d. Oersted's experiment
  
8. an electric circuit which has only one pathway
  - a. **CORRECT: series circuit**
  - b. resistance
  - c. parallel circuit
  - d. solenoid
  
9. the property of certain materials that allows them to attract iron objects
  - a. **CORRECT: magnetism**
  - b. magnetic poles
  - c. neutral
  - d. magnetic field
  
10. the property of a material that makes it difficult for electric charge to flow;  $R=V/I$ 
  - a. **CORRECT: resistance**
  - b. neutral
  - c. volt (V)
  - d. voltmeter
  
11. energy due to position or configuration; stored energy
  - a. positive charge
  - b. voltmeter
  - c. **CORRECT: potential energy**
  - d. potential difference (V)

12. the state of no overall electric charge
- Ohm
  - CORRECT: neutral**
  - motor
  - volt (V)
13. fuses, circuit breakers, earth-leakage devices that protect users from electrocution
- voltmeter
  - CORRECT: safety devices**
  - solenoid
  - magnetic poles
14. a circuit containing more than one pathway for the current
- static electricity
  - power (P)
  - CORRECT: parallel circuit**
  - series circuit
15. the time ratio of doing work;  $P=VI$
- solenoid
  - watt (W)
  - volt (V)
  - CORRECT: power (P)**
16. a line drawn tangential to the direction of the force on a charge (or mass or magnet) at each point
- magnetic field
  - CORRECT: line of force**
  - neutral
  - motor
17. where the magnetism is concentrated in a magnet; always come in pairs
- magnetic field
  - magnetism
  - CORRECT: magnetic poles**
  - line of force

18. one watt is the power developed when 1 joule of energy is transformed in 1 second
- volt (V)
  - voltage (V)
  - CORRECT: watt (W)**
  - power (P)
19. the SI unit of electrical resistance; equal to that resistance which will allow a current of one ampere to flow when there is a potential difference of one volt
- motor
  - solenoid
  - neutral
  - CORRECT: Ohm**
20. the SI unit of potential difference; the potential difference between two points is one volt if one joule of work is done to move one coulomb of charge between the two points
- voltage (V)
  - watt (W)
  - power (P)
  - CORRECT: volt (V)**
21. another name for potential difference
- watt (W)
  - volt (V)
  - CORRECT: voltage (V)**
  - voltmeter
22. when the thumb of the right hand points in the direction of conventional current, the fingers curl in the direction of the magnetic field
- line of force
  - CORRECT: right-hand grip rule**
  - negative charge
  - magnetic poles

23. a coil of wire that acts like a bar magnet when current flows through it
- volt (V)
  - motor
  - power (P)
  - CORRECT:** solenoid
24. electric charges at rest
- CORRECT:** static electricity
  - parallel circuit
  - safety devices
  - series circuit
25. the sum of the potential drops around a circuit is equal to the sum of the emfs
- Oersted's experiment
  - CORRECT:** Kirchoff's second (voltage) law
  - Ohm's law
  - Kirchoff's first (current) law
26. charge that will repel an electron
- positive charge
  - potential energy
  - resistance
  - CORRECT:** negative charge
27. charge that will attract a negative charge; the type of charge found on protons
- potential energy
  - CORRECT:** positive charge
  - voltmeter
  - negative charge
28. an experiment that showed that a current carrying conductor produces a magnetic field around it
- CORRECT:** Oersted's experiment
  - potential energy
  - Ohm's law
  - series circuit

