ELECTRICITY EXERCISE

1. Which of the given is the SI Unit of Electric Current?
A. Ohm
B. Ampere
C. Volt
D. Faraday

2. The hindrance presented by material of conductor to the smooth passing of electric current is known as:
A. Resistance
B. Conductance
C. Inductance
D. None of these

3. A fuse wire is inserted in which wire?
A. Live wire
B. In the neutral wire
C. In the earth wire
D. May be connected in any line

4. The rate of flow of an electric charge is known as :
A. Electric potential
B. Electric conductance
C. Electric current
D. None of these

5. The instrument used for measuring electric current is :
A. Ammeter
B. Galvanometer
C. Voltmeter
D. Potentiometer

6. The amount of work done in joules, when one unit electric charge moves from one point to another point in an electric circuit is called :
A. Electric current
B. Electric resistance

C. Electric conductance
D. Potential difference

7. The unit of potential difference is :
A. Volt
B. Ohm
C. Ampere
D. Faraday

8. The relation between potential difference (V) and current (I) is :
A. $V \alpha I2$
B. $V \alpha 1/I$
C. $V2 \alpha I$
D. $V \alpha I$

9. The relation between potential difference (V) and current (I) was discovered by :
A. Newton
B. Ampere
C. Ohm
D. Volta

10. The obstruction offered by material of conductor to the passage of electric current is known as :
A. Resistance
B. Conductance
C. Inductance
D. None of these

11. The SI unit of resistance is :
A. Newton
B. Ohm
C. Watt
D. Joule

12. The heat produced by passing an electric current through a fixed resistor is proportional to the square of:
A. Magnitude of resistance of the resistor
B. Temperature of the resistor
C. Magnitude of current
D. Time for which current is passed

13. An electric heater is rated at 2 Kw. Electrical energy costs Rs 4 per k Wh. What is the cost of using the heater for 3 hours?
A. Rs. 12
B. Rs. 24
C. Rs. 36
D. Rs. 48

14. The commercial unit of energy is:
A. Watt
B. Watt-hour
C. Kilowatt-hour
D. Kilo-joule

15. An electric fuse works on the:
A. Chemical effect of current
B. Magnetic effect of current
C. Lighting effect of current
D. Heating effect of current

16. If the amount of electric charge passing through a conductor in 10 minutes is 300 C, the current flowing is:
A. 30 A
B. 12.03 AM
C. 12.05 AM
D. 5.00 AM

17. The resistivity of copper metal depends on only one of the following factors. This factor is:
A. Length
B. Thickness
C. Temperature
D. Area of cross-section

18. When a 4 Ω resistor is connected across the terminals of a 12 V battery, the number of coulombs passing through the resistor per second is:
A. 0.3
B. 3
C. 4
D. 12

19. The device used for measuring potential difference is known as:
A. Potentiometer

B. Ammeter
C. Galvanometer
D. Voltmeter

20. Keeping the potential difference constant, the resistance of a circuit is doubled. The current will become:
A. Double
B. Half
C. One-fourth
D. Four times

21. The unit for measuring potential difference is:
A. Watt
B. Ohm
C. Volt
D. kWh

22. The resistivity of a certain material is 0.6 Ωm. The material is most likely to be:
A. An insulator
B. A superconductor
C. A conductor
D. A semiconductor

23. The resistance of a wire of length 300 m and cross-section area, 1.0 mm^2 made of material of resistivity 1.0 x 10^{-7} Ω is:
A. 2 Ω
B. 3 Ω
C. 20 Ω
D. 30 Ω

24. The other name of potential difference is:
A. Amphereage
B. Wattage
C. Voltage
D. Potential energy

25. The unit of electrical resistance is:
A. Ampere
B. Volt
C. Coulomb
D. Ohm

26. If the resistance of a certain copper wire is 1Ω, then the resistance of a similar nichrome wire will be about:
A. 25 Ω
B. 30 Ω
C. 60 Ω
D. 45 Ω

27. A car headlight bulb working on a 12 V car battery draws a current of 0.5 A. The resistance of the light bulb is:
A. 0.5 Ω
B. 6 Ω
C. 12 Ω
D. 24 Ω

Answers key

1. B	2. A	3. A	4. C	5. A
6. D	7. A	8. D	9. C	10. A
11. B	12. C	13. B	14. C	15. D
16. C	17. C	18. B	19. D	20. B
21. C	22. D	23. D	24. C	25. D
26. C	27. D			