

JSUNIL TUTORIAL, SAMASTIPUR, BIHAR
CLASS- X

SUBJECT – SCIENCE (ELECTRICITY)

1. How are different electric appliances connected in a house?(1)
2. What is the resistance of an ideal ammeter?
3. A wire of resistivity ρ is stretched to double its length. What will be its new resistance?
4. What is the law of combination of resistances in parallel?
5. What is the other name of electric potential?
6. Give the symbol of fixed resistance and variable resistance.
7. Define the unit of resistance.
8. 1 m V is equal to
(a) 1 volt (b) 1000 volt (c) 1/1000 volt (d) 1/10000 volt
9. The equivalent resistance between A and B is
(a) 1 ohm (b) 2 ohm (c) 1.5 ohm (d) 6 ohm
10. Which of the following charge is not possible?
(a) $1.6 \times 10 \text{ C}$ (b) $0.2 \times 10 \text{ C}$ (c) $0.35 \times 10 \text{ C}$ (d) $0.1 \times 1.6 \times 10 \text{ C}$
11. What happens if the pd across a resistance is doubled?
12. On what factors does resistivity of material depend?

13. Name two special characteristics of heater coil.
14. 10 electrons are removed from a neutral body. The charge acquired by a body is
(a) $1.6 \times 10^{-19} \text{ C}$ (B) $1.6 \times 10^{-18} \text{ C}$ (C) $-1.6 \times 10^{-18} \text{ C}$ (d) 10^{-19} C
15. Why is resistance less in parallel combination? (1)
16. State and derive Ohm's law. (2)
17. What is the cause of resistance? (2)
18. Differentiate between resistor and resistance. (2)
19. Calculate the energy consumed in 20 days, if two bulbs of 30 W work for 6 hrs, three fans of 80 W work for 10 hrs daily and one tube of 60 W works for 3 hrs daily. (3)
20. Calculate the equivalent resistance in the given circuit. (3)
21. Which is better, series combination or parallel combination in an electric circuit, and why? (3)
22. What do you mean by potential difference? Write and define its unit. (3)
23. Calculate the potential difference, if there are 5000 charge carriers flowing for 10 min through a resistance of 100 ohm. (3)
24. Calculate the ratio of series to parallel combination if there are n number of resistances. (3)
25. What will be the new resistance if a wire of resistance 80 ohm is bent into a circular form? (1)