

# JSUNIL TUTORIAL, SAMASTIPUR

CBSE Test paper Chapter- Electricity-01

Fm: 30 Time: 45 min.

## One mark questions

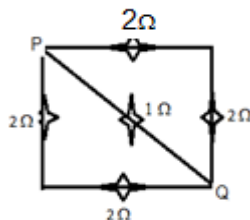
1. Define the term “electric current”.
2. Define the term ‘resistivity’ of a material.
3. How is a Voltmeter connected in the circuit to measure the potential difference between two points?
4. You have two metallic wires of resistances 6 ohm and 3 ohm. How will you connect these wires to get the effective resistance of 2 ohm?
5. If the distance between two electric charges is doubled, how much will the force exerting between them change to?

## Two marks questions

6. State Ohm’s law. “The resistance of a conductor is  $1\Omega$ .” What is meant by this statement?
7. Why are coils of electric toaster made of an alloy rather than a pure metal?
8. Why is the series arrangement not used for domestic circuits?
9. A wire of resistivity ‘ $\rho$ ’ is stretched to double its length. How does it affect the (a) resistance (b) resistivity?
10. Write 2 points of difference between direct and alternate current

## 3 marks questions

11. Derive the equation for resultant resistance of Resistors in series
12. How much work is done in moving a charge of 3 coulomb from a point at the volts 115 to a point at 125 volts?[ 30j]
13. A heater wire whose power is 4KW is connected to 220 V source calculate:-  
(i) Electric current in the circuit (ii) Resistance of heater (iii) Energy consumed in 2 hours.
14. Calculate the effective resistance between P and Q.



15. (a) Which has more resistance: 100W bulb or 60W bulb?  
(b) A wire of resistance  $5\Omega$  is bent in the form of a closed circle. What is the effective resistance between the two points at the end of any diameter of the circle?