

O P JINDAL SCHOOL, SAVITRINAGAR

PRACTICE PAPER-09

CLASS XII PHYSICS

TOPIC : CURRENT ELECTRICITY

Date : 07/05/20

1. The sequence of bands marked on a carbon resistor are: Orange, Yellow, Red, Silver. Write the value of resistance with tolerance.
2. A wire of resistance $4R$ is bent in the form of circle. What is the effective resistance between the ends of diameter?
3. (a) You are given $8\ \Omega$ resistor. What length of wire of resistance $120\ \Omega\text{m}^{-1}$ should be joined in parallel with it to get a value of $6\ \Omega$?
 (b) Two wire of equal length one copper and manganin have same resistance, which wire is thicker?
4. A copper wire of resistivity r is stretched to reduce its diameter to half of its previous value. What will be the new resistances?
5. Three resistance $3\ \Omega, 6\ \Omega$ and $9\ \Omega$ are connected to a battery. In which of them will the power dissipation be maximum if
 a) They all are connected in parallel
 b) They all are connected in series Give reason.
6. A silver wire has a resistance of $2.1\ \Omega$ at 27.5°C and a resistance of $2.7\ \Omega$ at 100°C . Determine the temperature coeff. of resistivity of silver.
7. Two wires A and B have same lengths and same material, have their cross sectional areas $1:4$, what would be the ratio of heat produced in these wires when the voltage across each is constant.
8. Define the following terms with formula.
 (a) drift velocity
 (b) electron density
 (c) electron mobility
 (d) internal resistance
 (e) limitations of ohm's law

OR

Find the equivalent resistance between



