

1) What is meant by emf?

2) Three resistors with R , $2R$, and $3R$ resistances are connected in parallel. What is the total resistance of this circuit?

3) A cell has an emf of 6.3V and an internal resistance of $0.09\ \text{ohm}$. The current in the circuit is 0.5A . What is the total power of the cell?

4) When do we use superconductors in a circuit?

5) Discuss one advantage and one disadvantage of using superconductors in electrical transmission over long distances.