



Computer Architecture

Tutorial - 05

Answer all questions.

01. A circuit has a resistance of 10 ohms and a current of 2 amperes. What is the voltage across the circuit?
02. If a power supply provides a voltage of 12 volts and the circuit has a resistance of 4 ohms, what is the current flowing through the circuit?
03. A light bulb has a resistance of 50 ohms and operates at a voltage of 120 volts. How much current does it draw?
04. A circuit has a current of 5 amperes and a voltage of 20 volts. What is the resistance of the circuit?
05. A resistor dissipates power at a rate of 12 watts when a current of 2 amperes passes through it. What is the resistance of the resistor?
06. A circuit has a resistance of 8 ohms and draws a current of 3 amperes. What is the power dissipated by the circuit?
07. A power supply delivers a current of 2 amperes to a circuit with a resistance of 15 ohms. What is the power supplied by the source?
08. A device operates at a power of 60 watts and has a voltage of 120 volts. What is the current consumed by the device?
09. A circuit has a voltage of 24 volts and a power of 48 watts. What is the current flowing through the circuit?
10. If a resistor has a resistance of 100 ohms and a power dissipation of 2 watts, what is the current flowing through it?

