

KNOWLEDGE PROBE 4: SYSTEMS VIEW OF ELECTRONICS

Power Systems

Learning Objectives

1. Describe power consumption.
 2. Distinguish between different power supplies.
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1. Most electronic power supplies convert
 - a. AC to AC
 - b. AC to DC
 - c. DC to AC
 - d. DC to DC
 2. A power supply called an inverter converts
 - a. AC to AC
 - b. AC to DC
 - c. DC to AC
 - d. DC to DC
 3. The amount of electrical power consumed by a piece of equipment or power supply is rated in
 - a. Amperes
 - b. Joules
 - c. Volts
 - d. Watts
 4. What is the total power consumed by a power supply that furnishes 3.3 volts at 0.6 amps and 1.8 volts at 1.7 amps?
 - a. 1.98 watts
 - b. 3.06 watts
 - c. 5.04 watts
 - d. 6.06 watts
 5. The main physical manifestation of power consumption is
 - a. Cooling
 - b. Heat
 - c. Light
 - d. Physical movement
 6. What is the name of the power supply that uses an inverter?
 - a. Bus system
 - b. DC-DC converter
 - c. Regulator
 - d. Uninterruptible power supply



7. What is the name of the power distribution connections between an unregulated DC power supply and its loads?
 - a. Bus
 - b. Feedback wiring
 - c. PCB connections
 - d. Power cables
8. What power supply circuit connects between the unregulated DC source and the load to maintain a constant output?
 - a. Amplifier
 - b. DC-DC converter
 - c. Fuse
 - d. Regulator
9. What power supply circuit connects between the unregulated DC source and the load to change the output from one value to another?
 - a. DC-DC converter
 - b. Power management
 - c. Regulator
 - d. Transformer
10. What do you call an IC that turns off power to unused circuits after a period of time?
 - a. DC-DC converter
 - b. Inverter
 - c. Power management
 - d. Regulator