

## 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