

KNOWLEDGE PROBE 2: SYSTEMS VIEW OF ELECTRONICS

Electronic Processes

Learning Objectives

1. Distinguish between different processes used in electronics.
 2. Explain how the different processes work.
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1. The most common process in electronics is probably
 - a. Amplification
 - b. Attenuation
 - c. Filtering
 - d. Mixing
 2. A process that is frequency selective is called
 - a. Amplification
 - b. Attenuation
 - c. Filtering
 - d. Mixing
 3. Altering a high frequency signal with another signal for transmission purposes is known as
 - a. Filtering
 - b. Mixing
 - c. Modulation
 - d. Signal generation
 4. The process of converting AC into DC is known as
 - a. AC-DC conversion
 - b. Attenuation
 - c. Inversion
 - d. Rectification
 5. Which of the following is NOT a common signal source?
 - a. Clock
 - b. Frequency synthesizer
 - c. Logic gate
 - d. Oscillator
 6. Impedance matching is performed to produce
 - a. Maximum amplification
 - b. Maximum output voltage
 - c. Maximum power transfer
 - d. Minimum noise



7. The process of introducing a loss in the signal level is called
 - a. Anti-amplification
 - b. Attenuation
 - c. Compression
 - d. Filtering

8. What type of circuits performs arithmetic and makes decisions?
 - a. Amplifiers
 - b. Logic gates
 - c. Mixers
 - d. Phase shifters

9. The most useful outputs of a mixer with inputs f_1 and f_2 are
 - a. $f_1 \times f_2$ and f_1/f_2
 - b. $f_1 + f_2$ and $f_1 - f_2$
 - c. $f_1 + f_2$ and $f_1 \times f_2$
 - d. $\sqrt{f_1}$ and $\sqrt{f_2}$

10. What IC is a part of almost every single piece of electronic equipment?
 - a. Amplifier
 - b. Embedded controller
 - c. Personal computer
 - d. Rectifier

11. Which of the following is NOT a usual part of a microcomputer?
 - a. Amplifier
 - b. CPU
 - c. I/O circuits
 - d. Memory