

KNOWLEDGE PROBE 1: MICRO & EMBEDDED CONTROLLERS

Part 2: Popular Microcontrollers and Software

Popular 8 and 16-Bit Microcontrollers

Learning Objectives

- Identify and distinguish between the most common and popular 8, 16, 32, and 64-bit microcontrollers.
- Identify reasons for using different types of processors.

1. The oldest but still very popular 8-bit MCU is the
 - a. 68HC11
 - b. 8051
 - c. AVR
 - d. PIC
2. Which is NOT a manufacturer of the 8051?
 - a. Freescale
 - b. Intel
 - c. Maxim
 - d. Philips
3. The 68HC11 is made by
 - a. Freescale
 - b. Intel
 - c. Maxim
 - d. Microchip
4. The PIC MCUs are made by
 - a. Freescale
 - b. Intel
 - c. Maxim
 - d. Microchip
5. The 68HC11 uses Harvard architecture.
 - a. True
 - b. False
6. The PIC processors are RISC designs.
 - a. True
 - b. False



7. What does the PIC processor use instead of separate computing registers?
 - a. A segment of RAM
 - b. Fast I/O
 - c. Harvard architecture
 - d. Two ALUs
8. Which of the following is NOT a 16-bit MCU?
 - a. Freescale 68HC12
 - b. PIC24
 - c. TI MSP430
 - d. Zilog Z8
9. The main reasons for using 16, 32, or 64-bit processors is they
 - a. Can address more memory
 - b. Can represent larger numerical values
 - c. Move more data faster
 - d. All of the above
10. Most 32 and 64-bit micros use the RISC design.
 - a. True
 - b. False
11. The most popular 32-bit embedded processor is the
 - a. ARM
 - b. MIPS
 - c. Pentium
 - d. Power PC
12. Most 32 and 64-bit processors are individual ICs rather than cores.
 - a. True
 - b. False