

Assume that you have included the file `hcs12.h` in your C programs. When it is being asked to “write some C code”, you do not have to include the declaration of variables, the `main ()` function, etc.

(20) 4.1. Write some C code which will set bits 7, 2, 1, and 0 of the 8-bit register at address `0x004D` while leaving the other bits unchanged.

(20) 4.2. Write some C code which will clear bits 15, 10, 5, and 0 of the 16-bit register at address `0x1000` while leaving the other bits unchanged.

(20) 4.3. How do you enable other interrupts when the HCS12 is executing an interrupt service routine?

(20) 4.4. Assume that the starting address of the service routine for the timer overflow interrupt is `$3000`. Write the assembler directives to initialize its vector table entry with D-Bug12 monitor.

(20) 4.5. Consider an array of eight 8-bit data located in memory starting at address `0x2100`. Write a C program which will swap the first element of the array with the last element; the second with the next-to-last element, etc.