

**Question 1:** (20 points)

In a database, a date of birth is stored into a single 32-bits word in the following format: MDYY, where M is a single byte used to store the month as an unsigned 8-bit integer, D is a single byte used to store the day as an unsigned 8-bit integer, and YY are two bytes used to store the year as an unsigned 16-bit integer. Assume that this word has been loaded into register `$s0`. Write a sequence of MIPS assembly instructions that, after its execution, will result in register `$v0` containing a 32-bit unsigned integer representing the day of birth extract from the word described above.