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ASM Lab #1

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The screenshot displays the ARMSim# - The ARM Simulator interface. The window title is "ARMSim# - The ARM Simulator Dept. of Computer Science". The menu bar includes File, View, Cache, Debug, Watch, and Help. The interface is divided into several panes:

- RegistersView**: Shows the state of 16 registers (R0-R15) and the CPSR register. The registers are listed with their hexadecimal values. R0-R15 are all 0x00000000. R10 (s1) is 0x00000000. R11 (fp) is 0x00000000. R12 (ip) is 0x00000000. R13 (sp) is 0x0011400. R14 (lr) is 0x00010ec. R15 (pc) is 0x0001014. The CPSR register shows Negative (N) : 0, Zero (Z) : 1, Carry (C) : 1, Overflow (V) : 0, IRQ Disable : 1, FIQ Disable : 1, Thumb (T) : 0, and CPU Mode : System. The CPSR value is 0x600000df.
- CodeView**: Shows the assembly code for the file "UsefulFunctions.o". The code is displayed in hexadecimal and assembly format. The assembly code includes instructions like "swi 0x123456", "errormsg:", ".ascii \"Control is not expected to enter the co\"", ".ascii \"This file contains functions which shou\"", ".ascii \"\\r\\n\"", ".asciz \"Entering test mode for the atoi&itoa fu\"", and ".align 2".
- OutputView**: Shows the console output. The output includes the text "Entering test mode for the atoi&itoa functions ...", "Testing itoa/atoi in pairs...", and a list of numbers being tested: 9, -9, 123, -123, 546781, -546781, 2147483647, -2147483647, and 0. The output concludes with "Testing of itoa/atoi completed".