Questions:

1. The maximum V_{IHmin} for the input to the IC's is 3.5 V. The AVR128DB48 drives a minimum of 4.5 volts out of the GPIO pins. This is sufficient for powering each IC.
2. Yes, my system correctly distinguishes between the 74HC00 and the 74LS03. It does this by first testing for nand logic without internal pullups enabled for the DUT outputs. If a 74LS03 is being tested, this will cause it to fail, but for the 74HC00, it will pass. After testing for the other types of IC's, my system enables pullups and again tests for nand logic. This will pass for the 74LS03. It then disables the internal pullups for the DUT outputs. This method requires no additional external components.