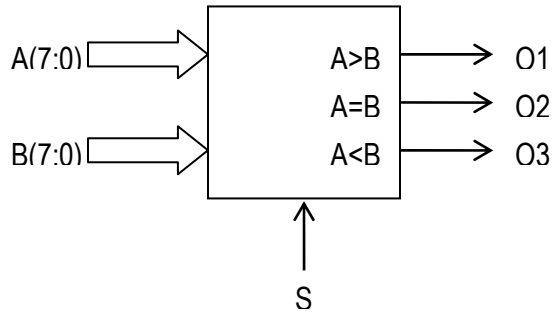


Homework #2

Design Problem #1 (100 pts.)

Use VHDL to design and test a combinational circuit capable of comparing two 8-bit vectors, A and B. A selection pin S should determine whether the comparison is signed (S=1) or unsigned (S=0). The circuit must have three outputs O1, O2, and O3, corresponding to A>B, A=B, A<B, respectively.



- (a) Submit VHDL code for both design and testbench.
- (b) Submit the waveforms used for testing (with comments). Make sure to illustrate that the system works as expected

Grading will be based on:

- o Correctness of the design [40 pts]
- o Compliance with specifications [10 pts]
- o Effectiveness of testing [40 pts]
- o Coding style [10 pts]