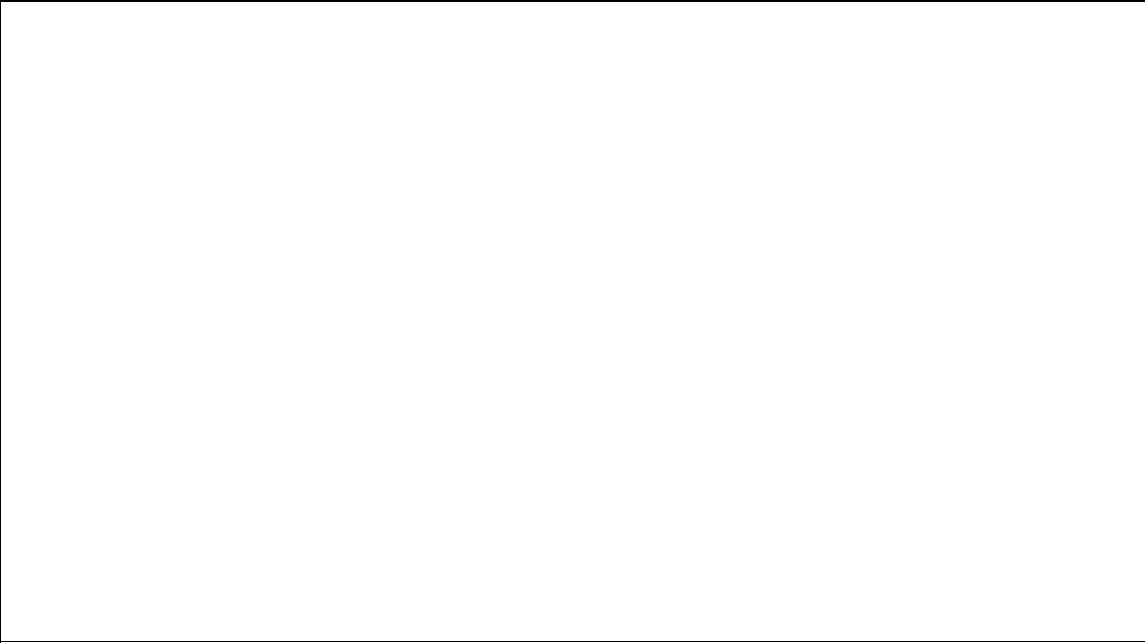


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OPERATE INSTRUCTIONS



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Please refer to Appendix A, Figure A.2 of [Introduction to Computer Systems](#) for a list of LC-3 instructions. If the link doesn't work please copy and paste the following URL http://highered.mheducation.com/sites/0072467509/student_view0/appendices_a_b_c_d_e.html

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1. CHECK YOUR UNDERSTANDING (1/1 point)

What operation is performed by the LC-3 instruction 010111111110000?

- ☒ The rightmost 4 bits in register 7 are cleared. ✓
- ☐ The binary value 111111111110000 is added to register 7 and that value is written back to register 7.
- ☐ The value in register 7 is copied to register 6.
- ☐ The values in registers 7 and 0 are ANDed and the result is written to register 7.

EXPLANATION

The opcode 0101 indicates that this is an AND instruction, and it is the immediate type since bit 5 = 1. The immediate value 10000 gets sign extended to 1111111111110000. The source and destination registers are both 7, which means that this instruction clears the rightmost 4 bits of register 7.

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