



Princess Sumaya University for Technology

Computer Engineering Dept.

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22342 Computer Organization & Assembly Language

Thu 12 Apr 2012

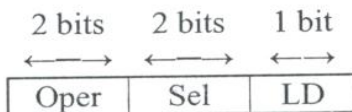
Quiz 3 (5 Minutes)

Student Name:

ID:

Student Serial Number (1 – 34):

Question: A simple datapath was designed as shown. The ALU can perform the listed operations.
(2 Points) The instruction format is:



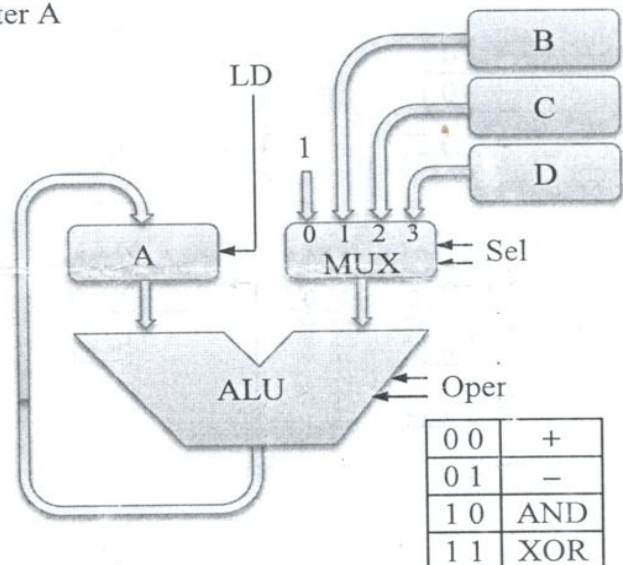
Determine the machine code for the following assembly language instructions:

ADD C ; Add register C to register A
DEC A ; Decrement register A

Solution:

ADD C → 00101 ✓
DEC A → 01001 ✓

2



0 00
1 01
2 10
3 11