Nepal College of Information Technology

**Unit Test**

Fall 2012

Program : BE CE Time : 2 hrs

Semester : (VII) FM : 70

Subject : Computer Architecture PM : 35

* *Candidates are requested to give their answer as far as practicable in their own words.*
* *The figure in the margin indicates the full marks*
* ***Attempt ALL question***

1. a. What is the importance of using different types of addressing modes in computer system? Describe them in brief. (8)

b. Explain the Von Neumann's proposal for the general architecture of a computer. 7

2 a. Evaluate the following using Booth's algorithm. (8)

(-3)10 X (-5)10

b. What are the functional requirements of control unit? Describe different control signals with model of control unit. 7

3 a. What is micro-operation? Write down the sequence of micro-operations for fetch and interrupt cycle. (8)

3 b. Explain how the variable format technique is used for sequencing of microinstruction? (7)

4 a. Discuss various techniques used to enhance the performance of a computer system. (7)

4 b. Why are external devices not connected directly with bus structure of computer system? Draw an internal organization of I/O module. 8

5. Short Notes(Any Two) 5 x2

a) RISC vs CISC

b) Hardwired Control unit

c) Instruction cycle.

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