Nepal College of Information Technology

**Unit Test**

Fall 2013

Program : BE IT Time : 2 hrs

Semester : (VII) FM : 70

Subject : Telecommunication 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 central office or exchange in telecomm exchange? Explain general structure of PSTN (2+6)

b) What do u mean by telephone network? Explain the Hierarchical network model of national telecommunication network. (2+6)

2. a) What are the transmission media used in telephony? Explain about Optical fiber communication. (2+6)

b) What are the transmission impairments? Explain each in short. (2+6)

3. a) What is PCM? Explain the quantization process. (2+6)

b) Explain different types of multiple access techniques. (2+6)

4. a) Explain the frame structure of Synchronous Digital Hierarchy. (6)

b) Explain E1 format with its data rates in PDH (6)

5. Write Short notes on (Any Two) (2\*5=10)

a. Echo and singing

b. Carrier sense multiple access with collision detection (CSMA/CD)

c. T1 format with data rate calculation.

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