Nepal college of information technology

(Unit test)

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| Level: Bachelor | Semester-Spring-2014 | Full Marks: 70 |
| Programme: BE IT | | Pass Mark: 35 |
| Course: Computer Networks | | Time : 2hrs. |

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| *Candidates are required to give their answers in their own words as far as practicable.* |
| *The figures in the margin indicate full marks.* |
| Attempt all the questions. |

1. (a) Define Computer Networks and its applications. Discuss the ISDN protocol with its architectures [8]

(b) Discuss various Network Topologies and network models [7]

2. (a) Why protocol is required in communication system? Discuss the design issues of protocol with a suitable example. [7]

(b) Discuss the TCP/IP protocol stack with a suitable example. [8]

3. (a) Discuss various techniques to provide error and flow control with a suitable example. [7]

(b) Differentiate Persistent and Non Persistent carrier sense strategies. Design an algorithm for CSMA/CA. [8]

4. (a) Discuss the role of Layer 3 device, what Is ATM ? Discuss about Switching techniques in Computer Network. [7]

(b) Encode the data 1101101 using Hamming code techniques, If 10101110101 is the received code word at receiver end, check whether the error has occurred or not using hamming code method [10]

5. Discuss about Ethernet frame format [4]

6. Write Short Notes (ANY Two) [2 x 2]

a) 802.15

b) 802.2

c) 802.4

d) 802.5

e) 802.11 b/g/n/a

f) UTP, STP,

g) Baseband and broadband Co axial cable

h) MAC address

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