

TRIBHUVAN UNIVERSITY
FACULTY OF MANAGEMENT

Office of the Dean

2015

Full Marks : 40

Time : 2 hrs.

BIM/Second Semester/ IT 214 : Data Communication and Computer Network

Candidates are required to answer all the questions in their own words as far as practicable.

Group “A”

1. Brief Answer Questions:

[10 x 1 = 10]

- i. How LAN is different from WAN?
- ii. What is the relation between error rate and data rate?
- iii. Which layer is responsible for end to end reliable transmission?
- iv. What is the basic difference between OSI Model and TCP/IP Model?
- v. What is ICMP?
- vi. What is the information that is provided by a subnet mask?
- vii. List two disadvantages of ISDN.
- viii. Define super-netting.
- ix. Compare UDP and TCP with respect to retransmission service and overhead.
- x. Why HTTP is called stateless protocol?

Group “B”

Brief Answer Questions:

[5 x 3 = 15]

2. Identify and explain different type of transmission media.
3. Identify multiple access protocols and explain protocol that avoids collision.
4. Define packet switching. Explain TDM
5. Explain distance vector routing with its working principle.
6. Explain ADSL with its advantages and disadvantages.

Group “C”

[3 x 5 = 15]

7. What is switch? How switch forwards incoming frame to proper destination? If the message sequence is 11110110011 and the generator polynomial is $G(x) = x^2+1$, calculate the transmitted frame.
8. Suppose you are network administrator at XYZ organization, XYZ organization has five departments. You need to subnet the IP address 131.215.0.0/20 among these departments. Identify subnet mask and each department IP address range.
9. What is socket address? Explain the services provided by transport layer.