

END TERM EXAMINATION

FOURTH SEMESTER [BCA] MAY 2017

Paper Code: BCA-210

Subject: Computer Networks

Time: 3 Hours

Maximum Marks: 75

**Note: Attempt any five questions including Q no.1 which is compulsory.
Select one question from each unit.**

- Q1 (a) Discuss different types of Network Models and topology. (5)
(b) Distinguish between FDM, TDM and WDM. (5)
(c) Describe three Internetworking Devices. (5)
(d) Discuss design responsibilities of Data Link layer of OSI Model. (5)
(e) What is two-node loop instability problem? Discuss its two solutions. (5)

UNIT-I

- Q2 Describe different technical specifications of UTP, Coaxial cable and Fiber optic cable as transmission media. (12.5)
- Q3 Discuss the following:- (12.5)
(a) DTE-DCE Interface
(b) Different types of Transmission Impairments.
(c) Design responsibility of transport layer in OSI model.

UNIT-II

- Q4 Discuss the following w.r.t error detection and correction- (12.5)
(a) Redundancy
(b) Hamming Code
(c) Checksum
- Q5 Discuss the following w.r.t ISDN- (12.5)
(a) BRI
(b) PRI
(c) Different Reference points

UNIT-III

- Q6 Explain the algorithm which forms the basis for Distance vector Routing? List its advantage and disadvantages. (12.5)
- Q7 What is Classful addressing? Discuss the role of Netid, Hostid, Mask, Subnetting and Supernetting. (12.5)

UNIT-IV

- Q8 Discuss responsibilities of Transport layer in OSI model. Explain the three-way handshake to establish the connection. (12.5)
- Q9 Explain the functionalities for the following:- (12.5)
(a) Application Layer
(b) Session Layer
(c) Presentation Layer
