1019
B.E. (Information Technology)
Fourth Semester
ITE-405: Computer Networks (OLD)
(Common with ITE-443/422)

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt _five_ questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

a) Explain difference between Wired media and Wireless media?

b) What is Packet Switching? How it is different from Circuit Switching?

c) What is crash recovery at Transport Layer?

d) What is dynamic routing?

e) How IPv4 differentiates from IPv6? (5x2)

UNIT – I

II. a) Differentiate between OSI and TCP/IP reference model.

b) Explain with applications different LAN topologies. (5,5)

III. a) Explain with diagram Fibre optic cable and its advantages.

b) What is HDLC protocol? Explain its operations and frame types. (5,5)

IV. How CSMA differs from CSMA/CD? In CSMA/CD network with a data rate of 10Mbps, the maximum distance between any station pair is found to be 2500 m for the correct operation of the collision detection process. What should be the maximum distance if we increase the data rate to 100 Mbps? To 1 Gbps? To 10 Gbps? (10)

UNIT – II

V. a) What are the design issues of various routing algorithms?

b) How load shedding helps to control congestion in networks? (5,5)

VI. a) How TCP differs from UDP in terms of contents in the header?

b) Explain the difference between distance vector and link state routing algorithms with example. (5,5)

P.T.O.

VII.   Write short notes on the following:-

a) Architecture of DNS

b) SNMP   (5,5)

x-x-x