2072
M.E. (Electronics and Communication Engineering)
Second Semester
ECE-1207: Advanced Computer Networks

Time allowed: 3 Hours

Max. Marks: 50

NOTE: *Attempt <u>five</u> 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) What are the responsibilities of transport layer in TCP/IP model?

    b) Define piggybacking and its usefulness.

    c) What is NAT? How can NAT help in address depletion?

    d) What is a mask in IPv4 addressing? What is default mask in IPv4 addressing?

    e) How can a system prevent a guessing attack on a password? How can a bank prevent PIN guessing if someone has found or stolen a bank card and tried to use it?

(5x2)

UNIT - I

II. Define computer networks? Discuss various types of networks topologies in computer network. Also discuss various advantages and disadvantages of each topology. (10)

III. Write a short note on the following:-
    a) SLIP
    b) Wireless Broadband

(2x5)

IV. a) What do you understand by distance vector routing? Discuss in detail.

    b) What is the concept of load shedding in computer network? Also explain jitter control.

(2x5)

UNIT - II

V. What do you understand by tunnelling and Fragmentation in computer networks? (10)

VI. Write a short note on the following:-
    a) Cryptographic techniques
    b) Subnetting and supernetting

(2x5)

VII. Discuss in detail different issues in transport layer protocol. (10)

x-x-x