2071

B.A./B.Sc. (General) Sixth Semester

Computer Application

CA-11: Computer Networks

Time allowed: 3 Hours   Max. Marks: 30

NOTE: *Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.*

x-x-x

I.   Attempt the following:-

a)   What are different types of cables used in networking?

b)   What is a node in computer network?

c)   Give any two ways of securing computer network.

d)   What is a hybrid network?

e)   What is FTP?

f)   What is difference between bit error and burst error?   (6x1)

UNIT - I

II.   a) What is network topology? Explain different types of LAN topologies.

b) What are the different computer networks on the basis of architecture?   (2x3)

III.   Explain the functions and features of various network connecting devices.   (6)

UNIT - II

IV.   Explain the OSI reference network model in detail.   (6)

V.   What is modulation? Why modulation is required in communication over network? Explain different modulation techniques commonly used.   (6)

UNIT - III

VI.   Explain following error detection and correction techniques used in networks with suitable example describing the techniques:

a)   Parity check
b)   CRC
c)   Hamming code method.   (6)

VII.   What is a protocol? Explain the following:-

    a)   Sliding window protocol

    b)   High level data link protocol   (6)

UNIT - IV

VIII.   Explain the function of network layer in computer networks. What are the design issues of network layer?   (6)

IX.   Write note on following:-

    a)   Routing algorithm- Distance vector routing algorithm

    b)   Any congestion control algorithm   (2x3)

x-x-x