2123

B.E. (Electrical and Electronics Engineering)

Fifth Semester

PC-EE-505: Computer Networks

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) Why are protocols needed?

    b) List out the classification of networks on the basis of scale.

    c) List the MAC layer protocols

    d) List the types of error detection methods.

    e) What are the functions of transport layer?   (5x2)

UNIT - I

II. a) What is TCP/IP model? Explain the functions and services of each layer. Compare it with OSI model.

    b) Explain the checksum error detection method with suitable example.   (2x5)

III. a) Explain in detail about guided media used for transmission.

    b) What is switching. Discuss in detail about the packet-switched networks.   (2x5)

IV. a) Discuss the Ethernet frame format.

    b) What is the need of Framing? Explain byte stuffing and bit stuffing for framing.

              (2x5)

UNIT - II

V. a) What is IPv6? Explain its advantages over IPV4. Also explain its frame format.

    b) Explain how a datagram network works.   (2x5)

VI. a) Explain TCP and UDP.

    b) Explain any one of the dynamic routing algorithms in detail.   (2x5)

VII. Write short note on:-

    a) Cryptography

    b) Domain name system   (2x5)

x-x-x