B. Tech Degree VI Semester (Supplementary) Examination June 2006

CS 604 DATA COMMUNICATION
(1998 Admissions)

Time : 3 Hours   Maximum Marks : 100

I.   (a) Explain any two basic types of communication networks in service.   (10)
     (b) With diagrams, explain the different topological configurations of computer
          communication networks.   (10)

OR

II. (a) Explain any four routing procedures used in a computer network.   (10)
     (b) Write notes on :   (i)   LAN   (ii)   ISDN   (10)

III. (a) Explain any two pulse modulation techniques.   (10)
     (b) Compare digital communication and analog communication.   (5)
     (c) What are the functions of a modem? List any two types of modem.   (5)

OR

IV. (a) Explain the functioning of a synchronous voice grade modem.   (6)
     (b) Explain the features of optical fiber communication.   (6)
     (c) Define: channel capacity, band rate, band width and WAN.   (8)

V.   (a) Explain selective repeat ARQ implementation.   (5)
     (b) Write notes on :   (i)   Single parity checks
                                     (ii)   Code generation in convolutional coding
                                     (iii) Error recovery in network layer   (15)

OR

VI. (a) Explain any two types of ARQ implementation.   (10)
     (b) Write notes on :   (i)   Cyclic Redundancy Code
                                     (ii)   Hamming Code   (10)

VII. (a) Differentiate between TDM and FDM.   (10)
     (b) Briefly explain: (i)   Positioning remote multiplexers
                                     (ii)   Packet switching concentration   (10)

OR

VIII. (a) Differentiate between synchronous and statistical TDM.   (10)
      (b) Explain: (i)   Inverse Multiplexing
                                     (ii)   Concentrator location problem   (10)

IX. (a) Explain the various polling methods used in data communication systems.   (10)
     (b) Explain the various security measures in teleprocessing networks.   (10)

OR

X.   Write notes on: (i)   Synchronous data link control
                                     (ii)   BSC protocol
                                     (iii) Binary synchronous communication
                                     (iv)   Line conditioning.   (20)

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