

5627-05.

(REVISED COURSE)  
(3 Hours)

PR-7662  
[ Total Marks : 100

- N.B.** (1) Question No. 1 is compulsory.  
(2) Attempt any four questions out of remaining six questions.  
(3) Figures to the right indicate full marks.  
(4) Make suitable assumptions wherever necessary.
1. (a) Discuss the Network Design steps in brief citing examples. 10  
(b) Explain in brief various standard / specification bodies and Industry forums. Explain the role played by them in Computer Network Industry. 10
  2. (a) Draw and explain SONET architecture. Enlist some applications where SONET is suitable. 10  
(b) Compare and contrast different common WAN protocols. (TCP/IP, FR, ATM, X.25). 10
  3. (a) Explain QOS with respect to ATM Networks. 10  
(b) Explain ATM architecture and its cell format. 10
  4. (a) Explain various IP Address design issues involved in subnetting and class less address design. 10  
(b) Explain various design issues in Inter domain and Intra domain Routing in TCP/IP Networks. 10
  5. (a) Explain congestion control architectures of Frame Relay. Enlist advantages and disadvantages of FR. 10  
(b) Explain the terms SVC, PVC, DLCI, CIR, EIR, NNI and UNI w.r.t Frame Relay. 10
  6. (a) Explain Traffic Engineering and Capacity Planning. Explain their relevance in Network designing. 10  
(b) Explain different design issues in Access Network Design and Backbone Network Design. 10
  7. Write short notes on (any two) :- 20
    - (a) Socket functions for TCP client-server communication.
    - (b) X.75 Internetworking Protocol.
    - (c) IPV4 versus IPV6.
    - (d) SMDS and its formats.