Exam. Code : 208602
Subject Code : 5286

M.Sc. Information Technology 2nd Semester
NETWORK DESIGN AND PERFORMANCE ANALYSIS
Paper—MIT–205

Time Allowed—3 Hours] [Maximum Marks—100

Note :—Attempt any **FIVE** questions. All questions carry equal marks.

1. (a) What are different business requirements of planning and choosing networks ? Explain. 10
   (b) How traffic sizing is measured in network planning ? Elaborate. 10
2. (a) Discuss the procedure for throughput calculation of networks. 10
   (b) What are traditional traffic engineering methods ? Explain. 10
3. Explain the following by taking an example of each :
   (a) Packet switched traffic modeling 10
   (b) Traffic matrix. 10
4. Compare the following :
   (a) Private vs Public Networking 10
   (b) Packet switching and cell switching. 10

5. Discuss the following parameters for network comparison :
   (a) Throughput 5
   (b) Burstiness 5
   (c) Delay Tolerance 5
   (d) Response time. 5
6. Discuss the procedure for tuning the network to optimize network and backbone design. 20
7. (a) How network optimization can be achieved ? Explain. 10
   (b) Discuss the tools for measuring network optimization. 10
8. Write short notes on the following :
   (a) Tools for securing the network. 10
   (b) Network Modeling. 10