Exam. Code : 208602
Subject Code : 4130

M.Sc. Information Technology 2nd Semester

NETWORK DESIGN & PERFORMANCE ANALYSIS

Paper—MIT–205

Time Allowed—3 Hours] [Maximum Marks—100

Note :— Attempt **FIVE** questions in all. Select at least **one** question from each section. The **fifth** question may be attempted from any section.

SECTION—A

1. (a) What are the technical requirements for designing a network ? Explain their role. 10

   (b) How traffic engineering considers peak and latency ? Describe. 10

2. (a) What are the characteristics of traffic in networks ? Explain. 10

   (b) Compare the different methods for capacity planning of networks. 10

SECTION—B

3. (a) How a service provider and service levels are identified for network ? Describe. 10

(b) What are business aspects of packet switching services ? Explain. 10

4. Explain the following :

(a) High speed LAN protocols 10

(b) Private and public networks 10

SECTION—C

5. Discuss the following concepts by taking suitable examples :

(a) Tuning the network 10

(b) Securing the network 10

6. Explain the following concepts :

(a) Network backbone design 10

(b) Network design tools 10

SECTION—D

7. (a) What are the benefits of network optimization ? Explain. 10

(b) Explain the methods used for measurements of network optimization. 10

8. Write notes on the following :

(a) Network Security design 10

(b) Tools for network optimization. 10