

Exam. Code : 208602

Subject Code : 4752

M.Sc. Information Technology 2nd Sem.
(Batch 2021-23)
**NETWORK DESIGN & PERFORMANCE
ANALYSIS**
Paper : MIT-205

Time Allowed—3 Hours] [Maximum Marks—100

Note :— Attempt *five* questions in all, selecting at least **one** question from each section. The **fifth** question may be attempted from any section. All questions carry equal marks.

SECTION—A

1. (a) What are the planning requirements for designing a network ? Explain their role. 10
- (b) Discuss the role of traffic engineering for handling peak and latency in a network. 10
2. (a) What are the characteristics of traffic modeling in networks ? Explain. 10
- (b) Compare the different methods for capacity planning of networks. 10

SECTION—B

3. (a) How a service level is identified for networks ? Describe. 10

(b) What are different High speed LAN protocols ?
Explain. 10

4. Explain the following :-

(a) Packet and Cell switching services 10

(b) Application performance needs 10

SECTION—C

5. Discuss the following concepts by taking suitable examples :-

(a) Backbone design of network 10

(b) Network design tools 10

6. Explain the following concepts :-

(a) Network design layers 10

(b) Network performance modeling 10

SECTION—D

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

(b) Discuss the features of the tools for network optimization. 10

8. Write notes on the following :-

(a) Design for network security. 10

(b) Need for network optimization 10