Exam. Code : 206701
Subject Code : 3666

M.Sc. Computer Science 1ˢᵗ Semester
NETWORK DESIGN AND PERFORMANCE
ANALYSIS
Paper : MCS-103

Time Allowed—3 Hours]   [Maximum Marks—100

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

SECTION—A

1. What are the methods for modeling network performance ? Discuss the role of traffic matrix and design tools.   20

2. (a) How technology choice is carried out in networks ? Explain.   10

   (b) Discuss the procedure for identifying the requirements of a network design.   10

SECTION—B

3. (a) Explain the concept of Traffic Engineering. 10

   (b) Discuss the role of different types of Traffic modeling techniques.   10

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4. Discuss the following concepts :

    (a) Packet switched networks.   10

    (b) Capacity planning in Traffic Engineering.   10

SECTION—C

5. (a) Compare the protocols used for high speed LANs.

                                             10

    (b) Compare the frame and cell switching services.

                                           10

6. (a) Discuss the parameters for comparing application performance in networks.   10

    (b) How vendor and service provider is selected in case of networks ?   10

SECTION—D

7. Discuss cryptographic and access control methods for implementing security in network systems.   20

8. Write short notes on following :

    (a) Network tuning methods.   10

    (b) SNMP.   10