[EUREC-734A]
B.Tech. Degree Examination
Electronics & Communication Engineering
VII SEMESTER
TELECOMMUNICATION SWITCHING SYSTEMS
AND NETWORKS
(Effective from the admitted batch 2012–13)

Time: 3 Hours Max.Marks: 60

Instructions: Each Unit carries 12 marks.
Answer all units choosing one question from each unit.
All parts of the unit must be answered in one place only.
Figures in the right hand margin indicate marks allotted.

UNIT-I

1. a) Explain the principle of time division switching 6
   b) Write a brief note on Crossbar Systems. Draw neat diagrams 6

OR

2. a) Write a brief note on Distribution Frames in a Strowger Exchange
   Draw a neat diagram 6
   b) Discuss about the concept of two dimensional switching networks? 6

UNIT-II

3. a) Give the challenges for the telephone network 6
   b) Explain in detail Cellular system topology. Draw a neat diagram 6

OR

4. a) What are the aspects of heterogeneity of a network? 6
   b) Explain the different classes of Routing Algorithms and measures to assess performance of a Routing Algorithm 6
UNIT-III

5. a) Describe different traffic measurement units in Telecommunication Network 6
b) During the busy hour 1350 calls were offered to a group of trunks and 10 calls were lost. The average call duration was 210 seconds. Find i) The Traffic Offered ii) The Traffic Carried iii) The Traffic Lost 6

OR

6. a) What is limited availability and full availability in switching network? Explain the principal of Grading 6
b) Describe the effect of blocking probability on the network traffic 6

UNIT-IV

7. a) Explain virtual circuit switching network 6
b) Explain various Access Methods used in LANS 6

OR

8. a) Explain the Internetworking Structures for the Repeaters, Bridges, And Gateways Interconnections with the help of an ISO-OSI Reference Model 6
b) Write a brief note on MAN 6

UNIT-V

9. a) Explain ISDN Network Architecture in details 6
b) “The performance requirements of ISDN are much greater than conventional networks”. Why? 6

OR

10. a) Explain user level and network level Signaling in ISDN 6
b) Write about SONET frame format? 6

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