



Regulation R18

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 206FB

B.Tech VI Semester Supplementary Examinations, June 2022

TELECOMMUNICATION SWITCHING SYSTEM & NETWORKS (INFORMATION TECHNOLOGY)

Maximum Marks: 70

Date: 23.06.2022 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 What do you mean by Trunking?
- 2 What is strowger switch?
- 3 What is probability graph?
- 4 What is internal complexity?
- 5 What are the features of SPC ?
- 6 What do you mean by customer line signalling?
- 7 Explain the Statistical multiplexing
- 8 List the organizations involved in the telecommunication related activites
- 9 List the advantages of ATM.
- 10 What is functional grouping ?

Part-B

Answer All the following questions.

(10MX 5=50Marks)

- 11 A. Explain crossbar exchange, with all processing steps and diagrams. (5)
B. What is a lost call assumption? What is the theory behind lost call system? Explain. (5)
OR
- 12 A. Define congestion and lost call system? (5)
B. During the busy hour, 1200 calls were offered to a group of trunks and six calls were lost. The average call duration was 3 minutes. Find:
(i) The traffic offered (ii) The traffic carried (iii) The traffic lost (iv) The grade of service (v) The total duration of the periods of congestion. (5)
- 13 Compare and Contrast Time Multiplexed Space Switching and Time Multiplexed Time Switching. (10)
OR
- 14 A. Distinguish between Two Stage Networks and Three Stage Networks. (5)
B. Explain the two stage Combination Switching. (5)
- 15 A. Briefly discuss Common Channel Signaling. (5)
B. Explain the principle of general signaling networks. (5)

- OR
- 16 Explain the Audio-frequency junction and trunk circuit. (10)
- 17 A. Discuss various features and applications of PCM signaling. (5)
B. Explain the Architecture of SS7. (5)
- OR
- 18 A. Explain the following terms in packet switching i) Routing ii) Frame Relay (5)
B. Describe Datagrams and Virtual Circuits with suitable diagram and applications. (5)
- 19 A. List out the services and applications of intelligent networks. (5)
B. Explain the differences between narrow band ISDN and BISDN (5)
- OR
- 20 A. What is Charging in telecommunication networks? (5)
B. Explain the Numbering scheme. (5)