



R18 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

Subject code: 206FB

B.Tech VI Semester Supplementary Examinations, December 2024

**TELECOMMUNICATION SWITCHING SYSTEM & NETWORKS
(IT)**

Maximum Marks: 70

Date: 09.01.2025

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)

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| 1 | Define grade of service(GOS). |
| 2 | Draw the basic telecommunication switching network. |
| 3 | What is Time Division Switching? |
| 4 | With neat diagrams explain time switch and space switch? |
| 5 | What is AF signaling? |
| 6 | What is local loop in telephone? |
| 7 | What is the difference between local area and wide area network? |
| 8 | Define routing. |
| 9 | Write about cellular networks? |
| 10 | List the advantages of ATM. |

Part-B

Answer All the following questions. (10MX 5=50Marks)

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| 11 | Briefly explain Functions of a telecommunication Switching system. (10) |
| | OR |
| 12 | Explain the elements of a switching system. (10) |
| 13 | Explain the principles of operation of centralized SPC and distributed SPC and compare their performance. (10) |
| | OR |
| 14 | A. What do you mean by customer line signaling. (5)
B. Explain briefly the basic concepts of message and circuit switching. (5) |
| 15 | A, Explain Inter Register Signaling with the help of an application. (5)
B. List the advantages and disadvantages of CCS. (5) |
| | OR |
| 16 | Explain the Audio-frequency junction and trunk circuit. (10) |
| 17 | Explain clearly about the asynchronous transfer mode. (10) |
| | OR |
| 18 | A. Discuss about broadband networks. (5) |

	B. Explain the Optical-fiber networks	(5)
19	A. Briefly explain the integrated digital 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)