R18 Regulation *Subject code:2O6FB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, May 2025

TELECOMMUNICATION SWITCHING SYSTEM & NETWORKS

(IT)

Maximum Marks: 70 Date: 27.06.2025 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.**
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)		Marks	CO	BTL
1	Define Grade of Service (GOS).	2M	1	L1
2	Write about crossbar switching.	2M	1	L1
3	Define combinational switching.	2M	2	L1
4	What are the features of SPC?	2M	2	L1
5	Define Congestion.	2M	3	L1
6	Write types of signalling.	2M	3	L1
7	Write the layers of OSI/ISO model.	2M	4	L1
8	Write the routing plans?	2M	4	L1
9	List the advantages of ATM.	2M	5	L1
10	What is functional grouping?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Explain the elements of a switching system.	10M	1	L2
	OR			
12	a) Explain the Queueing systems b) Write short notes on Erlang's and CCS?	5M 5M	1	L2
13	What is time multiplexed space switching? With a neat diagram explain its operation.	10M	2	L2
	OR			
14	What is frequency multiplexed time switching? With a neat diagram explain its operation.	10M	2	L2
15	a) Explain in channel Signaling with the help of an application. b) Explain the Out band signaling.	5M 5M	3	L2
	OR			
16	Explain different topologies of Data Communication Networks.	10M	3	L2
17	List all seven layer of OSI model and describe function of application layer.	10M	4	L2
	OR			

18	a) Explain about broad-band networks. b) Explain the optic-fibre networks.	5M 5M	4	L2
19	a) Explain LAN, MAN, WAN. b) Explain the differences between narrow band ISDN and BISDN	5M 5M	5	L2
	OR			
20	a) What is Charging in telecommunication networks? b) Explain the Numbering scheme.	5M 5M	5	L2