R18

ANURAG Engineering College
(An Autonomous Institution)
III B.Tech II Semester Supplementary Examinations, Dec–2023/Jan-2024
TELECOMMUNICATION SWITCHING SYSTEMS
(ELECTRONICS AND COMMUNICATION ENGINEERING)

Time: 3 Hours   Max.Marks:75

Section – A (Short Answer type questions)   (25 Marks)
Answer All Questions

		Course Outcome	B.T Level	Marks
1.	How are the switching systems classified? Give the classification.	CO1	L1	2M
2.	Explain how traffic can be measured.	CO1	L2	3M
3.	How is traffic calculated in mobile communication?	CO2	L1	2M
4.	Define the following: i) lost-call systems ii) congestion iii) probability of delay	CO2	L1	3M
5.	Differentiate Space Division Switching and Time Division Switching.	CO3	L2	2M
6.	Discuss briefly about the sequence of steps in call-processing.	CO3	L2	3M
7.	What is the signaling mechanism of subscriber loop?	CO4	L1	2M
8.	Give the frame structure of HDLC.	CO4	L1	3M
9.	Enumerate Statistical multiplexing.	CO5	L2	2M
10.	List out the pay-loads/services supported by ISDN.	CO5	L1	3M

Section B (Essay Questions)
Answer all questions, each question carries equal marks.   (5 X 10M = 50M)

11. A)	Write about evolution of Telecommunications.	CO1	L2	10M
	OR			
B)	Draw and explain 3X3 crossbar switching principle.	CO1	L2	10M
12. A)	An exchange is designed to handle 20000 calls during busy hour. One day the number calls during busy hour is 25000 calls. What is the resulting Grade of Service?	CO2	L3	10M
	OR			
B)	Discuss about the second Erlang Distribution queuing system in telecommunication system.	CO2	L2	10M
13. A)	Explain Time Multiplexed Space Switching in detail.	CO3	L2	10M
	OR			
B)	Discuss about the Stored Program Control in Telecommunication Switching Systems.	CO3	L2	10M
14. A)	Explain the Formats of Signaling units used in Common channel Signaling.	CO4	L2	10M
	OR			
B)	Explain with the architecture, how does Signaling System 7 work?	CO4	L2	10M
15. A)	Explain the principle of operation of packet Switching Network with example.	CO5	L2	10M
	OR			
B)	Draw and explain the ISDN architecture.	CO5	L2	10M