

R13

Code No: 118EW

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year II Semester Examinations, July - 2021

TELECOMMUNICATION SWITCHING SYSTEMS AND NETWORKS

(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 75

**Answer any Five Questions
All Questions Carry Equal Marks**

- 1.a) Describe in detail about Second Erlang distribution.
b) A diagonal crosspoint matrix exchange supports 500 users. On an average 1000 calls are put through every day. If the crosspoint contacts have a mean life of 15000 breaks and makes, estimate how often a crosspoint may be replaced in this exchange. [12+3]
- 2.a) What kind of switches are required in transit exchanges? Explain any one type of such switch.
b) Explain various call processing functions in detail. [7+8]
3. Explain in detail about:
a) CCITT Signalling system number 6
b) CCITT Signalling system number 7. [7+8]
- 4.a) What are Virtual circuits and datagrams? How do they differ from each other?
b) Write notes on statistical multiplexing. [10+5]
- 5.a) What is the need for Private networks? Explain them with an example.
b) Discuss briefly about Intelligent Networks. [8+7]
- 6.a) What is a Stored Program Control? How is it different from other types of control? Mention its advantages.
b) Give a brief account on Large Scale networks. [10+5]
- 7.a) What are the various techniques for flow control? Explain.
b) Explain in detail about Queues in Tandem. [8+7]
8. Write short notes on:
a) Digital switching systems
b) Bus and Ring networks
c) Routing in networks. [5+5+5]

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