

Answer All questions.

All questions carry equal marks

Q1:- Choose the correct or best alternative in the following: 5 marks

- I. Based on the Clos criteria, if $N = 200$, then k must be equal to or greater than
A) 19 B) 21
C) 31 D) 41
- II. In _____ switching, the paths in the circuit are separated from one another spatially.
A) time-division B) two-dimensional
C) space-division D) three-dimensional
- III. In a three-stage space division switch, if $N = 200$, the number of crosspoints is ----.
A) 40,000 B) less than 40,000
C) greater than 40,000 D) greater than 100,000
- IV. The most popular technology in time division switching is called the _____.
A) TSI B) STI
C) ITS D) none of the above
- V. A _____ switch combines space division and time-division technologies to take advantage of the best of both.
A) SSS B) TST
C) TTT D) none of the above
- VI. A _____ switch combines crossbar switches in several (normally three) stages.
A) multiple path B) multiple crossbar
C) multistage D) none of the above
- VII. The simplest type of switching fabric is the _____ switch.
A) crossbar B) crosspoint
C) TSI D) STS
- VIII. In a time multiplexed space switching system, one speech sample appears every
(A) 125 micro sec (B) 20 msec
(C) 125 msec (D) 1 sec
- IX. For a non blocking cross bar configuration, taking N as the number of subscribers, there will be _____ number of cross points and _____ number of switches for establishing connections when all the subscribers are engaged.
(A) $N/2$, N^2 (B) N^2 , $N/2$
(C) $2N$, N^2 (D) $N/2$, N^3
- X. When a switch capacity is full, calls coming into that switch are said to be _____.
(A) open (B) shorted
(C) blocked (D) shunted

Q2:-

4 marks

- a) List the three traditional switching methods. Which are the most common today?
- b) What is TSI and what is its role in time-division switching? Explain with neat diagram?

Q3-

4 Marks

Draw the signal exchange diagram for a local call used to represent the sequence of events between the subscriber and exchanges?

Q4-

4 Marks

List the basic functions of a switching system and explain one function briefly .

Q.5.

4marks

What are single stage and multistage networks? Compare the strengths and weaknesses of each .