

Total Delay =  $BT + 3T + \text{Set up} + \text{Teardown Delay}$

Crossbar

Space div switch

Switches

Crossbar

Multistage

Circuit

Packet

Banyan

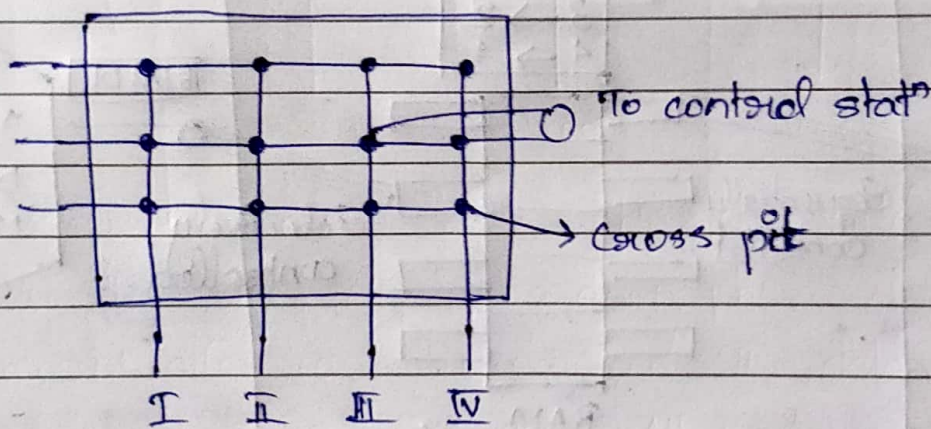
Batched-Banyan

Time div switch

TBI

TBI

Crossbar Switch



Disadv

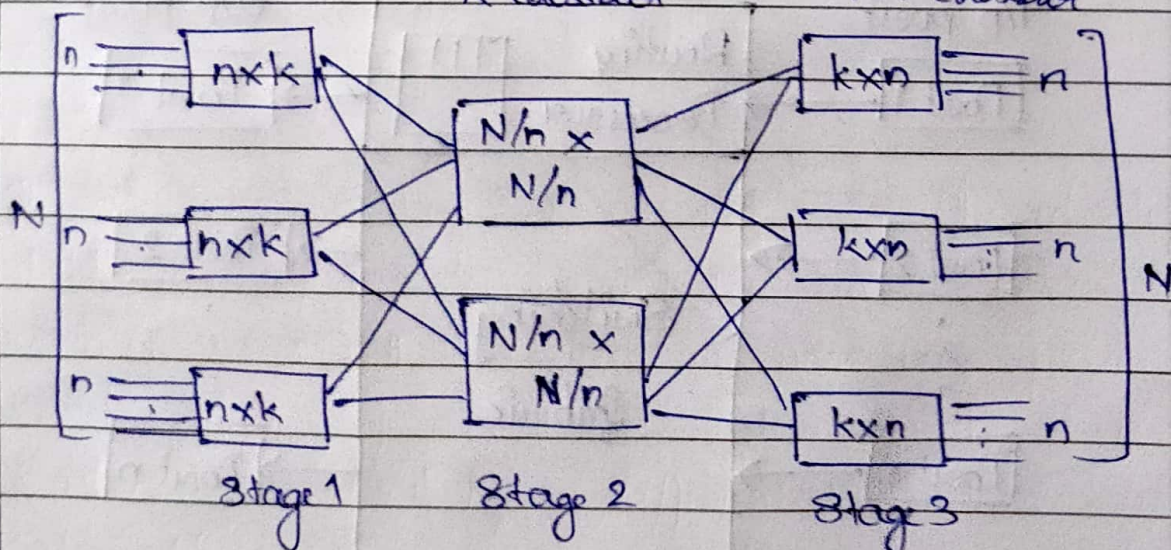
Resources are wasted.

Multistage

N/n crossbar

K Crossbar

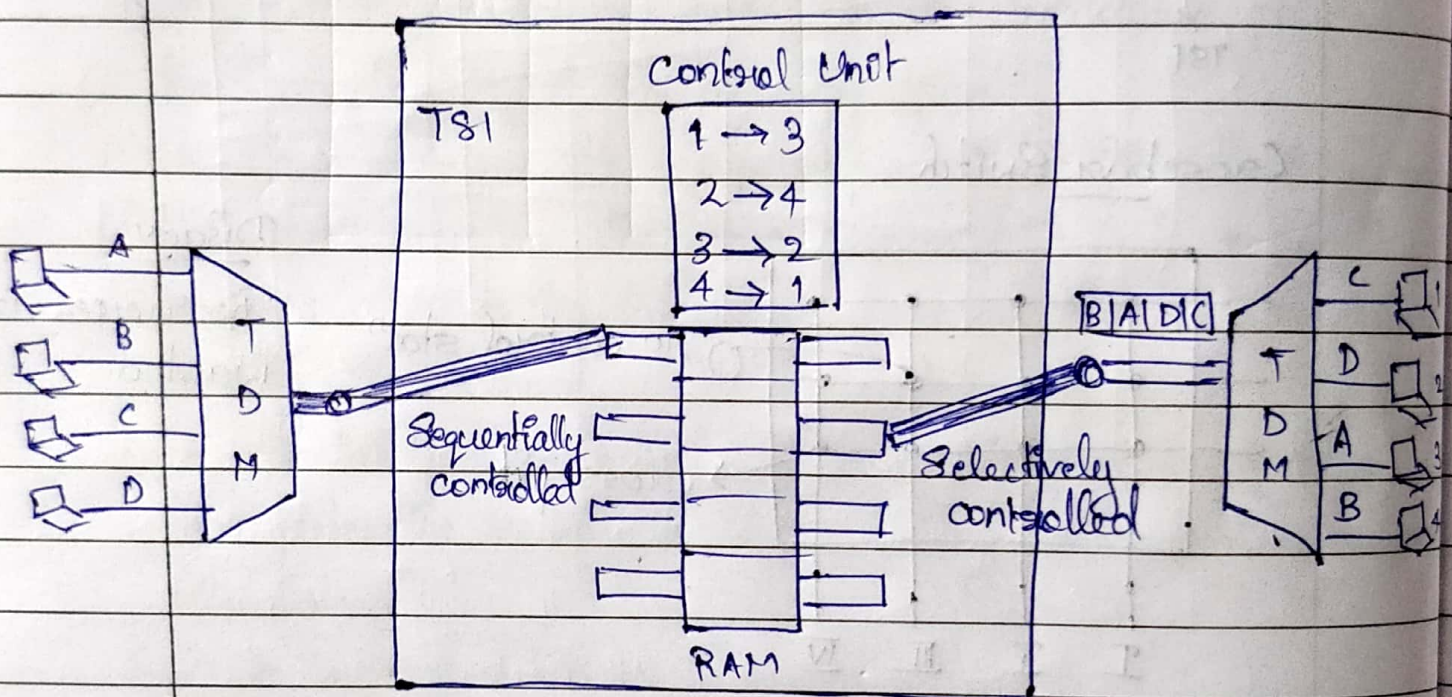
N/n crossbar



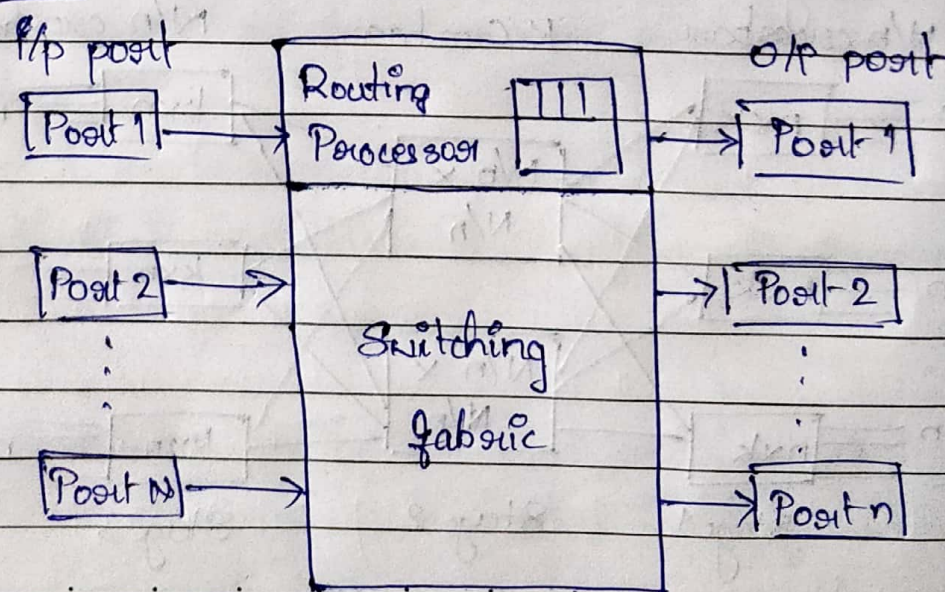


Non-blocking  $\rightarrow$  To prevent blocking (Clos criteria)  
 Total crosspoint  $\geq 4N [(2N)^{1/2} - 1]$   $\swarrow$   
 No. of crosspoints  $\rightarrow 2KN + K(\frac{N}{n})^2$   
 $K \geq 2n - 1$

### Time Division Switch

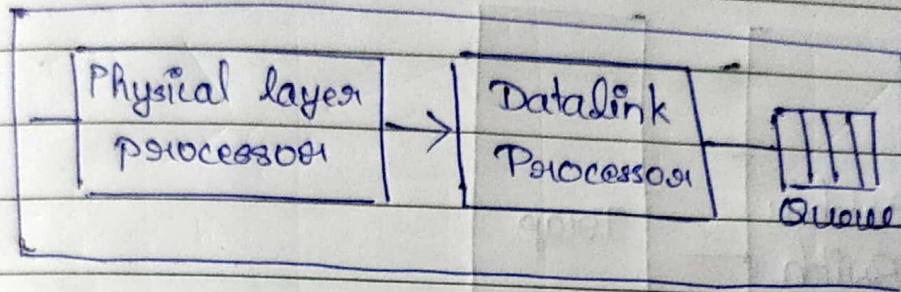


### Pkt Switch

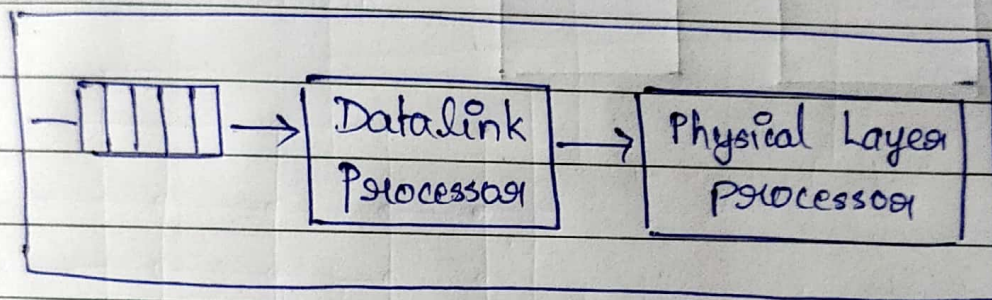




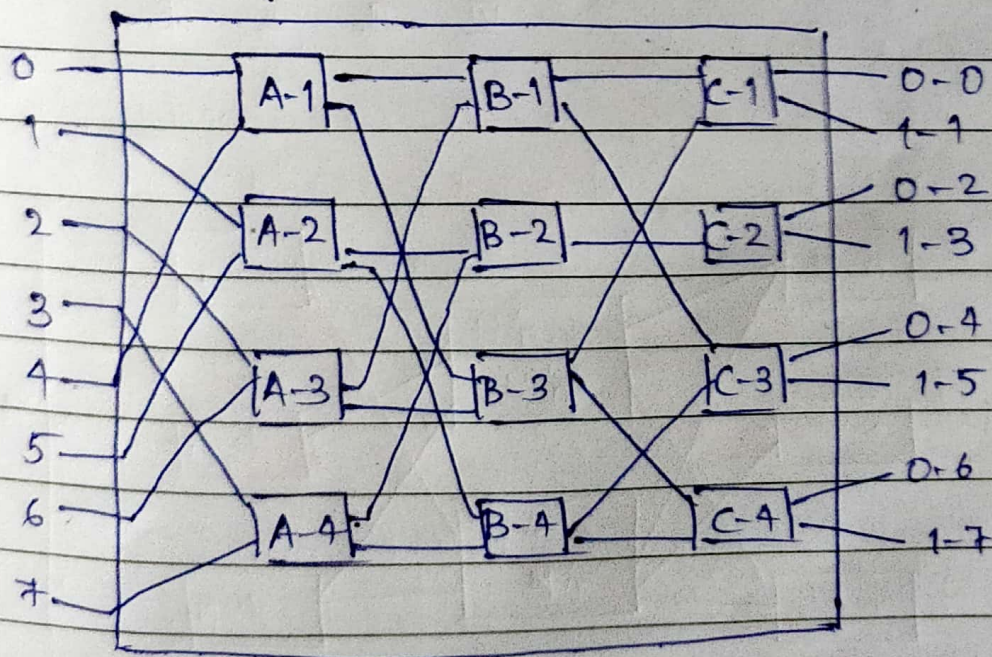
i/p Port



o/p Port



Banyan Switch





# Batcher Banyan Switch

