Sec - 1

Q - 2

OR Ans Congestion: Congestion is a situation which may occur if users send data into the network at a rate greater than that allowed by network resources.

Technigue to prevent congestion

1. open - loop congestion control:
In open - loop congestion control policies are applied to prevent congestion before it happens. In these mechanism, congestion control is handle by either the source or the destination following are the policies that can prevent congestion

(i) Retransmission policy => The retransmission policy is designed to optimize efficiency and at the same time prevent congestion.

(ii) Window policy: The type of window at the sender may also affect congestion. The selective repeat window is better than the Go - Back - N window for congestion control

[P + O]

Sec-1
Q-3

(iii) Acknowledgement policy: The acknowledgement policy imposed by the receiver may also affect congestion. If the receiver doesn't acknowledge every packet it receive.

Closed-loop congestion control. Closed-loop congestion control mechanism try to reduce congestion after it happens. several mechanism have been used by different protocols which are as follows

i) Back pressure. The technique of back pressure refers to a congestion control mechanism in which a congested node stops receiving data from the immediate upstream node or nodes.

ii) Choke packet: A choke packet is a packet sent by a node to the source to inform about congestion. In the choke packet method the warning is from the router which has encountered congestion,

iii) Implicit signaling ⇒ In implicit signaling there is no communication b/w the congested node or nodes and the source.