

Sec-2

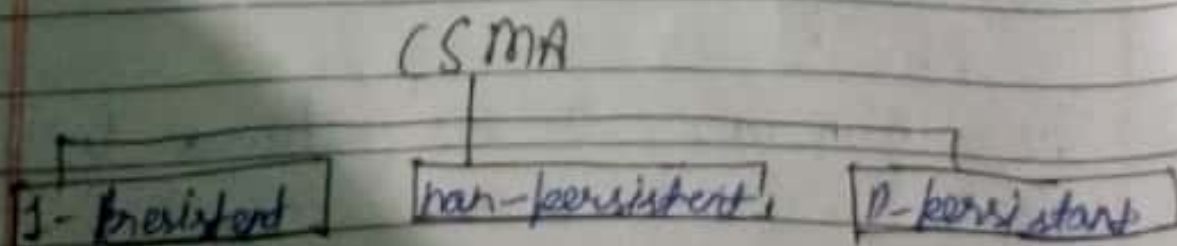
Ans-3

Carrier Sensed Multiple access \rightarrow Is a

network access method used on shared network topologies such as Ethernet to control access to the network. Devices attached to the network cable listen (Carrier sense) before transmitting. If the channel is in use, devices wait before transmitting. MA (Multiple Access) indicates that many devices can connect to and share the same network. All devices have equal access to use the network when it is clear.

There are 3 types of CSMA protocols

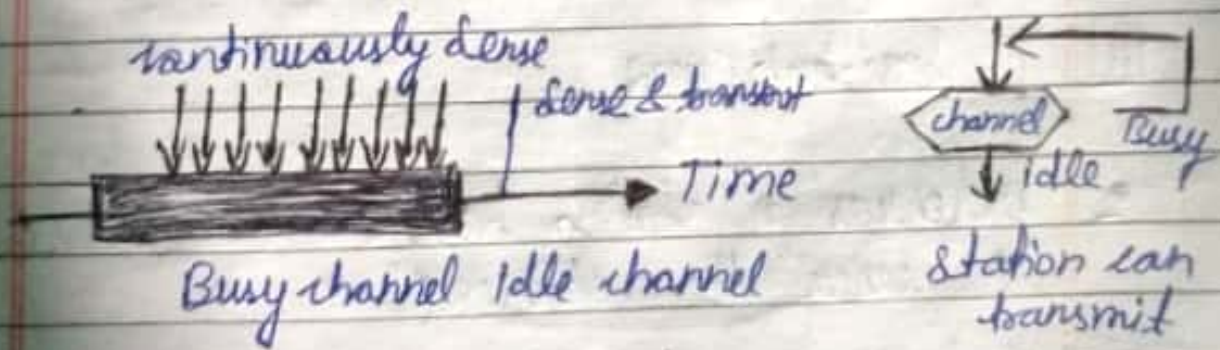
- i) 1-persistent CSMA
- ii) Non-persistent CSMA
- iii) P-persistent CSMA



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i) 1-persistent CSMA -

- * In this method station that want to transmit data continuously sense the channel to check whether the channel is idle or busy.
- * If the channel is busy, the station wait untill it become idle.
- * When the collision occur, - the stations wait a random amount of time and start all over again

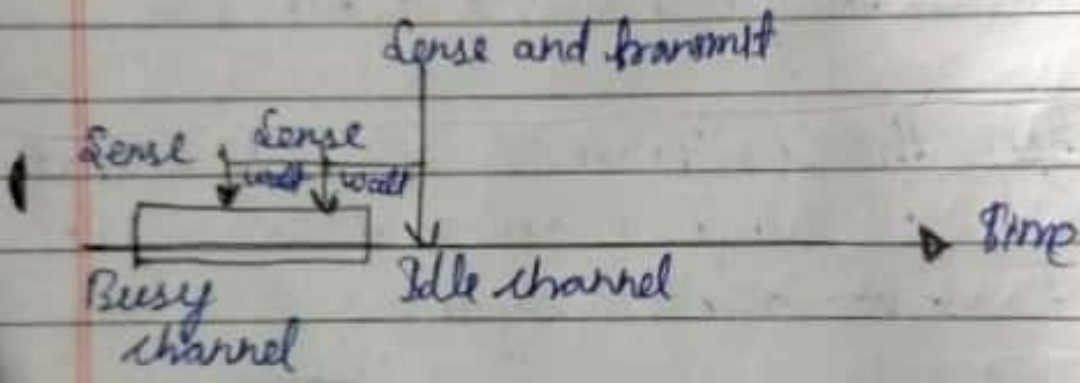
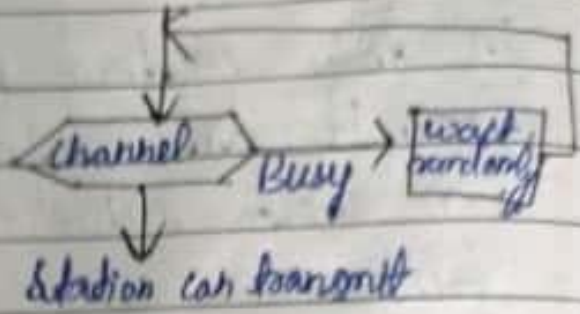


(ii) Non-persistent CSMA - In this channel

is busy, it waits a random amount of time and then sense the channel again

- * A station that has a frame to send sense the channel

•) If the channel is idle, It sends immediately

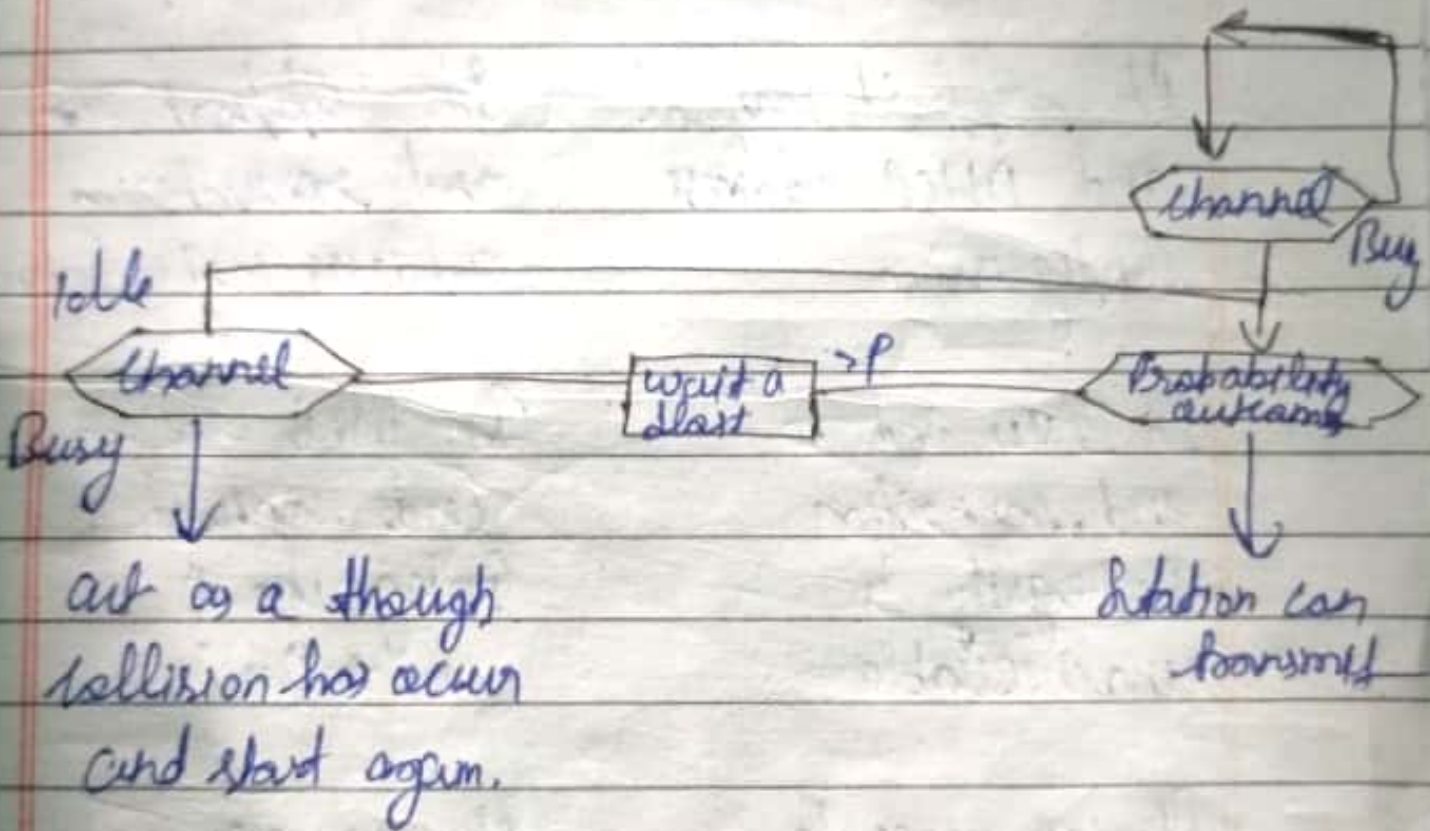
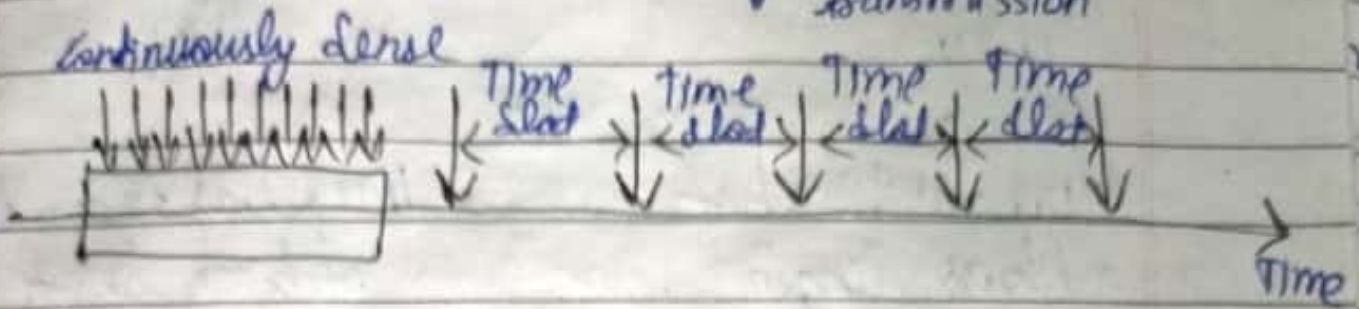


iii) p-persistent CSMA

-) Whenever a station becomes ready to send it senses the channel
-) If channel is busy, station waits until next slot.
-) If channel is idle, It transmits with a probability.

p-persistent CSMA

Probability out carrier does not allow transmission



Different b/w IPv4 and IPv6

IPv4

IPv4 has 32-bit address length

It support manual and DHCP address configuration

In IPv4 end to end connection integrity is unachievable

It can generate 4.29×10^9 address space

IPv6

IPv6 has 128-bit address length

It support auto and numbering address configuration

In IPv6 end to end connection integrity is achievable

It can generate 3.4×10^{38} address space