

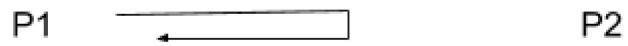
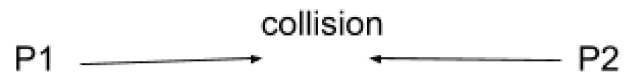
COMPUTER NETWORKS ASSIGNMENT - 2

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Q. Explain how size of IEEE 802.3 is restricted by CSMA/CD with reasons.

ANS :

1. The CSMA/CD restricts the size of IEEE 802.3 between two frame sizes. Among the two the maximum one is responsible for ensuring that a station is not blocking another station from transmitting its data, while the minimum one is used to detect the collision.
2. The reason for restricting the size between two values is that , if the size is more than maximum one then there are chances of bit-errors and other stations have to wait for a longer time. So, if we set the maximum frame size limit it will help to resolve these problems.
3. Similar in case of minimum frame size as , if frame size is very low then detecting the collision is impossible. So setting the minimum frame size helps us to resolve this problem.
4. A frame can detect collision when in transmission with another bit. For this purpose the frame should not leave the sender before the first bit of frame reaches the receiver.



$$T_t > 2 * T_p$$

Where ,

T_t = Transition time for frame.

T_p = Propagation time between farthest nodes.

5. The implementation of CSMA/CD determines that the minimum frame length must be 64 bytes while the maximum is 1518 bytes.