Tutorial-04-CN

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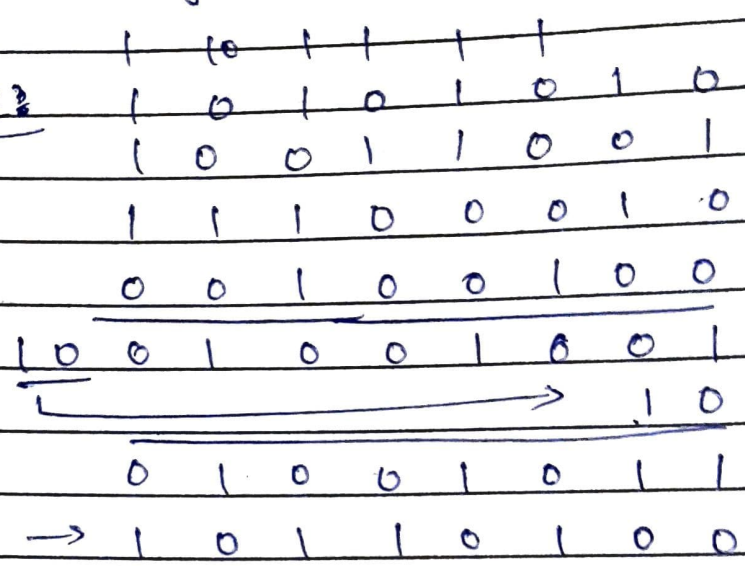
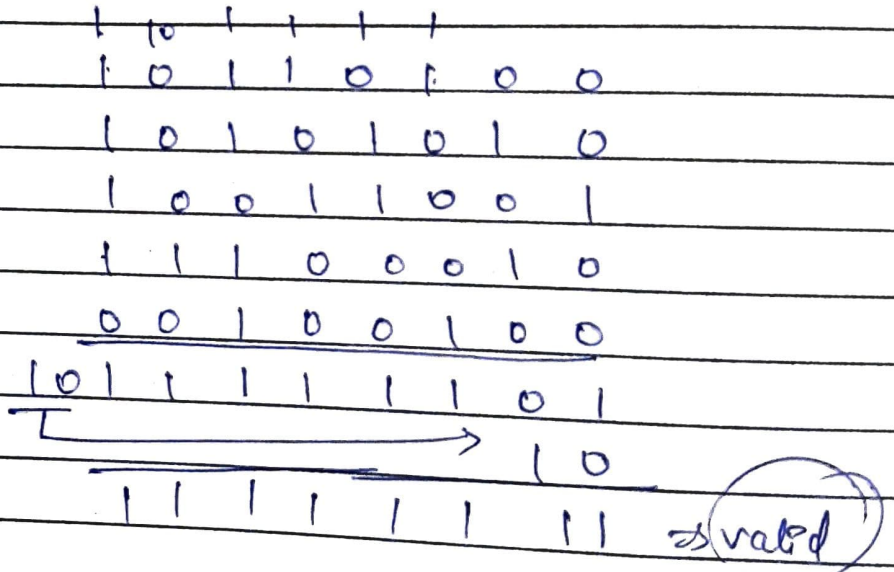
Q1 At sender:



=> checksum = ~~tett~~

At receiver:

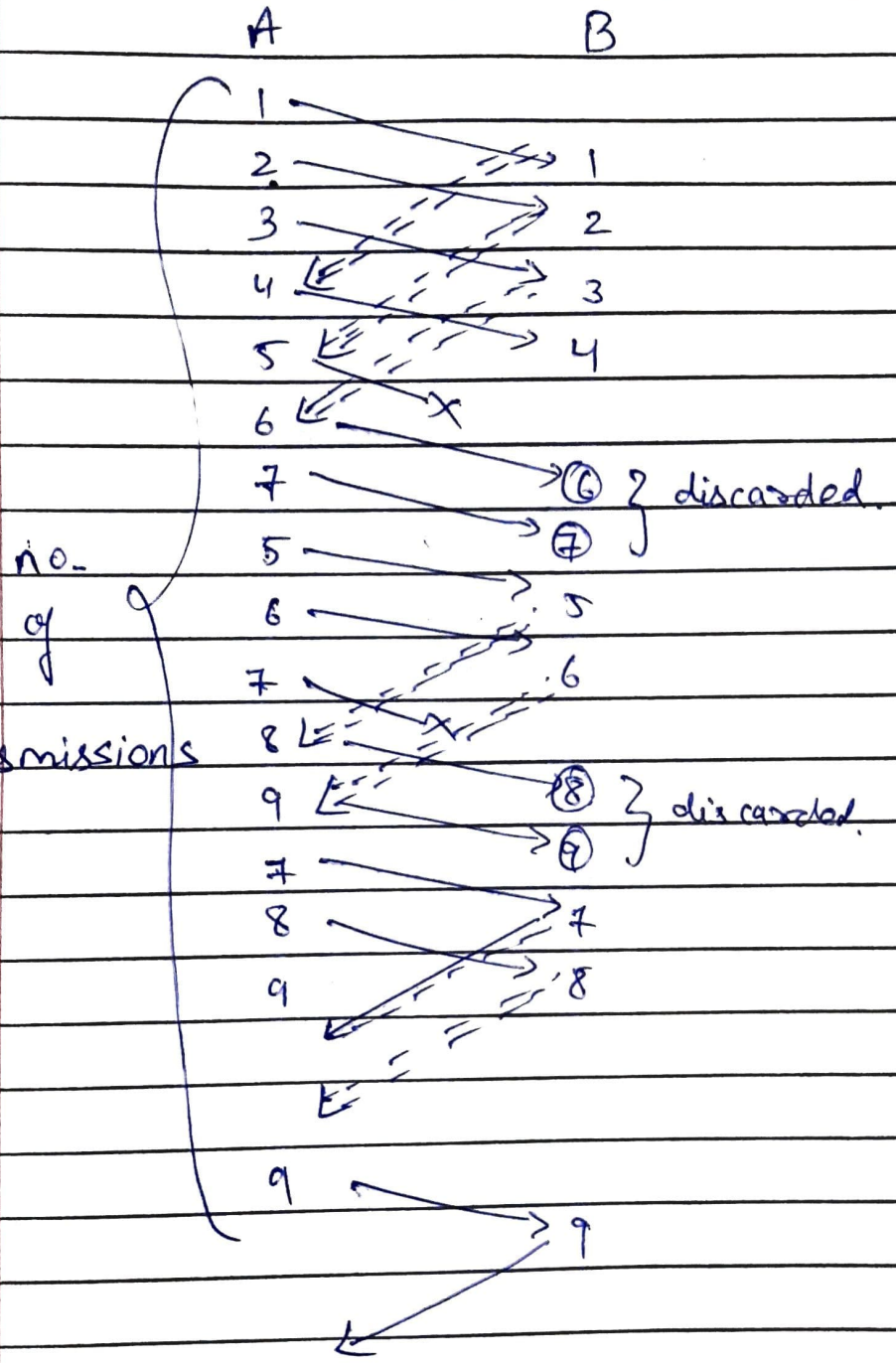


Q-2

Window size = 3, 9 packets, Go-Back N protocol.

No Ack is lost.

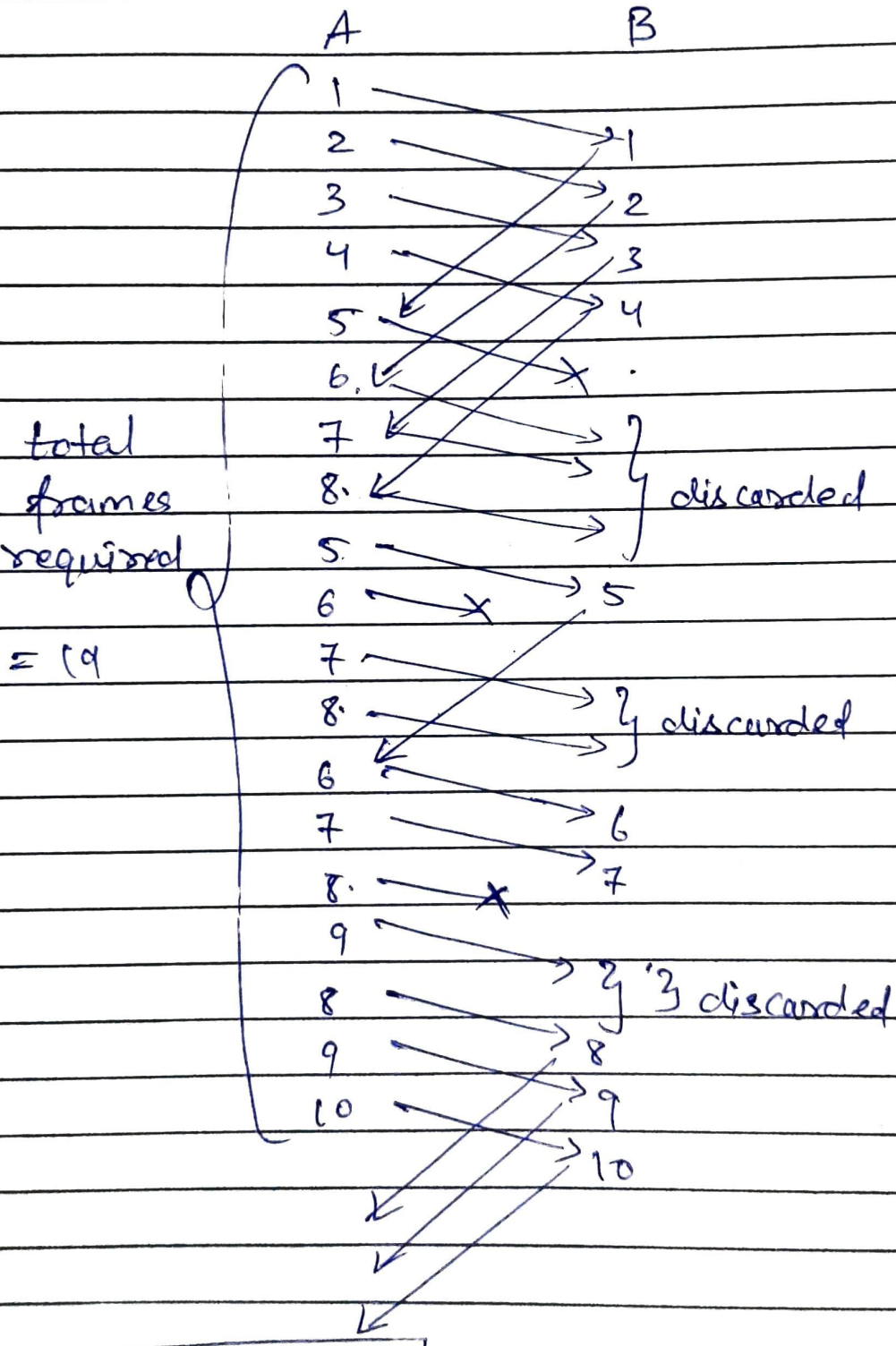
Every 5th transmission is lost



∴ Answer : 16

Q-3 Window size = 4, 10 packets, Go-Back-N protocol
No ACK is lost, every 5th transmission is lost

Ans ⇒



∴ Answer : 19

Q-4 Similarities and differences b/w stop and wait, Go-Back-N, selective repeat.

Ans **Similarities :**

- Stop and wait ARQ, Go-Back-N and selective repeat protocols are all flow control protocols used in noisy channels.
- Go-Back-N and selective repeat are sliding window protocols that allow sender to send multiple frames before receiving acknowledgements.

Differences: N = window size, a = transmission delay

Basis	Stop & wait	Go-Back-N	Selective repeat
① Sender window size	1	N	N
② Receiver window size	1	1	N
③ Min. sequence no.	2	N+1	2N
④ Efficiency	$1/(1+2a)$	$N/(1+2a)$	$N/(1+2a)$
⑤ type of acknowledgement	Individual	Cumulative	Individual
⑥ no. of retransmissions in case of packet drop	1	N	1
⑦ Supported order at receiving end.	-	rejects out of order, in-order only.	out of order is supported