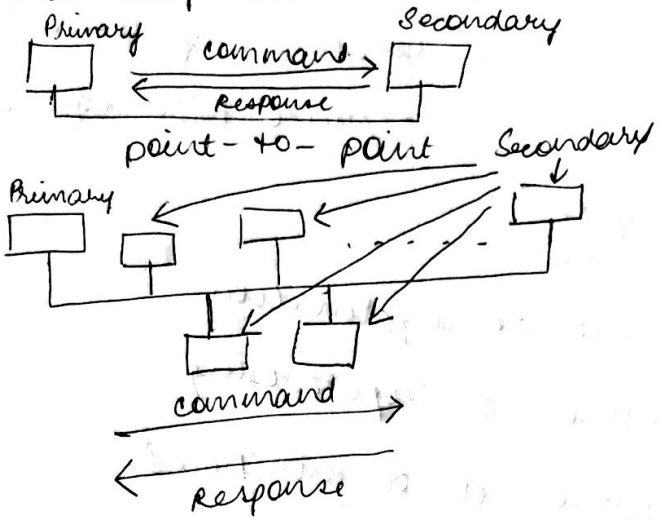
10/4/18

High Level Data Link Control (HDLC)

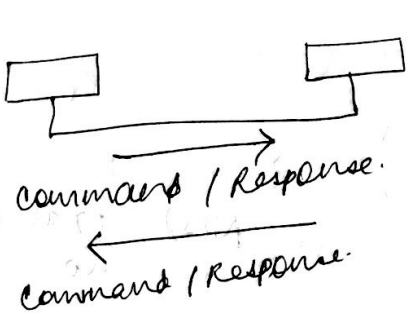
- Proprietary Protocol
- Bit-oriented Protocol

configuration and Transfer Modes

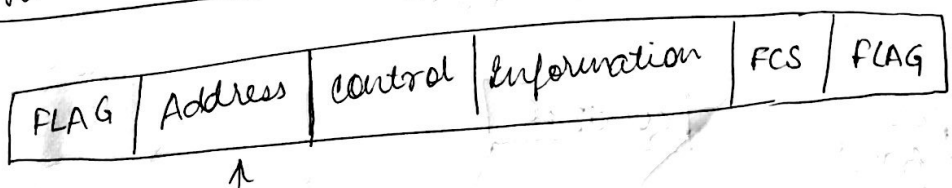
① Normal Response Mode (NRM)



② Asynchronous Balanced Mode (ABM)

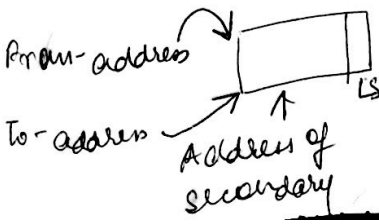


Frame Format



01111110

1 byte or multiple bytes



From-address - address coming from secondary

To - " - address from pri. to sec.

Only 1 pri. station

If address bit is of multiple bytes, then LSB = 0

If address bit is 1 byte long, then LSB = 1

FCS - Frame check sequence — contains 2/4 byte CRC

Information Field - 2 types of information
- consist of user data
- System Management Information

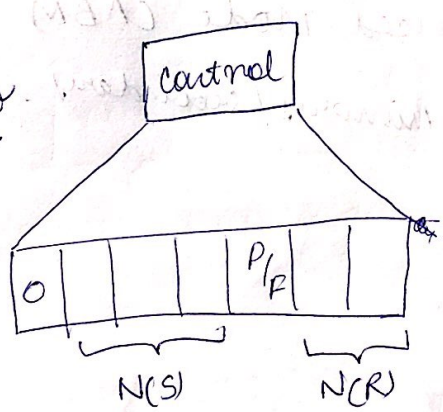
Frame Types

i) i-frame : i-information

ii) S-frame : S- supervising

iii) U-frame : U- unnumbered

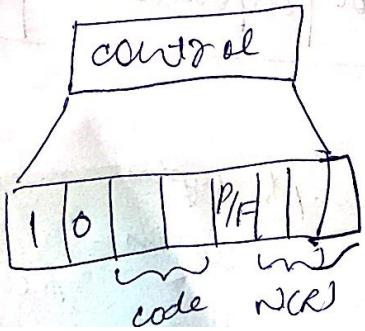
(i) For i-frame



N(S) - Frame sequence no.

P/F = 1 ; P → Poll
F → Final

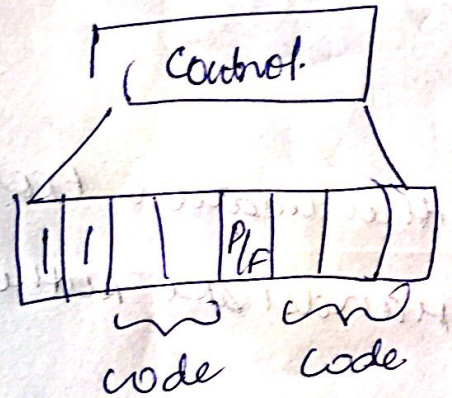
(ii) For S-frame



Categories of S-Frame:

1) RR(00) - Receive Ready
2) RNR(10) - Receive Not Ready
3) REJ(01) - Reject
4) SREJ(11) - Selective Reject

(ii) U-Frames



code	command	
00 001	SNRM	(set Normal Response Mode)
011 100	SABM	(set Asynchronous Balance Mode)
00 010	DISC	(disconnect - current connection)
11 001	RSET	(reset - destroy " " and reestablish it)