

Data Communications and Networking

UNIT-2

High-level Data Link Control (HDLC) is a bit-oriented protocol for communication over point-to-point and multipoint links. It implements the ARQ mechanisms we discussed in this chapter.

Topics discussed in this section:

Configurations and Transfer Modes

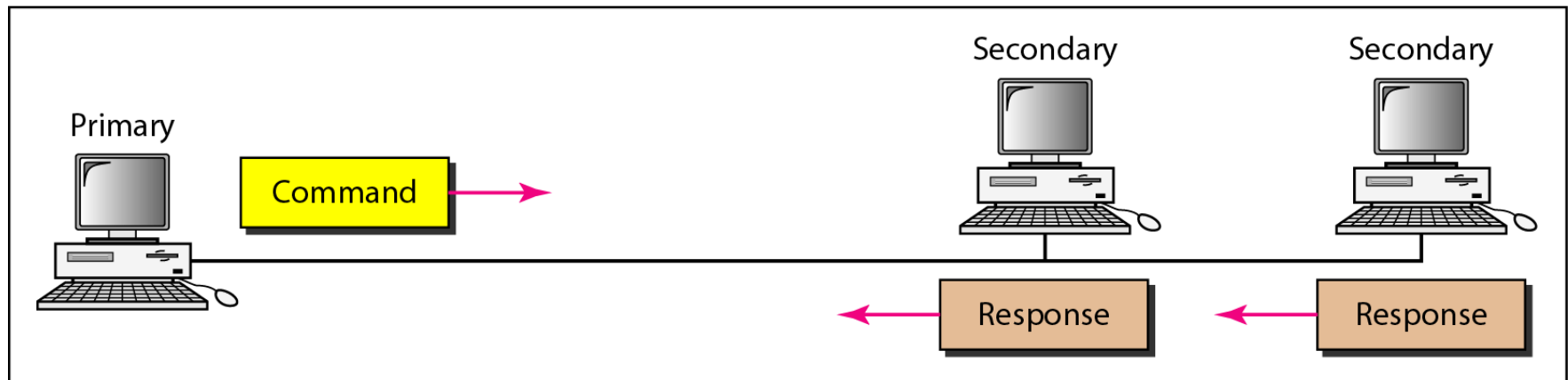
Frames

Control Field

Figure 11.25 *Normal response mode*



a. Point-to-point



b. Multipoint

Figure 11.26 *Asynchronous balanced mode*



Figure 11.27 *HDLC frames*

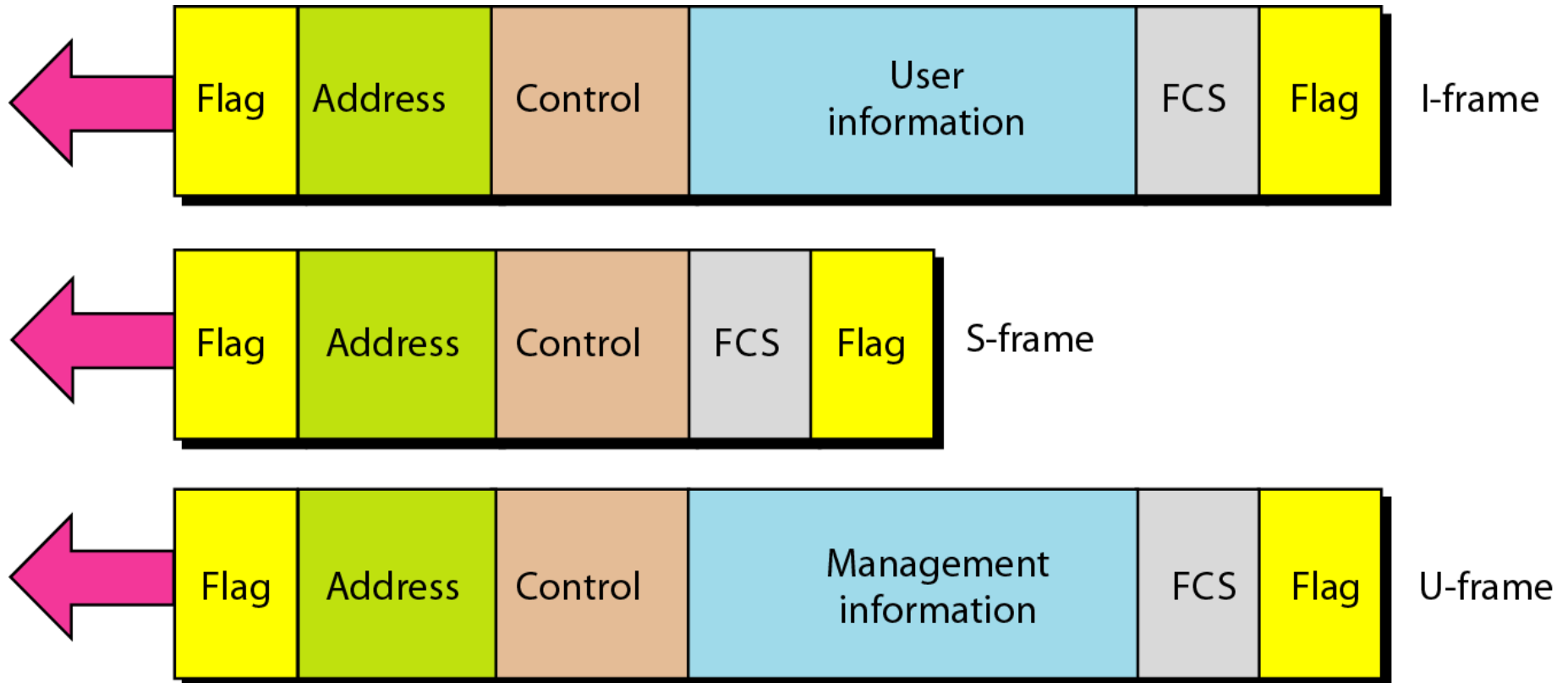


Figure 11.28 *Control field format for the different frame types*

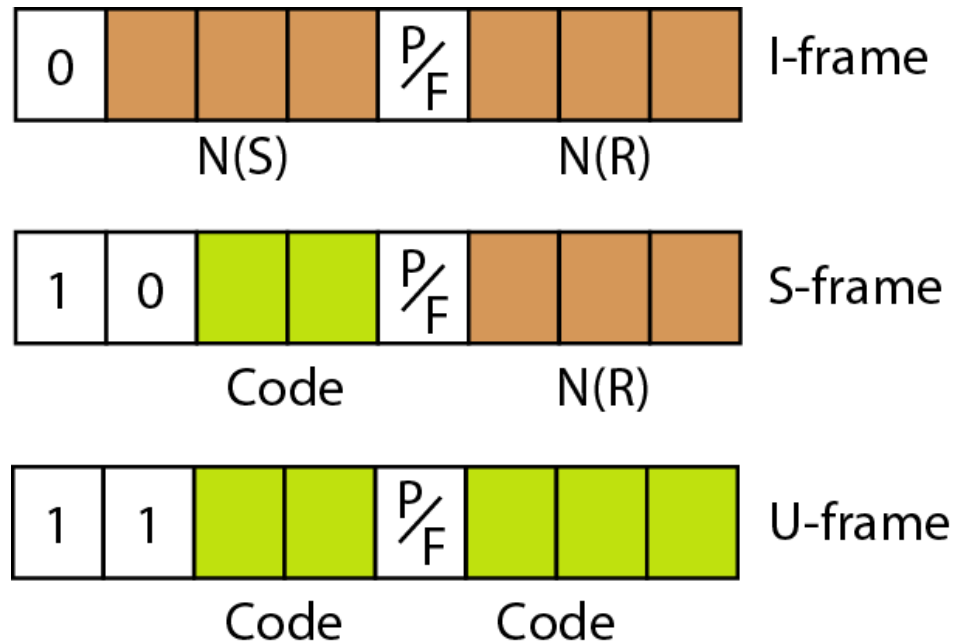


Table 11.1 *U-frame control command and response*

<i>Code</i>	<i>Command</i>	<i>Response</i>	<i>Meaning</i>
00 001	SNRM		Set normal response mode
11 011	SNRME		Set normal response mode, extended
11 100	SABM	DM	Set asynchronous balanced mode or disconnect mode
11 110	SABME		Set asynchronous balanced mode, extended
00 000	UI	UI	Unnumbered information
00 110		UA	Unnumbered acknowledgment
00 010	DISC	RD	Disconnect or request disconnect
10 000	SIM	RIM	Set initialization mode or request information mode
00 100	UP		Unnumbered poll
11 001	RSET		Reset
11 101	XID	XID	Exchange ID
10 001	FRMR	FRMR	Frame reject