lecture 10

Bit	7	6	5	4	3	2	1	0	
	RXC	**TXC**	**UDRE**	**FE**	**DOR**	**PE**	**U2X**	**MPCM**	**UCSRA**
Read/Write	R	R/W	R	R	R	R	R/W	R/W	
Initial Value	0	0	1	0	0	0	0	0	

Bit 7 – RXC: USART Receive Complete
if we have no data, then set 0
if we have some data, then set 1

Bit 6 – TXC: USART Transmit Complete
if it's in default state, means no data transmit, set 0
if when data transfer complete, then set 1

Bit 5 – UDRE: USART Data Register Empty
If UDRE is 0, the buffer is empty, and therefore ready to be written
if data buffer has already completed data reciving then, it becomes 1

Bit 4 – FE: Frame Error
FE is 1, when 'stop bit' is recieved or writing the buffer
default 0.

Bit 3 – DOR: Data OverRun
DOR is 1, if data buffer is full
default 0

Bit 2 – PE: Parity Error
PE is 1, if parity error is occured in char bit.
default 0

Bit 1 – U2X: Double the USART Transmission Speed
U2X is 1, if operation is asynchronous
default 0, when operation is Sync.

Writing this bit to one will reduce the divisor of the baud rate divider from 16 to 8 effectively doubling the transfer rate for asynchronous communication.

go to baud rate section for better understanding

Bit 0 – MPCM: Multi-processor Communication Mode
if MPCM is 1, enables the Multi-processor Communication mode
default 0

~ By K.S.