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## Digital Logic Design Theory

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Assignment 7  
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Cs

Q 1

A register is an electronic device consists of a series of flip-flops to store data bits and moving the data bits.

The length of the stored binary word depends on the number of flip-flops that make up the register.

Q 2

The storage capacity of a register that can retain one byte of data is 8 bits.

This particular register will contain be an 8 stage shift register.

Q 3

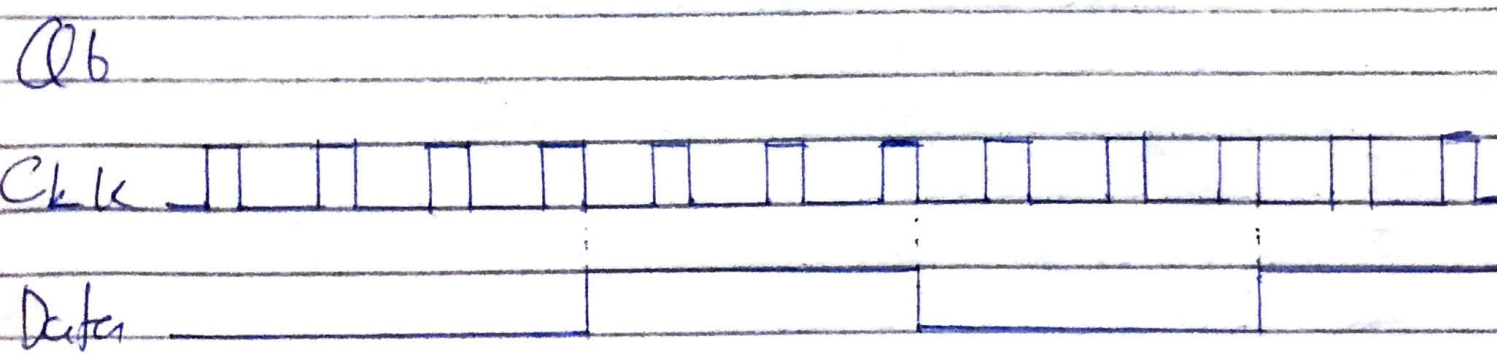
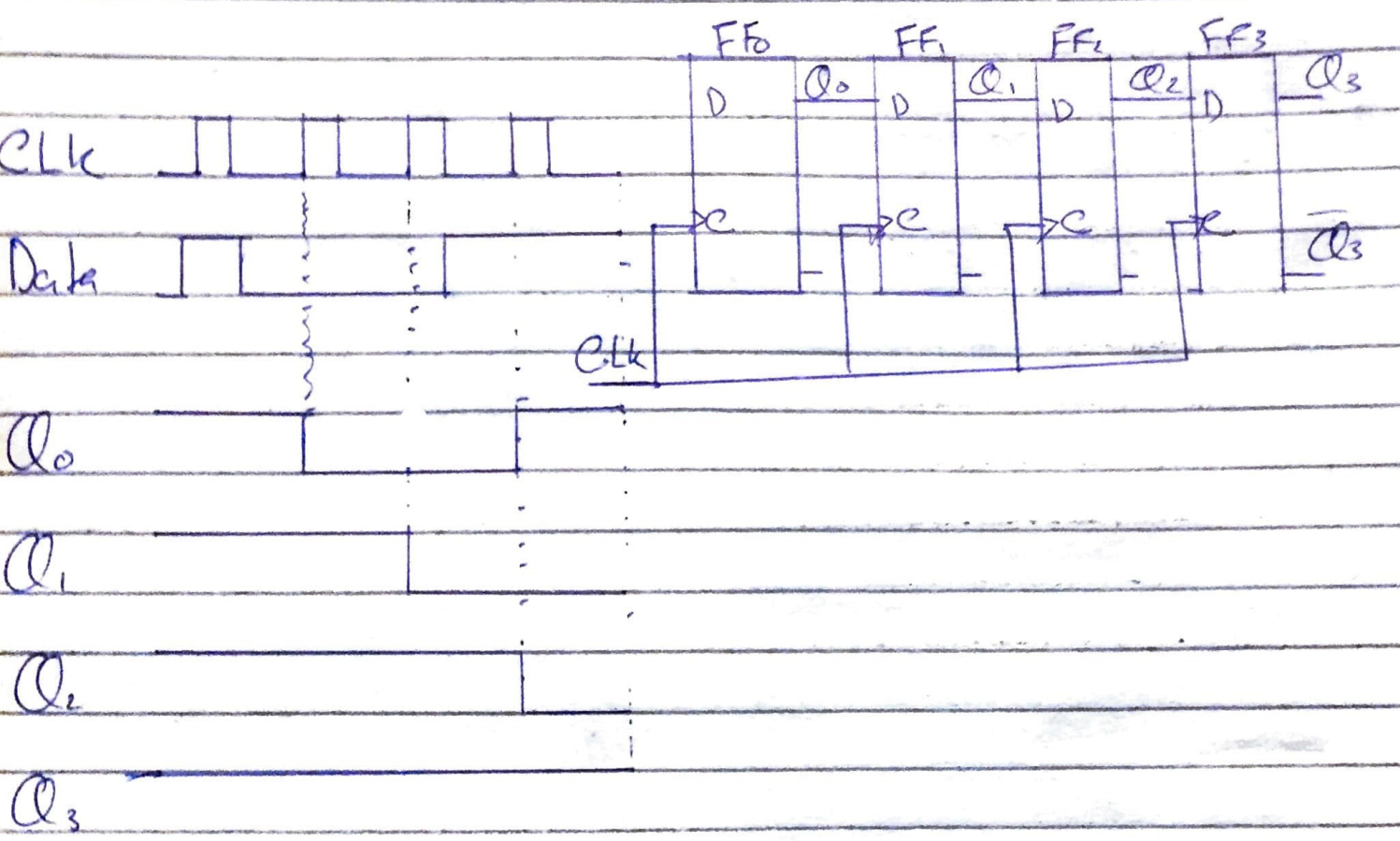
The shift capacity of a register permits to store and move data from one stage to another within, into, or out of register.

Q 4:

Since the shift register is initially cleared.

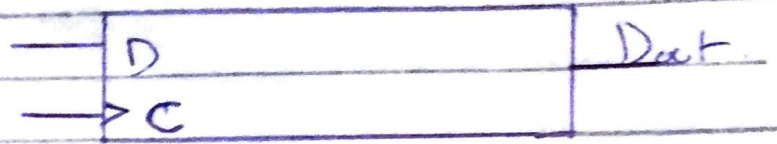
Initially	0 0 0 0
CLK 1	1 0 0 0
CLK 2	1 1 0 0
CLK 3	0 1 1 0

Q5



Initially	110001110000	Data	D	SR612	
Clk1	011000111000				— Data
Clk2	001100011100	CLK	→ C		
Clk3	000110001110				
Clk4	000011000111	Clk7	011100001100		
Clk5	100001100011	Clk8	001110000110		
Clk6	110000110001	Clk9	000111000011		
		Clk10	100011100001		
		Clk11	110001110000		
		Clk12	011000111000		

Q 7:



Data in



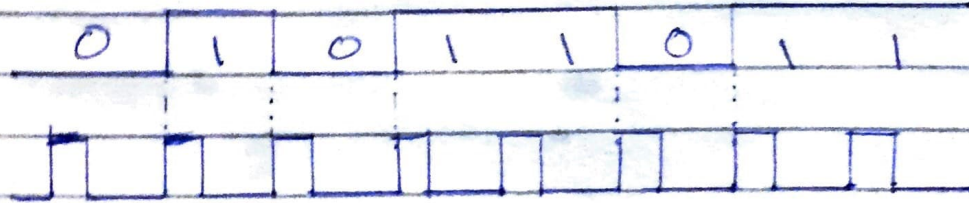
Lk



Data out



Q 8



The Data bits stored are

11011010

Q9:

