

Assignment 10: Implement 4-bit register
with → (a) Parallel-in/parallel-out
(b) Serial-in/serial-out

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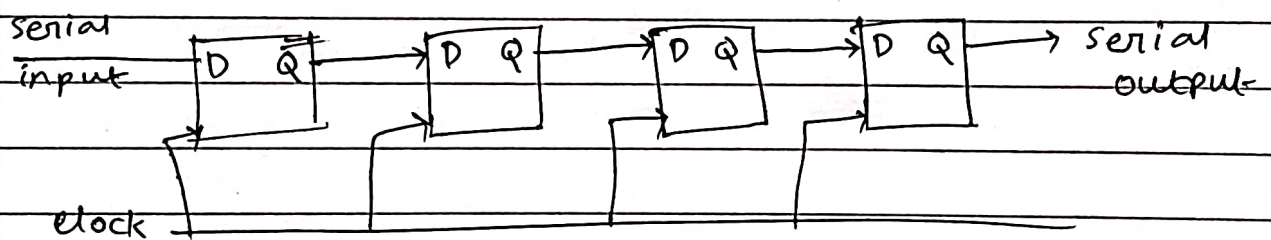
What is a Register?

Register is a group of flip-flops to multiple bit at same time. Register has actually ~~ex~~ series connected flip-flops.

Serial-in/serial-out Register

This type of register can take one input bit at a time and also shifts the data in output one bit at a time. We will use D-flip-flops to implement this register.

Circuit Overview



Parallel-in/parallel-out Register:

The register allows parallel input means all n -bits are given to n -flip-flops simultaneously and also output is ~~a~~ taken parallelly at a same time from all flip-flops. We will use p -flip-flops to implement circuit. Here flip-flops are not inter-connected

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