Experiment – 9

AIM OF EXPERIMENT:

To set up and verify the performance of shift registers.

APPARATUS REQUIRED:

- SISO PIPO TRAINER KIT
- PATCH CORDS/Connecting Wires

THEORY:

Shift registers are used for storage of binary data or the movement of data. The width of the data that needs to be stored determines how many flip -flops are needed, so the register is a chain of flip-flops where the output of flip-flop feeds into the input of the next flip-flop. An 8-bit register would have 8 flip-flops in the chain.

There are four basic types of shift registers:

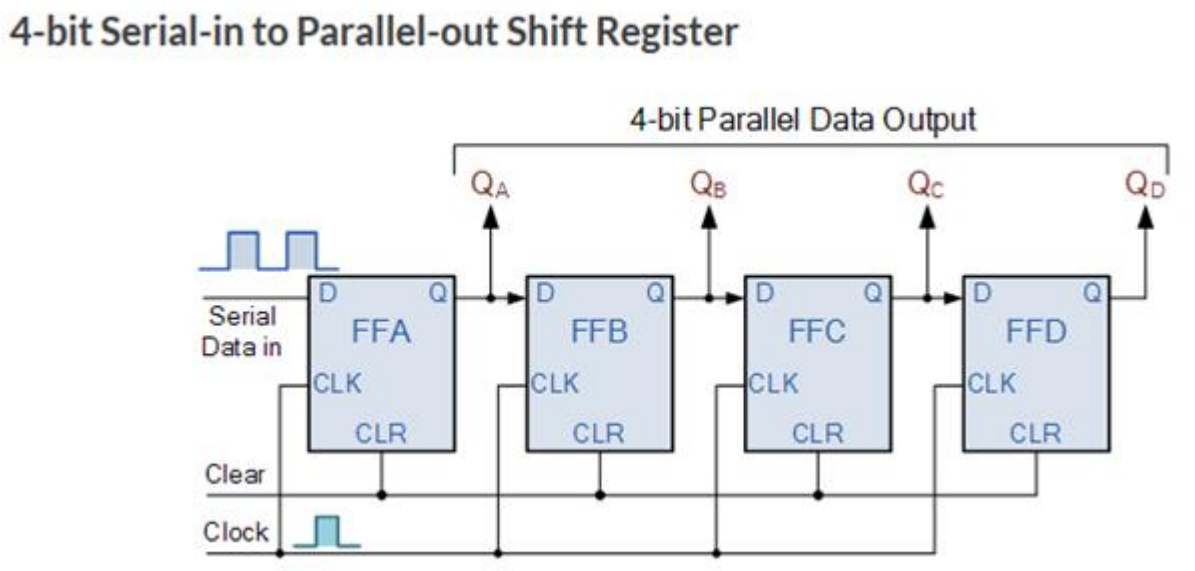
1.Serial In -Serial Out

2.Serial In - Parallel Out

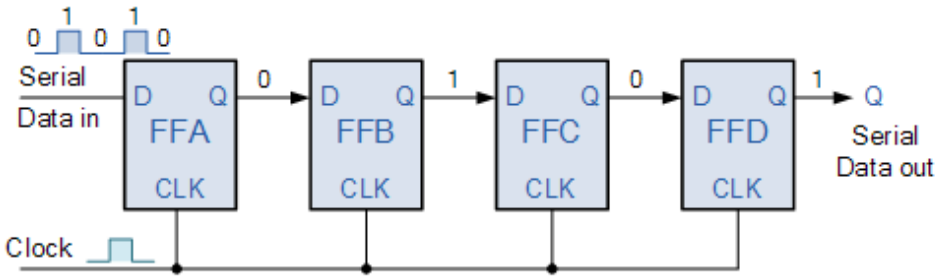
3.Parallel In - Serial Out

4.Parallel In Parallel Out

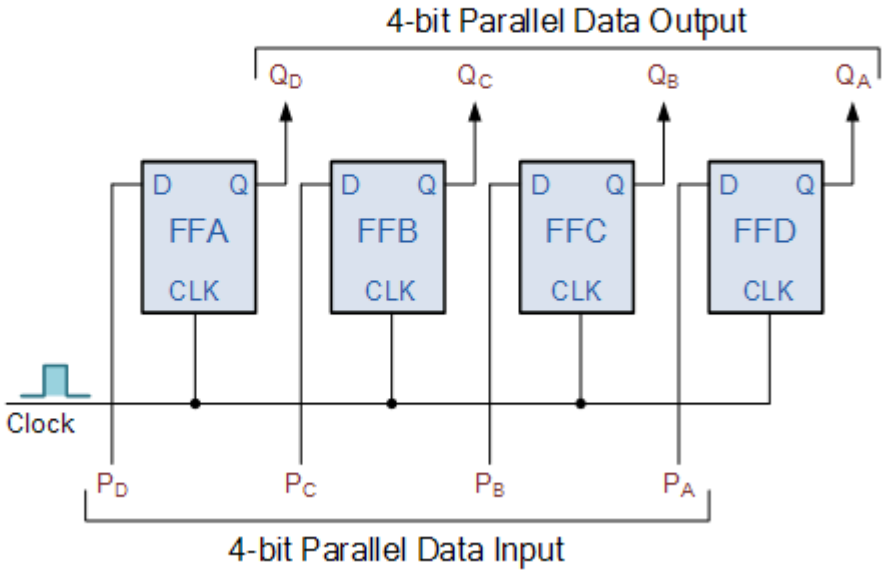
CIRCUIT DIAGRAM:

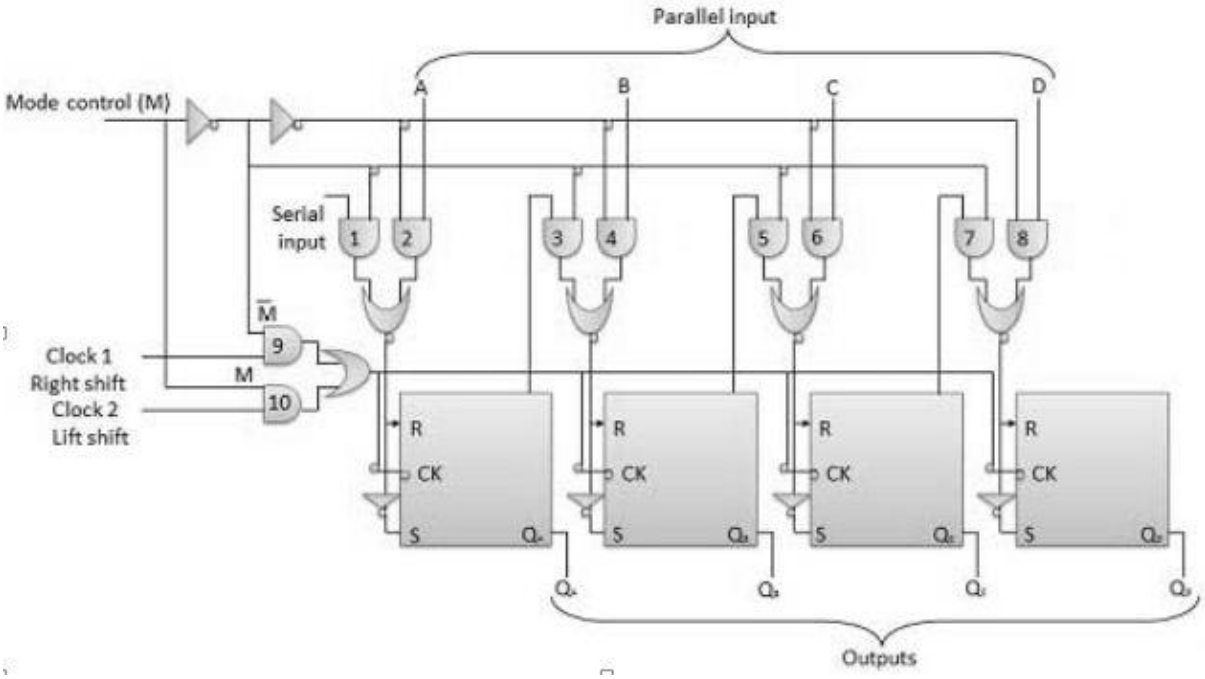


4-bit Serial-in to Serial-out Shift Register



4-bit Parallel-in to Parallel-out Shift Register





RESULT AND OBSERVATION:

The performance of shift registers studied.