

INTRODUCTION TO COMPUTER TECHNOLOGIES
Shift Register PRETEST

Refer to Fig. 1 (below) for questions 1 - 17.

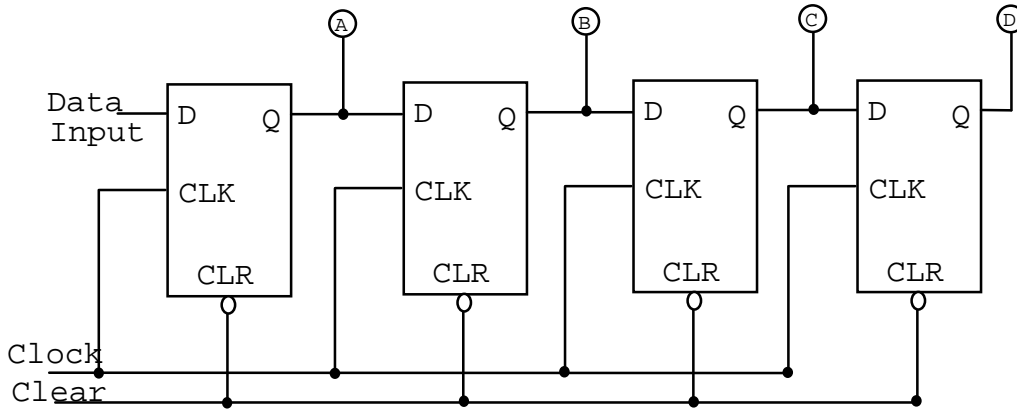


Figure 1

- 1) The unit shown is a _____ load shift register.
- 2) The shift register is best described as a _____ type unit.

Complete the given table.

Line Number	Inputs			Outputs			
	Clear	Data Input	Clock Pulse	FF A	FF B	FF C	FF D
				A	B	C	D
3	0	0	↑				
4	1	1	↑				
5	1	1	↑				
6	1	0	↑				
7	1	0	↑				
8	1	1	↑				
9	0	1	↑				
10	1	0	↑				
11	1	1	↑				
12	1	1	↑				
13	1	0	↑				
14	1	1	↑				
15	0	0	↑				
16	0	1	↑				
17	1	1	↑				

Refer to Fig. 2 (below) for questions 18 - 34.

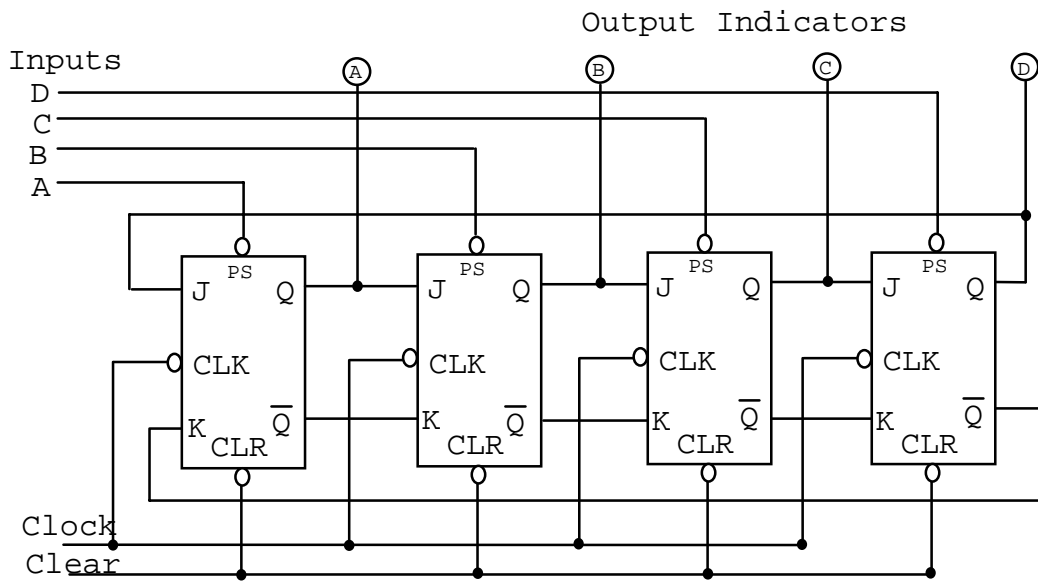


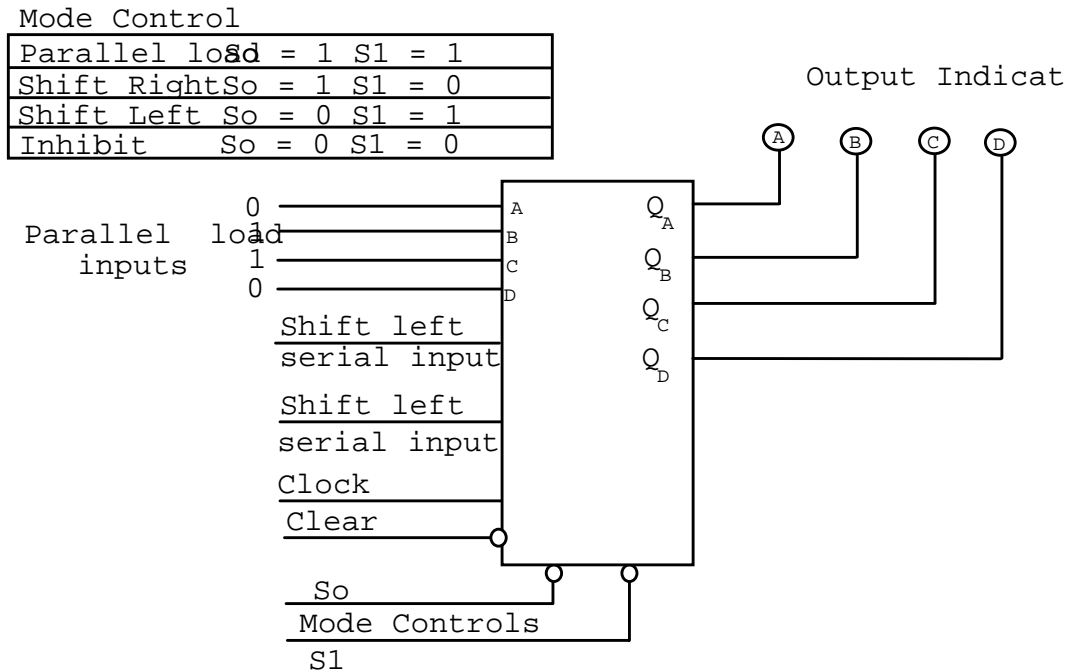
Figure 2

- 18) The unit shown is a _____ load shift register.
- 19) The shift register is best described as a _____ type unit.

Complete the given table.

Line Number	Inputs						Outputs			
	Clear					Clock Pulse	FF A	FF B	FF C	FF D
		A	B	C	D		A	B	C	D
20	0	1	1	1	1					
21	1	1	0	1	0					
22	1	1	1	1	1	↑				
23	1	1	1	1	1	↑				
24	0	1	1	1	1					
25	1	0	0	1	0					
26	1	1	1	1	1	↑				
27	1	1	1	1	1	↑				
28	1	1	1	1	1	↑				
29	1	0	1	1	1					
30	0	1	1	1	1					
31	1	1	0	1	0					
32	1	1	1	1	1	↑				
33	1	1	1	1	1	↑				
34	1	1	1	1	1	↑				

Refer to Figure 3 for questions 35 - 51.



35) The shift-left operation is accomplished with the 74194 IC when S_0 is _____ (High/Low), S_1 is HIGH, and the clock pulse goes from LOW to HIGH.

Complete the given table.

Line Number	Inputs						Outputs			
	Clear	Shift Left	Shift Right	S_0	S_1	Clock Pulse	A	B	C	D
36	0	0	1	0	0	↑				
37	1	0	1	1	1	↑				
38	1	0	1	1	0	↑				
39	1	0	0	1	0	↑				
40	1	0	0	1	0	↑				
41	1	0	1	1	0	↑				
42	0	0	0	0	0	↑				
43	1	1	0	1	1	↑				
44	1	1	0	0	1	↑				
45	1	0	0	0	1	↑				
46	1	1	0	0	1	↑				
47	1	1	0	0	1	↑				
48	1	0	0	0	1	↑				
49	1	0	0	0	1	↑				
50	1	0	0	1	1	↑				
51	1	0	0	0	1	↑				