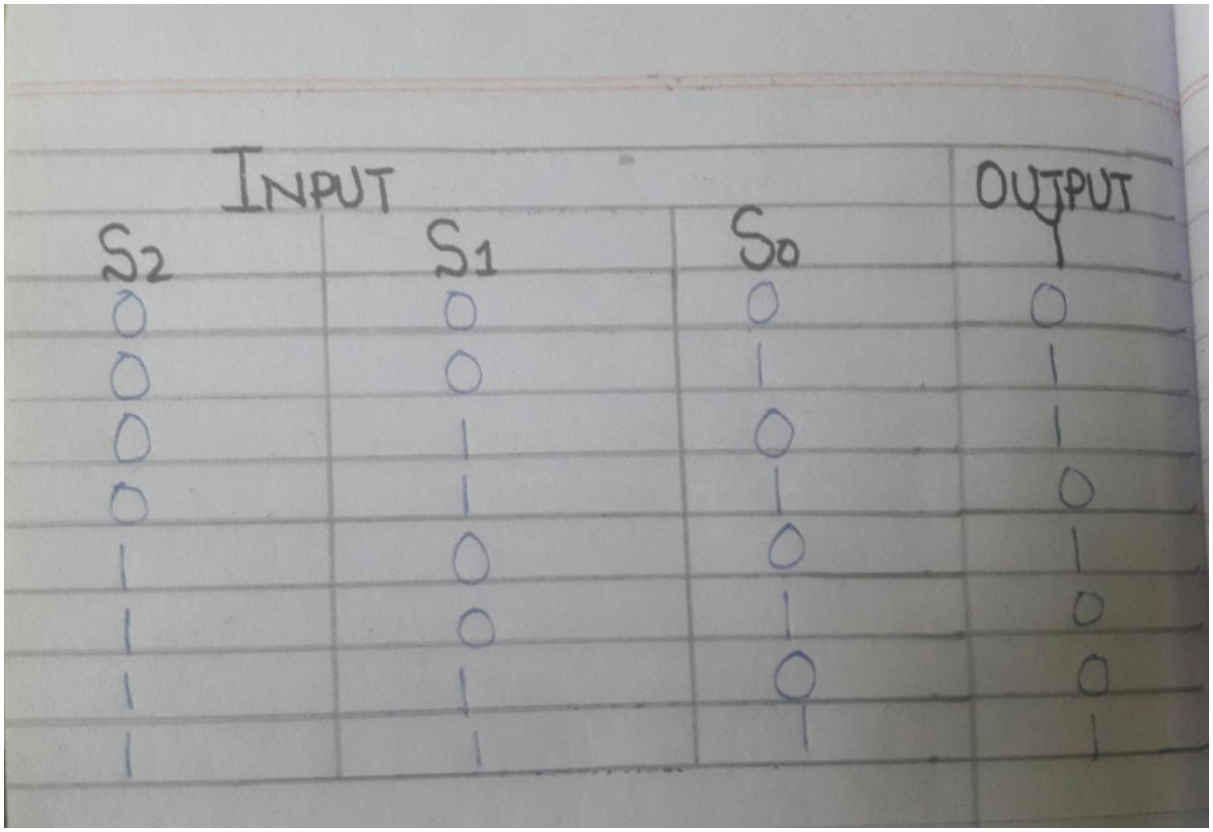
Q)DIFFERENCE BETWEEN MUX AND DEMUX?

MULTIPLEXER	DEMULTIPLEXER
IT OPERATES ON MULTIPLE INPUTS	IT OPERATES ON A SINGLE INPUT
IT PERFORM PARALLEL TO SERIAL CONVERSION AS IT REQUIRES SEVERAL INPUTS	IT PERFORM SERIAL TO PARALLEL CONVERSION AS MULTIPLE OUTPUT
MULTIPLEXER WITH THE HELP OF CONTROL SIGNALS SELECTS THE PARTICULAR INPUT THAT HAS TO BE	DEMULTIPLEXER UTILIZES THE CONTROL SIGNAL AND ALLOW US TO HAVE MULTIPLE OUTPUT

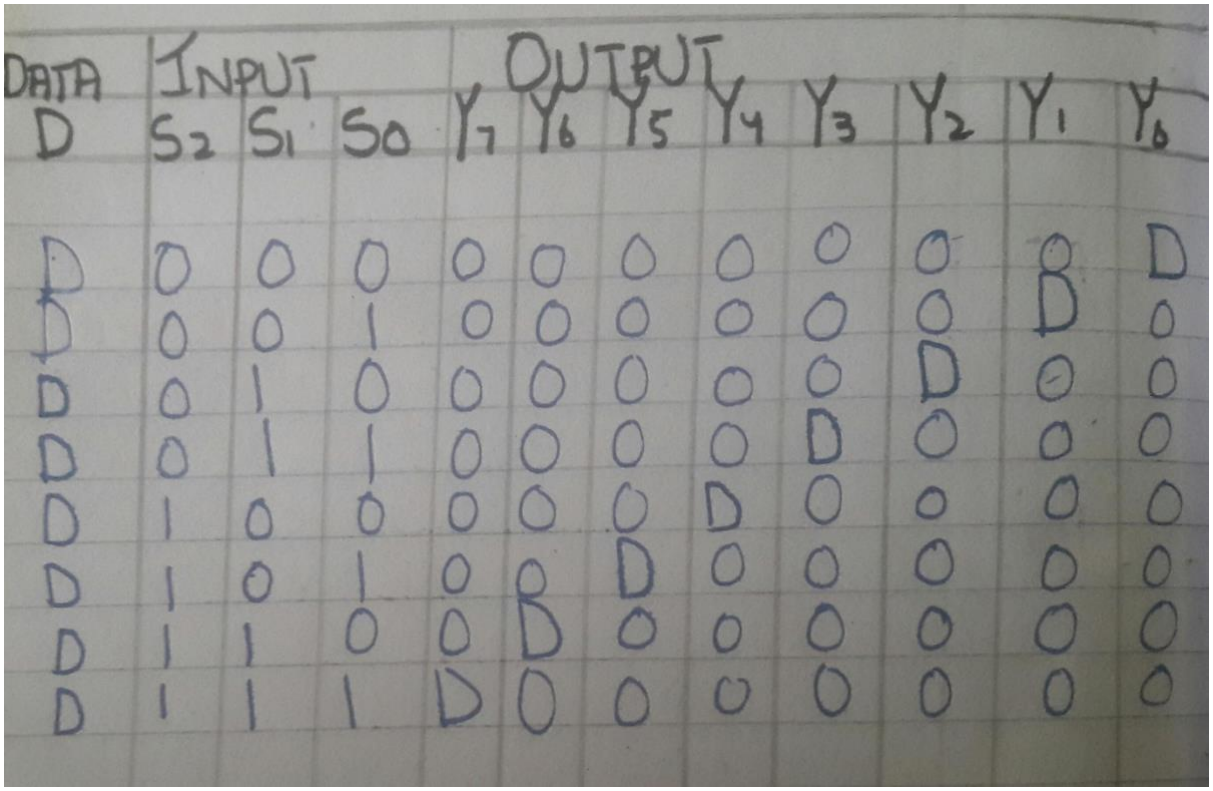
TRANSMITTED AT THE OUTPUT	
MULTIPLEXER IS N TO 1 DEVICE	DEMULTIPLEXER IS 1 TO N DEVICE

TRUTH TABLE OF MULTIPLEXER:



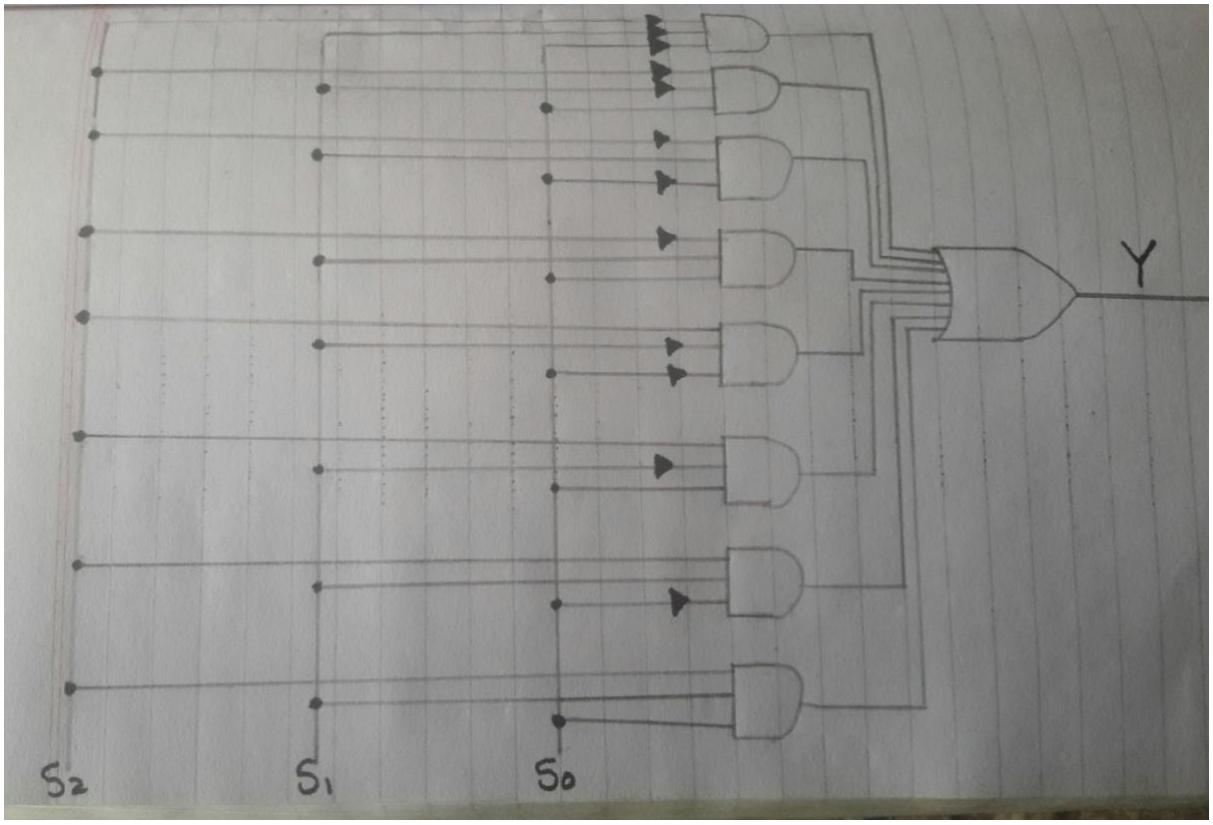
INPUT			OUTPUT
S_2	S_1	S_0	Y
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	0
1	1	1	1

TRUTH TABLE OF DEMULTIPLEXER:



DATA	INPUT			OUTPUT							
D	S_2	S_1	S_0	Y_7	Y_6	Y_5	Y_4	Y_3	Y_2	Y_1	Y_0
D	0	0	0	0	0	0	0	0	0	0	D
D	0	0	1	0	0	0	0	0	0	D	0
D	0	1	0	0	0	0	0	0	D	0	0
D	0	1	1	0	0	0	0	D	0	0	0
D	1	0	0	0	0	0	D	0	0	0	0
D	1	0	1	0	0	D	0	0	0	0	0
D	1	1	0	0	D	0	0	0	0	0	0
D	1	1	1	D	0	0	0	0	0	0	0

CIRCUIT DIAGRAM OF MULTIPLEXER:



CIRCUIT DIAGRAM OF DEMULTIPLEXER: