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Name

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Submitted to

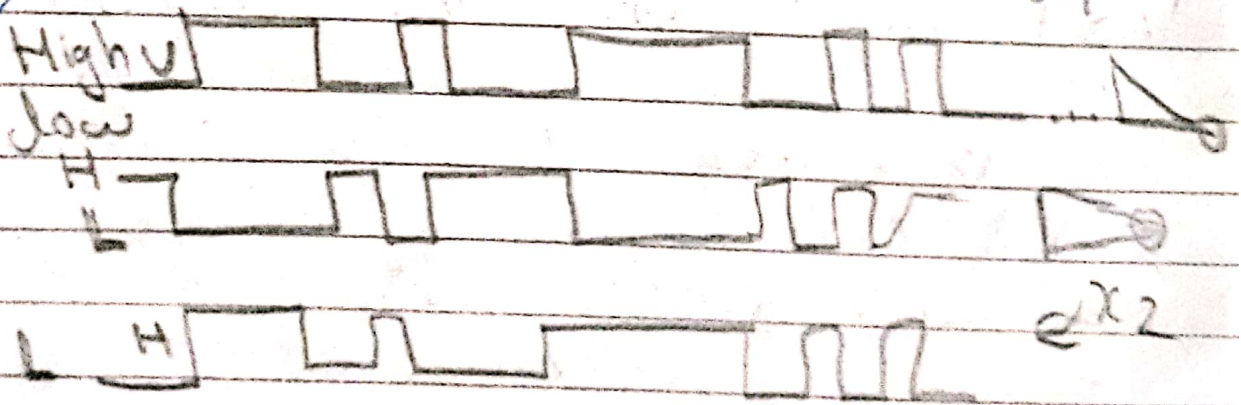
SIR . M. Amin

Assign # 2

(2)

(Q1) The input wave form in figure is applied to a system of two inverters connected in series. Draw the output wave form across each inverter in proper relation to the input.

Sol/

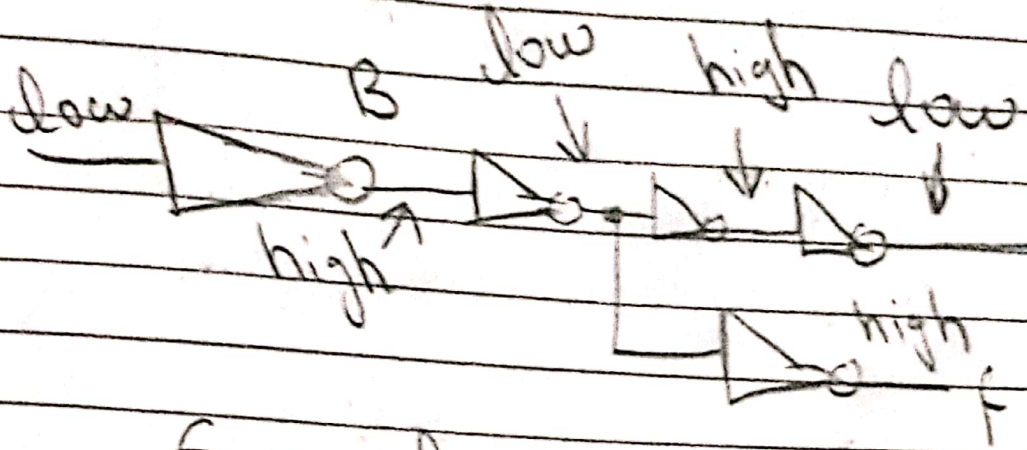


(Q2) A combination of inverters is shown in figure if a low is applied to the point A, determine the output of point B.



3

Sol/

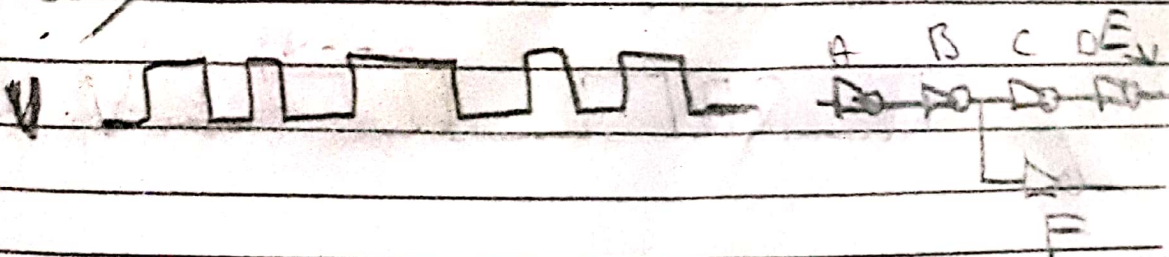


E = low

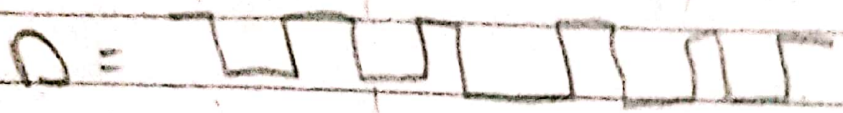
F = High

Q3) if waveform in Q1 is applied to figure in Q2 at point A. Determine the waveform from point B to F.

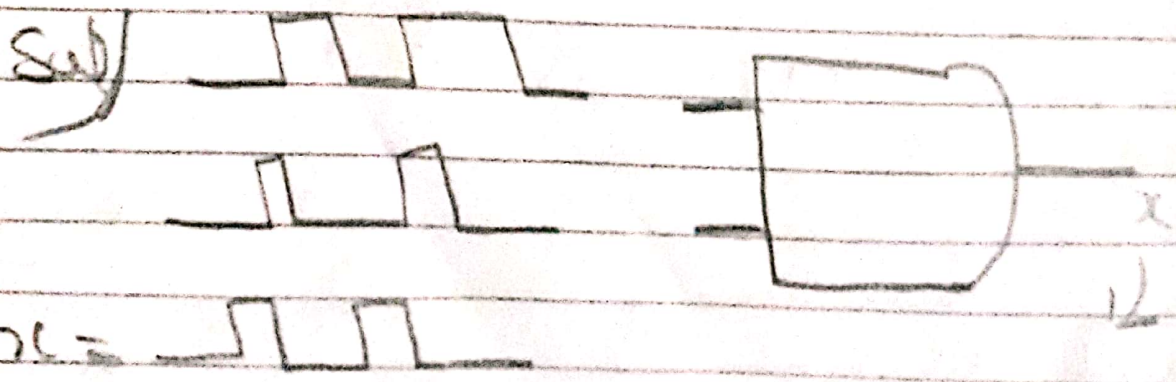
Sol/



4



Q4) Determine the output X for 2 input AND gate with the input waveform in figure.

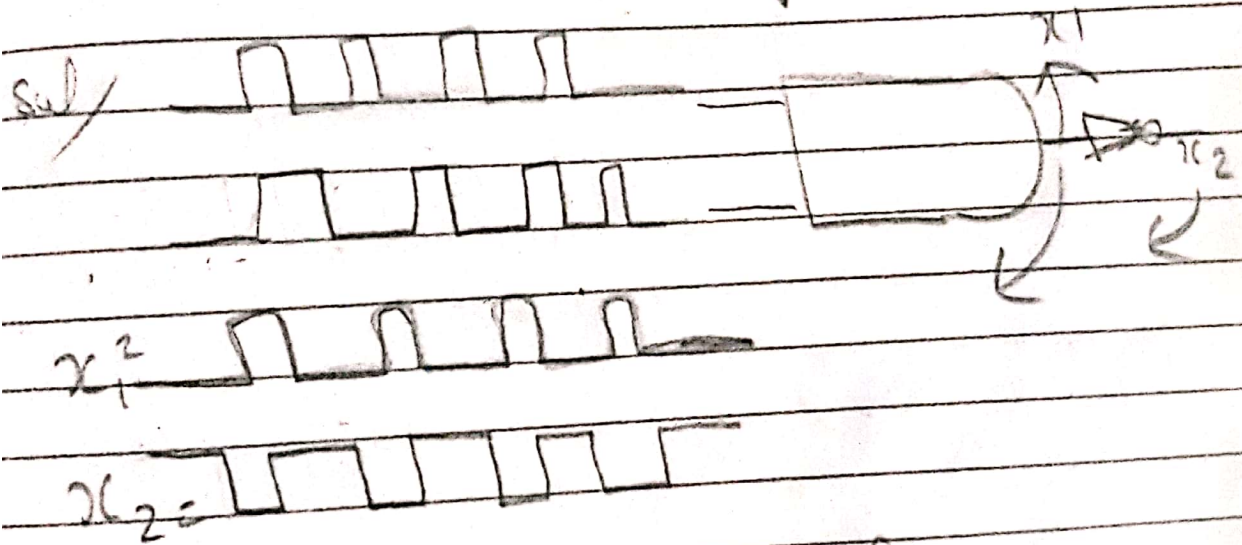


Ans



5

Q5) The waveform in figure are applied to point A and B of 2 input AND gate followed by an inverter. Draw the output waveform.



Q6) The input waveform applied to 3 input AND gate are as indicated

6

B =

C

~~Sol/~~ A



D

B

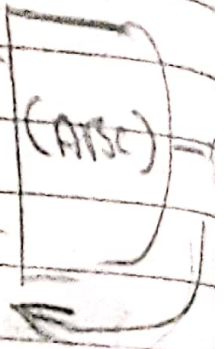
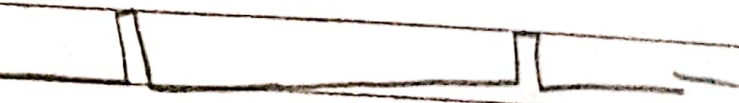


E

C



X =

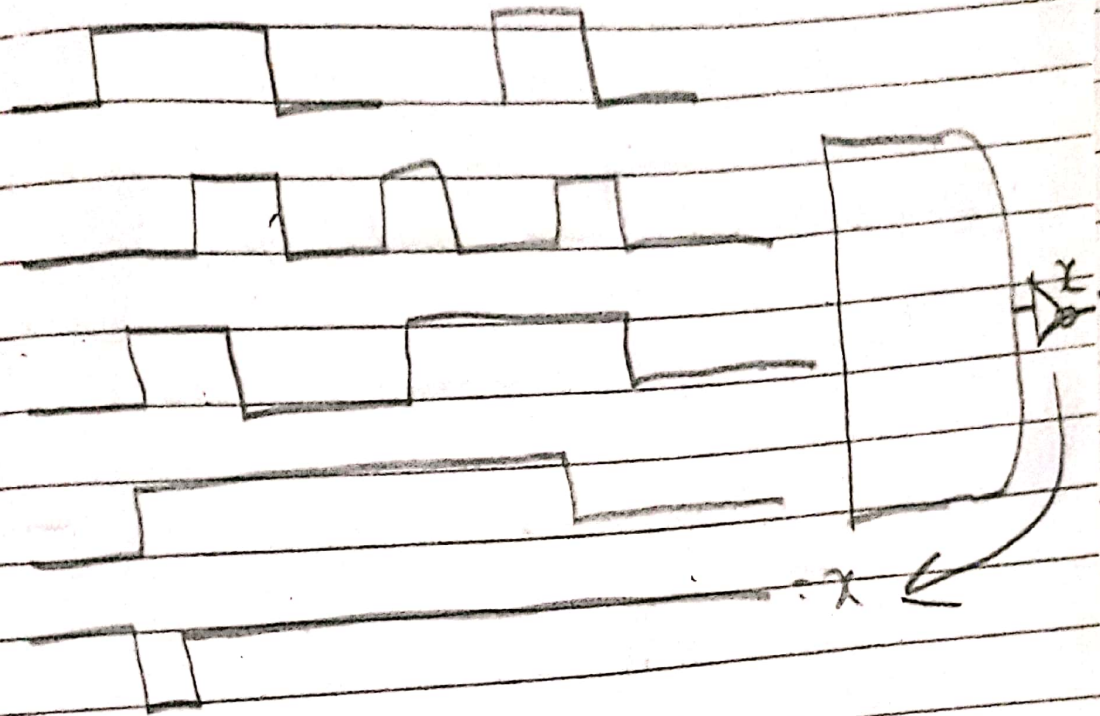


Q7) The input waveforms applied to a 2 input AND gate as indicated in figure the output is shown below the next input



(7)

F  
Sol



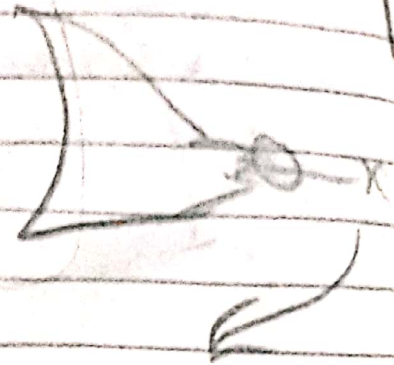
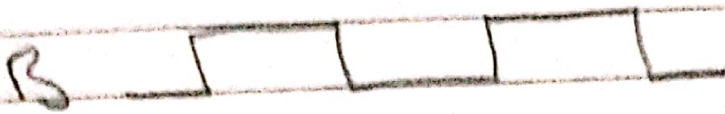
Q8) Determine the output for a two input OR Gate when input wave form are as in figure Q5 and draw a time diagram



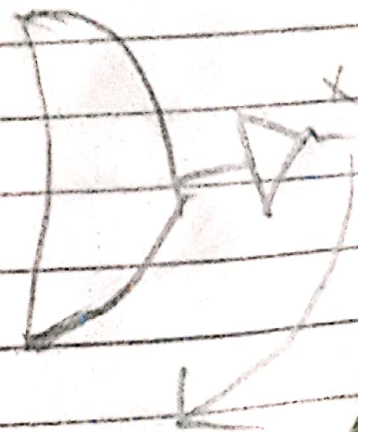
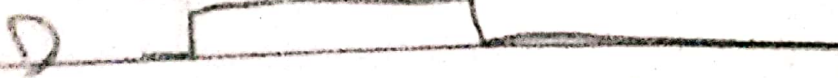
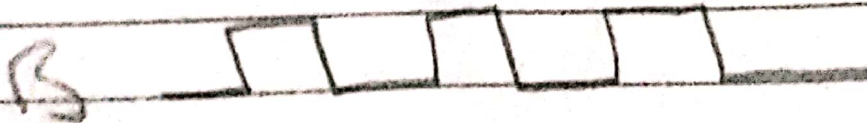
Ans

8

Q9) Repeat Q6 for 3 input  
OR Gate



Q10) Repeat Q7 for 4 input  
OR Gate





9

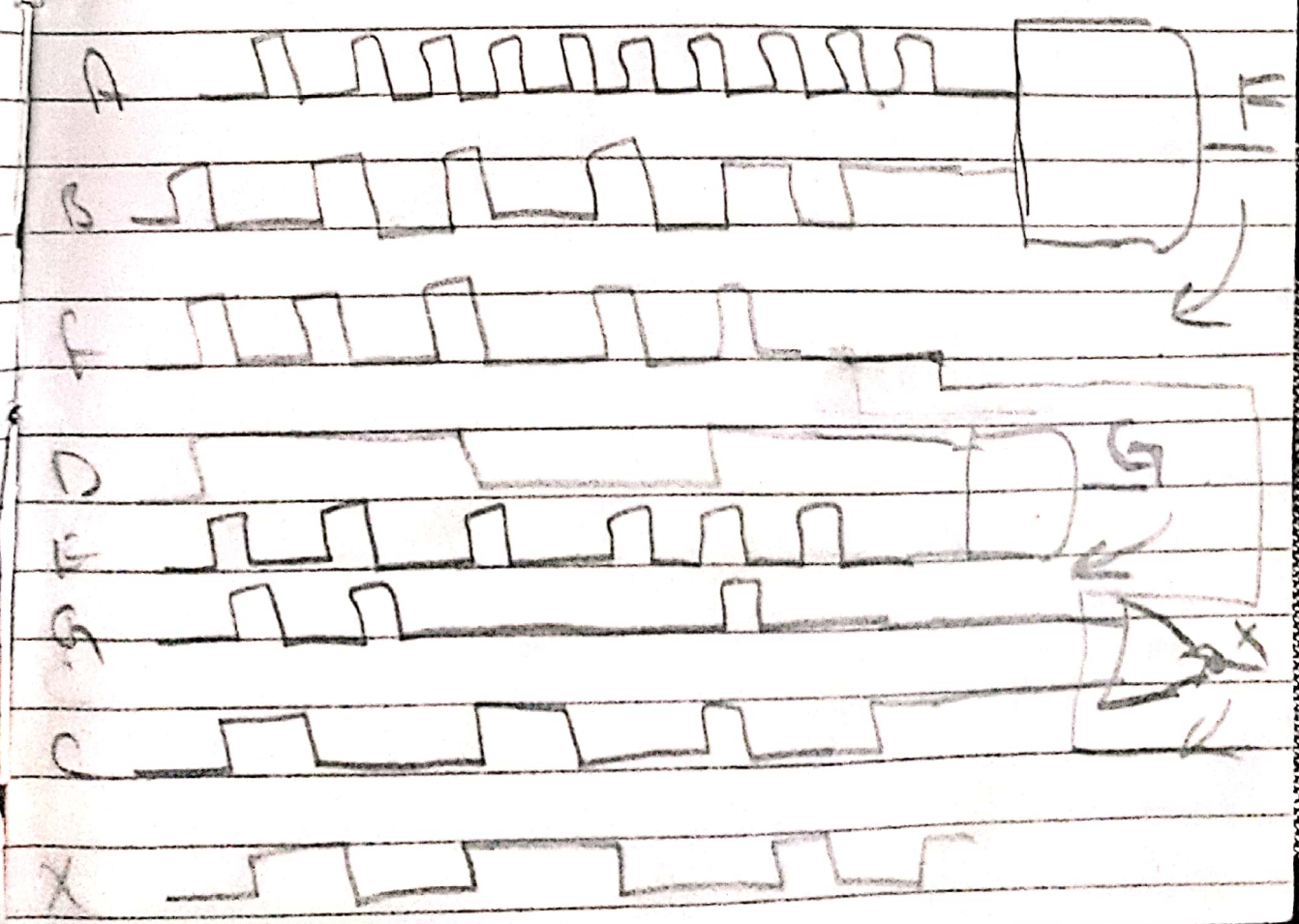
(Q11) For the waveform given in figure A and B are AND with output f, D and E AND with output G, f and G are OR, Draw the net output waveform.

Sol/

$$(A \cdot B) = f$$

$$(D \cdot E) = G$$

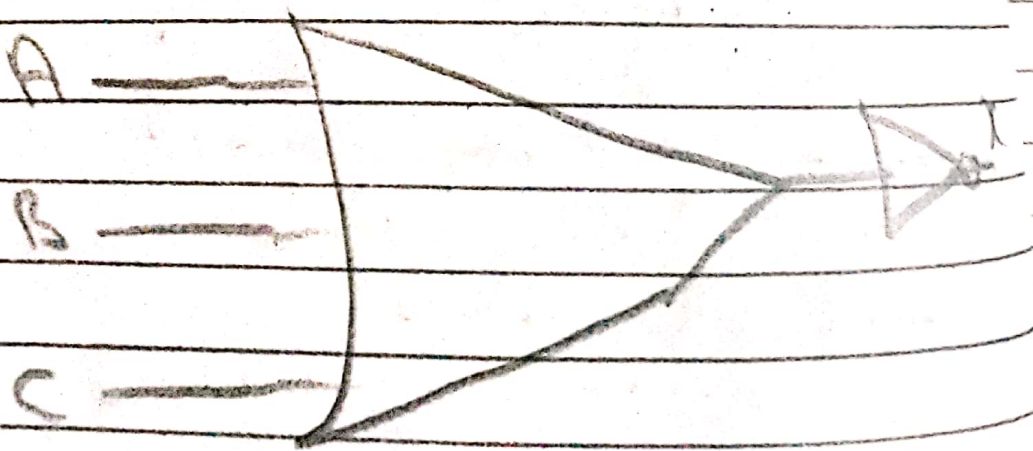
$$(f + G) = X$$



to

Q12) Show the truth table for a system of a 3 input OR gate followed by an inverter

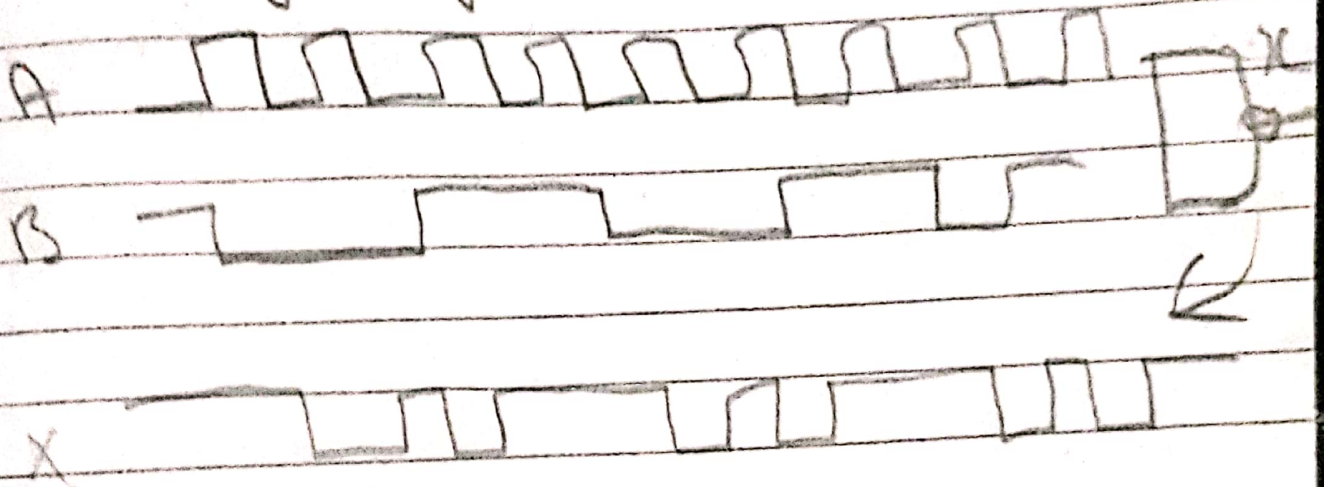
A	B	C	(A+B+C)	(A+B+C)'
0	0	0	0	1
0	0	1	1	0
0	1	0	1	0
0	1	1	1	0
1	0	0	1	0
1	0	1	1	0
1	1	0	1	0
1	1	1	1	0



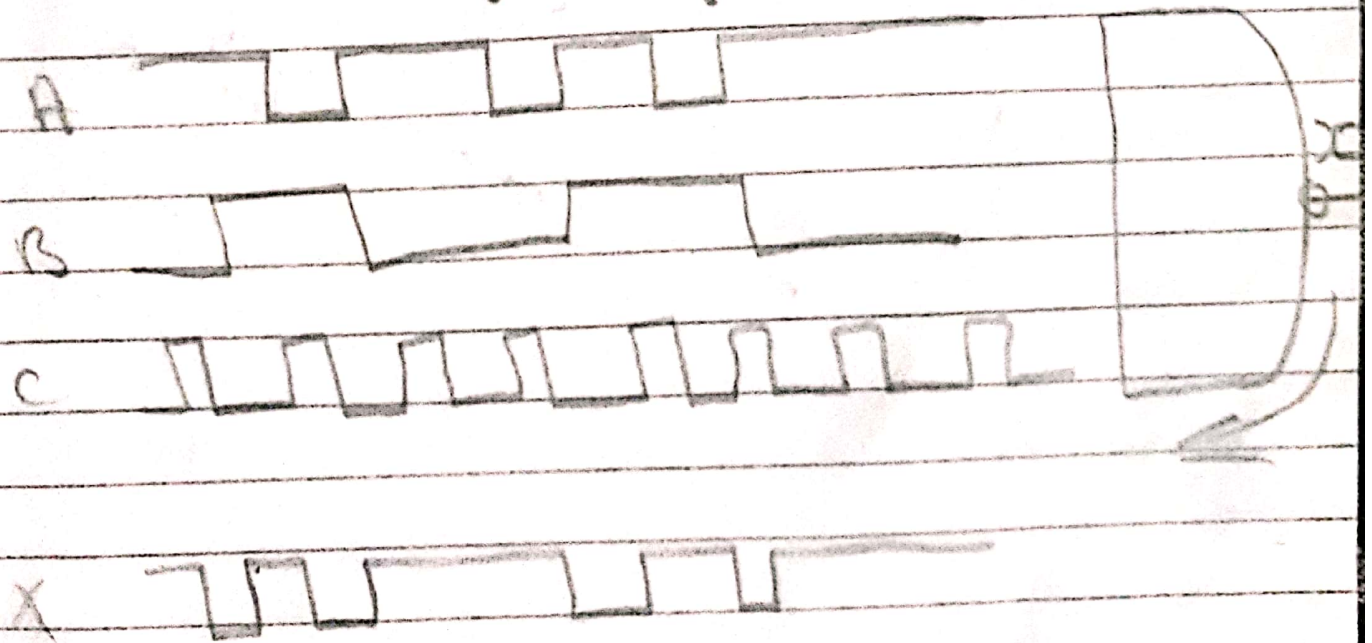


(11)

Q13) For the set of input wave forms, Determine the output for the gate shown in the timing diagram.

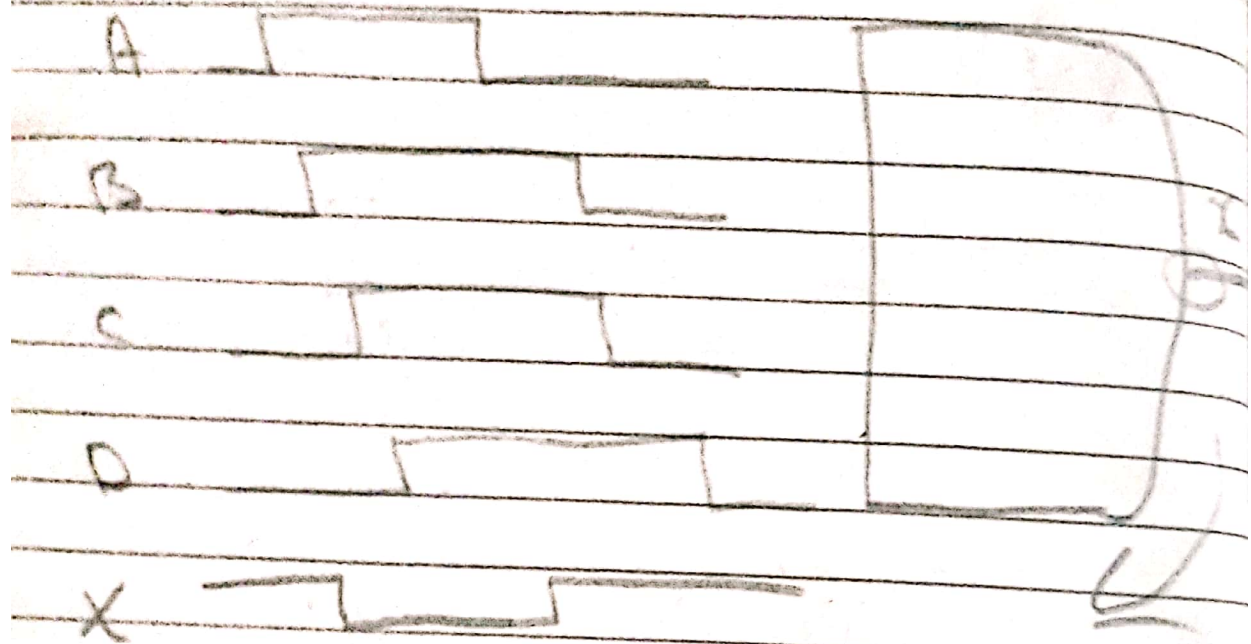


Q14) Determine the Gate output wave form in figure and draw the logic symbol.



12

Q15) Determine the output wave form in figure



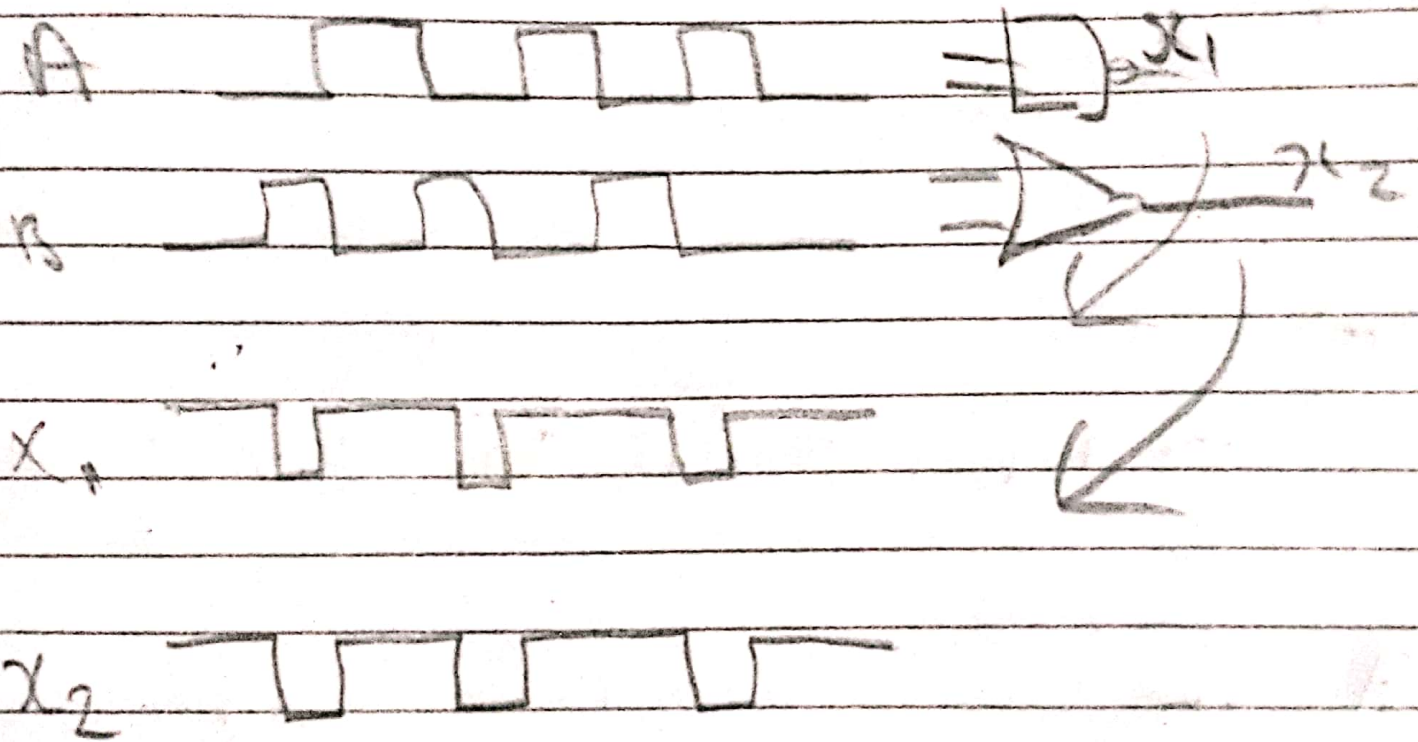
Q16) The two logic symbols shown in figure 11 represent equivalent operations. The difference b/w two is  
state key

show each gate



13

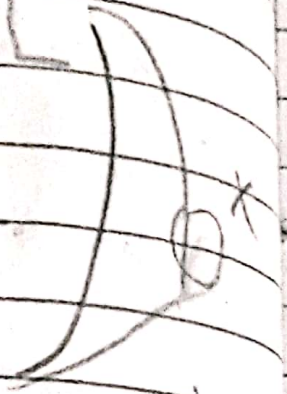
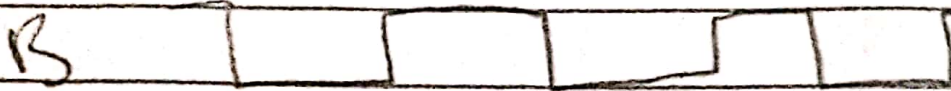
will produce the same  
output for the given  
input's



Q17) Repeat Q13 for 2 input  
NOR Gate

(14)

17  
Ans



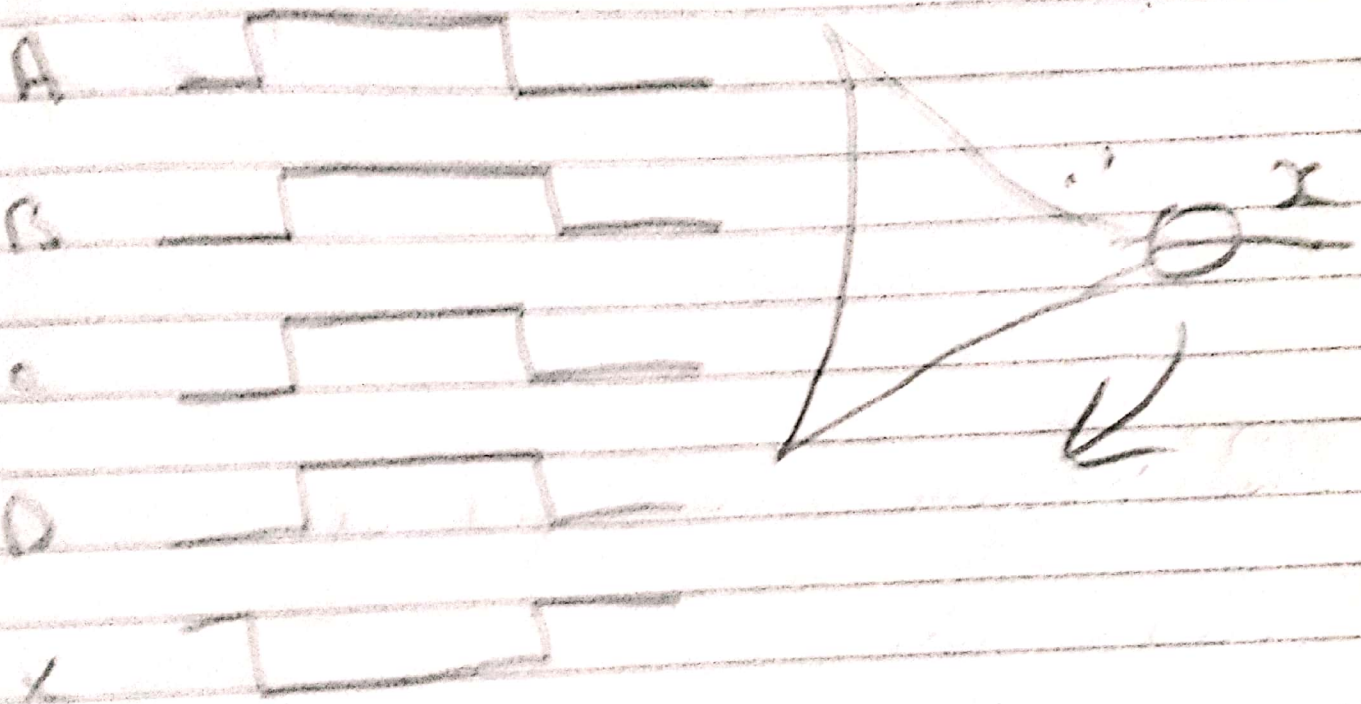
(18) Determine the output wave form in figure and draw the logic diagram





(18)

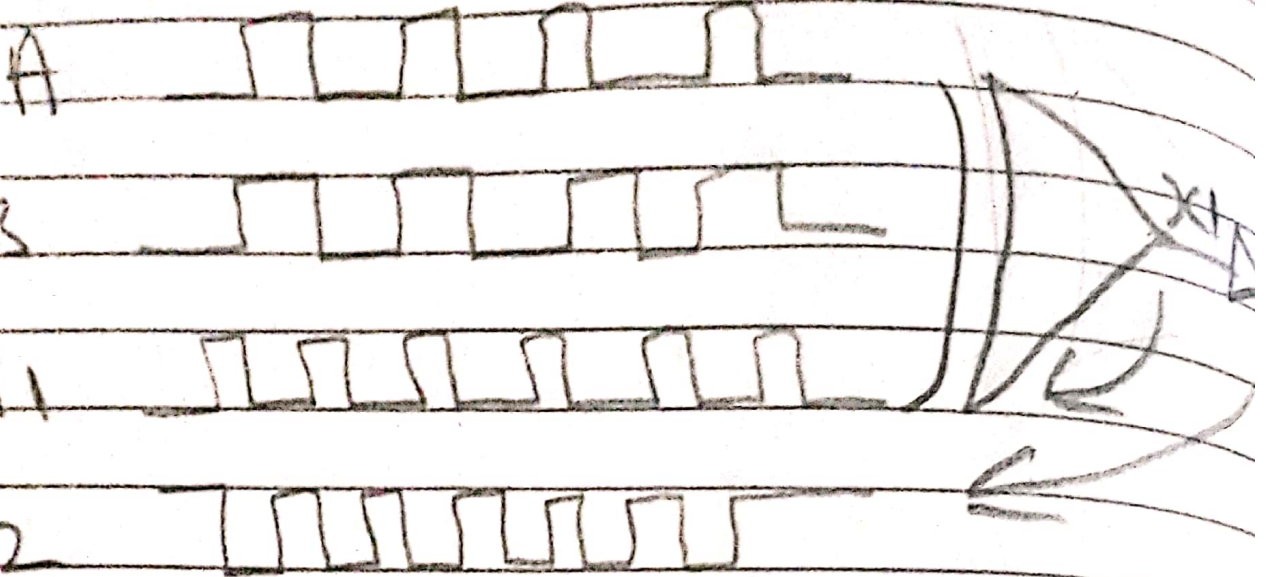
Q19) Repeat Q15 for four input NOR gate.



Q21) Repeat Q5 for exclusive OR gate.

D.T.C

21) Ans)



Q22) Repeat Q5 for exclusive NOR Gate

