

Name

Damat Faib

Program

B3 (CS)

Assignment No =

2

Subject

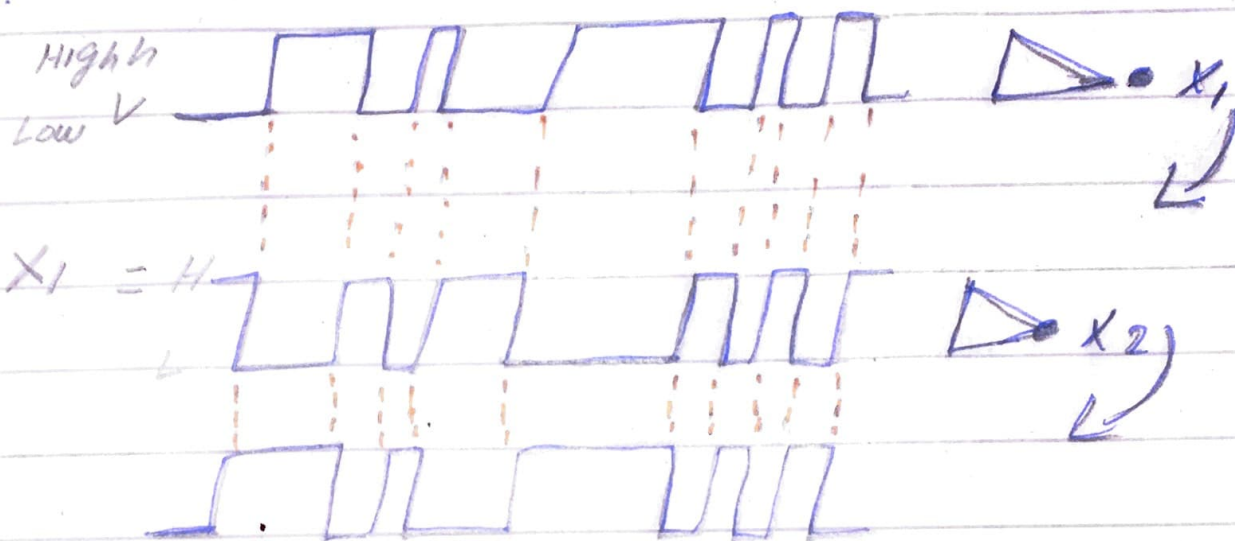
DLQ.

ID

15393.

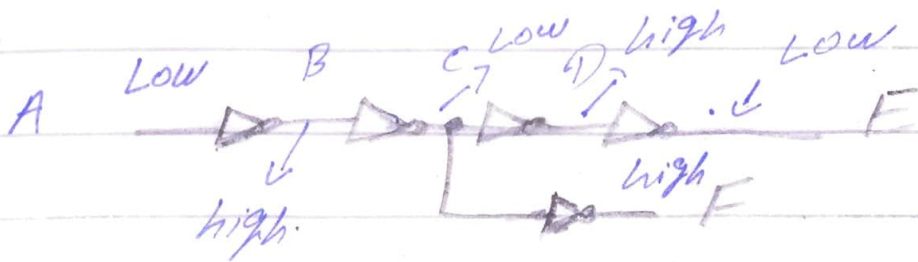
Q1) The input waveform show in Figure 01 is applied to a system of two inverters connected in series. Draw the output waveform across each inverter in proper relation to the input.

soln:



Q2) A combination of inverters is shown in figure 02. if a Low is applied to point A, determine the net output at points E and F.

soln:

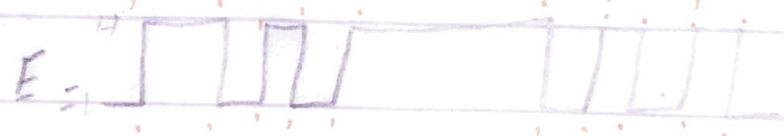
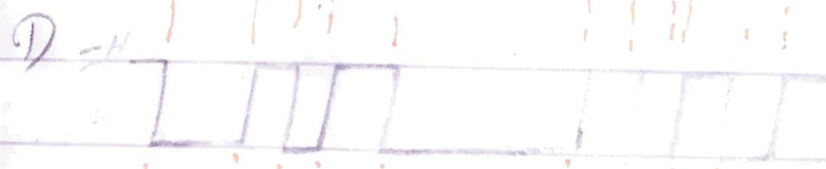
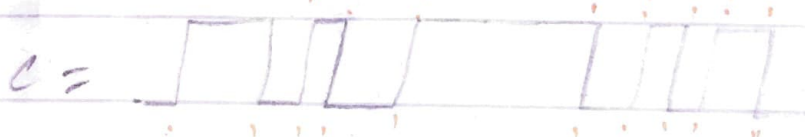
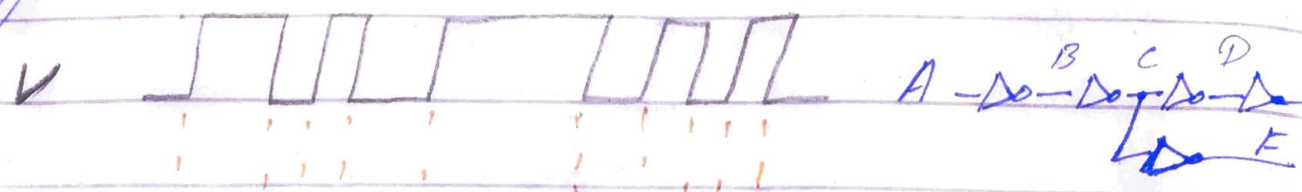


$E = \text{Low}$

$F = \text{High}$

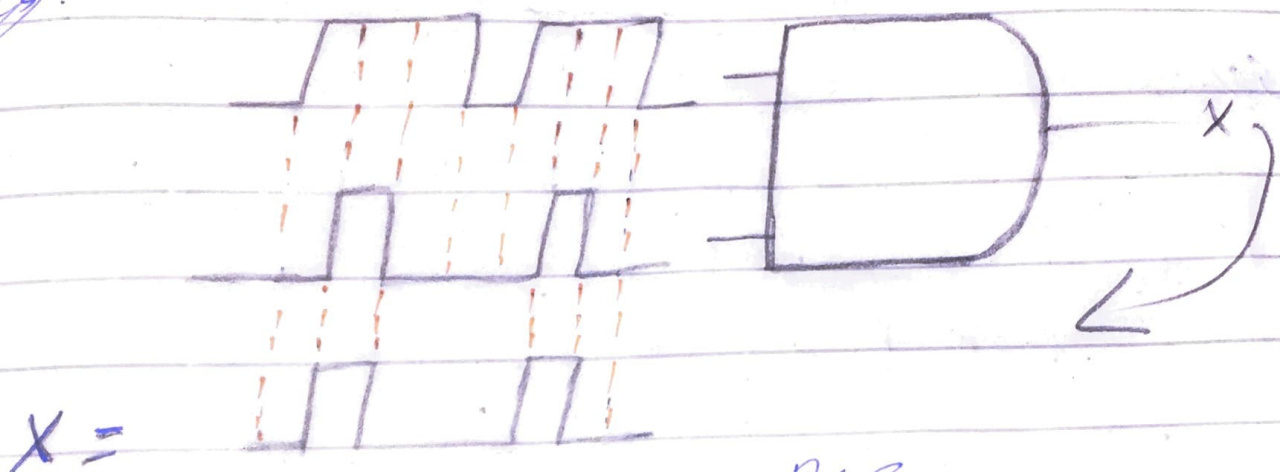
Q3) If the waveform in Figure 02 is applied to point A in Figure 07, determine the waveform at point B through F.

soln.



Q4) Determine the output, x , for a 2-input AND gate with the input waveforms shown in figure 03.

Sols.

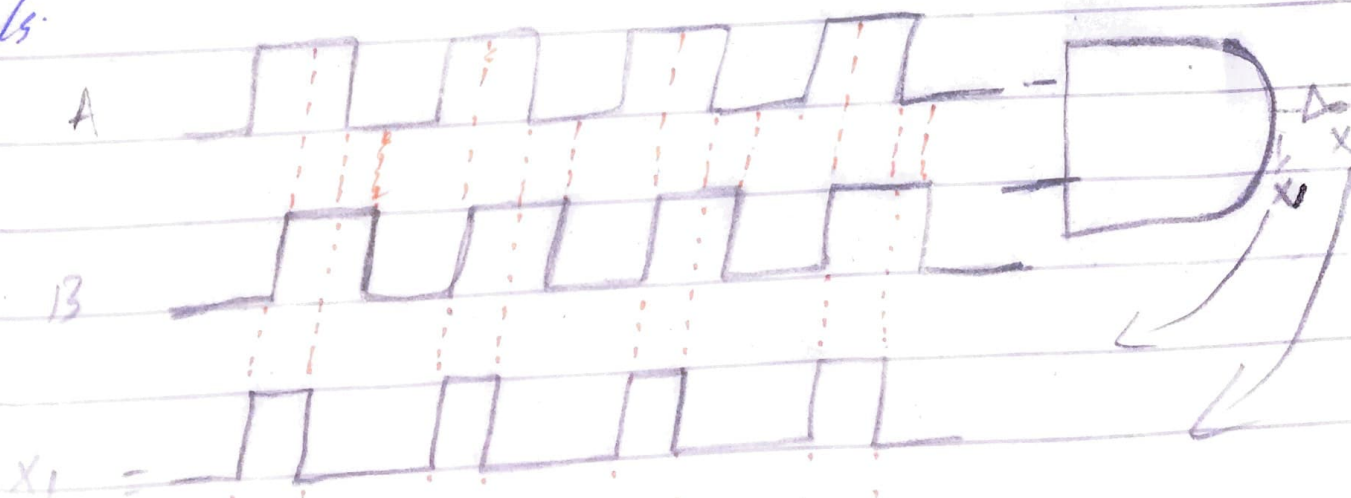


$x =$

Ans.

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

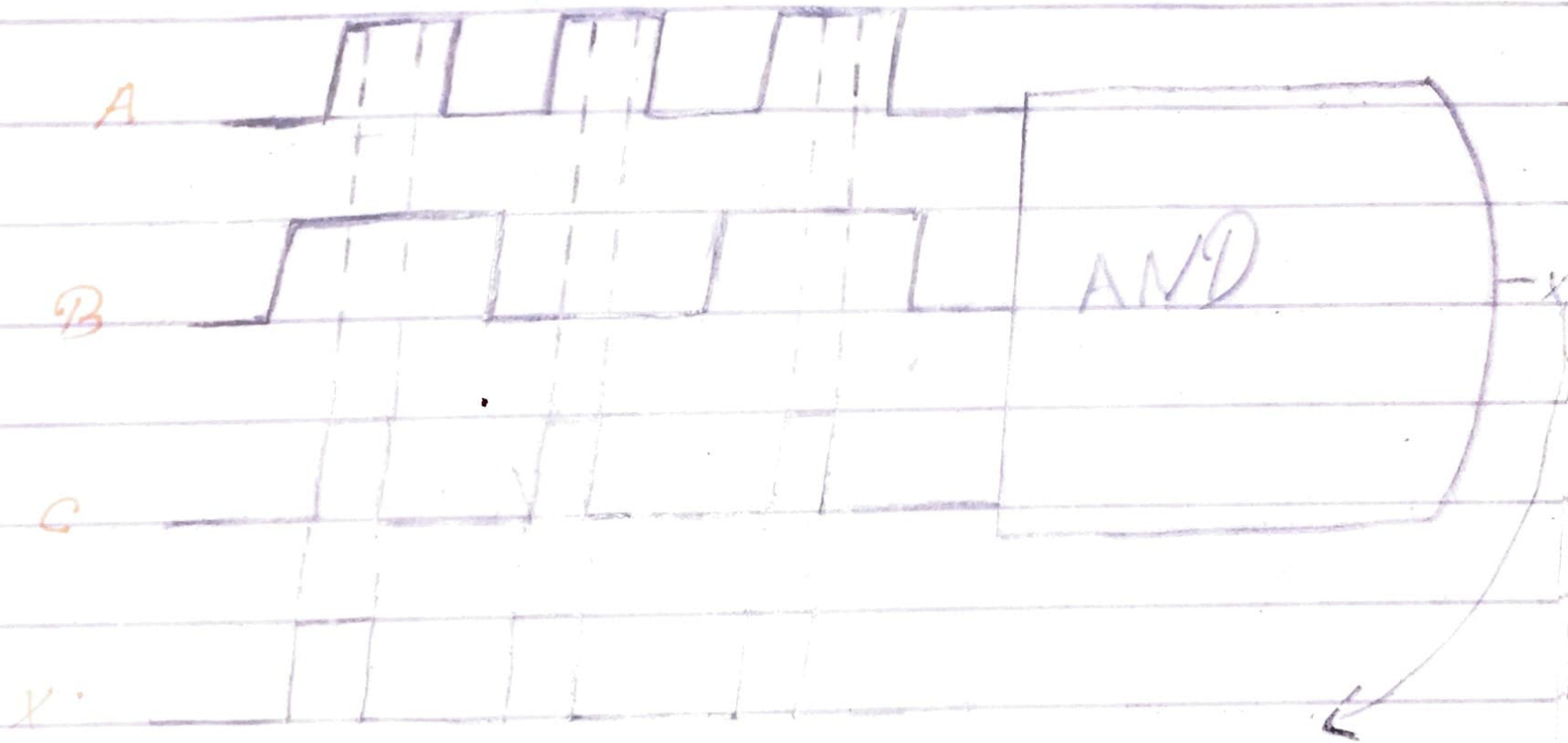
Sols.



$x_2 =$

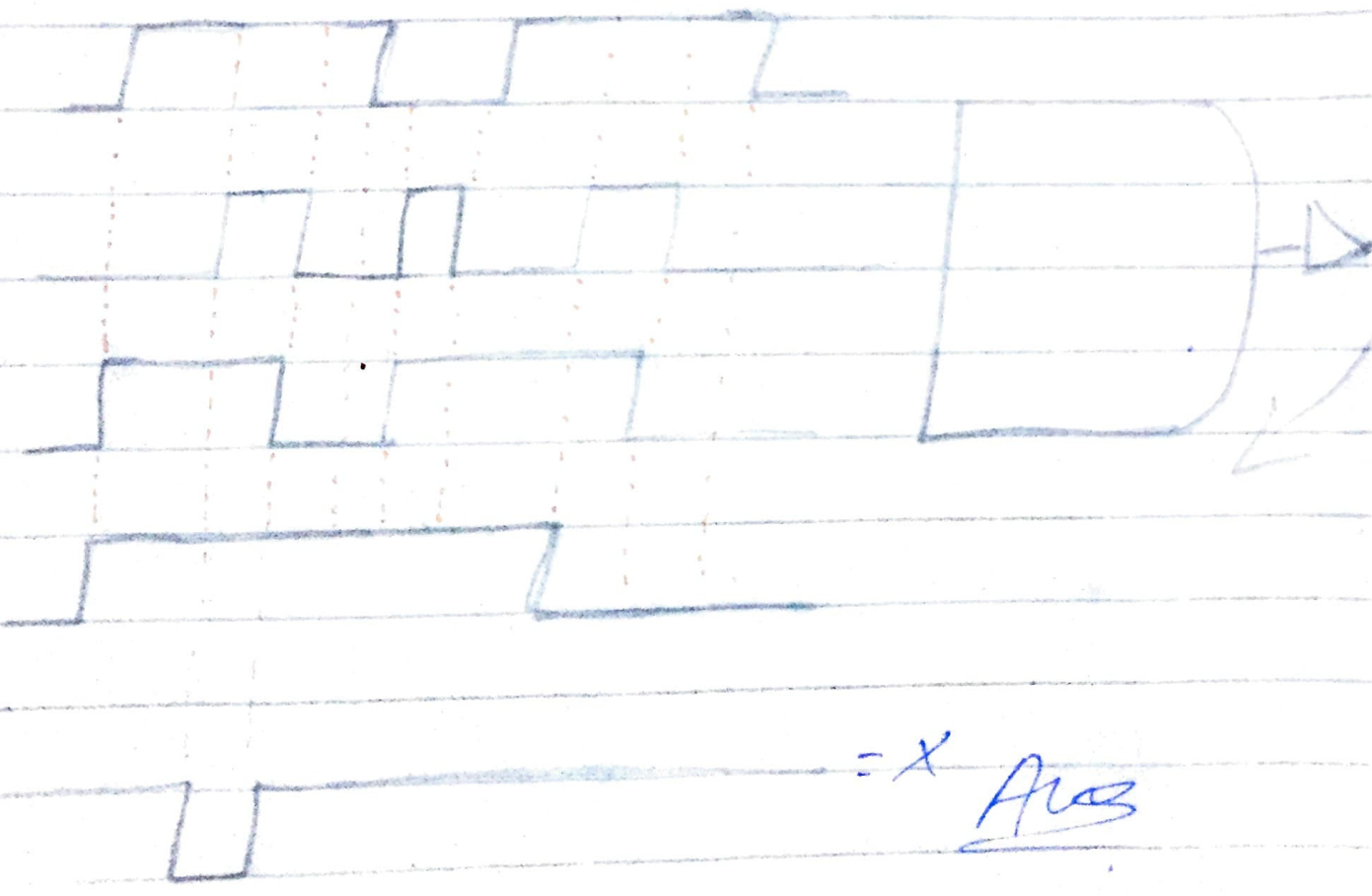
Ans.

Q6) The input waveform in figure 1 is applied to a 3-input AND gate. Show the output waveform in proper relation to the input with a timing diagram.



Q7) The input waveform applied to a unit AND gate are as indicated in figure 06. The output of AND gate is fed to an inverter. Draw the net output waveform of this system.

Sol:-



= X Ans

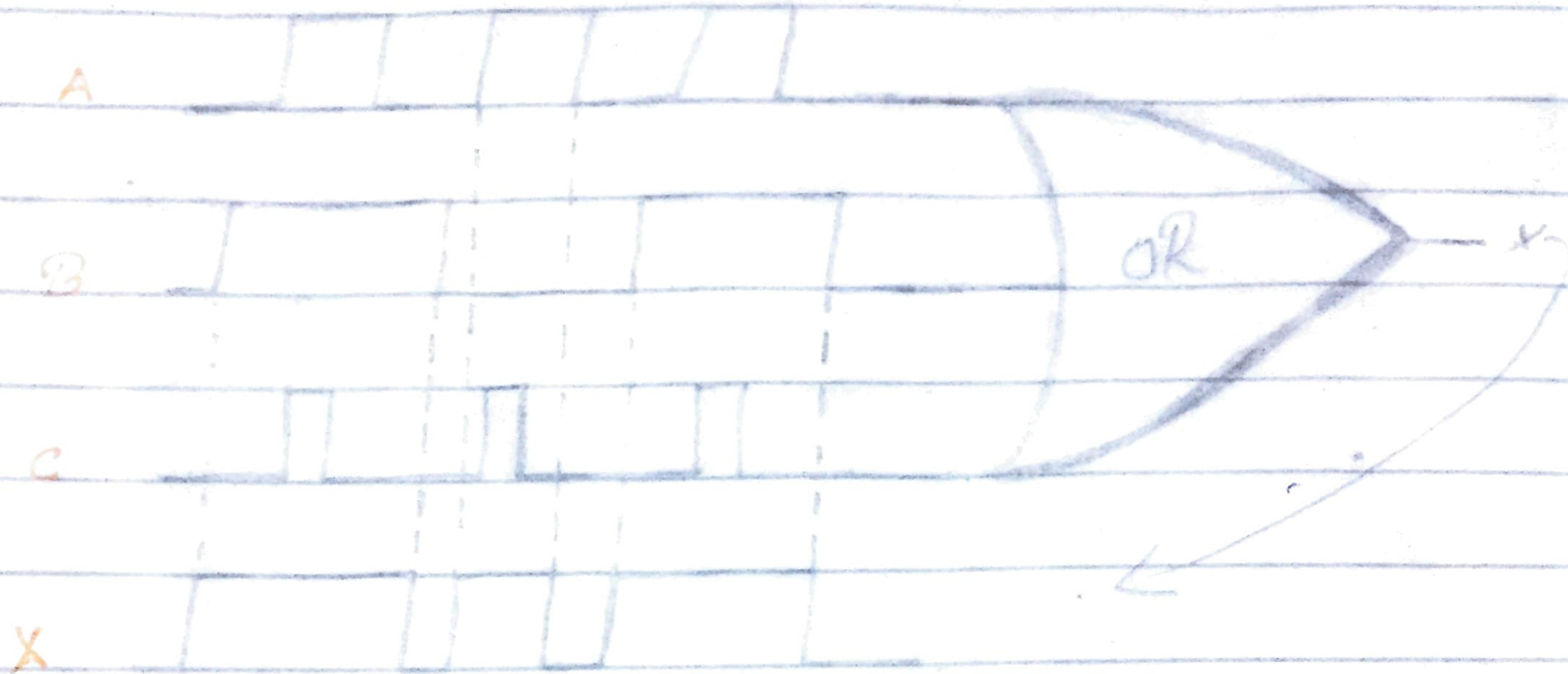
Q8) Determine the output for a two input OR gate when input waveform are as in figure 0.5 and draw a time diagram!

Soln.



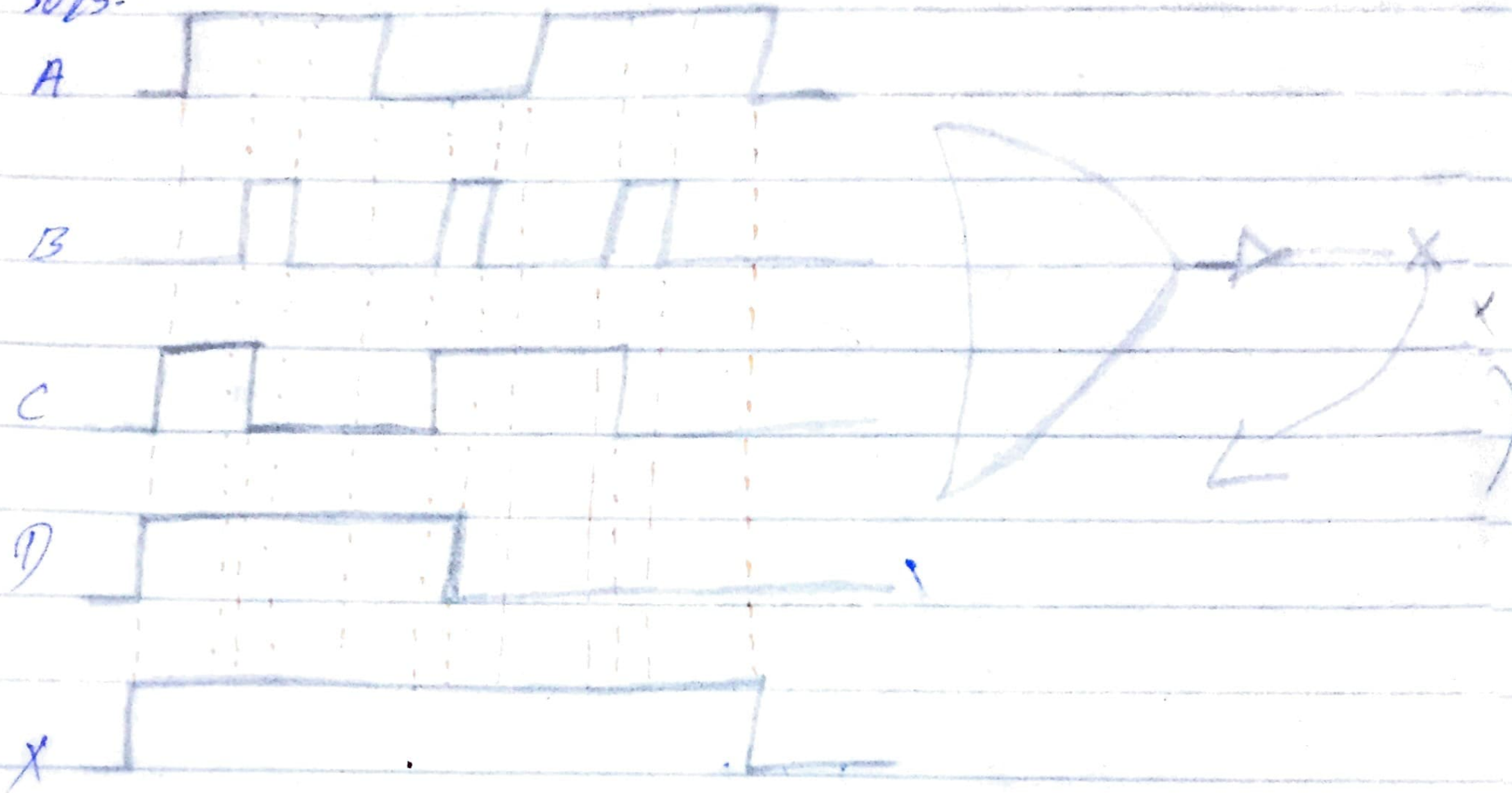
Ans

Q6) Repeat Q.5 for a 3 input OR gate.



Q10) Repeat Q7 For 4 input OR gate.

Sol/s:



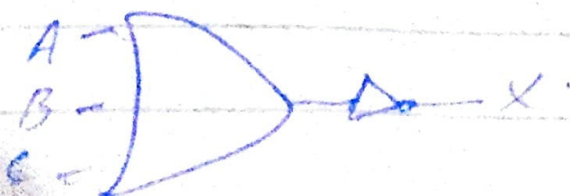
Q11) For the waveforms given in Figure 07. A and B are ANDed with output F, D and E are ANDed with output G, and, C, F, and G and G are ORed. Draw the net output waveform.

Soln.

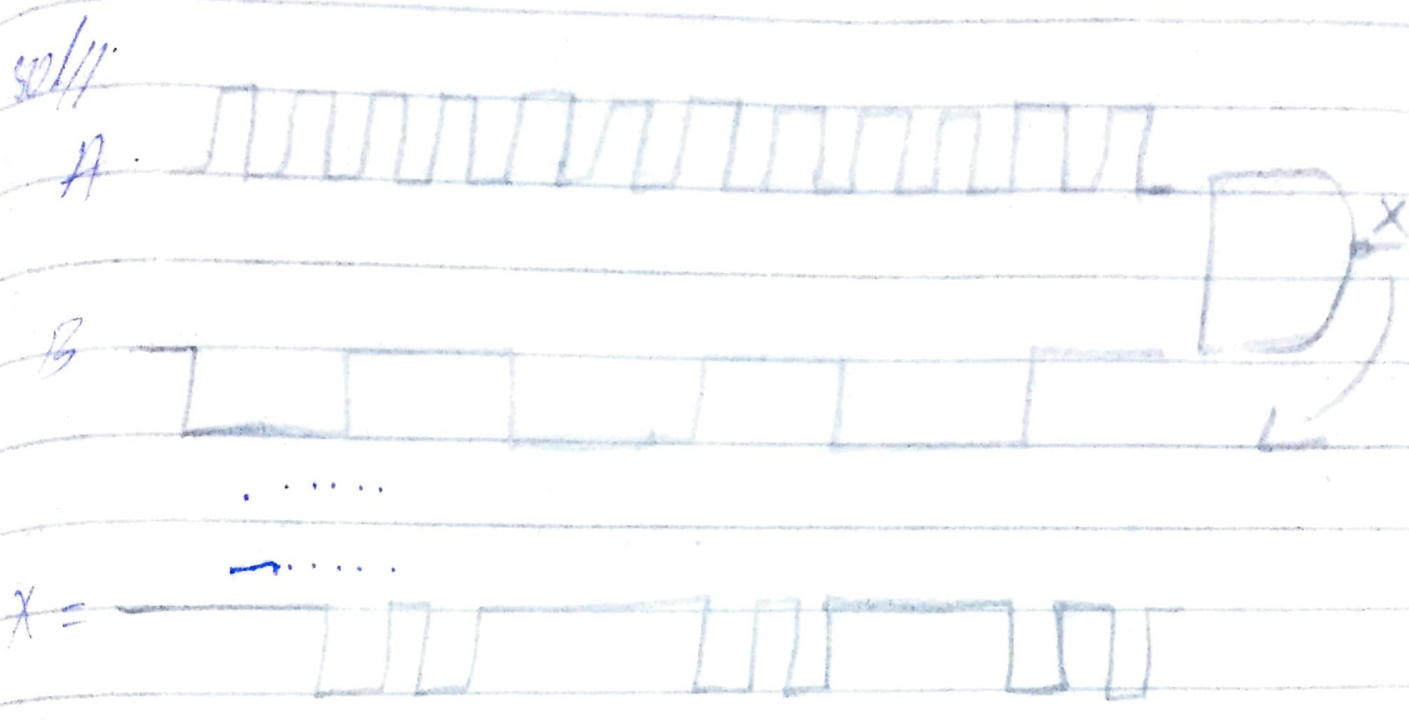
Q12) Show the truth table for a system of a 3-input OR gate following by an inverter.

Soln.

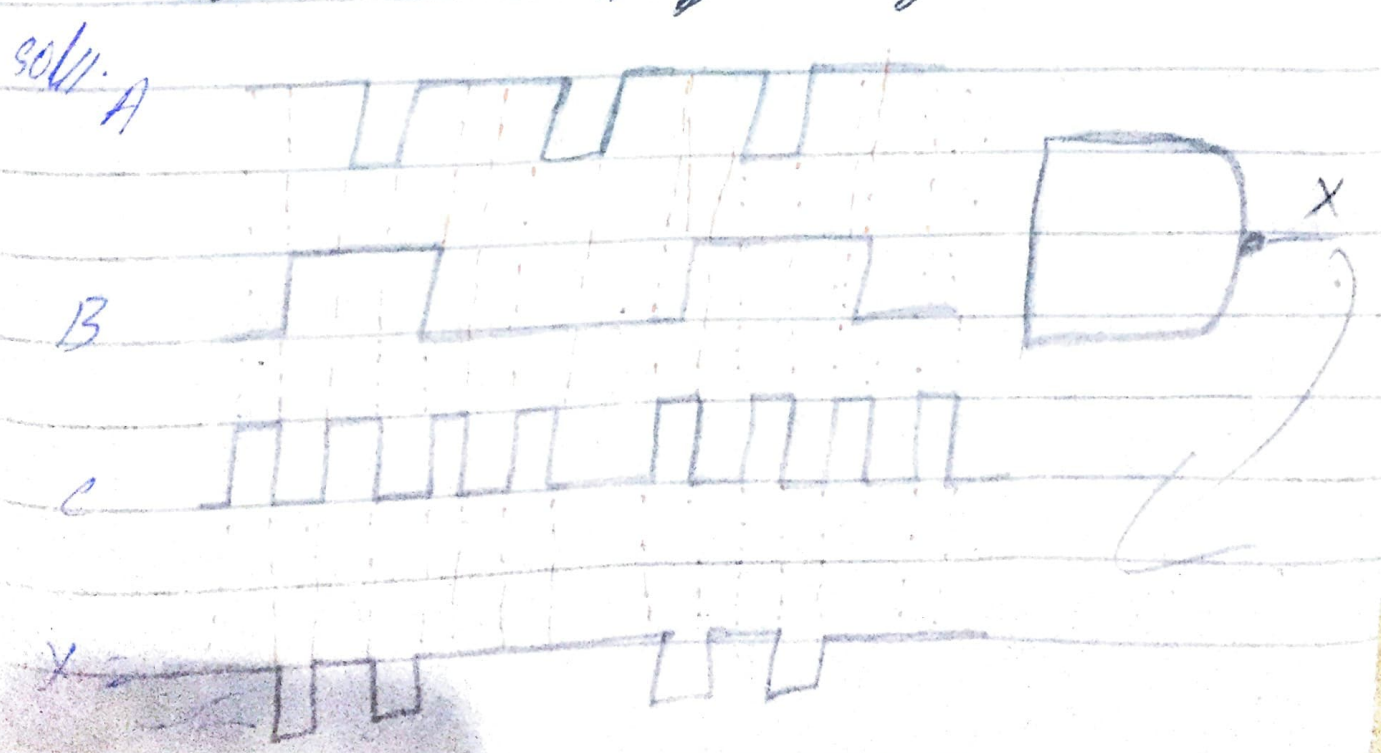
A	B	C	$(A+B+C)$	$\neg(A+B+C)$
0	0	0	0	1
0	0	1	1	0
0	1	0	1	0
0	1	1	1	0
1	0	0	1	0
1	0	1	1	0
1	1	0	1	0
1	1	1	1	0



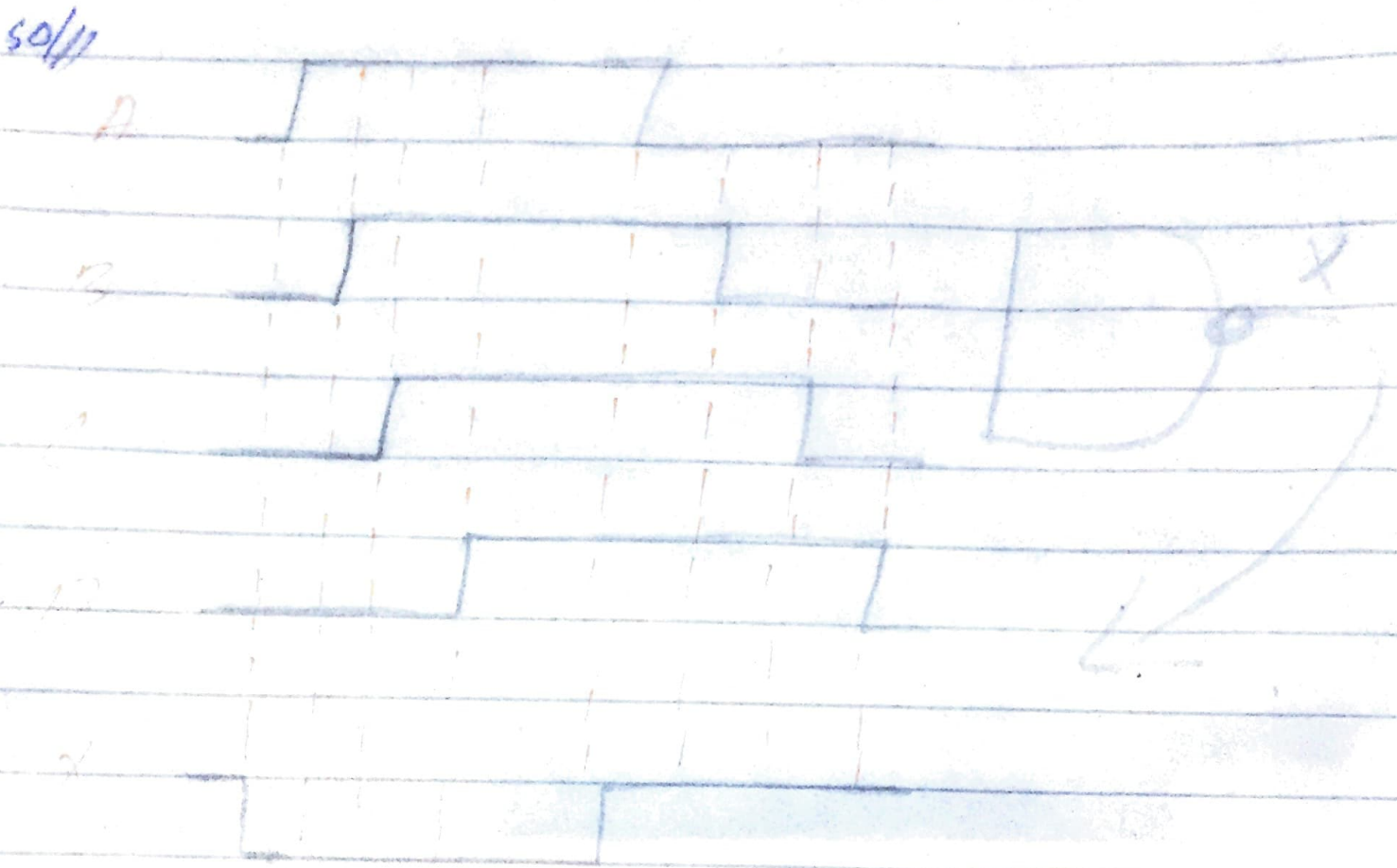
Q13) For the set of input waveform in figure 08, determine the output for the gate and draw the timing diagram.



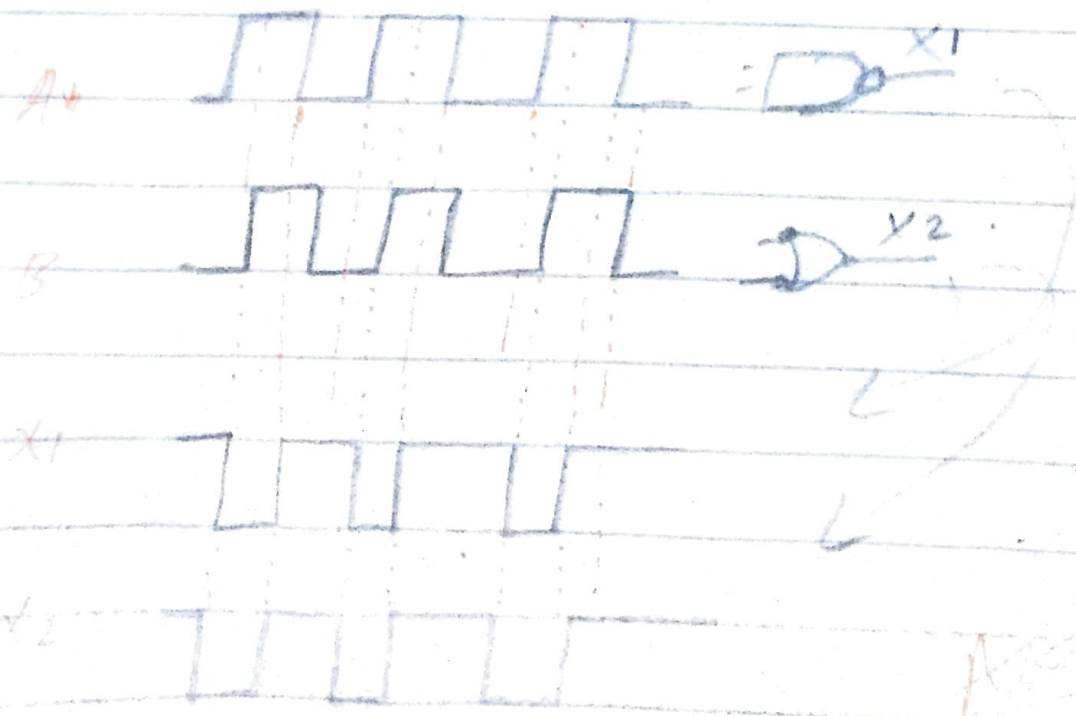
Q14) Determine gate output for the input waveform in figure and draw the timing diagram.



Q15) Determine the output waveform in Figure 10,

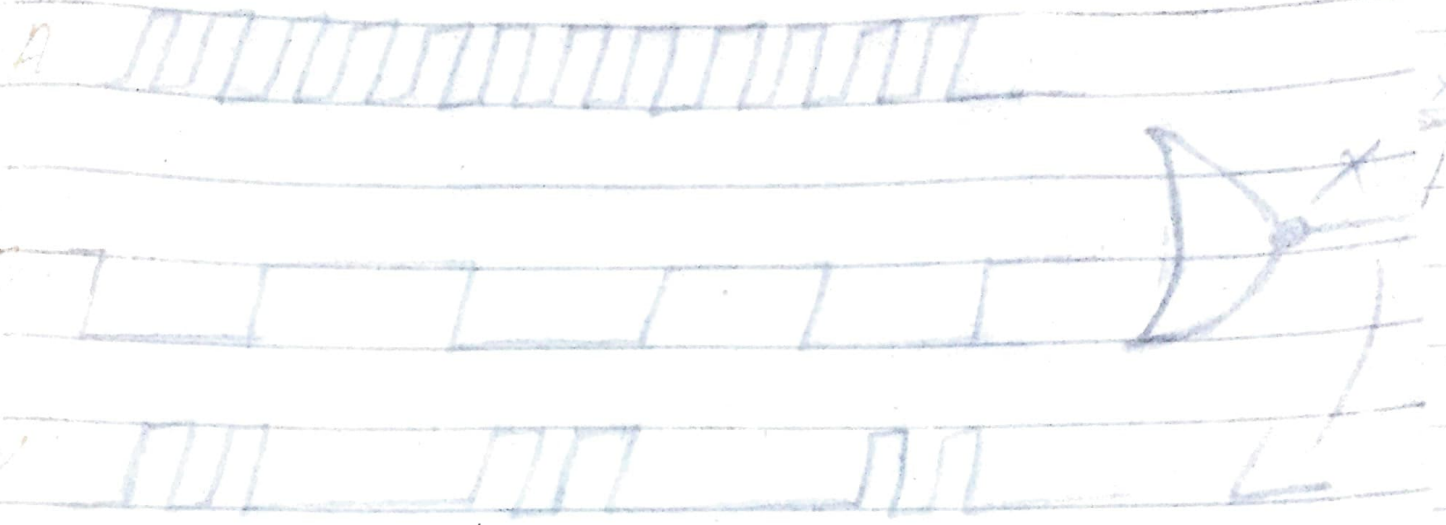


Q16) Figure 11?



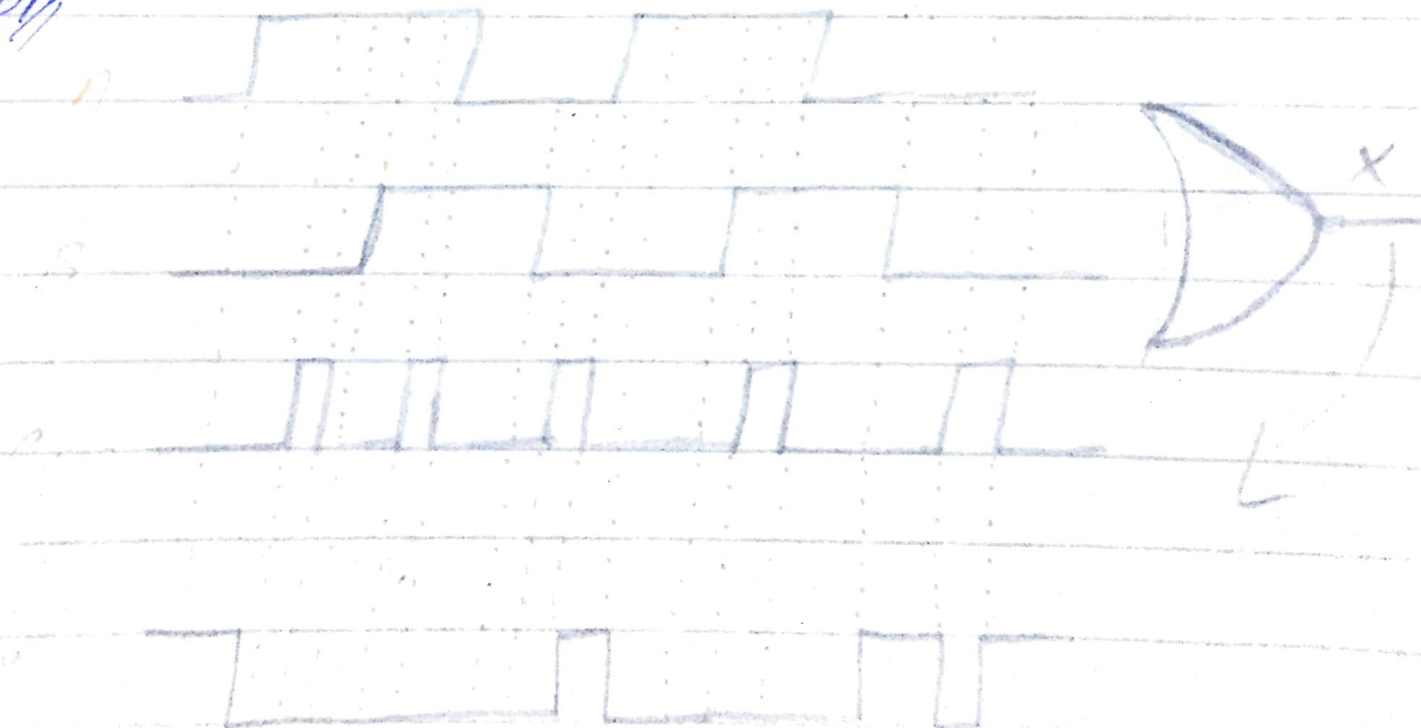
Q17) Repeat Q 13 for 2 input NOR gate

soln



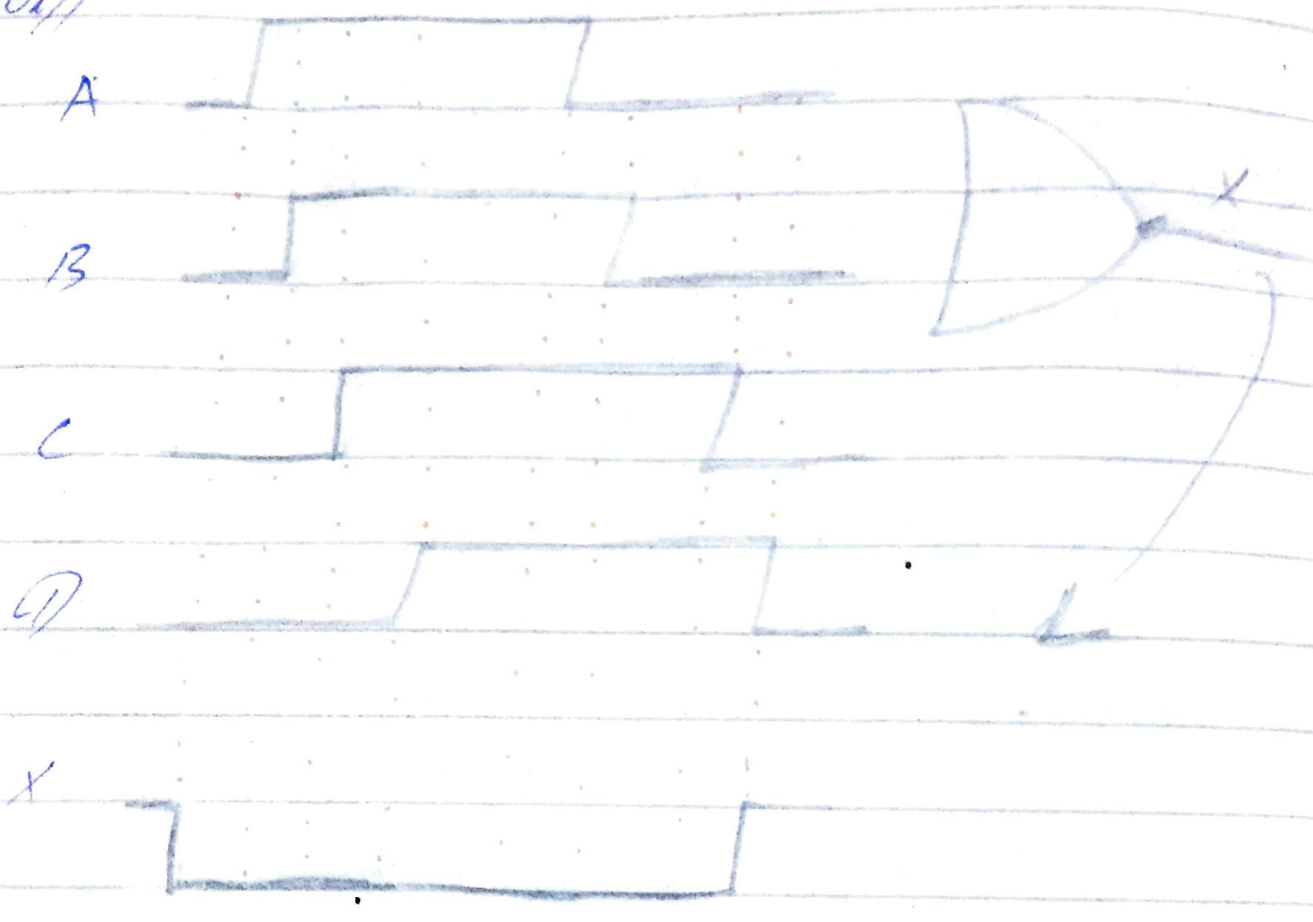
Q18) Determine the output waveform in figure and draw the timing diagram.

soln



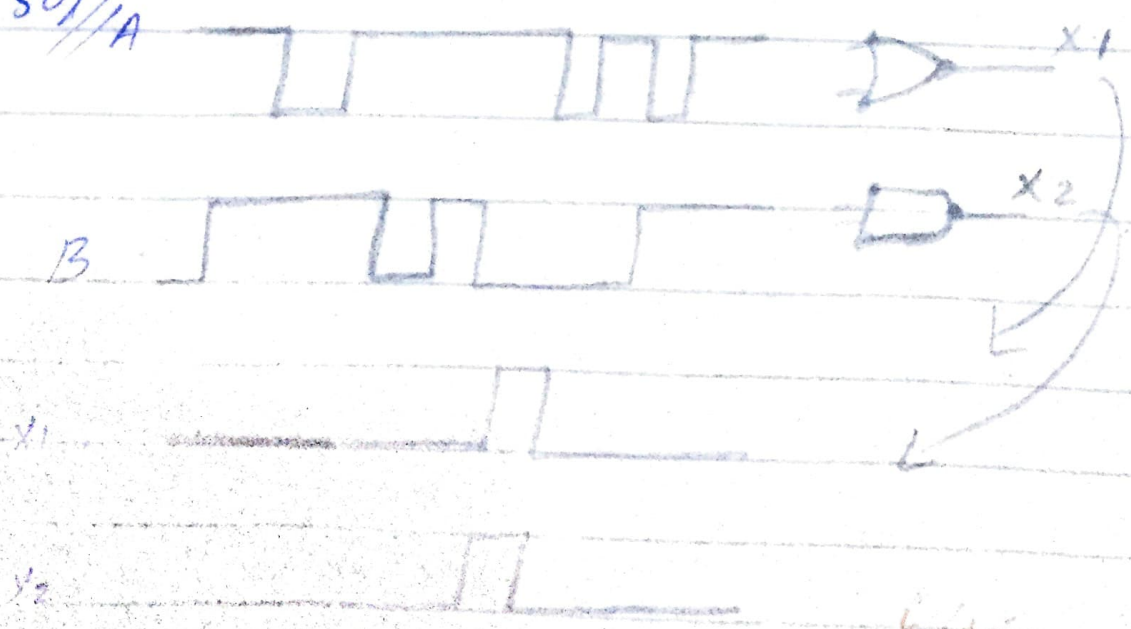
Q19) Repeat Q.15 for a u-input
NOR gate

soln



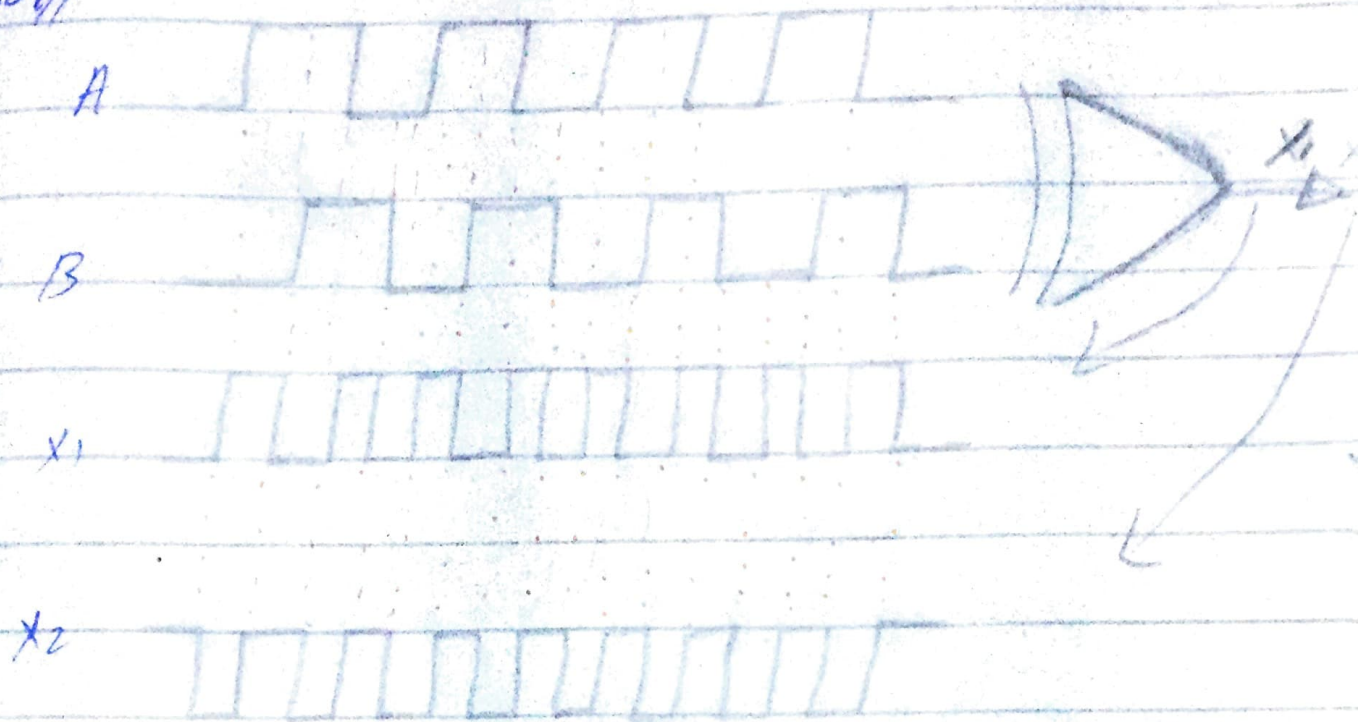
Q20)

soln/A



Q21) Repeat Q5 For Exclusive-OR gate

soln.



Q22) Repeat Q5 For Exclusive NOR gate

soln.

