

Assignment (2) Page (1)

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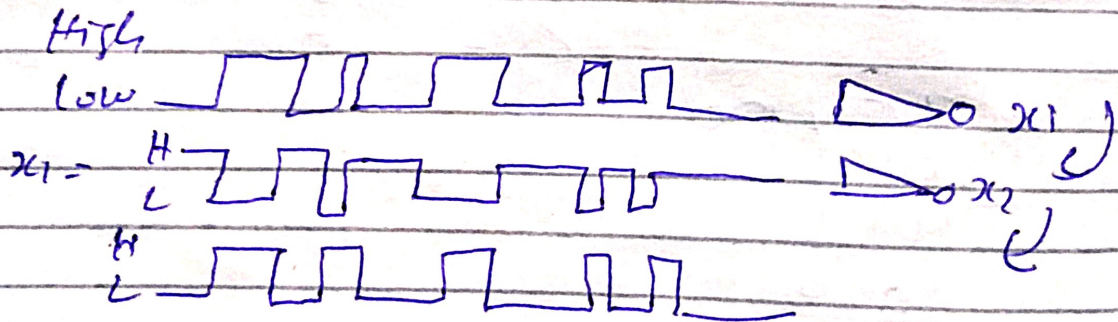
Degree BS (SE)

Teacher En. M. Amir

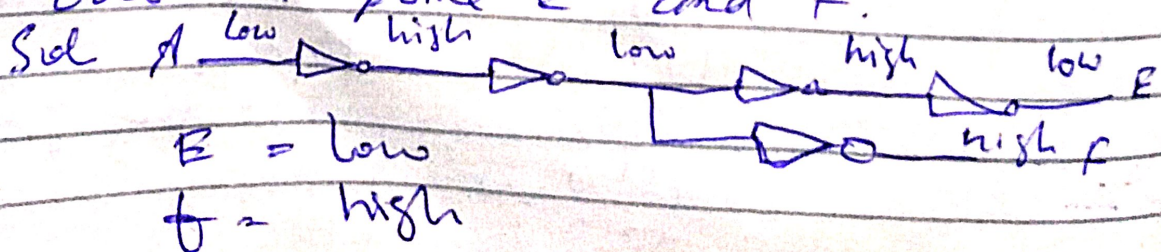
Assignment DLD

Q1) The input waveform in figure is applied to a system of two inverters connected in series. draw the output waveform across each inverter in proper notations to the input

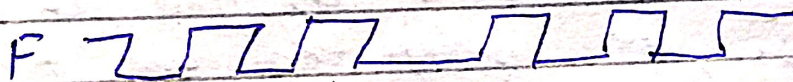
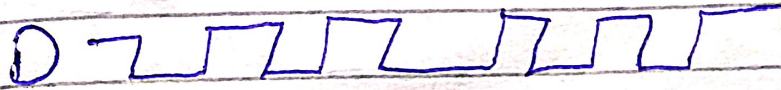
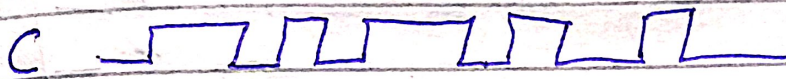
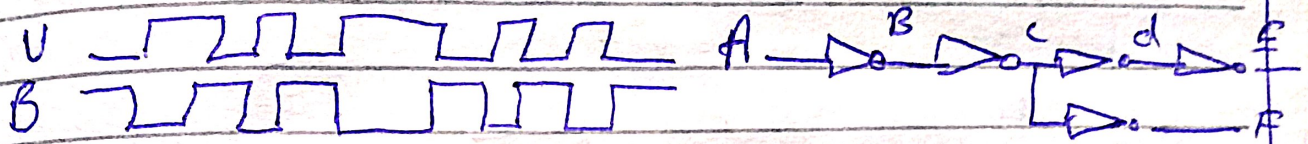
Sol



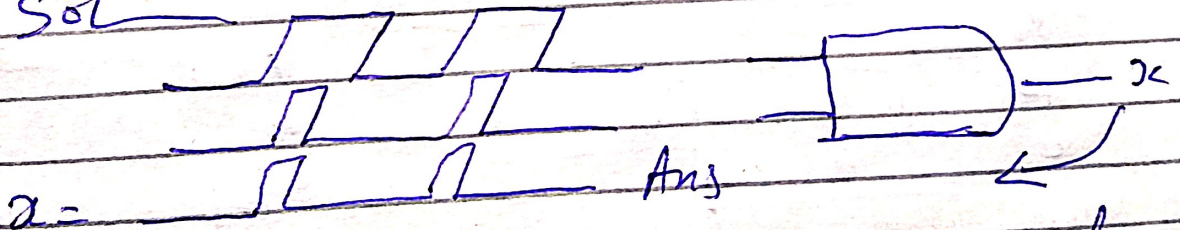
Q2) A combination of inverters is shown in figure if a low is applied to the point A determine the out at point E and F.



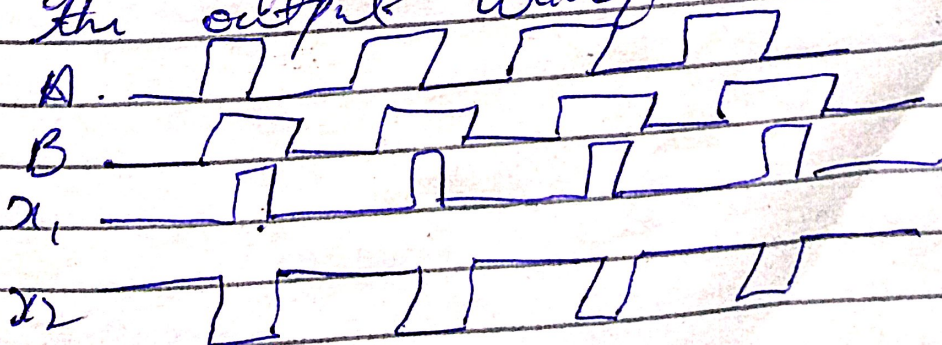
Q3) If waveform is 0.1 is applied to figure in Q.2 at point A. Determine the waveforms from point B to f.
 Solution:



Q4) Determine the output a for 2 input And gate with the input waveform
 Sol

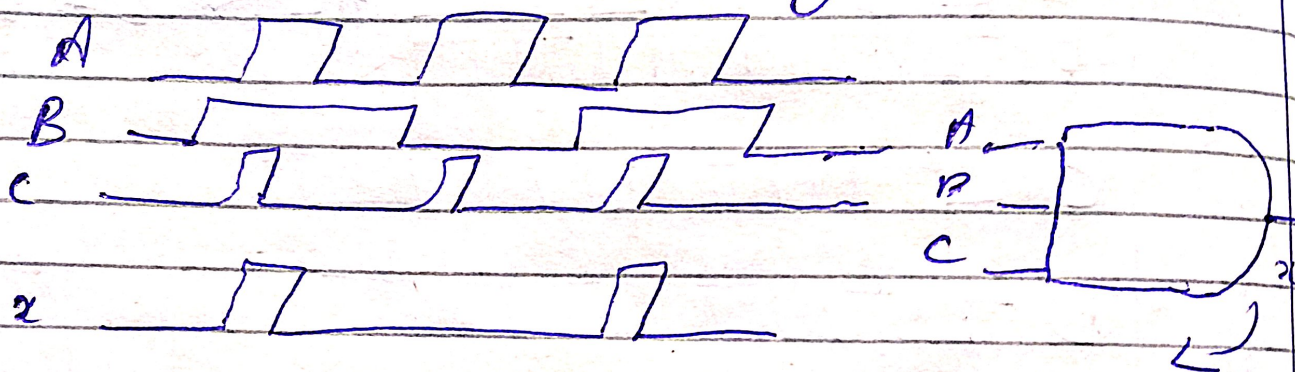


Q5) The wave in figure are applied to point A & B, at a 2-input and gate followed by inverter. Draw the output waveform.

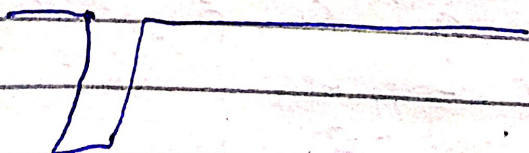
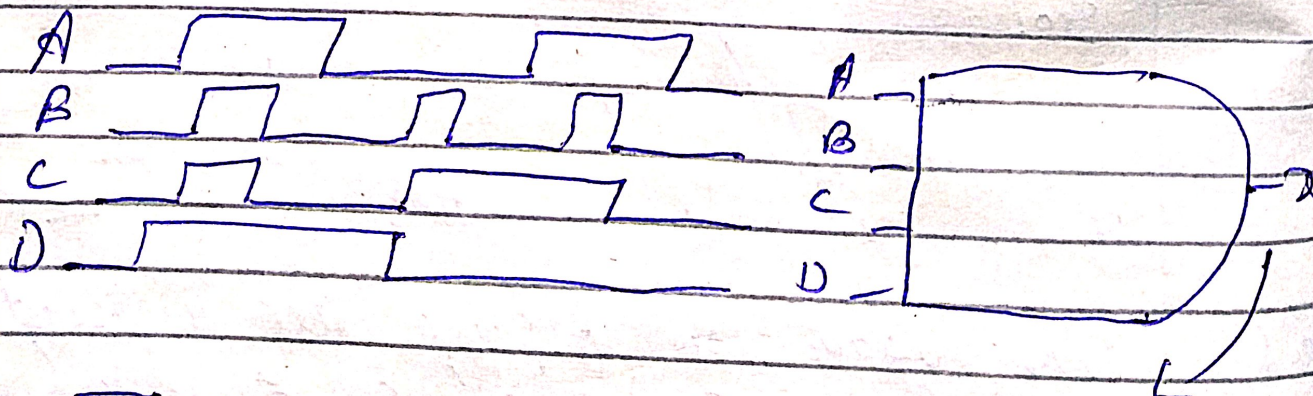


Ans.

Q6) The input waveform applied to 3 input and gate are as indicated in figure show the output waveform in proper direction relation to input with a timing diagram.

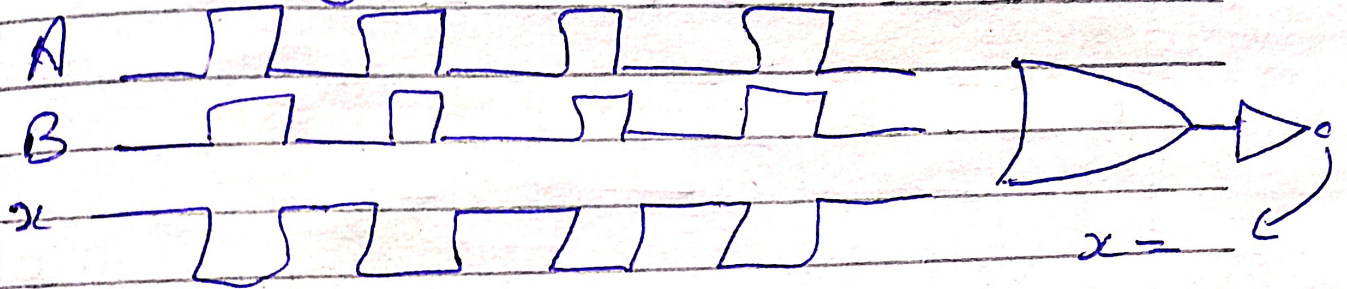


Q7) The input waveforms applied to 4 input and gate as indicated in figure the output is fed to inverter. Draw the net output waveform of this system.

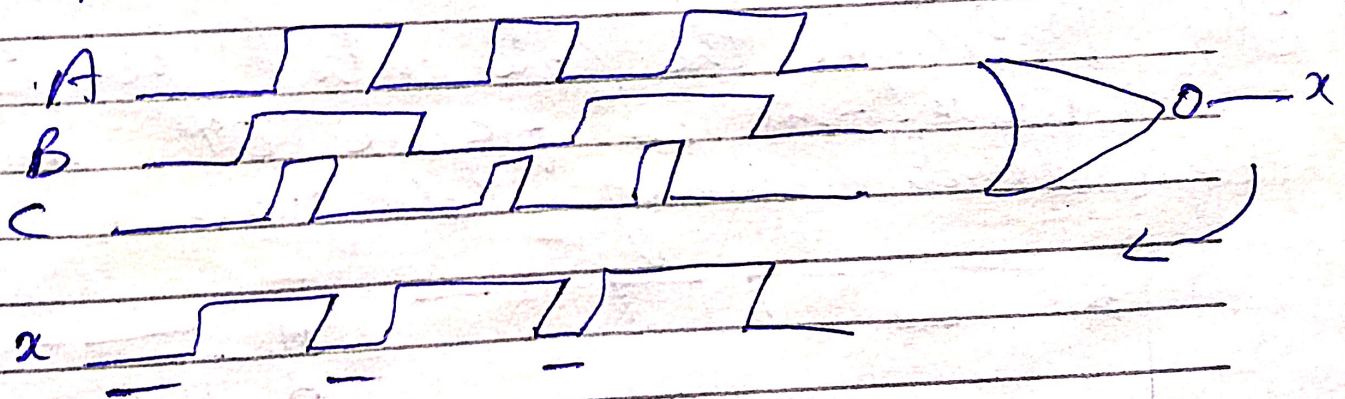


Ans.

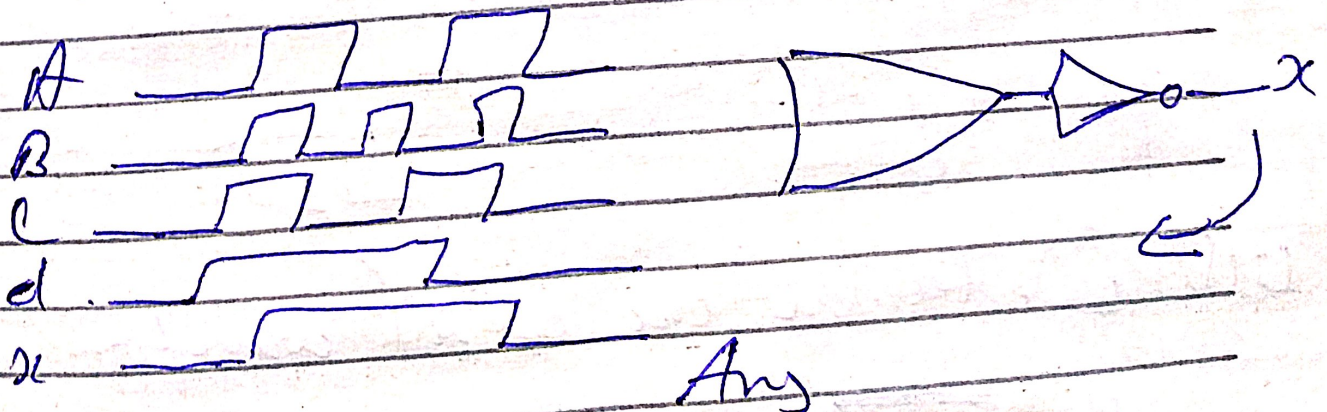
Q8) Determine the output for a two input OR gate when the input waveforms are as in figure OR and draw a timing diagram.



Q9) Repeat Q.6 for 3 input OR gate

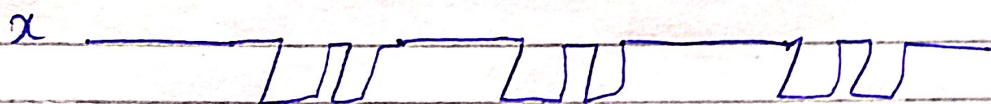
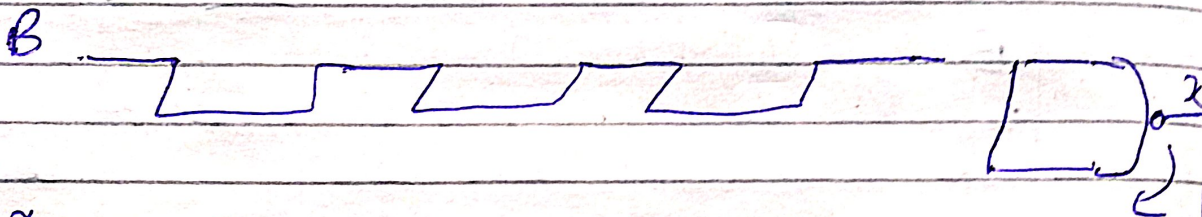


Q10) Repeat Q.7 for 4 input OR gate



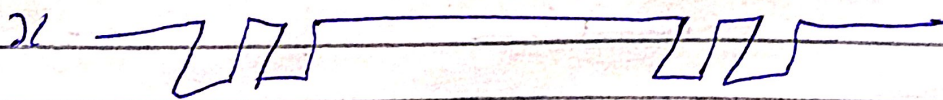
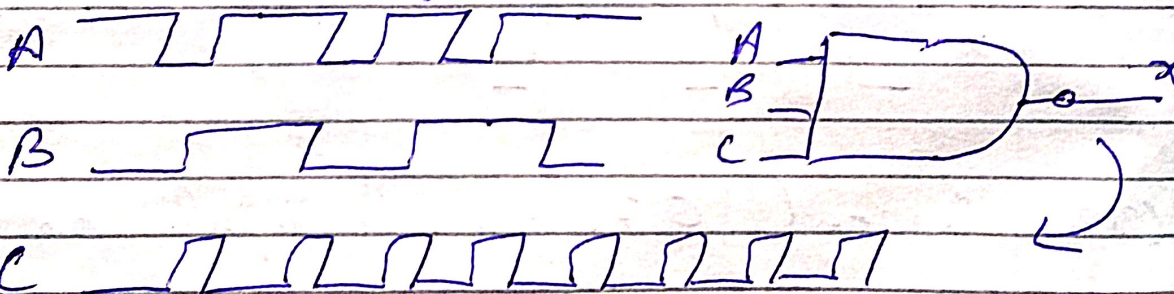
Q13/

For the set of input waveforms. Determine the output for the gate. Show in Timing diagram.



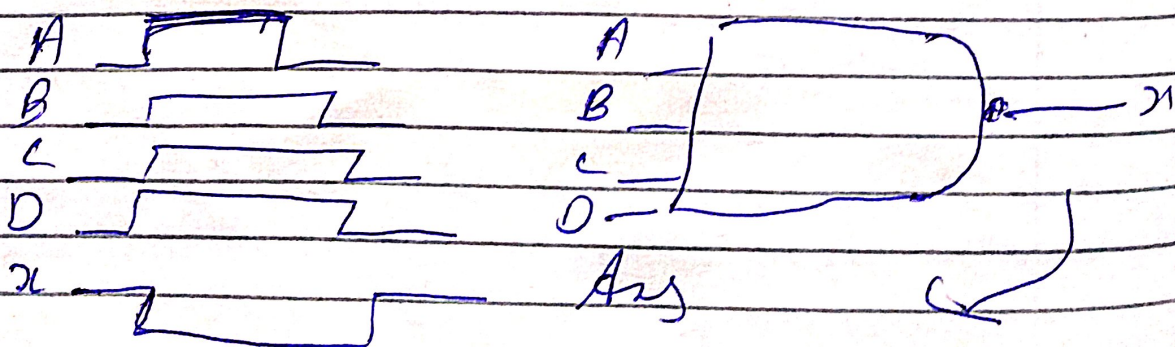
Q14/

Determine the gate output for the input waveforms in figure 09 and draw timing diagram.



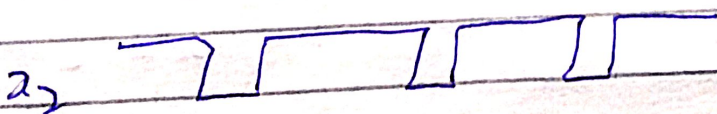
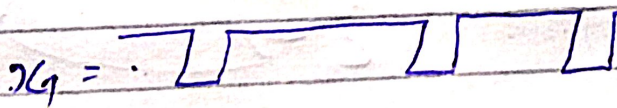
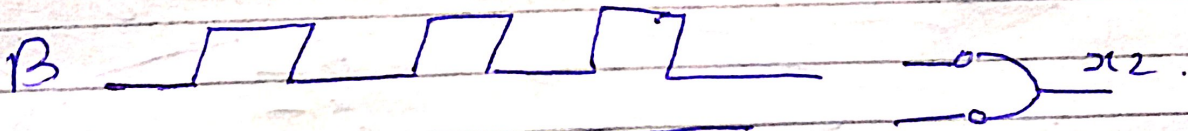
Q15/

Determine the output waveform in figure 10

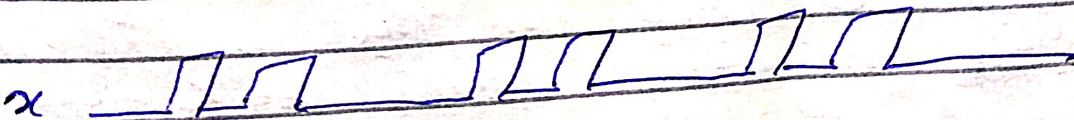
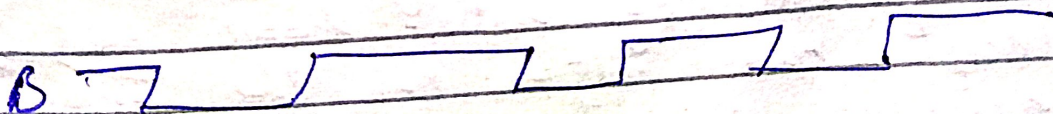
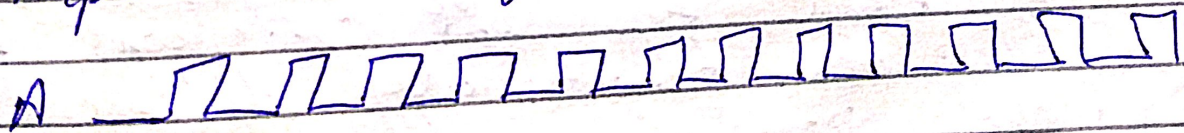


Q16 The two logic gates symbols shown in figure. It represents equivalent operation. The difference between table two is strictly from a functional viewpoint. For the NAND symbol. Look for two highs on the inputs to give low output. For the negative OR. Look at least one low on the input to give a high on the output.

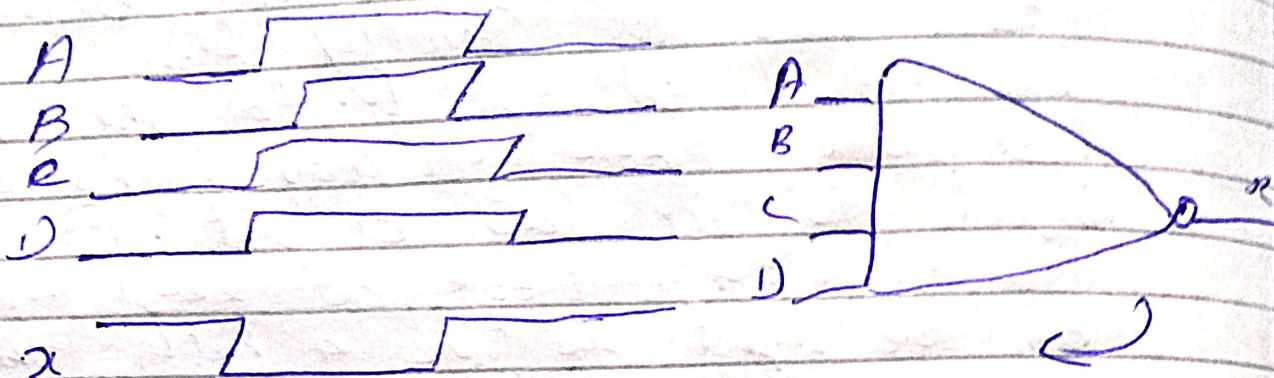
Ans



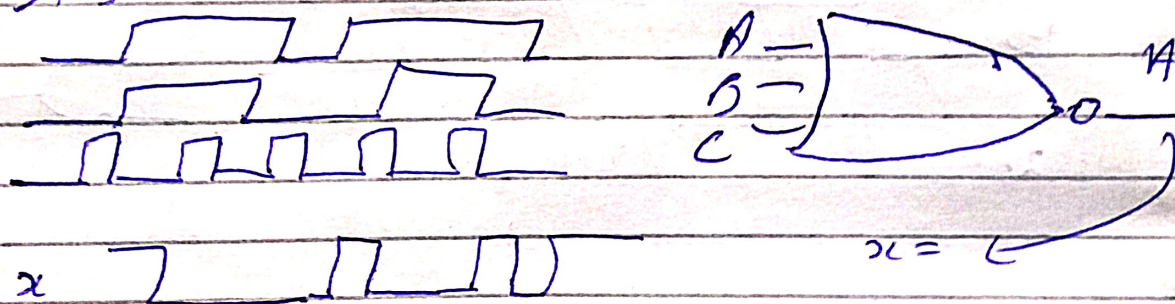
Q17 Repeat Q13 for 2 input NOR gate.



Q18) Repeat Q15 for four input NOR gate.

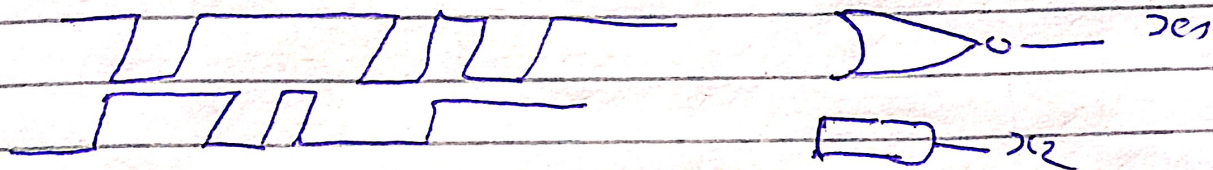


Q19) Determine the output waveform in figure 12 and draw timing diagram.
Ans:

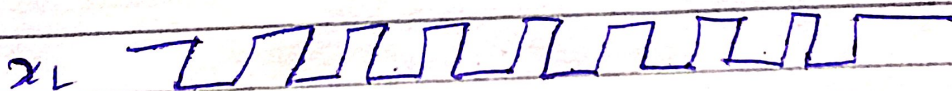
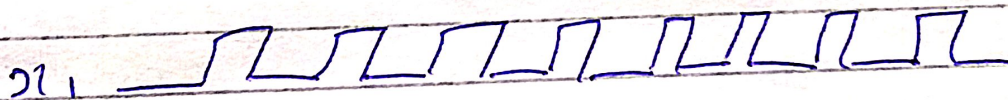
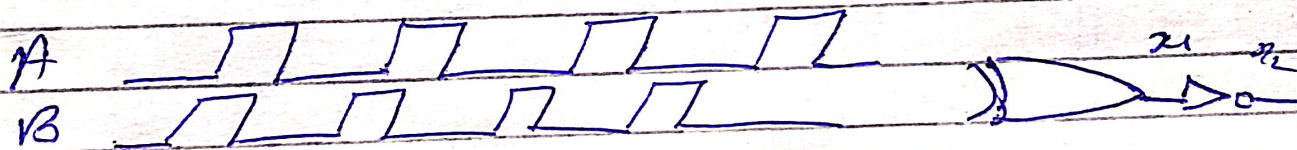


Q20) The NOR and negative-AND symbols represent equivalent operations but they are functionally different for the NOR symbol. Look for at least one high on the inputs to give a low on the inputs. For the negative-AND look for two lows on the inputs to give high output. Using these two functional points of view. Show that both gates in figure 12 will produce the same output.

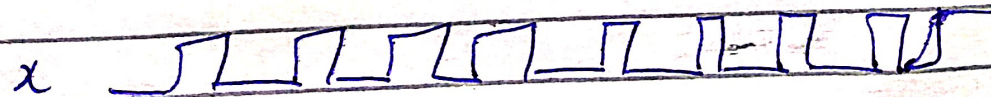
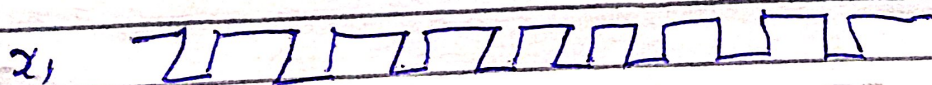
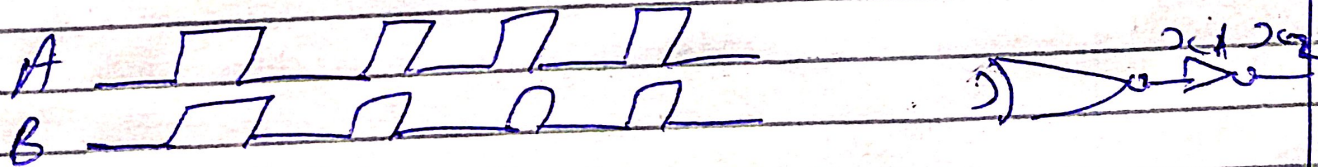
Q20 Ans



Q21. Repeat Q5 for an Exclusive OR gate
Ans.



Q22 Repeat Q5 for an Exclusive NOR gate



Ans

