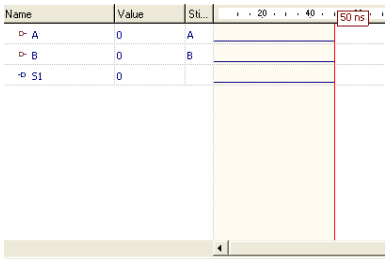
Práctica 10: Compuertas lógicas en VHDL

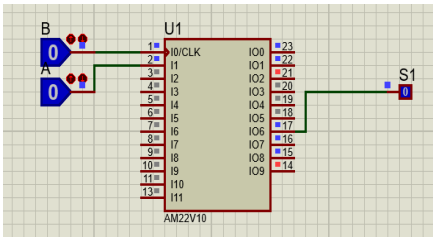
Nombre: Colín Ramiro Joel No. de lista: 3

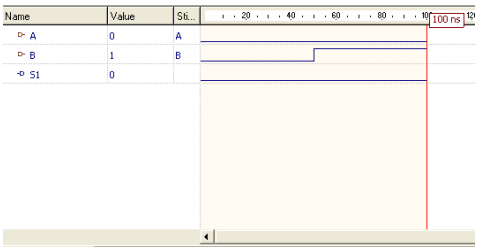
Código:

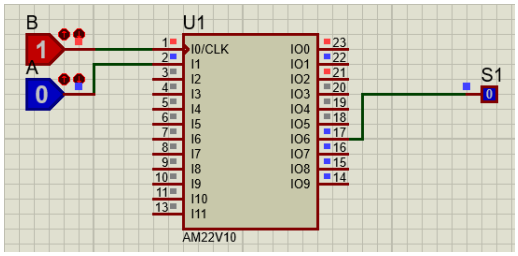
```
library ieee;
use ieee.std_logic_1164.all;
entity practica_diez is
port(
	A, B: in std_logic;
	S1, S2, S3, S4, S5, S6, S7: out std_logic
);
end practica_diez;

architecture Apractica_diez of practica_diez is
begin
	S1 <= (A AND B);
	S2 <= (A NAND B);
	S3 <= (A OR B);
	S4 <= (A NOR B);
	S5 <= (A XOR B);
	S6 <= (A XNOR B);
	S7 <= (NOT A);
end Apractica_diez;
```

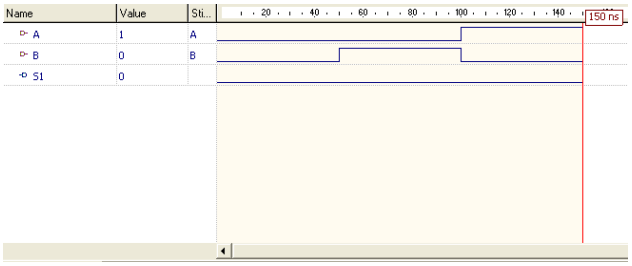
1.- A AND B

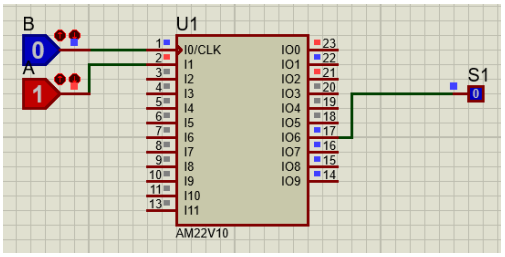

Name
Value
Sti...
50 ns
A
0
A
B
0
B
S1
0


B
0
A
0
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
AM22V10
S1
0


Name
Value
Sti...
100 ns
A
0
A
B
1
B
S1
0


B
1
A
0
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
AM22V10
S1
0


Name
Value
Sti...
150 ns
A
1
A
B
0
B
S1
0


B
0
A
1
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
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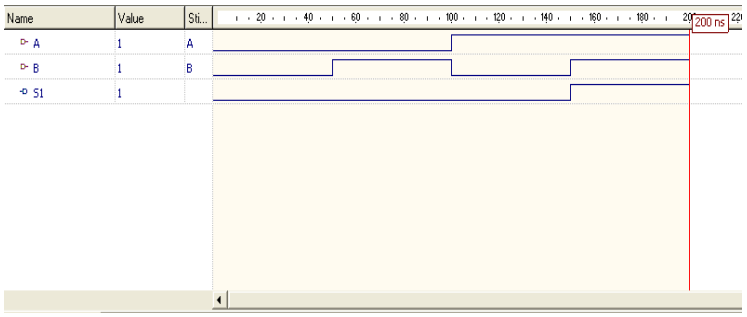
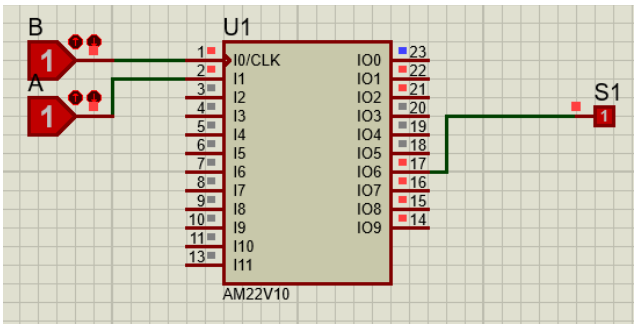
IO4
IO5
IO6
IO7
IO8
IO9
AM22V10
S1
0


Name
Value
Sti...
200 ns
A
1
A
B
1
B
S1
1


B
1
A
1
U1
I0/CLK
I1
I2
I3
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IO0
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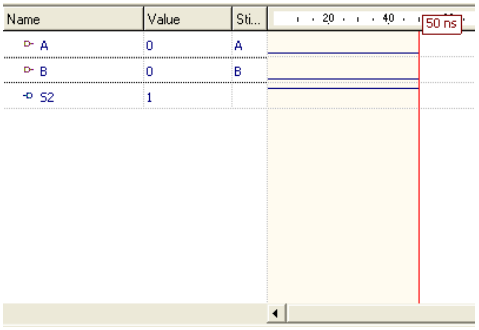
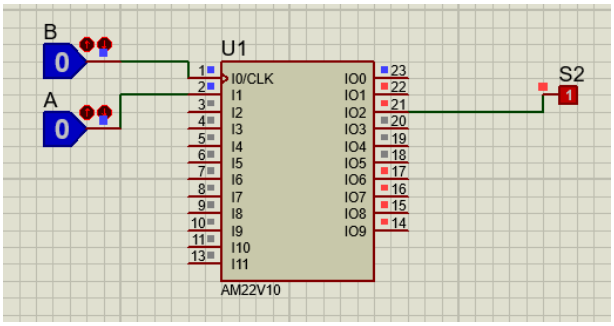
IO8
IO9
AM22V10
S1
1

2.- A NAND B


Name
Value
Sti...
50 ns
A
0
A
B
0
B
S2
1


B
0
A
0
U1
I0/CLK
I1
I2
I3
I4
I5
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I7
I8
I9
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I11
IO0
IO1
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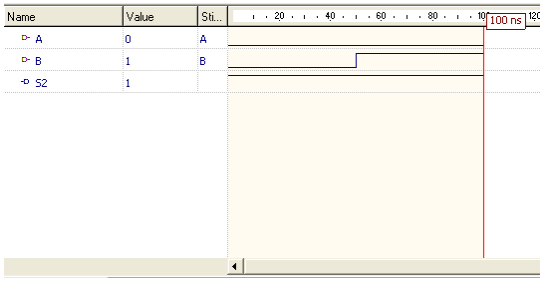
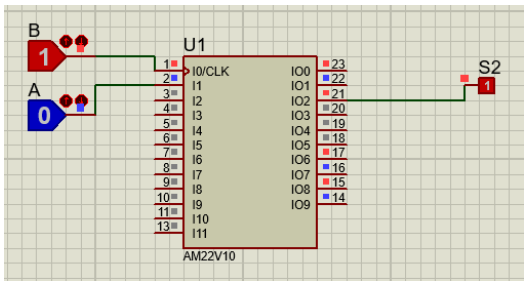
IO3
IO4
IO5
IO6
IO7
IO8
IO9
AM22V10
S2
1


Name
Value
Sti...
100 ns
A
0
A
B
1
B
S2
1


B
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A
0
U1
I0/CLK
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I3
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IO1
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IO4
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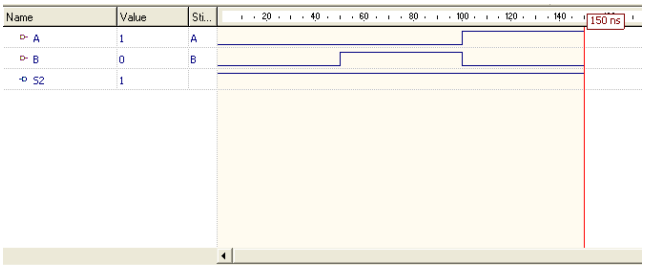
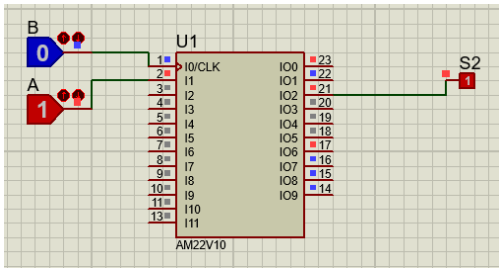
IO6
IO7
IO8
IO9
AM22V10
S2
1


Name
Value
Sti...
150 ns
A
1
A
B
0
B
S2
1


B
0
A
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U1
I0/CLK
I1
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I8
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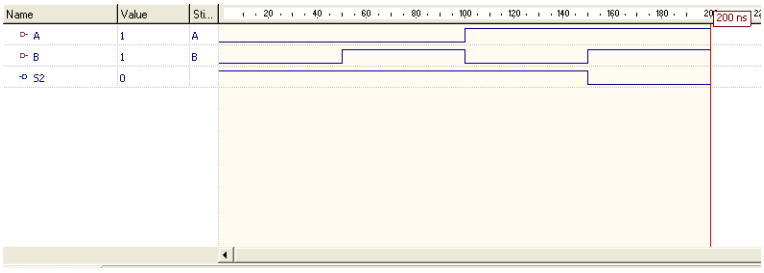
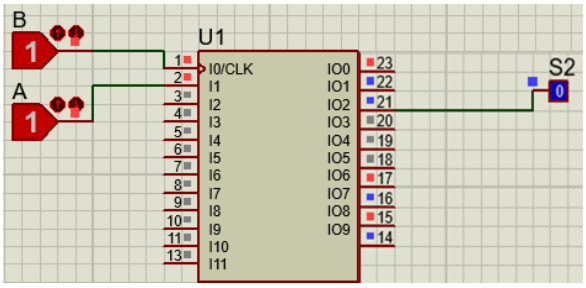
IO8
IO9
AM22V10
S2
1


Name
Value
Sti...
200 ns
A
1
A
B
1
B
S2
0


B
1
A
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U1
I0/CLK
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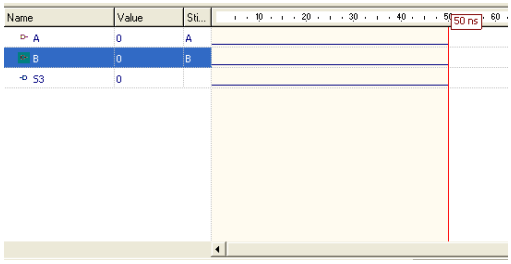
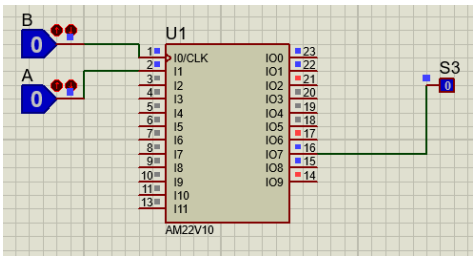
IO6
IO7
IO8
IO9
S2
0

3.- A OR B


Name
Value
A
B
S3
0
50 ns


B
A
0
U1
I0/CLK
I1
I2
I3
I4
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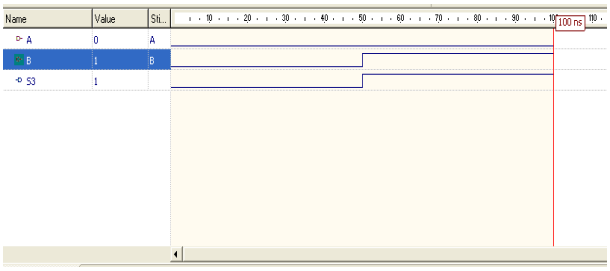
IO7
IO8
IO9
S3
AM22V10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Value
A
B
S3
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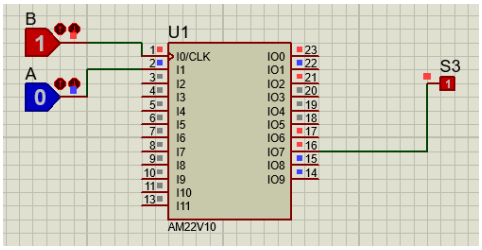
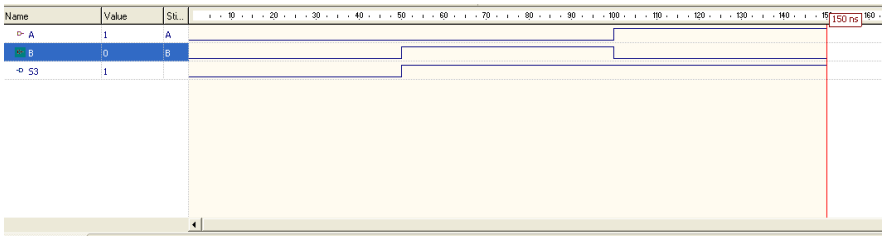
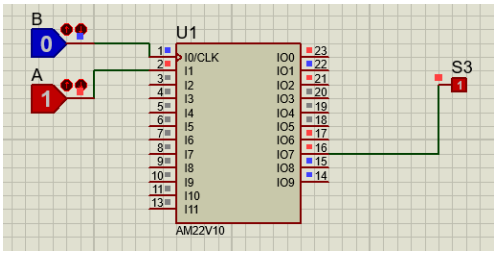
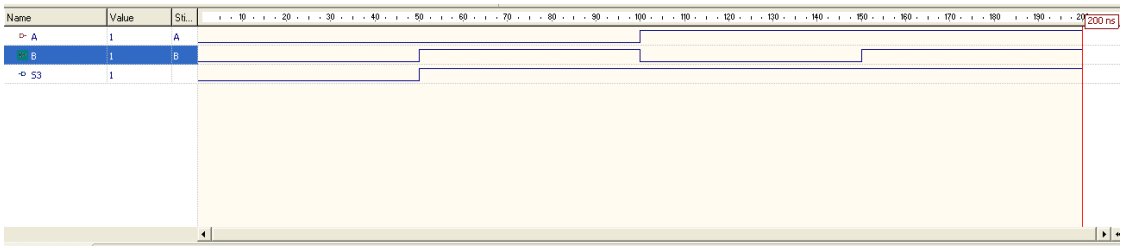
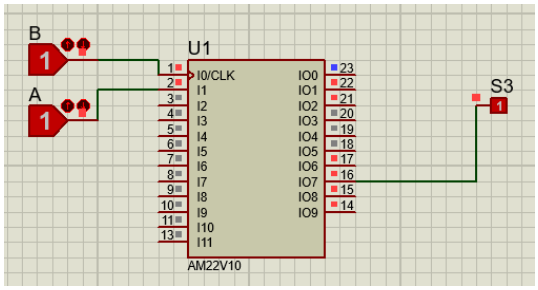

B
A
1
0
U1
AM22V10
S3
1

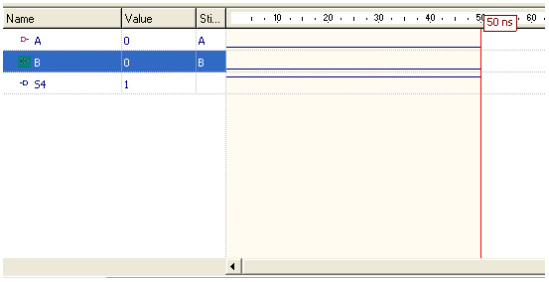

Name
Value
A
B
S3
150 ns

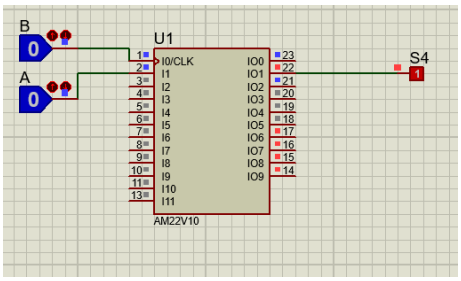

B
A
0
1
U1
AM22V10
S3
1

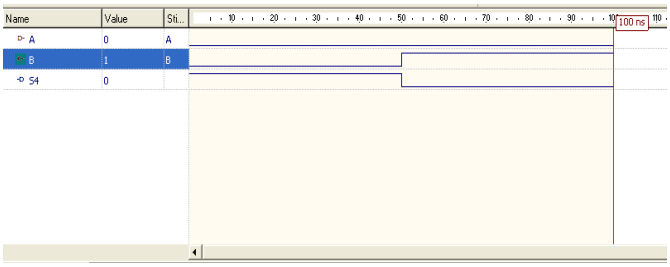

Name
Value
A
B
S3
200 ns


B
A
1
U1
AM22V10
S3
1

4.- A NOR B


Name
Value
Sti...
A
B
S4
50 ns


B
A
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
S4
AM22V10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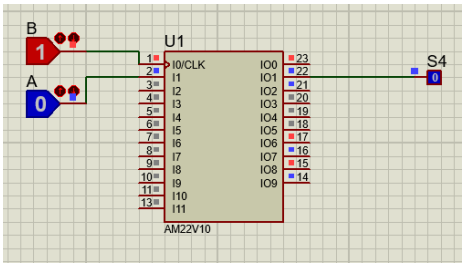
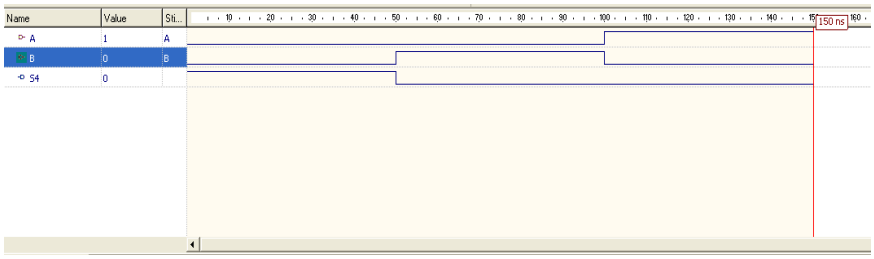
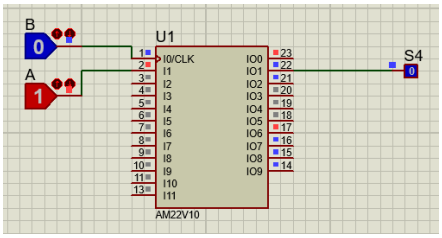
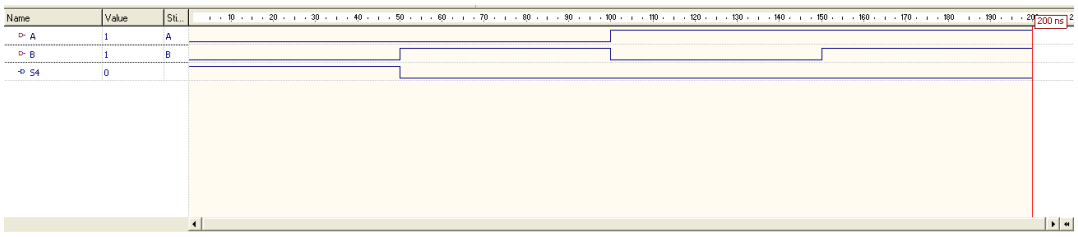
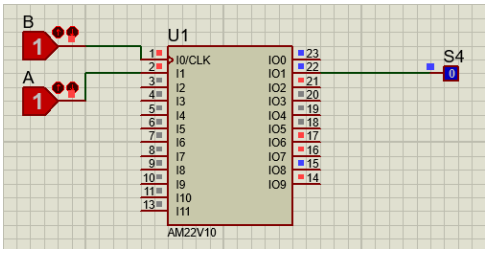
Value
Sti...
A
B
S4
100 ns


B
A
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
S4
AM22V10

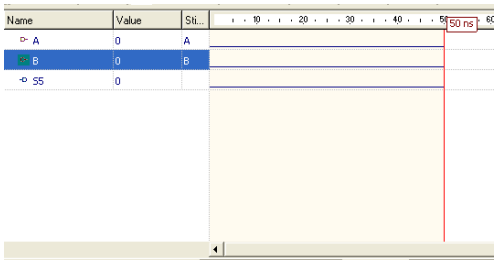

Name
Value
Sti...
A
B
S4
150 ns

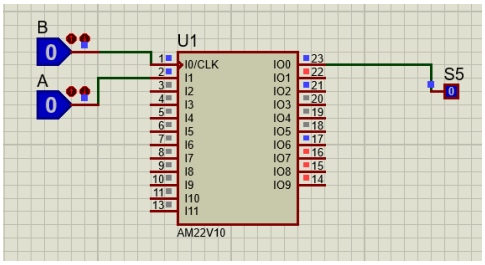

B
A
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
S4
AM22V10

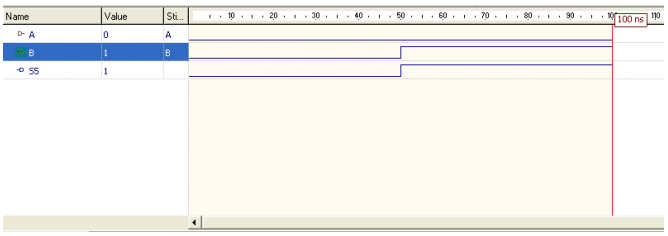

Name
Value
Sti...
A
B
S4
200 ns

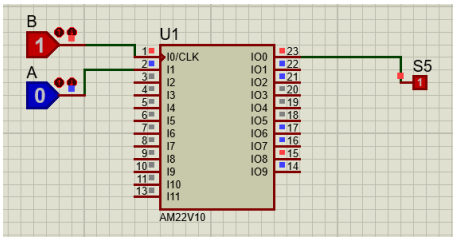

B
A
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
S4
AM22V10

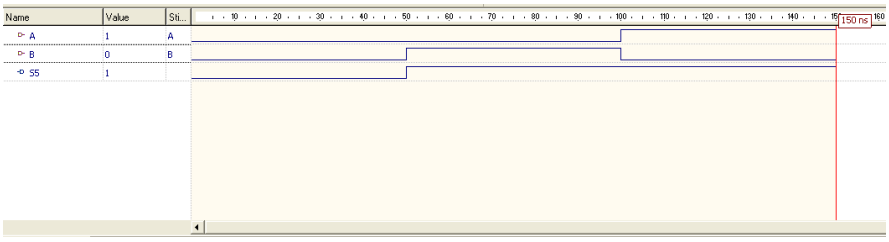
5.- A XOR B

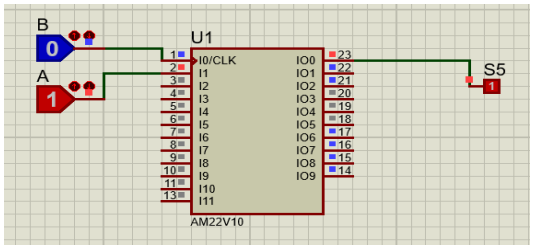

Name
Value
Sti...
A
B
S5
50 ns

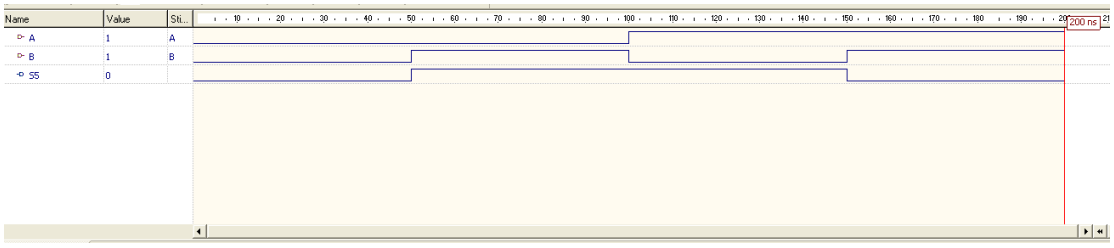

B
A
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
S5
AM22V10

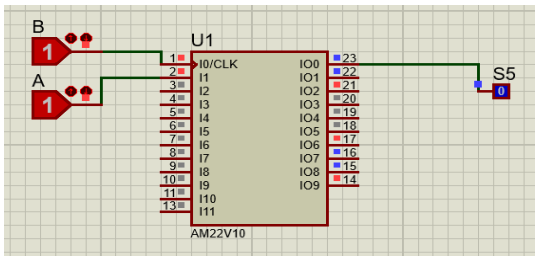

Name
Value
Sti...
A
B
S5
100 ns


B
A
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
S5
AM22V10

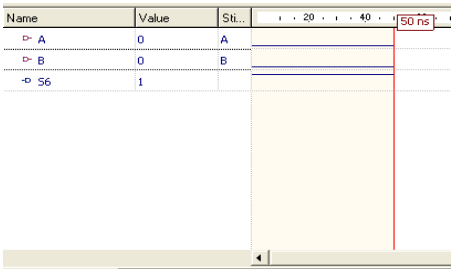

Name
Value
Sti...
A
B
S5
150 ns

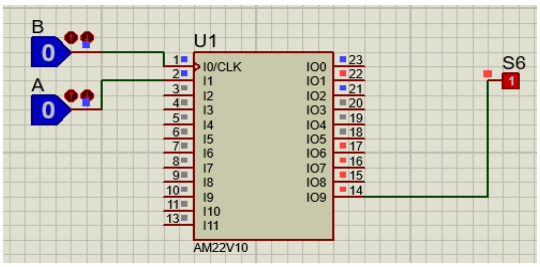

B
A
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
S5
AM22V10

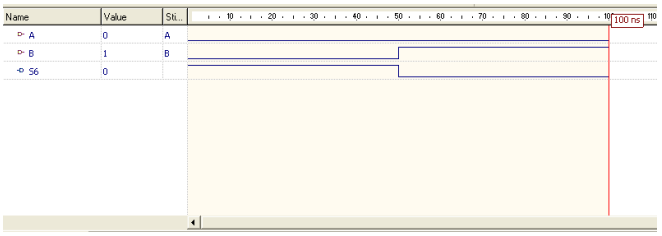

Name
Value
Sti...
A
B
S5
200 ns

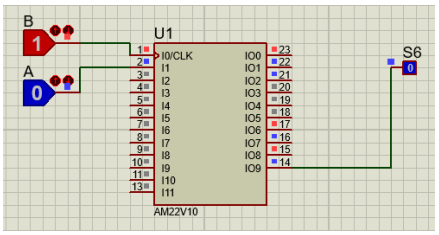

B
A
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
S5
AM22V10

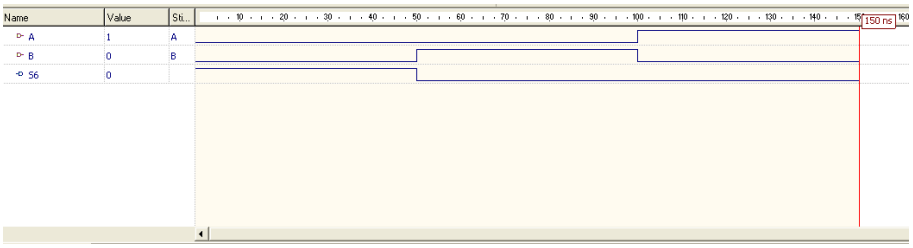
6.- A XNOR B

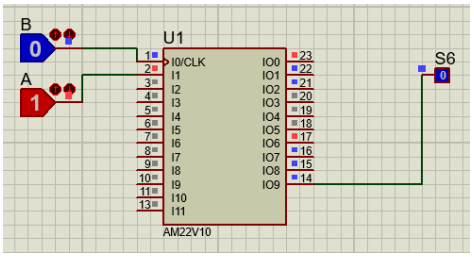

Name
Value
Sti...
A
B
S6
0
0
1
50 ns

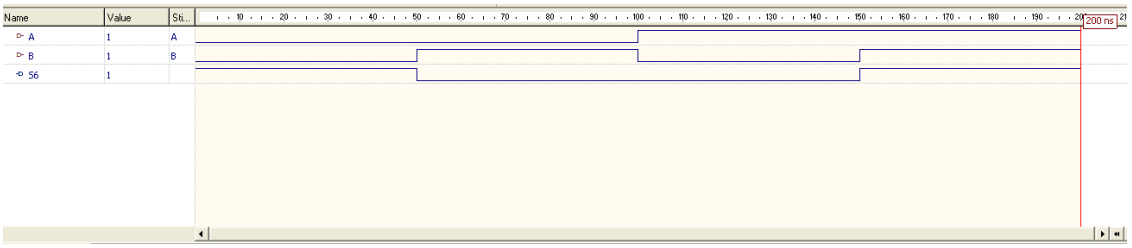

B
A
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
AM22V10
S6

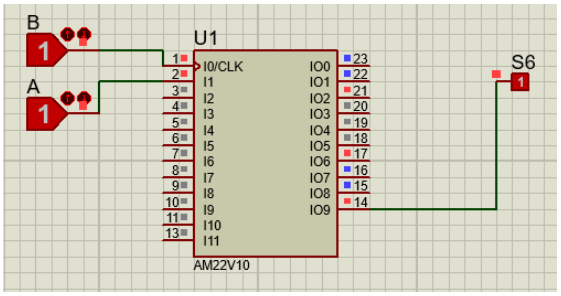

Name
Value
Sti...
A
B
S6
0
1
0
100 ns


B
A
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
AM22V10
S6

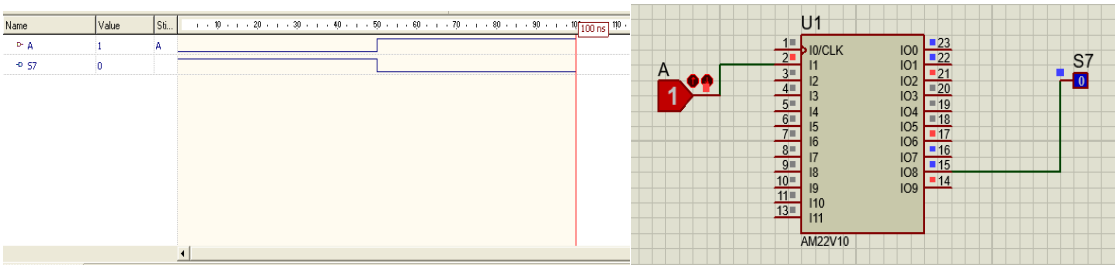

Name
Value
Sti...
A
B
S6
1
1
0
150 ns

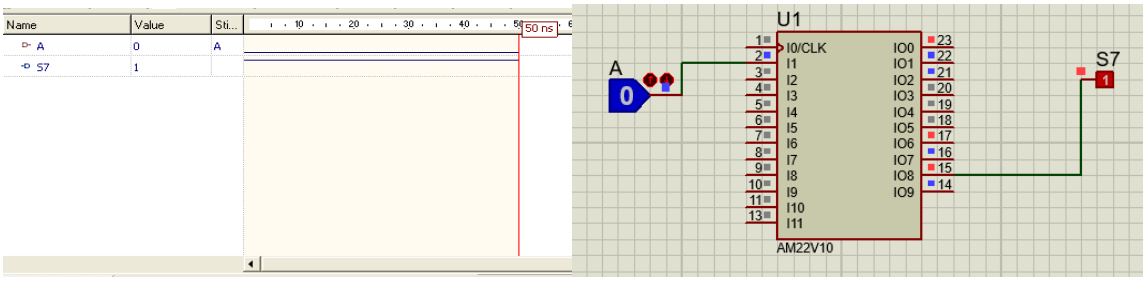

B
A
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
AM22V10
S6


Name
Value
Sti...
A
B
S6
1
1
1
200 ns


B
A
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
AM22V10
S6

7.- NOT A


Name
Value
Sti...
A
1
A
S7
0
100 ns
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
AM22V10
A
1
S7
0


Name
Value
Sti...
A
0
A
S7
1
50 ns
U1
I0/CLK
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
AM22V10
A
0
S7
1