

Lab1

Q1)using qurtues build this circuit

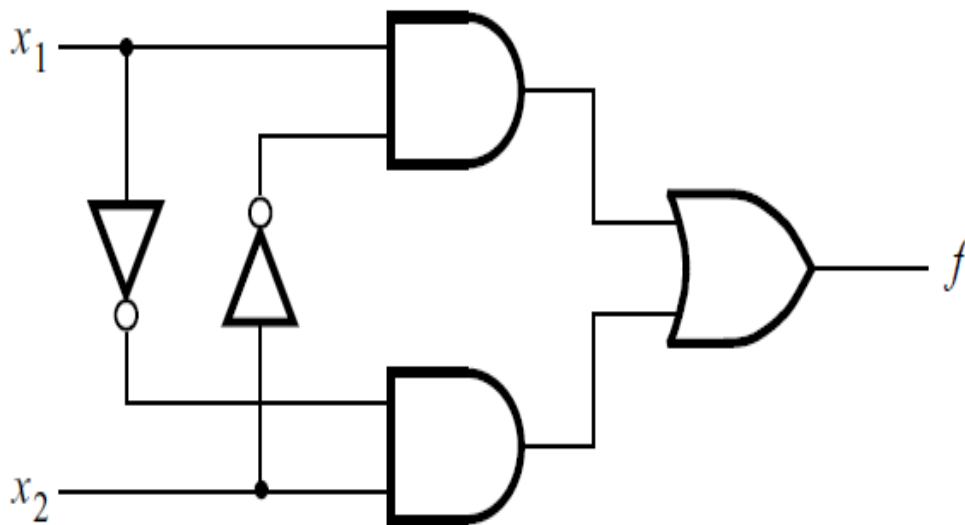


Figure 11. The light controller circuit.

Q1)find the truth table using waveform

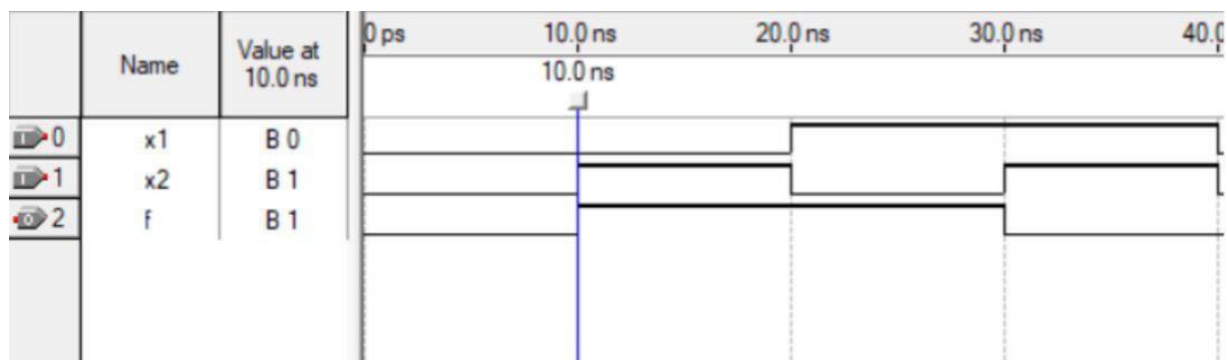
X1	X2	f
0	0	0
0	1	1
1	0	1
1	1	0

The screenshot shows the Quartus II software interface. The main window displays a logic circuit diagram with inputs x1 and x2, and output f. The circuit consists of several logic gates (AND, OR, NOT) and a multiplexer. The message window at the bottom shows the following messages:

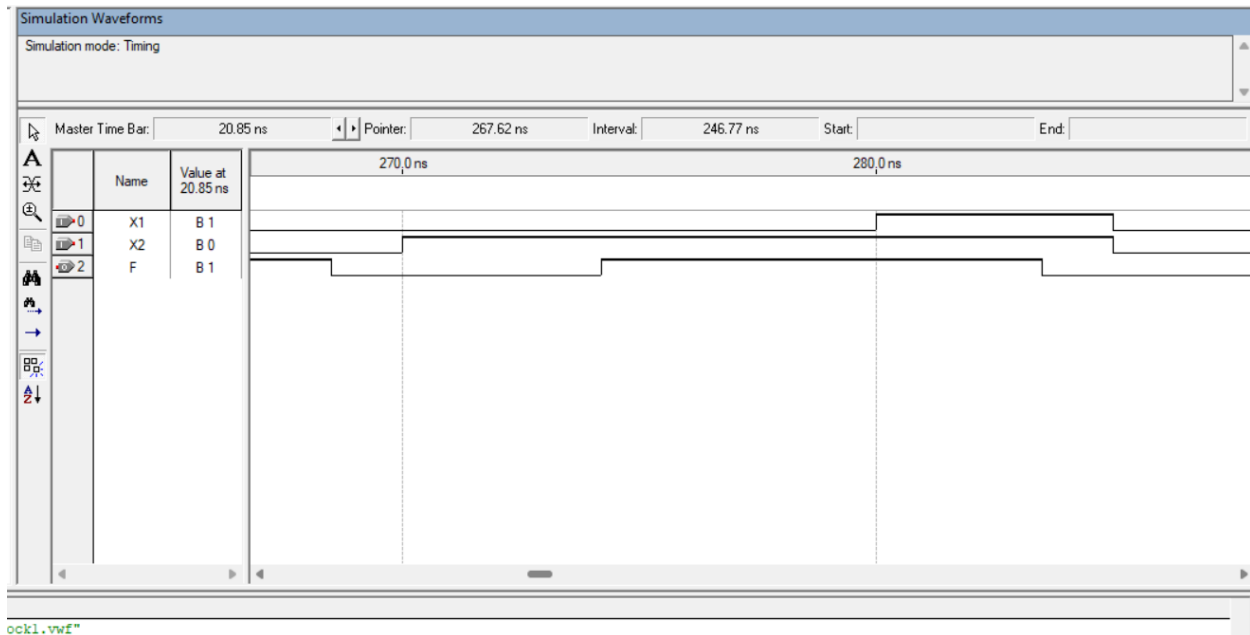
```

Type      Message
Info: Ended Simulator at Thu Mar 09 19:40:45 2023 Arab Standard Time
Info: Vector file Block1.vwf is saved in text format. You can compress it into Compressed Vector Waveform File format in order to reduce file size
Info: Started Simulator at Thu Mar 09 19:43:36 2023 Arab Standard Time
Info: Ended Simulator at Thu Mar 09 19:43:37 2023 Arab Standard Time
Info: Started Analysis & Synthesis at Thu Mar 09 23:09:59 2023 Arab Standard Time
Info: Ended Analysis & Synthesis at Thu Mar 09 23:10:00 2023 Arab Standard Time
  
```

Q2) find the functional waveform



Q3) find the timing waveform.



Q4) find the delay time for this circuit?

8.5

