**DLD LAB 09**

Question 01

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E’ | S2 | S1 | S0 | L0 | L1 | L2 | L3 | L4 | L5 | L6 | L7 |  | Z | Z’ |
| L | L | L | L | L | X | X | X | X | X | X | X |  | 0 | 1 |
| L | L | L | L | H | X | X | X | X | X | X | X |  | 1 | 0 |
| L | L | L | H | X | L | X | X | X | X | X | X |  | 0 | 1 |
| L | L | L | H | X | H | X | X | X | X | X | X |  | 1 | 0 |
| L | L | H | L | X | X | L | X | X | X | X | X |  | 0 | 1 |
| L | L | H | L | X | X | H | X | X | X | X | X |  | 1 | 0 |
| L | L | H | H | X | X | X | L | X | X | X | X |  | 0 | 1 |
| L | L | H | H | X | X | X | H | X | X | X | X |  | 1 | 0 |
| L | H | L | L | X | X | X | X | L | X | X | X |  | 0 | 1 |
| L | H | L | L | X | X | X | X | H | X | X | X |  | 1 | 0 |
| L | H | L | H | X | X | X | X | X | L | X | X |  | 0 | 1 |
| L | H | L | H | X | X | X | X | X | H | X | X |  | 1 | 0 |
| L | H | H | L | X | X | X | X | X | X | L | X |  | 0 | 1 |
| L | H | H | L | X | X | X | X | X | X | H | X |  | 1 | 0 |
| L | H | H | H | X | X | X | X | X | X | X | L |  | 0 | 1 |
| L | H | H | H | X | X | X | X | X | X | X | H |  | 1 | 0 |



Question 02

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D | S0 | S1 | S2 | l0 | l1 | L2 | L3 | L4 | L5 | L6 | L7 |
| D | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| D | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| D | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| D | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| D | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| D | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| D | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| D | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |



Question 03

1. We have to equate A to Select Input, Do to “1” and D1 to B



1. We have to equate A to Select Input, Do to B and D1 to “0”



1. DEMUX using AND gate Y0[S’D], Y1[SD] using NAND gate

Y0[((S’D)’)’], Y1[((SD)’)’] bar-bar cancel and we get Y0[S’D], Y1[SD]



1. Just like pervious task NAND the Ans to get the actual Output