Name: Anish Ghimire  
Student ID: 44548904  
Honor Code: I pledge that I have neither given nor received help from anyone other than the instructor/TA for all program components included here!  
  
  
  
  
The inputs D0, D1, D2, D4 are zero because there are no inputs.  
The inputs D3, D5, D6, D7 are one because they are high input.  
 **Truth table**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| X | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| Y | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Z | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| F(Led) | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |

Diagram

Description automatically generated