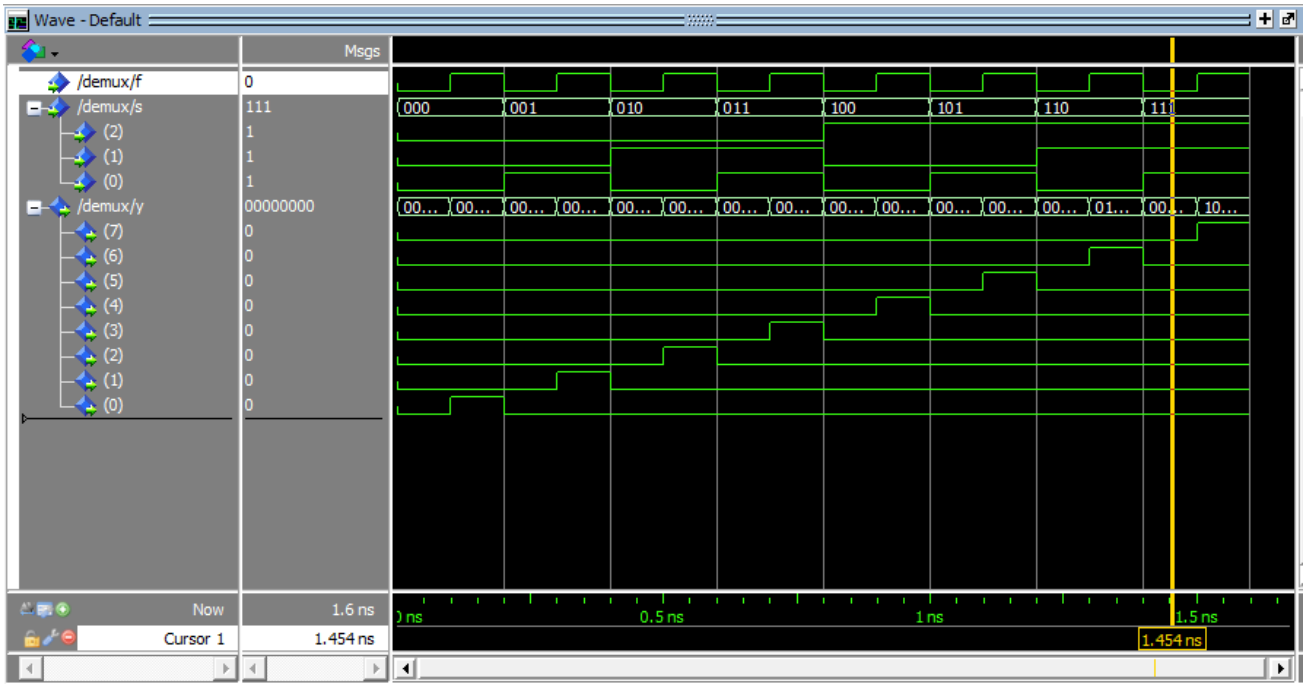
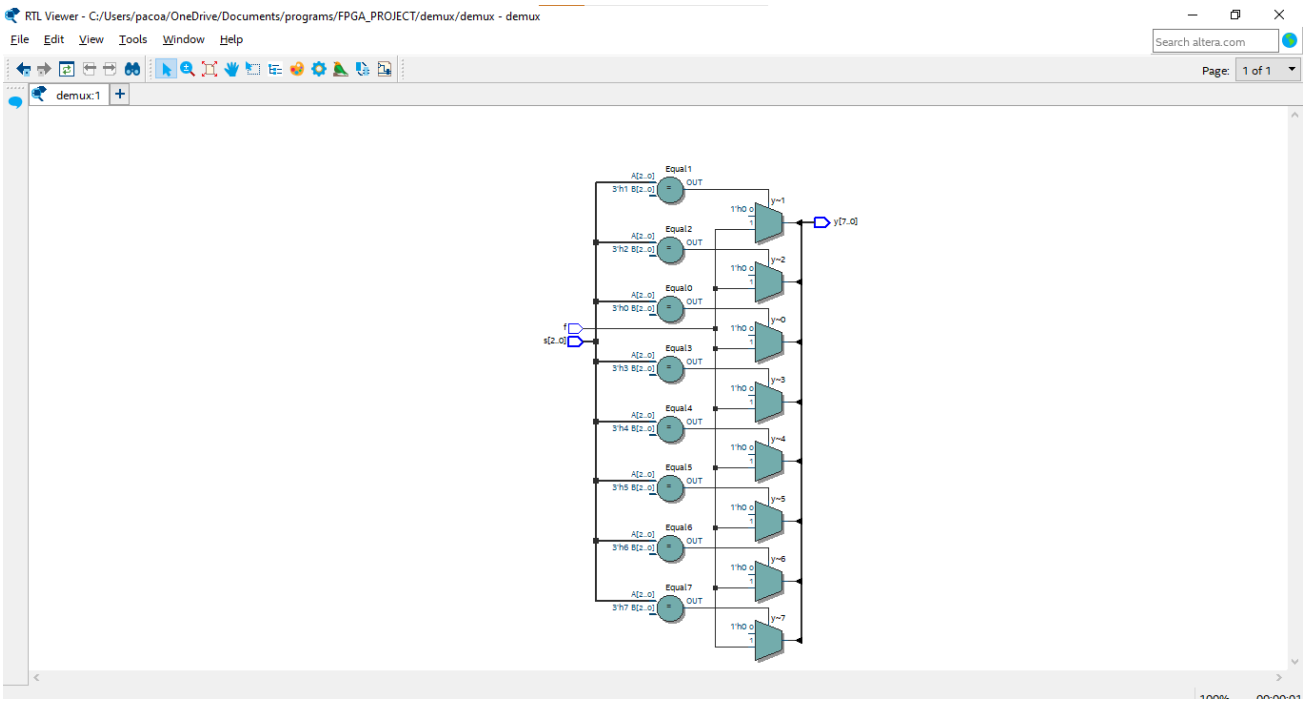
PACO, ARMIN R.
BSCpE – 3A

TITLE: Demultiplexer (1:8)

OUTPUT WAVE FORM:



RTL VIEW:



CODE:

demux.vhd | Compilation Report - demux

```
1   library IEEE;
2   use IEEE.STD_LOGIC_1164.ALL;
3   use IEEE.STD_LOGIC_ARITH.ALL;
4   use IEEE.STD_LOGIC_UNSIGNED.ALL;
5
6   entity demux is
7       port(
8           f : in std_logic;
9           s : in std_logic_vector(2 downto 0);
10          y : out std_logic_vector(7 downto 0)
11      );
12  end demux;
13
14  architecture behav of demux is
15  begin
16      y(0) <= f when s = "000" else '0';
17      y(1) <= f when s = "001" else '0';
18      y(2) <= f when s = "010" else '0';
19      y(3) <= f when s = "011" else '0';
20      y(4) <= f when s = "100" else '0';
21      y(5) <= f when s = "101" else '0';
22      y(6) <= f when s = "110" else '0';
23      y(7) <= f when s = "111" else '0';
24  end behav;
25
```