

```
-- Clock period definitions
CONSTANT clk_period : time := 1 us;
--*****

-- Clock process definitions
clk_process : process
begin
--CLK <= NOT CLK AFTER clk_period/2;
  CLK <= '0';
  wait for clk_period/2;
  CLK <= '1';
  wait for clk_period/2;
end process;

tb : PROCESS(CLK)
variable sh_one : integer := 0 ;
BEGIN
  if CLK='1' then
    sh_one := (sh_one + 1) mod 8;
    CASE sh_one is
      WHEN 0 =>
        SW <= "00000001" ;
        SW <= "11111110" after clk_period/2;
      WHEN 1 =>
        SW <= "00000010" ;
        SW <= "11111101" after clk_period/2;
      WHEN 2 =>
        SW <= "00000100" ;
        SW <= "11111011" after clk_period/2;
      WHEN 3 =>
        SW <= "00001000" ;
        SW <= "11110111" after clk_period/2;
      WHEN 4 =>
        SW <= "00010000" ;
        SW <= "11101111" after clk_period/2;
      WHEN 5 =>
        SW <= "00100000" ;
        SW <= "11011111" after clk_period/2;
      WHEN 6 =>
        SW <= "01000000" ;
        SW <= "10111111" after clk_period/2;
      WHEN others =>
        SW <= "10000000" ;
        SW <= "01111111" after clk_period/2;
    END CASE;
  END if ;
END PROCESS tb;
```