

1. Write VHDL code to implement the function expressed in the following truth table.

A	B	C	F
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	0

- a) Use *concurrent VHDL code* (Boolean expression)

```

entity function_F is
    port ( A,B,C : in std_logic;
           F : out std_logic);
end function_F;

architecture concurrent of function_F is
begin

    end concurrent;

```

- b) Use *if* statement

```

entity function_F is
    port ( A,B,C : in std_logic;
           F : out std_logic);
end function_F;

architecture behavior_1 of function_F is
begin
    proc1: process(A,B,C)

```

```

        end process proc1;
    end behavior_1;

```