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**Bài tập tuần 2**

**Câu 1:**

module TH\_Bai1 (SW,HEX0);

input [3:0]SW;

output [0:6]HEX0;

seg7 (SW[3:0],HEX0);

endmodule

module seg7 (bcd, leds);

input [3:0] bcd;

output reg [0:6]leds;

always @(bcd)

case (bcd) //abcdefg

0: leds = 7'b0000001;

1: leds = 7'b1001111;

2: leds = 7'b0010010;

3: leds = 7'b0000110;

4: leds = 7'b1001100;

5: leds = 7'b0100100;

6: leds = 7'b0100000;

7: leds = 7'b0001111;

8: leds = 7'b0000000;

9: leds = 7'b0000100;

10: leds = 7'b0001000;

11 : leds= 7'b0000000;

12 : leds= 7'b0110001;

13 : leds= 7'b0000001;

14 : leds= 7'b0110000;

15 : leds= 7'b0111000;

default: leds = 7‘b1111111;

endcase

endmodule

**Bài 2:**

module TH\_Bai1 (SW,HEX0, HEX1);

input [7:0]SW;

output [0:6]HEX0;

output [0:6]HEX1;

seg70 (SW[3:0],HEX0);

seg71 (SW[7:4],HEX1);

endmodule

module seg70 (bcd, led0);

input [3:0] bcd;

output reg [0:6]led0;

always @(bcd)

case (bcd) //abcdefg

0: led0 = 7'b0000001;

1: led0 = 7'b1001111;

2: led0 = 7'b0010010;

3: led0 = 7'b0000110;

4: led0 = 7'b1001100;

5: led0 = 7'b0100100;

6: led0 = 7'b0100000;

7: led0= 7'b0001111;

8: led0= 7'b0000000;

9: led0= 7'b0000100;

10: led0 = 7'b0001001;

11 : led0= 7'b0000000;

12 : led0= 7'b0110001;

13 : led0= 7'b0000001;

14 : led0= 7'b0110000;

15 : led0= 7'b0111000;

default: led0 = 7'b1111111;

endcase

endmodule

module seg71 (bcd, led1);

input [7:4] bcd;

output reg [0:6]led1;

always @(bcd)

case (bcd) //abcdefg

0: led1 = 7'b0000001;

1: led1 = 7'b1001111;

2: led1 = 7'b0010010;

3: led1 = 7'b0000110;

4: led1 = 7'b1001100;

5: led1 = 7'b0100100;

6: led1 = 7'b0100000;

7: led1= 7'b0001111;

8: led1= 7'b0000000;

9: led1= 7'b0000100;

10: led1 = 7'b0001001;

11 : led1= 7'b0000000;

12 : led1= 7'b0110001;

13 : led1= 7'b0000001;

14 : led1= 7'b0110000;

15 : led1= 7'b0111000;

default: led1 = 7'b1111111;

endcase

endmodule