2:4 LINE DECODER

CODE

module decoder2\_4(a,y);

input [1:0]a;

output [3:0]y;

assign y[3]= a[0]&a[1];

assign y[2]= a[0]&(~a[1]);

assign y[1]= (~a[0])&a[1];

assign y[0]= (~a[0])&(~a[1]);

endmodule

TEST BENCH

module decoder2\_4\_tb;

reg a;

wire y;

decoder2\_4 uut (.a(a), .y(y));

initial begin

a=2’b00; #50;

a=2’b01; #50;

a=2’b10; #50;

a=2’b11; #50;

end

endmodule