

```
//post lab
```

```
//RA2111004010177
```

```
Module postlab177 (input A,B,C,D,E, output Y);
```

```
Wire w1,w2,w3,w1not, w2not, w3not;
```

```
Switchnor g1 (w1,D,E);
```

```
Switchnot n1 (w1,w1not);
```

```
Switchnand g2 (w2,A,w1not);
```

```
Switchnot n2 (w2,w2not);
```

```
Switchnand g3 (w3,B,C);
```

```
Switchnot n3 (w3,w3not);
```

```
Switchnor g4 (Y,w3not, w2not);
```

```
Endmodule
```

```
//Test bench
```

```
Module postlab_177_tb_v;
```

```
// Inputs
```

```
Reg A;
```

```
Reg B;
```

```
Reg C;
```

```
Reg D;
```

```
Reg E;
```

```
Wire Y;
```

```
// Instantiate the Unit Under Test (UUT)
```

```
Postlab007 uut (.A (A),.B(B),.C (C),.D(D),.E€,.Y (Y));
```

```
Initial begin
```

```
A = 0; B=0;C=0;D=0; E=0; #100;
```

```
A=0; B=0;C=0;D=0;E=1; #100;
```

```
A=1;B=0;C=1;D=0;E = 1; #100;
```

```
A=1;B=1; C = 1; D = 1; E = 1; #100;
```

```
End
```

```
Endmodule
```



