

# BINSHADH BASHEER B210517CS

## Q2

```
module conv(output reg[7:0] product,input[3:0] a,b);
reg[2:0]i;
always @(a,b)begin
product=0;
for(i=0;i<4;i=i+1)
begin
if(b[i]==1'b1)
begin
product = product+(a <<i);
end
end
end
endmodule
```

### TEST BENCH

```
module test;
reg [3:0]a,b;
wire [7:0]product;
conv ins(product,a,b);
reg c,d;
initial begin
{a,b}={4'b0000};
repeat(100)begin
c=$random();
d=$random();
#10 a=a+c;b=b+d;
end
end
endmodule
```