```
module AnswerCheck(correctAns , s1 , s2 , p1 , p2 , r1 , r2);
    input s1,s2;            //input answer 00 01 10 11
    input p1,p2;            //input patten 00 01 10 11
    input r1,r2;            //round 00 01 10 11
    output correctAns;      // 1'b1 correct  and 1'b0 worng
    reg correctAns;
    always begin

    correctAns <= 1'b0;     //alway worng ans
    //------------------------  patten 0 ----------------//
    if((p1 == 1'b0) && (p2 == 1'b0) )                   //00 = patten 0
    begin
        if((r1 == 1'b0) && (r2 == 1'b0))            //00 question 0
        begin
            if((s1 == 1'b0) && (s2 == 1'b1))        //ans 01 = 1
            begin
                correctAns <= 1'b1;
            end
        end
        else if((r1 == 1'b0) && (r2 == 1'b1))       //01 question 1
            begin
            if((s1 == 1'b0) && (s2 == 1'b0))        //ans 00 = 0
                begin
                correctAns <= 1'b1;
                end
            end
        else if((r1 == 1'b1) && (r2 == 1'b0))       //10 question 2
        begin
            if((s1 == 1'b1) && (s2 == 1'b1))        //ans 11 = 3
            begin
                correctAns <= 1'b1;
            end
        end
        else if((r1 == 1'b1) && (r2 == 1'b1))       //11 question 3
        begin
            if((s1 == 1'b1) && (s2 == 1'b0))        //ans 10 = 2
            begin
                correctAns <= 1'b1;
            end
        end
    end

    //------------------------  patten 1 ----------------//
    if((p1 == 1'b0) && (p2 == 1'b1))                    //01 = patten 1
    begin
        if((r1 == 1'b0) && (r2 == 1'b0))            //00 question 0
        begin
            if((s1 == 1'b1) && (s2 == 1'b0))        //ans 10 = 2
            begin
                correctAns <= 1'b1;
            end
        end
        else if((r1 == 1'b0) && (r2 == 1'b1))       //01 question 1
        begin
            if((s1 == 1'b1) && (s2 == 1'b1))        //ans 11 = 3
            begin
                correctAns <= 1'b1;
            end
        end
        else if((r1 == 1'b1) && (r2 == 1'b0))       //10 question 2
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    begin
        if((s1 == 1'b0) && (s2 == 1'b0))        //ans 00 = 0
        begin
            correctAns <= 1'b1;
        end
    end
    else if((r1 == 1'b1) && (r2 == 1'b1))       //11 question 3
    begin
        if((s1 == 1'b0) && (s2 == 1'b1))        //ans 01 = 1
        begin
            correctAns <= 1'b1;
        end
    end
end

//------------------------  patten 2 ----------------//
if((p1 == 1'b1) && (p2 == 1'b0))                    //10 = patten 2
begin
    if((r1 == 1'b0) && (r2 == 1'b0))            //00 question 0
    begin
        if((s1 == 1'b1) && (s2 == 1'b1))        //ans 11 = 3
        begin
            correctAns <= 1'b1;
        end
    end
    else if((r1 == 1'b0) && (r2 == 1'b1))       //01 question 1
    begin
        if((s1 == 1'b1) && (s2 == 1'b0))        //ans 10 = 2
        begin
            correctAns <= 1'b1;
        end
    end
    else if((r1 == 1'b1) && (r2 == 1'b0))       //10 question 2
    begin
        if((s1 == 1'b0) && (s2 == 1'b1))        //ans 01 = 1
        begin
            correctAns <= 1'b1;
        end
    end
    else if((r1 == 1'b1) && (r2 == 1'b1))       //11 question 3
    begin
        if((s1 == 1'b0) && (s2 == 1'b0))        //ans 00 = 0
        begin
            correctAns <= 1'b1;
        end
    end
end
//------------------------  patten 3 ----------------//
if((p1 == 1'b1) && (p2 == 1'b1))                    //11 = patten 3
begin
    if((r1 == 1'b0) && (r2 == 1'b0))            //00 question 0
    begin
        if((s1 == 1'b0) && (s2 == 1'b0))        //ans 00 = 0
        begin
            correctAns <= 1'b1;
        end
    end
    else if((r1 == 1'b0) && (r2 == 1'b1))       //01 question 1
    begin
        if((s1 == 1'b1) && (s2 == 1'b0))        //ans 10 = 2
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            begin
                correctAns <= 1'b1;
            end
        end
        else if((r1 == 1'b1) && (r2 == 1'b0))       //10 question 2
        begin
            if((s1 == 1'b0) && (s2 == 1'b1))        //ans 01 = 1
            begin
                correctAns <= 1'b1;
            end
        end
        else if((r1 == 1'b1) && (r2 == 1'b1))       //11 question 3
        begin
            if((s1 == 1'b1) && (s2 == 1'b1))        //ans 11 = 0
            begin
                correctAns <= 1'b1;
            end
        end
    end
     end

endmodule
```