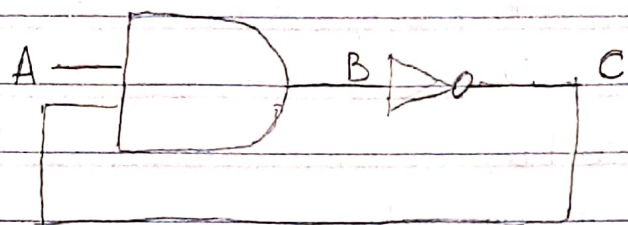


Aluno: Victor Luiz

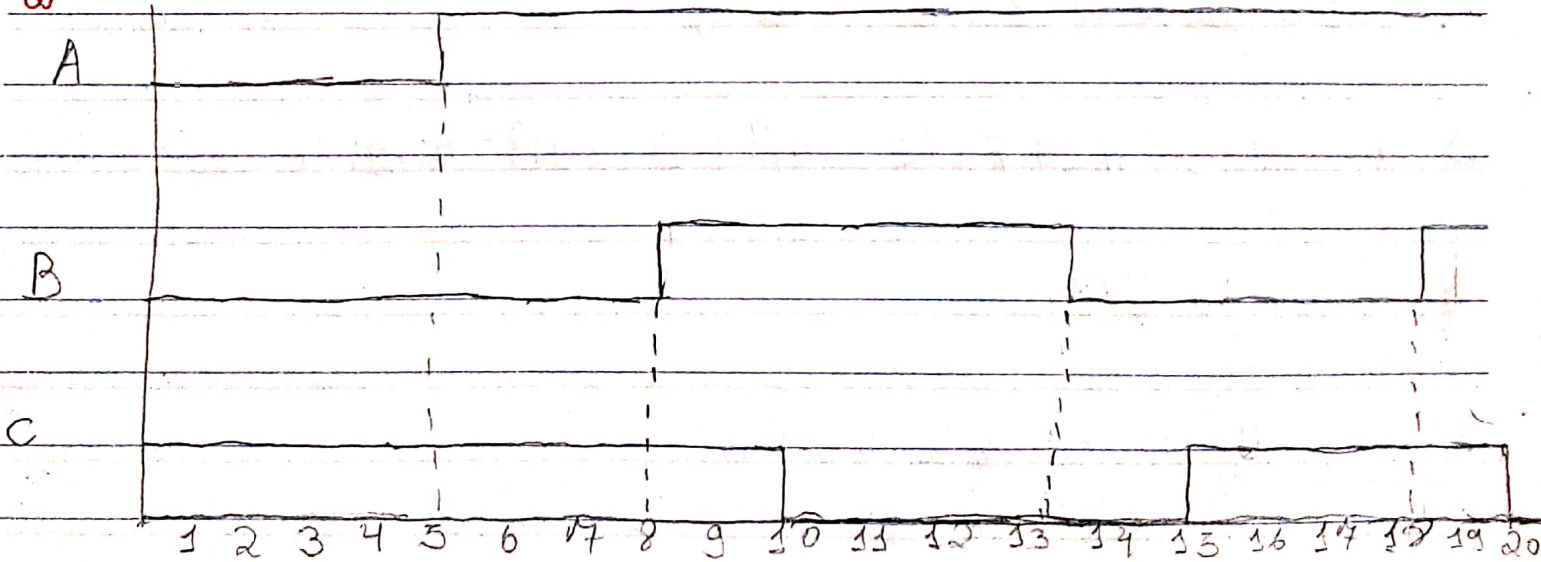
Aluno: Fernando Pascoal

Projeto 1 - SD  
Respostas

1-a-



1-b-



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2- module Test (output wire Z, input wire A, B, C, D);

    wire var1, var2, var3;

    wire E, F;

    assign #3 var1 = A & B & C;

    assign #3 var2 = ~(B | C);

    assign #3 E = var1 | D;

    assign #3 F = ~(A & var2);

    assign #2 var3 = ~F;

    assign #3 Z = E ^ var3;

3-a- assign #10 F = (C==0)? ((D==0)? ~A: B); (D==0)? ~B: 0);

b- always @(\*)

begin

    if (C==0 && D==0)

        #10 F = ~A;

    else if (C==0 && D==1)

        #10 F = B;

    else if (C==1 && D==0)

        #10 F = ~B;

    else

        #10 F = 0;

end

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```
c-always @(*)  
begin case  
    sel  
    0: #10 F = ~A;  
    1: #10 F = B;  
    2: #10 F = ~B;  
    3: #10 F = 0;  
endcase  
end
```

4-a- module quarter4(output reg A, input C, B1, B2, B3);

```
always @ (C or B1 or B2 or B3)  
begin
```

```
    if (C == 1)
```

```
        A <= B1;
```

```
    else if (C == 2)
```

```
        A <= B2;
```

```
    else if (C == 3)
```

```
        A <= B3;
```

```
    else
```

```
        A <= 0;
```

```
end
```

```
endmodule
```



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#### 4.a - Continuação

~~4~~ module questao4\_2 (output reg A, input wire C, B1, B2, B3);

always @ (C or B1 or B2 or B3)

case (C)

1: A = B1;

2: A = B2;

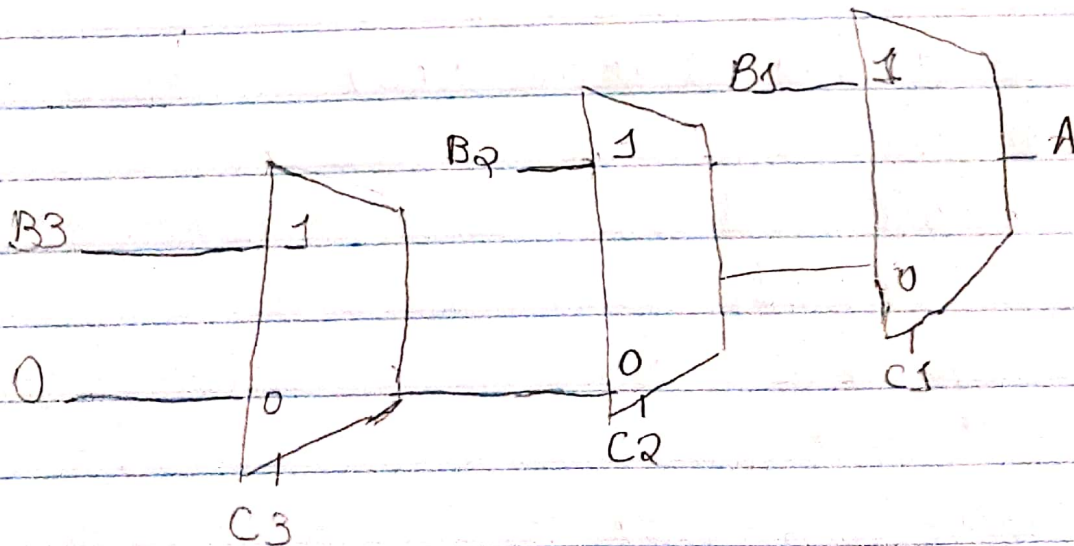
3: A = B3;

default: A = 0;

endcase

endmodule

4b-



5-a-

|               |            | 4+ | 4+ |           |              |
|---------------|------------|----|----|-----------|--------------|
| $A > B_{out}$ | $V1_{out}$ | A  | B  | $V1_{In}$ | $A > B_{In}$ |
| $A = B_{out}$ | $V2_{out}$ |    |    | $V2_{In}$ | $A = B_{In}$ |
| $A < B_{out}$ | $V3_{out}$ |    |    | $V3_{In}$ | $A < B_{In}$ |

6-

|         | $B_2-1$ | $A_2-1$ | $B_3-0$      | $A_3-0$ |                |
|---------|---------|---------|--------------|---------|----------------|
|         | 4+      | 4+      | 4+           | 4+      |                |
| $A > B$ |         |         | $A > B_{In}$ | $A > B$ | $A > B_{In} 0$ |
| $A = B$ |         |         | $A = B_{In}$ | $A = B$ | $A = B_{In} 1$ |
| $A < B$ |         |         | $A < B_{In}$ | $A < B$ | $A < B_{In} 0$ |