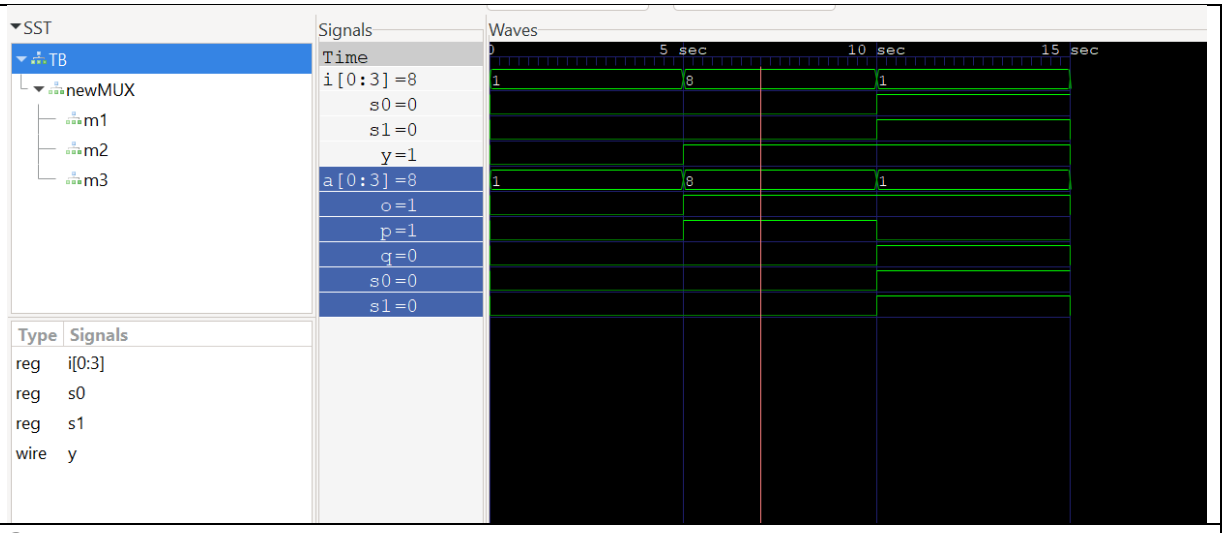
Name: SUNDEEP A	SRN: PES1UG20CS445	Section: H
	Date: 30-08-21	Week Number: 2

1	4 to 1 MUX

	Program:
	
	module mux2 (input wire i0, i1, j, output wire o);
	assign o = (j==0)?i0:i1;
	endmodule
	
	module mux4 (input wire [0:3]a, input wire s1, s0, output wire o);
	wire p, q;
	
	mux2 m1(a[0], a[1], s0, p);
	mux2 m2(a[2], a[3], s0, q);
	mux2 m3(p, q, s1, o);
	
	endmodule

	Output Screenshot: C:\Users\HP\Desktop\PESU\SEM-3\DDCO_LAB\week 2>iverilog -o aout MUX4to1.v testBench4to1.v C:\Users\HP\Desktop\PESU\SEM-3\DDCO_LAB\week 2>vvp aout VCD info: dumpfile dump.vcd opened for output. C:\Users\HP\Desktop\PESU\SEM-3\DDCO_LAB\week 2>gtkwave dump.vcd GTKWave Analyzer v3.3.108 (w)1999-2020 BSI [0] start time. [15] end time.



2 2 to 1 MUX

Program:

```
module mux2 (input wire a, b, c, output wire o);
  assign o = (c==0)?a:b;
endmodule
```

Output Screenshot:

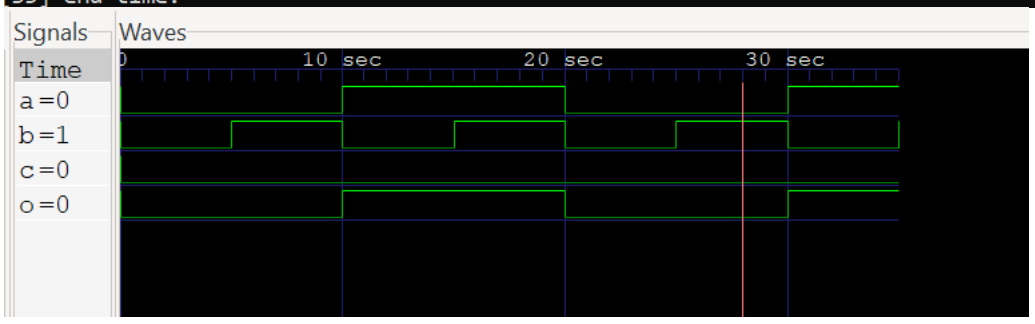
```
C:\Users\HP\Desktop\PESU\SEM-3\DDCO_LAB\week 2>iverilog -o aout MUX2to1.v testBench2to1.v

C:\Users\HP\Desktop\PESU\SEM-3\DDCO_LAB\week 2>vvp aout
VCD info: dumpfile dump.vcd opened for output.

C:\Users\HP\Desktop\PESU\SEM-3\DDCO_LAB\week 2>gtkwave dump.vcd

GTKWave Analyzer v3.3.108 (w)1999-2020 BSI

[0] start time.
[35] end time.
```



3	**4 bit Ripple Carry adder**

	Program:
	
	module fulladdR(input wire [3:0] a, b, input wire cin, output wire [3:0] sum, output wire cout);
	  wire [2:0] c;
	  fulladd f1(a[0], b[0], cin, sum[0], c[0]);
	  fulladd f2(a[1], b[1], c[0], sum[1], c[1]);
	  fulladd f3(a[2], b[2], c[1], sum[2], c[2]);
	  fulladd f4(a[3], b[3], c[2], sum[3], cout);
	endmodule

	Output Screenshot: C:\Users\HP\Desktop\PESU\SEM-3\DDCO_LAB\week 2>iverilog -o aout ripple.v c.v b.v dtestBench.v C:\Users\HP\Desktop\PESU\SEM-3\DDCO_LAB\week 2>vvp aout VCD info: dumpfile dump.vcd opened for output. dtestBench.v:29: $finish called at 186 (1s) C:\Users\HP\Desktop\PESU\SEM-3\DDCO_LAB\week 2>gtkwave dump.vcd GTKWave Analyzer v3.3.108 (w)1999-2020 BSI [0] start time. [186] end time.