**Digital Design and Computer Organization Laboratory**

**UE19CS206**

**3rd Semester, Academic Year 2020-21**

Date:

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| Name: TUSHAR Y S | SRN:  PES1UG19CS545 | Section  I |

Experiment Number: 2 Week# 3

Program Number : 1

**Title of the Program: Ripple Carry Adder**

**Paste the 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],1'b0,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

**Paste the Screen Shot of the output waveform**

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Program Number : 2

**Title of the Program: 4 to 1 MUX**

**Paste the Program**

module mux4 (input wire [0:3] i, input wire j1, j0, output wire o);

wire t0, t1;

mux2 mux2\_0(i[0],i[1],j1,t0);

mux2 mux2\_1(i[2],i[3],j1,t1);

mux2 mux2\_2(t0,t1,j0,o);

endmodule

**Paste the Screen Shot of the output waveform**

