

NAME- ASHUTOSH ARDU

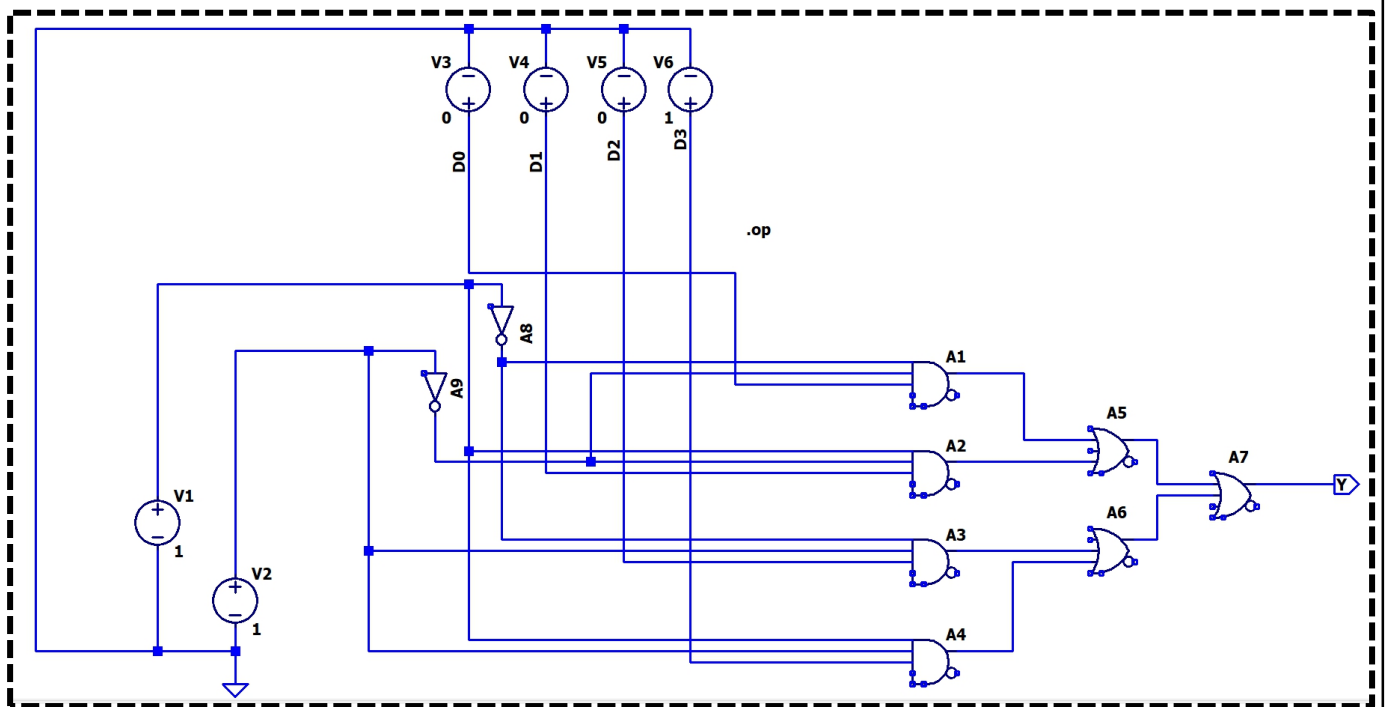
REG NO.- 20BRS1262

DATE- 26-04-2021

CSE1003-LAB7

MULTIPLEXER

DIAGRAM



OUTPUT

V1=1, V2=1 THEN Y=1

WHICH MEANS Y=D3

```
* C:\Users\Ghost\OneDrive - vit.ac.in\Documents\LTspiceXVIII\CSE1003-Lab7\multiplexer.asc
--- Operating Point ---
V(n003) :      0      voltage
V(n004) :      0      voltage
V(d0) :        0      voltage
V(n005) :      0      voltage
V(n001) :      1      voltage
V(d1) :        0      voltage
V(n007) :      0      voltage
V(n002) :      1      voltage
V(d2) :        0      voltage
V(n009) :      0      voltage
V(d3) :        1      voltage
V(n010) :      1      voltage
V(n006) :      0      voltage
V(n008) :      1      voltage
V(y) :         1      voltage
I(V6) :        0      device_current
I(V5) :        0      device_current
I(V4) :        0      device_current
I(V3) :        0      device_current
I(V2) :        0      device_current
I(V1) :        0      device_current
I8(A9) :       -0      device_current
I6(A9) :        0      device_current
I8(A8) :       -0      device_current
I6(A8) :        0      device_current
I8(A7) :       -0      device_current
I7(A7) :        0      device_current
I8(A6) :        0      device_current
```

V1=0, V2=0 THEN Y=0

WHICH MEANS Y=D0



```
* C:\Users\Ghost\OneDrive - vit.ac.in\Documents\LTspiceXVII\CSE1003-Lab7\multiplexer.asc
--- Operating Point ---
V(n003):      1      voltage
V(n004):      1      voltage
V(d0):        0      voltage
V(n005):      0      voltage
V(n001):      0      voltage
V(d1):        0      voltage
V(n007):      0      voltage
V(n002):      0      voltage
V(d2):        0      voltage
V(n009):      0      voltage
V(d3):        1      voltage
V(n010):      0      voltage
V(n006):      0      voltage
V(n008):      0      voltage
V(y):         0      voltage
I(V6):        0      device_current
I(V5):        0      device_current
I(V4):        0      device_current
I(V3):        0      device_current
I(V2):        0      device_current
I(V1):        0      device_current
I8(A9):       -0      device_current
I6(A9):        0      device_current
I8(A8):       -0      device_current
I6(A8):        0      device_current
I8(A7):       -0      device_current
I7(A7):        0      device_current
I8(A6):        0      device_current
```

V1=1, V2=0 Y=0

WHICH MEANS Y=D2

```
* C:\Users\Ghost\OneDrive - vit.ac.in\Documents\LTspiceXVII\CSE1003-Lab7\multiplexer.asc
--- Operating Point ---
V(n003):      0      voltage
V(n004):      1      voltage
V(d0):        0      voltage
V(n005):      0      voltage
V(n001):      1      voltage
V(d1):        0      voltage
V(n007):      0      voltage
V(n002):      0      voltage
V(d2):        0      voltage
V(n009):      0      voltage
V(d3):        1      voltage
V(n010):      0      voltage
V(n006):      0      voltage
V(n008):      0      voltage
V(y):         0      voltage
I(V6):        0      device_current
I(V5):        0      device_current
I(V4):        0      device_current
I(V3):        0      device_current
I(V2):        0      device_current
I(V1):        0      device_current
I8(A9):       -0      device_current
I6(A9):        0      device_current
I8(A8):       -0      device_current
I6(A8):        0      device_current
I8(A7):       -0      device_current
I7(A7):        0      device_current
I8(A6):        0      device_current
```

V1=0, V2=1 THEN Y=0

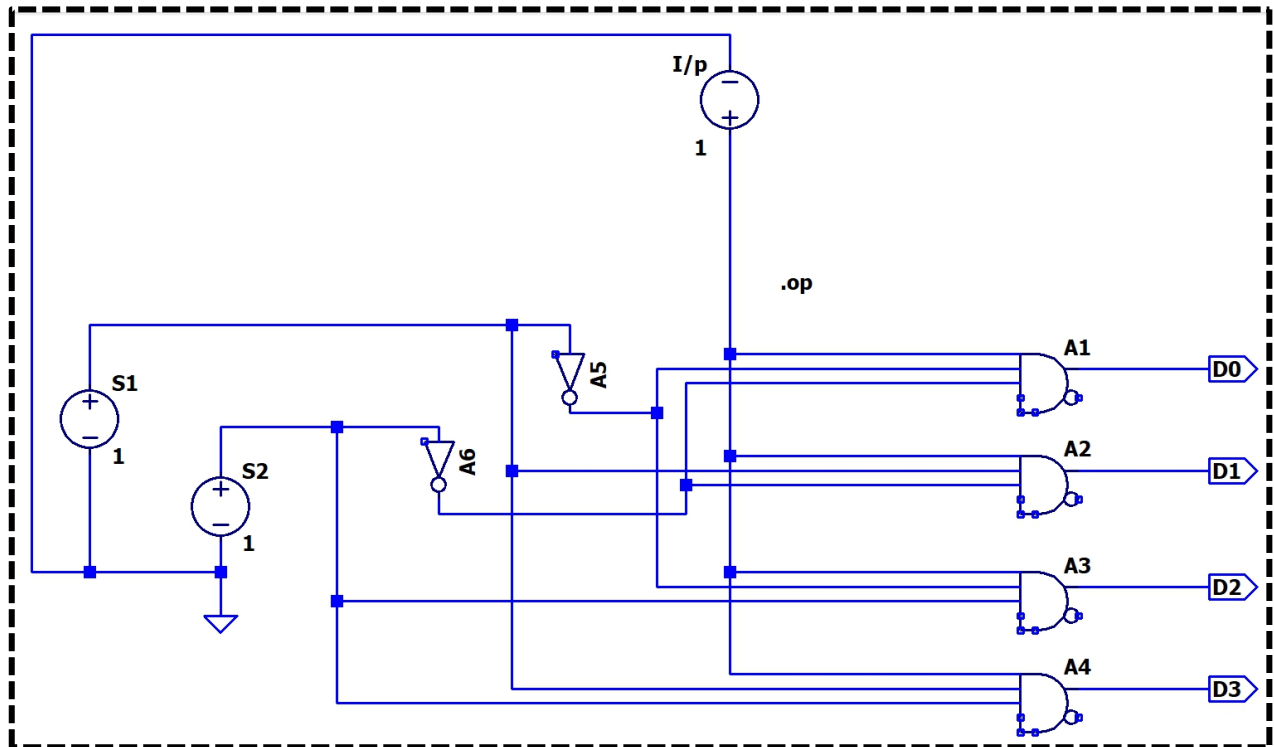
WHICH MEANS Y=D1

```
* C:\Users\Ghost\OneDrive - vit.ac.in\Documents\LTspiceXVII\CSE1003-Lab7\multiplexer.asc
--- Operating Point ---
V(n003):      1      voltage
V(n004):      0      voltage
V(d0):        0      voltage
V(n005):      0      voltage
V(n001):      0      voltage
V(d1):        0      voltage
V(n007):      0      voltage
V(n002):      1      voltage
V(d2):        0      voltage
V(n009):      0      voltage
V(d3):        1      voltage
V(n010):      0      voltage
V(n006):      0      voltage
V(n008):      0      voltage
V(y):         0      voltage
I(V6):        0      device_current
I(V5):        0      device_current
I(V4):        0      device_current
I(V3):        0      device_current
I(V2):        0      device_current
I(V1):        0      device_current
I8(A9):       -0      device_current
I6(A9):        0      device_current
I8(A8):       -0      device_current
I6(A8):        0      device_current
I8(A7):       -0      device_current
I7(A7):        0      device_current
I8(A6):       -0      device_current
```

DEMULTIPLEXER

DIAGRAM





OUTPUT

S1(S1)=1, S2(S0)=1 THEN Y(OUTPUT LINE)=D3

```

* C:\Users\Ghost\OneDrive - vit.ac.in\Documents\LTspiceXVII\Lab7\demultiplexer.asc
--- Operating Point ---
V(n002):      1      voltage
V(n003):      0      voltage
V(n004):      0      voltage
V(d0):        0      voltage
V(n001):      1      voltage
V(d1):        0      voltage
V(n005):      1      voltage
V(d2):        0      voltage
V(d3):        1      voltage
I(S1):        0      device_current
I(S2):        0      device_current
I(I/p):       0      device_current
I8(A6):       -0     device_current
I6(A6):       0      device_current
I8(A5):       -0     device_current
I6(A5):       0      device_current
I8(A4):       -0     device_current
I7(A4):       0      device_current
I8(A3):       -0     device_current
I7(A3):       0      device_current
I8(A2):       -0     device_current
I7(A2):       0      device_current
I8(A1):       -0     device_current
I7(A1):       0      device_current

```

S1=0, S2=0 THEN Y=D0

```
* C:\Users\Ghost\OneDrive - vit.ac.in\Documents\LTspiceXVII\CSE1003-Lab7\demultiplexer.asc
--- Operating Point ---
V(n002):      1      voltage
V(n003):      1      voltage
V(n004):      1      voltage
V(d0):        1      voltage
V(n001):      0      voltage
V(d1):        0      voltage
V(n005):      0      voltage
V(d2):        0      voltage
V(d3):        0      voltage
I(S1):        0      device_current
I(S2):        0      device_current
I(I/p):       0      device_current
I8(A6):       -0     device_current
I6(A6):        0     device_current
I8(A5):       -0     device_current
I6(A5):        0     device_current
I8(A4):       -0     device_current
I7(A4):        0     device_current
I8(A3):       -0     device_current
I7(A3):        0     device_current
I8(A2):       -0     device_current
I7(A2):        0     device_current
I8(A1):       -0     device_current
I7(A1):        0     device_current
```

S1=0, S2=1 THEN Y=D2

```
* C:\Users\Ghost\OneDrive - vit.ac.in\Documents\LTspiceXVII\CSE1003-Lab7\demultiplexer.asc
--- Operating Point ---
V(n002):      1      voltage
V(n003):      1      voltage
V(n004):      0      voltage
V(d0):        0      voltage
V(n001):      0      voltage
V(d1):        0      voltage
V(n005):      1      voltage
V(d2):        1      voltage
V(d3):        0      voltage
I(S1):        0      device_current
I(S2):        0      device_current
I(I/p):       0      device_current
I8(A6):       -0     device_current
I6(A6):        0     device_current
I8(A5):       -0     device_current
I6(A5):        0     device_current
I8(A4):       -0     device_current
I7(A4):        0     device_current
I8(A3):       -0     device_current
I7(A3):        0     device_current
I8(A2):       -0     device_current
I7(A2):        0     device_current
I8(A1):       -0     device_current
I7(A1):        0     device_current
```

S1=1, S2=0 THEN Y=D1

```
* C:\Users\Ghost\OneDrive - vit.ac.in\Documents\LTspiceXVII\CSE1003-Lab7\demultiplexer.asc
--- Operating Point ---
V(n002):      1      voltage
V(n003):      0      voltage
V(n004):      1      voltage
V(d0):        0      voltage
V(n001):      1      voltage
V(d1):        1      voltage
V(n005):      0      voltage
V(d2):        0      voltage
V(d3):        0      voltage
I(S1):        0      device_current
I(S2):        0      device_current
I(I/p):       0      device_current
I8(A6):       -0     device_current
I6(A6):       0      device_current
I8(A5):       -0     device_current
I6(A5):       0      device_current
I8(A4):       -0     device_current
I7(A4):       0      device_current
I8(A3):       -0     device_current
I7(A3):       0      device_current
I8(A2):       -0     device_current
I7(A2):       0      device_current
I8(A1):       -0     device_current
I7(A1):       0      device_current
```