



Dept. of Computer Science &Engineering

Course Code: CSE-2324

Course Title : Digital Logic Design Lab

Submitted by:

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Semester: 3rd

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Department of CSE, IIUC

Submitted to:

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Assistant Professor

**Department of CSE,
IIUC**

SIGN: Farida Nusrat

SUBMISSION: 10-10-21

Experiment No: 06

Experiment Name: Design a BCD to 7 segment decoder

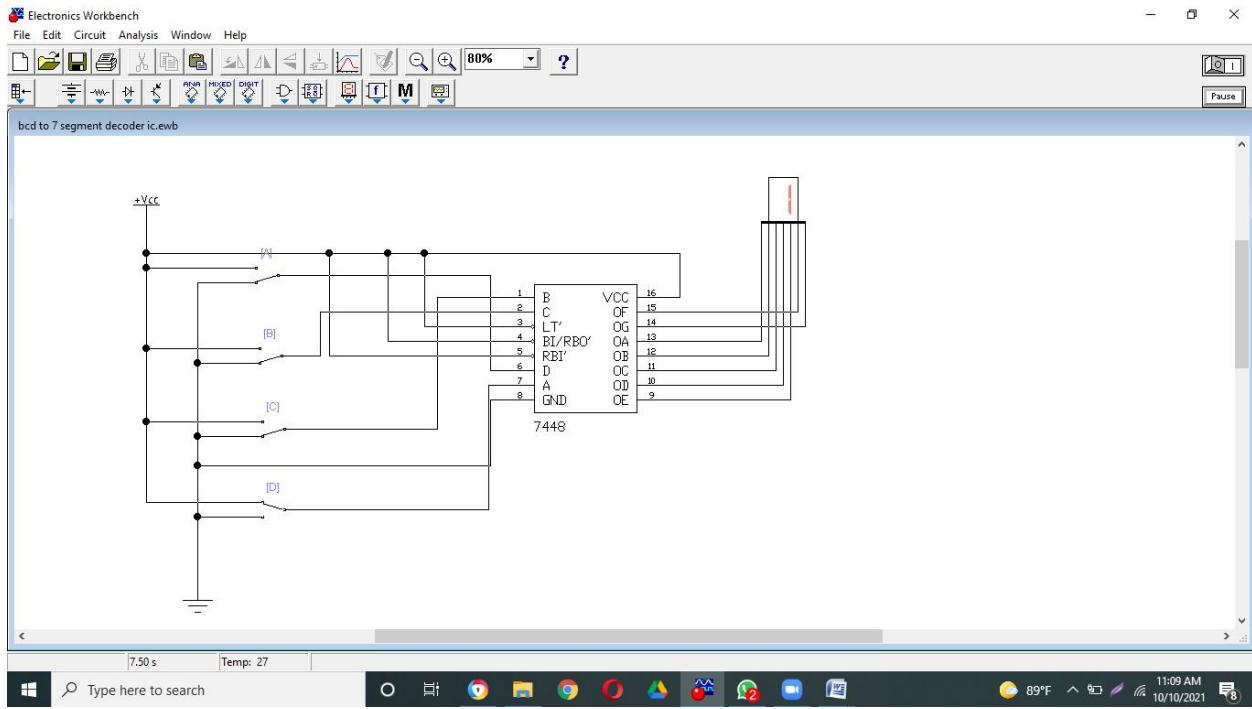
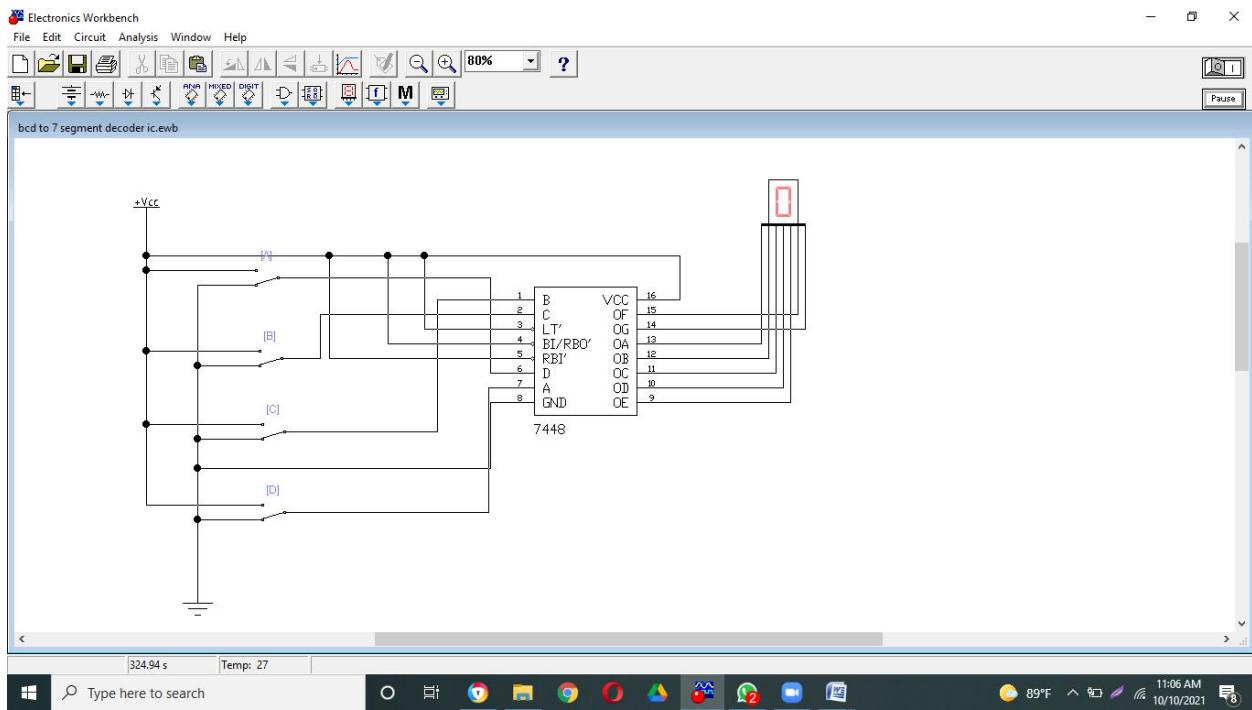
Required tools:

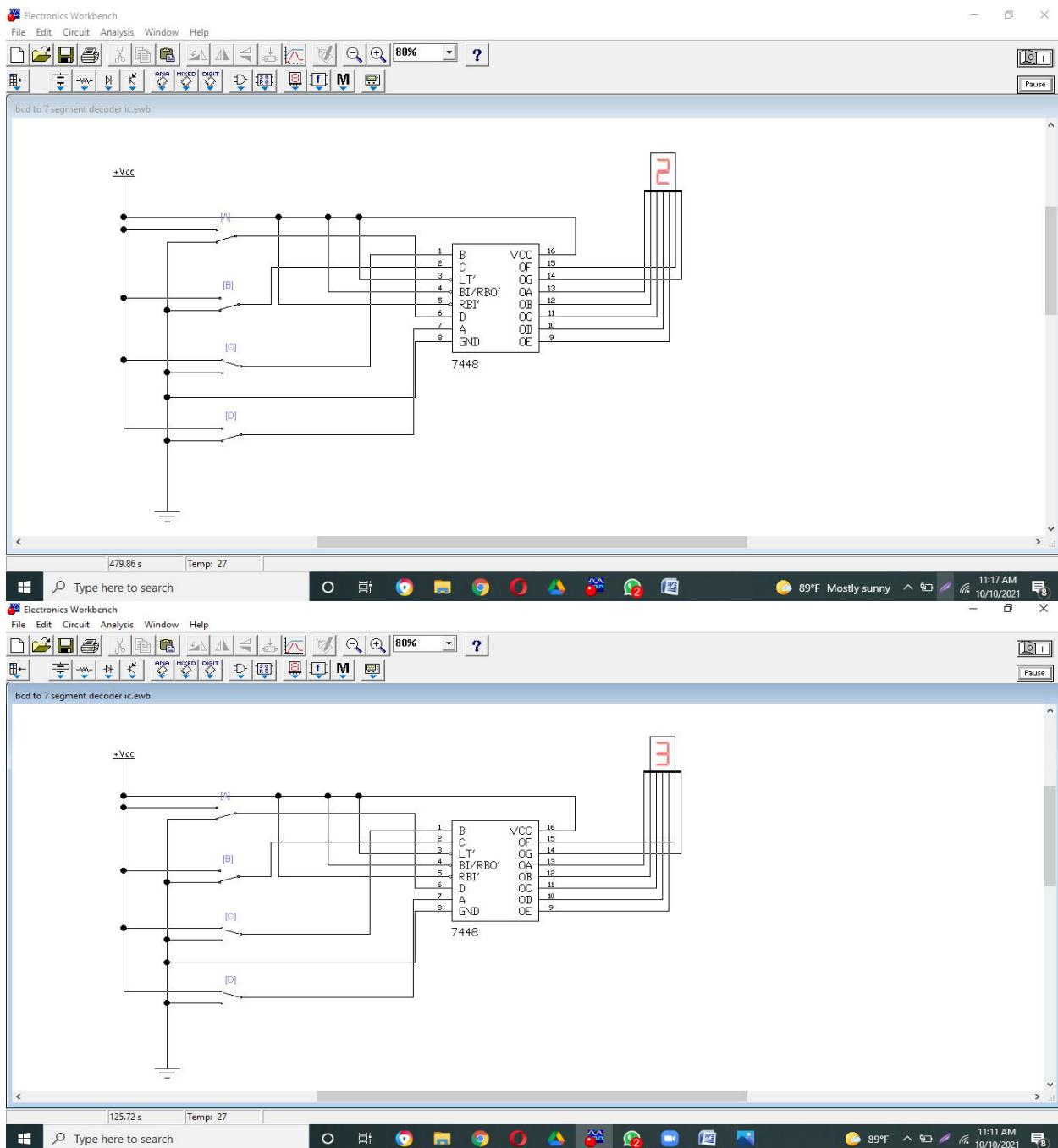
- IC 7448
- Wires
- LED
- Electronic Workbench Software

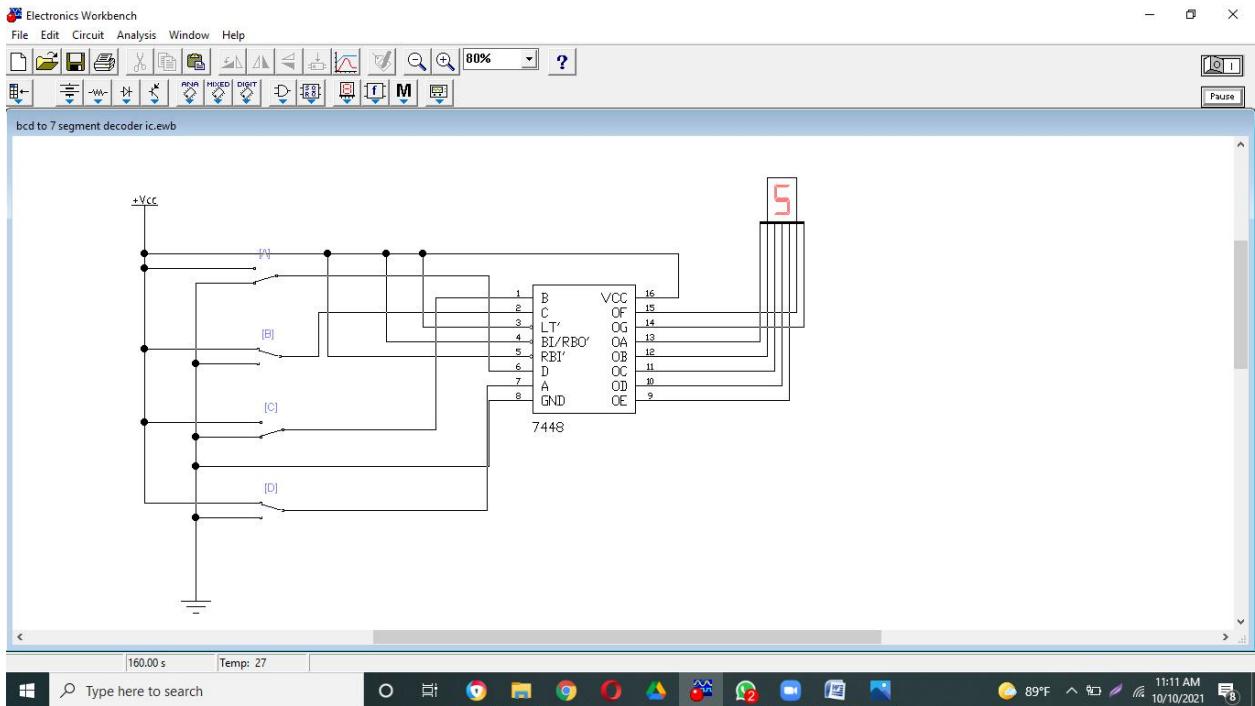
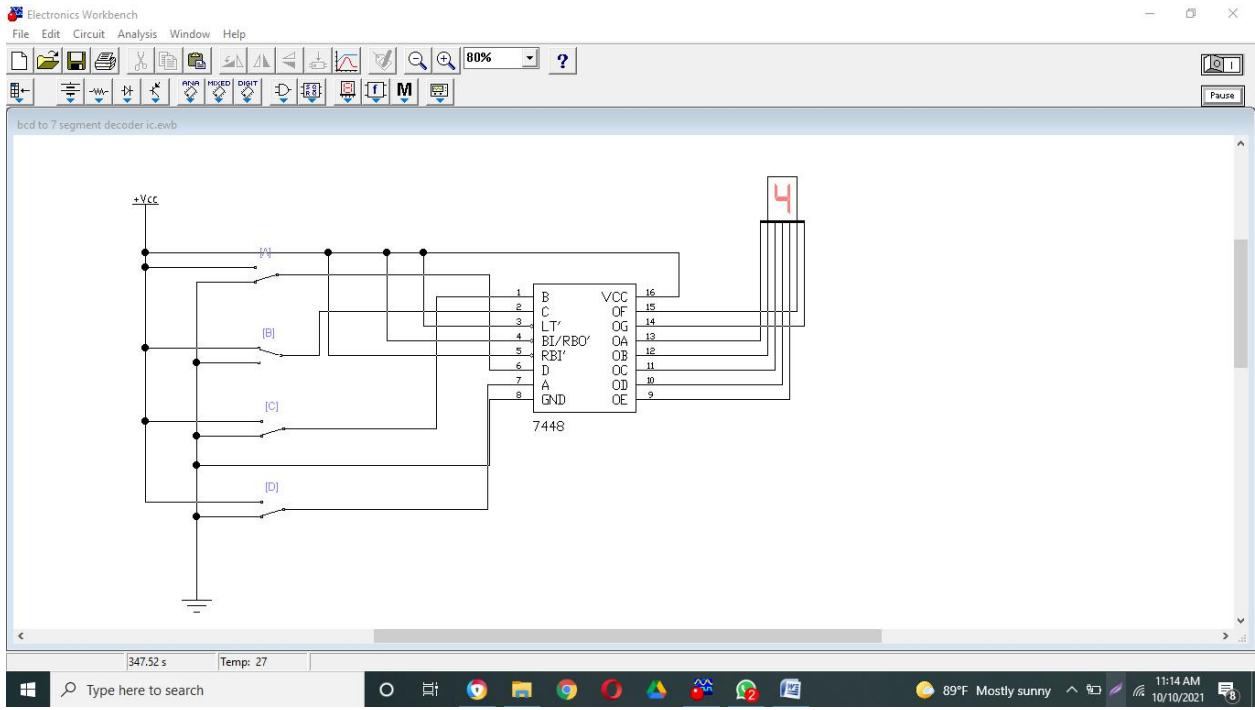
Truth Table:

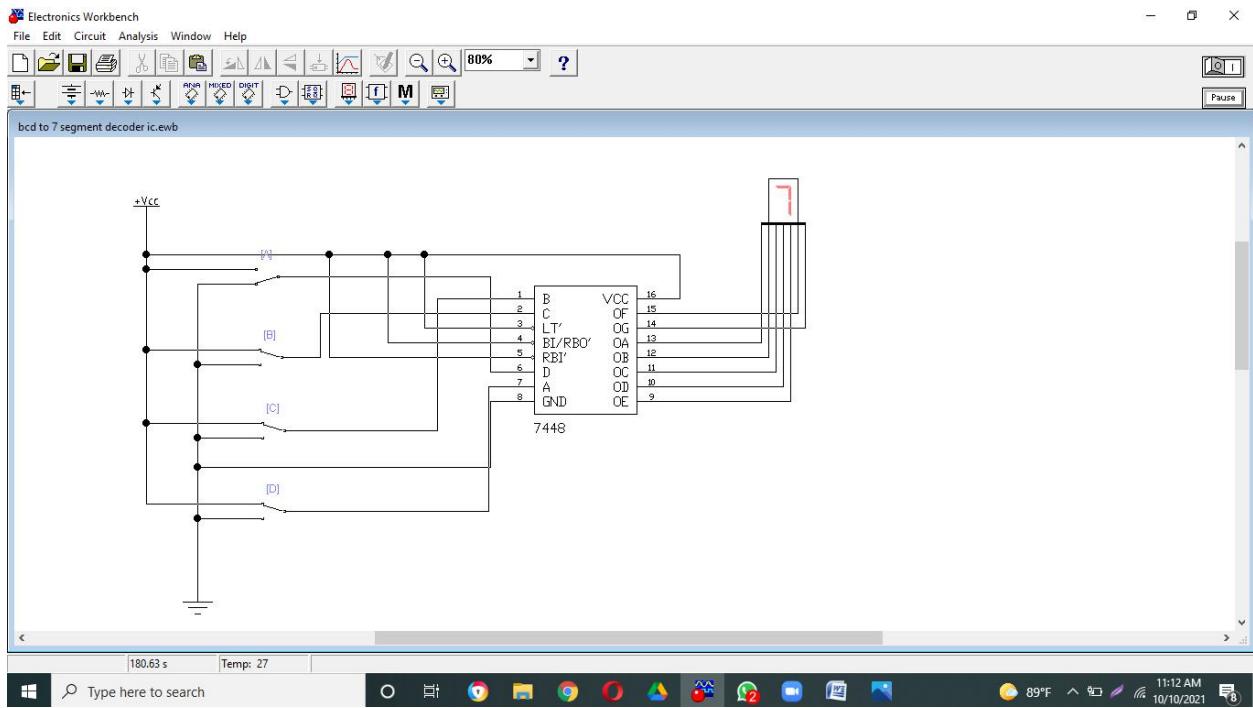
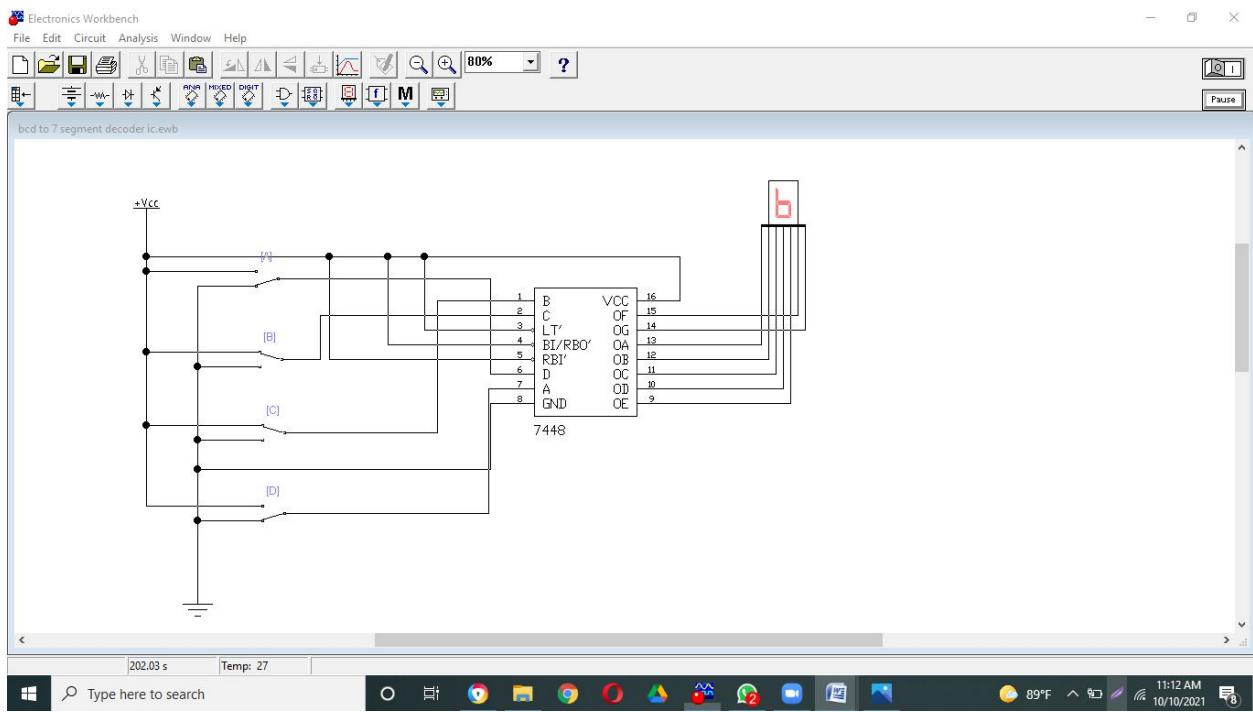
A	B	C	D	a	b	c	d	e	f	g
0	0	0	0	1	1	1	1	1	1	0
0	0	0	1	0	1	1	0	0	0	0
0	0	1	0	1	1	0	1	1	0	1
0	0	1	1	1	1	1	1	0	0	1
0	1	0	0	0	1	1	0	0	1	1
0	1	0	1	1	0	1	1	0	1	1
0	1	1	0	1	0	1	1	1	1	1
0	1	1	1	1	1	1	0	0	0	0
1	0	0	0	1	1	1	1	1	1	1
1	0	0	1	1	1	1	1	0	1	1

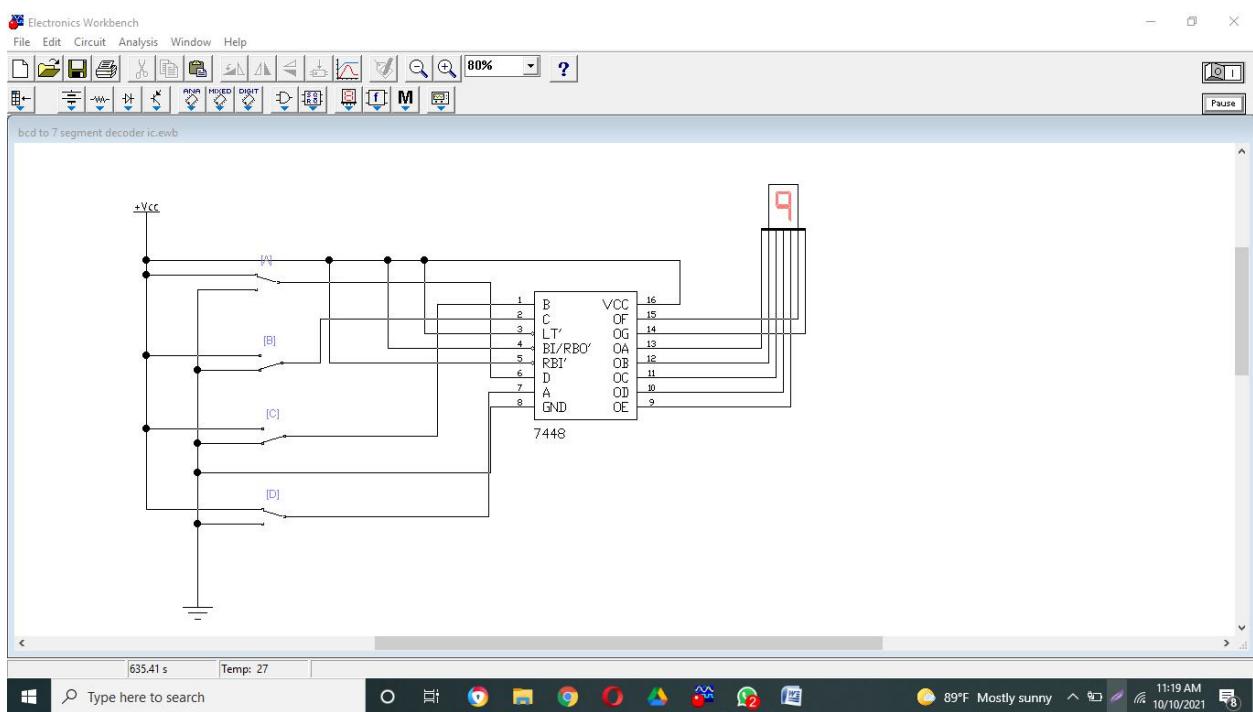
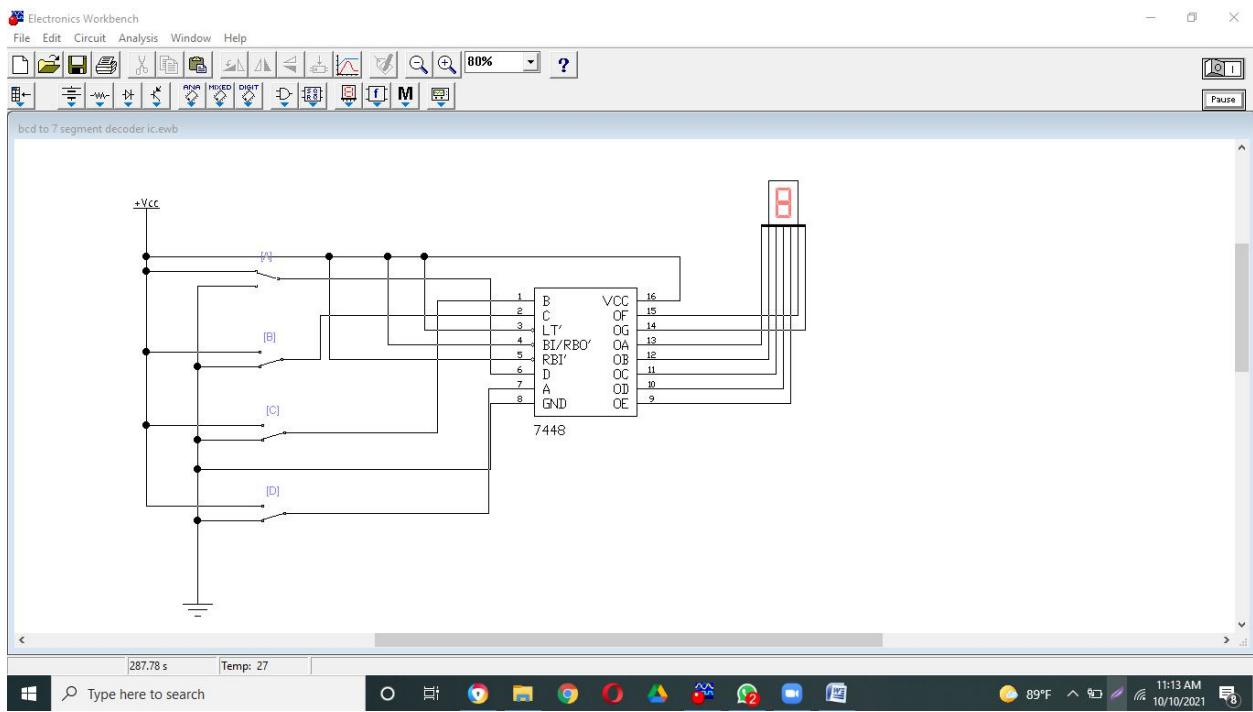
IC level diagram:











Result Discussion:

Then for a 7-segment display, we can produce a truth table giving the individual segments that need to be illuminated in order to produce the required decimal digit from 0 through 9 as shown below.