Lab-6

Ramaiah Institute of Technology
(Autonomous Institute, Affiliated to VTU)

Department of CSE

Programme: B.E **Term: Jan to May 2019**
Course: Computer Organization **Course Code: CS45**

Activity VI: Designing memory system using Logisim simulator.

Name: MANAS.P.S	**Marks: /10**	**Date:**
USN: 1MS18CS065	**Signature of the Faculty:**	

Objective: To simulate the writing operation on memory.

Simulator Description: Logisim is an educational tool for designing and simulating digital logic circuits. With its simple toolbar interface and simulation of circuits as you build them, it is simple enough to facilitate learning the most basic concepts related to logic circuits. With the capacity to build larger circuits from smaller sub circuits, and to draw bundles of wires with a single mouse drag, Logisim can be used (and is used) to design and simulate entire CPUs for educational purposes.

Activity to be performed by students:

List out the steps in designing memory system

Attached in Datasheet

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Data Sheet

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MARKS :

Name :	MANAS. P. S	Branch:	CSE
USN/Roll No. :	1MS18CS065	Sem/Sec:	IV 'B'
Subject :	Computer Organization and Architecture	Subject Code:	CS45

Activity VI : To simulate writing operation on memory, and hence to design a memory system using logisim simulator.

Objective : To simulate writing operation on memory.

Activity to be performed by students :

list out the steps in designing memory system:

1. Add a RAM with separate load and store selected.
2. Add a counter and connect Q to A of the RAM.
3. Add a controller buffer and connect its o/p to the RAM.
4. Add a clock and connect to this i/p of the buffer.
5. Add a TTY unit with 32 rows and columns. Make a connection with the RAM.

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6. Add a 4-bit random number generator, connect Q to D.
7. Add another controlled buffer, connect it to TTY. Also add an i/p pin to the buffer.
8. Connect o/p of the second buffer to the counter.
9. Connect a button to the counter.

Snapshots:

Attached

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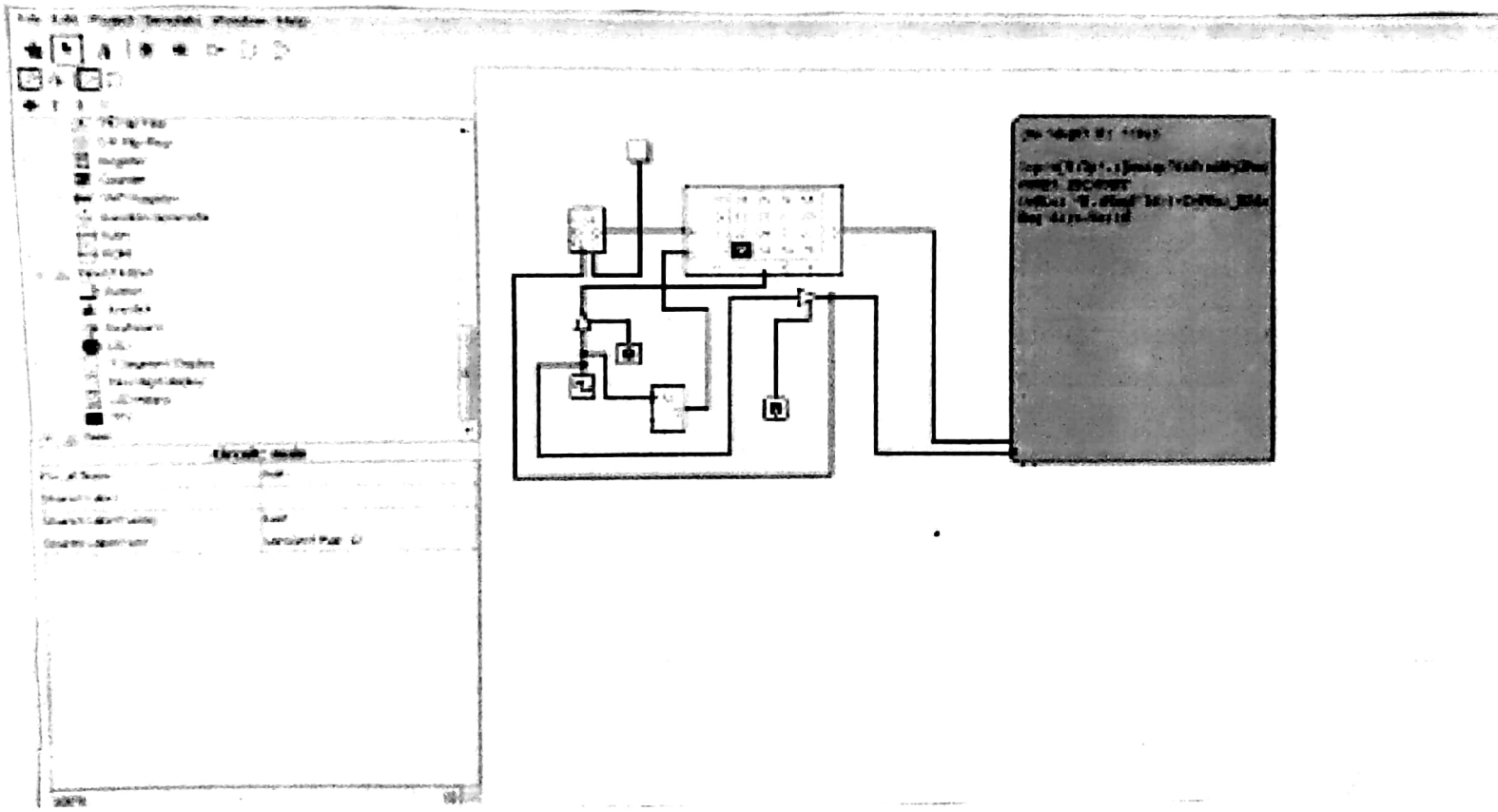
Observations and Snapshots:



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