**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.

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| **Name:Nikhil R V** | **Marks: /10** | **Date:20-05-2020** |
| **USN: 1MS18CS083** | **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**:

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| **List out the steps in designing memory system**  **Step 1 : Add RAM**  **Select a separate load and store operation for RAM**  **Step 2 : Add Counter**  **Connect Counter , Clock and Controlled Buffer to the RAM**  **Step 3 : Add TTY**  **To display the data**  **Step 4 : Add Random Generator**  **To generate different address location. Add input and another Controlled Buffer to the Random Generator.**  **Step 5 : Add Button**  **Connect Button to Counter.** |

Observations and Snapshots:

