

**Department of Computer Science & Engineering**

**Microprocessor & Computer Architecture**

**MPCA-Laboratory/Assignment/Hands-on/Project**

**UE20CS252**

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| **Sl. No** | **Programs** |
| **Week No.3** | 1. Write a program in ARM7TDMI-ISA to find GCD of two numbers.  a. Assume operands to be in the CPU registers  b. Assume operands in the memory locations.  2. Write a program in ARM7TDMI-ISA to find the sum of N data items in the memory. Store the result in the memory location.  a. Use Pre-indexing addressing mode  b. Use Post- Indexing addressing mode  c. Use Auto-indexing addressing mode  3. Write a program in ARM7TDMI-ISA to find the sum of N data items at alternate [ odd or **even** positions] locations in the memory. Store the result in the memory location.  a. Use Pre-indexing addressing mode  b. Use Post- Indexing addressing mode  c. Use Auto-indexing addressing mode  4. Write a program in ARM7TDMI-ISA to search for an element in an array. Store 00 if the search is unsuccessful and 01 if the search is successful in the register.  a. Use Linear Search Technique  b. **Use Binary search Technique** |