**Internal Assessment Question Paper – 1**

**M.S. Ramaiah Institute of Technology**

**(Autonomous Institute, Affiliated to VTU)**

**Department of CSE**

**Programme: B.E**

**Term: August to December 2016**

**Course:** Computer Organization **Course Code: CS1541**

**CIE:** Test 1  **Sem:** IV **Sec:** A, B & C

**Max Marks:** 30 **Time:** 1Hr

Portions for Test: (1 to 11 as per lesson plan)

**Instructions to Candidates:** **Mobiles are banned**

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| **Sl#** | | **Part A**  **(Answer All the questions)** | **Marks** | **Bloom’s Level** |
| 1 | | 1. -52 is stored in 32-bit memory as \_\_\_\_\_\_\_\_ 2. Compare B and BL instructions 3. List out all the hardware design principles. (2M) 4. State True/False   i) r9 register is preserved on procedure call.  ii)Process of putting more commonly used variables into memory is called spilling register. | 5 | Remember |
| **Sl#** | **Part B**  **(Answer All the Questions)** |  |  |
| 2 | Write an ARM program to find the length of the string stored in memory using a leaf procedure. | 5 | Apply |
| 3 | Write the general ARM instruction format and explain its various fields also write the instruction format for following instructions  i) STR r2, [r6, #40]  ii)ADD r7, r2, r6 ,LSL r4 | 5 | Apply |
| 4 | Describe scaled register offset pre-indexed addressing mode with a neat diagram. | 5 | Understand |
| 5 | Explain sequential multiplier circuit with a neat diagram | 5 | Understand |
| 6 | a) Perform 78 x - 42 using Booth algorithm  b) Perform 52 x 32 using sequential multiplier circuit | 5 | Apply |