Name of the Teacher: Shilpa Gogia Class: BSc IT 3rd sem BSIT304

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| **S No** | **Period** | **Topics to be Covered** | **Academic Activity to be Organized** |
|  | **17-31 July 2017** | **UNIT-I**  Simple As Possible computer(SAP-1), Architecture, Instruction Set, Programming SAP-1, Fetch Cycle, Execution Cycle | **Oral Test** |
|  | **01-31 Aug 2017** | **UNIT-I** SAP-II Architecture, Memory Reference instructions, Register Instructions, Jump and Call instructions, Logic instructions.  **UNIT-II** SAP-III programming Model, MOV & MVI, arithmetic instructions, increments, decrements and rotates, logic instructions, Arithmetic and logical immediates, | **Board Test** |
|  | **01-30 Sept 2017** | **UNIT-II** jump instructions, extended register instructions, indirect instructions, stack instructions  **UNIT-III**  8085 Block diagram, Pinout diagram, Instruction set of 8085, Fetching and Executing, Instructions of 8085, Idea of fetch execute overlap. Introduction word size | **Group Discussion** |
|  | **01-31 Oct 2017** | **UNIT-III**  Addressing modes, Microprocessor Communication and Bus timings  **UNIT-IV**  Demultiplexing the bus, Generating control signals, interrupts: the 8085 interrupt circuit, 8085 vectored interrupts, | **Oral Test** |
|  | **01-13 Nov 2017** | **UNIT-IV**  Interrupt Instructions, Restart instructions. DMA | **Group Discussion** |

**Topics of Assignments/ Class Tests to be given to the Students:**

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| **Assignment 1** | Q1 Draw the block diagram of architecture of SAPI. Explain the working of each block.  Q2 Explain ADD routine in detail. Also draw the timing diagram.  Q3 Write an assembly program for SAPI computer which will perform 9+4-3. |
| **Assignment 2** | Q1 How many flags are used in SAPIII? How are SAPIII flags affected  With the result?  Q2 If carry flag is zero, then show that RAL instruction produce a multiplication of accuctmulator contents by a factor of 2.  Q3 How the sign and zero flags work in arithmetic and logic unit of SAPII computer?  Q4 Give five different categories in which instruction set of SAPII computers are divided. |
| **Class Test** | Q1 Mention various flags provided in SAPIII and discuss their roles.  Q2 Draw the block diagram of SAPI.  Q3 Differentiate between micro and macro instruction.  Q4 Discusss Jump/CALL instructions used in SAPII. |