**WRITE AN ASSEMBLY LEVEL PROGRAM TO CONVERT GIVEN ASCII CHARACTER INTO ITS EQUIVALENT HEXA DECIMAL NUMBER USING 8085.**

**ALGORITHM:**

1. Start the microprocessor.
2. Load the given data in accumulator A.
3. Subtract 30H from accumulator A.
4. Compare the content of accumulator A with 0AH.
5. If (A) <0AH, jump to step 7, Else proceed to next step.
6. Subtract 07H from accumulator A.
7. Sore the result.
8. Terminate the program.

**PROGRAM**:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ADDRESS** | **LABEL** | **OPCODE/OPERAND** | **COMMENTS** |  |  |  |
|  |  | LDA 4500 |  |  |  |  |
|  |  | SUI 30H |  |  |  |  |
|  |  | CPI 0A |  |  |  |  |
|  |  | JC SKIP |  |  |  |  |
|  |  | SUI 07 |  |  |  |  |
|  | SKIP: | STA 4501 |  |  |  |  |
|  |  | HLT |  |  |  |  |
|  |  |  |  |  |  |  |

**OBSERVATION:**

**INPUT**

|  |  |
| --- | --- |
| 4500 | 31 |
|  |  |

**OUTPUT:**

|  |  |
| --- | --- |
| 4501 | 0B |
|  |  |