**Instruction Set Completeness**

* A computer should have a set of instructions so that the user can construct machine language program to evaluate any function that is known to be computable.
* If the computer include sufficient number of instruction set, then it is said to be complete.
* It must have sufficient number of instruction in each of the following categories to called the completeness.
  1. Arithmetic, logical and shift micro-operation.
  2. Instructions for moving information to and from memory and processor registers.
  3. Program control instructions together with instructions that check status conditions.
  4. Input and Output conditions.
* Arithmetic, logical and shift instructions provide computational capabilities for processing the type of data that the user may wish to employ.
* Moving data from memory to processor or register for computational and computer register to memory for storing. This capability must be handled by users.
* The decision making capabilities are an important aspect of digital computers.
* For example:
  + Comparing two numbers
  + Let first one is greater than second then it must be processed differently than second is greater than first.
* Program control instructions such as branch instructions are used to change the sequence in which the program is executed.
* Input and output instructions are needed for communication between the computer and the user.
* Programs and data must be transferred into memory and result of computations must be transferred back to the user.