FACULTY OF ENGINEERING & TECHNOLOGY

Brajesh Mishra
Assistant Professor
Department of Computer Science & Engineering

Topics Covered

Implicit And Explicit Sequence Control
Sequencing With Arithmetic And Non Arithmetic Expressions
Subprogram

Implicit And Explicit Sequence Control

- **Implicit and Explicit Sequence Control:**
  Sequence control structures may be either implicit or explicit.

- **Implicit sequence-control structures:**
  These are defined by language to be in effect ’un1es'smodified by the programmer through some explicit structure. For example, most languages define the physical sequence of statements in a program as controlling the sequence in which statements are executed, unless modified by an explicit sequence-control statement.

- **Explicit sequence-control structure**
  These are the sequence-control structures that the programmer may optionally use to modify the implicit sequence of operations defined by the language.

Sequencing With Arithmetic And Non Arithmetic Expressions

- The stack organization is very effective in evaluating arithmetic expressions
- the order of operators and operands in an arithmetic expression does not uniquely determine the order in which the operations are to be performed.
- **Polish notation (prefix notation)**
  - It refers to the notation in which the operator is placed before its two operands . Here no parentheses are required, i.e., +AB
- **Reverse Polish notation(postfix notation)**
  - It refers to the analogous notation in which the operator is placed after its two operands. Again, no parentheses is required in Reverse Polish notation, i.e., AB+

Subprogram

- A Subprogram is a program inside any larger program that can be reused any number of times
- A Subprogram is implemented using the Call & Return instructions in Assembly Language.
- The Call Instruction is present in the Main Program and the Return(Ret) Instruction is present in the subprogram itself.