**Chapter 3: Conditions That Control Processing**

**Ref book: Programming Practices & Techniques (6th edition)**

1. **What do you mean by Boolean algebra? Mention the evaluating order of Boolean expression.**

**Ans:** A form of algebra in which symbols have the values of either “true” or ”false”,and are subject to the operations AND,OR,NOT(also known as Boolean logic).

1. **Define truth table. How can we develop a truth table by using AND, OR and NOT logic gate?**

**Ans:**

Truth table:

A tool for analyzing all possible combinations of values of a Boolean expression.

A truth table is commonly used to represent the possible values of combinations of conditions.

Developing truth table:

1.Set up a column for each condition.

2.List all possible combinations of conditions, one combination to a row.

3.Write expressions to be evaluated as a column heading;complex expressions

may be subdivided into component parts for ease of evaluation, with each part of

a column heading.

4.Under each of these column heading, write the value of the expressions in the

heading for the combination of conditions given for that row.

1. **Construct a truth table for four rules.**

**Ans:** 1.Set up a column for each condition.

2. List all possible combinations of conditions, one combination to a row.

3. Write expressions to be evaluated as a column heading;complex expressions

may be subdivided into component parts for ease of evaluation, with each part

of a column heading.

4.Under each of these column heading, write the value of the expressions in the

heading for the combination of conditions given for that row.

1. **What do you mean by compound condition?**

**Ans:**  More than one condition combined by means of a Boolean operators AND or OR.

1. **What do you mean by input editing checking?**

**Ans:** Processing that cheques the validity of data.

1. **Discuss about the sequence checking, restricted value test and miscellaneous other tests.**

**Ans:**

Sequence Checking:

A method for verifying that a file is in order by comparing key fields of consecutive records.

Restricted value:

A value applied to an input field to determine if its value is acceptable.

Miscellnious others test:

Depending on the situation, any of a number of other test may be performed on input data.A field that is supposed to be numeric can be checked to determine if in fact it contains numeric characters.

1. **What do you mean by EOF? Discuss sentinel value and counter.**

**Ans:**

EOF

End Of File condition when reading a file.

Sentinel value:

A specific value placed in a field in a dummy record to signal the end of the file.

Counter:

Counter is a device for keeping track of the number of times something occurs.

1. **Mention possible alternative condition.**

**Ans:**

**9. What do you mean by swap? Write a pseudocode for shorting 3 numbers.**

**Ans:**

**Pseudocode for sorting 3 numbers:**

IF A<B THEN

Move A to B

Move B to A

Move temp to B

ELSE

(null)

END IF

IF A<C THEN

Move A to temp

Move C to A

Move TEMP to C

ELSE

(null)

END IF

IF B<C THEN

Move B to temp

Move C to B

Move TEMP to C

Else

(null)

END IF

1. Discuss order of comparison.