Importance of Algorithms in Computer Programming.

Algorithms are used in computer programming for writing the steps we will use to solve a certain problem. They reduce the chances of error in a code or program. They help us to decide the more convenient way a problem can be solved. They are also used for sorting out the sequence of steps while running a program. Hence an algorithm is used for step-by-step procedure for solving a problem.

Algorithm Writing Styles.

The different ways in which an algorithm can be written are:

• Flowcharts

• Pseudo Code

• Decision Table

Flowcharts.

In flowchart, an algorithm is written by using different symbols. Each symbol in a flowchart is used for a specific purpose and has a specific meaning. This pictorial form of an algorithm is easily understandable and readable. The rules for writing the flowchart are:

→ The flowlines in the flowchart must be directed from top to bottom or left to right.

→ Every symbol must be used correctly e.g. parallelogram for input\output, rectangle for processing and diamond for conditional statements.

→ Consistently space between the symbols so that we can read it easily.

Pseudo Code.

Writing an algorithm into simple statements is called a pseudo code. All the steps are written to the point in a sequential manner. The rules for pseudo code are:

→ The statements are kept as short as possible.

→ Each line is used for only one action.

→ The statements are written in understandable language.

Decision Table.

Decision tables are used for actions which are dependent on certain conditions. It is written in the form of various rows and columns. In a decision table, different cases are written in a structured way. The rules of writing a decision table are:

→ List all the conditions about which the decision is to be made.

→ Secondly, write the actions resulting from the above conditions.

→ Fill the decision table either by T/F or ✅/❎.