

Question and Answer:

1. What is an algorithm? What are its advantages?

Answer:

It is a step-wise representation of a solution to a given problem, which makes it easy to understand.

Advantages of Algorithms:

1. It is a step-wise representation of a solution to a given problem, which makes it easy to understand.
2. An algorithm uses a definite procedure.
3. It is not dependent on any programming language.
4. Every step in an algorithm has its own logical sequence so it is easy to debug.
5. By using algorithm, the problem is broken down into smaller pieces or steps hence, it is easier for programmer to convert it into an actual program.

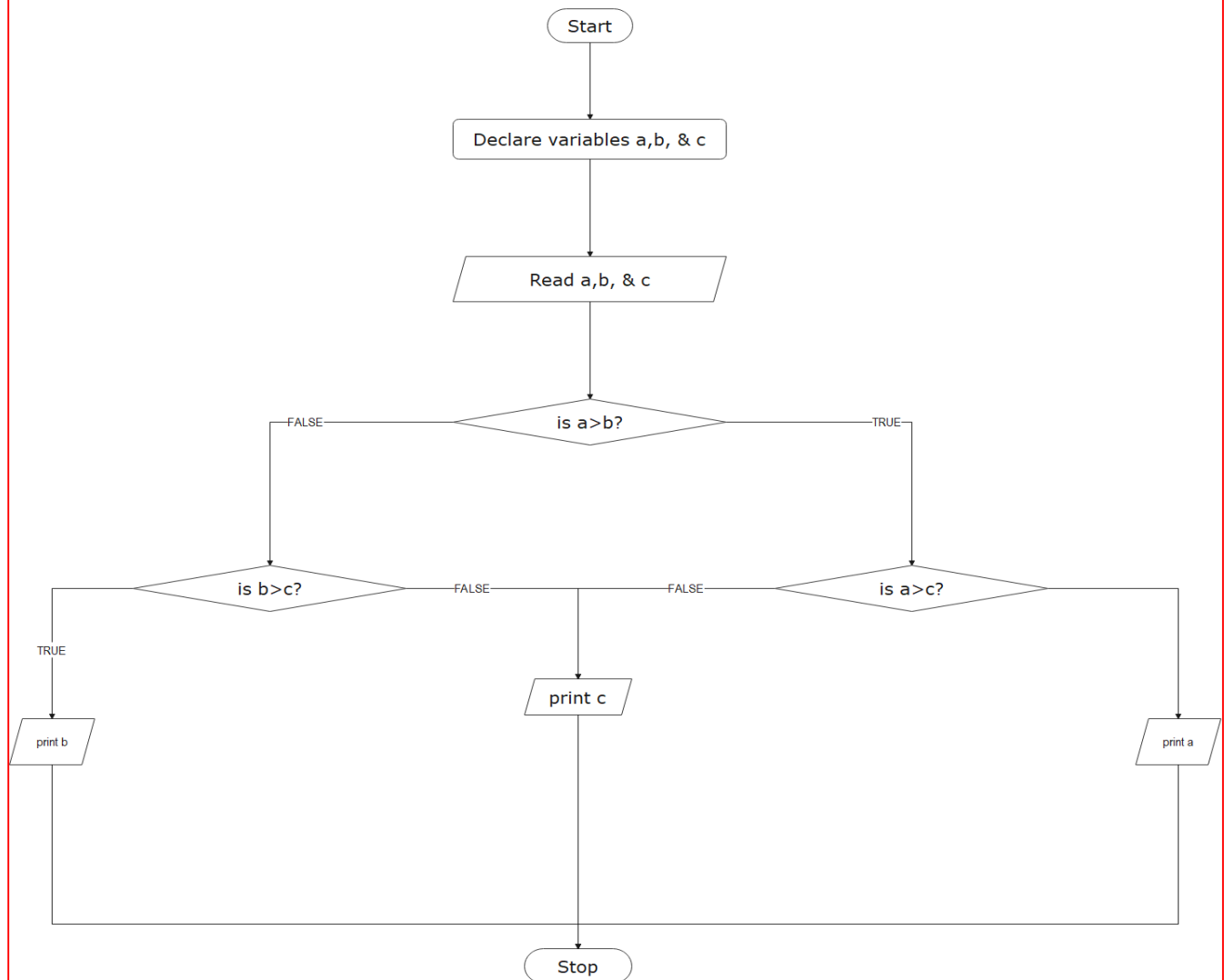
2. Define the term flow chart. Give an example.

Answer:

A flowchart is a type of diagram that represents a workflow or process. A flowchart can also be defined as a diagrammatic representation of an algorithm, a step-by-step approach to solving a task.

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Flowchart to find the largest among three numbers



3. What is the use of the process box?

Answer:

A process box is used to represent all types of mathematical tasks like addition, subtraction, multiplication, division, etc.

4. Write advantages of using flow charts.

Answer:

Advantages of Using flowcharts:

- **Communication:** Flowcharts are better way of communicating the logic of a system to all concerned or involved.


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- Effective analysis: With the help of flowchart, problem can be analyzed in more effective way therefore reducing cost and wastage of time.
- Proper documentation: Program flowcharts serve as a good program documentation, which is needed for various purposes, making things more efficient.
- Efficient Coding: The flowcharts act as a guide or blueprint during the systems analysis and program development phase.
- Proper Debugging: The flowchart helps in debugging process.

5. Explain looping with the help of example.


Answer:

loops are the execution of block statement that are continued until the condition is satisfied.



A. Multiple Choice Questions

- _____ is used to accept input and give output of a program.
(a) Flow lines (b) Input/Output box (c) Decision box
- _____ represents the beginning and the end of a flowchart.
(a) Decision box (b) Flow lines (c) Start/Stop box



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3. Algorithm is always written in _____ language.
(a) difficult (b) simple (c) binary
4. A pictorial representation of the steps or an algorithm used to solve a particular problem is called _____.
(a) Algorithm (b) Flowchart (c) None of these
5. A _____ is represented by a circle.
(a) Stop (b) connector (c) process

B. Fill in the blanks.

1. A Program is a set of commands given to the computer to carry out a specific task.
2. The step-by-step procedure to solve any problem is called an Algorithm.
3. The process of drawing a flowchart for an algorithm is known as flow charting.
4. The flow lines should not cross each other.
5. A process box is represented by a Rectangle.

C. State True or False.

1. An algorithm is a pictorial representation of steps. false
2. The general direction of flow in any flowchart is from bottom to top or right to left. false
3. Connectors are used to connect the boxes. false
4. A decision box is rectangle in shape. false
5. Flowcharts are helpful in analyzing the problem in a more effective way. True

D. Draw a flowchart boxes for the following.

1. Start/Stop box
2. Process box
3. Input box
4. Connector
5. Flow lines
6. Decision box

