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Name

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Subject

C++ (Theory)

Submitted
to

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Assignment

1

Introduction To Computer Programming (CS-121)

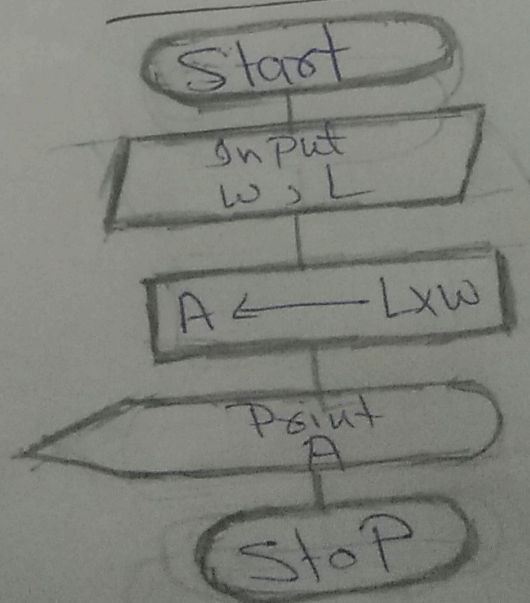
Q 1 (a) :- Design an ~~an~~ draw a flow chart that will read the two sides of a Rectangle and calculate its area

Pseudocode :- Input the width (w) and length (L) of Rectangle.

→ calculate the area (A) by multiplying (L) with (w)

→ Print (A)

Flowchart



2

b) Name different types of errors which can occur during the execution of a program.

Ans :- Following are the different types of error which can occur during the execution of a program.

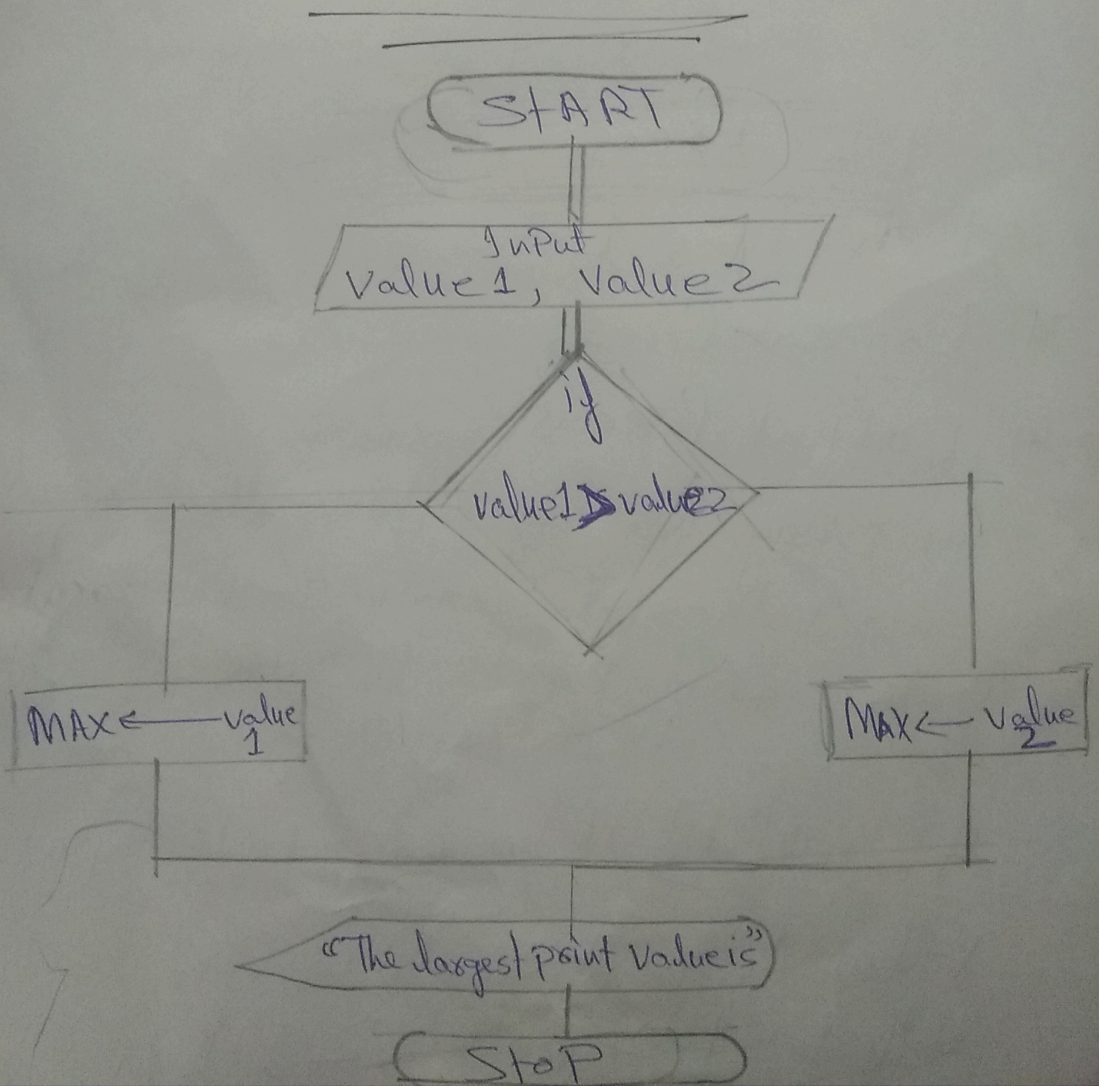
- 1) Syntax Errors
- 2) Run-time Errors
- 3) Logical Errors
- 4) Latent Errors

Q 2 (a) Design an algorithm that reads two values, determines the largest value and prints the largest value with an identifying message?

ALGORITHM :- \rightarrow step (1) Input value 1 and value 2.
If (value 1 > value 2) then

Max ← value 1
else Max ← value 2.
and if "Then largest value is" Max.
Print

Flow CHART



Q No 2 (b) what do you understand by the term "Maintain and update the program?"

Ans:- Maintenance and update are modification of a software product after delivery to correct faults and improve performance or other attributes, or to adapt the product to modified environments.

Types of Maintenance:- following are

types of maintenance

- 1) Creative maintenance.
- 2) Adaptive maintenance.
- 3) Perfective maintenance.
- 4) Preventive maintenance.

5
QB :- Differentiate between the following:-

Ans:- Bug

→ Bugs are errors in code of your programme that make your programme function improperly.

→ Bugs are undesirable behavior of the system

→ Bugs are requirements, architecture design and implementation errors in software systems

(b) :- Syntax Errors

Any violation of rules or poor understanding of programming language

Debug

→ fixing bugs are called Debugging

→ Debugging is the process of understanding the behavior of the systems to facilitate the removal of the bugs.

Logical Errors

As the name itself implies these errors are related to the

used by
C, C++

6

System Software

Application Software

- | | |
|--|--|
| <p>1) support the use in computer operation.</p> <p>2) manage computer ^{machine} resources such as register system (Pul) I/O systems</p> <p>3) written in low level language es: Assembly language</p> <p>4) used as lens and computer is turn on.</p> <p>5) Perform more than one Job or task related at time (multiplication)</p> <p>6) Control many Process at a time.</p> | <p>1) concern problem solving and the use of computer as tools</p> <p>2) manage operation data such as insert, delete updates and researchs</p> <p>3) written in high level language as process C++, VB, Java</p> <p>4) used only when it needed.</p> <p>5) Performs only on Job on take at one times</p> <p>6) Process done by following steps by self at a time.</p> |
|--|--|

results in syntax errors. The compiler can detect such errors of syntax errors are present in the program then the compilation of the program fails and terminated. It shows the list of errors and the line numbers where the errors are used.

the logical errors are also not detected by compiler and it gives correct results. These errors occur due to incorrect translation of algorithm into the program. Poor understanding of the program and the lack of clarity of behavior of operators.

(C) Compiles

→ Software that convert programs written in high level language into machine language. Converts the whole high level language program to machine language at the time.

Assembles

Software that convert program written in the assembly language into machine language. Converts assembly language program to machine language. Assembly language.

e) Low level language

1) Computer low level language that deals with hardware system registers by name known as assembly systems.

2) Assembly system is the best example of low level language. This is in between low level language and machine high level language.

3) A low level language does not need a compiler or interpreter to the ~~area~~ of Program, the Processor runs low level code directly.

High level language ⁸

1) High level language are much closer to human language.
2) A programming language such as C for Fortran or Pascal that enables to write Program which is understandable to Programmer (human) and can perform any set of task. Such languages are considered 'high level' because they are closer to human languages.

3) High level language must interpret or complex translate to convert human understandable programming code into computer readable code (machine code).