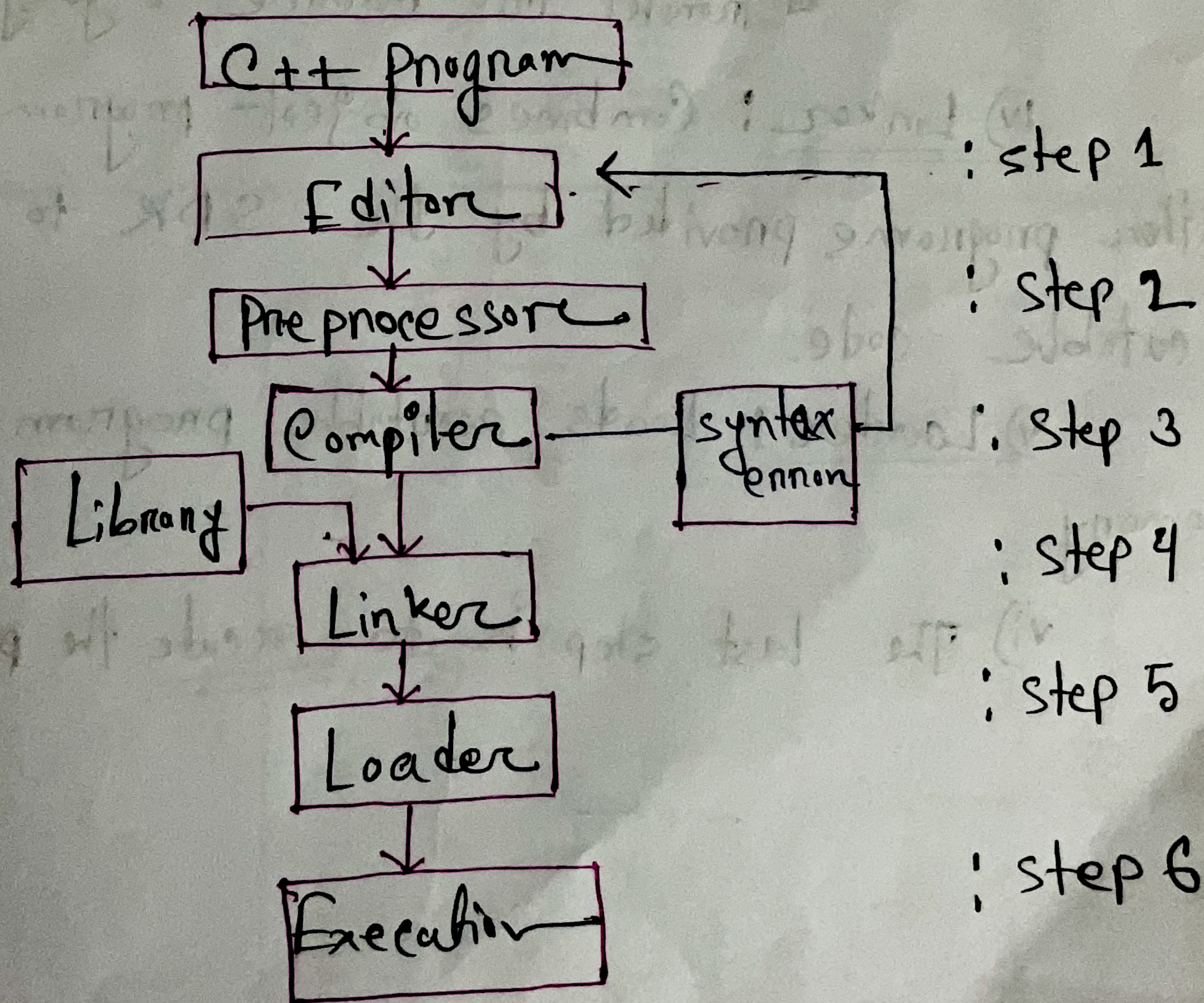


① What are the processing steps of a c++ program -

- ① editor
- ② preprocessor
- ③ Compiler
- ④ Library
- ⑤ Linker
- ⑥ Loader
- ⑦ Execution.

② Draw a flow graph and explain them in brief.



Processing of C++ program -

To execute a C++ program

i) Use an editor to create a source program in C++

ii) Preprocessor directives begin with # and are processed by a the preprocessor

iii) Use the compiler to

• Check that the program obeys the rules

• Translate into machine language

iv) Linker : Combines object program with other programs provided by the SDK to create executable code

v) Loader : Loads executable program into main memory

vi) The last step is to execute the program -

Structured Programming

① Dividing a problem into smaller parts into smaller subproblems is called structured design—

Each ~~sub~~ subproblem is then analyzed, and a solution is obtained to solve the subproblem. The solutions to all of the subproblems are then combined to solve the overall problem.

The structured design approach is also known as top-down design, bottom-up design, stepwise refinement, and modular programming.

Object oriented Design (OOD) programming

① OOD is a programming methodology that focuses on ~~ident~~ identifying objects in a system, defining their attributes and behaviours, and modeling their interactions to solve a problem.

In OOD, the first step in the problem-solving process is to identify the components called objects, which form the basis of the solution, and to determine how these objects interact with one another.

OOD is widely used programming methodology.

❏ Difference between Syntax error and logical error

Syntax error

Errors that occur when the program violates the rules of the programming language

Detected during compilation or interpretation

prevents the program from running

ex of syntax error is missing semicolon, incorrect variable declaration and so on

logical error

Errors that occurs due to incorrect logic or reasoning in the program

Detected only during program execution

Program runs but produces incorrect results.

ex of logical error is using wrong formula or incorrect conditions in loops and so on

Here's the difference between a reserved word and a user-defined identifier:-

Reserved word

User Defined identifier

Predefined keywords in a programming language with a specific purpose.

Names created by the programmer to represent variables, functions etc.

Can not be used for any other purpose or predefined by the user

Can be chosen freely by the user, following naming rules

id, while, int, return, double, char.

age, calculate sum, myVariable et.

☐ Programming is a process of 1

☐ One problem-solving process

- (i) Analyze the problem
- (ii) Outline the problem
- (iii) Design steps (algorithm)

☐ Algorithm:

- (i) Step-by-step problem-solving
- (ii) Solution achieved in finite

☐ Run code through compiler

☐ If compiler generates error

- (i) Look at code and re
- (ii) Run code again through

☐ If there are no syntax

- (i) compiler generates error

☐ Linker links machine code

☐ Once compiled and linked, load program into main memory for

☐ The final step is to execute

☐ Compiler guarantees that

allows the rules of the language

☐ Does not guarantee code will run correctly.

