1. Computer program is a series of instructions to carry out particular task written in a language that the computer understand.

2. Comp Programming is the process of writing an alogorithm into sequence of computer instructions or it is the process of writing program.

3. Gather requirements
   - Prepares instructions of a coroputer prograno.
   - Runs the instructions on the computer.
   - Test to see of its working properly.
   - Writes up the prograno documentation.

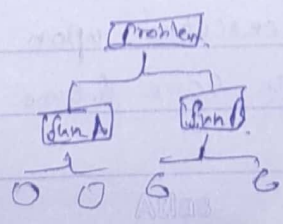
4. 1. Define the problem
   - Outline the solution.
   - Develop the outline into an algorithm.
   - Test the algorithm for correctness.
   - Code the algorithm in ~~to~~ a specific language.
   - Run the program on the computer.
   - Document and meitain the program.

Ipo charts: (defining diagram.)

5. Throght the defining diagram we can easily identify the input, output and processing so that can map them into the ~~g~~ algorithm directly.

The process of deriding the Program / problem in to modules is called modulerization.

Hierarchi chart / structure chart



6. Pseudo Code.
* Flow chart.

7. Similarity.
- Both of techniques can be used to represent the solution outline into an algorithm.

8. Differences.
- Pseudo code (a form of structured english) is one method of representing the solution algorithm.
- Flow chart is more practical method of algorithm representation

9. ~~Clear and unambig~~ A set of detailed, unambigious and ordered instructions developed to decribe the processes necessary to produce the desired output from a given input.

10. Clear and unambigones.
- Algorithm should be clear and unambiguous. Each of its steps should be clear in all

Well-define inputs: if an algorithm says to take inputs, it should be well-defined inputs.

Well-defined Outputs:
The algorithm must clearly define what outputs will be yielded and it should be well-defined as well.

Finithess: The algorithm must be finite. i.e it should not end up in an infinite loop or similar.

Feasible: The algorithm must be simple, generic and practical, such that it can be executed upon will the available resources. It must not contain some future technology, or anything.

9. Language Independent:
The algorithm designed must be language independent. It must be just plain instructions that can be implemented in any language, and yet the output will be the same, as expected.

10. Pseudocode is a detailed, readable description of what a computer program or algorithm must do, express in a formally styled ~~for~~ natural language (structured english) rather than in a programming language.

11. When we test the program we can ensure, the logic of the program is correct. Also we can ensure it is free of run time errors.
Two types of testing methods:
Desk checking
Walk throughgh.

12.

Desk cheking	Walk through.
• Reviewing ~~errors~~ the codes to see if there are any errors by the programmer himself	• A walkthrough guides reviewer through the review of a work product. The author of the work product presents the design and ensures that the attendees understand its design.
• Need to have an understanability and expertise to review work products.	• Walk through allow people with less expertise to review a work product.
• Programmer is doing the desk checking.	• Users of the work product normally invite to the walk through.

No: Date: / /

13. yes

- Documentation improves readability / understanibility of the program.
- Documentation ~~improves~~ helps to improve the changes in the future.

14. Programming paradigm is a philosophy, style, or general approach to writing and organizing the program code.

15. Similarity:
    - Both refer to a memory location.
    - Both are given an identifier.
    - Both are use used to stoe data while the program is running.

Difference:
Variable's value can be changed / Constan's value cannot be changed while the program is running.

16. - Correct type: ~~The input data sh~~
- Correct range.
- Correct length.
- Completness
- Correct date.