

## Assignment : 2.

Q. Write a execution of sample.c to a.out. (executable binary) of C program in your own words

Ans: The execution of sample.c to a.out of C program is the compilation process of converting a code in programming language to machine code, this conversion involved different steps for compiling like following.

1) Preprocessor.

2) Assembly Code / Compiler

3) Object Code / Assembler

4) Linker.

1) Preprocessor : Pre-processing header files in which all the statements starting with '#' symbol & comments are replaced with .i file extension

2) Compiler & Assembly code : The compiler will convert the preprocessed code to assembly code (for eg sample.i → sample.s)

3) Object code / Assembler : By the help of assembler the assembly code is converted into object code. The extension of the object file in DOS is ".obj" & in unix is ".o".

4) Linking : In this step, the object code (sample.o) is linked with other code, if we are using printf function then our object code will be linked with the object code for printf rather the library code containing printf & executable will be created (a.out).