Q1 Explain how single and multipass compiler works.

Q.2 What is the effect of reducing number of passes.

Q. 3 Explain the roles of cousins of compiler in the process of compilation

Answers :

A1. Single pass compiler is the compiler that passes through the source code of each of the compilation unit only once.

Multi pass compiler is the compiler type which process the source code or abstract syntax tree of a program several times.

A2. Reducing the number of passes helps in reading and writing immediate file. But it also results in large memory requirement if several phases are to be grouped into one pass.

A3. Cousins of the compiler are :

1. Preprocessor
2. Compiler
3. Assembler – Translator that takes the assembly program as an input and generates the machine code as the output. Mnemonic version of the machine code in which names are used instead of binary codes for operation.
4. Linker – Allows us to make a single program from several files of relocatable machine code.
5. Loader – Process of loading involves taking the relocatable machine code altering the relocatable address and placing the altered instructions and data in the memory at the proper location.