INTRODUCTION TO C

- C is a general-purpose programming developed at Bell Laboratories of USA in 1972 by Dennis Ritchie .

- It has been closely associated with the UNIX operating system for which it was developed – since the system and most of the programs that run it are written in c, operating systems. C compiler and all UNIX application programs are written in c language.

- It is also called as procedure oriented programming language. The c language is reliable, simple and easy to use. C has been coded in assembly language.

- *C is a structured programming language.. Its instructions consists of terms that resemble algebraic expressions, augmented by certain English Keyboards such as if , else , for ,do and while. In this respect it resembles high level structured programming languages such as Pascal and FORTRAN.*

- *C also contains additional features that allow it to be used at a lower level. Thus bridging the gap between machine language and high level language. This flexibility allows C to be used for systems programming as well as for applications programming therefore C is called a middle level language*

- *C is characterized by the ability to write very concise source programs, due to the larger number of operators included within the language. It has a relatively small instructions set, though actual implementations include extensive library functions which enhance the basic instructions. C encourages users to create their own library functions.*

- *An important characteristics of C is that its programs are highly portable. The reason for this is that c relegates most computer dependent features to its library functions thus, every version of C is accompanied by its own set of library functions which are relatively standardized. Therefore most C programs can be processed on many different computers with little or no alteration*

WHERE C STANDS

▫ *Too see where C stands, we must compare it with other programming languages which are mainly divided into two categories:*

1.High level languages or Problem oriented languages

The languages which are designed to give better programming efficiency that also means faster program development.

2.Low level languages or machine oriented languages

The languages which are designed to give better machine efficiency which also means faster program execution.

Example: *Assembly language and machine language.*

▫ *The C language stands betweem these two categories.*

▫ *Because it was designed for both relatively good programming efficiency as compared to low level language and relatively good machine efficiency as compared to high level language.*

▫ *Therefore C language is also called as Middle level language.*