1. **What is C language?**

1. C language is general purpose programming language. General purpose programming language means a programming language that support to write application (software).
2. It is high level programming language.
3. It is 3rd generation programming language.
4. It is case sensitive language.
5. It was developed by Dennis Riche (born on 9 September 1941 and die on 12 October 2011) in 1972 at AT and T Bell in America.
6. It mainly used POP (Procedure Oriented Programming) paradigm.
7. It is platform dependent language.
8. There are slightly change while writing C program on different operating systems.
9. C language program save as .c extension and header file of C language save .h extension.
10. There are many standards of C language such C89, C90 and C11.
11. The current standard of C language is C11 till writing this notes.
12. For running C language program we must have compiler.
13. C language compiler produce object code.
14. List of some compilers for C language are given below.
15. Turbo C and TurboC++.
16. DevC++.
17. GCC.
18. TinyC.
19. Digital Mars.
20. Pelles C.
21. Not only C language is used for making Application software but also it is used for making system software likes(Operating System, Drivers)
22. And in making spread sheet and DBMS software such Oracle is written in C Language along with C++ and Assembly language.
23. Example of C language program.

#include<stdio.h>

#include<conio.h>

void main()

{

printf(“This is C language program”);

}

1. **Where C language is used?**

**OR**

**What are applications of C Language?**

* There are many usages or applications of C language. The

applications or usages of C language are given below.

1. It is used making Compiler of other programming language.
2. It is used in making operating system.
3. It is used in making spread sheet and Database.
4. It is used for making device drivers.
5. It is used in verification software and software testing software.
6. It is used as back end in 5th generation language. That language is Mercury.
7. UNIX operating system kernel is totally written in C language.
8. MIUI (Mi User Interface) is also written in C language along with C++ and Java.

**Points to remember for your knowledge:-**

1. Net bean, Eclipse, CodeBlocks are IDE not compiler for C, C++, Java, PHP and other programming languages.
2. **Compiler:-**
3. It is system software that convert source code(written in high level language) into low level language(that is into machine code).
4. C compiler generate Object code. Which is understandable by computer.
5. Low level language are given below.
6. Machine language (1st generation programming language).
7. Assembly language (2nd generation programming language).
8. Machine language is only programming language that do not require any compiler and interpreter.
9. Assembly is also low level language but it requires Assembler.
10. We can run C language program using command prompt. For doing that we must have TDM-GCC MinGW compiler like Java. And follow the command for doing that.
11. **Platform dependent:-**
12. A program or software that do not run rather than its building platform (operating system) is called **Platform dependent language**.
13. A program or software that run rather than its building platform (operating system) is called **Platform independent language.**
14. Platform dependently or independently is either Software Platform dependently or independently or Hardware Platform dependently or independently.
15. But in programming language we are deal with Software Platform dependently.
16. But most of developers say platform dependent or independent but they do not mention that which type of platform dependent or independent it is.
17. But in programming there is software dependent or independent.
18. But we can simply call Platform dependent or independent.
19. There is difference between C and Embedded C language.
20. Case sensitive languages mean the language which take difference between capital and small word.

Example:-

HELLO

And

hello

In above HELLO and hello both have same but in C language

HELLO and hello consider as two different word.

**Note:-** C language, C++ and Java are case sensitive language.

1. Case insensitive language mean the languages which do not take difference between capital and small word.

Example:-

HELLO

And

hello

In above HELLO and hello both have same but in HTML

HELLO and hello consider as same.

**Note:-** HTML is case insensitive language.

1. Also remember that there are 32 keywords in C89 standard but in C90 standard there 5 keywords added in this standard.
2. So that C90 has 37 keywords.
3. C11 standard was add 7 more keywords into it.
4. So that C language has 44 keywords in C11 standard.
5. But most of the now a days peoples say that C language has 32 keywords. But this statement is wrong.
6. For beginner of C language use TurboC++ compiler at starting stage. After we should jump DevC++, Netbean and Eclipse for learning advance topic like thread and so on.
7. C11 standard of C language support Thread programming.
8. **AT&T Bell** lab is American research company which got 8 Nobel prize in different fields such as Physics, Electronics and Chemistry,
9. It got last Nobel prize in 2014 as per last update till writing this notes.
10. AT&T Bell is acquiring by Nokia from 2016.

**Exercise:-**

**Justify the statement either true or false.**

1. C language is platform dependent?
2. C language is 4th generation language?
3. C language is dead line language (not used today)?
4. C language program requires compiler?
5. C language have 32 keywords?
6. Netbean is compiler of C language?
7. Complier is application software?
8. C language is used in developing Oracle Database?
9. C language is used for making system software only?
10. C language case sensitive language.
11. TurboC++ is Editor and Compiler also?
12. C compiler produces byte code?

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