C LANGUAGE TUTORIAL 01

<u>Answers</u>

(1). A programming language is a formalized system of communication used by humans to give instructions to computers. It serves as a tool that enables programmers to write software and create applications.

(2)

a.

Source code	Machine code
Source is written in High-level code or assembly language.	Low level code
Easy to modify	Difficult to modify
Human understable	Machine understandable
Source code contains fewer statements than machine code	Machine code contains more statements than source code

b.

High Level Lanuage	Low Level Lanuage
High level language is less memory efficient	Low level language is high memory efficient
These are interpreted	Direct memory management
High level languages are near to human lanuages	Low level lanuages are far from human languages
These languages are normally used to write application programs	These language are normally used to write hardware programs

c.

Compiler	Interpreter
Memory requirement is more	Memory requirement is less
It is a high level language	It is also high level language
It is program which convert the entire source code into machine code	It takes a source program and runs it line by line
Debugging is hard	Debugging is essay

d.

Structured Language	Object Oriented Language
Less data security	More data security
Less code reusability	More reusability
Code is given more improtance	Data is given more improtance
Flexibility is less	Flexibility is more

e.

C	C++
C is procedural language	C++ is non procedural I,e object oriented language
No namespace feature is present in C language	Namespace feature is present in C++ for avoding name colliision
C is a subset of C++	C++ is a superset of C
C does not support the data hiding.Therefore ,the data can used by the outside world	C++ supports data hiding.Therefore, the data cannot be accessed by the outside world

f.

C++	Java
C++ use only compiler	Java uses compiler and interpreter both
It have structure and union concept	Java does not include structures or unions
It support pointer concept	Java does't support pointer concept
There are header files in Java	There are no header files in Java

g.

Syntax error	Logical error
A syntax error is an error im the syntax of a sequence of characters	A logical error in a program that causes it to operate incorrectly
A syntax error occurs due to fault in the program syntax	A logical error occurs due to a fault in the algorithm
The compile indicates the syntax error with location and what error is	The programmer has to detect the error by himself
It is easier to identify a syntax error	It is comparatively difficult to identify a logical error