**FPTAptech-LBEP-T2403M**

**Elementary Programming with C**

**SESSION 2**

* Most often, an application needs to handle data; it needs some place where this data can be temporarily stored. This ‘place’ where this **data is stored** is called the **memory**.
* Modern day languages enable us to use symbolic names known as **variables**, to refer to the memory location where a **particular value is to be stored**.
* There is **no limit** to the **number of memory locations** that a program can use.
* A **constant** is a value whose worth **never changes**.
* The **names of variables, functions, labels, and various** other user-defined objects are called **identifiers**.
* All languages reserve **certain words for their internal use**. They are called **keywords**.
* The main data types of C are **character, integer, float, double float and void**.
* **Modifiers** are used **to alter the basic data types** so as to **fit into various situations**. **Unsigned, short and long** are the three modifiers available in C.
* C supports two types of Arithmetic operators: **Unary** and **Binary**.
* Increment(++) and decrement(– –) are unary operators acting only on numeric variables.
* Arithmetic binary operations are + - \* / % which act only on numeric constants, variables or expressions.
* The modulus operator % acts only on integers and results in remainder after integer division.

**CHECK YOUR PROGRESS**

* C is case sensitive. (**True** / False)
* The number 10 is a **Integer**.
* The first character of the identifier can be a number. (True / **False**)
* Using the type **Float** saves memory as it takes only half the space as a **Double float** would.
* The **Void** data type is used to indicate the C compiler that no value is being returned.
* **Unary** and **Binary** are the two classes of arithmetic operators.
* The unary arithmetic operators are **++** and -- .

**TRY IT YOURSELF**

1. *Match the following:*

**Invalid Identifier Names:** $abc

**Integer Constants:** 23, 8

**Character Constants:** ‘A’

**Double:** 12112134.8686868686886

**Floating Point Numbers:** 10.34

**Valid Identifier Names:** A B C, abc

1. *What will be the value of the variables at the end in each of the following code statements:*
2. *int a=4^4* ***a=256***
3. *int a=23.34* ***a=23***
4. *a = 10*

*b = a + a++* ***b=21***

1. *a=-5*

*b=-a* ***b=5***