**Q.1 Various Data types in Python ?**

**Ans:**

**Numbers:** int, float, and complex  
**List:** Ordered sequence of items  
**tuple:** Ordered sequence of items similar to list but is immutable  
**Strings:** Sequence of characters  
**Set:** an unordered collection of unique items  
**Dictionary:** an unordered collection of key-value pair.

**Q.2 What is Variable in Python?**Ans: Variables in Python are reserved memory locations that store values. Whenever a variable is created, some space is reserved in the memory.

Based on the data type of a variable, the interpreter will allocate memory and decide what should be stored in the memory.

**Q.3 What are local variables and global variables in Python?**

**Ans:** **Global Variables**: Variables declared outside a function or in global space are called global variables. These variables can be accessed by any function in the program.

**Local Variables:** Any variable declared inside a function is known as a local variable. This variable is present in the local space and not in the global space.

**Q.4 How will you convert float value to integer value?**Ans: Float value can be converted to an integer value by calling int() function.

integer value can be converted to an Float value by calling in float t() function.

**Q.5 Keywords and Identifiers ?**

**Ans:** **Keywords**

* Keywords are also known as reserved words.
* These words cannot be used as a name for any variable, class, or function.
* Keywords are all in lower case letters.
* Keywords form vocabulary in Python.

**Identifiers**

* Python Identifier is a name given to a variable, function, or class. As the name suggests identifiers provide an identity to a variable, function, or class.
* An identifier name can start with upper or lower case letters or an underscore followed by letters and digits.
* An identifier name cannot start with a digit.
* An identifier name can only contain letters, digits, and an underscore.
* special characters such as @,%,! , #,$,’.’ cannot be a part of the identifier name.
* As per naming convention, generally, the class name starts with a capital letter, and the rest of the identifiers in a program should start with lower case letters.
* If an identifier starts with a single underscore then it is private and two leading underscores in front of an identifier’s name indicate that it is strongly private.

**Q.6 What are operators?**  
Ans: Operators are required to perform various operations on data. They are special symbols that are required to carry out arithmetic and logical operations. The values on which the operator operates are called operands.

Python has the following operators defined for various operations:

1. Arithmetic Operators
2. Relational Operators
3. Logical/Boolean Operators
4. Assignment Operators
5. Bitwise Operators
6. Membership Operators
7. Identity Operators

**Q.7 What are the basic rules of operator precedence in Python?**Ans: The basic rule of operator precedence in Python is as follows:

1. Expressions must be evaluated from left to right.
2. Expressions of parenthesis are performed first.
3. In Python the operation precedence follows as per the acronym

PEMDAS:

* Parenthesis
* Exponent
* Multiplication
* Division
* Addition
* Subtraction

**Q.8 What is an expression?  
Ans**: A logical line of code that we write while programming, is called expressions. An expression can be broken into operator and operands. It is therefore said that an expression is a combination of one or more operands and zero or more operators that are together used to compute a value.

Q.9 What is the difference between implicit expression and explicit expression?  
Ans: Conversion is the process of converting one data type into another. Two types of conversion in Python are as follows:

1. Implicit type conversion
2. Explicit type conversion

When Python automatically converts one data type to another it is called implicit conversion.

Explicit conversion is when the developer has to explicitly convert datatype of an object to carry out an operation.

**Q.10 What is difference between / and // in Python?**

**Ans:** // represents floor division whereas / represents precised division.

For Example:- 5//2 = 2

5/2 = 2.5

**Q.11 What is a conditional statement in Python?**

**Ans:** A conditional statement in python, also called a condition constructs, is a statement that accommodates a condition inside itself. This condition is constructed using the bitwise, boolean, and comparison operators in Python.

**Q.**[**12  What is pass in Python?**](https://www.360digitalgyan.com/what-is-pass-in-python)

**Ans:** Pass means, no-operation Python statement, or in other words it is a place holder in compound statement, where there should be a blank left and nothing has to be written there.

**Q.13** [**What Does The Continue Do In Python?**](https://www.360digitalgyan.com/what-does-the-continue-do-in-pythonnbsp)

**Ans:** The continue is a jump statement in Python which moves the control to execute the next iteration in a loop leaving all the remaining instructions in the block unexecuted.

The continue statement is applicable for both the “while” and “for” loops.

[**Q.14  When Should You Use The “Break” In Python?**](https://www.360digitalgyan.com/when-should-you-use-the-ldquobreakrdquo-in-pythonnbsp)

**Ans:** Python provides a break statement to exit from a loop. Whenever the break hits in the code, the control of the program immediately exits from the body of the loop.

The break statement in a nested loop causes the control to exit from the inner iterative block.

**Q.15 What are iterators in Python?**

**Ans**: In Python, iterators are used to iterate a group of elements, containers like a list. Iterators are the collection of items, and it can be a list, tuple, or a dictionary. Python iterator implements \_\_itr\_\_ and next() method to iterate the stored elements. In Python, we generally use loops to iterate over the collections (list, tuple).

**In simple words:** Iterators are objects which can be traversed though or iterated upon.

**Q.16 What Are Python loops?**

**Ans:** A loop is an instruction that repeats multiple times as long as some condition is met.

Indentation is significant in Python. It is used to define a block of code; without indentation, the program will show an error.

**Q.17 Type of Loops in python ?**

**Ans: For Loop**: A **for** loop in Python is used to iterate over a sequence (list, tuple, set, dictionary, and string).

**While Loop:** The while loop is used to execute a set of statements as long as a condition is true.

**Q.18 Left triangle star pattern.**

**Ans:**

n = 5

for i in range(1, n+1):

for k in range(1, i+1):

print("\*", end="")

print()

Output:

\*

\*\*

\*\*\*

\*\*\*\*

\*\*\*\*\*

**Q.19 What are Python Functions ?**

**Ans:** A function is a set of code that performs any given task, enabling the programmer to modularize a program. All variables created in function definitions are local variables; they are known only to the function in which they are declared.

**Q.20 What are Arguments in python function ?**

**Ans:** To send information to a function by passing values, which are known as arguments or parameters. They are mentioned after the function name inside the parentheses. You can add as many arguments you’d like by separating them with a comma.