1. What is PYTHONPATH?

PYTHONPATH is an environment variable which the user can set to addadditional directories that the user wants Python to add to the sys. path directory list. So, when you import modules in your Python scripts, PYTHONPATH is also checked to see which directories might contain the imported module.

1. What are python modules? Name some commonly used built-in modules in python.

Modules refer to **a file containing Python statements and definitions**. A file containing Python code, for example: example.py , is called a module, and its module name would be example . We use modules to break down large programs into small manageable and organized files. The Python standard library contains well **over 200 modules**, although the exact number varies between distributions.

Examples: isinstance() , issubset() , len() , iter()

1. What are local variables and global variables in python?

There are two types of variables: global variables and local variables. The scope of global variables is the entire program whereas the scope of local variable is limited to the function where it is defined. Global variables are **those which are not defined inside any function and have a global scope** whereas local variables are those which are defined inside a function and its scope is limited to that function only.

1. Is python case sensitive?

Yes, **python is a case-sensitive language without** a doubt. If we write a variable in a small letter and want to use it further in the program, then use it in the same manner only otherwise it will be considered as you are using a new variable.

1. What is type conversion in python?

Type Conversion is **the conversion of object from one data type to another data type**. Implicit Type Conversion is automatically performed by the Python interpreter. Python avoids the loss of data in Implicit Type Conversion.

float(y) - It converts y to a floating-point number

1. Is indentation required in python?

Indentation is mandatory in python **to define the blocks of statements**. The number of spaces must be uniform in a block of code. It is preferred to use whitespaces instead of tabs to indent in python.

1. What is the difference between python arrays and lists?

A list in Python is a collection of items which can contain elements of multiple data types, which may be either numeric, character logical values, etc. It is an ordered collection supporting negative indexing. A list can be created using [] containing data values. Contents of lists can be easily merged and copied using python’s inbuilt functions.

An array is a vector containing homogeneous elements i.e. belonging to the same data type. Elements are allocated with contiguous memory locations allowing easy modification, that is, addition, deletion, accessing of elements. In Python, we have to use the array module to declare arrays. If the elements of an array belong to different data types, an exception “Incompatible data types” is thrown.