Q 1. Explain Python ?

Ans. Python is an interpreted, object-oriented, high-level programming language.Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity and code reuse.

Q2. What is Pythonpath ?

Ans. A Pythonpath tells the Python interpreter to locate the module files that can be imported into the program. It includes the Python source library directory and source code directory.

Q3. Can we preset Pythonpath?

Ans. Yes, we can preset Pythonpath as a Python installer.

Q4. **What are the supported standard data types in Python?**

Ans. The supported standard data types in Python include the following.

1. List.
2. Number.
3. String.
4. Dictionary.
5. Tuples.

Q5. Define tuple in Python ?

Ans. Tuples is a sequence data type in Python. The number of values in tuples are separated by commas. Tuples are immutable.

Q.6 **What are the positive and negative indices?**

Ans. In the positive indices are applied the search beings from left to the right. In the case of the negative indices, the search begins from right to left. For example, in the array list of size n the positive index, the first index is 0, then comes 1 and until the last index is n-1. However, in the negative index, the first index is -n, then -(n-1) until the last index will be -1.

Q.7 **Define Pass statement in Python?**

Ans. A Pass statement in Python is used when we cannot decide what to do in our code, but we must type something for making syntactically correct.

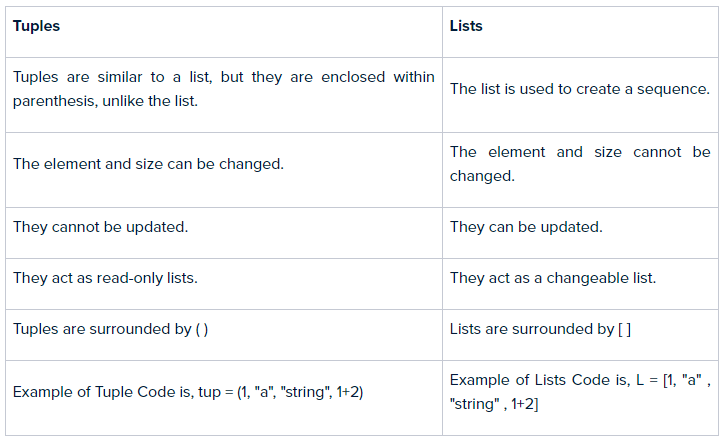
Q.8 **Why do we need a break in Python?**

Ans. Break helps in controlling the Python loop by breaking the current loop from execution and transfer the control to the next block.

Q.9 **Why do we need a continue in Python?**

Ans. A continue also helps in controlling the Python loop but by making jumps to the next iteration of the loop without exhausting it.

Q10. **What is the major difference between tuples and lists in Python?**



Q11. **What is the purpose of relational operators in Python?**

Ans. The purpose of relational operators in Python is to compare values.

**Q12**. **What are assignment operators in Python?**

Ans. The assignment operators in Python can help in combining all the arithmetic operators with the assignment symbol.

**Q13.** **Explain Inheritance and its various types in Python?**

**Ans.** Inheritance enables a class to acquire all the members of another class. These members can be attributes, methods, or both. By providing reusability, inheritance makes it easier to create as well as maintain an application. The class which acquires is known as the child class or the derived class. The one that it acquires from is known as the superclass or base class or the parent class.

Q14. **Python has something called the dictionary. Explain using an example.**

Ans. A dictionary in Python programming language is an unordered collection of data values such as a map. Dictionary holds key:value pair. It helps in defining a one-to-one relationship between keys and values. Indexed by keys, a typical dictionary contains a pair of keys and corresponding values.

Let us take an example with three keys, namely Website, Language, and Offering. Their corresponding values are hackr.io, Python, and Tutorials. The code for the example will be:

**dict={‘Website’:‘hackr.io’,‘Language’:‘Python’:‘Offering’:‘Tutorials’}**

**print dict[Website] #Prints hackr.io**

**print dict[Language] #Prints Python**

**print dict[Offering] #Prints Tutorials**

#### Q15. Python supports negative indexes. What are they and why are they used?

Ans. The sequences in Python are indexed. It consists of positive and negative numbers. Positive numbers use 0 as the first index, 1 as the second index, and so on. Hence, any index for a positive number n is n-1.

Unlike positive numbers, index numbering for the negative numbers start from -1 and it represents the last index in the sequence. Likewise, -2 represents the penultimate index. These are known as negative indexes. Negative indexes are used for:

* Removing any new-line spaces from the string, thus allowing the string to except the last character, represented as S[:-1]
* Showing the index to representing the string in the correct order