iNeuron

Python

Interview Questions

Q1. Why is Python considered to be a highly versatile programming language?

Ans- Python is a high versatile programming language because it supports multiple models of programming such as:

- OOP
- Functional
- Imperative
- Procedural

Q2. What are the advantages of choosing python over any other programming language?

Ans- The advantages of choosing python over any other programming languages are as follows:

- ✓ Extensible in C and C++
- ✓ It is dynamic in nature
- ✓ Easy to learn and easy to implement
- ✓ Third party operating modules are present: As the name suggests a third-party module is written by third party which means neither you nor the python writers have developed it. However, you can make use of these modules to add functionality to your code.

Q3. Is python dynamically typed?

Ans - Yes, Python is dynamically typed because in a code we need not specify the type of variables while declaring them. The type of a variable is not known until the code is executed.

Q4. What do you mean when you say that Python is an interpreted language?

Ans – When we say python is an interpreted language it means that python code is not compiled before execution. Code written in compiled languages such as java can be executed directly on the processor because it is compiled before runtime and at the time of execution it is available in the form of machine language that the computer can understand.

This is not the case with python. It does not provide code in machine language before runtime. The translation of code to machine language occurs while the program is being executed.

Q5. Python is a high-level programming language? What is a need for high level programming languages?

Ans- High level programming languages act as a bridge between the machine and humans. Coding directly in machine language can be a very time consuming and cumbersome process and it would definitely restrict coders from achieving their goals. High level programming languages like Python , JAVA ,C++ , etc are easy to understand. They are tools which the programmers can use for advanced level programming.

Q6. Draw the comparison between Java and Python.

JAVA	**PYTHON**
Java is complied.	Python is interpreted.
Java is statically typed.	Python is dynamically typed.
Java encloses everything in braces.	Python follows indentation and makes the code neat and readable.

	Indentation also determines the code execution.
Android app development is mostly done using Java and XML.	There are libraries like Kivy which can be used along with the python code to make it compatible for android development.
Java is stronger when it comes to connectivity with database.	Python connectivity is not that strong as Java.
Java is more difficult to learn as compared to python.	Python was developed with focus on making it easy to learn.
Java gives high priority to security.	A good developer can code a secure application in python also.

Q7. Which character set does Python use?
Ans- Python uses traditional ASCII character set.

Q8. What is the purpose of indentation in python?
Ans – Indentation is one of the most distinctive features of Python. While in other programming languages, developers uses indentation to keep their code neat but in case of Python , indentation is required to mark the beginning of a block or to understand which block the code belongs to. No braces are used to mark block of codes in python. Block in codes is required to define functions, conditional statements, or loops. These blocks are created simply by correct usage of spaces. All statement that are same distance from the right belong to the same block.

Q9. Explain memory management in Python.

Ans- Memory management is required so that partial or complete section of computer's memory can be reserved for executing programs and processes. This method of providing memory is called memory allocation. Also, when data is no longer required, it must be removed. Knowledge of memory management helps developer is develop efficient code.

Everything in Python is an object. Python has different types of objects, such as simple objects which consist of numbers and strings and container object such as dictionary, list, and user defined classes. These objects can be accessed by an identifier -name.

Q 10. Differentiate between mutable and immutable objects.

Mutable Objects	**Immutable Objects**
Can change their state or contents.	Cannot change their state or contents.
Type: list, dictionary, set	Inbuilt types: int, float, bool, string, Unicode, tuple
Easy to change	Making changes require creation of copy
Customized container like types is mostly mutable.	Primitive like data types is immutable.

Q11. What is Variable in Python?

Ans- Variables in Python are reserved memory locations that stores 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.

Q12. How can we assign same value to multiple variables in one single go?
Ans- a=b=c= “hello world!”
print(a)
Output - hello world!
print(b)
Output - hello world!
print(c)
Output - hello world!

Q13. What are the methods available for conversion of numbers from one type to another?
Ans- a = 87.8
#Conversion to integer
print(int(a))
Output
87
# Conversion to float
a=87
print(float(a))
Output
87.0
#Convert to complex
a =87
print(complex(a))
Output
(87+0j)

Q14. What are number data types in python?
Ans- Number data types are the one which are used to store numeric values such as:

1.integer
2.long
3.float
4.complex

```
a = 1
b = -1
c = 1.1
print(type(a))
print(type(b))
print(type(c))
```

Output

```
<class 'int'>
<class 'int'>
<class 'float'>
```

Q15. How to convert real numbers to complex numbers?

```
a = 7
b = -8
x = complex (a, b)
x.real
```

Output

7.0

```
x.imag
```

Output

-8.0

Q16. Which of the following is used to define a block of code in Python language?
a) Indentation
b) Key
c) Brackets
d) All of the mentioned
Answer: a

Explanation: In Python, to define a block of code we use indentation. Indentation refers to whitespaces at the beginning of the line.

Q17 Which keyword is used for function in Python language?
a) Function
b) def
c) Fun
d) Define
Answer: b
Explanation: The def keyword is used to create, (or define) a function in python.

Q18 Who developed Python Programming Language?
a) Wick van Rossum
b) Rasmus Lerdorf
c) Guido van Rossum
d) Niene Stom
Answer: c
Explanation: Python language is designed by a Dutch programmer Guido van Rossum in the Netherlands.

Q19. Which of the following functions can help us to find the version of python that we are currently working on?
a) sys. version(1)
b) sys.version(0)
c) sys.version()
d) sys.version
Answer: d
Explanation: The function sys. version can help us to find the version of python that we are currently working on. It also contains information on the build number and compiler used. For example, 3.5.2, 2.7.3 etc. this function also returns the current date, time, bits etc along with the version.

Q20. Which of the following is the truncation division operator in Python?
a) |
b) //
c) /
d) %
Answer: b
Explanation: // is the operator for truncation division. It is called so because it returns only the integer part of the quotient, truncating the decimal part. For example: 20//3 = 6.