PYTHON INTERVIEW QUESTIONS

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Q.1. Explain Python ?

Ans. Python is a highly comprehensive, interactive & object oriented scriptwriting language. It is specifically developed with the purpose of making content highly readable among the net surfers.

Q.2. What are distinct features of python ?

Ans. The distinct features of python are as follows :
1. Structured and functional Programming are support
2. It can be compiled to byte-code for creating larger applications.
3. Develops high-level dynamic data types.

Q.3. What is Pythonpath ?

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

Q.4. Can we preset pythonpath ?

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

Q.5. Why do we use pythonstartup environment variable
Ans. We use pythonstartup environment variable bcz it consists of the path in which initialization file carrying python source code can be executed to start the interpreter.

Q.6. What is the Pythoncaseok environment variable?
Ans. Pythoncaseok environment variable is called in windows with the purpose to direct python to find the first case insensitive match in an import statement.

Q.7. What are supported standard data types in python?
Ans. The supported standard data types are as follows
1. List
2. Number
3. String
4. Dictionary
5. Tuples.

Q.8. Define tuples in python.
Ans Tuples is a sequence data type in Python. The number of values in tuples are seprated by commas.

Q.9. What are positive and negative indices?
Ans. In the positive indices are applied search beings from left to the right. In negative indices, search begins from right to left.

Q.10 What can be length of the identifier in python ?

Ans. The length of the identifier in python can be of any length. The longest identifier will violate from PEP-8 and PEP-20.

Q.11. 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.12. What are limitations of python ?

Ans. There are certain limitations of python :

1. It has design restrictions.
2. It is slower when compared with C and C++
3. It is inefficient in mobile computing.
4. It consists of an underdeveloped database access layer.

Q.13. Can we reverse a list in python ?

Ans. Yes, we can reverse a list python using the reverse method. The code can be depicted as :

```
def reverse (s):
    str = " "
    for i in s:
    str = i + str
    return str.
```

Q.14. Why we do need a break in python?
Ans. Break helps in controlling the python code by breaking the current loop from execution and transfer the control to the next block.

Q.15. Why do we need a continue in python?
Ans. A continue also helps in controlling python loop but by making jumps to next iteration of loop without exhausting it.

Q.16. Can we use a break and continue together?
Ans. Break and continue can be used together in python. The break will stop the current loop from execution, while jump will take to another loop.

Q.17. Does python support an intrinsic do while loop?
Ans. No, python does not support an intrinsic do-while loop.

Q.18. How many ways can be applied for applying reverse string?
Ans. There are fire ways in which reverse string can be applied which includes following:
1. Loop
2. Recursion
3. Stack
4. Extended slice Syntax
5. Reversed.

Q.19. What is the purpose of relational operators in python?

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

Q.20. What are assignment operators in python?

Ans. The assignment operators in python can help in combining all the arithmatic operators with the assignment symbol.

Q.21. Why do we need membership operators in python?

Ans. We need membership operators in python with the purpose of to confirm if the value is a member in another or not.

Q.22. What are different stages of the life cycle of a thread?

Ans. The different stages of the life-cycle of a thread can be stated as follows:

Stage 1: creating a class where we can override run method of thread class.

stage 2: We make a call to start() on the new thread. The thread is taken forward for scheduling purposes.

Stage 3: Execution takes place wherein thread starts execution, and it reaches running state.

Stage 4: Threat wait until calls to methods including join() and sleep() takes place.

Stage 5 : After waiting or execution of thread, the waiting thread is sent for scheduling.

Stage 6 : Running thread is done by executing the terminates and reaches the dead state.

Q.23. What is dictionary in python ?

Ans. A dictionary in python programming language is an unordered collection of data values such as a map. Dictionary holds key : value pair.

Q.24. Explain how it is possible to Get the process of compilation and linking in python ?

Ans. In order to compile new extensions without any error, compiling and linking is used in python. Linkin initiates only and only when compilation is complete. In case of dynamic loading, process of compilation and linking depends on style that is provided with the concerned system.

Q.25. What is flask and what are the benefits ?

Ans. Flask is a web microframework for python with jinja 2 and werkzeug as its dependencies.

As such, it has some notable advantages :

- Flask has little to no dependencies on external libraries.
- Features an inbuilt development server and a fast debugger.

Q.26. What is map function used for in python ?

Ans. The map() function applies a given function to

item of an iterable. It then returns a list of result
The value returned from map() function can then be passed on the functions to likes of set() and list().

Q.27. What is pickling and unpickling in python?

Ans. The pickle module in python allows accepting any object and then converting it into a string representations.
The reverse process of pickling is known as unpickling i.e. retrieved/ original python objects from a stored string representation.

Q.28. Whenever python exists, all memory isn't deallocat -d. Why is it so?

Ans. Upon exiting, python's built-in effective cleanup mechanism comes into play and try to deallocate or destroy every other object.
This is because it is not possible to deallocate those portions of memory that are reserved by the c library.

Q.29. Write a program in python for getting indices of N maximum values in Numpy array.

Ans.
```
import numpy as np
arr = np.array([1,3,2,4,5])
print(arr.argsort()[-3:][::-1])
```
output:
[4 3 1]

Q.30. Write code to show randomizing items of a list in place in python along with output.

Ans.
```
from random import shuffle
x = ['codes-learning', 'Is', 'The', 'Best', 'for',
     'learning', 'coding']
shuffle (x)
print (x)
```
output :-
['for', 'coding', 'learning', 'Is', 'Best', 'The', 'codes-learning'].

Q.31. What is lambda function?

An anonymous function is known as a lambda function. This function can have only one statement but can have any number of parameters.

```
a = lambda x, y : x+y
print (a(5, 6))
```

Q.32. What are python decorators? Explain it.

Ans. A specific change made in python syntax to alter functions easily are termed as python decorators.

Q.33. Differentiate between list and tuple.

Ans. Tuple is not mutable it can be hashed eg. key for dictionaries. On the other hand, lists are mutable.

Q.34. How are arguments passed in python? By value or by reference?

Ans. All of the python is an object and all variables hold

references to the object. The reference values are according to the functions, as a result, the value of the reference cannot be changed.

Q.35. What are built-in types provided by python?

Ans. mutable built-in types:

- Lists
- Sets
- Dictionaries

Immutable built-in types:

- strings
- Numbers
- Tuples

Q.36. How a file is deleted in python?

Ans. The file can be deleted by either of these commands:

os.remove(filename)

os.unlink(filename).

Q.37. What are python modules?

Ans. A file containing python code like functions and variables is a python module. A python module is an executable file with a .py extension. python has built-in modules some of which are:

- os
- sys
- math

- data time
- JSON

Q.38. What is // operator and what is its use?

Ans. The // is a floor Divisionoperator used for dividing two operands with result as a quotient displaying digits before decimal point.
for instance 10//5 = 2
and 10.0//5.0 = 2.0

Q.39. What is split function used for?

Ans. The split function breaks the string into shorter strings using the defined separator. It returns the list of all the words present in the string.

Q.40. Is, python a case sensitive language?

Ans. Yes, python is a case-sensitive language.

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