

## **Question Bank- Python Programming**

Q Describe the following types of function arguments in python with suitable example.

1.python default arguments. 2.python keyword argument 3. python arbitrary argument 4. Python Positional arguments

Q What is meant by module and package in python?

Q Discuss the following operators available in python with examples

- i. Arithmetic Operators
- ii. Comparison (Relational) Operators
- iii. Assignment Operator
- iv. Logical Operators
- v. Bitwise Operators
- vi. Membership Operators
- vii. Identity Operator

Q Discuss the different types of data structures (objects) available in python.

Q. Create following data structures available in python and perform some operations like append, insert, reverse, len ,count,sum, indexing, slicing, extracting data etc..... with example.

i) List ii) Tuple iii) dictionary iv) set

Q Why are we using docstring? How we can access the docstring in python.

Q Mention the features of identity operators and membership operators with example?

Q What are logical operators and Bitwise operators?

Q Explain function and module with suitable example

Q What is python pass statement? Explain with example?

Q Explain python string operations. With examples.

Q How to split strings and what function is used to perform that operation?

Q What is meant by key-value pairs in a dictionary? Perform some operations on dictionary (Assume your dictionary)

Q. What is the difference between break and continue statement?

Q. Explain what is range () function and how it is used in lists? What is the difference between arrange() and range() function?

Q. Write the short note on any two

a. grid(), place(), pack method()

Q. Explain the features of Python Programming. Why it is very popular.

Q Write a few methods that are used in Python Lists.

Q What are the advantages of Tuple over List?

Q What is the output of `print tuple[1:3]` if `tuple = ( 'abcd', 786 , 2.23, 'john', 70.2 )`?

Q What is the difference between modify and copy operations performed in dictionary?

Q What is the difference between lists, tuples and dictionaries? Give an example for their usage.

Q Explain how the write method works on a file. Differentiate it from `Writeline ()` and `writelines()`.

Q What is an exception? Explain with few examples. How to handle different types of exceptions.

Q Write a simple program which illustrates Handling Exceptions.

Q List some few common Exception types and explain when they occur.

Q Write a small code to illustrate try and except statements in Python.

Q. Explain in detail about Python Files, its types, functions and operations that can be performed on files with examples.

Q. Describe the `is` and `is not` operators and `type()` function. Also, discuss why Python is called as dynamic and strongly typed language.

Q. Discuss the following list functions

- a) `len()` b) `sum()` c) `any()` d) `all()` e) `sorted()`

Q. Describe the different access modes of the files with an example.

Q. Discuss the following methods associated with the file object

- a) `read ()` b) `readline ()` c) `readlines ()` d) `tell ()` e) `seek ()` f) `write ()` g) `writelines()`

Q Discuss about the Numpy library. Perform some array operations using Numpy methods and show the output.

Q Discuss about the Pandas library. Perform operations on Series and Dataframe using Pandas methods and show the output. (Assume your dataset)

Q Create the one-dimensional array using Numpy and reshape it using appropriate method find the column wise sum.

Q Consider the following string `mystring`

```
mystring = "Happy Birthday"
```

Q What will be the output of the following string operations :

- (a) `print(mystring[0:]`
- (b) `print(mystring[2:5])`
- (c) `print(mystring[-7:-1])`
- (d) `print(mystring[::2])`
- (e) `print(mystring[-8:-3])`
- (f) `print(len(mystring)-1))`

- (g) `print(2*mystring)`
- (h) `print(mystring.replace('e', 'x'))`
- (i) `print(mystring.count('e'))`
- (j) `print(mystring[::-1])`

Q. Write a python code to create a data frame using dictionary and extract records using `iloc()` and `loc()` method.(Assume your csv file)

Q Consider the given dictionary dic1:

Dic1= {10:'One',20:'Three',30:'Five',40:'Seven',50:'Nine'}

Write code to perform following operations on dictionary:

- (a) Display the keys
- (b) Display the values
- (c) Display the items
- (d) Find the length of the dictionary.
- (e) Check if 7 is present or not"

Q What will be the output of the following statements?

- (a) `list1 = [1,67,34,12,98,55,23]`  
`sorted(list1)`  
`print(list1)`
- (b) `list1 = [1,2,3,4,5,6,7,8,9,10]`  
`del list1[3:]`  
`print(list1)`
- (c) `list1 = [1,2,3,4,5,6,7,8,9,10]`  
`print(list1[::-2])`  
`print(list1[:3] + list1[3:])`
- (d) `list1[1:4] = [3, 5, 7]`  
`print(list1)`

Q Why we use Tkinter ? Discuss few widgets methods and its arguments.

Q. Write a python code using Tkinter to create a login form.

Q. Create a GUI application using Tkinter module.