

Question Bank of Python for 2,3 and 5 marks.

Unit 1 Introduction to Python: Variables, expressions and statements

- 1) Define Program.
- 2) Explain features (advantage) of python programming language.
- 3) Differentiate high level and low level programming language with suitable example.
- 4) Explain functionality of interpreter and compiler with diagram.
- 5) What is debugging? List out all types of error and explain it in detail with suitable example.
- 6) Define comment in python. How to single line and multiline comment in python? Explain it with suitable example.
- 7) What is value and explain its type.
- 8) Define variable. Write down rules for declare variable in python with example.
- 9) What is keyword? Give example of at least five keyword.
- 10) Explain how to assign multiple variables with single value and different value using example.
- 11) Explain script and statement with suitable example.
- 12) What is operator and operands? Explain floor division with suitable example.
- 13) Define expression and explain order of operation in detail with example.
- 14) Explain keyboard input with proper example.

**** read Glossary for all units**

Unit 2 Operators

- 1) What is operator and operand? Explain floor division with suitable example.
- 2) Explain order of operation in detail with suitable example.
- 3) Write a note on modular operator in detail with suitable example. Also explain how “/” and “%” operator is differ with example.
- 4) Write a note on Boolean expression in detail with example.
- 5) Write a note on conditional execution with suitable example.
- 6) Explain logical operator in detail with suitable example.
- 7) Explain chained condition with suitable example.
- 8) Explain alternative execution and conditional execution with suitable program.
- 9) What is nested condition explain with suitable example.
- 10) Explain if, if...else and if...elif...else in detail with suitable example.
- 11) Explain Recursion call using if... Else statement.
- 12) Explain String operation using + and * operator.
- 13) Explain membership and identity operator in detail with suitable program.

Unit 3 User Defined Function and Introduction to Packages:

- 1) What is function? Explain function call (calling of function) and type conversion function in detail with suitable program.

- 2) Write a note on math function in detail with syntax and example.
- 3) Explain composition of function with suitable example.
- 4) List out type of argument in user defined function explain each with suitable example.
- 5) What is user defined function In python? How to add function and explain header and body part of function. Also explain syntax of function using appropriate example.
- 6) Explain void function and fruitful function with example.
- 7) Explain why function is useful? And its execution flow with diagram and suitable example.
- 8) Explain concept of local variable and global variable using function.
- 9) Explain recursive call of function using user defined function with suitable program.
** program may ask any like factorial, prime number, Fibonacci series etc..
- 10) What is package? Describe brief about numpy package.
- 11) Explain how to create numpy array with suitable example and its syntax.
- 12) List out various methods of numpy. Explain any 5 in detail.
- 13) Write down installation steps for numpy installation.

Unit 4 : Python Data Structure I : string and list

- 1) Write a note on while loop with suitable example and its syntax.
- 2) How break is useful in python or any iterative statement or loop explain it with example.
- 3) Define string. Explain its various functions with suitable example.
- 4) Describe how for loop is useful to iterate string using suitable code and its explanation.
- 5) What is slicing in string or list? Explain each possible way to slice string or list with suitable example and its syntax and dry run.
- 6) How string is immutable show it (explain it) with suitable example in detail.
- 7) Explain for loop in detail with suitable example.
- 8) How to find length of string using for loop explain in detail.
- 9) Explain string iteration/ Traversal using for loop.
- 10) Explain membership operator using string with suitable example.
- 11) How to create list and nested list? Explain it with suitable example and its syntax.
- 12) Explain how list is mutable with suitable example.
- 13) List out all method of list and explain it in detail.
- 14) How we can perform slicing on list?
- 15) Explain traversal of list using for loop and while loop.
- 16) Explain brief list aliasing with suitable example and diagram.
- 17) How to pass list as a argument in user defined function or in built function?
- 18) Write a note on map and filter using list.

Unit 6: File Operations

- 1) Explain read and write operation on text file.
- 2) List out all access mode of file and explain all in detail with example.
- 3) How to create or open file? Explain it using its syntax and example.

- 4) Explain read(). Readline(), readlines(), write(), writeline() and writelines() method in details with example.
- 5) How to write python program output in file?
- 6) Explain how to open file using with statement. And how it is useful?
- 7) Write a note on file object attribute.
- 8) What is file pointer? How to reset or modify it. Explain with suitable example.
- 9) Write a note on os module.

**** read Glossary for all units**