

(2 1/2 Hours)

[Total Marks: 75]

[N.B.] 1) All questions are compulsory.

2) Figures to the right indicate marks.

3) Illustrations, in-depth answers and diagrams will be appreciated.

4) Mixing of sub-questions is not allowed.

Q.1 Attempt All (Each of 5 Marks) (5M)

(a) Multiple choice questions

1. \_\_\_\_\_ is not a Keyword in Python.

a)False b)class c)Global d)All of the above

2, Python is \_\_\_\_\_ language,

a)machine b) case sensitive c) case insensitive d)none of the above

3. What is the correct operator of power (x?) in Python?

a) x \*y b)x ^y c)x??y d)x^y

4)Python interprets either zero or null values as

a) Negative b)TRUE c)Positive d) FALSE

5). Nothing happens when \_\_\_\_\_ statement is executed:.

a)break b)continue c)pass d)done

(b)Fill in the blanks (Variable, lambda, break, List, Built-in, Keyword, def, (5M)

1. \_\_\_\_\_ cannot be used as variable name.

2. \_\_\_\_\_ statements moves the programming control to the top of the loop

3) \_\_\_\_\_ is an unordered collection of key value pair

4. \_\_\_\_\_ Operator cannot be used with Strings in Python.

5. Anonymous functions are defined by keyword \_\_\_\_\_

(c) Short answers in 1-2 sentences; (5M)

1. AssertStatement

2.Definition of functions

3.Use of break statements

4.Use of dir () functions

5. Membership operators

Q2 Attempt the following (Any THREE)

a) Which are the two basic modes in Python Interpreter? Explain.

b)List the rules for writing Identifiers in Python

c)Explain any five built-in functions in Python with suitable examples.

- d) What is Tuple? How to create it? Explain any three tuple operators.
- e) How to take-input and display output of different values in Python? Explain.
- f) Give Python statement for the following:-
- i) Create a String mystring with value "Python World".
  - ii) Print last character of above string.
  - iii) Print 3:4 to 5th character of above string.
  - iv) Print 34 to 24 last character of above string.

Q.3 Attempt the following (Any THREE) - (15M) —

- (a) Explain if-elif-else statement with syntax and example.
- (b) Define Dictionary. How to create, update and delete it? Explain with suitable example.
- (c) How to create own functions in Python with/without parameters? Explain with examples.
- (d) How to use iterative for loop in Python? Explain.
- (e) Give the concept of local and global variables in function.
- (f) Write a Python program to give the following output-

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30

Q.4 Attempt the following (Any THREE) (15M)

- (a) Write a note on Anonymous Functions.
- b) Define a class and object in Python > How to create it? Explain with examples
- (c) List any five methods of Lists? Explain any four-with example.
- (d) Explain map () function with an example.
- (e) Write a python program to count the number of each vowel in string using dictionary and list comprehension: 0 <0 8 SN NS
- (f) Write a Python program to check whether numbers Armstrong or not.

Q.5 Attempt the following (Any THREE): (15M)

- a) Give the importance of precedence of operators in python?
- b) What is the role of indentation in Python? Give example to illustrate
- c) Explain Random module and its functions
- d) Write a program in Python to display the Fibonacci sequence up to nth term
- (e) Write a program in Python to solve quadratic equation when values of a, b and c are not equal to zero