

GURU NANAK INSTITUTE OF TECHNOLOGY
An Autonomous Institute under MAKAUT
2022
INTRODUCTION TO PYTHON
EC604C

TIME ALLOTTED: 3HR

FULL MARKS:70

*The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable***GROUP – A****(Multiple Choice Type Questions)**Answer any **ten** from the following, choosing the **correct** alternative of each question: **10×1=10**

		Marks	CO No
1.	(i) Which character is used in Python to make a single line comment? a) / b) // c) # d) !	1	CO2
	(ii) Which of the following function of dictionary gets all the values from the dictionary? a) getvalues() b) value() c) values() d) None of the above	1	CO1
	(iii) Which one of the following is the correct extension of the Python file? a) .py b) .python c) .p d) None of these	1	CO1
	(iv) Who developed the Python language? a) Zim Den b) Guido van Rossum c) Niene Stom d) Wick van Rossum	1	CO1
	(v) Why does the name of local variables start with an underscore discouraged? a) To identify the variable b) It confuses the interpreter c) It indicates a private variable of a class d) None of the mentioned	1	CO2
	(vi) Which of the following is not a keyword in Python language? a) Val b) Raise c) Try d) With	1	CO1

- (vii) Which of the following statements is correct for variable names in Python language? 1 CO2
 a) All variable names must begin with an underscore
 b) Unlimited length
 c) The variable name length is a maximum of 2
 d) All of the mentioned
- (viii) What happens when '2' == 2 is executed? 1 CO3
 a) False
 b) Ture
 c) ValueError occurs
 d) TypeError occurs
- (ix) Study the following statement 1 CO3
`z = {"x":0, "y":1}`
 Which of the following is the correct statement?
 a) x dictionary z is created
 b) x and y are the keys of dictionary z
 c) 0 and 1 are the values of dictionary z
 d) All of the above
- (x) What is the output of the following code? 1 CO5
- ```
import math
def main():
 math.cos(math.pi)
main()
print(main())
```
- a) -1  
 b) None  
 c) Error  
 d) Math.pi not defined
- (xi) Which of the following function checks in a string that all characters are in uppercase? 1 CO4  
 a) isupper()  
 b) join(seq)  
 c) len(string)  
 d) ljust(width[, fillchar])
- (xii) Study the following function: 1 CO4  
`round(4.576)`  
 What will be the output of this function?  
 a) 4  
 b) 5  
 c) 576  
 d) 5

**GROUP – B****(Short Answer Type Questions)**Answer any *three* from the following: 3×5=15

- |    |                                                                                    | Marks | CO No |
|----|------------------------------------------------------------------------------------|-------|-------|
| 2. | (a) Write Python Program to count the number of times an item appears in the list. | 5     | CO2   |

|    |     |                                                                                                                                 |   |     |
|----|-----|---------------------------------------------------------------------------------------------------------------------------------|---|-----|
| 3. | (a) | Describe the syntax for the following functions and explain with an example.<br>a) abs() b) max() c) divmod() d) pow() e) len() | 5 | CO4 |
| 4. | (a) | Find the Fibonacci Series.                                                                                                      | 5 | CO3 |
| 5. | (a) | How can you take user data as arguments in a class and pass in a function within the class using python code?                   | 5 | CO4 |
| 6. | (a) | State the differences between list and tuple.                                                                                   | 5 | CO1 |

**GROUP – C****(Long Answer Type Questions)**Answer any *three* from the following: 3×15=45

|     |     |                                                                                                                                                                    | Marks | CO No. |
|-----|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|
| 7.  | (a) | Find the area and perimeter of a circle using functions. Prompt the user for input                                                                                 | 5     | CO4    |
|     | (b) | Write a program to return the absolute value of the entered number.                                                                                                | 5     | CO4    |
|     | (c) | Write a Python program to calculate number of days between two dates.                                                                                              | 5     | CO2    |
| 8.  | (a) | State the difference between call by reference and call by value procedures in python by giving suitable example.                                                  | 10    | CO3    |
|     | (b) | Discuss the following methods associated with the file object<br>a) read() b) readline() c) readlines() d) tell() e) seek() f) write()                             | 5     | CO4    |
| 9.  | (a) | Write a Python program to find the Exponentiation (power of a number)                                                                                              | 10    | CO1    |
|     | (b) | Write a Python program to compute element-wise sum of given tuples                                                                                                 | 5     | CO3    |
| 10. | (a) | Write a python program to find the longest words                                                                                                                   | 5     | CO3    |
|     | (b) | Explain the output of following code:<br><pre>def func(n):     if(n==1):         return 1;     else:         return(n+func(n-1)) print(func(4))</pre>              | 5     | CO4    |
|     | (c) | Predict the output of following python programs with explanation.<br><pre>r = lambda q: q * 2 s = lambda q: q * 3 x = 2 x = r(x) x = s(x) x = r(x) print (x)</pre> | 5     | CO4    |
| 11. | (a) | Create a 3×3 numpy array of all True's                                                                                                                             | 5     | CO5    |
|     | (b) | Write a Python program to find GCD of two numbers.                                                                                                                 | 10    | CO2    |