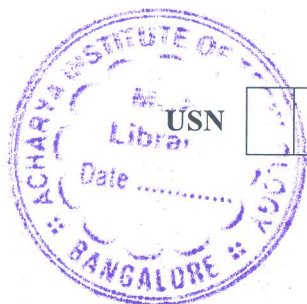


# CBCS SCHEME



18BT36

## Third Semester B.E. Degree Examination, June/July 2023 Python Programming

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. Define Algorithm. Explain the building blocks of Algorithm. (08 Marks)
- b. Discuss the Tower of Hanoi problem with an algorithm and flowchart. (08 Marks)
- c. Write an algorithm to check whether a number entered by user is prime or not. (04 Marks)

**OR**

- 2 a. Explain simple strategies for developing algorithm. (10 Marks)
- b. Explain the steps in problem solving. (06 Marks)
- c. With suitable example, explain flow chart. (04 Marks)

### Module-2

- 3 a. Explain values and types in detail. (10 Marks)
- b. Define operators. Mention different operators and explain in detail. (10 Marks)

**OR**

- 4 a. Define function. What are the different types of arguments in python. (08 Marks)
- b. List the rules to declare a variable in python. Demonstrate atleast three different types of variable uses with an example program. (08 Marks)
- c. Explain the rules of precedence used by python to evaluate an expression. (04 Marks)

### Module-3

- 5 a. Explain conditional statement in detail with example. (10 Marks)
- b. Write a short note on break, continue and pass. (10 Marks)

**OR**

- 6 a. Discuss the various operations that can be performed on a tuple and lists (minimum 5) with an example program. (10 Marks)
- b. Explain string slicing in python. Show with an example. (10 Marks)

### Module-4

- 7 a. What are lists? Lists are mutable. Justify the statements with examples. (10 Marks)
- b. Implement a python program using lists to store and display the average of N integers accepted from the user. (10 Marks)

**OR**

- 8 a. Explain function composition in detail. (10 Marks)
- b. Compare and contrast linear search and binary search with suitable example. (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8=50, will be treated as malpractice.

Module-5

- 9 a. Define Dictionary. Explain in detail about dictionary operation. (10 Marks)  
b. Define tuple. Explain tuple operations in detail. (10 Marks)

OR

- 10 a. Write a python program to sort 'n' numbers using selection sort. (05 Marks)  
b. Differentiate between list, tuple and dictionary. (10 Marks)  
c. Write a note on list comprehension. (05 Marks)

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