

CBCS SCHEME

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18BT36

Third Semester B.E. Degree Examination, June/July 2024 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. What is an Algorithm? Explain with an example. What are the building block of algorithms? (10 Marks)
- b. Outline the 'Tower of Hanoi' problem with the help of figure. Suggest an algorithm to solve the Tower of Hanoi problem with relevant diagrams. (10 Marks)

OR

- 2 a. What is flowchart and what is the purpose of it. Along with description list and draw the common symbols used in flowchart. Illustrate with an example. (10 Marks)
- b. What is Pseudocode? Explain the common keywords used in pseudocode. Write a Pseudocode for finding the minimum in a list. (10 Marks)

Module-2

- 3 a. Define Variables. List the rules to declare variables in python. Demonstrate at least 3 different types of variables with examples. (10 Marks)
- b. Differentiate between Python compiler and Interpreter. (05 Marks)
- c. Write the python program to find the sum of natural numbers upto 'n' where n is provided by user. (05 Marks)

OR

- 4 a. Define functions with Syntax. Explain Value-returning functions with example. (05 Marks)
- b. Explain the rules of precedence of Operators used by Python language. (05 Marks)
- c. Explain Operators and Operands in python with examples. (10 Marks)

Module-3

- 5 a. List different types of conditional statements available in python. Illustrate the use of chained if..elif..else and nested if..else with an example each. (10 Marks)
- b. Define Operators. List the different types of operators available in python. Explain any 3 in detail. (10 Marks)

OR

- 6 a. Demonstrate the use of while loop in python with proper syntax and flowchart. (10 Marks)
- b. Write a python program to , i) Exchange the value of two variables. (10 Marks)
- ii) Find distance between two points.

Module-4

- 7 a. Write a python program to perform linear search on a list. (10 Marks)
- b. Briefly describe the operations on list with relevant codes. (10 Marks)

OR

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.

- 8 a. Write any five methods that operate on list with examples. (10 Marks)
b. What is fruitful function? Explain with an example compare fruitful function with void function. (10 Marks)

Module-5

- 9 a. Define Dictionary. Explain in detail about Dictionary operations. (10 Marks)
b. Write Python program for selection sort and insertion sort. (10 Marks)

OR

- 10 a. Differentiate between List, Tuple and Dictionary. (05 Marks)
b. Define Tuple. Explain Tuple operations in detail. (08 Marks)
c. Write a note on List comprehension. (07 Marks)
