RCET LIBRARY BANGALORE-49

CBCS SCHEME

USN | | | | | | | | | | |

21EC643

Sixth Semester B.E./B.Tech. Degree Examination, June / July 2026
Python Programming

Time: 3 hrs. Max. Marks: 100

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

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-1

1 a. Demonstrate with Syntax of Python functions input( ), len( ) and Print( ). **(06 Marks)**

b. What are the different flow control statements supports in python. Explain any 3 with a suitable example program and flow chart. **(08 Marks)**

c. Write the Math Operator in python from highest to lowest precedence with an example for each. Write the steps how python is evaluating the expression
(5 – 1) * ((7 +1) / (3 – 1)) and reduce it to a single value. **(06 Marks)**

OR

2 a. What is a function? How to define a function in python? Write a program using function to find factorial of a number. **(06 Marks)**

b. List and explain the different comparison and Boolean Operator, along with examples. **(06 Marks)**

c. Develop a program to read the student details like Name, USN and Marks in 3 subjects. Display the student details, Total Marks and Percentage with suitable message. **(08 Marks)**

Module-2

3 a. What is a List? Explain the concept of slicing and indexing with proper examples. **(06 Marks)**

b. Describe any two list Operations and list methods. Write a Python Program to accept 'n' numbers from the user. Find the sum of all even numbers and the product of all odd numbers in the entered list. **(08 Marks)**

c. What is local and global scope of variable in Python? Explain the different scenarios with an example. **(06 Marks)**

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OR

4 a. How are tuples different from list? Explain the following Operators in tuples.
i) Sum of two tuples
ii) Slicing Operations
iii) Comparison two tuples. **(06 Marks)**

b. List the merits of dictionary over list. Write a Python program to accept USN and Marks obtained. Find maximum, minimum and students USN who have scored in the range 100 – 85 , 85 – 75 , 75 – 60 and below 60 marks separately. **(08 Marks)**

c. Demonstrate with suitable example of upper( ), lower( ) and isupper( ) string methods. **(06 Marks)**

Module-3

5 a. Explain the steps involved in finding patterns of text with regular expression with example. **(10 Marks)**

b. List out the different character classes. Bring out the steps involved in making your own character classes. **(10 Marks)**

OR

6 a. Explain the concept of file handling. Also explain reading and writing process with suitable examples. **(07 Marks)**

b. Explain the concept of file path. Also discuss absolute and relative file path. **(06 Marks)**

c. Explain reading and saving python program variables with the pprint.pformat( ) function. **(07 Marks)**

Module-4

7 a. Define class, objects and Attributes with an example. **(06 Marks)**

b. Write a function called print time that takes a time object and print it in the form of hour : minute : second **(07 Marks)**

c. Briefly explain the concept of Prototyping and Planning. **(07 Marks)**

OR

8 a. Explain Operator Overloading and Polymorphism methods with an example. **(10 Marks)**

b. Demonstrate pure functions and modifier with example. **(10 Marks)**

Module-5

9 a. With an example, explain how to retrieve an image over HTTP. **(10 Marks)**

b. Illustrate with a Python Program how to retrieve web pages with Urllib. **(10 Marks)**

OR

10 a. Write a python code to read binary files using Urllib. **(10 Marks)**

b. Explain the concept of basic data modeling. **(10 Marks)**

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