



## II B. Tech II Semester Regular Examinations, June/July - 2022

## PYTHON PROGRAMMING

(Common to EEE &amp; FE)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions each Question from each unit  
All Questions carry **Equal** Marks

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**UNIT-I**

- 1 a) Demonstrate Nested decision structure with example program. [7M]  
b) List and explain various Data types in Python programming. [7M]

**Or**

- 2 a) Develop a function that computes the GCD of given two numbers. [7M]  
b) Demonstrate expression evaluation in Python programming. [7M]

**UNIT-II**

- 3 a) Develop a program to convert a decimal number into base 4 and base 6 numbers using Python program. [7M]  
b) List and explain various string methods in Python. [7M]

**Or**

- 4 a) Develop a program to concatenate and compare two given strings in Python. [7M]  
b) Demonstrate the read-write operations of the text file in Python language. [7M]

**UNIT-III**

- 5 a) List and explain various methods of Dictionary structure. [7M]  
b) Discuss various methods to draw the Plots in Python. [7M]

**Or**

- 6 a) List and explain various methods of List structure. [7M]  
b) Define recursion. Develop a program that applies recursion to compute the factorial of a number. Discuss the advantages of recursion. [7M]

**UNIT-IV**

- 7 a) List and explain types of Inheritance with examples. [7M]  
b) Develop a program that applies Seek function on files. [7M]

**Or**

- 8 a) Add and retrieve dynamic attributes of classes. [7M]  
b) Demonstrate read, readline, and readlines with examples. [7M]

**UNIT-V**

- 9 a) List and explain the GUI based resources for Python programming. [7M]  
b) Develop a Python program to handle division by zero exception. [7M]

**Or**

- 10 a) Is it possible to implement multiple exception blocks in Python exception handling? Justify your answer. [7M]  
b) Discuss the importance of GUI based programs with an example. [7M]

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**UNIT-I**

- 1 a) Develop a Python program to perform matrix multiplication. [7M]  
b) Compare Python with any one object oriented programming language. [7M]

**Or**

- 2 a) Develop a Python program to sort the given input strings. [7M]  
b) List and explain various operators in Python language. [7M]

**UNIT-II**

- 3 a) Develop a Python program to find the substring within a given string. [7M]  
b) List and explain various string methods in Python with examples. [7M]

**Or**

- 4 a) Demonstrate Data Encryption in Python with an example. [7M]  
b) Develop a Python program to convert a given decimal into binary, octal, and hexa decimal. [7M]

**UNIT-III**

- 5 a) Discuss the advantages of recursion and propose alternate solutions for recursion using a case study. [7M]  
b) Discuss the importance and implementation of Abstraction mechanism in Python. [7M]

**Or**

- 6 a) List and explain any three packages in Python. [7M]  
b) Discuss the problem solving with Top-Down Design. [7M]

**UNIT-IV**

- 7 a) List and explain any three object-oriented concepts. [7M]  
b) Demonstrate inheritance using a Python program. [7M]

**Or**

- 8 a) Demonstrate Polymorphism using an example Python program. [7M]  
b) Demonstrate Data modeling with an example. [7M]

**UNIT-V**

- 9 a) Demonstrate GUI based programming with an example. [7M]  
b) List and explain the exception handling mechanism in Python? [7M]

**Or**

- 10 a) Define Exception and discuss how to handle exceptions with an example in Python [7M]  
b) Compare terminal based with GUI-based programs. [7M]



