**II B. Tech II Semester Regular/Supplementary Examinations, July - 2023**
**PYTHON PROGRAMMING**
(Common to EEE & FE)

Time: 3 hours                                                  Max. Marks: 70

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

### UNIT-I

1. a) How to declare and call functions in Python programs? Explain in detail. [7M]
   b) Explain various Data types in Python programming. [7M]

**Or**

2. a) Explain the syntax of various Conditional structures in Python programming. [7M]
   b) Write a Python program to demonstrate explicit type conversion. [7M]

### UNIT-II

3. a) Describe the various operations on text files. [7M]
   b) Write a Python program that interchanges the first and last characters of a given string. [7M]

**Or**

4. a) Describe the various string methods in Python. [7M]
   b) Explain How to write a String to a text file in Python with a sample program. [7M]

### UNIT-III

5. a) List and explain various Python List Built-in methods. [7M]
   b) Explain the steps to create a Dictionary in Python. [7M]

**Or**

6. a) Explain the problem solving with Top-Down Design. [7M]
   b) Write a program that applies recursion to compute the factorial of a number. [7M]

### UNIT-IV

7. a) Describe How to make a Python class member variable hidden from outside the class. [7M]
   b) Discuss Polymorphism using an example program. [7M]

**Or**

8. a) Explain file operations with a suitable program. [7M]
   b) Write a Python program that applies Seek function on files. [7M]

### UNIT-V

9. a) How to handle multiple exceptions with single except clause? Explain. [7M]
   b) Write a python program to illustrate the cases where a try block throws multiple Exceptions? [7M]

**Or**

10. a) Describe the four main elements of Scratch programming environment. [7M]
    b) Compare the GUI-based programs with Terminal-based programs. [7M]

|"|'|||||'|'"|||'|

**II B. Tech II Semester Regular/Supplementary Examinations, July - 2023**
**PYTHON PROGRAMMING**
(Common to EEE & FE)

Time: 3 hours                                                          Max. Marks: 70

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

### UNIT-I

| | | | |
|---|---|---|---|
| 1 | a) | Explain few most commonly used built-in types in python programming. | [7M] |
| | b) | Demonstrate the use of break and continue keywords in looping structure. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 2 | a) | Write a Python program to demonstrate How to access the characters in Python String. | [7M] |
| | b) | List and explain different operators in Python in the order of their precedence. | [7M] |

### UNIT-II

| | | | |
|---|---|---|---|
| 3 | a) | Explain the syntax of 'while' loop with an example. | [7M] |
| | b) | Write a Python function that prints all factors of a given number. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 4 | a) | Discuss the read-write operations of the text file in Python language. | [7M] |
| | b) | Write a Python program to get substring between characters in the input. | [7M] |

### UNIT-III

| | | | |
|---|---|---|---|
| 5 | a) | Demonstrate the usage of Lambda function in Python. | [7M] |
| | b) | Write a Python function to print the even numbers from a given list. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 6 | a) | Discuss any three standard modules in Python. | [7M] |
| | b) | Describe various ways to create Lists in Python. | [7M] |

### UNIT-IV

| | | | |
|---|---|---|---|
| 7 | a) | Write a Python program that overloads + operator, to add two objects of a class. | [7M] |
| | b) | Write a program that reads a text file and changes the file by capitalizing each character of file. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 8 | a) | Explain the functions write and write lines with examples. | [7M] |
| | b) | Describe the steps to create Classes and Objects in Python. | [7M] |

### UNIT-V

| | | | |
|---|---|---|---|
| 9 | a) | Discuss about built-in error types in Python. | [7M] |
| | b) | How to create two radio button sets (one for gender and another for Indian or not) on the same canvas? Explain | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 10 | a) | Explain the importance of GUI based programs with an example. | [7M] |
| | b) | Write program to calculate your age in days. (days between Today and Date of Birth) | [7M] |

|"|'|||||"|'"|||'|

**II B. Tech II Semester Regular/Supplementary Examinations, July - 2023**
**PYTHON PROGRAMMING**
(Common to EEE & FE)

Time: 3 hours          Max. Marks: 70

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

### UNIT-I

| | | | |
|---|---|---|---|
| 1 | a) | Explain various operators, built-in functions and standard library modules that deals with Python's numeric type. | [7M] |
| | b) | Write a Python program to print all prime numbers. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 2 | a) | List out various operators available in Python and explain their precedence and Associativity. | [7M] |
| | b) | Demonstrate Nested decision structure with example program. | [7M] |

### UNIT-II

| | | | |
|---|---|---|---|
| 3 | a) | Explain the string operations length and slicing in detail with an example. | [7M] |
| | b) | Write a Python program to perform sorting of given input strings. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 4 | a) | Explain various string methods in Python with examples. | [7M] |
| | b) | Discuss the sequence of steps to encrypt and decrypt Strings in Python. | [7M] |

### UNIT-III

| | | | |
|---|---|---|---|
| 5 | a) | What are Python modules? Explain in detail. | [7M] |
| | b) | Write a Python program to extract characters from various text files and puts them into a List. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 6 | a) | Explain the methods of list structure with examples. | [7M] |
| | b) | Explain recursion with an example Python program. | [7M] |

### UNIT-IV

| | | | |
|---|---|---|---|
| 7 | a) | Explain different types of inheritance supported by Python. | [7M] |
| | b) | Discuss the use of Destructor with a Python program. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 8 | a) | Explain about the usage of issubclass() and isinstance() methods in Python. | [7M] |
| | b) | Explain the Python'open()' built-in function. | [7M] |

### UNIT-V

| | | | |
|---|---|---|---|
| 9 | a) | How to create, raise and handle user defined exceptions in Python? Explain. | [7M] |
| | b) | Write a Python program to handle division by zero exception. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 10 | a) | Explain GUI-based program coding with an example. | [7M] |
| | b) | Write Python script that prints calendar of April 2023. | [7M] |

|''|'|''|'|''|''|'|''|''|

**II B. Tech II Semester Regular/Supplementary Examinations, July - 2023**
**PYTHON PROGRAMMING**
(Common to EEE & FE)

**Time: 3 hours**                                                                 **Max. Marks: 70**

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

**UNIT-I**

| | | | |
|---|---|---|---|
| 1 | a) | Explain the key features of Python programming. | [7M] |
| | b) | Explain different operators supported by Python. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 2 | a) | Explain the syntax of Repetition structures in Python. | [7M] |
| | b) | What a Python program to demonstrate Type conversions. | [7M] |

**UNIT-II**

| | | | |
|---|---|---|---|
| 3 | a) | Explain the syntax of 'for' loop with an example. | [7M] |
| | b) | Write a Python program to check whether a given number is Armstrong or not. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 4 | a) | Explain Data Encryption in Python with an example. | [7M] |
| | b) | Write Python program to demonstrate the usage of common Python String methods. | [7M] |

**UNIT-III**

| | | | |
|---|---|---|---|
| 5 | a) | Describe various ways to access the elements of a List in Python with example. | [7M] |
| | b) | Write a Python program to access the elements of a Nested dictionary. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 6 | a) | Discuss any four packages of Python language. | [7M] |
| | b) | Explain the importance and implementation of Abstraction mechanism in Python. | [7M] |

**UNIT-IV**

| | | | |
|---|---|---|---|
| 7 | a) | How to implement method overriding in Python? Explain. | [7M] |
| | b) | Explain Data modeling with an example. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 8 | a) | Describe the steps for writing, reading and extracting values from config files. | [7M] |
| | b) | How do you manipulate a file pointer in Python? Explain with a sample program. | [7M] |

**UNIT-V**

| | | | |
|---|---|---|---|
| 9 | a) | Explain the difference between else block and finally block in exception handling. | [7M] |
| | b) | Write a Python program that creates a GUI with a textbox, Ok button and Quit button. On clicking Ok, the text entered in textbox is to be printed in Python shell; on clicking Quit, the program should terminate. | [7M] |

**Or**

| | | | |
|---|---|---|---|
| 10 | | Describe the use of the four main elements of scratch- Programming palette, storage area, Sprites and Script. | [14M] |