

**CMR TECHNICAL CAMPUS  
UGC AUTONOMOUS**

**B.Tech.III Sem Regular End Examinations, February-2024**

**Programming with Python**

**Common to CSE, IT, CSC, CSM, CSD, AIML**

**Time: 3 Hours**

**Max. Marks: 60**

**Note**

- i. This Question paper contains Part- A and Part- B.
- ii. All the Questions in Part A are to be answered compulsorily.
- iii. All Questions from Part B are to be answered with internal choice among them.

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**PART-A**

**10 X 01 = 10 Marks**

	<b>Marks</b>	<b>CO</b>	<b>BL</b>
1. a List various operators used in python?	1	CO1	L1
b Explain the Input and Output statements in python with examples	1	CO1	L2
c Describe about np.arange( ),np.random.randint( ) with examples?	1	CO2	L1
d Write a Python program that illustrates negative indexing in a String?	1	CO2	L1
e What is the major difference between tuples and lists in Python?	1	CO3	L1
f Describe the Sorting the Elements of a Dictionary using Lambdas?	1	CO3	L1
g Differentiate between an error and exception?	1	CO4	L4
h What are the Persistent Storage Modules?	1	CO4	L1
i Define Class and Object with suitable examples?	1	CO5	L1
j Describe about thread in python?	1	CO5	L1

**PART- B**

**5 X 10 = 50 Marks**

	<b>Marks</b>	<b>CO</b>	<b>BL</b>
2. a Explain about bitwise operators and different membership operators in Python with examples?	5	CO1	L2
b Explain iterative statements in python with suitable example?	5	CO1	L2
<b>OR</b>			
3. a Explain the conditional and the break & continue statement in Python with examples?	5	CO1	L3
b Illustrate the various data types used in python with syntax and examples?	5	CO1	L4

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|----|---|--|---|-----|----|
| 4  | a | Explain the importance of reshaping numpy array with an example  | 5 | CO2 | L2 |
|    | b | Explain the following concepts with examples   |   | CO2 | L2 |
|    |   | i.    Sorting Strings,   |   |     |    |
|    |   | ii.   Searching Strings  | 5 |     |    |
| OR |   |  |   |     |    |
| 5  | a | Discuss Matrices in numpy? Write a python program to demonstrate the addition 2*2 matrix?                          | 5 | CO2 | L4 |
|    | b | Illustrate the various operations on Strings with suitable programs  | 5 | CO2 | L4 |
| 6  | a | Write a python program to print the factorial of a give integer using recursive function                           | 5 | CO3 | L4 |
|    | b | What is a list in Python? How to create nested lists with suitable example program.                                | 5 | CO3 | L3 |
| OR |   |  |   |     |    |
| 7  | a | Give a comparison between lists, tuples, and dictionaries  | 5 | CO3 | L4 |
|    | b | Explain the following with examples  |   | CO3 | L2 |
|    |   | i.    Converting Strings into Dictionary,  |   |     |    |
|    |   | ii.   Passing Dictionaries to Functions.   | 5 |     |    |
| 8  | a | Discuss the importing modules attributes in python   | 5 | CO4 | L4 |
|    | b | Define exception? and how to create, raise and handle user defined exceptions in Python with example.              | 5 | CO4 |    |
| OR |   |  |   |     |    |
| 9  | a | Define file? Explain the File Built-in Functions with their syntax and examples                                    | 5 | CO4 | L2 |
|    | b | What s the difference between else block and finally block in exception handling? Explain with an example program. | 5 | CO4 | L2 |
| 10 | a | Explain the feature of polymorphism in python with an example.   | 5 | CO5 | L2 |
|    | b | Examine the Abstract Classes and Interfaces in python with suitable programs                                       | 5 | CO5 | L4 |
| OR |   |  |   |     |    |
| 11 | a | Create a class named Person, use the __init__() function to assign values for name and age                         | 5 | CO5 | L5 |
|    | b | Discuss about threading modules in python with suitable a program  | 5 | CO5 | L5 |

CO : Course Outcomes

BL : Bloom's Taxonomy Levels

L 1: Remembering

L 2: Understanding

L 3: Applying

L 4: Analysing

L 5: Evaluating

L 6: Creating