**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, April 2023**

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|  | **1BT2079** | Roll No. | Total Printed Pages: 1 |
| **1BT2079** |  |
| B. Tech. I Year II-Semester (Back) End Semester Examination, April 2023  **(CS / AIDS / CC)** | |
| **BADCCE2104 / BCSCCE2104 :**  **Programming in Python** | | | |

# Time: **3** Hours. Total Marks: **60**

Min. Passing Marks: **21**

Attempt **five** questions selecting one question from each Unit. There is internal choice from Unit I to Unit V. Marks of each question or its parts are indicated against each question / parts. Draw neat sketches wherever necessary to illustrate the answer. Assume missing data suitably (if any) and clearly indicate the same in the answer.

Use of following supporting material is permitted during examination for this subject.

# **1.--------------------------Nil--------------------** **2.------------------Nil-----------------------**

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|  |  | **UNIT-I (CO1)** | **Marks** | **Bloom Level** |
| **Q.1** | **(a)** | Write the key features of Python. Also write specific application areas where python is used. | **(6)** | **Knowledge** |
|  |  |  |  |  |
|  | **(b)** | Create a list having 11 Elements. Insert new item at position 2 and delete one item from position 5. Print the item at position 5. | **(6)** | **Apply** |
|  |  | **OR** |  |  |
| **Q.2** | **(a)** | Write the short note on Accessing scientific tools using SciPy. | **(6)** | **Knowledge** |
|  |  |  |  |  |
|  | **(b)** | 1. Create a dictionary having five elements with key and value. Write command to update second entry of dictionary. Also add one more key value pair in dictionary and print finally all the dictionary elements. | **(6)** | **Evaluate** |
|  |  | **UNIT-II (CO2)** |  |  |
| **Q.3** | **(a)** | For loop is usually known as a determinate or definite loop. Justify. | **(6)** | **Apply** |
|  |  |  |  |  |
|  | **(b)** | Write a python program to find the sum of digits of a number input by user. | **(6)** | **Evaluate** |
|  |  | **OR** |  |  |
| **Q.4** | **(a)** | How does break, continue and pass work in python? Explain. | **(6)** | **Knowledge** |
|  |  |  |  |  |
|  | **(b)** | Write a program to produce Fibonacci series in python? | **(6)** | **Evaluate** |
|  |  | **UNIT-III (CO3)** |  |  |
| **Q.5** | **(a)** | Write the difference between List and Tuple with example. | **(6)** | **Apply** |
|  |  |  |  |  |
|  | **(b)** | Explain with example the role of following built in Methods/ functions.  (i) list.pop(-1) (ii) set1.isdisjoint(set 2) (iii) isdigit() (iv) dict.values( ) | **(6)** | **Knowledge** |
|  |  | **OR** |  |  |
| **Q.6** | **(a)** | What is variable length argument function? Explain with example. | **(6)** | **Understand** |
|  |  |  |  |  |
|  | **(b)** | Write a short note to explain basics about Matplotlib or Pandas package. | **(6)** | **Knowledge** |
|  |  | **UNIT-IV (CO4)** |  |  |
| **Q.7** | **(a)** | Explain by suitable example the role of class and object in object oriented programming. | **(6)** | **Ceate** |
|  |  |  |  |  |
|  | **(b)** | What is inheritance? Explain the concept of method overriding with an example. | **(6)** | **Knowledge** |
|  |  | OR |  |  |
| **Q.8** | **(a)** | What is the use of Data Hiding and how it can be implemented in python programming? | **(6)** | **Create** |
|  |  |  |  |  |
|  | **(b)** | Explain the role and use of Destructors in python. | **(6)** | **Knowledge** |
|  |  | **UNIT V (CO5)** |  |  |
| **Q.9** | **(a)** | Write and explain various modes which are required for file processing. | **(6)** | **Understand** |
|  |  |  |  |  |
|  | **(b)** | Write appropriate command in python (i) To open a file for appending purpose (ii) to get the mode of file (iii) to get name of file | **(6)** | **Apply** |
|  |  | **OR** |  |  |
| **Q.10** | **(a)** | Defining Descriptive Statistics for Numeric Data in python. | **(6)** | **Understand** |
|  |  |  |  |  |
|  | **(b)** | What is exception? Define concept of Try, Except and finally clause used in Exception handling. | **(6)** | **Knowledge** |