**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, April 2023**

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|  | **2BT4158** | Roll No. | Total Printed Pages: 2 |
| **2BT4158** |  |
| B. Tech. II Year IV-Semester (Back) End Semester Examination, April 2023  **(CE)** | |
| **BCE04101: Python Programming** | | | |

# Max. Time: **3** Hours. Max. 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.----------------------------------------------** **2.-----------------------------------------**

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|  |  | **UNIT-I (CO1)** | **Marks** | **Bloom Level** |
| **Q.1** | **(a)** | What is extension of python code and what are different type of techniques used to run a python code. | **(6)** | **Applying** |
|  |  |  |  |  |
|  | **(b)** | How to take the input in python code and also discuss the conversion of float value to integer value. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.2** | **(a)** | How python became so popular and what are the advantages of using python over other languages? | **(6)** | **Knowing** |
|  |  |  |  |  |
|  | **(b)** | List down the software’s which we can use to run python codes and also mention their advantages. | **(6)** | **Applying** |
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|  |  | **UNIT-II (CO2)** |  |  |
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| **Q.3** | **(a)** | Differentiate between for loop and while loop using the good example. Also draw the flowchart of both loop. | **(6)** | **Applying** |
|  |  |  |  |  |
|  | **(b)** | Calculate the mean and median using python code. Take the input of 7 subject marks of a student and print the mean and median for the same. | **(6)** | **Knowing** |
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|  |  | **OR** |  |  |
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| **Q.4** | **(a)** | Ram is working as a professional in development team of a corporate where he need to implement dictionary. So write a Python code to help Ram to make a dictionary and then create a data frame from the same dictionary. | **(6)** | **Differentiating** |
|  |  |  |  |  |
|  | **(b)** | Write a python code to calculate the factorial of a number. | **(6)** | **Understanding** |
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|  |  | **UNIT-III (CO3)** |  |  |
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| **Q.5** | **(a)** | Suppose you are given a csv file through the email and you need to pre – process the data where you need to read the file and then remove the null values from your data. Write the code for the same. | **(6)** | **Knowing** |
|  |  |  |  |  |
|  | **(b)** | Write a python code to print the series 1,2,4,16,256…..n. | **(6)** | **Applying** |
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|  |  | **OR** |  |  |
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| **Q.6** | **(a)** | Create a scenario where you need to read a csv file from the system and you need to check how many odd numbers are present inside that file. Write a python code for the same. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Suppose your boss assigned you a task where you need to implement a file without any missing values present inside it. Write a code to handle the missing values in a csv file using pandas library. | **(6)** | **Knowing** |
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|  |  | **UNIT-IV (CO4)** |  |  |
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| **Q.7** | **(a)** | Discuss some of the operators in python. Also discuss the bitwise not operator in python. | **(6)** | **Applying** |
|  |  |  |  |  |
|  | **(b)** | Discuss inheritance and its importance in programming. Also discuss types of inheritance. | **(6)** | **Applying** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.8** | **(a)** | Create a class A and inherit it in class B. Now create the object of class B and use it to run the functions/methods of class A. | **(6)** | **Knowing** |
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|  | **(b)** | What do you understand by file handling and how to read and write the files using python? | **(6)** | **Differentiating** |
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|  |  | **UNIT V (CO5)** |  |  |
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| **Q.9** | **(a)** | Differentiate between List and Tuple and write the codes to justify your answer. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | How to import the own file in a python code. Create your own file ABC.py and import it inside DEF.py and run the functions of ABC.py file. | **(6)** | **Knowing** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.10** | **(a)** | Discuss and create the lambda function and also discuss its importance. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Write a code to check whether the number is prime or not. If the number is prime then print the square root of the same number. | **(6)** | **Knowing** |