**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, April 2023**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **1BC2198** | Roll No. | Total Printed Pages: 2 |
| **1BC2198** |  |
| BCA I Year II-Semester (Back) End Semester Examination, April 2023  **(AIDS / Mobile / Cyber Security / Cloud)** | |
| **BADCCA2105 / BCMCCA2105 / BCTCCA2105 / BCSCCA2105 : 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.-----------------------------------------**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **UNIT-I (CO1)** | **Marks** | **Bloom Level** |
| **Q.1** | **(a)** | Explain different types of operators in python. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Write a program to input 10 values in a list using for loop. | **(6)** | **Apply** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
|  |  |  |  |  |
| **Q.2** | **(a)** | What is the difference between list and tuple in python programming language with their functions? Explain with example | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Write a program in python to create a list from a user inputted numbers and create a new list having square of the all numbers in this list. | **(6)** |  |
|  |  |  |  |  |
|  |  | **UNIT-II (CO2)** |  |  |
|  |  |  |  |  |
| **Q.3** | **(a)** | What is the difference between list and tuple? Explain their functions with example. | **(6)** | **Understanding and Apply** |
|  |  |  |  |  |
|  | **(b)** | Write a program in python to check whether a number is prime or not with function passing number as a parameter. | **(6)** | **Apply** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
|  |  |  |  |  |
| **Q.4** | **(a)** | Write 10 built in string functions with their syntax. | **(6)** | **Understanding and apply** |
|  |  |  |  |  |
|  | **(b)** | Write a program in python to create function which takes a list name as parameter and separate all the even and odd numbers from the list and print. | **(6)** | **Apply** |
|  |  |  |  |  |
|  |  | **UNIT-III (CO3)** |  |  |
|  |  |  |  |  |
| **Q.5** | **(a)** | What are dictionaries in Python? Write a program in python to create a dictionary with user inputted key and values.(At least 10 elements) | **(6)** | **Understanding and Apply** |
|  |  |  |  |  |
|  | **(b)** | Write different loops in python. Write a program in python to print a table of 1-20 numbers using for loop. | **(6)** | **Apply** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
|  |  |  |  |  |
| **Q.6** | **(a)** | Explain list and tuples with operation which may be performed on them. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  | **(b)** | Write a program in python having function to take basic salary as parameter and calculate gross salary of the employee.  DA=40% of Basic  TA= 5000  HRA=12% of Basic  Gross=Basic+DA+TA+HRA | **(6)** | **Apply** |
|  |  |  |  |  |
|  |  | **UNIT-IV (CO4)** |  |  |
|  |  |  |  |  |
| **Q.7** | **(a)** | What do you mean by file handling? Explain different operation which may be performed on a file. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Write a program in python to open a text file and print its contents also write some text in this file and print complete text. Mention comments clearly. | **(6)** | **Apply** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
|  |  |  |  |  |
| **Q.8** | **(a)** | What are the different function of OS module in python? Write a program in python to confirm whether a file exist and delete it if it is there. | **(6)** | **Understanding and Apply** |
|  |  |  |  |  |
|  | **(b)** | Write a program in python to open a file in append mode and add 5 student’s name, addresses, email and phone number and add them in a file and print its contents on the screen. | **(6)** | **Apply** |
|  |  |  |  |  |
|  |  | **UNIT V (CO5)** |  |  |
|  |  |  |  |  |
| **Q.9** | **(a)** | What do you understand by Exception Handling? Explain different types of inbuilt exceptions in python. | **(6)** | **Remembering** |
|  |  |  |  |  |
|  | **(b)** | Explain different regular Expression Patterns with example. | **(6)** | **Understanding and Apply** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
|  |  |  |  |  |
| **Q.10** | **(a)** | What do you mean by Regular expression in python? Explain different methods available in re module. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Explain quantification in regular expression. Write a program in python to search for a word in a existing file and print as many time that is occurring during file read function. | **(6)** | **Understanding and Apply** |