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**GIET UNIVERSITY, GUNUPUR – 765022**

M. C.A. (Third Semester) Examinations, September – 2021

MCA20303 – Python Programming

Time: 3 hrs

Maximum: 70 Marks

(The figures in the right hand margin indicate marks.)**PART – A****(2 x 10 = 20 Marks)**Q.1. Answer **ALL** questions

- Define mutability and immutability.
- Define extensible and embedded features.
- List out applications of Python.
- Illustrate about super with an example.
- Define break and continue statements.
- Define the purpose of the pass keyword with an example.
- Explain the difference between exception and error.
- Define the use of float() and expect the output for float(False).
- Define a constructor with an example.
- Explain seek() and tell() functions in python.

PART – B**(10 x 5 = 50 Marks)**Answer **ANY FIVE** questions

- | | Marks |
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| 2. a. List out features of Python Programming. | 5 |
| b. Explain the tuple data type with an example. | 5 |
| 3.a. Explain the following type casting methods with an example: complex(),bool(). | 5 |
| b. Explain identity operators with examples. | 5 |
| 4. a. Implement a python program to find the area of a circle using a math module. | 5 |
| b. How to import math module and implement any 5 math functions with an example. | 5 |
| 5.a. Define reduce and filter functions with an example. | 5 |
| b. Given that n = [2, 3, 4, 6], write a map function to produce the cubes of the list n.
Output: s = [8, 27, 64, 216]. | 5 |
| 6. a. Explain the concept of inheritance. Illustrate multi-level and multiple inheritances with examples. | 5 |
| b. Illustrate how to raise user-defined exceptions in python with an example. | 5 |
| 7.a. Implement a python program to count the number of characters, words, and lines in a file. | 5 |
| b. Define Zero Division Error in the outer try and Value Error in the inner try block with an example. | 5 |
| 8. a. Define default except block with examples. | 5 |
| b. Define a user-defined exception for the following cases: | |
| i. If the credits are more than 170 then raise the exception as “Degree with specialization” | |
| ii. If the credits are in between 150 to 170 then raise the exception as “Degree with honors” | 5 |
| iii. If the credits are less than 150 then raise the exception as “Normal Degree” | |

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