**Internal Assessment Question Paper – 2**
**Ramaiah Institute of Technology**
**(Autonomous Institute Affiliated to VTU)**
**Department of CSE**

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| Programme: B.E | Term: 30.11.2022-10.03.2023 |
| Course : Introduction to Python Programming | Course Code :PLC142 |
| CIE: 2    Sem:. | Section:1-6 |
| Max Marks: 30    Time: 1Hr | Portions for Test: L12 – L22 |

**Instructions to Candidates:**
1. **Question No. 1 is Mandatory**
2. Answer any one question from Question No. 2 or 3. Each Question carries 15M.
3. Mobiles, smart watches or any electronic gadgets are strictly banned.

| Sl# | Question | Marks | Bloom's Level | CO Mapping |
|---|---|---|---|---|
| 1a | What would the below code produce when executed (if there is an exception please do mention the name of the exception)? | 5 | L3 | CO5 |
| | i.     print(55/0) | | | |
| | ii.    a = [ ]<br>        print(a[5]) | | | |
| | iii.   defget_age():<br>            age = input('Please enter your age: ')<br>            if age < 0:<br>                raise ValueError, '%s is not a valid age' % age<br>            return age<br><br>        >>>get_age()<br>        Please enter your age: -2 | | | |
| | iv.    >>>tup = ("a", "b", "d", "d")<br>        >>>tup[2] = "c" | | | |
| | v.     defrecursion_depth(number):<br>        print("Recursion depth number", number)<br>    try:<br>        recursion_depth(number + 1)<br>        except:<br>        print("I cannot go any deeper into this .")<br><br>        recursion_depth(0) | | | |
| b. | Explain Pure Functions with an example. | 5 | L2 | CO4 |
| c | Explain namespace with an example. | 5 | L2 | CO3 |

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| | **2 OR 3** | | | |
| 2a | What is operator overloading? Write a python program to create a class called Mylist that shadows a python list: it should overload + operator to append the data to the list. Also provide constructor for your class that takes an existing list. | 5 | L3 | CO4 |
| b | How to read the whole file at once in Python? Explain this concept with a program in detail. | 5 | L3 | CO3 |
| c | Explain the following with an example: <br>   i.    finally clause <br>   ii.    try statement | 5 | L2 | CO5 |
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| 3a | What is an exception? When can we raise an exception? Write a python program to raise an exception which reads input from the user and check that the number is non-negative. | 5 | L2 | CO5 |
| b | What is a Linear Search? Write a program for Linear search in Python. | 5 | L3 | CO3 |
| c | Explain briefly with an example for each of the following: <br>   i.    Converting an instance to a string <br>   ii.    Instances as return values <br>   iii.    Objects are mutable | 5 | L2 | CO4 |