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| **MODEL QUESTION PAPER** | | | | | | |
| **INTRODUCTION TP PYTHON PROGRAMMING**  **Category: Programming Language Course**  **(Common to all Programs)** | | | | | | |
| **Course Code** | **:** | 22PL15A |  | **SEE** | **:** | **100 Marks** |
|  |  |  |  | **SEE Duration** | **:** | **3.00 Hours** |

***INSTRUCTIONS:***

* **Answer all the questions from Part-A**
* **Answer any 5 full questions from Part-B choosing one from each choice.(Question number 2 is compulsory)**

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|  | **QUESTIONS** | **Marks** | **CO** | **BT** | **PO** |
| 1.1 | List the features of python programming language. | 2 | 1 | 1 | 1 |
| 1.2 | What will be the output of the following code snippet?  a = 3  b = 1  print(a, b)  a, b = b, a  print(a, b) | 1 | 2 | 2 | 2 |
| 1.3 | What will be the output of the following code snippet?  print(2\*\*3 + (5 + 6)\*\*(1 + 1)) | 2 | 1 | 2 | 1 |
| 1.4 | What will be the output of the following code snippet?  i = 1  while True:  if i%007 == 0:  break  print(i)  i += 1 | 2 | 2 | 3 | 2 |
| 1.5 | What will be the output of given Python code?  n=7 c=0 while(n):  if(n>5):  c=c+n-1  n=n-1  else:  break print(n) print(c) | 2 | 1 | 1 | 1 |
| 1.6 | What will be the output of this code?  a = ['XX', 'YY']  for i in a:  i.lower()  print(a) | 1 | 1 | 1 | 1 |
| 1.7 | What is the output of the following code? dict1 = {"key1":1, "key2":2} dict2 = {"key2":2, "key1":1} print(dict1 == dict2) | 1 | 1 | 2 | 2 |
| 1.8 | What is function in python?. Give an example. | 2 | 1 | 2 | 2 |
| 1.9 | What is the output of the following?  thistuple = ("apple", "banana", "cherry")  print(len(thistuple)) | 1 | 1 | 1 | 1 |
| 1.10 | With an example define exception handling. | 1 | 1 | 2 | 1 |
| 1.11 | Write the difference between global and local variable? Give an example. | 1 | 2 | 3 | 2 |
| 1.12 | Define the instance method. | 1 | 2 | 2 | 1 |
| 1.13 | What is the output of the following?  class Student:    count = 0  def \_\_init\_\_(self):        Student.count = Student.count + 1  s1=Student()  s2=Student()  s3=Student()  print("The number of students:",Student.count) | 1 | 2 | 2,2 | 1 |
| 1.14 | With an example define inheritance in python. | 2 | 2 | 2 | 1 |

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|  |  | **Marks** | **CO** | **BTL** | **PO** |
| 2 a. | What are variables? List the rules for defining variables. Give example for any two variables. | 8 | 1 | 1 | 1 |
| b. | List and explain any four string manipulation functions | 8 | 1 | 1 | 1 |
| 3a. | Write Python Program to reverse a number and also find the Sum of digits in the reversed number. Prompt the user for input. | 8 | 1 | 1 | 1 |
| b. | Write Python code to check if a given year is a leap year or not. | 8 | 1 | 2 | 1 |
|  | **OR** |  |  |  |  |
| 4 a. | Write Python program to find the GCD of two positive numbers. | 8 | 1 | 1 | 1 |
| b. | Write a python program for the following   * Fibonacci series * Factorial number | 8 | 2 | 3 | 2 |
| 5 a. | Write Python code to determine whether the given string is a Palindrome or not using slicing. | 8 | 4 | 3 | 3 |
| b. | Write a brief note on following functions of lists   * sort() * reverse() * remove() * extend() | 5 | 4 | 3 | 3 |
|  | **OR** |  |  |  |  |
| 6 a. | Write Python code to determine whether the given string is a Palindrome or not using slicing. | 8 | 2 | 2 | 2 |
| b. | Write a brief note on following functions of tuples   * index() * count() * sum() * min(),max() | 8 | 2 | 2 | 2 |

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|  |  | **Marks** | **CO** | **BTL** | **PO** | **PI CODE** |
| 7 a. | Briefly explain the following.   1. Default parameters 2. Global variables 3. Constants 4. Functions 5. Keyword arguments | 10 | 2 | 1 | 1 | 4.1  4.2 |
| b. | Illustrate working of Exception handling in detail. | 6 | 1 | 2 | 2 | 4.7 |
|  | **OR** |  |  |  |  |  |
| 8 a. | Steps of creating and handling file in python. Explain with example program. | 10 | 2 | 3 | 3 | 4.5 |
| b. | In detail explain parameterized and non-parameterized constructors | 8 | 3 | 3 | 3 | 4.3 |
|  | | | | | | |
| 9 a. | Demonstrate the classes and objects in python with code to sort a sequence of names according to their alphabetical order without using sort() function. | 10 | 2 | 2 | 2 | 5.1  5.2 |
| b. | Write an note on static methods. | 6 | 2 | 3 | 3 | 5.4 |
|  | **OR** |  |  |  |  |  |
| 10 a | Explain in detail three types of methods in python with relevant example. | 10 | 4 | 3 | 3 | 5.3 |
| b. | Illustrate the working of polymorphism in python. | 6 | 1 | 2 | 2 | 5.6 |
| **11** | **Any one Lab Program from list given in the syllabus** |  |  |  |  |  |