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**RV COLLEGE OF ENGINEERING®**  
 (An Autonomous Institution affiliated to VTU)  
 I Semester B. E. Examinations May-2023

Common to all programs

**INTRODUCTION TO PYTHON PROGRAMMING (ELECTIVE)**

*Time: 03 Hours*

*Maximum Marks: 100*

*Instructions to candidates:*

1. Answer all questions from Part A. Part A questions should be answered in first three pages of the answer book only.
2. Answer SIX full questions from Part B. In Part B question numbers 2 and 11 are compulsory. Answer any one full question from 3 and 4, 5 and 6, 7 and 8 & 9 and 10.

**PART-A**

1	1.1	What is the output of the following snippet? <i>Tuple</i> (10,20,30,40,50) <i>Tuple</i> [3] = 50	01
	1.2	What will be the output of this code? <i>a</i> = ['APPLE','BANANA'] <i>for</i> <i>I</i> <i>in</i> <i>a</i> : <i>print</i> ( <i>i.lower()</i> )	01
	1.3	What will be the output of the following code snippet? <i>a</i> = 100 <i>b</i> = 200 <i>print</i> ( <i>a,b</i> ) <i>a,b</i> = <i>b,a</i> <i>print</i> ( <i>a,b</i> )	01
	1.4	What is the output of the following code? <i>X</i> = "555" <i>Y</i> = <i>X</i> + <i>str</i> (9) <i>print</i> ( <i>Y</i> )	01
	1.5	Consider the following sequence <i>List</i> = [10,20,40,50,60] Add an integer 30 after the value 20.	01
	1.6	What is the output of the following statement? <i>print</i> ("\\a")	01
	1.7	Write the difference between the Conditional and Control Statements.	01
	1.8	What is the output of the following code? <i>for</i> <i>i</i> <i>in</i> <i>range</i> (1,10,2): <i>print</i> ( <i>i</i> )	01
	1.9	In what sense <i>pop()</i> function is different from <i>clear()</i> function in list.	01
	1.10	Write the output of the following code? <i>Fruits</i> = { ' <i>grapes</i> ' : ' <i>green</i> ' , ' <i>apple</i> ': ' <i>red</i> ' } <i>print</i> ( <i>Fruits.keys()</i> )	01

**PART-B**

2	a	Summarize the typical characteristics of the Python Language.	07
	b	Illustrate the following concepts with an example: i) Getting the input from the terminal ii) Type casting iii) Creating the Strings	07

3	a	Write Python Program to reverse a number and also find the Sum of digits in the reversed number. Prompt the user for input.	07
	b	Discuss Identity and Membership functions in python with an example.	07
<b>OR</b>			
4	a	Write a menu driven program to perform Arithmetic operations using Python.	07
	b	Discuss the usage of Bitwise Operators.	07
5	a	Illustrate Tuple operations.	07
	b	Consider a list <i>Example</i> = ['A','B','C','D','E'] and perform the following operations on the given list: i)     sort() ii)    extend iii)   index() iv)    copy()	07
<b>OR</b>			
6	a	Illustrate the concept the Dictionaries in python with an example.	07
	b	Consider a string <i>str</i> = 'RV College of Engineering' and perform the following operations on the given string: i)     capitalize() ii)    count iii)   endswith() iv)    find()	07
7	a	Discuss the concept of Global variable and Arbitrary Keyword Arguments in Python.	07
	b	Illustrate Exception handling in Python with an example.	07
<b>OR</b>			
8	a	With the help of Python functions, write a Python program to print the Multiplication table. Note: Accept the input from the Terminal	07
	b	Write a program to do the following tasks: i)     Creating a file ii)    Writing into the file iii)   Reading from the file.	07
9	a	Illustrate Default and Parameterized Constructor.	07
	b	Discuss the concept of Polymorphism with Inheritance.	07
<b>OR</b>			
10	a	Illustrate the relevance of Access Modifiers in Python.	07
	b	Discuss Static and Class Methods.	07
11	a	Consider a sequence of numbers with some missing values. Write a python program for inserting the missing values, and remove some of the values from the sequence. Also, add a few more values to the existing sequence.	10
	b	Create an Employee 'Employee' Database using dictionaries and perform the insert, search and display operations.	10