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RV COLLEGE OF ENGINEERING®
(An Autonomous Institution affiliated to VTU)
V Semester B. E. Examinations March / April-2023
Computer Science and Engineering
THE JOY OF COMPUTING USING PYTHON (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 FIVE full questions from Part B. In Part B question number 2, 7 and 8 are compulsory. Answer any one full question from 3 and 4 & one full question from 5 and 6

PART-A

1	1.1	Write any two Key features of Python Programming Language.	02
	1.2	What is the difference between lists and tuples?	02
	1.3	List out all Built-in Math Functions available in python	02
	1.4	Write a Python program to iterate over dictionaries using for loops.	02
	1.5	List out all Built-in Datetime Functions available in python.	02
	1.6	Write a Python program to display the first and last colors from the following list. color_list = ["Red","Green","White" ,"Black"]	02
	1.7	What is an Array ? Write a code snippet to create and display python Array.	02
	1.8	Write the set of built-in methods that are available in python arrays.	02
	1.9	Write a Python program to display the examination schedule. (extract the date from exam_st_date). exam_st_date = (11, 12, 2014) Sample Output : The examination will start from : 11 / 12 / 2014	02
	1.10	What are negative indexes and why are they used?	02

PART-B

2	a	Discuss in detail about the looping statements in python with an example code snippet.	08
	b	Write a Python program to construct the following pattern, using a nested for loop. *	08

3	a	Discuss the Tuple data structure in Python. Explain the concept of accessing, updating and deleting tuple elements with appropriate examples.	08
	b	Write a Python program to find the sum of all elements in a list data structure.	08
		OR	
4	a	Explain built in methods available in Python Set with suitable code snippet.	08
	b	Write a Python program to check whether a given key already exists in a dictionary.	08
5	a	Explain in detail about Python Functions with an example program.	08
	b	Write a Python program to implement sequential search algorithm	08
		OR	
6	a	Discuss in detail about Recursion in python with an example program.	08
	b	Write a Python function to check whether a number falls within a given range.	08
7	a	Explain in detail about "How to Do Sentiment Analysis on Facebook Data" with sample case studies.	08
	b	With sample code snippet, discuss in detail about python libraries and functions to perform the following operations: i. Read an image ii. Display an image.	08
8	a	Write a Python program to get the volume of a sphere with radius 6.	08
	b	Explain in detail about "Tower Of Hanoi concept" with an algorithm and a code.	08