



# P P SAVANI UNIVERSITY

Third Semester of B. Tech. Examination

December 2022

SECE2080 Application Based Programming in Python

03.12.2022, Saturday

Time: 10:00 a.m. To 12:30 p.m.

Maximum Marks: 60

## Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

## SECTION - I

Q - 1	Answer the Following:	[05]	CO	BTL
(i)	Define Python. List the important features of python.	1	1	1
(ii)	What is the output of print str[2:] if str = 'WELCOME TO SURAT'?	1	5	5
(iii)	Write a Python program to find the addition of two numbers.	2	6	6
(iv)	What are the different ways to make an empty NumPy array?	4	6	6
(v)	Write distinction between a list and a tuple.	3	1	1
Q - 2 (a)	What is Data type? Explain various data types used in Python.	[05]	1	1
Q - 2 (b)	Write a python program to implement Fibonacci sequence for given input.	[05]	4	6
	<b>OR</b>			
Q - 2 (a)	Discuss following Python's operators: Arithmetic, Assignment, Comparison, Logical with suitable examples.	[05]	1	1
Q - 2 (b)	Write a python program to convert decimal number to binary number.	[05]	4	6
Q - 3 (a)	Describe following string functions with syntax: title(), strip(), count(), islower(), isupper().	[05]	1	1
Q - 3 (b)	Consider the list lst=[16,14,12,10,8,6,4]. Write the Python program which performs the following operation. (i) Insert element 18 at beginning of the list. (ii) Insert element 2 at end of the list. (iii) Delete the element at index position 5. (iv) Print all elements in reverse order. Print element of index position 2.	[05]	4	6
	<b>OR</b>			
Q - 3 (a)	What is Data Visualization? What is the purpose of that? Which package is used for Data Visualization in Python?	[05]	3	2
Q - 3 (b)	Discuss in brief python "Dictionaries" with example. Assume that the variable data refers to the dictionary {'b':20, 'a':35}. Write the values of the following expressions: (i) data['a'] (ii) data.keys()	[05]	3	5
Q - 4	Attempt any one.	[05]		
(i)	Explain following List methods in python with appropriate example. (i) append() (ii) insert() (iii) remove() (iv) clear() (v) reverse()	3	1	1
(ii)	Explain break and continue statement in python with suitable example.	3	3	3
	<b>SECTION - II</b>			
Q - 1	Explain Following Terms:	[05]		
(i)	__init__()	2	1	1

(ii)	Findall()		2	1
(iii)	_name_()		2	1
(iv)	import		3	2
(v)	Super()		2	1
Q - 2 (a)	What is Method Overloading? Explain how to achieve Method overloading in Python with suitable example.	[05]	3	2
Q - 2 (b)	What is Constructor? Explain with suitable example.	[05]	3	2
	<b>OR</b>			
Q - 2 (a)	What is Operator Overloading? Explain with appropriate example.	[05]	3	2
Q - 2 (b)	What is destructor? Explain with suitable example.	[05]	3	2
Q - 3 (a)	Consider a situation where we need to work with a file. Perform the following operations: (a) Create a File and Write the content "Hello All..." (b) Open the same file again and append "The End" content to a File. (c) Read and Display contents of a File.	[05]	4	6
Q - 3 (b)	What is Regular Expression? What is the purpose of creating regular Expression?	[05]	3	2
	<b>OR</b>			
Q - 3 (a)	Write a python script to count the number of Lines and words from a specified File	[05]	4	3
Q - 3 (b)	List and explain any four methods of RE module.	[05]	2	3
Q - 4	What is Flask. Demonstrate Flask with sample application.	[05]	4	6

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CO : Course Outcome Number

BTL : Blooms Taxonomy Level

Level of Bloom's Revised Taxonomy in Assessment

1: Remember	2: Understand	3: Apply
4: Analyze	5: Evaluate	6: Create