## VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

Accredited by NAAC with A++ Grade

## B.E. III-Semester Main Examinations, Jan./Feb.-2024

## Computing Using Python (OE-I)

Time: 3 hours

Max. Marks: 60

Note: Answer all questions from Part-A and any FIVE from Part-B  $Part-A (10 \times 2 = 20 \text{ Marks})$ 

Q. No.	Stem of the question	M	L	СО	PO
1.	Write syntax of if-else statement in python with suitable example.	2	2	1	1
2.	List any two features of python language.	2	1	1	1
3.	What is the difference between find () and index () method in lists.	2	2	2	1
4.	How to create a single element in tuple?	2	1	2	1
5.	What is the difference between lists and sets in python?	2	1	3	1
6.	List any two methods in dictionary with suitable example	2	2	3	1
7.	How to create a private variable in class in python.	2	1	4	1
8.	Write down the syntax of open() function in files in python	2	2	4	1
9.	Write a python code to swap two numbers without using third variable.	2	2	1	1
10.	How range () function works, explain with suitable example?	2	2	2	1
	Part-B $(5 \times 8 = 40 \text{ Marks})$	9 1 to			
11. a)	What is the significance of break, continue and pass statement in python.	4	1	1	1
b)	Write a program in python to find factorial of number 'N' using recursive function.	4	3	1	2
12. a)	Using slicing perform following operations on string	4	3	2	2
	<ul> <li>i) Reverse of string</li> <li>ii) Swap First and Last character in a string</li> <li>iii) Display every alternative charter in a string.</li> <li>iv) Display every 3<sup>rd</sup> character in a string</li> </ul>				
b)	Write a python program to create a list of N elements and calculate sum of odd numbers and sum of all even numbers in it.	4	3	2	2

13. a)	What is the output of following code:	4	3		3	2
	S1={1,2,3,4,5,6,7}					
	S2={4,5,6,7,8,9,10}					
	print(s1 s2)		ing.			
	print(s1&s2)		• •			
	print(s1-s2)					
	print(s1.symmetric_difference(s2)					
	s1.add(15)		2011			
	s2.remove(4)					
	print(s1 s2)					
	print(s1&s2)	uli	* #			
	print(s1-s2)					
	print(s1.symmetric_difference(s2)					
b)	Generate the following output in dictionary using comprehensive	4	3	-	3	2
	Output = { 'A": 65, 'B': 66, 'C': 67,'Z': 90 }					
14. a)	Explain various methods present in files with example.	4	2		4	1
b)	Write a code, class that has a list of integers as data members and read (),	4	4		4	2
	display (), find-largest (), find-smallest (), sum (), and find-mean () as its member functions.	) (1)				
	member functions.					
15. a)	Explain while and for loop with suitable example.	4	1		1	1
b)	Explain methods and functions present in string in python programming.	4	2		2	1
16. a)	Write a program to create a set of prime number from a list consisting of elements from 1 to N.	4	3		3	2
b)	Explain the various functions present in PICKLE and JSON.	4	2		4	1
	Answer any <i>two</i> of the following:					
17. a)	Explain comparison operator and logical operator with python code.	4	2		1	1
b)	Write python code to find maximum element in a list.	4	3		2	2
c)	Explain different types of inheritance present in python programming with block diagram.	4	2		3	1

M: Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	20%		
ii)	Blooms Taxonomy Level – 2	40%		
iii)	Blooms Taxonomy Level – 3 & 4	40%		

\*\*\*\*