Hall Ticket Number:

Code No. : 13165 AO

VASAVI COLLEGE OF ENGINEERING *(AUTONOMOUS)*, HYDERABAD
Accredited by NAAC with A++ Grade
B.E. III-Semester Backlog Examinations, Jan./Feb.-2024

Principles of Python Programming (OE-I)

Time: **3 hours**   Max. Marks: **60**

*Note: Answer all questions from **Part-A** and any **FIVE** from **Part-B***

Part-A (10 × 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO
1.	Explain membership operators with an example for each.	2	1	1	1,2
2.	Discuss about Operator Precedence and write the output of given equation as per operator precedence: (5+3)*4/2+1	2	2	1	1,2
3.	Write about type conversion and give an example.	2	1	2	1,2
4.	Explain how user defined functions will be created and invoked with a suitable example.	2	2	2	1,2
5.	Illustrate indexing and slicing operations on strings with examples.	2	1	3	1,2
6.	What will be the output of the following code snippet? a=[1,2,3,4,5,6,7,8,9] a[::2]=[10,20,30,40,50] print(a)	2	3	3	1,2
7.	"Tuple is immutable". State whether this statement is true or false and justify your answer.	2	3	4	1,2
8.	What will be the output of the following code snippet? a = {(1,2):1,(2,3):2} print(a[1,2])	2	3	4	1,2
9.	What is the output of the following code snippet: X="vasavi" Y=20 Print(X+Y)	2	3	1	1,2
10.	Write any three advantages of functional programming.	2	1	2	1,2
	Part-B (5×8 = 40 Marks)				
11. a)	Discuss about nested conditional statement and write a program to accept any 3 numbers from user and print maximum of them.	4	1	1	1,2
b)	Explain the purpose of while loop along with syntax and write a program to print odd numbers from 1 to 100 (both inclusive) using while loop.	4	3	1	1,2

		M	L	CO	PO
12. a)	Discuss about recursion and write a program to print factorial of a number using recursion.	4	3	2	1,2
b)	Distinguish recursive and nonrecursive functions and write any four advantages of recursive functions.	4	3	2	1,2
13. a)	Explain string concatenation and string comparison with suitable examples for each.	4	3	3	1,2
b)	Discuss about any four list manipulation methods with suitable example.	4	2	3	1,2
14. a)	Explain how tuple can be used a return value with an example.	4	2	4	1,2
b)	Define a dictionary and discuss about items() and keys() methods with an example.	4	1	4	1,2
15. a)	Discuss the different loop control statements available in python with relevant examples.	4	2	1	1,2
b)	Explain about function parameters and arguments with a relevant example.	4	3	2	1,2
16. a)	Write a function to check for occurrence of a character in a string. Parameters to the function should be string and the character to search for.	4	2	3	1,2
b)	Write a program to demonstrate traversal through the dictionary with an example.	4	2	4	1,2
17.	Answer any *two* of the following:				
a)	Write a program to compute simple interest by accepting principal amount, interest rate and number of years from the user and print the simple interest.	4	3	1	1,2
b)	Define what is a default argument and write a python program to define a function using default arguments.	4	2	2	1,2
c)	Explain about string find() and split() methods with an example.	4	2	3	1,2

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%

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