

Hall Ticket Number:

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Code No. : 13165 N (B)

**VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD**

*Accredited by NAAC with A++ Grade*

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

**Introduction to 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.	Define variable. How can we assign same value to multiple variables?	2	1	1	1,2										
2.	Write a python program to find remainder and quotient of two numbers.	2	2	1	1,2,3										
3.	Write the output for the following code snippet: def addition(a,b=10): print(a+b) addition(2,5) addition(10)	2	3	2	1,2										
4.	Define recursion in python with example.	2	1	2	1,2										
5.	Illustrate string slicing with example.	2	1	3	1,2										
6.	Explain list membership in python with an example.	2	2	3	1,2										
7.	Illustrate a tuple with index(), count() methods.	2	1	4	1,2										
8.	Write the output for the following code snippet: d = {'x': 1, 'y': 2, 'z': 3} print(d.items()) print(d.values())	2	3	4	1,2										
9.	Write a python program to check if input value is positive or negative number.	2	3	1	1,2,3										
10.	Illustrate mathematical functions in python with an example.	2	2	2	1,2,3										
<b>Part-B (5 × 8 = 40 Marks)</b>															
11. a)	What is an operator? Classify the logical operators and its implementation with an example.	4	1	1	1,2										
b)	A College has following rules for grading system:	4	4	1	1,2,3										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Percentage (%) of marks</th> <th>Grade</th> </tr> </thead> <tbody> <tr> <td>&gt; 80%</td> <td>A</td> </tr> <tr> <td>61% to 80%</td> <td>B</td> </tr> <tr> <td>41% to 60%</td> <td>C</td> </tr> <tr> <td>&lt;= 40%</td> <td>Fail</td> </tr> </tbody> </table>		Percentage (%) of marks	Grade	> 80%	A	61% to 80%	B	41% to 60%	C	<= 40%	Fail				
Percentage (%) of marks	Grade														
> 80%	A														
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<= 40%	Fail														
i) Write a Python program to take the input for 3 subject marks, calculate the percentage and print the corresponding grade.															

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12. a)	Show with an example how the parameters and arguments are being passed to the function in python.	4	1	2	1,2
b)	Differentiate type conversion and coercion in python with an example.	4	2	2	1,2
13. a)	Why strings are immutable in python. Consider the string "hello". Replace "l" with "p". Check whether it is modifying the original string or not.	4	3	3	1,2
b)	Write a Python program to display the elements at alternative positions in the list.	4	2	3	
14. a)	Define and implement tuple assignment in python.	4	2	4	1,2
b)	Write a Python program to count the number of characters (character frequency) in a string. <b>Sample Example</b> college {'c': 1, 'o': 1, 'l': 2, 'e': 2, 'g': 1}	4	4	4	1,2,3
15. a)	Show the implementation of while statement in python.	4	2	1	1,2
b)	Write a Python program to calculate the factorial of a given number using recursion.	4	4	2	1,2,3
16. a)	Write a Python script that takes the input string from the user and then display the output in uppercase and lowercase. <b>Sample Example</b> Enter the String = Python Uppercase = PYTHON Lowercase = python	4	3	3	1,2
b)	Write a Python program to create a dictionary with 3 elements and remove the last element from the dictionary.	4	3	4	1,2
17.	Answer any <i>two</i> of the following:				
a)	Write a Python program to print sum of odd numbers between 1 to 100 numbers.	4	3	1	1,2,3
b)	What is a function and list its advantages. With the help of an example define a function and function calls.	4	2	2	1,2
c)	Classify list operations in python and its implementation.	4	3	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	32.5%
iii)	Blooms Taxonomy Level – 3 & 4	47.5%

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