

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY (VSSUT), ODISHA
Odd Mid Semester Examination for Academic Session 2024-25

COURSE NAME: B. TECH

SEMESTER: 3RD

BRANCH NAME: CE, ME, PE, ~~CM~~ MME
SUBJECT NAME: PYTHON

FULL MARKS: 30

TIME: 90 Minutes

Answer All Questions.

The figures in the right hand margin indicate Marks. *Symbols carry usual meaning.*

- Q1. Answer all Questions. [2 × 3]
- a) What is data type in python? List out any 4 data types in python. - CO1
 - b) What is module in python? Give example of any 2 built-in modules in python. - CO2
 - c) What are the features and applications of python? - CO3

- Q2. [4]
- CO1
- a)
- listA = [57, 8, 69, 15, 30] listB = ['Ram', 10, 'bull', 15]
- Use list methods to do the following tasks :-
- i) Find the length of both listA and listB.
 - ii) Sort listA in ascending order and find the highest element inside it.
 - iii) Make a new list consisting of first 3 elements from listA using slice method.
 - iv) Add elements of listB to listA.
- b)
- i) Define variable with an example. List out the rules for naming a variable. [4]
 - ii) Write the syntax and uses of while loop.
 - iii) Write a program to find the sum of first 20 odd numbers.

OR

- c) Write a program to print odd numbers between 23 and 87. Then also display the prime numbers among the found odd numbers. [4]
- CO1
- d) Define operators and list its types. Explain about assignment and membership operators with example. [4]

- Q3.
- a) Write a program to find the greatest common divisor of two numbers. [4]
 - b) Write a program to take a user defined list and swap adjacent elements present in the list. - CO2
Example:- listA = [10, 20, 30, 50] => [20, 10, 50, 30] [4]

OR

- c) Define string.

[4]
- CO2

Sentence1= "I love VSSUT"

Use string methods to perform the following tasks:-

i)Find the length of the string.

ii)Split the string at spaces.

iii)Count the number of times the character 'v' occurs in the given string.

- d) Write the difference between break and continue with example. Can you convert an integer to a string? If Yes, Then how?

[4]

numA= 6+1j

What is the datatype of numA and how to find its datatype?

Q4.

- a) Fruits=['peach','watermelon','mango','apple']

[4]

Write a program to check which element in the list consists of the character 'g' in it.

- CO3

- b) Write a program to accept an integer and display its binary number.

[4]

OR

- c) Shruti, Arushi, Salman, Henry, Ana are 5 friends, who have planned a trip to Shimla. Among them, Arushi calls in sick. Using list methods:-

[4]
- CO3

i)Remove Arushi from the list.

ii)Add Rakesh and Divya to the list

iii)Find the length of the new list.

iv)Find the position of Salman in the list.

- d) Explain the following methods with an example and concerned output :-

[4]

i)pop

ii)copy

iii)remove

iv)insert