

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, CMA, 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]
- a) - CO1
- 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) [4]
- i) Define variable with an example. List out the rules for naming a variable.
 - 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]
- CO2
 - b) Write a program to take a user defined list and swap adjacent elements present in the list. [4]
Example:- listA = [10, 20, 30, 50] => [20, 10, 50, 30]

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