

GUJARAT TECHNOLOGICAL UNIVERSITY**B.VOC - SEMESTER– IV EXAMINATION – WINTER 2023****Subject Code:21140204****Date:11-12-2023****Subject Name: Python Programming****Time:02:30 PM TO 04:30 PM****Total Marks:50****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

- Q.1** (a) Explain basic structure of Python program. **05**
(b) Explain different data types in Python. **05**
- Q.2** (a) Explain different operators in Python. **05**
(b) Explain Looping Control Statements in Python with examples. **05**
- OR**
- (b) Explain different conditional statements used in Python with examples. **05**
- Q.3** (a) Explain different math modules used in Python with examples. **05**
(b) Write a script to traverse a dictionary. **05**
- OR**
- Q.3** (a) Write a Python Program for Sum of squares of first n natural numbers. **05**
(b) Explain any five functions of list. **05**
- Q.4** (a) Explain errors and exceptions in Python. **05**
(b) Explain various tuple functions. **05**
- OR**
- Q.4** (a) Explain debugging with pdb using suitable example. **05**
(b) Write a Python script to find minimum, maximum and mean of given 10 numbers. **05**
- Q.5** (a) “Strings are immutable.”-Justify the statement with suitable example. **05**
(b) Write a Python code to perform bubble sort. **05**
- OR**
- Q.5** (a) What is string? Write down important points for accessing elements in the strings using subscripts. **05**
(b) Write a Python code to perform insertion sort. **05**
