

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- SEMESTER-V (NEW) EXAMINATION – WINTER 2020****Subject Code:3152413****Date:01/02/2021****Subject Name:Python Programming (Power Electronics)****Time:10:30 AM TO 12:30 PM****Total Marks: 56****Instructions:**

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) Give syntax of the methods which can be used to take input from the user in python program.	03
	(b) Explain iteration using while loop with example.	04
	(c) Draw the flowchart of conditional statement and explain if else statement with appropriate example.	07
Q.2	(a) How do you define a function? What are the benefits of using function?	03
	(b) What is output of the following code?	04
	<pre>def function(x): print(x) x = 4.5 y = 3.4 print(y) x = 5 y = 4 function(x) print(x) print(y)</pre>	
	(c) What is use of recursion in python programming? Write program that prompts user to enter nonnegative integer and display the factorial for the number using recursion.	07
Q.3	(a) Explain list in python.	03
	(b) Give output of following python code:	04
	<pre>str1 = "This is Pyhton" print ("Slice of String : ", str1[1 : 4 : 1]) print ("Slice of String : ", str1[0 : -1 : 2])</pre>	
	(c) Explain Dictionaries with example.	07
Q.4	(a) Explain slicing operator in list with example.	03
	(b) How append() and extend() are different with reference to list in python?	04
	(c) Explain Tuples in python with example.	07
Q.5	(a) Explain Exception handling in python.	03
	(b) Explain black box testing with appropriate example.	04



(c) What are bugs? Write about different types of bugs. What steps will you perform to identify and remove the bugs in a python script? **07**

- Q.6** (a) Define testing and debugging. What is test suit with reference to testing? **03**
- (b) Explain glass box testing with appropriate example **04**
- (c) Which are commonly occurring type of exceptions? Explain value error exception handling with example. **07**
- Q.7** (a) Give syntax used for labeling of title and all axes in plotting graph. **03**
- (b) Create a class Employee with data members: name, department, salary. Create suitable methods for reading and printing employee information. **04**
- (c) Give difference between abstract class and interface in python using example. **07**
- Q.8** (a) Explain basic idea behind hash table with suitable example. **03**
- (b) Write a python program to implement multiple Inheritance. **04**
- (c) Write a python program to implement merge sort. **07**
