

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII EXAMINATION – SUMMER 2025

Subject Code:2180711

Date:28-05-2025

Subject Name: Python Programming

Time:10:30 PM TO 01:00 PM

Total Marks:70

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) Define the terms: **03**
1) Assertion 2) Regular Expression 3) Recursion
- (b) Define specifications. Explain “docstring” in python. **04**
- (c) Explain exception. Explain exception handling in python with suitable example. **07**
- Q.2** (a) Explain scoping of GLOBAL variables in Python. **03**
- (b) Define the terms: **04**
1) Mutability 2) Lambda Abstraction 3) Cloning 4) readline()
- (c) Compare list, tuple and dictionary data types in python. **07**
- OR**
- (c) Define Testing. Explain Black Box Vs Glass Box testing. **07**
- Q.3** (a) Explain Hash Table with suitable example. **03**
- (b) Explain different functions which allow searching a string for a match. **04**
1) findall 2) group 3) match 4) search
- (c) Explain the use of PyLab in python. Explain use of plot(), show() and title() functions of PyLab. **07**
- OR**
- Q.3** (a) Write a python code to establish socket connection between two machines. **03**
- (b) Write a program to implement Caesar Cipher. **04**
- (c) Define inheritance. Explain multiple inheritances with suitable example. **07**
- Q.4** (a) Explain the following Turtle methods in Python. **03**
1) Turtle() 2) begin_fill() 3) stamp()
- (b) Write a python program to implement Binary Search algorithm. **04**
- (c) Define Lambda function. Write a program to find area of triangle using Lambda function. **07**
- OR**
- Q.4** (a) Define Turtle. Explain the use of it in Python. **03**
- (b) Explain if...else in python with suitable example. **04**
- (c) A company having turnover = [110000, 130000, 164000, 190000, 215000] and profit percentage = [9.5, 9, 8.25, 8.75, 9.25] of past 5 years. Draw line chart showing growth of profit (in amount) and turnover using pylab module in python. Draw both graphs in same figure. **07**

- Q.5** (a) Define the terms: **03**
1) Dynamic Binding 2) Encapsulation 3) Abstraction
- (b) Define default argument. Explain with suitable example. **04**
- (c) Write a python program to implement class named “Student” having methods input, display, enrol_no, name, branch, gender as the variables. **07**
- OR**
- Q.5** (a) Write a python program to remove the leading zeros from the IP address. **03**
- (b) Enlist the steps to create chat application using python. **04**
- (c) Write a python program using Tkinter as below. **07**

