

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MCA INTEGRATED– SEMESTER - IV EXAMINATION- SUMMER-2023**

**Subject Code: 2648601****Date: 01/07/2023****Subject Name: Python****Time: 10:30 AM 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. Use of simple calculators and non-programmable scientific calculators are permitted.

- Q.1 (a)** Do as directed.
- |      |  |           |
|------|--|-----------|
| i)   | Write “lambda” function to generate total of two values ( x and y).    | <b>01</b> |
| ii)  | Write assertion syntax to check that given input for mark is upto 100. | <b>01</b> |
| iii) | What is decorator in python?   | <b>02</b> |
| iv)  | What is the use of reduce()?   | <b>02</b> |
| v)   | What is the difference between method and function?                    | <b>02</b> |
- (b)** Explain List, tuple and dictionary in python. **06**
- Q.2 (a)**
- |     |  |           |
|-----|--|-----------|
| i)  | Explain how to use local and global variables in python.       | <b>04</b> |
| ii) | Explain “in”, “not in”, “is”, “is not” in Python with example. | <b>03</b> |
- (b)** Explain using code snippet for read and write operation in python from file Employee (employeeNo, name, salary). **07**
- OR**
- (b)** Explain using code snippet for insert, update and delete rows operation into mysql database in python from table Employee (employeeNo, name, salary). **07**
- Q.3 (a)** Explain how one can handle exceptions with try, except, and finally in Python. **07**
- (b)** Explain Formal arguments, Actual Arguments, Positional Arguments, Keyword Arguments and Default Arguments implementation in functions. **07**
- OR**
- Q.3 (a)** Explain how to implement user defined exception in python. **07**
- (b)** What is modules? Discuss various ways to import module in python. **07**
- Q.4 (a)** What is Data frame? Explain read\_csv() , head() and tail() methods **07**
- (b)**
- |     |   |           |
|-----|---|-----------|
| i)  | Explain file handling seek() and tell() methods used in python. | <b>04</b> |
| ii) | Explain slicing in python List using suitable example.          | <b>03</b> |
- OR**
- Q.4 (a)** Explain below function of pylab library with suitable examples. **07**  
 1.figure(), 2. plot(), 3.savefig(), 4.title(), 5.xlabel(), 6.ylabel(), 7. legend()
- (b)**
- |     |   |           |
|-----|---|-----------|
| i)  | Explain list comprehension and cloning in python.               | <b>04</b> |
| ii) | Explain read() and readlines() methods used on files in python. | <b>03</b> |
- Q.5 (a)** Write the general syntax of class declaration in python. Explain declaration of class and its object with example **07**
- (b)** Explain re.match( ) and re.search( ) methods using suitable example. **07**
- OR**
- Q.5 (a)** What is inheritance? Write a program to describe inheritance in python. **07**
- (b)** Discuss various special symbols and characters used in Regular expression **07**

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