

**Code No: 153CD****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech II Year I Semester Examinations, April/May - 2023****PYTHON PROGRAMMING****(Common to CSBS, CSIT, ITE, CE(SE), CSE(CS), CSE(DS), CSE(IOT), CSE(N), AI&DS,  
AI&ML, CSD)****Time: 3 Hours****Max. Marks: 75**

- Note:** i) Question paper consists of Part A, Part B.  
ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.  
iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

**PART – A****(25 Marks)**

- 1.a) Distinguish between set and dictionary. [2]
- b) Distinguish between mutable and immutable types. [3]
- c) Outline the standard files in python. [2]
- d) What is the difference between try-except and try-finally? [3]
- e) Which type of multithreaded application is better in Python, I/O-bound or CPU-bound? Why? [2]
- f) Frame a regular expression to match the set of the string representations of all Python complex numbers. [3]
- g) What is Partial Function Application? [2]
- h) List the Web Server Modules and Classes. [3]
- i) What are the possible values of thread safety attribute of DB-API module? [2]
- j) What are the differences between the cursor fetch\*() methods? [3]

**PART – B****(50 Marks)**

- 2.a) Explain the functions used to convert lists to tuples and vice versa.
  - b) Mention the object value comparison and object identity comparison operators. [5+5]
- OR**
- 3.a) Elaborate on arithmetic operators in python.
  - b) Determine the least common multiple of a pair of integers. [5+5]
- 4.a) Elaborate on raise statement used to raise exceptions.
  - b) Compare and contrast absolute import and relative import in packages. [5+5]
- OR**
- 5.a) Display all lines of a file, except those that start with a pound sign ( # ).
  - b) How to detect and handle exceptions? [5+5]

- 6.a) Develop Fibonacci, factorial, and summation (sum of n natural numbers) functions as multithreaded application.  
b) Elaborate on Queue class. [5+5]

**OR**

7. Discuss in detail re Module and its Core Functions and Methods. [10]

- 8.a) Develop GUI application using Pmw module.  
b) Describe the Core urlparse Module Functions. [5+5]

**OR**

- 9.a) Develop GUI application using wx module.  
b) Write an application to store names and corresponding phone number of friends into a two-column text file on disk and continue to add names each time the script is run. [5+5]

- 10.a) Write SQL commands to perform the various database operations.  
b) Describe the multi-tiered communication between application and database. [5+5]

**OR**

- 11.a) Discuss the various Connection Object Methods.  
b) How to use database adapter with MySQL? [5+5]

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