

R18

Code No: 153CD

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech II Year I Semester Examinations, February - 2024

PYTHON PROGRAMMING

**(Common to CSBS, CSIT, ITE, CE(SE), CSE(CS), CSE(AI&ML), 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) Explain about standard type operators. [2]
- b) Explain about random module. [3]
- c) Explain Python modules for serialization and persistency. [2]
- d) How are namespaces and variable scopes different from each other? [3]
- e) What are processes? [2]
- f) Create RE to match the set of all valid e-mail addresses. [3]
- g) What are the most common Web servers? [2]
- h) Describe Label, Button, and Scale demo program. [3]
- i) What are open-source RDBMSs? [2]
- j) Explain about DB-API exception classes. [3]

PART – B

(50 Marks)

- 2.a) What are five operational built-in functions for numeric types? Explain.
 - b) Write about introduction to numbers in Python. [5+5]
- OR**
- 3.a) What are internal types in Python objects? Explain.
 - b) Write a function that will take a time period measured in hours and minutes and return the total time in minutes only. [5+5]
- 4.a) Explain about import cycles in Python.
 - b) What are assertions? Explain about assert statement. [5+5]
- OR**
- 5.a) Write a "pager" program. Your solution should prompt for a filename, and display the text file 25 lines at a time, pausing each time to ask the user to "press a key to continue."
 - b) What are features of module import? Explain. [5+5]

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QA 6. Explain about Repetition, Special Characters, and Grouping in regular expressions. [10]
QA OR QA QA QA QA QA QA G

7. Describe Python code for implementation of the Producer-Consumer problem using Queue objects and a random number of goods produced (and consumed). [10]

8.a) Explain about file system traversal GUI program.
b) Discuss about advanced Web clients in detail. [5+5]

QA 9.a) Describe the roles of a windows (or windowing) server and a windows client.
b) Give an example for creating the form page. [5+5]

10. Discuss about Database Adapter example. [10]

OR

11. Explain about SQLAlchemy ORM example. [10]

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