

Code No: 137GD

R16

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, December - 2019

PYTHON PROGRAMMING

(Common to CSE, IT)

Time: 3 Hours

Max. Marks: 75

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART - A

(25 Marks)

- 1.a) State any four applications where python is more popular. [2]
- b) List out the main differences between lists and tuples. [3]
- c) What are the uses of File object? [3]
- d) Give a brief description of several Built-in attributes related to File objects. [2]
- e) Summarize the purpose of pipe and dot symbols used for pattern matching. [3]
- f) Explain the basic functionality of match() function. [2]
- g) What is the need of Tkinter module in python? [3]
- h) How to create Label widget in Python? [2]
- i) State the need of persistent storage. [3]
- j) Discuss the SQL commands/statements used for creating, using and dropping a database. [2]

PART - B

(50 Marks)

- 2.a) How to declare and call functions in Python programs? Illustrate with an example script. [5+5]
 - b) List and explain few most commonly used built-in types in python. [5+5]
- OR
3. Summarize various operators, built-in functions and standard library modules that deals with Python's numeric type. [10]
 4. Explain the following file built-in functions and method with clear syntax, description and illustration:
a) open() b) file() c) seek() d) tell() e) read() [10]
- OR
- 5.a) How does try-except statement work? Demonstrate with an example python code. [5+5]
 - b) Illustrate the concept of importing module attributes in python scripts. [5+5]
 6. Examine how python supports regular expressions through the 're' module with brief introduction and various built-in methods related to it. [10]
- OR
- 7.a) What is the motivation behind parallelism and state how python achieves parallelism? [3+7]
 - b) Explain briefly about thread and threading module objects in Python. [3+7]

8. Consider a Python GUI program that produces a window with the following widgets using python code:

a) A button to retrieve the next value in that list (if there is one). This button is displayed if there is no next value in the list

b) A label to display the number of the items being displayed and the total number of items [10]

OR

9. Give an overview and demonstration of building web applications using python's cgi module. [10]

10.a) What is a cursor object? Explain various methods and attributes of cursor object.

b) What do you mean by a constructor? List and describe various constructors used for converting to different data types. [5+5]

OR

11. Describe in detail about Python SQLAlchemy ORM with a case study of Employee role database. [10]

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