USN | | | | | | | | | | **18CS55**

Fifth Semester B.E. Degree Examination, Dec.2023/Jan.2024
Application Development using Python

Time: 3 hrs.   Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1   a. What is variable in program? Explain rules for declaring variable name. Explain with example. **(05 Marks)**
    b. Write types of operators in Python. Explain types of operators with examples. **(07 Marks)**
    c. Draw flowchart for if-else-ladder in python. Explain execution of if-else-statement with example. **(08 Marks)**

OR

2   a. Write syntax for defining function in Python. Explain function definition and function call in Python with the help of example. **(05 Marks)**
    b. What is scope of variable? Explain types of scopes of variable with examples. Explain use of 'global' keyword in Python. **(07 Marks)**
    c. Draw flowchart for while control statement in Python. Explain execution of while control statement with example. **(08 Marks)**

Module-2

3   a. Define list data type of Python. With example explain how positive and negative index can be used to access elements of list. **(05 Marks)**
    b. What is tuple data type in Python? With example explain difference between tuple and list data types. **(07 Marks)**
    c. Explain list data types index( ), append( ), insert( ) and remove( ) methods with examples. **(08 Marks)**

OR

4   a. How references are used in function call in Python. Explain copy module's copy( ) and deepcopy( ) functions with examples. **(05 Marks)**
    b. Define dictionary data type in Python. With example explain keys( ), values( ), items( ) methods of dictionary data type. **(07 Marks)**
    c. Explain following string methods with example:
       upper( ), lower( ), isupper( ), islower( ), startwith( ), endswith( ), join( ) and split( ). **(08 Marks)**

Module-3

5   a. Explain following file related functions with examples open( ), close( ), read( ), readline( ), readlines( ). **(05 Marks)**
    b. What is Shutil module? Explain how it is used for copying, moving and removing files and folders in Python. **(07 Marks)**
    c. With example explain different file opening modes in Python. **(08 Marks)**

OR

6 a. With example explain walking a directory tree in Python. **(05 Marks)**
   b. Define a regular expression to extract phone number. Using this regular expression write a Python program to extract phone number. **(07 Marks)**
   c. Write a Python program to create zip file and to extract zip file. Explain these programs with appropriate comment lines in the code. **(08 Marks)**

Module-4

7 a. What is inheritance? Write and explain Python code for inheritance. **(05 Marks)**
   b. Explain object oriented features of Python. Explain --init( )-- and --str-- methods in Python class object. **(07 Marks)**
   c. Write and explain code for pure function and modifiers. **(08 Marks)**

OR

8 a. Explain type-based dispatch concept in Python with help of example. **(05 Marks)**
   b. Define a time class. Write a Python program to set values to attributes of class and to display values of attributes of class. **(07 Marks)**
   c. Explain following terms with examples: class, object, attribute, operator overloading. **(08 Marks)**

Module-5

9 a. Write a Python program to download web content and save in file. **(05 Marks)**
   b. Write a Python program to create and save excel file. **(07 Marks)**
   c. With example explain reader and writer objects of 'csv' module. **(08 Marks)**

OR

10 a. Explain how a 'run' object is used in paragraph object of the word file to read text. **(05 Marks)**
    b. Explain pypdf2 module in Python. Write a Python code to encrypt pdf file and decrypt a pdf file. **(07 Marks)**
    c. List and explain 'Run' object text attributes. Explain each attribute with example. **(08 Marks)**

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