CBCS SCHEME

USN

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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