USN ☐☐☐☐☐☐☐☐☐☐

Fifth Semester B.E. Degree Examination, July/August 2022
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. List the salient features of Python Programming Language. **(06 Marks)**
   b. List and explain the Syntax of all Flow control statements with example. **(08 Marks)**
   c. Write a Python program to calculate the area of circle, rectangular and triangle. Print the results. **(06 Marks)**

OR

2 a. What is a Function? How to define a function in Python? Explain with suitable example. **(06 Marks)**
   b. Explain Local and Global scope of variable in Python with example. **(08 Marks)**
   c. What is Exception Handling? How Exceptions are handed in Python? Write a Python program with exception handling code to solve divide – by – zero error situation. **(06 Marks)**

Module-2

3 a. What is Lists? Explain the concept of list slicing with example. **(06 Marks)**
   b. What is Dictionary? How it is different from List? Write a program to count the number of occurrences of character in a string. **(07 Marks)**
   c. Write a Python program that accepts a sentence and find the number of words, digits, uppercase letters and lower case letters. **(07 Marks)**

OR

4 a. List out all the useful string methods which supports in Python. Explain with an example for each method. **(10 Marks)**
   b. What is the difference between copy.copy ( ) and copy.deepcopy ( ) Function applicable to a list or Dictionary in Python? Give suitable examples for each. **(06 Marks)**
   c. Write a Python to Swap cases of a given string
      Input   : Java
      Output : jAVA. **(04 Marks)**

Module-3

5 a. What are Regular Expressions? What are the different steps to be follow to use a Regular Expression in Python. **(06 Marks)**
   b. Describe the following with suitable Python code Snippet :
      i)   Greedy and Non Greedy Pattern Matching.
      ii) findall ( ) method of Regex object. **(07 Marks)**
   c. Write a Python program to extract Phone numbers and Email addresses using Regular Expressions. **(07 Marks)**

OR

6   a.   How do we specify and handle Absolute Relative Path?   **(08 Marks)**

      b.   Explain the File Reading / Writing process with suitable Python program.   **(06 Marks)**

      c.   Write a Python program to create a folder PYTHON and under the hierarchy 3 files file1 , file2 and file3. Write the content in file1 as "VTU" and in file2 as "UNIVERSITY" and file3 content should be opening and merge of file1 and file2. Check out the necessary condition before write file3.   **(06 Marks)**

Module-4

7   a.   What is Class? How do we define a class in Python? How to instantiate the class and how class members are accessed?   **(08 Marks)**

      b.   Write a Python program that uses datetime module within a class, takes a birthday as input and print users age and the Number of days , hours , minutes and seconds until their next birthday.   **(07 Marks)**

      c.   Illustrate the concept of modifier with Python code.   **(05 Marks)**

OR

8   a.   Explain init and str method with an example Python program.   **(08 Marks)**

      b.   What are Polymorphic functions? Explain with code Snippet.   **(06 Marks)**

      c.   Illustrate the concept of Inheritance with example.   **(06 Marks)**

Module-5

9   a.   How do we download a file and save it to hard drive using request module?   **(06 Marks)**

      b.   Write short notes on :
Creating , Copying and Rotating pages with respect to pdf.   **(06 Marks)**

      c.   Explain Selenium's Web Drive method for Finding elements.   **(08 Marks)**

OR

10   a.   Write a program that takes a Number N from command line and creates an N × N Multiplication table in Excel Spread Sheet.   **(10 Marks)**

      b.   What is CSV and JSON Files? Explain with an example, Program the usage of Json Module in Python.   **(10 Marks)**

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