CBCS SCHEME
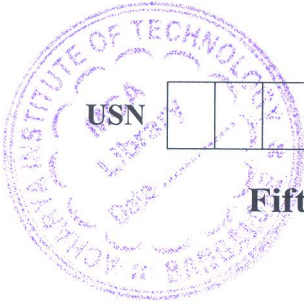
USN ☐☐☐☐☐☐☐☐☐☐

18CS55

Fifth Semester B.E. Degree Examination, June/July 2023
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. Demonstrate with example print( ) , input( ) and string replication. **(06 Marks)**
   b. List the salient features of python programming language. **(06 Marks)**
   c. Explain local and global scope in python programs. Illustrate different scenarios, with an example. **(08 Marks)**

OR

2 a. What are Comparison and Boolean operators? List all the comparison and Boolean operators in python and explain the use of these operators with suitable examples. **(06 Marks)**
   b. Define a python function with suitable parameters to generate prime number between two integer values m and n (note n > 0, m > 0 and m < n). Suitable error messages should be displayed if the conditions for input values are not followed. **(06 Marks)**
   c. What is Exception handling? How exceptions are handled in python? Write a python code to solve divide-by-zero error situation. **(08 Marks)**

Module-2

3 a. What is Dictionary in Python? How is it different from list data type? Explain how a for-loop can be used to traverse the keys of the dictionary with an example. **(06 Marks)**
   b. Write a python program that accepts a sentence and find the number of words, digits, uppercase letters and lowercase letters. **(06 Marks)**
   c. Illustrate the procedure to add Bullets to Wiki Markup with code snippets in python. **(08 Marks)**

OR

4 a. Write python program to create a user defined function to find maximum and minimum letter in string. Also find the length of the string without using inbuilt function. **(06 Marks)**
   b. With example code, explain join( ) and split( ) string methods. **(06 Marks)**
   c. Discuss the following dictionary methods with examples:
      (i) get( )   (ii) items( )   (iii) keys( )   (iv) values( ) **(08 Marks)**

Module-3

5 a. Describe the following with suitable code snippet:
      (i) Greedy and non-greedy pattern matching
      (ii) findall( ) method of Regex object. **(08 Marks)**
   b. With code snippet, explain saving variables using the shelve module and PPrint Pformat( ) function. **(06 Marks)**
   c. Explain the following file operations in Python with suitable examples:
      (i)   Copying files and folders
      (ii) Moving files and folders
      (iii) Permanently deleting files and folders **(06 Marks)**

OR

6 a. What is meant by compressing files? Explain reading, extracting and creating ZIP files with code snippet. **(08 Marks)**
   b. List out the different character classes and its representation also regular expression symbol and its meaning. **(06 Marks)**
   c. Explain functions of Shutil Module with examples. **(06 Marks)**

Module-4

7 a. What is class? How do we define class? How to instantiate the class and members are accessed? **(08 Marks)**
   b. Demonstrate pure functions and modifiers with examples. **(06 Marks)**
   c. Explain _ _init_ _ and _ _str_ _ methods with an example. **(06 Marks)**

OR

8 a. Explain operator overloading with example. **(08 Marks)**
   b. Illustrate the concept of inheritance with example. **(06 Marks)**
   c. Define polymorphism. Demonstrate polymorphism with function to find histogram to count the number of times each letter appears in a word and in sentence. **(06 Marks)**

Module-5

9 a. Explain in details how to parse HTML with the Beautiful Soup. **(08 Marks)**
   b. Describe the getText( ) function used for getting full text from a .docx file with example code. **(06 Marks)**
   c. Write a python program to access cell in a worksheet. **(06 Marks)**

OR

10 a. Demonstrate JSON module with python program. **(08 Marks)**
   b. How do we extract, decrypt, copy and encrypt PDF files in Python? **(06 Marks)**
   c. Explain Selenium's web drive methods for finding elements. **(06 Marks)**

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