CBCS SCHEME

USN | | | | | | | | | |
18CS752

Seventh Semester B.E. Degree Examination, July/August 2022
Python Application Programming

Time: 3 hrs.
Max. Marks: 100

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

Module-1

1 a. List and explain the salient features of Python. **(05 Marks)**
   b. Explain the Computer hardware architecture with a neat diagram. **(10 Marks)**
   c. Write a Python program that prompts the user for a Celsius temperature , convert the temperature to Fahrenheit and print out the converted temperature. **(05 Marks)**

OR

2 a. Write a Python program to find largest of three numbers. **(06 Marks)**
   b. Write a python program to prompt the user for a number to find the following :
   i) a number is even or odd   ii) a number is positive or negative. **(06 Marks)**
   c. Explain the syntax of user defined functions in python. Write a user defined function to find sum of three numbers. **(08 Marks)**

Module-2

3 a. Give the syntax and flow chart of while loop. **(06 Marks)**
   b. Write a python program to check whether the given number is palindrome or not. **(08 Marks)**
   c. For given string S = 'PYTHON' , find the output for the following :
   i)   S [0 : len (s)]   ii)   S [:]   iii)   S[0 : 3]
   iv)   S[-4 : -1]   v)   S [-4 :]   vi)   S[-4 : 4]. **(06 Marks)**

OR

4 a. Discuss the read mode and write mode on files. Write a python program to read and write to a file. **(10 Marks)**
   b. Write a python program to count number of lines in the given file. **(06 Marks)**
   c. List and explain any four methods associated with strings. **(04 Marks)**

Module-3

5 a. Define List. Write a python program for the following : i) Accessing list elements
   ii)   Adding new valves to list   iii)   Deleting list element. **(12 Marks)**
   b. Define Dictionary. Discuss any four operations associated with dictionaries. **(08 Marks)**

OR

6 a. Discuss how to create a tuple and compare tuple elements with an example. **(08 Marks)**
   b. Demonstrate how to use tuples as keys in dictionaries. **(06 Marks)**
   c. Write a python program that uses regular expression to search for lines that start with From and have an at sign. **(06 Marks)**

Module-4

7 a. How classes and attributes in python are associated? Give examples. **(06 Marks)**
   b. Discuss Pure functions and Modifiers with an example. **(08 Marks)**
   c. Are objects are mutable? Justify. **(06 Marks)**

OR

8   a.   Write a function called print_line that takes a time objet and prints it in the form of hour : minute : second.   **(06 Marks)**

     b.   Discuss Operator overloading with a suitable example.   **(06 Marks)**

     c.   Demonstrate the concept of inheritance with a class diagram.   **(08 Marks)**

Module-5

9   a.   Define Protocol. Write a python program that makes a connection to a web server and follows the rules of HTTP protocol to request a plain text document and display what server sends back.   **(10 Marks)**

     b.   Define XML. Write a python code for passing and extracting data elements from the XML.   **(10 Marks)**

OR

10   a.   What is Service – Oriented Architecture? List out the advantages of SOA.   **(06 Marks)**

     b.   Discuss various keys available in a database model.   **(06 Marks)**

     c.   Discuss the four basic SQL commands needed to create and maintain data.   **(08 Marks)**

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