USN

18CS752

Seventh Semester B.E. Degree Examination, Dec.2023/Jan.2024
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.   Distinguish between :
         i) Interpreter and complier
         ii) Syntax, logic and Semantic errors.   **(08 Marks)**
    b.   Define variable and keyword. List the keywords and rules followed to use variable names
         with an example.   **(06 Marks)**
    c.   Write a note on :
         i) Accepting input from keyboard
         ii) Choosing mnemonic variable names.   **(06 Marks)**

OR

2   a.   Demonstrate the conditional, alternative, chained and nested execution statements with
         syntax, flowchart and example.   **(12 Marks)**
    b.   Develop a student grading program that takes score with value between 0.0 to, 1.0 as its
         parameter and returns a grade as string. If score is out of range/string, then print appropriate
         error message using try and except concept.

Score	Grade
>= 0.9	A
>= 0.8	B
>= 0.7	C
>= 0.6	D
< 0.6	F

                                                                                   (08 Marks)

Module-2

3   a.   Explain definite and indefinite loops with suitable examples.   **(05 Marks)**
    b.   Develop a program which repeatedly reads numbers until the user enters "done". Once
         "done" is entered, print total, count, average, maximum and minimum of numbers. Use try
         and except to print appropriate error message and skip to next number input.   **(10 Marks)**
    c.   List out the string handling methods with syntax and examples.   **(05 Marks)**

OR

4   a.   Describe the concept of parsing Strings and Format operators with suitable examples.
                                                                                   (04 Marks)
    b.   Demonstrate the open, read, write, search and close file methods with syntax and examples.
                                                                                   (12 Marks)
    c.   Develop a program to create a string made of first, middle and last character of a user
         specified string. (Ex : Input, : James, Output : Jms).   **(04 Marks)**

Module-3

5 a. Illustrate 8 list handling methods in python. **(08 Marks)**
   b. Bring out the relationship between list and functions with suitable examples. **(06 Marks)**
   c. Development a program to turn every item of a list 1 into its square and place it into list 2. Print both lists. **(06 Marks)**

OR

6 a. Develop a program to read through a word file, find out the frequency of words in a file by ignoring the punctuation and alphabet case using dictionary. Print error if file does not exist. **(08 Marks)**
   b. Describe tuple assignment with examples. **(06 Marks)**
   c. Illustrate searching and extracting operational methods using regular expression. **(06 Marks)**

Module-4

7 a. Define instantiation. Explain the shallow and deep copy concept with examples. **(08 Marks)**
   b. Demonstrate the concept of sameness between instances and use of instances as arguments and return values. **(12 Marks)**

OR

8 a. Illustrate the concept of pure functions and modifiers. **(05 Marks)**
   b. Develop a program with initialization method and optional arguments. **(10 Marks)**
   c. Demonstrate operator overloading and polymorphism feature with sample code. **(05 Marks)**

Module-5

9 a. Develop a program that represent World's simplest web browser. Also draw a conceptual diagram. **(07 Marks)**
   b. Develop a program that can read any size file without using up all the memory in computer. **(06 Marks)**
   c. Demonstrate the XML and JSON formats for data exchange across the web. **(07 Marks)**

OR

10 a. Write a note on Google geo-coding API web service. **(08 Marks)**
    b. Demonstrate the use of CREATE, INSERT, SELECT, UPDATE and DELETE SQL commands in python. **(12 Marks)**

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