CBCS SCHEME

18CS752

Seventh Semester B.E. Degree Examination, June/July 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. List the features of python programming language. **(06 Marks)**
   b. Differentiate compiler and interpreter. **(04 Marks)**
   c. Describe arithmetic operators, assignment operators, comparison operators, logical operators and Bitwise operators in detail with examples. **(10 Marks)**

OR

2 a. List and give syntax of all python supported conditional statements and explain its usage with an example. Write a program to check whether the given number is positive or negative or zero. **(08 Marks)**
   b. Write a short note on:
   i)   ** and // operators
   ii)   Types of errors
   iii) Built-in function. **(06 Marks)**
   c. Write python programs to
   i)   Find largest of 3 numbers
   ii)   Check whether the given year is leap year or not with a function. **(06 Marks)**

Module-2

3 a. With syntax and example code, explain the working of definite loop in python. **(06 Marks)**
   b. Write a python program to demonstrate counting, summing and average of elements using loops. **(06 Marks)**
   c. Explain the concept of string slicing and predict the output for the following code (consider the string str = "Hello World")
   i)   print("str[:] is", str[:])
   ii)   print("str[0:5] is", sf[0:5])
   iii) print("str[4:4] is", st[4:4])
   iv)   print("str[3:8:2] is", str[3:8:2])
   v)   print(str[-1:]). **(08 Marks)**

OR

4 a. Explain the concepts of infinite loops. Differentiate 'break' and 'continue' statements with an example. **(06 Marks)**
   b. What is a string? Write a python program to demonstrate traversal through a string with a loop. Also explain the concept of string slicing. **(07 Marks)**
   c. Explain file open, file close, file read and file write concepts in python with example. **(07 Marks)**

Module-3

5 a. What is list? Explain the following methods with an example:
       i) append( )   ii) sort( )   iii) Reverse( ).   (10 Marks)
   b. What is dictionary? How is it different from list? Write a python program to count the
       occurrence of characters in a string and print the count.   (06 Marks)
   c. What is tuples? Compare and contrast lists and tuples.   (04 Marks)

OR

6 a. Discuss the lists handling functions in python with example.   (08 Marks)
   b. Explain 'DSU' pattern with respect to tuples. Write a python code to determine tuples by
       sorting a list of words from longest to shortest using loops.   (08 Marks)
   c. Explain the need of regular expression in python language.   (04 Marks)

Module-4

7 a. Define class and object. Explain the working of init method with suitable code.   (06 Marks)
   b. Define attribute. With the help of python code explain how functions return instance values.
                                                                                           (06 Marks)
   c. Explain the concept of modifier with python code.   (08 Marks)

OR

8 a. What is the difference between method and function? Also explain programmer defined
       types with an example.   (10 Marks)
   b. Illustrate the concepts of pure function with python code.   (10 Marks)

Module-5

9 a. Write a python code to read the file from web using urllib and retrieve the data of the file.
                                                                                           (10 Marks)
   b. What is XML? How is it used in python? Explain parsing of XML with example.   (10 Marks)

OR

10 a. Define cursor. Explain connect, execute and close command of databases with suitable
       example.   (10 Marks)
   b. Write a python code for creating employee database, inserting records and selecting the
       employees working in the company.   (10 Marks)

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