EVENING

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Uni. Roll No. ....   0 4 JUL 2022

Program: B.Tech. (Batch 2018 onward)
Semester: 04
Name of Subject: Python Programming
Subject Code: PCIT-105
Paper ID: 16234
Scientific calculator is NotAllowed

Detail of allowed codes/charts/tables etc. **NIL**

Time Allowed: 03 Hours   **Max. Marks: 60**

NOTE:

1) Parts A and B are compulsory
2) Part-C has Two Questions Q8 and Q9. Both are compulsory, but with internal choice
3) Any missing data may be assumed appropriately

<center>Part – A   [Marks: 02 each]</center>

Q1.

   a)   What are the features of python?

   b)   Write a Python program that prints (displays) your name, address, and telephone number.

   c)   Explain the relationship between a function and its arguments.

   d)   What happens when the print function prints a string literal with embedded newline characters?

   e)   How can you open a file in python?

   f)   When would you make a data field read-only, and how would you do this?

<center>Part – B   [Marks: 04 each]</center>

Q2.   With a suitable program, elaborate compilation and linking process in python.

Q3.   Write a program to print the multiplication table of a given number entered by the user.

Q4.   Write a program to accept a number from 1 to 12 and display the name of the month and days in that month like 1 for January and the number of days 31 and so on.

Q5.   Write a Python program to search a specific part of a string for a substring.

Q6.   What roles do the parameters and the return statement play in a function definition?

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Q7. What are the benefits of inheritance? Create a child class *Bus* that will inherit all of the variables and methods of the *Vehicle* class.

Part – C   **[Marks: 12 each]**

Q8. Elaborate the concept of Dictionaries in python. How will you add and access elements to a Dictionary? Write a Python program to concatenate the following dictionaries to create a new one.

Sample Dictionary :

dic1={1:10, 2:20}

dic2={3:30, 4:40}

dic3={5:50,6:60}

Expected Result : {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}

OR

What is meant by the state of an object, and how does the programmer access and manipulate it? Explain the differences between instance variables and temporary variables. Focus on their visibility in a class definition, and on their roles in managing data for an object of that class.

Q9. Write a Python program that accepts a string and calculate the number of digits and letters.

Sample Data: Python 3.2

Expected Output :

Letters 6

Digits 2

OR

Define what is a class? How to create a class? Define what is a method, how to do object instantiation? Describe how to create instance attributes in Python. Also elaborate structure of basic python program.

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