Exam. Code : 107203
Subject Code : 2094

BCA 3rd Semester

COMPUTATIONAL PROBLEM SOLVING USING PYTHON

Paper—III

Time Allowed—3 Hours]　　　　[Maximum Marks—75

Note :— (1) Attempt any **five** questions.

　　　　(2) Use of Non-Programmable, Non-Storage Calculator is permitted.

1. (a) Name Python Data Types. 5

　(b) Write the output for the following code :

```
x = 10
y = 20
if (x > y):
print x + y
else :
print x - y
```
5

　(c) Rectify the error (if any) in the given statements.

```
>> str = "Hello Python"
>> str[6] = 'S'
```
5

2. (a) What are the advantages of the Python dictionary type ? 5

(b) Write a program in input any number and print all factors of that number. 5

(c) What all can be possible output of the following code ?

```
def myfunc (x=None) :
result = " "
if x is None :
result = "No argument given"
elif x = = 0:
result = "Zero"
elif 0 < x < = 3:
result = "x is between 0 and 3"
else:
result = "x is more than 3"
return result
```
5

3. (a) Predict the output of the following program. Also state which concept of OOP is being implemented?

```
def sum(x, y, z) :
print "sum = ", x + y + z
def sum(a, b) :
print "sum =", a+b
sum(10, 20)
sum(10, 20, 30)
```
5

(b) Define a class TravelPlan in Python with the following descriptions :

    Private Members :

    Plan Code of type long

    Place of type character array (string)

    Number_of_travellers of type integer

    Number_ofbuses of type integer   10

4. (a) Write a Python program that accepts a word from the user and reverse it.   7

   (b) Write a Python program to convert month name to a number of days.

   Expected Output :

   List of months : January, February, March, April, May, June, July, August, September, October, November, December.

   Input the name of Month : March

   No. of days : 31 days   8

5. (a) Write a Python program to get the largest number from a list.   7

   (b) Write a Python program to print a specified list after removing the 0th, 4th and 5th elements.

   Sample List : ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow']

   Expected Output : ['Green', 'White', 'Black']   8

6. (a) Write a note on using Files in Python.   5

   (b) Write a Python program to count the frequency of words in a file.   10

7. Using Python code highlight use Python Modules and Top Down Design.   15

8. Using Python code highlight use Python API for querying DataBase Tables.   15