Class- XI   M.M.: 70
Subject- Informatics Practices (065)   Time: 3 hrs.
Note- Attempt all the questions.

Q.1- a) What is the need for Cache memory?   2

b) Define the two categories of Application software.   2

c) What do you mean by Data recovery?   1

d) Convert 2.5 KB into Bytes.   1

e) Draw the block diagram of a computer system.   2

f) Explain input and output devices giving one example of each.   2

Q.2- a) Who developed Python programming language? Python is cross platform language. What do you understand by this statement?   2

b) Differentiate between Runtime error and Logical error giving examples.   2

c) What is the extension given to Python file when it is saved?   1

Q.3- a) What is the difference between a keyword and an identifier?   2

b) Define Python variables. How are they created?   2

c) Predict the output-

```
a,b,c = 2,3,4
a,b,c = a*a, a*b, a*c
print (a,b,c)
```
                                                                                                                                2

d) Write Python program that accepts marks in five subjects and prints average mark.
                                                                                                                                2

e) What would be the output of the following code-

```
a= 7+9/4
b= int(7+9/4)
c='56'
d= '30'
print (a,b)
print (c+d)
print (c*4)
```
                                                                                                                                2

Q.4- a) Differentiate between Mutable and immutable datatypes in Python with examples.

3

b) Which datatypes of Python handle numbers? 2

c) What are relational operators? Name all six. 4

d) Identify the datatypes of the values given below-
   I)13.7   ii) 5+2j 1

Q.5- a) What is the significance of empty statement in Python? Give an example. 2

b) Use the Python range () function to create the list [4,7,10,13]. 2

c) Write a Python program to check whether an integer entered by the user is even or odd. 4

d) Correct the following code and write output-

```
for i in Range (1,16):
   if i%3 = 0:
      print(i)
```
3

e) Predict the output-

```
n=1
for a in range(5):
   print(n)
   n=n*10+1
```
2

f) What is the need of if-elif statement? Write its Syntax. 2

Q.6- a) What will be the output of following statements-

```
list1= [15,20,10,18,7,13]
list1.sort()
print (list1)
```
2

b) Differentiate between append() and extend() methods of list. 2

c) What is the difference between following two expressions , if list l1 is given as [1,3,5]
   I) l1 * 3
   II) l1 *= 3 2

d) The record of a student (Name, Roll_No and Marks in five subjects) is stored in the following list –

stRecord = ['Malay', 'B-45', [52,86,63,71,80]]
Write Python statements to retrieve the following information from the list stRecord.

I)   Roll_No of the student
II)   Marks in the fourth subject
III)   Maximum Mark of the student
IV)   Change the name of the student from 'Malay' to 'Ramesh'.   4

Q.7- a) How is dictionary different from list?   2

b) Consider the following dictionary stateCapital-
stateCapital = {"Rajasthan": "Jaipur", "Bihar": "Patna", "Chhattisgarh": "Raipur",
"Maharashtra": "Mumbai"}
Find the output of the following statements-

I)   print(stateCapital.get("Bihar"))
II)   print (stateCapital.keys())
III)   print (stateCapital.values())
IV)   print (len(stateCapital))   4

c) What will be the output of following code-
```
x={'A':40, 'B':35, 'C':60}
y={ }
for z in x:
    y[x[z]]=z
print(y)
```
        3

d) Show the output-
```
x=[10,20,30,40,50]
print(x[len(x)-2])
```
        1