COURSE NAME:**B.Tech**                                                                 SEMESTER: **4th**

**BRANCH NAME: CSE/IT**
SUBJECT NAME: **Programming in Python**

FULL MARKS: **30**

TIME: **90 Minutes**

Answer **All** Questions.
The figures in the right hand margin indicate Marks. *Symbols carry usual meaning.*

Q1.     Answer all Questions.                                                                          **[2 × 3]**

   a)  Write the output                                                                                  - CO1
       a. print(20>10 or "a" +1>1)
       b. for i in range(-5):
              print(i)

   b)  Differentiate set and dictionary? Write an instruction to add same value to all the keys of a        - CO2
       dictionary.

   c)  What is lambda function? Explain with suitable example.                                          - CO3

Q2.                                                                                                    **[8]**

   a)  Define python? List the standard data types of python language and explain various        - CO1
       properties of those data types with example.

   b)  Write a program to display an unsorted array and find the kth largest element from that
       array.

                                         OR

   a)  What is module? Explain the benefits of module. Explain the process of creating module        - CO1
       and include in another program. Provide with example to support your answer.

   b)  Find the maximum sum of a contiguous subarray of size 'm' in a given array of integers of
       size 'n'. (where, m<n)

Q3.                                                                                                    **[8]**

   a)  Write a python function as leap () to check whether input year is a leap year or not. Also        - CO2
       print the massage.

   b)  Write a program to remove duplicate elements from a list. How do you convert a list into a
       tuple? Provide an example

                                         OR

   a)  Write a program to print the first 10 numbers of the Fibonacci series.                          - CO2

   b)  Write a Python program to count the frequency of words in a given string using a dictionary.

Q4.                                                                                                    **[8]**

   a)  Write a program to generates a random number within a given range using function.              - CO3

   b)  Write a program to Find the longest word in a given sentence using function.
                                         OR

   a)  A 4-digit integer is entered through the keyboard. Write a function to Calculate the sum of        - CO3
       digits of the 4-digit number using recursion and without using recursion.

   b)  Write a program to Merge two sorted lists into a single sorted list using user define function.