**Sub-Python Programming**                                    Class-Sy(BSc).IT

**(2½ Hours)**                                                [Total Marks: 75]

N. B.: (1) All questions are compulsory.

(2) Make suitable assumptions wherever necessary and state the assumptions made.

(3) Answers to the same question must be written together.

(4) Numbers to the right indicate marks.

(5) Draw neat labeled diagrams wherever necessary.

(6) Use of Non-programmable calculators is allowed.

**1. Attempt any three of the following:  15**

1. Explain what is python and its advantages

2. Explain different data types and operators in python

3. Explain the operators of python

4. Write a program to calculate and odd or prime or not prime numbers

5. Difference between bracket, braces and parentheses

6. Explain the difference between variable and key words

**2. Attempt any three of the following:  15**

1.  Explain 5 maths functions in python in details

2. What is import? Explain the waves of importing in python.

3. Explain fruitful function and leap of faith.

4. Explain operations in string with the help of example.

5. Explain any 5 built in functions that are used with strings.

6. Write any 5 string methods and demonstrate a program for it.

**3. Attempt any three of the following:  15**

1. Explain exception in file and how python helps in handling the exception.

2. Write a short note on list operators.

3. . Explain any five built in functions in dictionary

4. Explain built in list operators .

5. Explain list in python with suitable example.

6. Difference between list and tuples.

**4. Attempt any three of the following:   15**

1. What are regular expression? Explain any 5 patterns.

2. Explain various types of regular expressions.

3. What is OOPS? Explain the concept of OOPS in short.

4. Explain the concept of polymorphism and static methods.

5. Explain inheritance in python with the help of example.

6. Explain concept of data hiding and data encapsulation.

**5. Attempt any three of the following:   15**

1. Explain place geometry manager.

2. Explain button, check box, radio button, frame, canvas, menu button, list box and message.

3. What is GUI? Explain its advantages.

4. Write a program to explain layout management in python.

5. Explain look and feel customisation in python.

6. Write a short note on Cursor object in python.

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