Time: 1 Hour

## SECOND-TERM

SOFTWARE TECHNOLOGY

Subject Code

5 3 5

Total No. of Questions: 12 (Printed Pages: 2)

Maximum Marks: 20

INSTRUCTIONS: (i)

Write the question numbers clearly.

- (iii) The question paper consists of 12 questions divided into three sections A, B and C.
- (iii) Section A contains 4 questions of 1 mark each.
- (iv) Section B contains 5 questions of 2 marks each. Answer these in 3-4 sentences each.
- Section C contains 3 questions of 3 marks each. Internal (0) choice is provided between Question 10 and Question 11.

## SECTION A

Question numbers from 1 to 4 carry 1 mark each.

- What is the use of len( ) function in Tuple ? 1.
- 2 Why are tuples referred to as immutable?
- 3. Define Encapsulation.
- Write the syntax to create a class. 4.

## SECTION B

Question numbers from 5 to 9 carry 2 marks each.

- State any two advantages of Object-Oriented Programming. 5.
- 6. Write two differences between Class Attribute and Instance Attribute.

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P.T.O.

- 7. Why is inheritance a powerful feature in object-oriented programming ?
- 8. What is Single Inheritance? State the other four categories of Inheritance.
- 9. Define Namespace. Give examples of namespaces with respect to Python.

## SECTION C (Any Two)

Question numbers from 10 to 12 carry 3 marks each. (Answer any one from Q. 10 and Q. 11):

10. Write a Python program using Tuples, given the original tuple :

T = (1, 2, 3, 4, 5, 6), to generate the following output:

$$T1 = (1, 3, 5)$$

$$T2 = (2, 4, 6)$$

Or

- Write a Python program to input 5 subject names and put it in a tuple and display the tuple information on the output screen.
- 12. What is Polymorphism? Explain the overloading methods of Polymorphism.