2316 **150**

Class–BA/B.Sc.-IV Sem.

Subject –Computer Science

Paper- Data Structures & C++

Time Allowed : 3 Hours   Maximum Marks :75

Section – A

Attempt any Five. All questions carry equal marks.

1. What is a Data Structure? Which data structure is best suitable for your organisation and why explain?   15

2. What is an Array? How array elements are represented in memory? Also distinguish between linear and multi dimensional arrays.   15

3. What is a linked list? Explain insertion and deletion operation in detail and also discuss advantages of linked list over array.   15

4. What is a stack? What are the applications of stack? Explain.   15

5. (a)   Explain Bubble Sort.   7

   (b)   Distinguish between Linear Search and Binary Search.   8

6. (a)   Explain Quick sort in detail.   7

   (b)   Constructors and Destructors.   8

7. What is Operator Overloading? Explain.   15

8. (a)   Write a program to show the concept of encapsulation and abstraction.   8

   (b)   Differentiate between Private and Public access specifiers.   7

******