FD-2875

BCA (Part-III) Examination, 2022

Paper - V

Data Structure

Time : Three Hours] [*Maximum Marks* : 80
[*Minimum Pass Marks* : 27

Note : Answer any **two** parts from each question. All questions carry equal marks.

Unit-I

1. (*a*) What is the time complexity of basic operations get() and put() in Hashmap class ?

   (*b*) Explain Data structure type and write applications of data structure.

   (*c*) What is time space complexity ? Explain it.

Unit-II

2. (*a*) How do we find duplicate elements in Array ? Write program for this.

(*b*) Write a program for addition of matrix.

(*c*) What is pointer ? Explain Null, Wild and Generic pointer.

Unit-III

3. (*a*) Write difference between Linear array and Linked list.

(*b*) Explain push and pop operation of stack through program.

(*c*) Describe priority queue and circular queue.

Unit-IV

4. (*a*) What is tree ? Explain various types of tree traversal.

(*b*) Explain insertion and deletion in Binary search tree.

(*c*) Write short note on thread.

Unit-V

5. (*a*) Write a program to sort elements of Array using bubble sort method.

(*b*) Write difference between Quick sort and Merge sort.

(*c*) Explain Hashing using example.

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