NEW

2015

BCA

2nd Semester Examination

DATA STRUCTURE LAB

PAPER—1296 (SET-1)

(PRACTICAL)

Full Marks : 100

Time : 3 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer any *two* questions : 2×25

1. Write a program to create a singly linked list having a node of at least two data fields. (eg. Emp_ID, Emp_Name) and implement insert, delete operations.

2. Write a program to search for an element in a singly linked list using recursion.

3. Write a program to enlist the common elements of two linked lists (i.e. intersection of two linked lists).

4. Write a program to sort a set of nodes in a linked list.

5. Write a program of deque to delete an element.

6. Write a program to print all the prime factors of a number in descending order using a stack. (eg. the prime factors of 15 are 5, 3).

7. Write a program to find trace and norm of a matrix.

8. Write a C-program that traverse a binary search tree in a LDR (Left Data Right) fashion and LRD (Left Right Data) fashion.

9. Write a program to sort a set of strings applying insertion sort technique.

10. Write a program to apply Quick sort algorithm.

11. Write a program to sort a set of numbers using Merge Sort technique.

12. Write a program to reverse a doubly linked list.

13. Write a program to find the gcd of two numbers.

Practical Note Book — 05

Viva Voce — 15

Internal Assessment — 30

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