

NEW

2018

BCA

2nd Semester Examination

DATA STRUCTURE LAB

PAPER—1296

(Practical)

Full Marks : 100

Time : 3 Hours

The figures in right-hand the margin indicate full marks.

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

Set-I

Answer any two Questions (On Lottery Basis) 2×25

- 1. Write a program to find smallest element using linked list.**
- 2. Write a program to demonstrate the basic operation of Stack (PUSH POP).**

(Turn Over)

3. Write a program to Sort Number of element using Bubble Sort technique.
4. Write a program to insert and delete a node at any position of a linked list.
5. Write a C program to find out number of vowels and consonant in a string.
6. Write a C program to find out the infix of the postfix string using stack
$$abc^* + dc/h^*-$$
7. Write a C program to sort a string in alphabetic order.
8. Write a C program to verify a string is Palindrome or not using stack.
9. Write a C program to search an element from a list using binary search technique.
10. Write a program to sort the following elements using insertion sort (20, 1, 5, -10, 100).

[PNB = 05, Viva-Voce = 15, IA = 30 Marks]

Total Pages—2

C/18/BCA/2nd Sem/1296(S2)(Prac)

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Set-II

Answer any two Questions (On Lottery Basis) 2×25

1. Write a program to reverse a string using Stack.
2. Write a program to implement singly linked list and insert a node at any position.

(Turn Over)

3. Write a program to search on element from a list using linear search technique.
4. Write a C program to implement stack having following functionalities.

PUSH, POP, DISPLAY.

5. Write a program to sort the following list using Quick sort.
(10, 20, 1, -5, 20)
6. Write a program in C to implement a queue using linked list.
7. Write a program to search an element in a queue.
8. Write a program to sort a list of elements using merge sort technique.
9. Create a BST and Traverse post order.
10. Write a C program using array to add two polynomials

$$x^5 + 3x^3 + 2x^2 + 9x + 7$$

$$x^9 + 7x^4 + 3x^3 + 5x^2 + x + 19$$

[PNB = 05, Viva-Voce = 15, LA = 30 Marks]