Advanced Diploma in Information Technology (ADIT) / Bachelor in Information Technology (BIT)

00331

Term-End Practical Examination

June, 2010

CST-103P : DATA STRUCTURES AND ALGORITHM

Time allowed : 1 hour

Maximum Marks : 30
(Weightage : 25%)

Note :   *There are **two** questions of **10 marks** each in this paper. Both are **compulsory**. Remaining **10 marks** are for viva-voce.*

1. Write a program in 'C' language that reads a positive integer n and computes all its   **10** prime factors. Finally the program writes a suitable statement in this respect.

2. Write a program in 'C' that reads a finite number of integers in some random order   **10** and then sorts the list of these integers in ascending order. You may use any one of the following sorting algorithms :

    (i)   Selection sort

    (ii)   Merge sort

    (iii)   Heap sort

    Finally, the program writes a suitable statement in this respect, mentioning clearly the name of the sorting algorithm used.

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