

Introduction to Computer Programming and Algorithms

NISER-ML Semester 3 of 2008

1. Programming in C [4, 2] and C++ [6, 5];
2. Growth of functions, Complexity [1];
3. Array [3];
4. Binary searching, bubble sorting, insertion sorting, bucket sorting [1, 3];
5. Recursive call, divide-and-conquer algorithm [1];
6. Merge sorting, quick sorting [1];
7. Stack, Queue and Linked list [3, 1];
8. Continuing ...

ASSIGNMENTS

References

- [1] T. H. Cormen, C. E. Leiserson and R. L. Rivest. *Introduction to Algorithms*, PHI.
- [2] B. S. Gottfried. *Programming with C*, Schaum's Outline Series.
- [3] E. Horowitz, S. Sahni and D. Mehta. *Fundamentals of Data Structures in C++*, Galgotia.
- [4] B. W. Kernighan and D. M. Ritchie. *The C programming Language*, PHI.
- [5] R. Lafore. *Object-Oriented Programming in C++*, Sams Publishing.
- [6] B. Stroustrup. *The C++ Programming Language*, Pearson.