

BEGINNER:

01. **C++, the Complete Reference** – Schildt
02. **Introduction to Algorithms** – Cormen / Leiserson / Rivest / Stein
03. **Discrete Mathematics & it's Applications** – Rosen
04. **Algorithms in C++** - Sedgewick
05. **Programming Challenges** – Skiena / Revilla

INTERMEDIATE:

01. **Number Theory** – Telang
02. **Data Structures Using C & C++** - Langsam / Augenstein / Tenenbaum
03. **Algorithm Design Manual** – Skiena
04. **Fundamentals of Algorithmics** – Brassard / Bratley
05. **C++, the Standard Template Library** – Josuttis
06. **Concrete Mathematics** – Graham / Knuth / Patashnik
07. **Introduction to Probability Models** – Ross
08. **Problems with Algorithms** – Parberry

ADVANCED:

01. **Introduction to Graph Theory** – West
02. **Computational Geometry & Computer Graphics in C++** - Laszlo
03. **Artificial Intelligence: A Modern Approach** – Russel & Norving
/* Only the chapters related to search techniques */
04. **The Design & Analysis of Computer Algorithms** – Aho / Hopcroft / Ulman
/* Optional. The chapters on Data structure, Graph, Integer manipulation & pattern matching are very good. */
05. **Graph Theory with Applications** – Bondy / Murty
/* Optional but highly recommended for graph lovers. */
06. **Discrete & Combinatorial Mathematics** – Grimaldi
/* Optional but some really good advanced stuffs are there. */
07. **Foundation of Computer Algorithms** – Horowitz / Sahni / Rajasekaran
/* Optional. Well-equipped but hard to understand */
08. **Programming Pearls** – Bentley
/* Optional. You can read them to find some good / bad programming practices */
09. **Computer Algorithms, Intro to Design & Analysis** – Baase / Van Gelder
/* Optional. I liked the graph & dynamic set operation chapters. */
10. **The Art of Computer Programming [3 volumes]** – Knuth
/* Don't try to read all the 3 volumes for contest. Just use for reference. */