Hi all,

I am posting some useful sites for Informatics Olympiad:

First of all, get a Dev C++ compiler or if you have Ubuntu or Kubuntu (Linux), it cannot get better.If you are not able to execute in Linux, try seraching in the nnet or ask someone (I do not know fully.)

Download Dev from
http://www.bloodshed.net/dev/devcpp.html.
Get Dev-C++ 5.0 beta 9.2 (4.9.9.2) (9.0 MB) with Mingw/GCC 3.4.2.
Please do not use Turbo C++.It has still not yet come out of the Stone Age.

Zonal Informatics Olympiad is difficult to get through.I think that it needs a bit of luck.ZIO has no programming,but only some reasoning type questions.
But, last year ZCO was introduced, which is an online programming exam of two problems, and serves as an alternate route to INOI. I think that ZCO would be a safer bet than ZIO, even though one can give both.I think 1 correct problem would be enough to clear ZCO.
So,be sure to give ZCO.But before that one has to know something in programming.Before ZCO, the 16 solutions in IARCS should be enough.

Previous year ZIO and INOI question papers are available in the IARCS site:

http://www.iarcs.org.in/

Last year's ZCO paper has been uploaded in this group's files.

The solutions of 16 or so problems in the Advanced section covers most of the basic concepts required for ZCO and INOI
http://www.iarcs.org.in/inoi/contests/allproblems.php

One can practice in this online judge by submitting codes.
http://opc.iarcs.org.in/pages/home/

For INOI:

Be thorough with IARCS solutions.Then read "Introduction To Algorithms by Cormen, Lieserson, Rivest and Stein (CLRS)".It is a hefty book and one cannot except to read or understand everything in it.But it is a great book and covers mostly all topics till the camp.

You can download Introduction To Algorithms (CLRS) from this site.

http://www.eknigu.com/info/Cs_Computer%20science/CsAl_Algorithms/Corm...

Is about 11.3 Mb
Wait for about 15 seconds after going to the site. Download option comes at the

bottom of the page.

Solutions for CLRS:

http://www.scribd.com/doc/7332642/The-MIT-Press-Introduction-to-Algorithms-2nd-Edition-Solutions

Solutions to all problems are not there, I guess.

Some of the important chapters (according to me):
Just go through the first 2-3 chapters.

6.Heapsort
7.Quicksort (very important)
8.2 Counting Sort
10.Elemantary Data Structures (Stacks and queues very important)
12.Binary Search Trees
15.Dynamic Programming(DP) (very important)
16.Greedy Agorithms
21.Data Structures for Disjoint Sets (do this later)

22 - 26 -All Graph Algorithms(totally):
22-Breath first search and Depth first search-(very very important)
24.3-Dijkstra's Algorithm (very important)

31.Number-Theoretic Algorithms(do this later)

33.Computational Geometry
A,B,C Appendix (do this first)

Implementation codes will not be provided in the book.That has to be practiced (please practice.I did not do it and suffered-I would implement many standard codes for the first time during the tests and waste time!!)

See also
http://www.cplusplus.com/doc/tutorial/
For basics of C++.
This is told to be good by everyone.Even MIT uses this.

DO READ THIS:
Nadeem
http://web.iiit.ac.in/~nadeem.moiduug08/cpptutorial.htm
Be thorough with this.

STLs are THE most important things (it's the only thing for which they teach you syntax) in the camp. It wouldn't be very useful in INOI except for what are in Nadeem's site.

But to know more about STLs (it's clearly explained here with explanation, examp
les, a page for each function and the complexity for each!!!) :

http://www.cplusplus.com/reference/algorithm/ (This contains operations which a
re common)

This contains new data structures. Important points very well explained. But doe
s not contain the actual working of the data structures. Just points form:

http://www.cplusplus.com/reference/stl/

Read vectors from that first.

SGI STL
http://www.sgi.com/tech/stl/
It is a very scary site with Martian words (atleast for me, before the
camp).

It was explained somewhat clearly in the camp.I have requested Nadeem
to explain more about STLs in his website. Will post later of any development.

For data structures and techniques,from the greatest Olympiadian!!
Bruce Merry
http://www.brucemerry.org.za/manual/

Topcoder is the foremost site in Informatics Contests.(Keshav Dadhania
is 3rd rank in the world in that site)
http://www.topcoder.com/
I haven't seen it for more than 5 minutes and repent for it.Supposed
to have the all the problems on the earth.

It's tutorials are supposed to be very very good:

http://www.topcoder.com/tc?module=Static&d1=tutorials&d2=alg_index

http://www.iarcs.org.in/inoi/programming-contest.php
The USACO tutorials is also supposed to be very good.
SPOJ also contains loads of problems.

Another online contest site
http://www.codechef.com/

Informatics Book:

Springer_2_.Verlag-Programming.Challenges-2003.pdf.bz2

It covers nearly all the topics with coded algorithms- which is very rare to fin

d. Problems with hints are provided at end of every chapter.

Uploaded as a file in this site.

I have uploaded the IOITC Notes as a file in this site. It is very good. But not of much help for INOI. Just see Binary Index Trees (BIT) and segment trees.

Varun Jalan of Code Chef fame, has given a lecture on basic data structures- arrays, lists, stacks, queues (all for a around 15 minutes) and advanced data structures- Binary Index Tree (BIT) , segment trees and priority queues (along with heaps). It's good, but it would be better if you know about before and then see it: http://www.youtube.com/user/TheCodechef#play/uploads/6/_Xa8zoWL__E

Again:Give ZCO.INOI also needs only about 1 full problem to qualify(I guess).1 and a half is surely through.Also , in the camp,it is very easy to come within top 10 or so, if some practice is done.

FIRST TO DO :16 solutions in IARCS