

V INTERNATIONAL OLYMPIAD IN INFORMATICS

16th.-25th. October 1993

MENDOZA - ARGENTINA (IOI'93)

ANNOUNCEMENT AND PRELIMINARY REGULATIONS

1. Conditions for the attendance

Every country officially invited by the Argentine Government, has been authorized to send one delegation formed by:

- \* A team not more than four students who
- \* were born after 30 June 1974, and
- \* attending school during the school year from 1992/3 school year.
- \* The delegation leader who has to translate the competition problems from English to the team's own language.
- \* The deputy leader, who will be in charge on the team.

Any country that does not enter a team may send an observer.

2. Expenses

The Argentina Government will pay the accommodation, excursions and transport from Mendoza airport to the IOI venue and back, for the delegation. Airfare to and from the Mendoza Airport, Argentina, and accommodation before and after the Olympiad will have to be paid by the delegations themselves.

There may be a limited number of places for persons accompanying the delegation. They would be totally responsible for their own cost, and their presence will be subject to the approval of the Organizing Committee.

3. Problems

Every participating country is requested to contribute at least the following question for consideration by the Scientific Committee.

- \* Three challenging problems that can be solved in about 1 hour 40 minutes each.

- \* One problem that involves developing a suitable algorithm and would be solved in five hours.

Solutions and proposed evaluations must be submitted in five hours.

Solutions and proposed evaluations must be submitted with the problems. Problems must be submitted in English or Spanish. The Academic Committee will choose nine of the short and three of the long problems to adapt and submit to the International Jury for approval.

The problems should be written in English or Spanish and the solution not exceeding five hours.

The Argentine Academic Committee will choose eight among these problems that will be submitted to the International Committee for approval.

Deadlines

The following have to be sent to Organizing

Committee by the date indicated

31 May 1993

- \* Application by the national organizations to take part.
- \* The number of the member of the delegation.
- \* The number of persons accompanied the delegation.
- \* The name of the delegation leader.
- \* The problems for consideration by the Scientific Committee.

31 July 1993

- \* Names and addresses of member of the delegation.
- \* Name and addresses of the accompanying persons

The International Committee

It will be composed of the delegations  
leaders of the participant countries.  
Presided by the President of the Argentine  
Academic Committee.  
The Committee will choose the problems for the competition.  
Decide how the answer to the written questions.  
Make the final decision about the  
evaluation, the designation of the winners and the prices.  
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Regulations IOI'93

Participation

The fifth Olympiad in Informatics is an international programming competition for senior pupils. Only officially invited national delegations may participate. Each participating country may send a delegation consisting of

- \* a team of up to 4 students
- who were born after 30 June 1974 and
- who were still at school in the school year 1992/ 93;
- \* a delegation leader, who is automatically a member of the International Jury;
- \* a deputy leader, who looks after the delegation.

The host, Argentina, will provide board and lodging and will arrange excursions. Traveling costs to and from the Mendoza airport in Argentina must be covered by each participating country.

Persons accompanying the delegation may attend at their own expense.

Office Bearers of the IOI'93

Office bearers of the fifth International Olympiad in Informatics ( V IOI'93) are:

- \* The President of the International Jury who is nominated by the host country.
- \* The International Jury. The jury is composed of the delegation leaders of all participating countries and the nominated President. The Vice President will be the delegation leader of the country offering the next IOI.
- \* The Coordinating Committee consists of coordinators and the chief coordinator . It has the task of examining and evaluating all solutions. The Coordinating Committee is composed of informatics experts from the host country, their number being about half the number of participating delegations. The Coordinating Committee is nominated by the host country. Argentina will invite one representative from the countries offering the next two IOI's to act as coordinator when evaluating the solutions of the Argentinean Team.
- \* The Scientific Committee is composed of a chairman and some members of the coordinating committee. It becomes active before the beginning of the Olympiad and has the task of selecting and preparing twelve problems. All participating countries, are expected to contribute problems for consideration by the Scientific Committee.

#### Problems

Participating will spend five hours on each day of the two days in solving problems. Each participant will work independently on a personal computer. On the first day participants will be asked to solve three problems. For at least one of the problems its complexity will not depend on the algorithm, but on the field from which the problem is drawn. On the second day participants will be asked to solve a single, complex problem of an algorithmic nature. The problems will be chosen by the jury from the problems that have been prepared by the Scientific Committee and will be selected from the problems submitted by the participating countries.

No special hardware requirements or software packages (e.g. no graphic packages) will be needed for solving problems. The problems are given to the students in written form, without any additional oral information.

The following programming languages are permitted:

- \* Turbo Pascal V. 6.0,
- \* Turbo C++ V.2.0
- \* Quick Basic V.4.5

\* LCN Logo V.3.0

Should participants wish to use any other language or version, delegation leaders should consult the organizers in writing as early as possible, but no later than 1 June 1993.

#### Tools

For the Olympiad each participant will be provided with a personal computer with a USA style, 101-key, QWERTY keyboard and the necessary software. MS-DOS V. 5.0 will be provided.

The compilers and programming environments for the above mentioned programming languages as well as the MS-DOS editor will be installed on hard disk. Hard copies of files can only be printed off-line via diskettes. Only the computers provided may be used in the competition. No copying of the software on the computers, nor the use of private or other software or private diskettes will be allowed. The use of printed material will not be restricted.

#### Working Languages

Every participant may use his/her mother tongue. The problems will be given in both English and the respective mother tongues.

Delegation leaders and deputy delegation leaders must be able to speak and understand English as well as the language of their team. English will be the only working language of the jury.

#### [9;1H Competition

The competition consists of two rounds over two days. At the start of each day of competition, the Scientific Committee will submit problems to the Jury. On the first day the Jury will select three problems; one each from three groups. On the second day the Jury will select one of the three problems submitted. The selected problems will be translated by the delegation leaders into the respective mother tongues.

At 10.00 am the problem(s) will be given to the participants in English and in their mother tongues.

Five hours' working time will be allowed. During the first half hour a participant may ask the jury in writing about the text of the problems. Only questions that can be answered with "Yes", "No" or "No comment" will be accepted. The answers will be given as soon as possible. When the working time has elapsed, each participant's program will be checked by a coordinator, using previously unknown test data. The delegation leader and the student must be present. During this checking, all required tests will be run and a written report will be signed by

the coordinator and the delegation leader. Each participant's program will be copied on two diskettes. The coordinator and the delegation leader will each keep one copy of the diskettes. Printouts will be produced by the coordinator and then given to the delegation leader. The delegation leader and the coordinator together will examine each solution and agree on a preliminary evaluation. By moderating the evaluation, Coordinating Committee will ensure a just and balanced evaluation is achieved. The chief coordinator will present the results to the jury, who will make the final decision. If a delegation leader can not accept the coordinating committee's evaluation, he may address himself to the jury. All decisions taken during the evaluation procedure will be final. When the evaluation is finished, the Jury will determine the minimum scores for the gold, silver and bronze medals. The number of winners of these medals is to be in the proportion 1:2:3, with up to half the participants receiving medals. Each competitor will receive a certificate of participation. The medals, certificates and other prizes will be awarded at an official ceremony.

#### Schedule

October 16th. - 25th. 1993

Saturday 16 Arrival.

Sunday 17 Late arrival. Excursion (day).  
Opening Ceremony (evening).

Monday 18 Excursion. Jury Meeting.

Tuesday 19 First Day of Competition. Jury Meeting.

Wednesday 20 Excursion.

Thursday 21 Second Day of Competition. Jury Meeting.

Friday 22 Excursion.

Saturday 23 Excursion. Jury Meeting.

Sunday 24 Excursion and Prize awarding Ceremony.

Monday 25 Day of Departure.

For further information:

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IOI'93

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