



Pakistan Young Naturalists' Tournament 2024 Booklet

Pakistan Young Naturalists' Tournament



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About Us

Pakistan Young Naturalists' Tournament is an annual international scientific competition for the students of age 12-16 years with a keen interest in the natural sciences. The PYNT/IYNT typically brings together young scientists from different schools and countries to collaborate, compete, and solve complex problems in various fields of natural science.

The competition focuses on addressing practical and theoretical scientific problems related to physics, chemistry, biology, and interdisciplinary topics. Students work in teams to tackle these problems and present their solutions to a panel of judges.

The primary goals of the International Young Naturalists' Tournament include:

1. Promoting scientific inquiry and critical thinking among young students.
2. Giving them a chance to present their country on an international platform.
3. Encouraging international cooperation and exchange of ideas in the natural sciences.
4. Providing a platform for students to apply their knowledge and skills to real-world scientific challenges.
5. Fostering a deeper appreciation for the natural world and scientific principles.

The winners of PYNT will represent their country in IYNT. Participants in the IYNT often engage in rigorous research, experimentation, and analysis to prepare for the tournament. They present their findings and solutions during the competition, and their work is evaluated by experts in the respective scientific fields.



Team Pakistan in 11th IYNT held in Almaty, Kazakhstan

Team Pakistan participated in 11th IYNT held in Almaty, Kazakhstan and won the Bronze medal under the leadership of Ifrah Ali and Raja Neehaat Ali Hussain Khan. The 11th International Young Naturalists' Tournament will take place on the campus of National Scientific and Practical Educational and Wellness Center Bobek in Almaty, Kazakhstan on August 20—27, 2023.

The Center occupies an area south to the center of the old capital and largest city of Kazakhstan, Almaty. It has a variety of facilities, including an astronomical observatory and a medical health recovery complex. Bobek aims at advancing the intellectual potential and wellness of young students through their desire for self-understanding, self-determination, self-realization and self-development.



Rules and Regulations

Participants

1. The participants are aged 12 through 16.
2. Each Team is composed of six Team Members, including one Team Captain. Participation of smaller Teams is allowed. No Team Member and no Team Captain can be replaced after the Opening Ceremony.
3. To participate, a Team must fulfill the requirements for registration.

Agenda

- Selective SF 1 with Problems 1...6 (graded by Jury);
Selective SF 2 with Problems 7...12 (graded by Jury);
Selective SF 3 with Problems 13...17 (graded by Jury);

Problems

1. The set of Problems with numbers 1 through 17 is released by IYNT to the Teams. Problems 1...6 are discussed in Selective SF 1, Semi-Final SF and Final SF. Problems 7...12 are discussed in Selective SF 2, Semi-Final SF and Final SF. Problems 13...17 are discussed in Selective SF 3, Semi-Final SF and Final SF.

Jury

1. In all SFs, the Jury evaluates the solutions of the Problems and the Team performances. Guidelines and particular criteria aimed at improved grading are made public. Each individual Juror decides on each Grade and bears sole responsibility over the Grade. No Grade can be corrected retroactively. Each Juror must publicly justify any of their Grades upon the request of Team Captains or the Chairperson.
2. One of the Jurors in each Group is the Chairperson who conducts the SF and ensures that the Regulations are respected.

Official language

The official language of the IYNT and PYNT is English.



Standard SF procedures

1. Each SF in each Group is conducted by a Chairperson who facilitates discussions, announces the ordering, manages time, clarifies the Regulations, ensures their implementation, and collects preferences for the next SF when necessary. In the beginning of a SF, the Chairperson asks Jurors to introduce themselves, and asks Team Captains to introduce their Team Members. In Selective SF 4, Semi-Final SF and Final SF the Chairperson carries out the Captain's Contest in the beginning of the SF, before Stage I.

2. In the Groups of three Teams, the SF is carried out in three Stages. In each Stage, each Team acts in one of the three roles: Reporter, Opponent, and Reviewer. The roles are assigned in the following standard order:

3 Teams	Stage 1	Stage 2	Stage 3
Team 1	Reporter	Reviewer	Opponent
Team 2	Opponent	Reporter	Reviewer
Team 3	Reviewer	Opponent	Reporter

In Stage I, one Team acts as Reporter, and the second Team is divided into two independent sub-teams that take the roles of Opponent and Reviewer, respectively.

2 Teams	Stage 1	Stage 2
Team 1	Reporter	opponent, Reviewer
Team 2	Opponent, Reviewer	Reporter

The division takes place in the very beginning of each Stage. Team Captain decides on how the Team is divided and may appoint a temporary acting Captain for the sub-team from which he or she is absent. In Selective SF 1, Selective SF 2, and Selective SF 3, the sequence of performances is determined by the Tournament Bracket established at the Opening Ceremony. In Selective SF 4, Semi-Final SF, and Final SF, the sequence of performances is determined via Captain's Contest conducted by the Chairperson in the beginning of the SF before Stage I. The Captain does not interact with their Team during the Captain's Contest and when deciding on the sequence of performances. In the

course of one Stage, only one Team Member acts as the primary representative of the Team, asks questions, conducts discussions, presents opinions on behalf of the Team, and takes to the floor as Reporter, Opponent, or Reviewer. All other Team Members may act as assistants, offer technical support, or pass notes. Short remarks, explanations, language support, questions, and similar verbal contribution from other Team Members are allowed only if the designated Team representative hands this over to another Team Member and invites their brief input. The Chairperson requests other Team Members to be silent or be seated if their verbal contribution exceeds a reasonable minimum, and in particular if the designated Team Member is not visible as the primary representative of their Team. In the course of one Stage, Members of one Team do not seek and do not obtain any form of advice or consultation from anyone outside their Team, in particular from Team Leaders. The Chairperson requests the Team to stop any of such consultations. There is however no limitation in using literature, electronic equipment, online resources, and similar sources of information.. Prior to announcing their Grades, Jurors have no right to express their judgment or opinion. Jurors have no right to explicitly examine textbook knowledge of Team Members or pose the same question to several Teams at once. Before the Jurors show their Grades, the Chairperson checks that each Juror has filled and signed their individual Protocol and has clearly recorded their Grades. In case of any discrepancy between the Protocol and the displayed Grade, the Protocol prevails and is considered correct. Chairperson and any Team Captain can ask any Juror to justify any of their Grades, in particular the extreme Grades. If a Team does not show up for a SF, the Chairperson reports to the GC. The Chairperson preserves all data from their Group, including Grades, names, rejected and reported Problems. The Chairperson signs their SF Protocol and is responsible for its integrity and correctness.



Standard Stage procedures

1. Each SF is composed of three or two Stages. Each Stage is composed of separate Phases according to the agenda in the table below.

Phase	Duration
Challenge by the Opponent	1 min
Accepting or rejecting the challenge by the Reporter	1 min
Preparation of the Reporter	3 min
Presentation of the report	8 min
Clarifying questions of the Opponent to the Reporter	3 min
Preparation of the Opponent	3 min
Statement by the Opponent	4 min
Discussion between the Opponent and the Reporter	5 min
Clarifying questions of the Reviewer to the Reporter and the Opponent	2 min
Preparation of the Reviewer	2 min
Statement by the Reviewer	3 min
Concluding remarks of the Opponent	1 min
Concluding remarks of the Reporter	1 min
Clarifying questions of the Jury to Reporter, Opponent, and Reviewer	6 min
Grading	4 min
Concluding remarks of the Jury, justification of Grades	5 min

Team roles in Stage 1

1. The Reporter presents an original solution prepared by their Team. The Report contains the basic ideas and methods for the solution, the description of observations and experiments, theoretical analysis, and also clear conclusions. The Reporter explicitly cites the sources of any ideas, data or theories which are not of own work. The standard visual aids for the report are multimedia slides with graphs, figures, data, mathematical expressions, photos, or videos. Other visual aids may include experimental demonstrations or handout sheets. By the end of the PYNT, the Reporter submits a copy of their solution (i.e. slides or written reports) to the GC for archiving, and must ensure that the files are safely kept.
2. The Opponent presents a critique of the Report, including its contents and form, and leads the discussion with the Reporter. The Opponent justifies their agreement or disagreement with the methods, results, and conclusions presented by the Reporter. The Opponent challenges each aspect of the Report and discusses possible improvements. The Opponent points to inaccuracies and errors in the understanding of the Problem and in the solution, but also points to achievements and strong sides of the Report. Whilst the Opposition focuses only on the Report and may not be a presentation of their own solution, the Opponent can cite literature and own results to justify particular criticisms. By the end of the PYNT, the Opponent submits a copy of their opposition (e.g. slides or written notes) to the GC for archiving, and must ensure that the files are safely kept.
3. The Reviewer summarizes and assesses the outcome of the debate between the Reporter and the Opponent, and draws weighted and independent conclusions. The Reviewer presents a short evaluation of the performances of two other teams, pointing to their strong sides and shortcomings. The Reviewer does not select the reviewed Problem, and therefore expresses their critical third-party view on the essential points raised in the debate and concludes this debate. Whilst the Review focuses only on the performance of two other Teams and may not be a presentation of another solution, the Reviewer can cite literature and own results to justify particular opinions. By the end of the IYNT, the Reviewer submits a copy of their review (e.g. slides or written notes) to the GC for archiving, and must ensure that the files are safely kept.

Challenge and rejection

1. In any Selective SF, the Opponent can challenge the Reporter on any Problem available for the SF, except for the Problems that have been reported in this SF in the current Group by another Team. 4
2. The Reporter can reject the challenge. Such a rejection is recorded in the Protocol. In such a case, the Opponent makes a new challenge on a new Problem.
3. In a situation where only one Problem is left for a challenge, the Opponent makes the challenge and it is considered accepted by the Reporter irrespective of any other considerations.
4. Throughout all Selective SFs, the total allowed number of rejected challenges not incurring a penalty is five.

Penalties

1. Yellow Cards and summing of the penalties Penalties during a SF are applied only to the SP earned during the said SF. A Yellow Card is used to indicate each penalty. One Yellow Card issued to a Team reduces the SP in this SF by 10%; two Yellow Cards issued to a Team during a SF reduce the SP by 20%; three Yellow Cards reduce the SP by 30%, etc. The penalties for various violations are applied independently and sum up.
2. Number of rejected challenges (NR) If the total number of rejected challenges in all (the current and all preceding) SFs exceeds the limit by one, a Yellow Card is issued; if it exceeds the limit by two, two Yellow Cards are issued, etc. If there is no rejected challenge in a particular SF, the SP in this SF is not penalized even if the total number of rejections in preceding SFs has exceeded the limit.
3. Number of individual performances in one SF (NP) During any single SF (Selective, Semi-Final or Final) any individual Team Member takes the floor only once. If a Team Member takes the floor in two roles, one Yellow Card is issued. If a Team Member takes the floor in three roles, two Yellow Cards are issued.
4. Total number of individual performances in Selective and Semi-Final SFs (NT) Throughout all SFs taken together, except for Final SF, any individual Team Member takes the floor in each role only once, i.e. once as Reporter, plus once as Opponent, plus once as Reviewer. Each violation results in one Yellow Card.
5. Duration of one performance (DP) If the duration of Team performance during their Introduction at the Opening Ceremony exceeds the time limit (3 minutes), each extra minute results in one Yellow Card. The extra time is rounded up to the next minute. There are no penalties for exceeding the time allowed for presentations in the SFs

where time is under control of the Chairperson who stops the Phase when the time has elapsed

Grading parameters

Grade (G) Each Juror evaluates the Team performance by giving integer Grades G. In any SF, the Grades are in the following range:

To the Reporter from 1 to 30;

To the Opponent from 1 to 20;

To the Reviewer from 1 to 10.

Meet our Ambassadors



Ayan Bin Rafaih
(Team Member Team Pakistan White at 11th IYNT)



Haziq Sheerazi
(Team Captain Team Pakistan White 11th IYNT)



Ahmad Sultan
(Team Member Team Pakistan White at 11th IYNT)

Contact us:

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