

# **IJSO Statutes**

2004.12.5 in Indonesia

1<sup>st</sup> Amendment 2007.12.2 in Taipei

2<sup>nd</sup> Amendment 2009.12.8 in Azerbaijan

3<sup>rd</sup> Amendment 2013.12.9 in India

4<sup>th</sup> Amendment 2016.12.9 in Bali

5<sup>th</sup> Amendment 2018.12.9 in Botswana

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#### INTRODUCTION

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#### (Definition)

The International Junior Science Olympiad (IJSO) is an annual individual and team competition in the Natural Sciences for students who are fifteen years old or younger on 31<sup>st</sup> December of the competition year. IJSO has been established in recognition of the significance of the Natural Sciences in the general education of young people and in all aspects of their lives. It is a purely educational event.

§ 2

#### (Preamble)

No country may have its delegation excluded from participation on political grounds, lack of diplomatic relations, lack of recognition by the government of the Organising country, imposed embargoes or similar reasons. When difficulties preclude the formal invitation of the delegation representing a country, students from such a country should be invited to participate as individual delegations. Religious or political propaganda against any person or country or disruption of any aspect of the IJSO is strictly forbidden. Participation in the IJSO either by a host country, a delegation or an observer signifies acceptance of the statutes and all other aspects of the IJSO.

§ 3

#### (Aims & Objectives)

#### The aims of the IJSO are

- ♦ to promote and reward the pursuit of excellence in scientific endeavour.
- to challenge, stimulate and encourage gifted students to further develop their talents in Natural Sciences.
- $\diamond$  to create friendship and relationships among students around the world from an early age. The objectives of the IJSO are
- ♦ to stimulate the active interest of students in the Natural Sciences.
- to promote their careers as scientists.

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- to enhance and develop international contacts in the Natural Sciences.
- to encourage the formation of friendships within the scientific community.

#### **ADMINISTRATION OF THE IJSO**

#### § 4.

#### (Organization)

The IJSO is organised in late November or early December by the National Organising Committee (OC) of one of the participating countries on behalf of its National Government, its Ministries or its official Institution(s). The competition has to be conducted on the territory of this nation. The duration of the Olympiad (including the arrival and departure days) should not be less than 9 days.

English is the working language of the IJSO and competition problems and their solutions should be presented to the IJSO International Board (IB) and team leaders in English. The organisers may also prepare these documents in other languages.

Within five years of its entry in the competition a country should declare its intention to be the host of a future IJSO so that the order of countries willing to arrange the IJSO can be compiled. A country that refuses to commit to organise the competition may be barred from further participation.

In the event of the IJSO being cancelled, all participating countries including those countries that had agreed to send an observer will be invited to send full delegations to the following IJSO.

The International Board of the IJSO is comprised of the Executive Committee and the Country Coordinators of each member country.

The Executive Committee comprises:

- President
- Vice Presidents of Africa, Americas, Asia and Europe.
- Treasurer
- Secretary
- Head of the Administration Centre.

The Local Organising Committee and the Scientific Committee of any particular competition should have no overlap or common members with the host Country Coordinator.

### § 4.1

#### (The President)

The President shall be elected by the IB and shall serve a three-year term. He/She may be reelected by the IB for only one additional term.

He/She shall be an ex-officio member of all IJSO committees and shall receive an official invitation from the host country of the IJSO. All costs incurred for inviting the president is the obligation of the Organising Committee (OC). He/She shall be invited to deliver a speech at the opening and closing ceremonies.

The President shall ensure that the IJSO constitution is upheld and shall chair the IB meeting where changes to the constitution are being discussed (§ 4.7).

His/Her duty is also to chair the IB meeting where medal allocations are determined.

The signature of the President should be on all certificates.

In the case that the IJSO is not taking place or in danger of not taking place in any year, the IJSO President has the authority to invite the IB of the previous year to remain in office and manage the affairs of the IJSO until a new host country is accepted.

The president has to be supported by the IJSO office at his/her local secretary bureau, expenses for which must be covered by the participating countries (§ 7).

#### 4.2

#### (Vice Presidents)

Vice Presidents shall be ex-officio members of all IJSO committees and shall act with responsibility to the continent, which they are representing. They shall be elected by the IB of the relevant continent. They shall help the president with his/her tasks. They shall serve a three-year term and may be re-elected by the IB for only one additional term. The VPs shall promote and encourage countries in his/her region to participate in IJSO.

#### § 4.3

#### (Administration Centre)

The IJSO Administration Centre acts as the administrative machinery of the IJSO. For sustainable development of IJSO, the Centre is a permanent institution with no term limits.

The Ministry of Education of the country where the Centre is located can staff the IJSO Administration Centre. The obligation and responsibility of Administration Centre (AC) are as the following.

- AC shall ensure information services for all member countries and for the related international institutions.
- ♦ AC shall summon the IJSO Executive Committee meeting and the International Board if necessary. In the meantime, it shall ensure preparation and distribution of materials to these meetings.
- AC shall accumulate relevant documentation about the competition. It shall register and renew addresses of coordinators, their deputies, observers, and of institutions taking part in the IJSO.
- ♦ AC shall collect materials and information regarding the IJSO and other scientific competitions, including descriptions of competitions used to select IJSO contestants.
- ♦ AC can coordinate the invitation of observers from other non-IJSO member countries by the future host country.
- AC shall organise the agendas and minutes for annual EC meeting and presents a yearly report, which also includes its activities and the financial situation at the International Board.

#### (Executive Committee)

The long-term work of the IJSO is coordinated by the Executive Committee

(EC). It consists of the President, Vice Presidents, Secretary, Treasurer and the Head of Administration Centre. Except Head of AC, the IB elects the EC for a period of three years and may be re-elected for one additional term only. Head of AC shall be appointed by concerned country and approved by IB. Vacancies occurring within the three year period will be filled by the IB through election to complete the term. The members serve in a voluntary capacity and will not receive a stipend. Member/s of EC that is not serving as one of the team leader or observer of his/her country will not be charged the registration fee and may apply for support from the hosting country for example: the transportation costs.

Members of the Executive Committee (EC) can also act as the Country Coordinators for their countries.

#### 4.5

#### (Organising Committee)

The Organising Committee (OC) of the IJSO must be completely independent and separate from the local Country Coordinator responsible for the selection and training, etc, of the Host Country Team.

The appropriate Governmental Department or Institution(s) of the host country on whose territory the competition takes place appoints the OC to run the IJSO on behalf of the host country.

The OC should produce a "Programme Book" based on the IJSO statutes and guidelines. Leaders and students of the participating countries would have these books in check-in time. Programme Book shall give all necessary details about the IJSO event.

The OC shall provide a detailed program for the competition including the schedule, program of excursions, etc., which is sent to the delegation leaders of the IJSO.

The OC shall load onto the IJSO website a summary of the event proceedings including a table of marks within one month of the final day of the relevant competition.

#### (Scientific Committee)

The OC appoints a Scientific Committee (SC) to manage all the scientific aspects of the IJSO. The SC will provide questions arranged in three examination papers with their corresponding solutions and mark schemes. The topics for the competition must correspond to the latest approved IJSO syllabus. The objective of the tasks should be to assess the ability of students to apply their knowledge in new and difficult contexts rather than to assess the wide range of knowledge they have acquired by fifteen years old.

The Scientific Committee shall post copies of the question papers, answers sheets and mark schemes on the IJSO website. The Executive Committee should ensure that this is completed in a timely manner.

The SC is responsible for the grading the problem solutions and for organising and carrying out the moderation process.

4.7

#### (International Board)

The International Board (IB) is composed of the Executive Committee and the Country Coordinators of the participating countries and is the decision making body and final arbitrator of the IJSO. Decisions of the IB are taken on the basis of a simple majority (unless otherwise stated in the statutes) in the presence of at least 75% of members attending IJSO event that year and are final. Each IB member has one vote. In the case of equal votes, the president has a casting vote and takes the final decision. The President is the head of the IB meeting. His duties include:

- ♦ to declare the meeting open and verify by roll call the names of voting members present.
- ♦ to allow equal opportunities to all members to express their points of view.
- ♦ to restrict/limit where necessary the contributions of certain members.
- to record the decisions of the IB.
- ♦ to complete the agenda of the meeting within the prescribed time.
- ♦ to declare the meeting over or deferred.

One of the team leaders will serve as a Country Coordinator (CC) until the next IJSO and as a member of the International Board (IB) of IJSO. CCs should belong to an official Institution, University, or well-known associations, and participate in IJSO on behalf of country.

#### The duties of the IB are

- ♦ to direct and supervise the IJSO in accordance with the statutes.
- ★ to discuss and approve the tasks, their solutions and evaluation.

The IB may change or reject parts of tasks one and two but may not propose new ones. Structural changes may not be made to the experimental task.

- $\diamond$  to ensure that no assistance is given to students by way of translations or by any other means.
- to ensure the correct and just classification of the prize winners.
- ★ to establish the winners of the competition and make a decision concerning the presentation of the prizes.
- ♦ to review the running of the IJSO.
- ♦ to ensure that violations of the statutes are dealt with appropriately.
- ★ to approve the countries that will organise future IJSOs.
- $\diamond$  to expel countries or individuals from participation in the IJSO for violation of the statutes.
- ★ to accept the decisions of the majority of the members present.

#### The IB approves

the final results of the evaluation and decides on the number of Gold,

Silver and Bronze medals and other awards to be awarded in accordance with the Statutes.

- ♦ The changes to IJSO statutes come into effect from January 1 the following year OR the effective date mentioned for that specific amendment and accepted by the IB.
- ♦ The expulsion of team leaders or member countries from the IJSO in the case of a serious breach of the rules.

#### PARTICIPATION IN THE IJSO

§ 5

#### (National Delegations)

Participation in the International Junior Science Olympiad signifies acceptance of the present Statutes by the Relevant Ministry of the participating country.

Each participating country that has either participated fully in or sent an observer to the IJSO in one of the previous two years is invited to send a delegation of six students and three team leaders. One team leader acts as the Country Coordinator (CC).

The hosting country has the right to have two national delegations.

Countries who want to join the IJSO after it has reached the number of fifty attending member countries have to start by sending an observer at least once at the IJSO before they participate for the first time.

§ 5.1

#### (Obligations)

The obligations of the participating countries are to pay the participation fee at the time that the host country decides and to obey all rules of the IJSO statutes and rules made by the Host Country for the ongoing event. Each participating country may submit six multiple choice problem (two for each subject: Physics, Chemistry and Biology) for task one, one theoretical problem for each subject for task two, and one experimental problem for task three to the OC of IJSO. The complete solution of each problem must also be submitted.

§ 5.2

#### (Competitors)

A normal team consists of six students and three leaders. If a normal team could not be fulfilled, then the minimum team that consists of three students and at least one leader, will also be allowed to participate in the IJSO. Teams consisting of less than three members are not classified for team awards.

The age of the competitors is fifteen years old or younger on 31st December of the competition year. As an example students born on or after January 1st 2000 are therefore eligible for IJSO in 2015.

A student is eligible to represent his/her country if he/she holds a valid passport of that country or has been at school in that country for at least one academic year immediately prior to the competition, and has not participated in the selection process for another country's team. Students at the time of the competition should not be part of University education.

Students must accept the statutes of the IJSO and the organisation rules provided by the OC.

The uses of one's own collections of formulae from mathematics, chemistry, physics, etc. during the competition are not allowed.

§ 5.3

#### (Country Coordinator)

The Country Coordinator is the contact person in each participating IJSO country and must insure that

- $\diamond$  all registration forms are completed and sent to the Organising Committee (OC) on time.
- $\diamond$  guarantee that all delegation member details are in accordance with the rules of the IJSO.
- $\diamond$  confirm at registration that all delegation member details provided are correct.

§ 5.4

#### (Team Leaders)

#### The Team Leaders must

- $\diamond$  preserve complete secrecy of the tasks and the results until publicly announced.
- provide a proper translation of the problems from English (or other languages)
  to the mother tongue of their participants. The Organisation Committee (OC) will not be
  responsible for providing the translator for the country delegation.
- ♦ grade their students' scripts and participate fully in the moderation process.
- accept the statutes of the IJSO and the Organisation Rules provided by the OC.
- ♦ not have contact with their students once the problem discussion has started, and until permission has been granted by the IB.

The IB will disqualify those contestants who do not meet these IJSO conditions. The Team Leaders must ensure that all delegation member details are in accordance with the rules of the IJSO and have been accepted by the OC prior to arrival at the IJSO.

The Team Leaders must cover the costs incurred by a disqualified contestant or contestants where the OC has not accepted the contestant or contestants.

§ 5.5

#### (Observers)

Observer/s are those people who come to observe the IJSO. They include a representative of a country wishing to join the IJSO and representatives of future host countries and an assistant to the Country Coordinator.

#### An Observer:

- ♦ is invited to observe all IB meetings and IJSO activities.

The Host country must finalise the Observer and Visitor fees after consultation with the Executive Committee.

§ 5.6

(Visitors)

A Visitor from a participating country, e.g. the parent of the students, may attend the IJSO. A Visitor:

- ♦ is invited to join for all excursion programs for leaders only.

- $\Leftrightarrow$  must pay his/her accommodations (hotel, foods, travelling, etc.) fully during his/her stay.
- → must pay the visitor fee determined by the host country.

§ 5.7

#### (Guest Delegations)

Under the approval of the EC of IJSO the host country may invite Guest Delegations, but only one Guest Delegation from each participating country, including a Guest Delegation from the host country. Guest Delegation leaders are not voting members of the IB but their duties are the same as other delegation leaders in all other respects. The Guest Delegation pays all the expenses related to its participation determined by the host country.

Countries present with Guest Delegations only are not obliged to Organise the IJSO in the future.

Competitors from the Guest Delegations are classified in the same way as the regular delegations. They may receive medals, awards, diplomas and prizes but their names should be associated with the letter "G" (Guest) in all official documents. Also, the Guest Delegation will not be awarded as the country winner, Best experiment, Best Theoretical winner or overall Winner. The medals, awards, diplomas and prizes awarded to the guest teams are in addition to the 60% allocated awards.

#### **HOSTING THE IJSO**

§ 6.1

(Duties of the Host Country)

The host country must ensure or prove that

- ♦ The event is conducted in accordance with the statutes.
- ♦ a Logo of the IJSO is used in all banners, documents, certificates etc.
- ♦ Students and leaders should not stay at the same hotel.
- ♦ The final report will be published and delivered to the participant countries and AC before the end of next IJSO.
- ♦ There may not be any contacts between leaders/observers/visitors and their team members at the beginning of, during and after problems discussion until the students have finished the examination for the discussed problems.
- ♦ Secrecy and confidentiality during the competition will be supervised.
- The health and safety of the delegations is provided.
- ♦ Laboratories, examination halls, materials and other requirements necessary for the carrying out of the IJSO in accordance with the rules are provided.
- ♦ Participating countries will obtain visas and their embassies/trade offices abroad are informed.
- ♦ Competition tasks, author's solution and marking of the individual results for the team leaders are prepared.
- ♦ The translators and interpreters are assisted during all IJSO sessions.
- ♦ Organising committee and scientific committee will cooperate with EC members. If the Organising Committee or the Scientific Committee plan to change the competition procedures from those outlined in these Statutes and accompanying Guidelines they must seek agreement upon this change with the EC in advance of, or during the EC visit to the Host Country.

#### § 6.2

(Duties of the following Host Countries)

The next Host Country must provide a formal invitation to all participating countries. The formal invitation must be addressed by the chairman of the Organising Committee or from the Government Official of the next hosting country. It may bring observers to watch the ongoing IJSO.

Must invite the EC Members of IJSO to observe the preparation of OC at least 6 months before the date of the IJSO event. All costs for inviting the EC members must be borne by the OC of the next host country.

The subsequent hosting country must send a preliminary invitation to all participating countries and may make any other presentations, etc., to all of the participating countries.

#### **FINANCIAL MATTERS**

§ 7 (Financial Matters)

The financial management of the IJSO is as follows:

The host country covers all costs from the arrival at the location of the IJSO until departure of the delegations. This includes the costs of

- board and lodging of the delegations
- → medals, awards, certificates, other prizes, etc.

The Country Coordinators of the participating countries must ensure that the government/sponsor covers the cost for the delegation of

- return travel to the location of the competition
- ♦ health & travel insurance for the period of the competition.
- $\diamond$  the participation fees for each delegation is US\$ 1.000.00 and will be reviewed yearly.

Twenty-five (25%) of the participation fee should be returned to the Treasurer of IJSO within six months for operational costs of IJSO Organisation (§ 4.1). The Financial status of IJSO will be reported by the Treasurer in a written text every year at the International Board Meeting and is subject to be audited by the Internal IJSO's Auditors.

All cost incurred for creating problems (theory and experiment) for the IJSO event is the responsibility of the host country.

#### THE COMPETITION

8 8

#### (Schedule)

The competition is divided into three examination papers composed of multiple problems, prepared by the SC and conducted over three days with an interval of at least one day between each examination. The time allotted to each examination should normally be three to four hours. The OC decides the sequence of the competition days.

§ 8.1

(Problems)

The problems are arranged into three examination papers.

The Multiple Choice and Theory Examinations are individual events. However the Practical Examination is a team competition, where one team consists of three students of each delegation (each country may have two teams for the Practical Examination).

In the Multi-Choice-Questionnaire (MCQ) the number of questions should be 30 (thirty). Questions for the Multiple Choice Examination should include Physics (10 problems), Biology (10 Problems) and Chemistry (10 problems). Each question shall have four possible answers with only one is correct.

This Theory Examination Paper may be organised into sections covering subjects e.g. Biology, Chemistry and Physics and / or themes involving multidisciplinary subject areas. This Examination should be more complex involving a combination of Physics, Chemistry and Biology.

The Practical Examination Paper is an experimental test. Questions for this paper should be the combination of Physics, Chemistry and Biology and should be in equal proportion.

The questions in these Examination Papers must

- $\diamond$  be related to the syllabus of IJSO, and cover all content of the syllabus as much as possible.
- ♦ be created innovatively and the answers must be language independent.

The questions in these Examination papers may be reviewed by the IJSO Scientific Experts (not the local Scientific Committee, but a group formed from the IB by the EC) in advance. The SC shall prepare at least 9 (nine) spare multi-choice questions for the Multiple Choice examination and at least 3 (three) spare problems for the Theoretical examination. These extra questions should be divided equally among all three subjects. When a replacement question is being considered, the IB may vote on that alternative alone without reference to the other alternatives. The rejected question(s) cannot be reconsidered.

#### (Problems Discussion)

#### The problem discussion

- must be lead by a member of the Scientific Committee (SC) of the host country.
- ♦ should provide a presentation of the problems by the SC to be discussed by all leaders.
- $\Rightarrow$  may be mediated by the president (or nominee) if there is a dispute among the leaders.
- ♦ The rejected problem/s must not be reconsidered to be one of the problem/s.
- ♦ The rejected questions must not be reconsidered to be for any one of the Examination papers.

§ 8.3

#### (Problem Translations)

The Team Leaders must not give any clues, changes, simplifications or modifications for the problems that have been approved by the IB members when the problems are translated to their own languages (translation means to change the sentences/words to one language according to the related Dictionary).

Any country that violates this condition, will be disqualified from the event, and must return home immediately without receiving any expenses related to their participation budget, from the host country or by IJSO. The official English version will be provided to each student on request.

§ 8.4

#### (Marking)

The marking of the examinations is conducted by the Scientific Committee and may be revised following discussions with the Team Leaders during moderation (§ 8.5).

The maximum points allocated to the problems are:

♦ Multiple Choice Examination: 30 points
 ♦ Theoretical Examination: 30 points

♦ Practical Examination: 40 points

The Multiple Choice Examination and Theoretical Examination are marked individually. In the Multiple Choice Examination the correct answer will be marked 1 (one), the wrong answer will get penalty 0.25 (zero point twenty five), and zero marks for not answering.

Each member of the team for the Practical Examination will be awarded the same points. For correct marking the team leader/s is/are obliged to state clearly the names of his/her students as Team A or Team B. However, the names on each team may be changed (reshuffled) only on the arrival date. No more changes can be made afterwards.

§ 8.5

(Moderation)

Moderation is the discussion of the students' marks between Team Leaders and SC members (§ 8.4).

On the night prior to moderation the SC must provide to the team leader the marks and the marked examination papers for each student including the marking scheme.

Each country will be called according to their schedules, and will only be present for discussion for the allocated time determined by SC (all countries will get the same time allocation).

At the end of the moderation, the head of the team leaders of each country must sign the final agreed mark for their students. The SC Chair must establish a final mark sheet and have the respective marks for each country confirmed and signed off by the head of the team leaders for that country. This Final Mark Sheet must be verified immediately after moderation has finished.

No more changes can be made for the students' marks after moderation, unless there is a proven mistake by the SC on their final marks. Furthermore, the moderation

- can be led by the chairman of SC members.
- the President or nominee should be present at moderation.

§ 8.6

(Calculating the Awards)

Medals are allocated on the basis of individual total points. The points allocated to the individual for the Multiple Choice and Theoretical Examinations are added to the points allocated to team for the Practical Examination.

In deciding on the Best Theoretical Winner, only results of the Multiple Choice and Theoretical Examinations are added.

In deciding the Best Team only the results of Practical Examination are considered.

In deciding **the Country Winner** all six individual scores are added. If there is a tie, Gold medals are allocated three points, silver two and bronze one. If there is still a tie, only gold and silver are considered and finally only gold. The following examples may explain the decision procedure in the case of a tie (grey = Country Winner):

Case 1: 3 delegations with 6 students each with the same total(tie)				
Country	Med	Tota	G/S-	Gold-
	als	1	Value	Value
		Valu		
		e		
Delegatio	3G,	12	9 no	9 no
n A	3B		matter	matter
Delegatio	2G,	13	12 no	6 no
n B	3S,1		matter	matter
	В			
Delegatio	6S	12	12 no	0 no
n C			matter	matter

Case 2: 3 delegations with 6 students each with the same total. (tie)				
Country	Medals	Total Value	G/S- Value	Gold- Value
Delegation	1G,4S,1B	12	11	3 no
A		(tie)		matter
Delegation	3G,3B	12	9	9 no
В		(tie)		matter
Delegation	6S	12	12	0 no
C		(tie)		matter

Case 3: 3 ( (tie)	delegations w	rith <b>5 or</b> 6 students	each with the	same total.
Country	Me dals	Total Value	G/S- Value	Gold- Value
Delegati	4G,	13 (tie)	12	12
on A	xx,1		(tie)	
	В			
Delegati	2G,	13 (tie)	12	6
on B	3S,		(tie)	
	1B			
Delegati	6	12 no	12 no	0 no
on C	S	matter	matt	matter
			er	

The **Overall Winner** is the student who has the highest total points (the total of all three Examinations).

The President and the Chairman of the Scientific Committee will ensure that each student has been allocated the correct marks and therefore the correct medal. They will ensure that a final register of medals awarded, and the final mark sheet is secured. During the discussion of medal allocations real results should not be shown.

Students' results will be released only at the closing ceremony of IJSO.

### § 8.7

#### (Awards)

#### Certificates

All students who do not obtain any medal will receive certificates of participation. The student who obtains a medal will receive a certificate that clearly mentions the medal received.

#### Medals

Medals will be awarded as follows:

#### For individual competition:

Gold medals : top 10 % (approx.) of all students

Silver medals : next 20 % (approx.) of all students

Bronze medals : next 30 % (approx.) of all students

(must not exceed 60 %)

For team (experimental) competition (1 medal to each team member):

Gold medals : 1<sup>st</sup> Highest point of the team

Silver medals : 2<sup>nd</sup> Highest point of the team

Bronze medals : 3<sup>rd</sup> Highest point of the team

#### Special prizes and certificates will be awarded to

- the student who obtains the highest overall score (total points obtained from all Examinations) is called as "the overall winner".
- the student who obtains the highest score for theoretical examinations (total points of the Multiple Choice and Theoretical Examinations) is called "the best theory winner".

A perpetual challenge trophy and flag will be awarded by the President of IJSO to the country who achieved the highest accumulated score of all six students and is called "the country winner". The IJSO flag will not be permanently belong to the winner, however to be returned to the President of IJSO at the opening ceremony of the next IJSO and will be awarded to the next country winner. Additional Special prizes can be awarded at the discretion of the host country.

#### **HONORARY MEMBERS**

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#### (Honorary Members)

The IB may award a person the title "Honorary Member of the International Junior Science Olympiad" for special service to the IJSO. They may be invited to the IJSO. The payment of all expenses of the honorary member is at the discretion of the host country. The Past Presidents of IJSO are automatically honorary members of IJSO.

§ 10

(Finally)

The original of these Statutes is written in English.

These Statutes is immediately effective after they are ratified at the 15th IJSO International Board Meeting in Gabarone, Botswana on December 12, 2018. Therefore, the previous IJSO Statutes are no longer valid.

Any IB member may propose changes to the statutes in writing to the Secretary of the IJSO, who is then responsible for their circulation. Changes to the statutes can only be made at an IB meeting, chaired by the President and specifically called for that purpose where more than 66% members present vote in favour of the proposed change OR if more than 75 % of the IB members vote for the change by round robin. Ideally IB members must receive (and acknowledge) the proposed changes at least 30 days before meeting or agreeing, however during an IJSO competition this time requirement may be reduced to 2 days.



#### IJSO Guidelines Approved in Gabarone, December 2018

#### I. How to become the future host country of an IJSO

- A. A country, which has been participating in the IJSO, must state within a reasonable time after its acceptance as member of the IJSO its intention to host an IJSO in a certain year. This official statement must be sent to the IJSO Administration Centre or President at least two years before the intended year to host the IJSO.
- B. The approval of a host country is made at the IB meeting at least two years in advance.
- C. Criteria for accepting a future IJSO host are:
- ✓ Official letter of Ministry of Education or similar governmental body confirming the willingness of the country to host an IJSO
- ✓ naming the organizations and involved bodies (e.g. universities) with their main tasks
- $\checkmark$  naming the institution, that guarantees the availability of the required finance necessary to carry out the IJSO,
- ✓ deciding the year, prospective site and fee.
- D. Future organizers accepted as IJSO hosts will inform the IJSO Coordinator Centre regularly about the state of preparation and report about important deadlines and milestones.
- E. Future host countries will attend at least two EC meetings before the actual IJSO and are encouraged to distribute everything that is relevant and interesting on paper during IB(International Board). The presentation itself should be brief and focus only on IJSO relevant issues.

#### II. The role of the host concerned administration

- A. The Ministry of Education (or an analogous institution) represents the official authority of the host country.
- B. It appoints an organizing committee and sends the official invitation letters, including information about possible financial conditions and other duties related to the IJSO membership.
- C. It also assigns an organizing institution and the IJSO competition site. The committee is responsible for the preparation and the activities of the IJSO.

#### III. The main responsibilities of the organizing committee

The organizing committee has the following responsibilities:

- A. Sending information about the IJSO to IJSO member countries and observers by Jan. 1 at the IJSO year, including conditions like paying the fee, etc.
- B. The official language of the IJSO is English. The discussion during all meetings and activities will only be in English.
- C. A Logo of the IJSO is used in all banners, documents, etc. Sufficient banners should be posted around the competition sites, such as: hotels for leaders and students, ceremony halls.
- D. Preparing the tasks in correct English, to be checked by a native speaker who is a science teacher.
- E. Organizing the IJSO, which includes:
- ✓ opening and closing ceremonies:
- ✓ problem discussion, problem translation, moderation, award decision;
- ✓ conducting the competition;
- ✓ excursions;
- ✓ assurance of conditions for work of the team leaders;
- ✓ International Board;
- ✓ preparation of medals for the winners; preparation of certificates for all participating members:

- ✓ winners of gold, silver and bronze medals should have some indication about their medal on their certificate of attendance. Non-medalists should get a participation certificate.
- F. Providing for food, accommodation, excursion and transportation to and from the Airport and/or the Railway Station for all participating members and observers.
- G. Securing optimum health and safety requirements of the students in relation to travel, communication, lodging, food supply, fulfilling experiments and practical examinations, recreation activities etc.
- H. Appointing a Chairperson of Scientific Committee to chair all the meetings, including problem discussion, problem translation, and moderation and so on.
- I. Arranging facilities, such as photocopying, photo and/or video documentation, computer processing of achieved results.
- J. Distributing a new updated version of the addresses list including email of all coordinators and team leaders.
- K. Providing the Administration Centre after the competition with a copy of the files of the complete English final version of the Examination papers and answers.
- L. A daily News Letter or leaflet of the event is published and provided.
- M. Providing each country not only with a copy of the filled out answers sheets of their students before moderation meeting, but also with the ranking and final scores after the closing ceremony.
- N. Preparing a "Programme Book" with details about the current IJSO. The following list is a sample of the contents of Programme Book.

Programme Book of IJSO20XX

Welcome Messages Members of IJSO Organising Committee Members of Scientific Committee Daily Schedules Venues of Competition and Accommodation Tour Information Words and Phrases of Local Language Cultural Information Additional Events Participating Countries and Participants Statutes of IJSO, Guidelines and Syllabus History of IJSO IJSO Executive Committee Useful Information (addresses and phone numbers)

O. Preparing a final report within one year after the competition. In general the following items should be included in an IJSO report.

IJSO Report

Foreword

IJSO in a nutshell

Organization: organizing, scientific, and other assisting committees: their tasks, and how they were recruited

Program with some focus upon social and cultural activities

Result + medals

Statistical considerations: average + max + min score per question and mean + SD

Evaluation and reflection, including recommendations concerning important milestones and deadlines for future organizers

List of participating countries,

members of Local Task Committee IJSO Scientific Experts, participants, observers and student guides Address (speeches) of special VIP's Examination One + answers Examination Two + answers Examination Three + answers List of sponsors

P. In order to establishing friendly relations among young people from different countries, the host country is recommended to offer facilities for students to socialize.

#### IV. The financial responsibility of a host country

A. The host country must pay for all activities of the hosted IJSO during the specified week, except for the travel expenses of the participating members and the observers to and from the city or town where the IJSO takes place.

B. The host country may request each participating country to pay a fee and also determines the fee for the observers to the host country, must informs them in advance of this fee.

## V. Preparation of the IJSO tasks

A. The host country must appoint a committee of authors responsible for the construction of the IJSO Examinations, the design of the proposed tasks and how each question is to be evaluated (marking procedure). The members of this committee should be specialists in biology/chemistry/physics and science in junior high school.

B. The committee must study and understand the concept of IJSO, previous IJSO examination questions, Syllabus of IJSO and recommendations and principles in relation to the design of valid and reliable tasks.

C. In the current year of the IJSO the group responsible for training the national team of the host country for the IJSO should be strictly separated from the expert committee responsible for design of IJSO tasks.

#### Check list

A. Scientific committee of host country should

- ✓ design the questions in accordance with IJSO Syllabus.
- ✓ define the rules for conducting the Jury sessions, voting on questions and tasks, conducting the exams/tasks, moderation and all other academic activities.
- ✓ design the answer sheets
- ✓ decide about the scoring procedure and marking
   ✓ present in all meetings about scientific issues, including problem discussion, problem translation, moderation
- ✓ present the scores/results
- ✓ calculate the awards
- B. The design of the questions should enable objectively marking and scoring. The answer written in the student's own language should be avoided. The type of questions in Examination Two can be as
- ✓ matching a set of aspects
- ✓ filling out a number, letter or code, which may be chosen from a provided list with terms
- ✓ judging true/false a set of statements about a science problem or phenomenon
- ✓ sequencing a set of aspects or events
- C. In order to facilitate the translation process, Examinations should be as concise as possible. The host country will do the best to avoid unnecessary words.

- D. Regarding the exams layout it is recommend using the "styles" feature available in every document processing software (Microsoft Word or equivalent...): basically a pre-defined combination of font name and size.
- E. Examinations should be presented in graphic form as much as possible: graphs, diagrams, drawings.
- F. The questions could be pretested with an appropriate target group different from IJSO students, but still representative
- G. Tasks should be designed in such a way that the answers are precise and can be objectively evaluated. The host country will mention the marking scheme and evaluation procedure for each question. This must be approved by the team leaders during the problem discussion and translation meeting.
- H. The number of points for each question should be indicated on the exam papers.
- I. Difficult questions should have more points than simple questions in Examination Two and Three.
- J. A range of scores should be allowed for answers reflecting a different range of ability. In the case of questions consisting of several sub-questions a subdivision should be applied in the marking (no all-or-nothing principle).
- K. So-called piling up questions leading to possible cascade mistakes should be marked in a way that is fair to the students (avoiding consequential errors).
- L. If knowledge of a special term or explanation is required, students should not be asked to write this in their own language. They should have to choose the correct number from a list of numbered terms or explanations. Throughout the examinations students have to mark specific answers in applying just one consistent "tick" system.
- M. In order to facilitate the translation procedure and make it possible to write translations in between the lines, tasks will be word-processed with double spacing. The host country should be aware that plenty of copying facilities are required in order to avoid queuing up during the night after finishing the translations.
- N. In order to secure anonymous marking code numbers will be used instead of names for each participant. An explanation of the coding procedure will be included in the written instruction on the front page of the tasks in native languages. No oral instruction at the start or during of Examination sessions should be given.
- O. Calculators to be used in the tasks will be provided with simple statistical functions and distributed among students at their arrival at the competition site. Students will be informed that they have to bring and use these calculators during the tasks. Using own calculators is not allowed and will lead to subtraction of points.
- P. During examinations refreshments will be available for students.
- Q. Taking video shots during the practical tasks is allowed as long as it will not interfere with the students. Students participating in IJSO should be informed on forehand by their coordinators that they should agree to be filmed/photographed during IJSO for non-commercial purposes.
- R. The Host country needs provide official time keeping during the examinations. The exam start and end times and suitable clocks should be displayed so that they are visible to all the students in the examination venue.

#### VI. Problem Discussion, translation and Examination procedure

- A. The meetings of Problem Discussion (*ad-hoc* Scientific Committee and plenary meetings) are chaired by a Chairperson appointed by the host country. This person is the one and only person directing the sessions of Problem Discussion (PD). He/she should be familiar with all IJSO regulations and procedures, so he/she should attend a former IJSO. This Chairperson is supervising the process and taking care that discussions are going smoothly. Defending questions is not his/her task
- B. The host country will invite the President (or his appointed nominee) to review the examinations at least three working days prior to the IJSO week.

- C. In cooperation with representatives from the host country the IJSO Scientific Experts will review the examinations, focusing on the quality of the questions in terms of scientific correctness and conceptual formulation. They will additionally check the marking allocation plus rationale for marks and the balance of topics of the examination according to the IJSO Syllabus, Practical materials should be made available to the IJSO Scientific Experts. Examination papers should not leave the meeting room of the ad-hoc Scientific Committee.
- D. Native English speakers will check the correctness of all questions from the assessment point of view and check the correctness of the answer key.
- E. Experts and interpreters involved in the translation of tasks, taking care of the (word) processing corrections during Problem Discussion and processing the statistical evaluation of the results should have a scientific background.
- F. Countries willing to use computer for translation of the tasks should bring their own equipment. IJSO encourages all countries to type their translations as much as possible.
- G. While translating every delegation will check the answer sheets and mark schemes provided by the local-SC. The approval of the answer key and the discussion and translation of the Examinations will be in one session.
- H. The local Scientific Committee responsible for the tasks should be present at Problem Discussion and be prepared to defend the questions and answer key properly. Authors of the Examinations are obliged to be present during the corresponding discussions. In this respect it is necessary that the questions should be provided explanations of the correct answers within a list.
- I. In order to reduce possible confusion during voting about the number of votes it is advised that every country will be provided with special vote cards.(ex: green card-positive; red card- negative, yellow to give a neutral/don't care opinion)
- J. A Problem Discussion vote regarding more than two options demands several voting rounds going step by step in a logic order. In the first step is the decision, if changes of the questions are needed or
- K. The organizers have the duty to show during the first session the equipment and materials to be used by the students during the Examination Three and give a presentation where the task is all
- L. Students are not allowed to bring any bag in the Examination facilities. They must leave all papers in the exam rooms.
- M. At the start of Examination Three, students should be provided with fresh materials and proper functioning equipment. On the front page of the tasks, students will be told/reminded to ask supervisors for substitution of inadequate materials or equipment and the organizers should have spare materials and equipment available.
- N. In case of complaints about equipment and specimen students should indicate their objection on their paper (answer sheet) and have it signed and commented by a lab assistant. In case of an unjust complaint a student will lose all points for the experiment concerned.
- O. During the Examinations, assistants can conveniently use a yellow card as a non-verbal warning to a suspect student. In case of proven or suspected cheating the Executive Committee will set up a specialized committee being in charge of processing the case.

- Student names shall never be revealed.

  As long as there is suspicion only, no country name shall be revealed. ✓ Once there is a verdict of guilty, the country names will become public.
- IJSO will then publish on its website, in the ranking list only, that "... students from country ... were disqualified."
- P. To enable the leaders to translate the papers and the students to read them in time a maximum number of words per paper is recommended as follows:

Multiple Choice paper - 2000 to 3500 words

Theoretical paper – 2000 to 3500 words

Experimental paper -2000 - 4000 words (not counting the operating instructions for the equipment)

#### Section VII - Marking

- A. The Scientific Committee should ensure that there are sufficient resources to mark the examination papers in the day following the examination and to photocopy the marked examination papers. The photocopied papers must be returned to the Team Leaders within 48 hours of the exam has been finished. The marked copies of the final exam should be returned to the Team Leaders at least 18 hours prior to the beginning of the moderation session.
- B. In each plenary review session the full IB must review the mark allocation and mark scheme for the paper specifically including the breakdown of marks within a question and the application of the error carried forward principle.
- C. The marking should embrace the principle of no double penalties also known as the principal of error carried forward. For example in a theoretical question if the first part of the question produces an answer that is used in another part of the question, then errors in the first part of the question should only be penalised in the first part. If the student uses the incorrect answer from the first part in the correct way in calculating the second part then the student should be awarded the full marks for the second part. Similarly in the experimental paper the student should be graded on the range accuracy of the first measurement, but values determined from this measurement should earn the full marks if they are processed correctly even if the original measurement was outside the range approved.

#### **Section VIII Moderation**

- A. The Scientific Committee should publish a schedule of moderation times for each participating country in advance, allowing the country leaders to be sufficiently prepared for moderation.
- B. Each Country should be allocated a maximum of 20 minutes for moderation.
- C. The Scientific Committee should adhere to this schedule and not allow Countries to extend beyond the 20 minutes nor accommodate Countries who fail to attend their scheduled times.
- D. Moderation should be conducted by strict comparison with the mark scheme agreed with the IB in plenary discussion. No changes are allowed to be made to the version agreed in the plenary session, unless the IB agrees that changes are necessary. Adjustments to this mark scheme have to be discussed by the IB and can only be accepted by a vote of the IB. If at least six Country Coordinators have serious doubts about the marking procedure applied by the Scientific Committee they can plead for an extra IB meeting where this issue is settled BEFORE the moderation process begins. The majority vote of the IB is the final decision in such disputes.
- E. Members of the Scientific Committee who discussed the examination papers with the IB should attend the moderation sessions.
- F. The updated marks are to be shown country-wise to the IB members and signatures taken before the meeting of medal tally.
- G. It is also expected that IB members will adhere to time slots provided and sign on the updated marks agreed upon.
- H. In special cases more than 20 minutes can be granted if mutually agreed by Scientific committee and EC member present on the floor

#### IX. The usual protocol during the opening and closing ceremonies

#### Opening:

- A. Entry and presentation of the IJSO flag.
- B. Lining up of all participating teams with their national flags, in alphabetical order.
- C. Opening address and words of welcome by invited prominent Master of Ceremonies and other speakers alternated with cultural and/or musical performances.
- D. Oath by the competitors' representative while all competitors are standing and raising their right hand.

Oath: We, competitors of this International Junior Science Olympiad solemnly swear that we will answer the theoretical and practical competition questions in the most responsible way and we will compete honestly according to the principles of "Fair Play".

E. Oath by a representative of the International Board while all delegation leaders are standing and raising their right hand.

Oath: We, the members of IJSO International Board, solemnly swear to judge the competition according to the valid Rules accepted for this Olympiad and according to the principles of "Fair Play".

#### **Closing:**

- A. Entry of all participating teams (flags are already on the stage).
- B. Address by the main author or president of the IJSO about the competition and other speakers.
- C. Announcement of awards and medal presentation in reverse order, with a clear distinction between Certificate of Merit, bronze, silver and gold. The overall winners ranked 3, 2 and 1 will receive special attention during the medal award ceremony.
- D. Interval with musical and/or cultural performances
- E. Distribution among each national team the certificates of attendance while lining up on the stage.
- F. Handing over the IJSO flag to the host country of the next year.
- G. Closing addresses.
- H. Directly after the closing ceremony plenty of copies of the final ranking and results will be available for team leaders, competitors and press.

#### Section X IJSO elections

- a. When a position within the IJSO becomes vacant or due for re-election the EC shall declare the position open for election and appoint a Returning Officer for the election.
- b. The Returning Officer shall establish a time period to receive nominations. These nominations shall be presented to the Returning Officer in writing showing the position, the acceptance by the candidate, the IB member nominating the candidate and the IB member seconding the candidate. The Returning Officer will ensure that elections are held within five days of the position being declared open for election provided this period occurs during an IJSO competition.
- c. Candidates who are not in attendance at the meeting may stand for election provided they provided completed nominations papers and appoint an agent from the IB members. Incumbents standing for re-election must secure nominations in the same manner as II other candidates.
- d. The Returning Officer shall set the date and time for the election or declare the candidate elected unopposed. In the event that no valid nominations are received the Returning Officer

- shall advise the President who may appoint an IB member to act in position until the elections process can be held successfully.
- e. The Returning Officer shall manage the process of the elections. The Returning Officer shall ensure that the elections are valid by checking that more than two thirds of the IB members eligible to vote (attending the competition etc.) attend the election.
- f. During the election each IB member National Coordinator has one vote. Proxy votes may be considered provided they are presented in writing to the Returning Officer prior to the elections.
- g. Elections for Vice Presidents shall be conducted on an area basis so that the National Coordinators for America only will vote for the Vice President for Americas.
- h. Where there are more than two candidates for the position the Returning Officer shall establish at least two rounds of voting. The first round shall be used to reduce the number of candidates to two only.
- i. The President may declare a position open for election if:
  - 1. the incumbent officer has retired or resigned formally
  - 2. The incumbent fails to carry out his/ her duties in the opinion of the majority of the EC.
  - 3. The incumbent fails to attend IJSO meetings and competitions without causes deemed reasonable by the EC.
- i. The Returning Officer may secure the assistance of two IB members to help with the collection and counting of votes. The winner will be declared on the basis of the most votes. In the event of two candidates winning the same number of votes exactly the election will be run again.
- j. Elections must be held during IB meetings and all members should be notified at least one day in advance of the election.



