

NATIONAL OLYMPIAD PROGRAMME IN PHYSICS, CHEMISTRY, BIOLOGY, ASTRONOMY AND JUNIOR SCIENCE

2012-2013

leading to participation in International Olympiads



**Homi Bhabha Centre for Science Education
Tata Institute of Fundamental Research
V. N. Purav Marg, Mankhurd
Mumbai - 400 088, India**

Tel: 022 – 2507 2300, 2507 2304

Fax: 022 – 2556 6635, 2556 6803

URL: <http://www.olympiads.hbcse.tifr.res.in>

**A
major olympiad programme
in basic sciences is operational in the
country. The programme aims at
promoting excellence in science among
pre-university students and selecting
teams of students to represent India at the
International Olympiads in physics,
chemistry, biology, astronomy and junior
science.**

**This brochure gives the
necessary information to all concerned :
students, teachers, parents and others
regarding this programme.**

Do India Proud at the International Olympiads 2013.

Enroll for NSEP/NSEC/NSEB/NSEA/NSEJS

Introduction

The need for a national olympiad programme in basic sciences had been recognized by the scientific community in India for a long time. India started participating in the International Mathematics Olympiad from 1989. It was felt that with a large base of quality human resources in science, the country must also participate in the International Olympiads in basic sciences: Physics, Chemistry, Biology and Astronomy.

In 1997-98, Homi Bhabha Centre for Science Education (HBCSE) [a National Centre of the Tata Institute of Fundamental Research (TIFR), Mumbai] and the Indian Association of Physics Teachers (IAPT) jointly took initiative in starting the physics olympiad programme. A year later, HBCSE took the initiative to extend the programme to chemistry and biology also. IAPT came forward to offer its wide network for help in the conduct of chemistry and biology examinations also. These initiatives received strong support and encouragement from the Department of Atomic Energy (DAE), Department of Science and Technology (DST) and the Ministry of Human Resource Development (MHRD) of the Government of India. India sent its first team to the International Physics Olympiad (IPhO) in 1998, International Chemistry Olympiad (IChO) in 1999 and International Biology Olympiad (IBO) in 2000. Around the same time TIFR in association with the National Council of Science Museums and Astronomical Society of India initiated efforts to participate in the International Astronomy Olympiad (IAO). Our first foray into IAO was in 1999. Indian teams started participating in International Junior Science Olympiad (IJSO) and International Olympiad in Astronomy and Astrophysics (IOAA) from 2004 and 2007 respectively. The good performances of the Indian teams right from the first few years of participation helped in the consolidation of the programme.

In July 2001, India hosted the 33rd International Chemistry Olympiad in Mumbai. Further, India hosted the 11th International Astronomy Olympiad in Mumbai in November, 2006 and the 19th International Biology Olympiad in Mumbai, in July 2008. India is expected to host IJSO in December 2013. These events organized by Homi Bhabha Centre for Science Education (TIFR) give a boost to the entire programme of academic Olympiads in India.

The National Olympiad programme in physics, chemistry, biology and astronomy is overseen by a National Steering Committee constituted by the DAE. From the year 2008 – 2009 junior science olympiad is added to the list of subjects. The Olympiad programme is financially supported by Board of Research in Nuclear Science (BRNS, DAE), Department of Science and Technology (DST), Ministry of Human Resource Development (MHRD) and Department of Space, Indian Space Research Organization (DoS, ISRO). The programme follows a five stage process. Stage I of the programme is the organizational responsibility of the Indian Association of Physics Teachers (IAPT). All the subsequent stages are conducted by HBCSE. The programme for the year 2012-2013 is lined below.

Stage I National Standard Examinations (NSEs)

National Standard Examinations constitute the first stage of selection of students in the National Olympiad Programme. Every student aspiring to go through successive stages of the programme must enroll for the NSEs.

Eligibility

Physics, Chemistry, Biology (NSEP, NSEC, NSEB):

All Indian students who are born on or after July 1, 1993 and, in addition, are in Class XII or lower as of November 30, 2012, are eligible to appear for NSEP, NSEC, and NSEB 2012-2013. If they qualify in NSEP/NSEC/NSEB they will be eligible for subsequent stages leading to participation in International Olympiads for Physics/Chemistry/Biology 2013 respectively.

Junior Science (NSEJS):

All Indian students who are born on or after January 1, 1998 and, in addition, are in Class X or lower as of November 30, 2012, are eligible to appear in NSEJS 2012–2013. If they qualify in the NSEJS, they will be eligible for subsequent stages leading to participation in International Junior Science Olympiad 2013.

Astronomy (NSEA):

All Indian students who are born on or after January 1, 1994 and, in addition, are in Class XII or lower as of November 30, 2012, are eligible to appear for NSEA 2012–2013. If they qualify in the NSEA they will be eligible for subsequent stages leading to participation in International Olympiad in Astronomy and Astrophysics 2013.

It is the student's responsibility to determine that he/she satisfies eligibility norms. If at some later stage it is found that the student does not meet eligibility norms, he/she may face disqualification from the programme.

Syllabus

The syllabus for NSEs in Physics, Chemistry and Biology is broadly equivalent to the senior secondary level (Class XI and Class XII) of CBSE.

The syllabus for NSEA is broadly equivalent to senior secondary level (Class XI and Class XII) of CBSE. There will be greater emphasis on physics and mathematics and elementary astronomy.

The syllabus for NSEJS is broadly equivalent to secondary school level (up to Class X) of CBSE. All the basic subjects of science (Physics, Chemistry, Biology) and Mathematics will have roughly equal emphasis.

The schedule for the NSEs is described herewith.

➤ **National Standard Examination in Physics (NSEP)**

Date of exam : 24th November 2012 (Saturday)

Time of exam : 09.30 am – 11.30 am

Last Date of Enrollment : 15th September 2012

Part A 50 multiple choice questions consisting of

(A1) 40 questions, each with only one of the four options correct, and

(A2) 10 questions, each with one or more than one option correct. To get credit, all correct option(s) and no incorrect option(s) should be marked.

Part B 5 or 6 short answer- type questions or problems.

Language English (However, NSEP question papers may be available in Hindi and some other regional languages provided there are at least 300 students opting for that language. Please see the IAPT website: <http://www.iapt.org.in> in this connection.)

➤ **National Standard Examination in Chemistry (NSEC)**

Date of exam : 24th November 2012 (Saturday)

Time of exam : 12.30 pm – 02.30 pm

Last Date of Enrollment : 15th September 2012

The question paper consists of 80 multiple choice questions, each with only one of the four options correct.

Language : English only

➤ **National Standard Examination in Biology (NSEB)**

Date of exam : 24th November 2012 (Saturday)

Time of exam : 03.00 pm – 05.00 pm

Last Date of Enrollment : 15th September 2012

The question paper consists of 80 multiple choice questions, each with only one of the four options correct.

Language : English only

➤ **National Standard Examination in Astronomy (NSEA)**

Date of exam : 24th November 2012 (Saturday)
Time of exam : 03.00 pm – 05.00 pm
Last Date of Enrollment : 15th September 2012

The question paper consists of 80 multiple choice questions, each with only one of the four options correct.

Language : English only

➤ **National Standard Examination in Junior Science (NSEJS)**

Date of exam : 24th November 2012 (Saturday)
Time of exam : 03.00 pm – 05.00 pm
Last Date of Enrollment : 15th September 2012

The question paper consists of 80 multiple choice questions, each with only one of the four options correct.

Language : English only

For full details please see the IAPT website: <http://www.iapt.org.in>

To Enroll for NSEs

Find out from the principal and/or the head of department whether your school/college is a registered centre. (Each registered centre may be an examination centre for all the subjects.) If so, enroll your name by paying the required fee. Your school/college will give you all necessary instructions pertaining to NSEs.

If your school/college is not a registered centre, visit the IAPT website: <http://www.iapt.org.in>. This website displays details of the centres which were registered **last year**. This may be of help to you in locating the centre nearest to you and in enrolling your name at the centre by paying the required fee.

❖ Fee

For students in India Rs. 100/- per student per subject.

For overseas students US \$ 15 per student per subject.

❖ Fee is to be paid to the co-ordinator of the centre where you have enrolled your name. No direct remittance to IAPT.

❖ No TA/ DA is admissible for NSE (Stage I Examination).

Please note that NSEs are the organizational responsibility of IAPT. If you have any queries about NSEP, NSEC, NSEB, NSEA and NSEJS or if you have any difficulty in getting enrolled for these examinations, you should contact the following persons.

Prof. M. L. Oglapurkar

NSE Co-ordinator

IAPT Office, I.I.E. Campus,
128/2, J. P. Naik Marg, Kothrud,

Pune – 411 038

Tel: 020 – 25420163; 020 - 20252754(O)

E-mail: iapt@vsnl.net

Prof. R. M. Dharkar

Chief Co-ordinator

(IAPT Examinations)

E-mail: rmdharkar@gmail.com

PLEASE DO NOT CONTACT HBCSE IN THIS CONNECTION. ALL QUERIES ADDRESSED TO HBCSE IN CONNECTION WITH NSEs WILL BE FORWARDED TO THE ABOVE MENTIONED PERSONS FOR REPLY.

The aim of the first stage examination is to have a wide reach, to progressively increase this reach and to attain nationwide representation for stage II without overly compromising on merit. Hence the selection to the stage II examinations i.e. Indian National Olympiad Examinations (INOs) is based on the following scheme.

- (a) **Eligibility Clause:** A candidate must secure a score equal to or greater than a Minimum Admissible Score (MAS) to be eligible for the Stage II INO exam leading to the International Olympiad. The MAS for a given subject will be 40% of the maximum score in that subject.

- (b) **Proportional Representation Clause:** The number of students selected for Stage II (INO) in each subject is around 300. The number of candidates who appeared for NSE in 2011-12 in a subject from centers in each State or Union Territory (UT) will be considered the baseline for calculating the number qualifying from centers in that State or UT for that subject. Suppose this number in 2011-12 for centers in a given State in a given subject is S , and the total number that appeared in 2011-12 in that subject for the country is T , then the number selected to Stage II in that subject from that State would be S/T times 300, rounded off to the nearest higher integer. In the event of a tie at the last position in the list all students with the same marks at this position will qualify to appear for the Stage II examination. The selected students must nevertheless satisfy the eligibility clause laid out above. The total number to be selected from centers in each State for each subject will be displayed on the IAPT and HBCSE websites. (www.iapt.org.in ; www.olympiads.hbcse.tifr.res.in)
- (c) **Minimum Representation Clause:** Notwithstanding the proportional representation clause the number of students selected for INO from each State and UT must be at least one, provided that the eligibility clause is satisfied.
- (d) **Merit Clause:** Given the eligibility clause, it is conceivable that 300 students may not qualify for Stage II in a subject. Should this occur, the shortfall (from 300) will be selected based purely on merit without further consideration to proportional representation and minimum representation clauses. In the event of a tie at the last position in the list all students with the same marks at this position will qualify to appear for the Stage II examination.

Candidates who have represented India in the International Olympiad (IPhO, IChO, IBO, IOAA and IJSO) need not appear for the first stage NSE examination in the respective subject. Candidates who have represented India in the Asian Physics Olympiad (APhO) and the International Astronomy Olympiad Junior (IAO-Jr) need not appear for the 1st stage NSEP and NSEA Examinations respectively. Those candidates who thus qualify to skip the 1st stage NSEs may be allowed on written request to the respective National Coordinator, to directly appear for the second stage Indian National Olympiad (INO) examination provided they satisfy other eligibility criteria such as age, pre-college status, etc.

There will be no other criterion or provision for selection to the Indian National Olympiad Examinations (INOs).

Stage II Indian National Olympiad Examinations

Indian National Olympiads will be held in physics, chemistry, biology, astronomy and junior science. They will be organized by HBCSE. These examinations are held at about 15 centres in the country. The dates and schedule of these examinations will be communicated in the first week of January to the eligible students selected from Stage I examinations. They will also be announced on the website: www.olympiads.hbcse.tifr.res.in. Please note that hard copy of the selection letter sent by postal communication (normally speed post) is to be taken as official and not the announcement on the website. HBCSE will not be responsible for postal delays or delays due to incomplete, illegible/incorrect addresses provided by students, or any other reasons beyond HBCSE's control. As far as possible the National Olympiads in different subjects are held on separate days/timings so that a student who is eligible to appear for more than one subject can do so. Students appearing for INPhO/INChO/INBO/INAO/INJSO are eligible for TA/DA as per the norms of the programme.

INDIAN NATIONAL PHYSICS OLYMPIAD EXAMINATION (INPhO)

INPhO Duration 3 hours

The syllabus for INPhO is broadly equivalent to NSEP.

INDIAN NATIONAL CHEMISTRY OLYMPIAD EXAMINATION (INChO)

INChO Duration 3 hours

The syllabus for INChO is broadly equivalent to NSEC.

INDIAN NATIONAL BIOLOGY OLYMPIAD EXAMINATION (INBO)

INBO Duration 2 hours

The syllabus for INBO is broadly equivalent to NSEB.

INDIAN NATIONAL ASTRONOMY OLYMPIAD EXAMINATION (INAO)

INAO Duration 3 hours

The syllabus for INAO is broadly equivalent to the NSEA

INDIAN NATIONAL JUNIOR SCIENCE OLYMPIAD EXAMINATION (INJSO)

INJSO Duration 3 hours

The syllabus for INJSO is broadly equivalent to the NSEJS.

The above are broad syllabus guidelines. Questions and problems in National Olympiads are usually non-conventional and of high difficulty level, and comparable to the International Olympiads.

TENTATIVE DATES OF INO EXAMS

February 2, 2013 (Saturday): 09.00 a.m. - 12.00 noon (INAO)

February 2, 2013 (Saturday): 01.00 p.m. - 04.00 p.m. (INJSO)

February 2, 2013 (Saturday): 01.00 p.m. - 04.00 p.m. (INChO)

February 3, 2013 (Sunday): 09.00 a.m. - 12.00 noon (INPhO)

February 3, 2013 (Sunday): 01.00 p.m. - 03.00 p.m. (INBO)

For Orientation Cum Selection Camp (OCSC):

On the basis of performance in the Indian National Olympiads 35 students will be selected in each subject for the Orientation Cum Selection Camp (OCSC) in that subject except Junior Science where the number will be 45. This additional number in Junior Science is a one time measure for the year 2013 only.

In all the above cases, in the event there is a tie at the last position in the merit list of the respective INO all students with the same marks at the last position will qualify to be selected for the OCSC.

There will be no other criterion or provision for selection to Orientation Cum Selection Camps (OCSC).

Stage III Orientation Cum Selection Camps (OCSC)

Physics, Chemistry and Biology

The selected group of students in different subjects will be invited to the Orientation Cum Selection Camps at HBCSE. The camps will be of two to three weeks duration in each subject. The camps include several theoretical and experimental tests. Orientation is provided to students especially for the experimental tests. The camp conclude with a valedictory function where distinguished scientists are invited to speak to the students.

On the basis of their performance in OCSC the top 5 students in Physics, top 4 in Chemistry and top 4 in Biology will be declared to be special merit awardees. These special merit awardees are given Rs. 5000/- each in the form of books and cash. In addition there will be special prizes in each subject to recognize meritorious performance in theory and experiments.

The 5 special merit awardees in Physics constitute the 5-member student team to represent India at the International Physics Olympiad. The 4 special merit awardees in Chemistry constitute the 4-member student team to represent India at the International Chemistry Olympiad. The 4 special merit awardees in Biology constitute the 4-member student team to represent India at the International Biology Olympiad (IBO).

Astronomy

The selected group of students in Astronomy is invited together to the Orientation Cum Selection Camp at HBCSE. The camp will be of about three week's duration. The camp includes several theoretical, data analysis and observation tests. Students are trained in basic concepts in astronomy and astrophysics during the camp. Orientation is provided to students especially for problem-solving in astronomy, astrophysics and for observational astronomy tests. The camp will conclude with an award function where distinguished scientists will be invited to speak to the students.

On the basis of the performance in OCSC, the top 5 students will be declared special merit awardees. These special merit awardees will be given Rs. 5000 each in the form of book and cash. In addition there will be special prizes to recognize meritorious performance in theory, data analysis and observation.

The 5 special merit awardees will constitute the 5-member student team to represent India at the International Olympiad in Astronomy and Astrophysics (IOAA).

Junior Science:

The selected group of students from INJSO will be invited to the Orientation Cum Selection Camp at HBCSE. The camp will be of two to three weeks duration. The camp will include several theoretical and experimental tests. Orientation will be provided to students especially for the experimental tests. The camp will conclude with a valedictory function where distinguished scientists will be invited to speak to the students.

On the basis of their performance in OCSC the top 12 students will be declared to be special merit awardees. These special merit awardees will be given Rs. 5000/- each in the form of books and cash. In addition there will be special prizes to recognize meritorious performance in theory and experiments.

The 12 special merit awardees will constitute the two 6-member student teams to represent India at the International Junior Science Olympiad.

TENTATIVE DATES OF OCSC

The OCSC dates will be announced on HBCSE website in the first week of January 2013.

To the extent possible care is taken that the camp dates do not overlap with the national level competitive exams, (e.g. IIT-JEE or AIIMS). Students are advised to look at the OCSC dates and select Mumbai as their examination centre in the event their national level entrance examination is scheduled during this period.

The selection of the members to the Indian teams (IPhO, IChO, IBO, IOAA, and IJSO) holds provided they satisfy required criteria such as age limit, medical fitness, parental consent, etc. In addition they must hold valid Indian passports as per the visa regulations of the host country by the beginning of the respective OCSC.

The recommendations of the examination committees of the INOs and OCSCs in the various subjects regarding special merit awardees and other awardees will be treated as final.

Stage IV Training of Indian teams for International Olympiads at HBCSE.

The selected Indian teams undergo a rigorous training programme at HBCSE in theory and experiment and in case of astronomy, observational

astronomy. Special laboratories have been developed at HBCSE for the purpose. Resource persons from different institutions across the country are invited to the training camps. As per International Olympiad statutes, the training in chemistry and biology is limited to two weeks duration. In physics the training may be longer. For astronomy and junior Science the training camp will be of one week's duration.

Stage V Participation in International Olympiads

The 5-member student team, two teacher leaders and one scientific observer will constitute the delegation to represent India at the International Physics Olympiad (IPhO). The 44th IPhO will tentatively be held in Copenhagen, Denmark on 7-15 July 2013.

The 4-member student team, two teacher leaders and one scientific observer will constitute the delegation to represent India at the International Chemistry Olympiad (IChO). The 45th IChO will tentatively be held in Moscow, Russia in July 2013.

The 4-member student team, two teacher leaders and one scientific observer will constitute the Indian delegation to the International Biology Olympiad (IBO). The 24th IBO will tentatively be held in Bern, Switzerland on 14-21 July, 2013.

The 5-member student team and two teacher leaders and one scientific observer will constitute the Indian delegation to the 2013 International Olympiad on Astronomy and Astrophysics (IOAA). The 7th IOAA will tentatively be held in Volos, Greece on July 27 – August 4, 2013.

Two 6-member student teams with three teacher leaders each will constitute the Indian delegation to the International Junior Science Olympiad (IJSO). The 10th IJSO will tentatively be held in Pune, India in December 2013.

The courts at Mumbai alone shall have the jurisdiction to settle and decide all matters and disputes related to the Olympiads organised by HBCSE and Examinations from Indian National Olympiad (INO) and onwards as HBCSE is the Nodal Organising Institute for this programme.

Note On Other Olympiads:

The HBCSE is also a nodal centre for the Mathematics Olympiad. The details of selection to this Olympiad maybe found in a separate brochure and also on the HBCSE website.

We mention below a few other Olympiads recognized but not directly organised by HBCSE.

1. **Asian Physics Olympiad (APhO):** This is organized by IAPT. Students aspiring for this Olympiad must normally appear in the first stage NSEP exam followed by the second stage INPhO exam. The detail of further selection and training is decided by IAPT and you may consult their website (<http://www.iapt.org.in>).
2. **Indian Astronomy Olympiad - Junior (IAO - Jr):** This is organized by National Council of Science Museum (NCSM). Students aspiring for this Olympiad must normally appear in the first stage NSEJS exam followed by the second stage INAO exam. The details of further selection and training is decided by NCSM and you may consult their website (www.nehrusciencecentre.org).
3. **Earth Science Olympiad (IESO):** This is organized by the Geological Society of India and you may consult their website for more information (www.geosocindia.org).
4. **International Olympiad in Informatics:** This is organized by the Indian Association for Research in Computing Science and you may consult their website for more information (<http://www.iarcs.org.in/inoi>).

We caution the students and teachers about numerous private examinations titled 'Olympiads', which are not officially recognized by the Government of India and which do not lead to participation in International Olympiads.

All queries regarding Stage I examinations (NSEs) should be addressed to IAPT (Prof. M. L. Oglapurkar or Prof. R. M. Dharkar – see page 6).

For general queries regarding all Science (Physics, Chemistry, Biology and Junior Science) Olympiad programmes you may contact:

Prof. Vijay Singh

National Co-ordinator, Science Olympiads
Homi Bhabha Centre for Science Education (TIFR)
V. N. Purav Marg, Mankhurd, Mumbai 400 088.
Tel: 022-2507 2300; 022-2507 2322, 022-25482104
Fax: 022-2556 6635, 2556 6803
Email: nc_olympiad@hbcse.tifr.res.in

For general queries regarding the Astronomy Olympiad programmes you may contact:

Prof. M. N. Vahia

National Co-ordinator, Astronomy Olympiad.
Tata Institute of Fundamental Research
Homi Bhabha Road, Colaba, Mumbai 400 005.
Tel: 022-2278 4545; 2278 2350
Email: astronomy@hbcse.tifr.res.in

For more information visit the website:
<http://www.olympiads.hbcse.tifr.res.in>

*Information in this brochure
is subject to revision in the event of unforeseen
circumstances.*

Books:

- Indian National Physics Olympiad - Theory Problems (1998 – 2005), *Vijay A. Singh and Shirish R. Pathare.*
Price Rs. 60/- (Purchase in person from HBCSE) or by sending a **Demand Draft of Rs. 100/-**
- Indian National Physics Olympiad - Theory Problems and Solutions (2006 – 2009), *Vijay A. Singh and Praveen Pathak.*
Price Rs. 90/- (Purchase in person from HBCSE) or by sending a **Demand Draft of Rs. 140/-**
- Indian National Chemistry Olympiad - Theory Examination Papers (2002-2007), *Savita Ladage and Swapna Narvekar.*
Price Rs. 150/- (Purchase in person from HBCSE) or by sending a **Demand Draft of Rs. 190/-**
- Experimental Problems in Chemistry, *Savita Ladage, Swapna Narvekar and Indrani Sen.*
Price Rs. 130/- (Purchase in person from HBCSE) or by sending a **Demand Draft of Rs. 180/-**
- Indian National Biology Olympiad -Theory Papers (2002-2004), *Rekha Vartak and Anupama Ronad.*
Price Rs. 90/- (Purchase in person from HBCSE) or by sending a **Demand Draft of Rs. 140/-**
- Indian National Biology Olympiad -Theory Papers (2005-2007), *Rekha Vartak and Anupama Ronad.*
Price Rs. 90/- (Purchase in person from HBCSE) or by sending a **Demand Draft of Rs. 140/-**

The Demand Draft includes postage charges for registered parcel and should be in favor of **Homi Bhabha Centre for Science Education, payable at Mumbai** and sent to:

*HBCSE Publications Section
Homi Bhabha Centre for Science Education (TIFR)
V. N. Purav Marg, Mankhurd, Mumbai 400 088*

List of Acronyms

HBCSE	–	Homi Bhabha Centre for Science Education
TIFR	–	Tata Institute of Fundamental Research
NSE	–	National Standard Examinations
NSEP	–	National Standard Examination in Physics
NSEC	–	National Standard Examination in Chemistry
NSEB	–	National Standard Examination in Biology
NSEA	–	National Standard Examination in Astronomy
NSEJS	–	National Standard Examination in Junior Science
INPhO	–	Indian National Physics Olympiad Examination
INChO	–	Indian National Chemistry Olympiad Examination
INBO	–	Indian National Biology Olympiad Examination
INAO	–	Indian National Astronomy Olympiad Examination
INJSO	–	Indian National Junior Science Olympiad Examination
IPhO	–	International Physics Olympiad
IChO	–	International Chemistry Olympiad
IBO	–	International Biology Olympiad
IOAA	–	International Olympiad in Astronomy and Astrophysics
IJSO	–	International Junior Science Olympiad
OCSC	–	Orientation cum Selection Camp
IIT-JEE	–	Indian Institute of Technology-Joint Entrance Exam
AIIMS	–	All India Institute of Medical Sciences (Examination)
CBSE	–	Central Board of Secondary Education
IAPT	–	Indian Association of Physics Teachers
DAE	–	Department of Atomic Energy
DST	–	Department of Science and Technology
MHRD	–	Ministry of Human Resource Development
BRNS	–	Board of Research in Nuclear Sciences
ISRO	–	Indian Space Research Organization
DoS	–	Department of Space
NCSM	–	National Council of Science Museums

International Junior Science Olympiad 2011 Medalists



Standing from left to right: Chaitanya Mukund Tappu (Gold), Prof. Mayank Vahia (Scientific Observer), Prof. D.V. Prabhu (Leader), Aniket Bajpai (Silver), Avinash Mohak (Silver), Harshvardhan Gupta (Silver), Dr. P. K. Joshi (Leader), Anmol Arora (Silver), Ritika Mulagalapalli (Gold), Mrs. Smita Marathe (Leader).

International Olympiad on Astronomy and Astrophysics 2011 Medalists



Standing from left to right: Dr. Aniket Sule (Leader), Mr. R. Sasibhushan Bharadwaj (Silver), Dr. Anwesh Mazumdar (Leader), Mr. Sharad Mirani (Gold), Ms. I. Jeevana Priya (Gold), Mr. Akshay Krishna (Gold), Mr. Akshay Kedia (Bronze), Mr. Anand Ghaisas (Scientific Observer).

International Chemistry Olympiad 2011 Medalists



Standing from left to right: Prof. Savita Ladage (Scientific Observer), Dravyansh Sharma (Gold), Diptarka Hait (Gold), Smarak Maity (Silver), Anant Pushkar (Bronze), Prof. Radha Jayaram (Head Mentor), Prof. Pradeep Deota (Mentor).

International Biology Olympiad 2011 Medalists



Standing from left to right: Prof. M. M. Chaturvedi (Leader), Prof. Anindya Sinha (Sub-jury member), Mr. Vikrant Ghanekar (Scientific Observer), Saloni Kapoor (Silver), Pritish Patil (Silver), Twinkle Parekh (Silver), Sanchit Kumar (Silver), Dr. Ujwala Bapat (Leader).

International Physics Olympiad 2011 Medalists



Standing from left to right: Dr. Praveen Pathak (Scientific Observer), Prof. Charudatta Kadolkar (Leader), I Prudhvi Tej (Silver), B. Sai Kiran (Gold), Prof. Vijay A. Singh (National Co-ordinator, Science Olympiads), Sumegha Garg (Gold), Shubham Mehta (Gold), Nisheet Lahoti (Silver), M.K. Raghavendra (Leader).