

EXAM	NSEP	NSEC	NSEB	NSEA	NSEJS
Day & Date	Sunday November 27, 2022	Sunday November 27, 2022	Sunday November 27, 2022	Saturday November 26, 2022	Sunday November 27, 2022
Time of Exam	08.30 am to 10.30 am	11.30 am to 1.30 pm	02.30 pm to 4.30 pm	02.30 pm to 4.30 pm	02.30 pm to 4.30 pm
Venue	Respective NSE centre	Respective NSE centre	Respective NSE centre	Respective NSE centre	Respective NSE centre
Eligibility (i.e) who can appear for	<ol style="list-style-type: none"> Must be eligible to hold an Indian passport. Date of birth between 1 July 2003 and 30 June 2008, both days inclusive. Must be residing and studying in India since 30 November 2020 or earlier. OR Must be studying in an Indian school system since 30 November 2020 or earlier. Must not have completed (or scheduled to complete) class 12 board examination earlier than 30 November 2022. Must not have commenced (or planning to commence) studies in a university or equivalent institution by 1 June, 2022. Must not be appearing in NSEJS 2022. 	<ol style="list-style-type: none"> Must be eligible to hold an Indian passport. Date of birth between 1 July 2003 and 30 June 2008, both days inclusive. Must be residing and studying in India since 30 November 2020 or earlier. OR Must be studying in an Indian school system since 30 November 2020 or earlier. Must not have completed (or scheduled to complete) class 12 board examination earlier than 30 November 2022. Must not have commenced (or planning to commence) studies in a university or equivalent institution by 1 June, 2022. Must not be appearing in NSEJS 2022. 	<ol style="list-style-type: none"> Must be eligible to hold an Indian passport. Date of birth between 1 July 2003 and 30 June 2008, both days inclusive. Must be residing and studying in India since 30 November 2020 or earlier. OR Must be studying in an Indian school system since 30 November 2020 or earlier. Must not have completed (or scheduled to complete) class 12 board examination earlier than 30 November 2022. Must not have commenced (or planning to commence) studies in a university or equivalent institution by 1 June, 2022. Must not be appearing in NSEJS 2022. 	<ol style="list-style-type: none"> Must be eligible to hold an Indian passport. Date of birth between 1 July 2003 and 30 June 2008, both days inclusive. Must be residing and studying in India since 30 November 2020 or earlier. OR Must be studying in an Indian school system since 30 November 2020 or earlier. Must not have completed (or scheduled to complete) class 12 board examination earlier than 30 November 2022. Must not have commenced (or planning to commence) studies in a university or equivalent institution by 1 June, 2022. Must not be appearing in NSEJS 2022. 	<ol style="list-style-type: none"> Must be eligible to hold an Indian passport. Date of birth between 1 Jan 2008 and 31 Dec 2009, both days inclusive. Must be residing and studying in India since 30 November 2020 or earlier. OR Must be studying in an Indian school system since 30 November 2020 or earlier. Must not have completed (or scheduled to complete) class 10 board examination earlier than 30 November 2022. Must not be appearing in any of NSEA, NSEB, NSEC or NSEP 2022.
Level of Question Paper	Is broadly equivalent to senior secondary level (up to and including Class XII) of CBSE India.	Is broadly equivalent to senior secondary level (up to and including Class XII) of CBSE India	Is broadly equivalent to senior secondary level (up to and including Class XII) of CBSE India.	Is broadly equivalent to senior secondary level (up to and including Class XII) of CBSE India. There will be greater emphasis on Physics, Mathematics and Elementary Astronomy.	Is broadly equivalent to Secondary school level (up to and including Class X) of CBSE India. All the basic subjects of science (Biology, Chemistry and Physics) with equal emphasis.
Language of Question Paper	Question paper will be in English, Hindi, Gujarati, Bangla (option during registration)	Question paper will be in English & Hindi (option during registration)	Question paper will be in English & Hindi (option during registration)	Question paper will be in English & Hindi (option during registration)	Question paper will be in English & Hindi (Option during registration)
Question Paper Pattern	<ol style="list-style-type: none"> 48 multiple choice questions with one alternative correct. +3 marks credit for correct choice. -1 mark penalty for incorrect choice. 12 multiple choice questions with one or more than one correct alternatives. To get credit, all the correct option(s) and no incorrect option(s) should be marked. 	<ol style="list-style-type: none"> 48 multiple choice questions with one alternative correct. +3 marks credit for correct choice. -1 mark penalty for incorrect choice. 12 multiple choice questions with one or more than one correct alternatives. To get credit, all the correct option(s) and no incorrect option(s) should be marked. 	<ol style="list-style-type: none"> 48 multiple choice questions with one alternative correct. +3 marks credit for correct choice. -1 mark penalty for incorrect choice. 12 multiple choice questions with one or more than one correct alternatives. To get credit, all the correct option(s) and no incorrect option(s) should be marked. 	<ol style="list-style-type: none"> 48 multiple choice questions with one alternative correct. +3 marks credit for correct choice. -1 mark penalty for incorrect choice. 12 multiple choice questions with one or more than one correct alternatives. To get credit, all the correct option(s) and no incorrect option(s) should be marked. 	<ol style="list-style-type: none"> 48 multiple choice questions with one alternative correct. +3 marks credit for correct choice. -1 mark penalty for incorrect choice. 12 multiple choice questions with one or more than one correct alternatives. To get credit, all the correct option(s) and no incorrect option(s) should be marked.
Total Marks	216	216	216	216	216

Please Note:

- The eligibility criteria are laid down by authorities (not by IAPT)
- It is your (the students) responsibility to ensure that you satisfy the eligibility norms. If at some later stage it is found that you do not satisfy the norms you will be immediately disqualified without any refund of fees.
- Any case of unfair means will be dealt with very strictly. The Chief Coordinator (Examination) has a right to cancel the examination of any student or any centre if reported by the invigilator or the evaluator.
- Legal matters (If Any) pertaining to all these examinations will be subject to the jurisdiction of **Dehradun District Court** only (the location of central examination office and the office of chief coordinator of IAPT examination) and no other court in India

For Students

(Student's Brochure)



INDIAN ASSOCIATION OF PHYSICS TEACHERS

206, Adarsh Complex, Awas Vikas - 1, Keshavpuram, Kalyanpur, Kanpur - 208 017

National Standard Examination in

Physics - **NSEP 2022**
Chemistry - **NSEC 2022**
Biology - **NSEB 2022**
Astronomy - **NSEA 2022**
Junior Science - **NSEJS 2022**

2022 - 23 EXAMINATION

What is IAPT?

Indian Association of Physics Teachers (IAPT) is an organization of Physics Teachers spread throughout the country. It was started by Late Dr. D.P. Khandelwal in 1984 and today it has 8500 life members. All the work of this (our) organization is voluntary in character-thus NOBODY is paid any Honorarium or Remuneration for ANYWORK of IAPT.

What is NSEP? NSEC? NSEB? NSEA? or NSEJS?

National Standard Examinations (NSEP in Physics, NSEC in Chemistry, NSEB in Biology, NSEA in Astronomy and NSEJS in Junior Science) are nationwide examinations organized by IAPT. We have been conducting NSEP for last 34 years by now. NSEP, NSEC, NSEB and NSEA are at CBSE class XII level while NSEJS is at CBSE class X level. These NSEs are the First stage and THE ONLY SCREENING TESTS in India leading towards International Olympiads in the respective science subjects.

What are Science Olympiads?

Olympiads are internationally recognized competitions in various fields of knowledge. They are the highest level examinations and are hosted by different countries every year. Participation in any of the Olympiads has world wide recognition and is considered as a great achievement. International Olympiads are held every year in Mathematics, Physics, Chemistry, Biology, Astronomy and Junior Science.

How do I go to (or participate in) the Physics (or Chemistry or Biology or Astronomy or Jr. Science) Olympiad?

You will have to appear for NSEP (or NSEC /NSEB/NSEA/NSEJS) and then through the Indian National Physics Olympiad (INPhO or INChO or INBO or INAO or INJSO) you may be selected for the further stages of the respective International Olympiad Programme.

Is there any other way to go to International Olympiads in these subjects?

No! There is none.

How do I enroll myself for any of these?

You may enroll yourself from your own School/College. The Principal (or Physics or Science Teacher) of your College / Jr. College/ High School will enroll you. He/She will give you all further instructions. In case you have difficulty **you may enroll** online by paying your fee by bank transfer on the website <http://www.iapt.org.in> The list of registered centres will be available on the website by 21st August 2022. The name of contact person at the respective centre is also indicated.

What are the fees?

₹ 200/- per student per subject (per examination) to be paid in cash to the centre in charge. This exam fee cannot be refunded. Students enrolling online have to Pay examination fee by bank transfer.

What are the details of the entire selection procedure?

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 over all compromising on merit, the selection for the Stage II examinations, i.e., Indian National Olympiad Examinations (INOs) the following scheme is adopted.

(a) **Eligibility Clause:** To be eligible among 300 students for the Stage II INO exam leading to the International Olympiad, a

candidate must secure a score equal to or greater than a Minimum Admissible Score (MAS). The MAS for a given subject will be 50% of the average of the top ten scores in that subject rounded off to the nearest lower integer.

(b) **Merit Index Clause:** There will be a high score called the Merit Index (MI) associated with each subject in NSE. The MI in a subject is defined as 80% of the average of the top ten scores in that subject rounded off to the nearest lower integer. All students with a score equal to or greater than merit index MI for the subject will automatically qualify for INO Stage II examination in that subject. For example, if the average of top ten scores in a certain subject is 92, then 80% of this is 73.6. Then the MI in that subject will be 73. All candidates with a score equal to or above 73 in NSE of that subject will automatically qualify for INO stage II.

(c) **Proportional Representation Clause:** Students from all States and UTs in India need to be encouraged to appear for the first stage examination and a nationwide representation for INO Stage II is desirable. The quota for each State/UT used in National Talent Search Examination (NTSE) 2013-14, a nationwide competitive examination will be used as the baseline for calculating the number of students qualifying for Stage II INO in every subject from centres in that State or UT. Suppose the NTSE quota is S for a State, and the total for all States and UTs is T, then the total number of students to be selected to INO Stage II from that State would be S/T times 300, rounded off to the nearest higher integer. This number will include those selected on the basis of the Merit Index. In the event of tie at the last position in the list, all students with same marks at this position will qualify to appear for the INO Stage II examination. The selected students must nevertheless satisfy the eligibility clause. The number to be selected from all the centres in each State or UT will be displayed on the websites of IAPT <http://www.iapt.org.in>; and HBCSE <http://olympiads.hbcse.tifr.res.in>

(d) **Minimum Representation Clause:** Not with standing the proportional representation clause the number of students selected for INO from each State and UT must be at least five, provided that the eligibility clause (a) is satisfied.

The above criteria are illustrated with the following examples:

(i) Let the quota on the basis of the Proportional Representation Clause (c) for a State S₁ be 20. Suppose the number of students satisfying the Merit Index Clause (b) in a subject is 10. These 10 students will qualify for the second stage INO exam in the given subject and an additional 10 students from the State S₁ in the given subject will be selected merit-wise, provided they satisfy the Eligibility Clause (a).

(ii) Let the quota on the basis of the Proportional Representation Clause (c) for a State S₁ be 20. Suppose the number of students satisfying the Merit Index Clause (b) in a subject is 30. In this case, all 30 students will qualify for the second stage INO exam in the given subject, and there will be no further selection from the State S₁.

(e) **Previous International Representation Clause:** Candidates who have represented India in the International Olympiad on a

previous occasion (IOAA, IBO, IChO, IJSO and IPhO) 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 first stage NSEs may be allowed, on written request, to the National Coordinator Science Olympiad (nc_olympiad@hbcse.tifr.res.in) 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.

(f) **Minimum Total Number Clause:** In each subject, after all the above criteria have been applied, it is possible that the target number of 300 students to be selected for INO is not reached (due to non-availability of enough number of students in some states who satisfy Eligibility Clause (a)). In such an event, additional students will be selected purely merit-wise, provided Eligibility Clause (a) is satisfied, till the target number of 300 is reached. Other clauses will not apply for these students. In case of a tie at the last position, all students with the same marks at this position will qualify to appear for the INO Stage II examination.

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

Eligibility for INAO and OCSC-Astronomy in 2023:

The rules for selection for Stage II (INAO) will be same as that of previous year.

1. The eligibility criterion for NSEA has been given on the sheet above.
2. The student pool of NSEA will be divided into two groups:
 - (i) **Group A:** Students who are in Class XII as of November 30, 2022.
 - (ii) **Group B:** Students who are in Class XI or lower as of November 30, 2022.
3. For Stage II (INAO), a target number of 250 students will be selected from each group. Thus, a total of 500 students will be selected.
4. The MI and MAS will be calculated separately for each of these groups.
5. All the clauses [(a) to (f) above]] of selection will be applied separately to each group.
6. The question papers of NSEA 2022 and INAO 2023 will be identical for the two groups.

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

A complete data of students shortlisted for INO is posted on both IAPT & HBCSE websites. Shortlisted students have to register at HBCSE website for INO, in Jan 2023.

All INOs are organized by HOMI BHABHA CENTRE for SCIENCE EDUCATION (HBCSE) Mumbai. For the next stage students are chosen on the basis of their performance at these INOs. These students in each subject attend Orientation Cum Selection Camp (OCSC) in respective discipline for about 2 weeks at HOMI BHABHA CENTRE for SCIENCE EDUCATION (HBCSE) Mumbai. Indian team to participate in International Olympiad is selected

from the OCSC in respective subjects. For more details visit www.iapt.org.in

or www.hbcse.tifr.res.in / Olympiads

Are there any other fees for these INOs or camps?

None! You pay only once at the time of enrolment for NSE.

What is the time schedule?

Online centre registration begins August 1, 2022

Enrolment begins: August 21, 2022

LAST DATE OF ENROLMENT: Sept. 14, 2022

Examination schedule: Kindly see the table on the above.

NSEA (2:30 pm 4.30 pm)	: Saturday, November 26, 2022
NSEP, NSEC, NSEB & NSJS	: Sunday, November 27, 2022
Expected date of results of 1st Stage	: December 29, 2022
Dates of INOs:	: First Week February 2023
Expected date of result of INOs	: Last Week February 2023
OCSCs	: May-June 2023

Previous Years Question Papers: Yes. Separate booklets containing question papers with solution / answers for past five years each in Physics, Chemistry, Biology, Astronomy and Junior Science are available at a cost of ₹ 100/- per booklet.

To obtain the previous year papers of NSE deposit the amount online or by NEFT in the account given below. Send the details with proof along with your address on email: iaptkn@rediffmail.com The booklet will be sent to you by registered post from IAPT Registered office Kanpur.

Account Name: Indian Association of Physics Teachers

Account Number: 20768203191

Bank: Indian Bank, **Branch:** Kakadeo Kanpur (UP)

IFSC Code: IDIB000K521

Phone: 09935432990

Are there any CERTIFICATES / AWARDS?

Yes, in each subject,

- i) Report card will be generated to all the candidates above (MAS) and can be downloaded from iapt.org.in by the enrolled students.
- ii) Certificates are given to 'top 10%' students of every centre.
- iii) Merit Certificates are awarded to 'top 1%' students in each state, in each subject.
- iv) Special Merit Certificates and a prize (book) will be awarded to 'National top 1%' students in Physics, Astronomy & Junior Science.
- v) Gold Medals are awarded to the students attending the OCSC in Physics, Chemistry, Biology, Astronomy & Junior Science.

Prof. BP Tyagi (9837123716)

Chief Coordinator IAPT Examination

NSE Coordinators:

Dr. Anand Singh Rana (9412954316) SGRR DEHRADUN

Dr. Vijay V. Soman (9822107522) SMM College, NAGPUR

IAPT Central Examination Office:

15, Block II Rispana Road Dehradun - 248001

Help Line No: 9632221945, 9411190162, 8533993332

Email: iapt.nse@gmail.com

Website: <https://www.iapt.org.in>

FIRST STEP TOWARDS INTERNATIONAL OLYMPIADS

NATIONAL STANDARD EXAMINATION IN PHYSICS : NSEP 2022 - 23

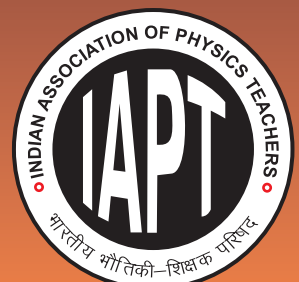
NATIONAL STANDARD EXAMINATION IN CHEMISTRY : NSEC 2022 - 23

NATIONAL STANDARD EXAMINATION IN BIOLOGY : NSEB 2022 - 23

NATIONAL STANDARD EXAMINATION IN ASTRONOMY : NSEA 2022 - 23

NATIONAL STANDARD EXAMINATION IN JUNIOR SCIENCE : NSEJS 2022 - 23

These are the only examinations that lead to participation of Indian students in the National and International Science Olympiads. No other examination is recognized for this purpose.



Organized by

INDIAN ASSOCIATION OF PHYSICS TEACHERS (IAPT)

206, Adarsh Complex, Awas Vikas - I, Keshavpuram, Kalyanpur, Kanpur-208017

In co-ordination with

ASSOCIATION OF CHEMISTRY TEACHERS (ACT) &
ASSOCIATION OF TEACHERS IN BIOLOGICAL SCIENCES (ATBS)

Step II

Toppers from these NSEP, NSEC, NSEB, NSEA & NSEJS from each State/Union Territory will be eligible for II stage i.e Indian National Olympiads (INOs) 2023 in respective subjects. For details see the website: www.iapt.org.in and the student's brochure.

Step III

About 35 toppers in each of INPhO, INChO, INBO, INAO and INJSO will qualify for the Orientation Cum Selection Camp (OCSC) in respective subject for about two weeks at Homi Bhabha Centre for Science Education (HBCSE), Mumbai. Indian teams to participate in International Olympiads-2023 will be selected on the basis of performance of students in respective OCSC.

In addition, about 8 toppers from INPhO may get an opportunity to participate in **Asian Physics Olympiad (APhO)**. The APhO will be held in 1st week of May 2023.

Awards: Students attending OCSC will be awarded Gold medals and a merit certificate in all subjects. Certificates shall be awarded to Toppers (National & State) of National Standard Examination.

Syllabus: **NSEP, NSEC, NSEB:** Upto CBSE class XII;
NSEA: Physics & Mathematics upto CBSE class XII along with basic Astronomy; **NSEJS:** **Physics, Chemistry and Biology** upto CBSE class X.

Programme: Centre registration: Aug 1, 2022 to Aug 20, 2022. **Student enrolment:** August 21 to Sep 14, 2022

- Enrollment at Centre:** Pay fee to Centre In-charge.
- Direct Online Enrolment:** A student can enroll directly online at www.iapt.org.in; He/She will pay fee by online payment.

DATE AND TIME OF EXAMINATION: SUNDAY 27.11.22

NSEP : 8:30 AM to 10:30 AM

NSEC : 11:30 AM to 1:30 PM

NSEB : 2:30 PM to 4:30 PM

NSEJS : 2:30 PM to 4:30 PM

SATURDAY 26.11.2022

NSEA : 2:30 PM to 4: 30 PM

Fee
Rs. 200.00
per student
per subject

PREVIOUS 5 YEARS QUESTION PAPERS BOOKLET IN EACH SUBJECT IS AVAILABLE FOR Rs 100/- EACH FROM IAPT KANPUR OFFICE.

Prof. BP Tyagi

Chief Coordinator (Examination)

23 Adarsh Vihar, Raipur Road,

Dehradun - 248001

Ph: 9837123716, E-mail: bptyagi@gmail.com

Visit Website: www.iapt.org.in

Dr. Anand Singh Rana (9412954316) NSE Coordinator

Dr. Vijay V Soman (9822107522) NSEJS Coordinator

IAPT Examination Office:

15, Block II, Rispana Road, DBS College Chowk, Dehradun-248001

Email: iapt.nse@gmail.com

Helpline: 9632221945, 9411190162, 8533993332

For all queries regarding the examination: Student may contact local centre in-charge else the **Helpline**.