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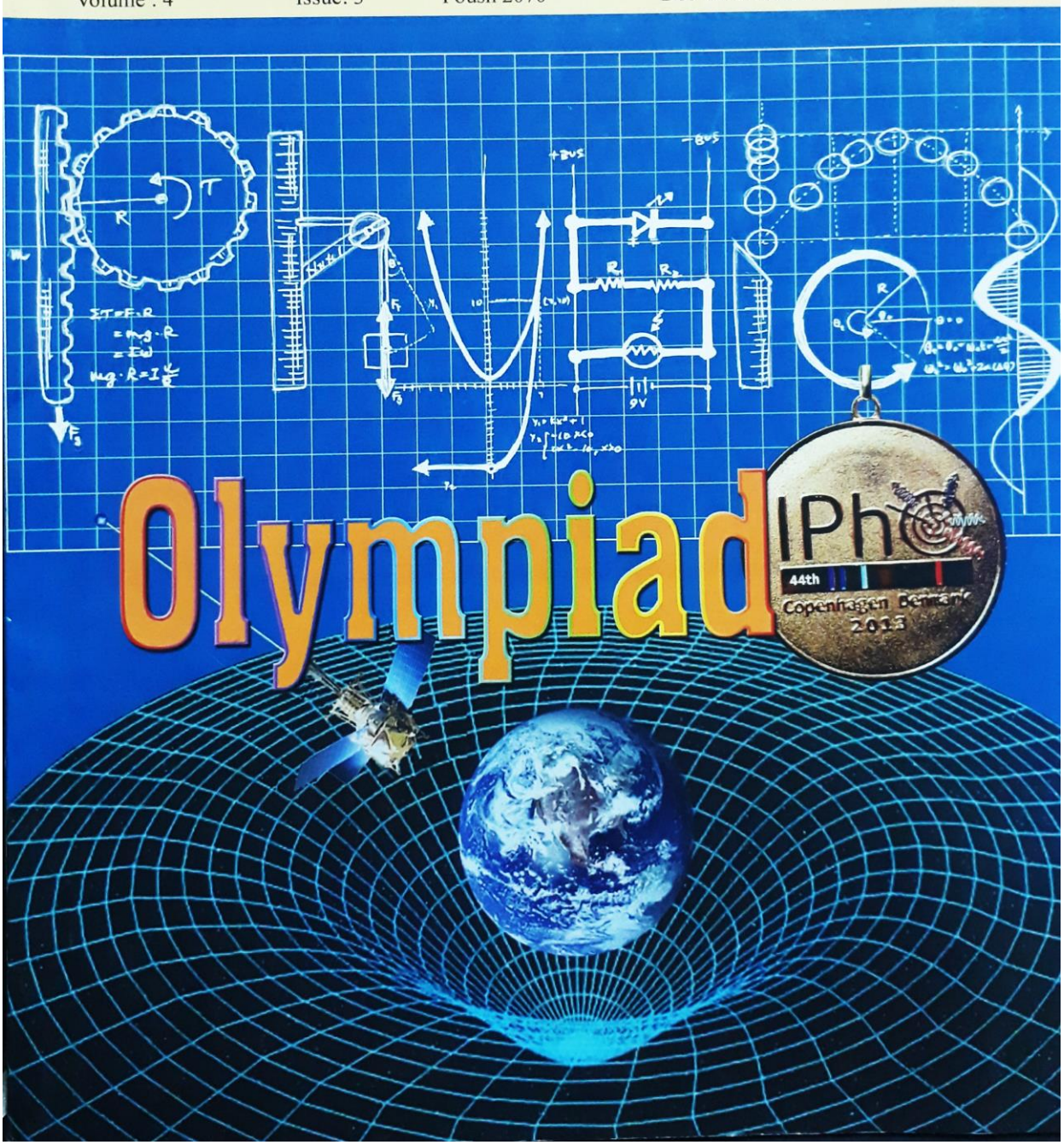

Physics Olympiad Activities in Nepal

DEEPENDRA PARAJULI
Nepal Physics Olympiad

Nepal Physical Society has formed the Nepal Physics Olympiad (NePhO) Committee as its sub-committee in 2006 A.D. after the participation as an observer in 37th International Physics Olympiad (IPhO) in Singapore and entrusted it with organizing a national level Physics Olympiad for higher secondary or equivalent science students.

The main objective of the Nepal Physics Olympiad is to prepare a team for International Physics Olympiad (IPhO) and Asian Physics Olympiad (APhO) selecting through Nepal Physics Olympiad, train them and to participate as scheduled. Some other objectives of NePhO are:

- To recognize the growing significance of Physics in all fields of Science and Technology
- To enhance the development of international contacts in the field of school education in Physics
- To identify the talents in the national and international levels
- To promote international friendship and sportsmanship spirit among the emerging and young scientists
- To promote Physics Education
- To popularize Physics
- To gather young lovers of Physics
- To create challenges in the individual students

The competition is mainly designed to test the understanding of physical principles and to apply them in practical situations.

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Admission Procedure

i) Eligibility:

As the students selected from the NePhO are eligible to take part in the IPhO and APhO, the eligibility criteria are same as that of IPhO and

APhO. The eligibility for taking part in the preselection competition:

- Should be students of general or technical secondary school (in Nepal Higher Secondary level or equivalent).
- Should be below 20 years of age by June 30 in the year of competition.
- Should not have taken admission in any Bachelor level.

The student is eligible to take part in the international Olympiads after being selected in the national level competition.

b) Registration

a) Students of Higher Secondary level or equivalent grade can register through their respective institutions or self.

b) Registration form is available at the institutions. It can be downloaded from the NPS website (www.nps.org.np) or can be obtained from the secretariat of NPS.

c) Registration fee is required.

d) Registration deadline is tentatively at the month of Mangsir (December)

Pre- Selection Test:

The pre-selection test is conducted at different Venue so that the talents around the country. The public notice including all the requirements of the competition, venue and respective contact person with their contact number is published in the print media. The main venues of the preselection test of NePhO are: Kathmandu, Pokhara, Biratnagar, Butwal, Palpa, Bharatpur, Birgunj, Janakpur, Mahendranagar, Dhangadi and Nepalgunj.

Syllabus for the pre-selection test

1. Mechanics: Kinematics; Newton.s laws of motion and applications; work, energy and power; circular motion; gravitation; simple harmonic motion; rotational motion; hydrostatics.
2. Heat: Calorimetry; expansion of materials; kinetic theory of gases and gas laws.
3. Optics: Reflection, refraction and dispersion.
4. Electrostatics: Electric field; electric potential; Gauss.s law; capacitors and dielectrics. Current electricity: Ohmic and non- ohmic conductors; DC circuits; Kirchoff.s laws; thermoelectric and chemical effects of currents.

Note: Students are required to know vector addition and subtraction, scalar product and simple differentiation and integration.

Preselection Test is at around the month of Poush (January), which selects the 20 best students. The twenty students will be given intensive tutorial and training in preparation for the selection of 5 students for International Physics Olympiad and 8 students for the Asian Physics Olympiad.

After the final selection test, the team is given another set of tutorial and training before departure to the venue of the competition. The final training mainly focused on the;

- practice on the past and model questions
- systematic practice on experiments
- ways to evaluate the difficulty level of the questions
- strategies for concise and complete solutions
- knowledge about the historical, geographical, political, sociological etc. importance of the hosting country and location of the competition
- knowledge about the historical, geographical, political, sociological etc. importance of the our country, Nepal for the systematic and positive briefing of our nation in the international gathering
- knowledge about the courtesy and the modern technologies that can be adopted for accommodation in the hosting country by making a visit of the students to a standard hotel in Kathmandu valley

Most of the selected students are from Grade XII. At the time of APhO, they have their HSEB exam. So, they cannot take part in APhO. As the matter of fact of fact, the eligible students upto the competition are selected from the previous year are nominated for APhO.

To facilitate the selection and training pro-

gram of the students Nepal Physical Society forms the training and academic committee for the national Olympiad.

Before departure to the venue of the international competition, the selected Team is usually greeted by:

- Rt. Hon. President of Nepal
- Hon. Prime Ministers of Nepal
- Hon. Ministers and Secretaries of Ministry of Education and Science & Technology
- The team is also felicitated and greeted by the Nepal Physical Society.

The team is accompanied by two leaders. A few observers and several visitors may also be included in the country delegation. Students take part in the competition. The two leaders have voting right in the affairs of the Olympiad. The observers help the leader in their work if needed.

Responsibilities of Leader:

- To lead the team of the nation
- To moderate the questions (theory and experimental) prepared by the host country
- To moderate the answers copies (theory and experimental) examined by the host country
- Translate the questions of IPhO in native language (if needed).
- Official language is English. But students can give the exam in their own national language (Nepali for Nepal)
- Leaders have voting rights for the agenda arise during moderation.

Examination Procedure:

- Theory examination [Time: Five hours, Full marks: 30]
- Experimental examination [Time: Five hours, Full marks: 20]

In this way the participation of the Nepali team is participating in the international arena of Physics with the students of intermediate or equivalent levels. Even After the longtime of start of International competition in Physics, Nepal has started to participate in the event few years before. Even though, we were late to start, we are fast enough to achieve a satisfactory result in the competition. The participation and achievements from the Asian and International Olympiads indicates that there are enough talents and intelligent young scientists in Nepal who can compete in the international level. Hence, there is enough potential manpower to develop Nepal in the field of Science and Technology. All these achievements indicate that the Olympiad activities in Nepal are upto the mark behind lots of limitation in the course of selection and training. The volunteer contribution by the physicists of Nepal has made half of the completion successful. The most disappointing moment to the team is due to the scarcity of the finance to participate in the international competition which is the target of the national competition. The only way to promote the activity significantly is to include this program in the regular budget of the corresponding ministry of Nepal with sufficient fund.

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