Government of India NATIONAL BOARD FOR HIGHER MATHEMATICS

Department of Atomic Energy Anushakti Bhavan, C.S.M. Marg, Mumbai-400 001 **The Doctoral Scholarship Scheme 2022** Scholarships for pursuing doctoral studies (leading to the PhD degree) in

Mathematics and Applied Mathematics for the Academic Year 2022-23

The National Board for Higher Mathematics (NBHM) invites applications to appear for its **Doctoral Scholarship Written Test**—hereafter called "the test"—scheduled for:

Saturday, 18 June 2022, 10:30-13:30 hrs, IST

The selection process for grant of the **NBHM Doctoral Scholarship 2022**—hereafter called "the scholarship"—consists of two phases, the first of which is the test. The second phase is an interview to be held only for candidates shortlisted on the basis of the test scores. The scholarship and the selection process are described in more detail below. The web page carries even more information. For instance, it features an official FAQ that is updated from time to time.

The test scores are also used for screening of candidates for admissions to the PhD and Integrated PhD programmes of the following institutions:

- Harish-Chandra Research Institute (HRI)
- Indian Institute of Science Education and Research, Berhampur (IISER Berhampur)
- Indian Institute of Science Education and Research, Mohali (IISER Mohali)
- Indian Institute of Science Education and Research, Pune (IISER Pune)
- Indian Institute of Science Education and Research, Thiruvananthapuram (IISER Thiruvananthapuram)
- Kerala School of Mathematics (KSoM)
- National Institute of Science Education and Research (NISER)
- The Institute of Mathematical Sciences (IMSc)

For details of how exactly the test scores are used by any given institution, visit the web page of that institution, or otherwise seek information directly from it. (NBHM is unable to provide these details.)

Eligibility for the scholarship

The scholarship is intended to support pursuit of research leading to the PhD degree in Mathematics or Applied Mathematics. To qualify for it, one **must satisfy all of the following three criteria**:

- qualify in the test and the subsequent interview;
- enrol by January 2023, or be already enrolled, in a recognised full-time PhD programme in Mathematics or Applied Mathematics in a university or institution in India.
- must not have drawn the (NBHM Doctoral) scholarship in the past.

If you have been selected for the (NBHM Doctoral) scholarship in the past but have never in the past opted to receive it, then you are still eligible for this year's selection.

Eligibility to write the test

Anyone who fits **at least one** of the following three criteria is eligible to appear for the test:

- enrolled in a full-time PhD programme in Mathematics or Applied Mathematics in a university or institution in India;
- aspiring to enroll in such a programme by January 2023;
- aspiring for selection in the next round of recruitment for an Integrated PhD programme of an institution (such as the eight mentioned above) that uses the test scores for screening for admission to that programme.

Note that even those who are disqualified for the scholarship at the outset (even before writing the test)¹ may still be eligible to write the test: this stems from the fact that the test scores are used also for screening for admission to several PhD and integrated PhD programmes.

It is understood that any applicant agrees with all the policies of NBHM.

Details of the scholarship²

The scholarship is initially granted for a term of four years, but needs to be renewed every year, the renewal being subject to satisfactory progress as judged by NBHM. It may be extendable by one more year, solely at NBHM's discretion. It consists of a monthly stipend and a yearly contingency grant, the rates of which are revised from time to time. The current rates are as follows: monthly stipend ₹31,000/- for the first two years, to be increased to ₹35,000/- for the subsequent years, based upon the recommendation of the committee appointed by the scholar's institution to monitor the scholar's progress; yearly contingency grant ₹40,000/-. In addition, house rent allowance (HRA) is payable as per central government norms.³

A precondition for tenability of the scholarship is that throughout its term the candidate must be enrolled in a recognised full-time PhD programme in Mathematics or Applied Mathematics in India. This means that the candidate must get enrolled in such a programme by January 2023 (if not already enrolled) and such enrolment must continue for the entire duration of the scholarship. If the enrolment should cease for any reason, the scholarship will also cease at the same time. The scholarship will be administered only through the scholar's institution.

Selection procedure for the scholarship

Candidates shall be shortlisted for an interview based on their test scores. Final selection for the scholarship shall primarily be on the basis of performance in the test and the subsequent interview, although the selection committee can take into account other aspects of the candidate's academic track record.

Zones and Zonal Coordinators

For purposes of administration of the selection process for the scholarship, the country is divided into five geographical **zones**, each headed by a coordinator. The names, affiliations, and addresses of the zonal coordinators are listed at the end of this advertisement.

¹The disqualification could, for example, be due to the scholarship having been drawn in the past.

²The scholarship is open only to Indian nationals. The test is however open also to foreign nationals who are aspiring for selection to the PhD and Integrated PhD programmes of institutions that use the NBHM test scores for screening of applicants. ³Women scholars are entitled for maternity leave during which the benefits (the monthly stipend and HRA, the latter upon

production of a rent receipt) are payable, once during the term of the scholarship for a period not exceeding 180 days. If such leave is availed, the term of the scholarship shall be extended by the extent of the availed leave.

Written Test and Interview

The test is scheduled for **Saturday, 18 June 2022, 10:30 to 13:30 hrs, IST**. It shall be one of subject skills that are important for pursuing a doctoral degree in Mathematics or Applied Mathematics. Question papers from previous years along with their keys are available at this repository. The pattern and difficulty level of this year's test may however bear no predictable relation to those in the previous years.

As already mentioned, a shortlist of candidates to be interviewed shall be prepared based on the test scores. The interviews shall be conducted online, sometime in the month of July. The dates and other details of the interviews shall be announced along with the shortlist, two to three weeks after the test.

Test centres

Arrangements are underway for having test centres in the cities listed below. However, some centres could later be revoked for lack of sufficient demand or other reasons beyond our control. Applicants will be asked to fill out four choices of centres, in descending order of priority. Some centres have limited capacity. The allotment of centres will be on a first-come-first-served basis. Thus, in order to be sure to get your preferred test centre, you must apply early.

- Zone 1 (North): Chandigarh, Delhi, Jodhpur, Shimla, Srinagar.
- Zone 2 (North Central): Bhopal, Indore, Jabalpur, Kanpur, Patna, Prayagraj, Raipur.
- Zone 3 (West): Dharwad, Gandhinagar, Goa, Mumbai, Nagpur, Nanded, Pune, Vallabh Vidyanagar.
- Zone 4 (East): Agartala, Berhampur (Orissa), Bhubaneswar, Burdwan, Dimapur, Guwahati, Imphal, Jamshedpur, Kharagpur, Kolkata, Ranchi, Shillong, Siliguri, Tezpur.
- Zone 5 (South): Bengaluru, Chennai, Hyderabad, Kochi, Kozhikode, Mysuru, Pondicherry, Salem, Surathkal, Thiruvananthapuram, Tirupati, Warangal.

Candidates must make their own arrangements for travel and stay to take the test.

How to apply?

Applications to appear for the written test will be accepted **exclusively online** through the following portal: https://www.nbhmexams.in/

The portal shall open around 17th May and remain open until 31st May. An application fee (along with applicable collection charges) needs to be paid online at the time of the application. If it is paid on or before 27th May, the application fee is ₹500; if it is paid after that date, the fee is ₹750.

Important Dates (all in 2022)

Online application portal scheduled to open
Last date for applications with fee of ₹500
Application portal to close at the end of this day (23:59 hrs, IST)
The written test to be held during 10:30-13:30 hrs, IST

There may be some changes to the above schedule. For instance, there could be a delay in the opening of the portal due to technical issues, or the deadline for applications (31st May) may be extended for various reasons. All such changes shall be published exclusively on the web page.

Names, affiliations, and contact details of the Zonal Coordinators

The contact details of the zonal coordinators listed below are to be used only if it is absolutely necessary and only as a last resort. Before trying to contact the zonal coordinator, ensure that all avenues of resolving your problem through the portal are exhausted, and keep in mind that the clarification you seek may already be provided by the official FAQ at:

https://www.imsc.res.in/~nbhm/DST_2022/dst2022_faq.html

The FAQ is updated from time to time. Email is the preferred mode of communication (in case you absolutely need to contact a zonal coordinator).

- Zone 1 (North): Professor Gurmeet Kaur Bakshi, email: gkbakshi@pu.ac.in, Department of Mathematics, Panjab University, Hans Raj Gupta Hall, Chandigarh 160014.
- Zone 2 (North Central): Professor R. Thangadurai, email: thanga@hri.res.in, Harish-Chandra Research Institute, Chhatnag Road, Jhusi, Prayagraj 211019.
- Zone 3 (West): Professor Vivek Mohan Mallick, email: vmallick@iiserpune.ac.in, Department of Mathematics, Indian Institute of Science Education and Research, Homi Bhabha Road, Pashan, Pune 411008.
- Zone 4 (East): Professor Pradipta Bandyopadhay, email: pradiptabandyo@gmail.com. Stat-Math Division, Indian Statistical Institute, 203, B T Road, Kolkata 700 108.
- Zone 5 (South): Professor K. N. Raghavan, email: knr@imsc.res.in, The Institute of Mathematical Sciences, CIT Campus, Taramani, Chennai 600 113.