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 2021** Scholarships for pursuing doctoral studies (PhD) in Mathematics / Applied Mathematics for the academic year 2021-22

The National Board for Higher Mathematics (NBHM) invites applications to appear for its **Doctoral Scholarship Written Test** (hereafter called "the test") scheduled for¹:

Saturday, 10 April 2021 Sunday, 11 April 2021, 1400–1700 hrs, IST

The test is the first of two steps in the selection process for grant of the **NBHM Doctoral Scholarship 2021** (hereafter called "the scholarship").

The test scores are also used for screening of candidates for admissions to the PhD / integrated PhD programmes of certain institutions including:

- 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)
- National Institute of Science Education and Research (NISER)
- The Institute of Mathematical Sciences (IMSc)

The scholarship and the test are described in more detail below. The web page carries even more information, for instance an official FAQ page that is updated from time to time.

Whom is the scholarship for?

The scholarship is intended to support pursuit of research leading to the PhD degree in Mathematics / Applied Mathematics. To qualify for it, one **must satisfy both** these conditions:

- qualify in the test and the subsequent interview;
- enrol by January 2022 (if not already enrolled) in a recognised PhD programme in Mathematics / Applied Mathematics in a university or institution in India.

Whom is the test for?

Anyone who fits at least one of the following three descriptions may apply:

- enrolled in a full time PhD programme in Mathematics / Applied Mathematics in a recognised university or institution in India;
- aspiring to enroll in such a programme by January 2022;
- aspiring for selection in the next round of recruitment for the Integrated PhD programme in Mathematics of an institution that receives from NBHM the test scores for screening for admission to that programme (such as the seven mentioned above).

¹The original schedule of the test was changed due to the clash with one phase of polling for the West Bengal Assembly.

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 is extendable to a fifth year 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, based upon the recommendation of the committee appointed by the scholar's institution to monitor the scholar's progress, to ₹35,000/- for the subsequent years; 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 / Applied Mathematics in India. This means that the candidate must get enrolled in such a programme by January 2022⁴ (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 paid only through the scholar's institution.

Selection procedure for the scholarship

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

The Written Test

The test is scheduled for **Saturday, 10 April 2021,** 1030 to 1330 hrs, IST **Sunday, 11 April 2021,** 1400 to 1700 hrs, IST. It will be one of subject skills that are important for pursuing a doctoral degree in mathematics / 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.

The test will be conducted at centres in the following cities, divided into five geographical zones⁵:

- Zone 1: Chandigarh, Delhi (multiple venues), Jodhpur, Patiala, Ropar, Shimla, Srinagar.
- Zone 2: Bhopal, Indore, Jabalpur, Kanpur, Prayagraj, Raipur.
- Zone 3: Dharwad, Gandhinagar, Goa, Mumbai, Nagpur, Nanded, Pune, Vallabh Vidyanagar.
- Zone 4: Agartala, Berhampur, Bhubaneswar (multiple venues), Dimapur, Guwahati, Jamshedpur, Kolkata (multiple venues), Ranchi, Shillong, Siliguri, Tezpur.
- Zone 5: Bengaluru, Chennai, Hyderabad, Kochi, Kozhikode, Madurai, Mysuru, Pondicherry, Salem, Surathkal, Thiruvananthapuram, Tirupati, Warangal.

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

The interview will be conducted separately in each of the five zones. The date(s) of the interview will also be announced later and may vary with the zone.

 $^{^{2}}$ The scholarship is open only to Indian nationals. The test is however open also to non-Indian nationals who are aspiring for selection to the PhD / Integrated PhD programmes of institutions that use the NBHM test scores for screening of applicants.

 $^{^{3}}$ Women 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.

⁴The January 2022 deadline is extendable for pandemic related reasons on a case-by-case basis.

 $^{^{5}}$ The test might not be held at some of these venues, for reasons beyond our control. Applicants will be asked to fill out four choices of centres, in descending order of priority.

Each zone has a coordinator who is responsible for the administration of the test and interviews in that zone. The names and addresses of the zonal coordinators are listed at the end of this advertisement.

How to apply?

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

The portal will open around 22nd February and will remain open until $\frac{21st March 2021}{24th March 2021}$. An application fee (along with applicable collection charges) needs to be paid online at the time of the application. For applications completed on or before $\frac{10th March}{13th March}$, the application fee is ₹400; for applications completed after that date, the fee is ₹600. Centre-wise lists of candidates will be published in three instalments.

Important Dates (all in 2021)

22 Feburary	Online application portal scheduled to open
10 March 13 March	Last date for applications with fee of ₹400
11 March 14 March	Application fee hike to kick in
21 March 24 March	Application portal to close at the end of this day
10 April 11 April	The written test to be held during 1400–1700 hrs, IST

The following dates are tentative⁶

13 March 16 March	First centre-wise list of candidates for the test to be published
20 March 23 March	Second centre-wise list of candidates to be published
25 March 28 March	Third and final centre-wise list of candidates to be published
mid May	List of candidates shortlisted for the interview to be posted on the web page

The application process

This consists of three simple steps:

- Step 1 (Registration): Register on the portal by giving a valid email address. This address will be your registered email address. It will also be your login ID and cannot be changed during the application process or later. A password will be generated and sent to the registered email address. (In some cases this message goes to the spam folder, so be sure to check that if needed.)
- Step 2 (Filling the Application): Login to the portal with your registered email address and password (generated in Step 1). Along with a few basic pieces of information about yourself (such as your name, postal address, and mobile number), you will be prompted for:
 - Choice of four written test centres in descending order of priority
 - Details of a photo ID that you must carry with you to the written test centre as identification
 - Self-certification that you meet at least one of the three eligibility criteria for the test (see the section above with title "Whom is the test for?")
 - Confirmation that you agree to follow the pandemic rules at your allotted test centre (information regarding these rules will be posted on the web page about a week before the test).
 - Details of a bank account (this information is being sought only to cover for the unlikely event that the test cannot be held for reasons beyond our control and we are obliged to return the application fee).

⁶Do not panic and start sending emails if the publication of the lists or the results is delayed by a few days.

Important: It is in your own interest to provide your name and postal address **in full** and a valid mobile number. Only one of the following IDs is acceptable: **Aadhar, Passport, PAN, Voter ID, Driver's license**. In particular, college identity cards are not acceptable.

Finally, you will be led through the fee payment process. Once the fee is paid, an application number will be generated, and your application is complete. You will be able to download the following three items: • copy of the completed APPLICATION FORM, • ADMIT CARDS (Candidate's Copy and Examiner's Copy), and • the COVID-19 SELF DECLARATION FORM. These will also be sent to your registered email, but even if that message isn't received you have nothing to worry once the three items are downloaded.

- Step 3 (The Admit Cards): Download and print these. They come with some pre-loaded information. Complete them as follows:
 - Affix a recent, colour photograph of yourself in the box provided for it. The photographs affixed on the two copies must be identical.
 - Fill out your roll number in the space provided for it. To know your roll number, you have to wait until the centre-wise lists of candidates are published on the portal. These lists will have names, application numbers, and roll numbers. You can find your roll number by looking up the entry for your application number. If you completed the application only a day or two before the publication of a centre-wise list, you may have to wait for the next list to be published to find your name.

The admit cards must be signed only during the test and in the presence of the invigilator. Do not sign them beforehand. You must carry both admit cards to the test centre along with the photo ID whose details you filled out in Step 2.

• **COVID-19 related Self-declaration:** Print the downloaded form (the form is also available here). You must fill this out, **but only less than 24 hours before the test and not earlier**, and carry it with you to the test centre.

Some clarifications

- All correspondence regarding your application will be sent only to the registered email address (see step 1 above). For every registered email, you can file only one application.
- You should note down the password that was set during the registration process (step 1 above). But in case you forget, you can always reset it on the portal, by entering your registered email address and clicking on the "Forgot password" link.
- In order that there is a secondary means of communication on which to fall back if the registered email address should fail, you must provide a valid mobile number in Step 2 (one that you can be contacted on). Alternative phone numbers and email addresses are also asked for.
- Once the application process is complete and you have the admit cards, you won't need to login again. You will of course need to look up your roll number but this does not require you to login: the centre-wise lists of candidates are public documents that anyone can access from the portal without authentication.
- Once the application is completed, the completed application form and admit cards can be accessed at any later time by logging in to the portal. (Of course, in most cases these would have been downloaded immediately upon completion of the application, and there would be no need to login again.)

- You must carry both admit cards with you to the test, along with the photo ID mentioned on them. The invigilator will sign both copies and collect the Examiner's Copy. The Candidate's Copy will be returned to you and you must preserve it, for you will be asked to produce it at the time of the interview and at the time of the grant of the scholarship.
- Centres will be allotted on a first-come-first-served basis. There are limits on their capacities. Thus, to increase the chances of being allotted your preferred centre, it would help to **complete** the application process early.
- The COVID self-declaration needs to be filled out NOT earlier than 24 hours from the start of the test.

Resolution of issues with application

Keep the following in mind:

- If you are facing some technical difficulty (like being unable to register or login), you are well advised to try again after a few hours or days, for it is likely that the issue is being addressed and will be resolved without any action on your part. Only if the difficulty persists after multiple attempts should you bother trying to resolve it.
- There may be a delay of a few days due to technical reasons of the publication of the centre-wise sorted candidate lists. This should be no cause for panic.

For issues relating to the online application process (e.g., if you paid the fee twice for the same application), you may raise a complaint through the link provided for that purpose on the portal. Access to this link requires that you login. For efficient resolution of an issue, it is important that all the relevant details of your application and the particular issue be included in the complaint.

If you are having persistent trouble registering or logging in, then **and only then** an email may be sent to query@nbhmscholarship.in.

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 other avenues of resolving your problem (such as through the portal as mentioned above) are exhausted, and keep in mind that:

• The clarification you seek may already be provided by the official FAQ page that is updated from time to time.

Email is the preferred mode of communication (in case you absolutely must contact a zonal coordinator).

- Zone 1: Professor Gurmeet Kaur Bakshi, email: gkbakshi@pu.ac.in, Department of Mathematics, Panjab University, Hans Raj Gupta Hall, Chandigarh 160014.
- Zone 2: Professor R. Thangadurai, email: thanga@hri.res.in, Harish-Chandra Research Institute, Chhatnag Road, Jhusi, Prayagraj 211019.
- Zone 3: 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: Professor Pradipta Bandyopadhay, email: pradiptabandyo@gmail.com. Stat-Math Division, Indian Statistical Institute, 203, B T Road, Kolkata 700 108.
- Zone 5: Professor K. N. Raghavan, email: knr@imsc.res.in, The Institute of Mathematical Sciences, CIT Campus, Taramani, Chennai 600 113.