INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, KALYANI
An Institute of National Importance
(Autonomous Institution under MOE, Govt. of India &
Department of Information Technology & Electronics, Govt. of West Bengal)
WEBEL IT Park,14, Adivasi Para, Opposite of Kalyani Water Treatment Plant
Near Buddha Park, Dist. Nadia, P.O. Kalyani - 741235, West Bengal.

F.No. IIITK/Acad/PhD/2025/6965 **Date: 01.07.2025**

NOTIFICATION

Sub: List of Candidates Shortlisted for PhD Admission Test & Interview (PhD Admission-Autumn 2025-2026) for Mathematics at IIIT Kalyani- reg.

Ref. Advt. No. IIITK/Acad/PhD/2025/13, Dt. 21.05.2025

With reference to the subject cited above, the list of candidates shortlisted for PhD Admission Test & Interview (PhD Admission-Autumn 2025-2026) for Mathematics at IIIT Kalyani is appended herewith for information to all candidates.

[Shortlisted: 01, Not Shortlisted: 01]

Sl. No.	Name	Status	Remarks
1	SILVIA HAZARI	Shortlisted	
2	PRITI BISWAS	Not Shortlisted	No GATE/NET

Shortlisting Criteria for Mathematics:

1. At least 60% marks in Class X and XII Board with exemption in one of them (but should have at least 55% in that).
2. Master degree in Science with minimum 60% marks (CGPA of 6.5 out of 10) and GATE/NET qualification.
3. A 5% relaxation in marks/grade to be provided for candidates applying under SC/ST/OBC/PwD/EWS categories.

Schedule of Admission Test and Interview:

Admission test (written) for Mathematics: 07.07.2025
Interview for Mathematics: 07.07.2025
Venue: IIIT Kalyani Campus (Webel IT Park, Near Buddha Park, Kalyani, Nadia, West Bengal, PIN 741235)
Reporting time: 10:00 AM (Room G-02)
Written test: 10:15 AM – 11:45 AM
Result announcement: 12:45 PM
Interview: 1:30 PM onwards (07.07.2025)

Instructions for the candidates:

1. The candidates who have submitted only softcopy application form must submit the hardcopy application on the day of admission test.
2. Candidate should produce NOC from employer (for part-time category) if he/she has not submitted it with application form.
3. Candidate should bring original mark sheets, certificates and related documents on the day of admission test and interview.
4. Candidate should bring a photo ID card on the day of admission test and interview.

Syllabus for Ph.D. Admission: written test (Mathematics):

Question Pattern: MCQ based problem solving (except English writing)

1. English writing and communication skill
2. Mathematics: Elasticity, Linear Algebra, Linear Integral Equations, Ordinary Differential Equations, Partial Differential Equations.

Elasticity:

Analysis of strain and stress, strain and stress tensors; Geomatrical representation; Compatibility conditions; Strain energy function; Constitutive relations; Elastic solids Hookes law; Saint-Venant's principle, Equations of equilibrium; Plane problems-Airy's stress function, vibrations of elastic, cylindrical and spherical media.

Linear Algebra:

Finite dimensional vector spaces; Linear transformations and their matrix representations, rank; systems of linear equations, eigenvalues and eigenvectors, minimal polynomial, Cayley-Hamilton Theorem, diagonalization, Jordan-canonical form, Hermitian, Skew-Hermitian and unitary matrices; Finite dimensional inner product spaces, Gram-Schmidt orthonormalization process, self-adjoint operators, definite forms.

Linear Integral Equations:

Linear integral equation of the first and second kind of Fredholm and Volterra type, Solutions with separable kernels. Characteristic numbers and eigen functions, resolvent kernel.

Ordinary Differential Equations:

First order ordinary differential equations, existence and uniqueness theorems for initial value problems, systems of linear first order ordinary differential equations, linear ordinary differential equations of higher order with constant coefficients; linear second order ordinary differential equations with variable coefficients; method of Laplace transforms for solving ordinary differential equations, series solutions; Legendre and Bessel functions and their orthogonal properties.

Partial Differential Equations:

Linear and quasilinear first order partial differential equations, method of characteristics; second order linear equations in two variables and their classification; Cauchy, Dirichlet and Neumann problems; solutions of Laplace, wave in two dimensional Cartesian coordinates, Interior and exterior Dirichlet problems in polar coordinates; Separation of variables method for solving wave and diffusion equations in one space variable; Fourier series and Fourier transform and Laplace transform methods of solutions for the above equations.

KAOUSHIK K MUKHERJEE

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Date: 2025.07.01 16:25:02 +05'30'

Registrar
IIIT Kalyani