



# BIJOY KRISHNA GIRLS' COLLEGE, HOWRAH

A NCTE and NAAC accredited (B<sup>++</sup>) College

5/3, MAHATMA GANDHI ROAD, HOWRAH – 711 101

## RESEARCH & DEVELOPMENT CELL, IQAC

### SUMMER INTERNSHIP PROGRAMME 2025

**1. TITLE:**

Foundations Of Analytical Excellence: Applied Quantitative Aptitude & Reasoning

**2. ORGANIZERS:**

Department of Mathematics and Research & Development Cell, IQAC

**3. BACKGROUND AND OVERVIEW OF THE INTERNSHIP PROGRAMME:**

The Department of Mathematics, and the Research & Development Cell (IQAC) of Bijoy Krishna Girls' College, Howrah, conducted a 15-day Summer Internship Programme titled “*Foundations of Analytical Excellence: Applied Quantitative Aptitude & Reasoning*” from June 11 to June 28, 2025.

This internship aimed at equipping undergraduate students with essential analytical tools and exam-oriented problem-solving skills in quantitative aptitude and reasoning, particularly useful for competitive examinations such as SSC CGL, Banking, and Campus Placement Tests.

**4. AIMS AND LEARNING OBJECTIVES:**

The primary objectives of the internship were:

- To introduce efficient and time-saving methods in solving aptitude and reasoning problems.
- To improve students' speed, accuracy, and conceptual clarity through structured classroom training.
- To help students gain exposure to real-world exam-style assessments and data interpretation techniques.
- To develop confidence in applying analytical strategies across academic and professional contexts.

**5. STRUCTURE AND IMPLEMENTATION STRATEGY:**

- *Duration:* 15 Days (75 Hours)
- *Mode of Delivery:* Hybrid (Offline and Online)
- *Faculty Resource Persons:* Dr. Rupak Bhattacharyya (25 hours), Dr. Pratap Mondal (22 hours), Dr. Samiran Banerjee (23 hours) and Dr. Debjani Mitra (05 hours). *All are trained by Infosys BPM.*
- *Internship Supervisor:* Dr. Rupak Bhattacharyya



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- The curriculum included 20 instructional modules covering foundational and advanced topics in mathematics and logical reasoning, including Number Systems, Algebra, Geometry, Trigonometry, Data Interpretation, Logical Puzzles, and Syllogisms.

### 6. ENROLMENT AND REVENUE SUMMARY:

A total of 12 students registered for the Summer Internship Programme 2025. The participants were drawn from diverse academic disciplines and represented three prominent colleges affiliated with the University of Calcutta.

The nominal course fee was ₹500 per student, resulting in a total departmental revenue of ₹500 × 12 students = ₹6,000. This fund was received through official channels into the college's general fund account and will contribute to future academic and outreach activities of the department.

While 10 students successfully completed all requirements (attendance, project, assessment) and were awarded certificates, 2 registered students did not fulfil the completion criteria.

### 7. PARTICIPATING INSTITUTIONS AND STUDENT PROFILE:

A total of **10 students** from Scottish Church College, Shri Shikshayatan College, and Bangabasi College successfully completed the internship. The participants represented a diverse academic background across Mathematics, Political Science, and Botany.





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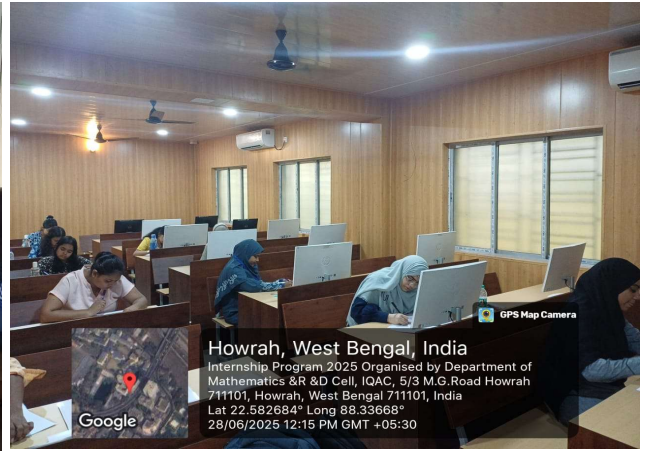
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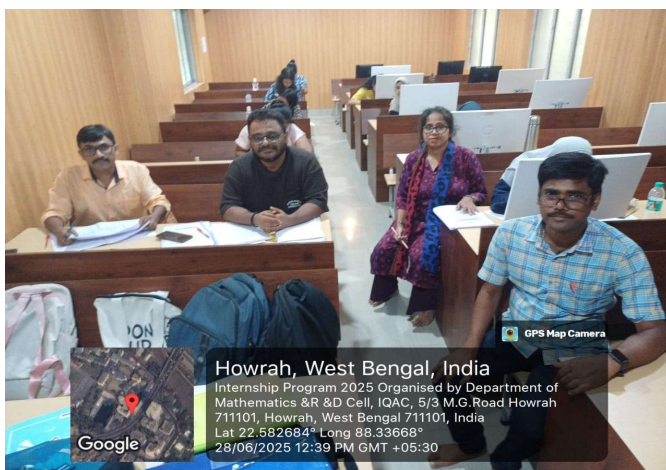
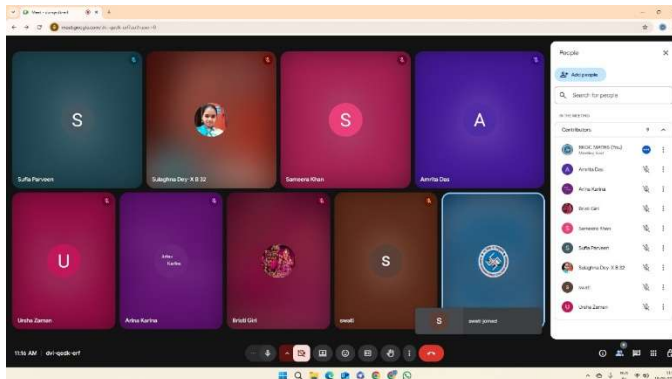
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Howrah, West Bengal, India  
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Lat 22.582684° Long 88.33668°  
28/06/2025 12:15 PM GMT +05:30



Howrah, West Bengal, India  
Internship Program 2025 Organised by Department of Mathematics & R & D Cell, IQAC, 5/3 M.G.Road Howrah 711101, Howrah, West Bengal 711101, India  
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Howrah, West Bengal, India  
Internship Program 2025 Organised by Department of Mathematics & R & D Cell, IQAC, 5/3 M.G.Road Howrah 711101, Howrah, West Bengal 711101, India  
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### 8. CAPSTONE PROJECT: ANALYTICAL EXCELLENCE IN PRACTICE:

As a core component of the internship, students prepared a structured project notebook titled: “*Analytical Excellence in Practice: Time-Saving Methods in Aptitude and Reasoning*”.

Each participant submitted:

- Practice sets for 8 Quantitative Aptitude and 4 Logical Reasoning topics.
- A total of 144 solved questions, graded by difficulty.
- Step-by-step solutions using techniques demonstrated in class.
- Compact topic summaries, shortcut formulae, and exam tips.
- A final reflection on the learning experience.

This project helped reinforce learning, build problem-solving discipline, and serve as a revision tool for future exams.

ANALYTICAL EXCELLENCE IN PRACTICE:  
TIME – SAVING METHODS IN APTITUDE AND  
REASONING

**INTERNSHIP PROGRAMME**

*Summer Internship on Foundations of Analytical Excellence:  
Applied Quantitative Aptitude & Reasoning*

**NAME : BRISTI GIRI**

ROLL NUMBER: 243223-11-0106  
DEPARTMENT: MATHEMATICS  
COLLEGE: SCOTTISH CHURCH COLLEGE  
SEMESTER: II  
ACADEMIC YEAR: 2024-2025

*Internship Duration: 75 hours (June 11, 2025 – June 28, 2025)*

*Project Supervisor: Dr. Rupak Bhattacharyya,  
Department of Mathematics,  
Bijoy Krishna Girls' College, Howrah*

## Acknowledgement

I would like to express my sincere gratitude to Dr. Rupak Bhattacharya, Dr. Pratap Mondal, Dr. Debjani Mitra and Dr. Samiran Banerjee, for providing valuable guidance and continuous support throughout the *Summer Internship on Foundations of Analytical Excellence: Applied Quantitative Aptitude & Reasoning*.

I also extend my thanks to the Department of Mathematics, Bijoy Krishna Girls' College, Howrah, and the University of Calcutta for introducing this internship module as part of the academic curriculum. This project has enabled me to consolidate the concepts covered in class and enhance my speed and confidence in problem-solving using time-saving techniques.

Sulaghna Dey Sulaghna Dey 28.6.2025  
Scottish Church College

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**Signature Page**

**Declaration by Student**

I hereby declare that this project is the outcome of my personal effort during the Summer Internship on Foundations of Analytical Excellence: Applied Quantitative Aptitude and Reasoning. The solutions are based on methods taught in class.

Signature of the Student: Sulaghna Dev Sulaghna Dey 28-6-2025

Name of the Student: Sulaghna Dev

Roll Number: 243223-11-0100

Registration Number: 223-1211-0331-24

Department: Mathematics

College: Scottish Church College

Date: 28.06.2025

**Certification by the Guide**

This is to certify that the above-named student has successfully completed titled "Analytical Excellence in Practice: Time-Saving Methods in Aptitude and Reasoning" under the Summer Internship on Foundations of Analytical Excellence: Applied Quantitative Aptitude and Reasoning, under my guidance. The submitted work is found to be satisfactory.

Rupak Bhattacharya 28/06/2025

Signature and Stamp of the Guide

Name: Dr. Rupak Bhattacharya  
 Designation: Assistant Professor  
 Department: Mathematics  
 Institution: Bijoy Krishna Girl's College  
 Date: 28.06.2025

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## 9. EVALUATION METHODOLOGY AND FINAL ASSESSMENT

To ensure a standardized evaluation of student learning, a **Final Assessment** was conducted on June 28, 2025.

### Assessment Format

- Duration: 90 Minutes
- Total Marks: 75
- Type: Multiple Choice Questions (MCQs)
- Sections Included:
  - ✓ Quantitative Aptitude (Profit & Loss, Interest, Ratio, SI/CI, Number System)
  - ✓ Logical Reasoning (Direction Sense, Dice, Mirror Images, Puzzles, Coding-Decoding)
  - ✓ Data Interpretation (Tables, Pie Charts, Bar Graphs)
  - ✓ Verbal and Analytical Reasoning
  - ✓ Puzzle and Seating Arrangement Scenarios

The performance in this test was considered, along with attendance and project submission, for awarding certificates.



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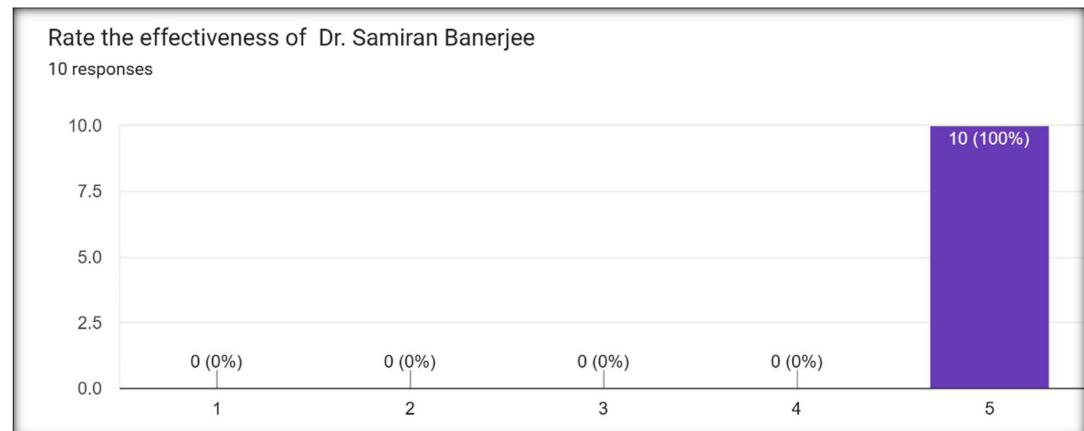
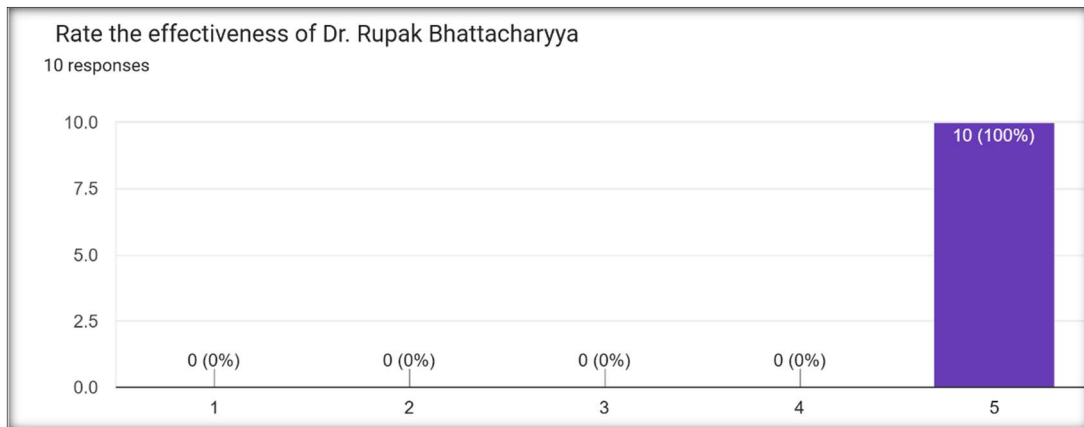
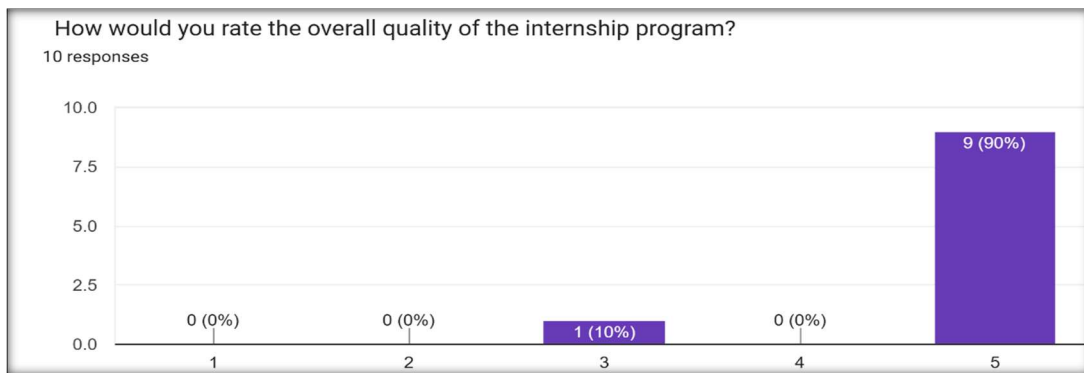
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### 10. OUTCOMES AND FEEDBACK SUMMARY

The internship received highly positive feedback from the participants. Key highlights include:

- Notable improvement in speed, logical clarity, and structured approach to problem-solving.
- High engagement due to the practical and exam-relevant content.
- Appreciation for Infosys BPM-trained faculty members who brought industry-aligned insights.
- Students reported enhanced confidence in tackling competitive examination patterns.



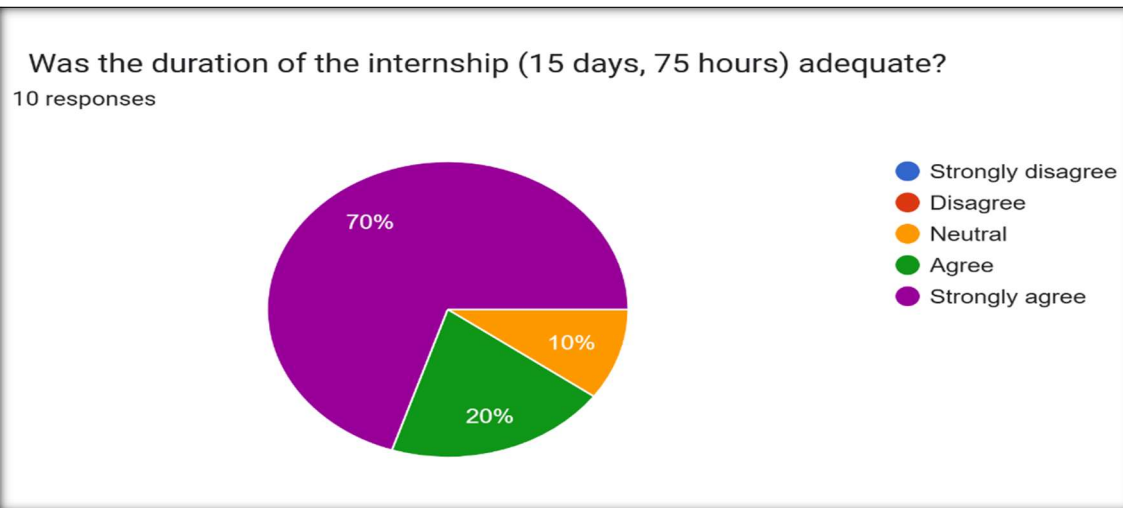
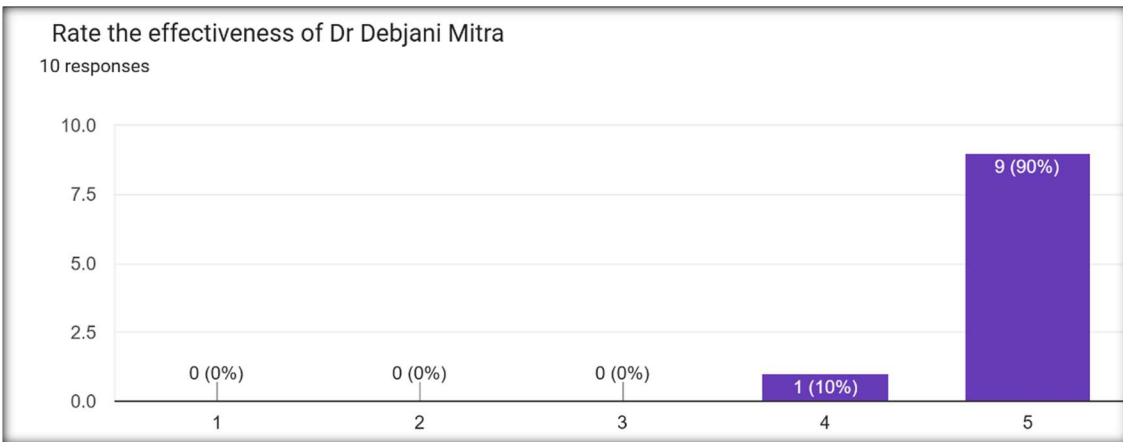
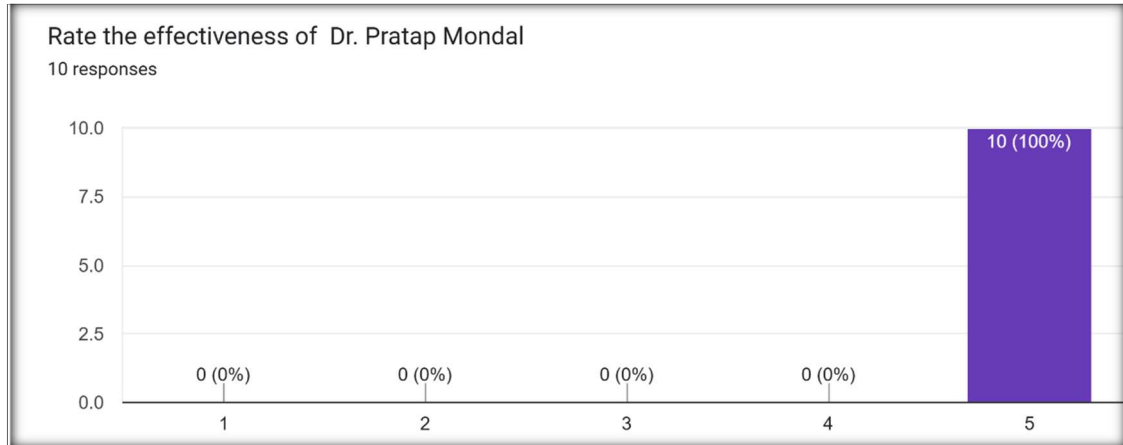


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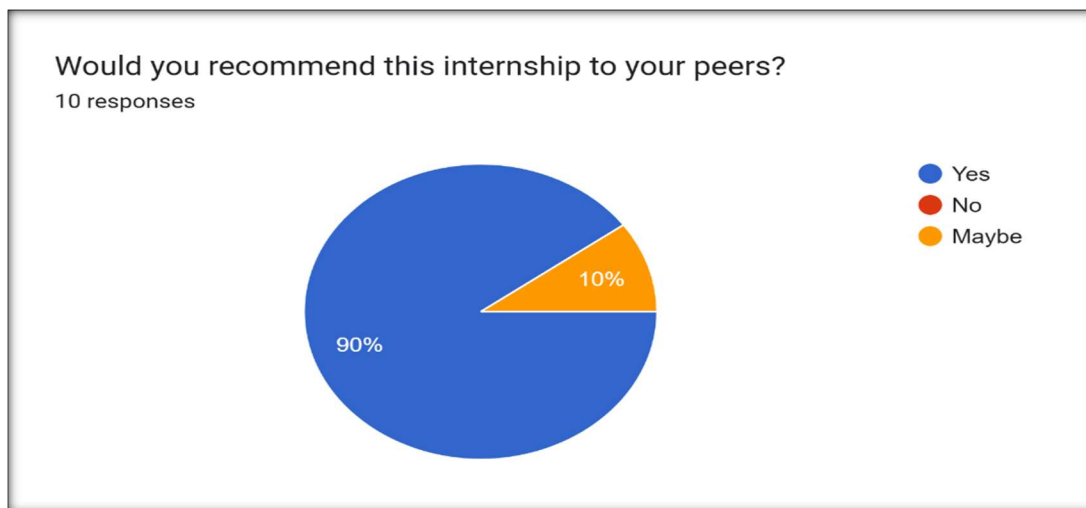


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### 11. CERTIFICATION AND COMPLETION

All students who maintained the required attendance, submitted their project notebooks, and appeared in the final assessment were awarded a Certificate of Completion. Each certificate recognized successful completion of **75 instructional hours** and a formal assessment.





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5/3 MG Road, Howrah - 711 101, West Bengal, India. www.bkgc.in

### CERTIFICATE OF INTERNSHIP

This is to Certify that  
**SWATI SHAW**

Roll No.: 232034-11-0252, Registration No.: 034-1211-0202-23,  
a Student of the Department of Political Science, Shri Shikshayatan College,  
Kolkata, has successfully completed the Summer Internship Programme on

**FOUNDATIONS OF ANALYTICAL EXCELLENCE:**

**APPLIED QUANTITATIVE APTITUDE & REASONING**

conducted by the Department of Mathematics and Research & Development  
Cell, IQAC of Bijoy Krishna Girls' College, Howrah.

The internship was carried out from June 11, 2025, to June 28, 2025,  
spanning a total of 15 days (75 hours).

  
Dr Rupak Bhattacharyya  
Programme Supervisor



  
Dr Ruma Bhattacharyya  
Principal

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### CERTIFICATE OF INTERNSHIP

This is to Certify that  
**SUFIYA PARVEEN**

Roll No.: 233142-11-0026, Registration No.: 142-1211-0575-23,  
a Student of the Department of Botany, Bangabasi College, Kolkata, has  
successfully completed the Summer Internship Programme on

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#### 12. SUMMARY AND FUTURE DIRECTIONS

The Summer Internship Programme 2025 successfully bridged the gap between academic coursework and aptitude-based skill development. It provided students with:

- Structured exposure to competitive-level reasoning problems
- Opportunities to practice and reflect through guided projects
- Real-time assessments to validate their learning

Moving forward, the Department of Mathematics and the R&D Cell aim to:

- Scale up the programme's outreach
- Introduce tiered levels for beginner and advanced learners
- Develop e-learning modules for wider access

This internship has established a model for interdisciplinary, assessment-based, skill-building academic initiatives.

# SUMMER INTERNSHIP

## FOUNDATIONS OF ANALYTICAL EXCELLENCE: APPLIED QUANTITATIVE APTITUDE & REASONING



QUANTITATIVE



APTITUDE



REASONING



FOUNDATIONS