

Patharkandi College



One-Week Workshop on Mathematics Olympiad

25-29 October, 2022

Organized by
Department of Mathematics, Patharkandi College
In Association with
Assam Academy of Mathematics, Karimganj Branch
And
Axom Sarba Sikhsa Abhiyan Miision, Karimganj



About Patharkandi College

Patharkandi College is a premier institute of higher learning in southern Assam and is permanently affiliated to Assam University Silchar. The college, established in 1990 by Late Prof. Quomrul Hoque and is recognized under 2(f) and 12(b) of the UGC Act, 1956. This college offers UG Programmes in Arts and Science. Situated on the foothills of Rajbari, Patharkandi near Indo - Bangladesh border, this college is playing a significant role for last two and half decades in the field of Higher Education of this remote region. With over two thousand intake capacity and excellent backing of the on-campus support services this provincialised college under the Government of Assam, provides quality education to the students from all the three districts of Barak Valley of Assam and the neighbouring states of Mizoram, Manipur, Nagaland and Tripura. Patharkandi College has twelve departments, thirty faculty members drawn from the best pool of the country and over fifteen non-teaching support staff always ready to facilitate the academics.

About Mathematics Department

The Department came into existence in July, 2020 with a major objective to serve as a centre of academic excellence in the area of Under Graduate education in Mathematics. The department offers three years (i.e., six numbers of semesters) of B.Sc. course in Mathematics. The B.Sc. honors/general course in the concern Department were introduced under the affiliation of Assam University, Silchar, Assam in the year 2020. The department has a dedicated computer laboratory. The vision of the department is to expound Mathematical principles combined with the demonstration of Mathematical laws in fundamental as well as in applied branches of science to stimulate intuition in young minds.

ORGANIZING COMMITTEE

- **Chairperson**
Dr. Monjurul Hoque
Principal, Patharkandi College
- **Convenor**
Dr. Munmi Saikia,
Asst. Prof. & HoD,
Mathematics, Patharkandi
College
- **Coordinators**
Dr. Saugata Purkayastha,
Asst. Prof., Mathematics,
Patharkandi College
&
Mr. Biman Kanti Nath,
Asst. Prof., Mathematics,
Patharkandi College
- **Members**

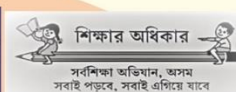
Mr. Arnab Bhattacharjee, Asst. Prof., PDUAM
Mr. Ayan Roy, Frontier Jr. college
Dr. Paban Dhar, Asst. Prof., Karimganj College
Mr. Biplab Karmakar, Adarsha Vidyalaya, Patharkandi



ONE-WEEK WORKSHOP ON MATHEMATICS OLYMPIAD

OCTOBER 25 - 29, 2022

Organized By
Department of Mathematics, Patharkandi
College, Patharkandi
In Association With
ASSAM ACADEMY OF MATHEMATICS
&
AXOM SARBA SIKSHA ABHIYAN MISSION,
KARIMGANJ



ADVISORY BOARD

- Dr. Prabin Das, President, AAM, Professor, USTM
- Mr. Birabrata Das Choudhury, Working President, AAM, Lecturer (SG) Bongaigaon Polytechnic
- Dr. Ashish Paul
General Secretary, AAM,
Assistant Professor, Cotton
University
- Mr. Nibaran Das, President,
AAM, Karimganj Branch, Former
HoD, Mathematics Rabindra Sadan
Girls' College
- Mr. Gautam Bose, Vice President, AAM,
Karimganj Branch, Asst Prof., Karimganj
College

About Assam Academy of Mathematics

Assam Academy of Mathematics (AAM), a non-profit Academic Voluntary organization established on 18th July, 1986 to promote and popularize mathematics study and research in Assam. Assam Academy of Mathematics regularly conducts state-level mathematics Olympiads, academic lectures, and training programs for students and teachers. One of the main objectives of the Academy is to grow more interest in Mathematics among students.

VISIT
<https://aamonline.org.in>
to know about various activities of AAM and
mathematics Olympiad related notifications
& announcements

RESOURCE PERSONS

- 1 Dr. Uday Shankar Chakraborty
Associate Professor, Dept. of
Mathematics, Assam University
- 2 Dr. Naba Kanta Sarma
Assistant Professor, Dept. of
Mathematics, Assam University
- 3 Dr. Debashish Sharma Assistant
Professor, Dept. of
Mathematics, Gurucharan College,
Silchar
- 4 Mr. Nibaran Das, Former HoD,
Mathematics Rabindra Sadan Girls'
College
- 5 Dr. Munmi Saikia
Assistant Professor, Dept. of
Mathematics, Patharkandi College
- 6 Dr. Saugata Purkayastha
Assistant Professor, Dept. of
Mathematics, Patharkandi College
- 7 Mr. Biman Kanti Nath
Assistant Professor, Dept. of
Mathematics, Patharkandi College

Registration deadline:
October 20, 2022

ABOUT THE WORKSHOP

The workshop aims to orient and prepare students of class IX/X of Karimganj district for Mathematics Olympiad contest by developing conceptual mathematical foundations and problem-solving skill.

IMPORTANT DETAILS

- TARGET PARTICIPANTS: CLASS IX/X STUDENTS, KARIMGANJ DISTRICT
- VENUE: PATHARKANDI COLLEGE
- CERTIFICATES WILL BE PROVIDED TO REGISTERED PARTICIPANTS WHO WILL BE ACTIVELY PRESENT DURING ALL THE DAYS OF THE WORKSHOP.

CONTACT US

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One-Week Workshop on Mathematics Olympiad

October 25-29, 2022

Timing: 10:00 AM-1:30 PM

Organized by the Department of Mathematics, Patharkandi College

In association with
Assam Academy of Mathematics, Karimganj Branch
&
Axom Sarba Sikhsa Abhiyan Mission, Karimganj

Programme Schedule

Inaugural session: 10:00 AM, 25th October, 2022			
Day	Time	Topic	Resource Person
Day 1: Tuesday 25/10/2022	10:30 AM-12:00 NOON	Fundamentals/ Tricks and techniques -I for Math Olympiad	Dr. Debashish Sharma Assistant Professor, Dept. of Mathematics GC College
	12:30 PM -1:30 PM	Tricks and techniques-II for Math Olympiad	

Day	Time	Topic	Resource Person
Day 2: Wednesday 26/10/2022	10:00 AM-11:00 AM	Basics of Polynomials	Dr. Munmi Saikia Assistant Professor, Dept. of Mathematics, Patharkandi College
	11:00 AM-12:00 NOON		
	12:30 PM -1:30 PM	Problems related to polynomials	
Day 3: Thursday 27/10/2022	10:00 AM-11:00 AM	Sets, Relation, functions & related topics,	Dr. Uday Shankar Chakraborty Associate Professor, Dept. of Mathematics, Assam University, Silchar
	11:00 AM-12:00 NOON		
	12:30PM-1:30 PM	Related problems on relation, function, sets	
Day 4: Friday 28/10/2022	10:00AM-11:00 AM	Euclidean Geometry	Dr. Nibaran Das, Former HoD, Mathematics Rabindra Sadan Girls' College
	11:00 AM-12:00 NOON		

	12:30 PM -1:30 PM	AP, GP, Inequality & related topic	Dr. Saugata Purkayastha Assistant Professor, Dept. of Mathematics, Patharkandi College
Day 5: Saturday 29/10/2022	10:00AM-11:00 AM	Number systems/ Number theory	Dr. Naba Kanta Sarma, Assistant Professor, Dept. of Mathematics, Assam University, Silchar
	11:00 AM-12:00 NOON		
	12:30 PM -1:30 PM	Euclidean Geometry	Biman Kanti Nath, Assistant Professor, Dept. of Mathematics, Patharkandi College

The department of Mathematics of Patharkandi college in association with Assam Academy of Mathematics Karimganj Branch and Axom Sarba Sikhsa Abhiyan Mission, Karimganj conducted a week-long workshop entitled “One-Week Workshop on Mathematics Olympiad” during 25-29 October, 2022. The workshop aimed at orienting and preparing students of class IX and X by developing conceptual mathematical foundations and problem-solving skills. As many as 32 students from the following five schools participated in the workshop:

1. Central Public School, Patharkandi
2. Patharkandi Collegiate School, Patharkandi
3. South Point School, Patharkandi
4. Govt. Model Higher Secondary School, Patharkandi
5. Adarsha Vidyalaya, Lowairpoa

The following academicians acted as the resource persons in the workshop:

1. *Dr. Debashish Sharma*, Asstt. Professor, GC College,
2. *Dr. Uday Shankar Chakraborty*, Asstt. Professor, Department of Mathematics, Assam University
3. *Dr. Naba Kanta Sarma*, Asstt. Professor, Department of Mathematics, Assam University
4. *Dr. Nibaran Das*, former HoD, Department of Mathematics, RS Girls College,
5. *Dr. Munmi Saikia*, Asstt. Professor and Head, Department of Mathematics, Patharkandi College, Convener of the workshop.
6. *Mr. Biman Kanti Nath*, Asstt. Professor, Department of Mathematics, Patharkandi College, Coordinator of the workshop.
7. *Dr. Saugata Purkayastha*, Asstt. Professor, Department of Mathematics, Patharkandi College, Coordinator of the workshop.

The workshop began with the lightening of the lamp and distribution of students' kit in the first session on day 1 following which Dr. Debashish Sharma, Asstt. Professor, GC College conducted the second session on Fundamentals/Tricks and techniques-I for math Olympiad. Dr. Sharma explained the methods with examples and interacted with students to dissolve their queries.

On day 2 of the workshop, Dr. Munmi Saikia, Asstt. Professor, Department of Mathematics, Patharkandi College conducted the session on Basics of polynomials. Dr. Saikia discussed previous years' problems on the said topic apart from interacting with the students.

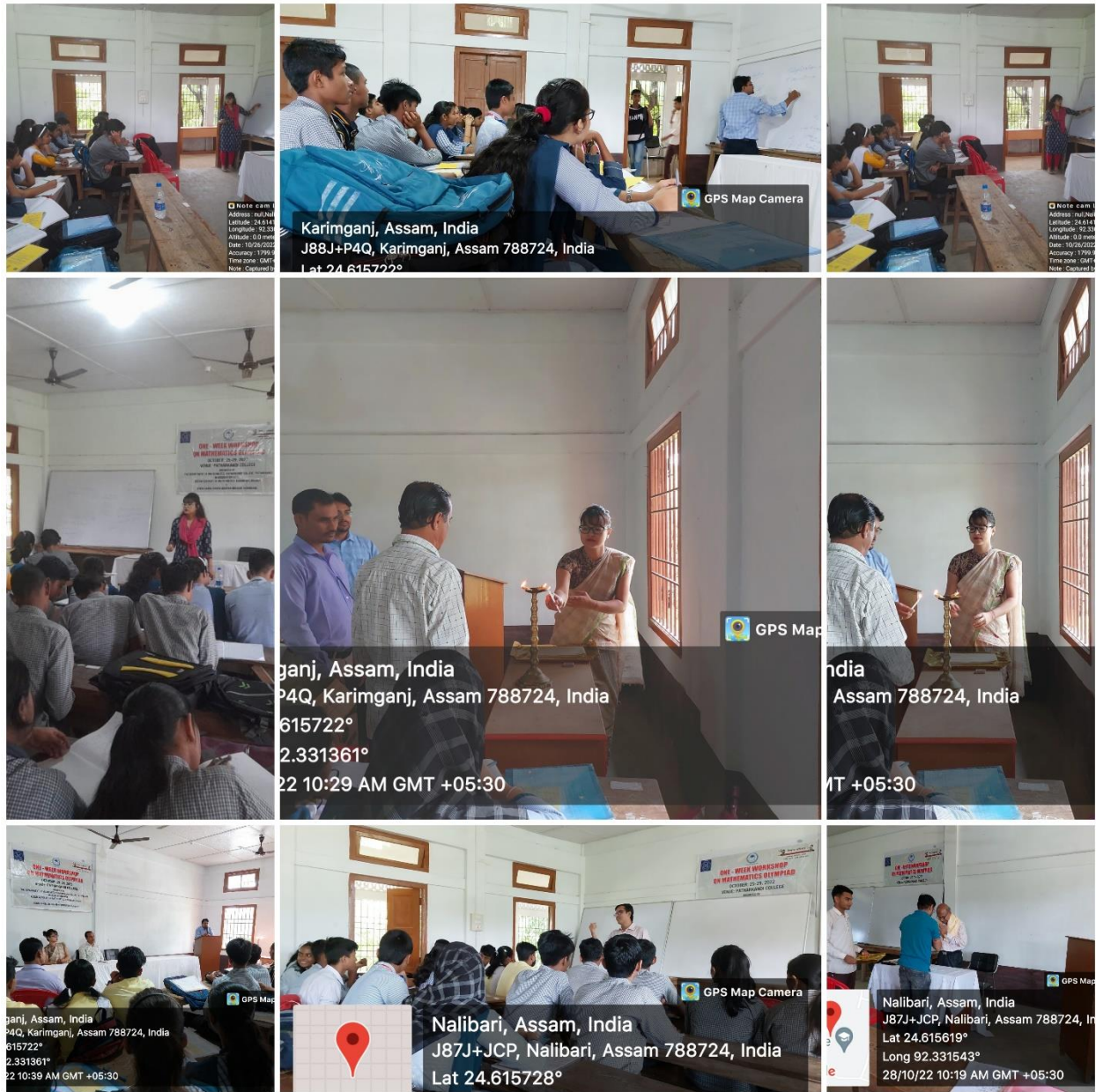
Dr. Uday Shankar Chakraborty, Asstt. Professor, Department of Mathematics, Assam University took over the session on day 3. He discussed basic set, relation, functions & related topics. During the session he solved various queries posed by the students which helped the students in understanding the concepts in an in-depth manner.

The session on day 4 was shared between Dr. Nibaran Das, former HoD, Department of Mathematics, RS Girls College and Dr. Saugata Purkayastha, Department of Mathematics, Patharkandi College. While Dr. Nibaran Das discussed about the problems on Euclidean Geometry in the first session, in the second session Dr. Purkayastha explained Arithmetic and Geometric progressions, Arithmetic-Geometric mean and its applications.

The final day of the workshop was split into two sessions. The first session was conducted by Dr. Naba Kanta Sharma, Asstt. Professor, Department of Mathematics, Assam University on how to solve problems on number theory. Mr. Biman Kanti Nath conducted the second session in which he discussed about the fundamentals of Euclidean Geometry.

The participants were provided with refreshment on each day of the workshop.

The workshop ended with the valedictory session wherein the participants provided their feedback followed by the distribution of certificates to the participants and vote of thanks offered by Dr. Munmi Saikia.



Moments captured during the workshop