



## **INMO Training Camp 2019-'20 Gujarat, Diu, Daman & DNH Region**

**24<sup>th</sup> – 31<sup>st</sup> December 2019**

**Jointly organized by**

**St. Xavier's College, Ahmedabad**

**sponsored by**

**Regional Mathematical Olympiad of  
Gujarat, Diu, Daman & DNH region  
and NBHM, HBCSE(TIFR)**

**Venue**

Department of Mathematics,  
St. Xavier's (Autonomous) College,  
Navrangpura, Ahmedabad – 380009.  
Mob: 9426383343, 8141078809

### **About the Camp**

'Indian National Mathematical Olympiad Training Camp' (INMOTC) shall be first of its type to prepare the participants for INMO and to motivate the students in the field of Problem Solving in Mathematics at high School level.

The camp is designed with Invited research lectures, discussion and practice tests. The main intention is to cultivate the habit of problem Solving in Mathematics.

### **About St. Xavier's College**

St. Xavier's College was founded in 1955 and the only grant-in-aid Christian institution of higher education in Gujarat which is run by a world-wide religious organization, the Society of Jesus, founded by St. Ignatius Loyola. It was accredited with 5 stars in 2001, reaccredited with an A+ in 2007 and with A (3.41 CGPA) in 2013. UGC has granted autonomous status in 2014 to this college.

### **About NBHM**

The **National Board for Higher Mathematics** (NBHM) was set up by the Government of India under the Department of Atomic Energy (DAE), in the year 1983, to foster the development of higher mathematics in the country, to formulate policies for the development of mathematics, help in the establishment and development of mathematical centres and give financial assistance to research projects and to doctoral and postdoctoral scholars. NBHM functions

essentially autonomously framing its own budget taking into account the funds made available by DAE.

### **About HBCSE**

Homi Bhabha Centre for Science Education (HBCSE) is a National Centre of the Tata Institute of Fundamental Research (TIFR), Mumbai. The broad goals of the Centre are to promote equity and excellence in science and mathematics education from primary school to undergraduate college level, and encourage the growth of scientific literacy in the country.

### **Convener & Coordinator:**

Dr. Udayan M. Prajapati  
Head, Department of Mathematics,  
St. Xavier's College, Ahmedabad.  
(M) (9426383343)

### **Resource Persons**

Prof. Rajendra Pawle  
Prof. N. N. Roghelia  
Prof. B. B. Rawal  
Dr. Udayan Prajapati  
Dr. Sachin Gajjar  
Dr. Savan Patel  
Prof. Dhawal Bhatt  
Mr. Dhruv Bhasin

### **Organizing Secretary**

Dr. Savan Patel

## Who can participate?

Any participant of INMO from Gujarat and neighboring state can participate. A candidate of RMO-2019 missed INMO by few marks and want to prepare for the next year can also participate.

## Important Dates

Last date to inform the coordinator: 15<sup>th</sup> December, 2019

## Accommodation

Participants will be provided accommodation in student hostel.

## Transportation

Ahmedabad is well connected by rail, road and air with all major towns and cities. St. Xavier's College is 6 km away from Ahmedabad Railway Station and 13 km away from Ahmedabad Airport. Rickshaws are easily available which run on meter.

## Registration Details

Registration can be done by sending a request mail to coordinator to the following email:

ganit\_spardha@yahoo.co.in

Registration fee covers lodging and kit. Only those participants will get Conference Kit who register in advance by paying full registration fees. In case of more than one authors, only presenting author will get certificate.

Registration fee:

- No fee for INMO selected students from Gujarat region (Registration is
- Rs. 2000/- for RMO participants but not selected for INMO of any region.
- Rs. 2000/- for INMO selected students of outside Gujarat region. (Parents Accommodation may be available on request)

Registration fees can be paid only through NEFT / Online transfer / Demand Draft. Individual having bank account in Gujarat can pay the amount by cheque. Also local participants can pay the amount by cash.

DD or Cheque should be drawn in favor of – RMO, GUJARAT REGION

## Bank details

**Account Name: RMO, GUJARAT REGION**

**Account No: 21111 01100 09883**

**IFSC Code: BKID0002111**

**Name of the bank: BANK OF INDIA**

**Account Type: Saving**

## Important Information

**It is essential for each participant to submit the scanned copy of Pay-In-Slip (online payment receipt) specifying your name to ganit\_spardha@yahoo.co.in without fail after the NEFT / Online transfer of registration and accommodation fees.**

## Topics to be discussed form Algebra, Combinatorics, Geometry and Number Theory

- 1 Theory of Equation
- 2 Algebraic Inequality
- 3 Functional Equation
- 4 Elementary Counting Techniques
- 5 Permutation & Combinations
- 6 Pigeonhole Principle
- 7 Principle of Inclusion and Exclusion
- 8 Recurrence Relation
- 9 Invariant Problems
- 10 Concurrence & Colinearity
- 11 Properties of Triangles
- 12 Properties of Circles
- 13 Construction Problems
- 14 Geometric Inequalities
- 15 Divisibility of Integers
- 16 Congruence
- 17 Theorems of Fermat, Wilson, Langrange, Euler
- 18 Chinese Remainder Theorem
- 19 Greatest Integer Function
- 20 Arithmetic Functions
- 21 Diophantine Equations