



# NATIONAL CUBE TEST COMPETITON

Season 2

ORGANISED BY

INDIAN CONCRETE INSTITUTE & RDC

- Each of the four region's students (North, South, East, West) will win ₹1 lakh

- Participants will be granted participation certificates

Most economical designs will be recognized

WIN 1,00,000/-









# **OBJECTIVES**

competition promotes proper concrete mixture proportioning and its challenges among students, engineers, and builders, focusing on quality and cost-effectiveness. It emphasizes achieving desired properties workability, strength, and durability, providing hands-on experience for participants to develop optimal mixes and practical skills for producing high-quality concrete.





## STRENGTH CRITERIA

# Participants in the

- Student category must maintain strength between 33-35 MPa
- Professional category must maintain strength between 53-55 MPa.
- Experts category should attain not less than 100 MPa on the testing date.







# **ELIGIBILITY**

The competition is open to all, and participants must fill out the registration form using the provided QR code. There is no fee for participation. A team can comprise up to three members, with a maximum of two teams allowed from one institution or organization. Institutes can conduct internal evaluations of teams and update final team names later.







## **MATERIALS**

Cubes must use local aggregates meeting IS: 383-2016 standards, max 20mm size. Inclusion of Ultrafine or Microsilica from Ultrafine Mineral and Admixtures Pvt. Ltd. is mandatory into the mix and Free supply for same will be available from nearest RDC plant. Mineral additives, from Ultrafine Minerals, shall be kept between 3-10% of cementitious materials.







# **DETAILS OF CUBES**

Teams must cast and cure cubes at their locations on the designated day. After curing for 14 days, on the 15th day the cubes should be marked with X with marker pen from corner to corner and pack the cubes in a polythene bag carefully, duly marked with the name of the participants along with their respective institute/ organization.

Each team must submit three cubes meeting standard specifications (15 cm).







# SUBMISSION OF ENTRY

Each team must provide three cubes, a mix sheet, and a workability video to their designated regional location. The packing box must indicate the team's name and address. Participants need to submit cubes with a datasheet detailing the concrete mix design, certified by a professor or department head. Submission videos should be uploaded using the provided Google-form link or QR code.







# **TESTING OF CUBES**

Cubes will undergo testing at the designated institute/laboratory of each region, and participants are welcome to witness the process. Testing will be conducted according to IS: 516-2021 standards, using direct compression.





### **EVALUATION**

RDC-ICI will appoint five jury members, whose decisions on cube acceptability are final. Judges may request clarifications before making decisions. Cubes surpassing 40 MPa or dropping below 30 MPa will be disqualified for the Student category, while those exceeding 60 MPa or falling below 50 MPa will be disqualified for the Professional category. In the Expert category, teams can exceed 100 MPa but must not fall below.

Students and professionals can choose to compete in the 100 MPa category, but experts cannot participate in other strength categories to keep the competition fair for the students!





# Cubes shall be evaluated based on following criteria by the jury members.

- Determining the average strength and deviation of three cubes.
- Assessing deviation among individual test results.
- Evaluating cube appearance and mix sheet.
- Considering mix cost and concrete workability in case of a tie.
- Deducting 1 point for each MPa deviation above or below specified limits.







# **RESULTS ANNOUNCEMENT**

Winners and respective institutes/organizations will receive notification. Certificates and awards will be distributed during separate regional award ceremony.





#### **CATEGORIES & ACCOLADES**

### **Student Category**

Civil engineering
students of
Various engineering
colleges/Institutions
Winner - #1,00,000/-

### **Experts Category**

Professional Ready Mix Manufacturers, Third Party Laboratory & University/College professors

Winner,- ₹50,000/-Runner Up -₹25,000/

### **Professional Category**

Practicing Civil engineers
Contractors,
consultants/test labs
Winner - ₹50,000/Runner Up - ₹25,000/-





## **KEY POINT OF CONTACTS**

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#### **EVENT CALENDAR**

REGISTRATION OPENS	20-APR
REGISTRATION ENDS	15-MAY
TRIAL BY PARTICIPANTS	15-MAY
ULTRAFINE MATERIAL COLLECTION LAST DATE	05-JUN
CUBE CASTING	15-JUL
SUBMIT CUBE AT PLANT LOCATION	29-JUL
CUBE TESTING	13-AUG
RESULTS ANNOUNCEMENT	15-SEP
AWARD CEREMONY	OCT 2024

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### Scan to register

