

CONQUEST

EVENT OBJECTIVE:

Concrete is an inevitable part of any type of construction. Here comes your **'Conquest'** to design concrete cylinders which are able to sustain maximum tensile load, which is one of the major load acting in any structure. But the real challenge is to achieve maximum tensile strength. Tensile strength of concrete is very important in structures subjected to tensile stresses i.e. water storage tanks, pipes, and cantilever members in structure etc. In our event, **maximum split tensile strength and the maximum score in short quiz about mix design and green materials** will be considered as the criterion for winning.

EVENT STRUCTURE:

Three concrete cylinders should be casted from M40 Grade mix of age 28 days on the day of the event. Winners will be decided by taking average of tensile strengths of three cylinders and the short quiz about mix design and green materials.

Design Specification: Design and Cast 3 concrete cylinders of size having diameter 150mm and length 300mm. These specimens will be tested at the age of 28 days for split tensile strength.

Quiz Specifications: Short quiz about mix concrete and green materials.

RULES:

1. Use of admixtures and fibers is allowed (maximum up to 3% by weight of cement) but any other type of reinforcement is not allowed.
2. The fibers should be discontinuous and randomly distributed .
3. Date of casting should be clearly engraved on cylinders.
4. Mention all the details about fibers and admixtures which are used very clearly.
5. Prepare mix design sheet showing details of each and every constituent of concrete i.e. cement, aggregate, and water etc. using Indian Standard (IS) method of mix design.
6. **Mix design sheet must be signed by Head of your Department** with their stamp.
7. Special recognition will be given for following the **MindSpark '16 theme 'A Green Expedition'**. This can be done by using green technology like using natural fibres in designing cylinders.
8. Rules may be changed without prior intimation. Participants are requested to check the MindSpark'16 website (www.mind-spark.org) for updates.

9. In case of disputes, the decisions of the organizers and the judges will be final and binding to all.

10. Teams are expected to maintain decorum. We reserve the right to disqualify any team found behaving inappropriately.

11. All team members must come with valid college ID cards and the registration receipt.

12. Participants must engrave the date of casting clearly on the top of the cylinder. This shall be an additional point in Examination of the cylinder.

TEAM AND FEE STRUCTURE:

Team Size : Maximum 3 participants per team.

Registration fee : ₹ 50/- per team.

FAQs:

Q. Who are allowed to participate in Conquest?

A. All undergraduate students of any branch and any year can participate.

However, one student cannot be in more than one team for the same event.

Q. What is the last date to start casting the concrete cylinder?

A. Cast must begin at most 28 days before the day of event. Cylinders having age less than 28 days are allowed but not more than 28 days.

Q. What types of fibers can be used?

A. You are free to use any kind of fibers but that should be mentioned at the time of testing.

Q. Which type of mix design method can be used?

A. Any type of method can be used.

Q. What documents should we bring while coming?

A. You must have your college ID card and the Real copy of the mix design sheet having the signature and the stamp of your Head of Department or the Director/Principal as well as your registration receipt.

Q. What is the scoring pattern?

A. The scoring will be done according to split tensile strength and the performance in the quiz (60% & 40% weightage respectively).

Q. Is reinforcement allowed?

A. Only discontinuous fiber reinforcement will be allowed.

Q. Is there any weightage to techniques of mix design and natural fibers use?

A. Yes, definitely. When two or more than two concrete specimens will give same split tensile strength.

Q. Can students who are not from the civil department take part in Conquest?

A. Of course. There is no branch restriction on the event.

Q. Is it possible to participate in other events of MindSpark?

A. You are free to participate in as many events as you want. However you have to manage your own schedule.

Q. Is embedding date of casting on top of cylinder important?

A. Yes, if you tie with another participant and if your cylinder does not have the date of casting embedded, the result may be additional marks to the other participant and if other participant takes objection, a strict decision can be taken against you if the date is not embedded.

EVENT HEADS:

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