



# **BRIDGE BLITZ COMPETITION GUIDELINES**

### **PROBLEM STATEMENT**

Design a truss bridge using Popsicle sticks (ice cream sticks) satisfying the stated Constraints.

#### **VENUE**, **DATES**, **TIMINGS**

Auditorium.

Round 1: Date - 2nd March [1:00pm to 6:00pm] Round 2:Date - 3rd March [11:00am to 1:00pm]

#### **Event Structure**

- Round 1: Teams should construct the model during the event in the stated time period[5hrs+1hr(if required)}. The participants can test their structure to check for the strength of the model.
- Round 2: Testing of the bridge.

#### Materials(provided)

- Use only the popsicle sticks provided by the club.
- Sticks can be altered by cutting or notching at any angle with use of scissors.
- Only Fevicol can be used as adhesive, use of other adhesives may lead to disqualifications.

#### **Bridge Dimensions**

- Spam Length = min 50
- length of loading platform = min 30 cm
- Width = min icecream stick length.
- Height = min icecream stick length





#### **Team Size:**

- 4 students per team.
- Maximum registrations 30 teams.(10 junior category)

#### Construction

- Sticks can be stacked together lengthwise to form stronger structural elements or to make long span elements.
- Maximum number of sticks that can stack together is three.

#### Judging and Scoring

- First the structure will be reviewed to check if it violates any rules mentioned.
- The scoring of the structure will be based on performance as well as aesthetics.
- The bridge will be scored on how well the material has been used to support the load.
- The load will be applied on the bridge's platform.
- The bridge model will be loaded till failure. The maximum efficiency observed by judges at the point of failure and the load at that moment will be used to evaluate the Structure.
- The efficiency will be calculated as the ratio of ultimate load capacity and the bridge weight.

# Efficiency= (Applied load \* Height of platform from the base of bridge) / (Weight of bridge.)

- The bridge will also be scored on aesthetics. The judges will judge the bridge based on the detail to connections and members, the uniqueness of the design and its overall look.
- The failure of the bridge will be noted by judges.
- The load will be applied on the bridge's platform till the failure based on judges observation.
- In the case of two or more bridges with the same efficiency, the first priority is given to the bridge with the highest applied weight capacity. Next, priority is given to the bridge with the lower weight, and lastly, to the bridge with the maximum height.

#### Penalties and disqualification criteria

Violating any of the conditions mentioned underneath, penalty will be imposed according to the judges and may lead to disqualification:

- Dimensional specifications are not met (disqualify).
- Minimum bearing capacity should be 20kg.(disqualify)(senior category)
- Minimum bearing capacity should be 10kg.(disqualify)(junior category)
- Use of material, except the ones provided (disqualify).







- If truss bridge configuration criteria are not fulfilled(disqualify).
- In case of any discrepancies, the decision taken by the judges and the council will be the final verdict.(penalty).

## **AN IMPORTANT NOTE:**

- The organizers reserve the right to modify the rules or guidelines at any time. Any such changes will be communicated to the participants promptly.
- Decisions made by the judging panel will be final and binding on all teams. No appeals or queries regarding the judgment will be entertained.
- Prize pool is subjected to the number of participants and on the discretion of the organising committee.
- Teams are responsible for ensuring their submission complies with the guidelines.
- **Cliffesto'25** reserves the right to disqualify any team at any stage for non-compliance with the rules or misconduct.
- For any queries or clarifications, participants are encouraged to contact the **Cliffesto'25** organizing team.

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