

# **POPSICLE BRIDGE**



# **CONTENTS**

1. Introduction
2. Event rules and Specifications
  - 2.1. Eligibility
  - 2.2. Team Size
  - 2.3. Rules
  - 2.4. Judging criteria and processes
  - 2.5. Prizes and appreciation

## **1. INTRODUCTION**

This Ignus, we bring you the most awaited popsicle bridge making competition where you will get a chance to make Sturdy, Attractive and the most efficient bridge and thereby getting a chance to showcase your all knowledge about Civil Engineering.

## **2. EVENT RULES AND SPECIFICATIONS**

### **2.1. ELIGIBILITY**

Any student from a recognized institute/college can participate in this event.

### **2.2. TEAM SIZE**

- Teams as well as individuals both are allowed to participate.
- A team may consist of maximum 3 members. Students from different colleges cannot form a team.
- The students must carry valid student ID cards of their college which they will be required to produce at the time of registration.

## 2.3. RULES

- The bridge must be 50cms-60cms in length (not more than 60cms).
- Bringing any ready-made model or any part of the design is strictly prohibited.
- Participants can bring their pre-designed model made on paper as well as on any CAD software.
- There is no limit on number of sticks used by the participants but obviously less weight and more weight bearing design will get more marks
- Apart from the popsicle sticks only the following items are allowed in the competition
  - Super glue (and derivatives)
  - Wood glue
  - Gorilla glue
  - Elmer's glue
  - Rubber cement
  - 1 Glue Stick (Hot glue gun).

If participant is found with any other material other than what specified may lead to their Disqualification.

## 2.4. JUDGING CRITERIA AND PROCESSES

- First the Bridge will be judged on visual basis for Aesthetics, Cleanliness and any discrepancies. (10 marks)
- Second, it will be inspected for if all the dimensions are as specified or not. (5 marks)  
Note: If dimensions are not as specified, 1 mark for each 1 cm error will be deducted. For more than 5cms error, the team will be disqualified.
- Third, the total weight will be measured using common weighing machine and will be used to calculate Efficiency of the bridge further.
- Forth, the model will be kept on a platform depicting a river of 50cms river width.
- Fifth, weight bars will be kept on the centre of the bridge model till the model ruptures (therefore keep clearance for keeping weights), weight will vary from grams to milligrams for a better competition.  
Hence, the **Efficiency** will be calculated by  
$$\text{Efficiency} = \frac{\text{Max Load bearing}}{\text{weights of the bridge}}$$
(30 marks)
- Extra 5 marks will be awarded for any type of genuine creativity or innovation is implemented on the model. For this step team has explain their idea to judge and convince him for its importance. (5 marks)

**Total marks- 50**