

PRODYOGIKI '19

Sand Tower Competition

Sand is a granular material composed of finely divided rock and mineral particles. It is defined by size, being finer than gravel and coarser than silt. Sand can also refer to a textural class of soil or soil type; i.e., a soil containing more than 85 percent sand-sized particles by mass. It is also used as an ingredient in the construction of buildings, towers, bridges and in many other civil constructions.

PROBLEM STATEMENT

Teams need to make a model of a sand tower using the basic sand, water and simple wood sticks.

Note: Material for sand tower will be provided (Team ISTE will provide all the materials required to make a sand tower)

MODEL RULES

- a) Size restrictions: the diameter of the tower should not be more than 25 cm.
- b) Only wooden sticks are allowed for reinforcement of the tower.
- c) Only water is allowed for the binding of sand. You can not get any other lubricant for the binding of sand.
- d) Team can use maximum only 6 sticks for the reinforcement of the tower. No extra sticks will be provided.

Note: If any team found violating any of the above terms and conditions, ISTE has all the rights to disqualify them.

JUDGING CRITERIA

- Time (15 points) : Time given to make the tower is 30 minutes . if you are able to make the model in time then you will get the full marks 5 marks are deducted for every 15 minutes.
- Height(30 points) : The minimum height of tower should be 45 cm. no max. limit for height. If any team able to make the tower more than 45 cm then extra points will be given to that team for every 10 cm of increase in height.
- Shear force(35 points): A amount of weight will be put on the tower to check the shear force. This marking will be relative acc. To the teams the max. weight bearing tower will get the full marks and accordingly other teams are judged.
- Diameter (20 points) : The diameter of the tower should not be more than 25 cm. if any team is not able to follow this rule then 5 marks will

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be deducted for every increase in 2.5 cm of diameter. If the diameter of the tower is more than 30 cm then the tower will not be considered for judging. The top diameter of the tower should not be more than 15 cm.

RULES AND REGULATIONS

1. Event is open to all .
2. Maximum team size is 4.
3. Participants can form teams from different branches.
4. No two teams must have any common member.
5. Teams are not allowed to touch their model once judging criteria started .
6. The decision of the judges shall be final and abiding. The participant that violates the rule above or the spirit of the competition will be disqualified.

CONTACT US

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