#### **F1D Flight Plane (Institutional Level)**

Date: 29 March 2019

Venue: Ground

Prize:

1<sup>st</sup> Prize: - Rs. 5000/-2<sup>nd</sup> Prize: - Rs. 3000/-

Organizing Team: Team Meta Morph

Description: We welcome you to the world of Indoor Free Flight. F1D Flight Plane utilizes the elastic energy of rubber for free flight, with a flight timing of about 25-30 minutes depending upon the type and windings of rubber used. Although the structure seems incredibly simple, there is an immense amount of ingenuity and type of materials that go into its construction. We use lightweight balsa wood for frame construction of the plane and micro film for covering the wings. You will get a chance to make your very own indoor airplane and go head to head with other participants in a battle that will challenge your capabilities such as resource management, design skills, and aeronautical knowledge.

#### Rules:

- 1. This a team event in which a team of about 3-4 participants must be built.
- 2. Each team will construct a plane of specified dimensions using the materials provided.
- 3. The number of windings for rubber will be fixed for all the participating planes along with the rubber length.
- 4. Winners will be declared based on the total flight time of their plane.
- 5. The plane frame should not differ by a certain percentage of the given dimensions.
- 6. Propeller size will be the same for all constructed planes.
- 7. No materials are allowed to be used other than the ones provided.
- 8. An additional chance will be provided in case of obstruction to flight.
- 9. Planes should be designed in such a way that they are able to fly in a circular path. Judging Criteria: Total flight time of the finished plane

# Contact Information:

## **Quicksand Drifts (Departmental Level)**

Date: 30 March 2019

Venue: Student Park

Prize: :-

1<sup>st</sup> Prize: - Rs. 5000/-2<sup>nd</sup> Prize: - Rs. 3000/-

Organizing Team: Team Meta Morph

## Description:

Ever wondered how a simple car race would be if the racetrack is composed of a Non-Newtonian material? Quicksand Drifts gives you a chance to actually try and see the results yourself! Compete with others as you fabricate and manufacture your own car that can withstand the baffling properties of this material. It is not the car that comes first who wins. Rather, it is the car that covers the most unsunk, that becomes the champion.

#### Rules:

- 1. This is a team event comprising teams of about 4-5 participants each. Participants of both inter and intra-institute level are eligible to join this event.
- 2. Each team is required to design and fabricate their own mini-sized car before the event. The cars that are completely designed and fully functional will be allowed to enter the event. Participants are encouraged to make necessary wheel modifications for their respective cars.
- 3. Each car will be placed on a platform in a non-Newtonian racetrack before the commencement of the race.
- 4. It is not necessary for any car of a respective team to reach the finish line; winners will be decided based on the track covered by their cars within the respective time period.
- 5. Each team will get 3 chances and the best two timings will be taken into consideration for the final judgement.

# Judging Criteria:

1. Total distance covered by the team car before sinking

## Contact Information:

#### Slingshot Test( Departmental Level)

Date: 30 March 2019

Venue: Students' Park

Prize:

1<sup>st</sup> Prize: - Rs. 1000/-2<sup>nd</sup> Prize: - Rs. 700/-

Organizing Team: Team Meta Morph

## Description:

Put your critical and analytical abilities to the test with this fun-based technical event. Immerse yourself in a fierce competition among your competitors, as you compete using only your brains and speed. Put your mind to the test, examine your speed and agility, and pour yourself over the intricacies of the riddles and mysteries that will be presented before you and your challengers. Because only the creative and crafty can thrive in this arena.

#### Rules:

- 1. This is an individual event for participants of both inter and intra-institute level.
- 2. Each participant will be provided with 5 stones. The game arena will consist of about 30-40 balloons.
- 3. The participant must try to burst as many balloons as possible using the stones provided.
- 4. Each balloon will contain a clue, riddle, or puzzle that the participant has to decrypt or solve within the stipulated time.
- 5. Winner will be decided according to the number of riddles or puzzles solved correctly by a participant within the stipulated time.

Judging Criteria: Total number of riddles and puzzles answered correctly within stipulated time

#### Contact Information:

## **Capacito Combat (Preparatory Event)**

Date: 31 March 2019

Venue: Students' Park

Prize:

1<sup>st</sup> Prize: - Rs. 7000/-2<sup>nd</sup> Prize: - Rs. 5000/-

Organizing Team: Team Meta Morph

Description: Step into the inner complexities of the conventional capacitor that you had learnt about in 12<sup>th</sup> grade through this fun, technical and electrifying event. Engage in an exhilarating combat with your opponents by racking your brains and applying all that you have learnt in high school physics to design and fabricate your very own energy harvester. Channelize your energy, confront your inner critical abilities and technical skills, and put them to the test by setting your product up to compete with the rest. The competition is tough, and so is the evaluation.

#### Rules:

- 1. This is a team event requiring about 1-3 participants in one team. Participants from both inter and intra-institute levels are eligible for joining this event.
- 2. Each team will be provided adequate amount of materials required to fabricate a conventional capacitor. Each team must utilize the materials provided to design a capacitor within the specified time.

# Judging Criteria:

- ➤ Value of capacitance acquired per unit area of conducting plate
- > Size and Sturdiness of the designed material
- > Aesthetic appeal of the finished product

## Contact Information: