



**MADRAS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF AEROSPACE ENGINEERING
ASSOCIATION OF AERONAUTICAL ENGINEERS**

MAYDAY MAYHEM (AIRCRAFT CRASH INVESTIGATION)

APRIL 8, 2023.

“Even when the plane crash happened, I wasn't mad at God. I just knew that there was a reason that I didn't know about why it happened.”

- Reba McIntyre.

Event Description:

The first and foremost motive of every aeronautical engineer is to design and develop an Aircraft that's safe and secure. But under certain unavoidable circumstances, that's not to be the case. Although the odds of a plane crash are 1 in 11 million, it can be catastrophic with potentially hundreds of lives at stake. This is where an Air crash Investigation takes a centre stage in carrying out a detailed Examination and Assessment of the events that have occurred and offers practical and feasible solutions to preclude or avert such mishaps in the future.

The airline industry is one such industry where you can't categorize the mistakes that one commits as small ones or big ones, all the errors should be dealt with the same amount of care and caution. So, this event delivers lots of insights on Air crash events that have happened over the years and provides you with an opportunity to investigate and share your thoughts/solutions to the real-life crash case scenario.

Together let's unlock the Sherlock Holmes that is residing within us...

Event Format:

The Event takes place in 2 rounds:-

1. Qualifiers : 9.00 am – 12.00 pm
2. Finale : 1.30 pm – 4.00 pm

1. Qualifiers:-

This round of competition is meant to assess the basic knowledge of the competitors on Famous Aircraft Crashes that occurred in the 21st century.

Questions prepared will demand answers from the competitors regarding:

- Time and Place of Aircraft Crash.
- Reasons for the Crash and subsequent remedial solutions.
- Details of the Aircraft, Airline/Government Agency (in case of commercial/military aircrafts).
- Number of Casualties involved, Mode of documenting Proofs and Evidences, during crash investigation.

The Qualifiers has 2 independent set of Questions, out of which **only one set** of the competing team's willing can be answered.

| | SET 01 - NORMAL | SET 02 – BONUS/TRUMP CARD |
|---------------------|--|---|
| Type | 30 MCQ Questions | 10 MCQ Questions |
| Difficulty | Easy to Hard | Medium Hard to Hard |
| Nature of Questions | Mentioned Above. | Questions demand answers regarding 2 crash incidents in Asian Continent. |
| Qualifying Criteria | Secure maximum possible score to advance to next level. ➤ Referring FAQ is the first qualifying criterion. | 2 separate modules containing 5 Questions each, are put forth for each incident. Refer FAQ for more details, ➤ Referring FAQ is the first qualifying criterion. |

FAQ:-

- **Answers to only one set is considered valid for evaluation.** The competing team has to strike-off the other set of Questions. **Else, evaluation will be considered invalid.**
- There is **only one correct answer** to each question.
- **Advantage can only be obtained through Bonus Question Set** and not through Normal Question Set.
- **Qualifying through Bonus Question Set involves following constraints:**

| | MODULE 01 | | MODULE 02 | |
|---------------|---|------|---|--|
| Constraint 01 | All 5 Questions in Module 01 are Correct = Qualified. | (or) | All 5 Questions in Module 02 are Correct = Qualified. | |
| | Else = Not Qualified. | | | |
| Constraint 02 | All 10 Questions in Bonus Set are correct = Qualified with Advantage. | | | |
| | Else and Constraint 01 Satisfied = Qualified without Advantage. | | | |

- i. **Constraint 01:** Scores **OTHER THAN 5/5 THAT TOO IN A SINGLE SEPARATE MODULE** will **NOT** be **CONSIDERED** for entry into finale.
- ii. **Constraint 02:** Scores **OTHER THAN 10/10** in the Bonus set will **NOT** be **CONSIDERED** for entry into finale with the advantage.

2. Finale – Crashed Parties:-

Rules:

1. *3 teams qualify from the qualifiers round to play the finale.*
2. *Teams will be given, a real time crash investigation scenario to work on.*
3. *After which, teams will have to come up with solutions and present them to the jury, based on which, winners shall be decided and announced.*
4. *The solution presented shall have not more than 10-sentences.*

| Evaluating Element | | | Total Points |
|---------------------------|--------------|---------|-------------------|
| Viva-Voce | 10 questions | 2 point | 20 points |
| Solution's Logic | 1 sentence | 2 point | 20 points |
| Jury's Expectation | 5 keywords | 2 point | 10 points (BONUS) |
| Sub-Total | | | 50 points |

5. Evaluating Pattern:-

- *Viva-Voce will consist of questions asked by the Jury that are related to the scenario, prepared well-in-advance. It has nothing to do with the 10-sentence solution provided by the team.*
- *Rather, the 10-sentence solution will be evaluated under “Solution’s Logic” division.*
- *The team gets 2 bonus points for each keyword that matches with the 10-sentence solution prepared by the Jury. Totally, there will be not more than 5 keywords in the Jury’s 10-sentence solution.*

6. Advantage Details:-

The team bearing the advantage can get rid of 2 questions out of 10 after it is put forth to them by swapping only one question to each competing team of their choice. One successful swapping the team bearing the advantage will be getting the same question number yet to be asked for other competing teams (i.e) if the team swaps question no.6 then they get only question no.6 that is yet to be asked for their competing team.

Team with the maximum number of points wins the game.

ELIGIBILITY:

- Competitors are required to produce their college ID during participation.
- Individual Participation (or) 2 members/team (or) 3 members/team (or) maximum 4 members/team.

ENTRY FEE: ₹150

PRIZES WORTH: ₹600

****Participation Certificates will be provided for all Competitors****

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