ABOUT

Andhra TECK LEAGUE

Teck Team Solutions, established in 2014 in Visakhapatnam, Andhra Pradesh, is a renowned training and product development firm specializing in Industry 4.0 technologies. Over the years, we have made significant contributions to the field of technical education and development. Our commitment to innovation and growth has led us to organize various successful events in the past.

In 2016, 2017, and 2018, we organized the highly acclaimed technical event called **Mechatronics,** which provided a platform for students to showcase their skills and knowledge in the field of various technologies. Building on our previous successes, in 2023, we are thrilled to introduce the upgraded version of our event, known as **Andhra Teck League (ATL)**. The ATL event is specifically designed for students, aiming to inspire, educate, and nurture their interest in emerging technologies.

Code - O - tsav

Unleashing the limitless potential of digital world

Coding is a powerful tool for problem-solving. It allows you to break down complex problems into smaller, manageable steps and design logical solutions. By writing code, you can develop algorithms and implement them to solve real-world challenges efficiently. Coding plays a crucial role in driving technological advancements. It enables the creation of software applications and systems that enhance productivity, communication, and efficiency in various industries.

Coding competitions typically have time limits for participants to solve the given problems. This time pressure adds an element of urgency and tests participants' ability to manage their time effectively. Competitors are awarded points based on their solutions to the coding problems. The scoring may consider factors like correctness, efficiency, and speed of the solution.

Who Can Apply:

JUNIOR LEVEL

8th to 12th Standard

SENIOR LEVEL

Any Engineering Students

Levels of Competition:

This contest will be conducted in 3 different levels

Preliminary Level

Zonal Level

Final Level

Problem Statement

Junior Level Coding - Scratch Programming:

1. **Eligibility:** Grade 8th to Grade 10th students with basic Scratch programming knowledge.
2. **Preliminary Round:** Online MCQs (30 questions, 30 minutes).
3. **Zonal Round:** On-spot animation/story creation based on theme.
4. **Final Round:** Game development using Scratch.

Senior Level Coding - Python Programming:

1. **Eligibility:** B.Tech students with Python programming proficiency.
2. **Preliminary Round:** Online MCQs (30 questions, 30 minutes).
3. **Zonal Round:** On-spot coding challenge in Python.
4. **Final Round:** Challenging Python programming questions.

Note: Zonal rounds are conducted in each district for both Junior and Senior levels. Laptops should be brought by the candidate.

Rules of Levels

Junior level coding challenge:

Preliminary Round:

1. The preliminary round will be conducted using Scratch block coding.
2. Registered candidates will receive a Google Form link via email.
3. The Google Form will consist of 30 multiple-choice questions (MCQs) related to Scratch programming.
4. Before the MCQs, candidates will be required to fill in their personal details, including name, contact number, email, name of the school and class.
5. Once the candidate opens the Google Form link, a 30-minute timer will start, allowing them to attempt the questions within the time limit
6. The MCQs will test the candidate's understanding of Scratch concepts and problem-solving abilities.
7. Those who score above the cutoff in the preliminary round will qualify for the zonal level.

Zonal Round:

1. The zonal round will take place at a designated venue, depending on the organizers' arrangement.
2. Participants will be given a specific theme on the spot and will be asked to design a story or animation using Scratch.
3. The theme will be related to creative and educational aspects to challenge the candidates' coding and storytelling skills.
4. Judges will evaluate the projects based on creativity, coding complexity and adherence to the theme.
5. The top-performing candidates from the zonal round will advance to the final level.

Final Round:

1. The final round will feature the qualified participants from different regions competing against each other.
2. It can be organized as an in-person event at a central location depending on the circumstances.
3. In this round, students will be tasked with developing a game using Scratch block coding.
4. The game development challenge will assess the candidates' ability to create interactive and engaging games while demonstrating their coding prowess.
5. Judges will evaluate the games based on gameplay, graphics, innovation and technical complexity.
6. Winners and runners-up will be announced and awarded based on their performance in the final round.

Senior level coding challenge:

Preliminary Round:

1. The preliminary round will be conducted using Python programming language.
2. Registered candidates will receive a Google Form link via email.
3. The Google Form will consist of 30 multiple-choice questions (MCQs) related to Python programming.
4. Before the MCQs, candidates will be required to fill in their personal details, including name, contact number, email, name of the college and academic year.
5. Once the candidate opens the Google Form link, a 30-minute timer will start, allowing them to attempt the questions within the time limit.
6. The MCQs will assess the candidate's knowledge of Python syntax, data structures, algorithms, and problem-solving skills.
7. Those who score above the cutoff in the preliminary round will qualify for the zonal level.

Zonal Round:

1. The zonal round will take place at designated venues, depending on the organizers' arrangement.
2. Participants will be given a coding challenge on the spot, which they need to solve using Python programming.
3. The challenge will be designed to test the candidates' coding abilities, logical thinking, and algorithmic skills.
4. Judges will evaluate the solutions based on correctness, efficiency, and adherence to coding best practices.
5. The top-performing candidates from the zonal round will advance to the final level.

Final Round :

1. The final round will feature the qualified participants from different regions competing against each other.
2. It can be organized as an in-person event at a central location, depending on the circumstances.
3. In this round, students will be presented with a set of challenging questions related to Python programming.
4. The questions will cover advanced topics, data manipulation, complex algorithms and problem-solving scenarios.
5. Participants will be required to provide detailed solutions to the questions, showcasing their expertise in Python programming.
6. Judges will evaluate the answers based on correctness, efficiency and the overall quality of the code and explanations.
7. Winners and runners-up will be announced and awarded based on their performance in the final round.

Judging / Selection Criteria :

Junior Level :

Preliminary Round :

1. **Correctness:** Number of correct answers in the MCQs.
2. **Time Management:** Efficiently using the 30-minute time limit to attempt as many questions as possible.
3. **Basic Scratch Knowledge:** Assessing the understanding of fundamental Scratch programming concepts.

Zonal Round :

1. **Creativity:** Originality and innovation in designing the story or animation.
2. **Coding Complexity:** Complexity of the code used in the project.
3. **Theme Adherence:** How well the project aligns with the given theme.
4. **Presentation:** Quality of the presentation and storytelling in the project.

Final Round :

1. **Game Design:** Evaluating the overall design and mechanics of the Scratch game.
2. **Gameplay:** The quality of the gameplay and user experience.
3. **Graphics and Animation:** The visual appeal and animation used in the game.
4. **Technical Complexity:** Complexity of the coding logic and implementation.

Senior Level :

Preliminary Round :

1. **Correctness:** Number of correct answers in the Python MCQs.
2. **Time Management:** Efficiently using the 30-minute time limit to attempt as many questions as possible.
3. **Python Knowledge:** Assessing the understanding of Python syntax, data structures, and algorithms.

Zonal Round :

1. **Problem-Solving:** Evaluating the approach and correctness of the on-spot Python coding challenge.
2. **Efficiency:** Optimizing the code for better performance.
3. **Coding Best Practices:** Adherence to clean and readable coding practices.

Final Round :

1. **Algorithmic Thinking:** Analysing the problem-solving ability and algorithm design skills in Python.
2. **Code Quality:** Evaluating the correctness, efficiency, and elegance of the solutions.
3. **Logical Reasoning:** Assessing the candidate's logical and analytical thinking in Python programming.
4. **Presentation (Final Round - Senior Level):** For in-person events, how well the participant communicates their thought process and explanations.

Reference Links :

Scratch programming:

https://wiingy.com/blog/scratch-programming/

Python programming:

https://www.w3schools.com/python/

Participation Eligibility :

1. Participation Team Should consist minimum of 02 to 04 members
2. All team members can register from one primary contact number
3. Initial registration is mandatory to participate in the event.
4. Every participant should have official ID Card from the respective institution / school.
5. All team members should belong to same institution / school only.
6. Team members should willing to participate zonal & Final level contests at outstation locations as per the schedules

NOTE: The competition organizers reserve the right to modify the rules and regulations if necessary. They also reserve the right to disqualify any entry that violates the rules or disrupts the competition.

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