Comprehensive Report on the Online Quiz Competition on "Recent Trends in Agriculture and Climate Change" Organized by the Agri-information Club, Department of Agriculture, IIAST on 16th April 2025

In alignment with the growing need to integrate modern scientific understanding with practical agricultural knowledge, the **Agri-information Club** of the **Department of Agriculture, IIAST** proudly organized an **Online Quiz Competition** on the theme *"Recent Trends in Agriculture and Climate Change"* on **16th April 2025**. The event served as a platform for academic engagement, awareness-building, and intellectual exchange among students from various agricultural disciplines. With agriculture facing unprecedented challenges due to climate change, technological disruptions, and increasing demands for sustainable practices, this initiative was both timely and significant in fostering a generation of environmentally conscious and technologically adept agricultural professionals.

The overarching objective of the quiz was to enhance students' comprehension of contemporary agricultural advancements and their intersection with environmental dynamics. By creating an interactive and knowledge-enriching experience, the competition encouraged critical inquiry, deeper understanding, and application-oriented thinking among the participants. The quiz was envisioned not merely as a test of knowledge but as an opportunity to inspire future research interests, interdisciplinary thinking, and proactive engagement with global agricultural issues.

The quiz encompassed **five major thematic areas** which are currently influencing and redefining the global agricultural landscape:

1. **AI-Driven Agriculture:** This section explored the revolutionary impact of **artificial intelligence** on agriculture, focusing on technologies such as precision farming, automated irrigation systems, drone-based crop surveillance, disease prediction models, and decision support systems. The topic emphasized how AI tools can enhance farm productivity, reduce costs, and promote sustainable practices through data-driven interventions.
2. **Climate Change and Its Agricultural Implications:** With climate change posing a serious threat to food security and agricultural stability, this segment addressed the wide-ranging impacts of global warming on crop yields, pest patterns, water availability, and soil fertility. It also delved into **climate-resilient practices**, including

crop diversification, conservation agriculture, agroforestry, and integrated water resource management. Participants were tested on adaptive strategies that contribute to sustainable farming under changing climatic conditions.

3. **Genetically Modified (GM) Crops:** Participants were assessed on their understanding of **biotechnology in crop development**, including the creation, regulation, and ethical implications of genetically modified crops. The quiz included questions on the benefits of GM crops in enhancing yield, pest resistance, and nutritional value, while also addressing public perception, biosafety concerns, and international regulatory frameworks.
4. **Nano Fertilizers and Nanotechnology in Agriculture:** This modern and evolving topic introduced students to the concept of **nanotechnology in agriculture**, specifically the use of nano fertilizers. The questions examined how these fertilizers improve nutrient use efficiency, reduce leaching and runoff, and contribute to environmental conservation. It also highlighted ongoing research and innovations in nano-enabled delivery systems for agrochemicals and growth regulators.
5. **Bio-stimulants and Sustainable Crop Management:** The section focused on **bio-stimulants**, both natural and synthetic, that enhance plant growth, stress tolerance, and productivity without adversely impacting the environment. Students were introduced to the mechanisms of bio-stimulants, their role in organic farming, and their contribution to soil health and crop resilience.

The competition attracted an **enthusiastic response from 79 students**, representing a wide spectrum of academic programs including **B.Sc. (Hons) Agriculture**, **M.Sc. (Agriculture)**, and **B.Tech. (Agricultural Engineering)**. This diverse participation highlighted the growing interest among students in contemporary issues and innovations in agriculture. The **online mode** of the quiz ensured accessibility and convenience, allowing students to participate from different locations without geographical constraints. It also facilitated real-time interaction, making the event dynamic and inclusive.

The quiz was designed to challenge participants at various cognitive levels—ranging from basic knowledge recall to complex application-based questions. The questions encouraged students to draw on both theoretical understanding and practical insight, fostering a well-rounded evaluation. The overall performance of participants reflected not only strong academic preparation but also an eagerness to engage with cutting-edge issues in agricultural science.

A detailed analysis of quiz results was conducted, and the **score distribution** was categorized into three performance ranges:

- **0–50%**: Indicating foundational awareness with room for further study.
- **50–80%**: Reflecting a solid grasp of concepts and analytical capability.
- **80–100%**: Demonstrating exceptional understanding, critical thinking, and academic excellence.

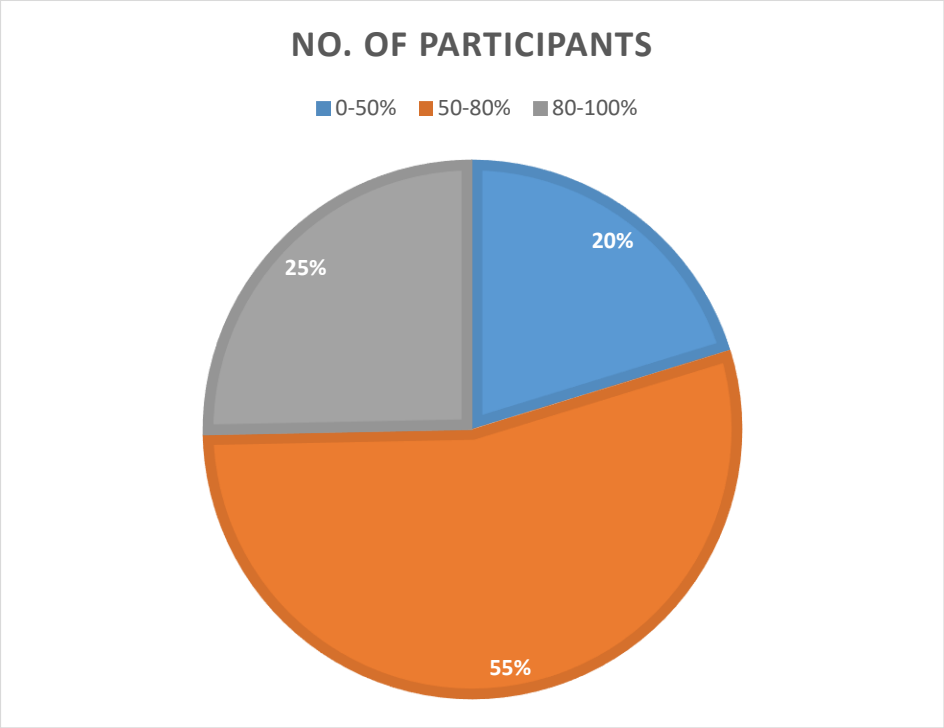

Figure: Pie Chart reflect the percentage of participant's mark obtain range (i.e. 0-50%, 50-80% and 80-100%)

The success of the quiz would not have been possible without the dedication and support of several key individuals. **Dr. Abdul Mazeed**, Club Coordinator of the Agri-information Club, extends his heartfelt gratitude to **Prof. Saba Siddiqui**, Head of the Department of Agriculture, for her steadfast guidance, expert insights, and continuous encouragement. Her leadership played a vital role in the conceptualization and smooth execution of the quiz. **Prof. Mohd. Haris Siddiqui**, Dean, Faculty of Agricultural Science & Technology, whose visionary outlook, motivational support, and strategic direction significantly contributed to the event's academic impact and relevance. **Miss Adiba Mashood** and **Mr. Akash Yadav**, Student Coordinators, for their unwavering commitment, organizational capabilities, and technical

expertise. Their meticulous planning and coordination ensured the event ran efficiently and professionally.

This quiz competition was more than just an academic exercise it served as a platform to **ignite intellectual curiozsity**, encourage **peer learning**, and promote a culture of **lifelong education and innovation**. The feedback received from participants was overwhelmingly positive, with many expressing interest in participating in similar events in the future.

In conclusion, the **Online Quiz Competition on "Recent Trends in Agriculture and Climate Change"** stands as a testament to IIAST's commitment to excellence in agricultural education and knowledge dissemination. It reaffirmed the importance of equipping students with the tools to think critically, act responsibly, and contribute meaningfully to the field of sustainable agriculture in the face of global environmental challenges.

The Department of Agriculture, through the Agri-information Club, looks forward to organizing **more such intellectually stimulating, informative, and interactive events** in the coming academic sessions. These initiatives will continue to support our mission of fostering academic growth, technological advancement, and environmental stewardship among students and the broader academic community.

Creative or the Quiz Competition

Sample Certificate of Participation