

# PYIMS National Team Selection Pipeline

V1: 27-July-2027

## Overview

To ensure more robust talent identification and expand our search to a larger student body, PYIMS has transitioned its selection process from traditional tournament-style rounds to a six-stage journey. While the format has evolved, the assessment metrics remain deeply rooted in the IYPT standard, emphasizing critical analytical depth, experimental mastery, and communicative defense of scientific results. Please note here that the technical infrastructure is being managed by our technical partner, M3D.

## The Six-Stage Pipeline

- **Stage 1: Registration**
  - Candidates initiate their journey through the official PYIMS portal at <https://pyims.org/portal>
  - This stage provides immediate PYIMS community integration and access to foundational resources essential for preparation of the coming assessments through <https://community.markhor3d.com>.
- **Stage 2: Online Mentoring**
  - All the registered participants engage with structured, live mentoring sessions and curated study materials.
  - The curriculum shifts focus from rote learning to scientific inquiry and problem modeling, mimicking the research phase of IYPT problems.
- **Stage 3: AI-Proctored Assessment**
  - A rigorous, merit-based online test is administered to establish a national ranking all over Pakistan.
  - The assessment evaluates essential quantitative and analytical physics skills on a highly curated assessment via an automated, AI-powered system to ensure high-scale objectivity.
- **Stage 4: On-Site Hands-On (Mystery Box) Challenge**
  - The top 1000 candidates from the online test participate in regional on-site challenges called The Mystery Box challenges.
  - Working in small groups, participants investigate, measure, and analyze a previously unknown experimental setup and defend their findings under observation. Students are divided in teams randomly at run times and compete with an opposing team.
  - This stage is evaluated based on scientific insight, experimental competence, instrument-building efficiency, and the logical defense of conclusions.
  - The stages are judged on a similar IYPT fight rubric by local community judges and peers from educational institutes for maximum transparency.
- **Stage 5: Intensive Week-Long Boot Camp**

- Up to 50 top performers are invited to a fully funded residency at Lumora International School Islamabad to engage in intense, peer-reviewed physics fights and advanced lab work. They start working on the officially announced IYPT problems for the 2027 international rounds.
- Mentors assess candidates not just on their physics knowledge, but on their team-play, collaborative potential, presentation proficiency, and spontaneity in defending complex phenomena.
- **Stage 6: Final Month-Long Residency**
  - The final cohort is selected for the top 10 students with a continued immersive residency, fully funded, functioning as a simulated national team environment.
  - This stage focuses on refining the roles of Reporter, Opponent, and Reviewer through physics fights and professional research defense, ensuring the final team is fully prepared for international standards. The 5 finalists of this stage will become the official Team Pakistan nominated for IYPT 2027, to be announced days before the actual flight.