

## 26<sup>th</sup> Cyber Genius 2023

### Important details of the events

#### Senior Group

##### 1. *Python programming (At KHS on 2<sup>nd</sup> December 2023)*

- Students can participate individually
- Students can choose only one topic from the pool of chits available at the competition desk
- Student can use any of the python programming platform e.g. IDLE / PyCharm / Spyder etc.
- Students can bring their own devices (Laptops) and internet for the competition
- Laptops carried by students should have the respective software / applications installed for Python programming
- **If you don't plan to BYOD then IDLE 3.6.2 is available at KHS**
- Students need to complete the program in the allotted time at KHS
- It is recommended to bring your own Internet if you are planning to use any online coding platform

##### 2. *UI/UX Responsive Web page designing using HTML, CSS and Bootstrap ( AT KHS on 2<sup>nd</sup> December 2023)*

- Students need to participate **individually**
- Topics will be communicated in advance on **khscyber.in**.
- Students can choose any one topic from the given list and can be prepared with some templates and design ideas
- Students can bring their own devices (Laptops) and internet for the competition
- Laptops carried by students should have the respective software / applications installed for **Web page designing**
- **If you don't plan to BYOD then Notepad++ is available at KHS**
- Students need to complete the web page designing of the selected topic in the allotted time **at KHS**
- It is recommended to bring your own Internet if you are planning to use any online coding platform

**Topics:**

1. Design a website for the next Olympic Games to be held in Paris, France.
2. Design a website for an eLibrary of a School.
3. Design an ecommerce website for School Accessories.
4. Design a website for a fictional animal adoption center, showcasing pets available for adoption.
5. Design a website for a fictional restaurant, displaying its menu items with descriptions and prices.
6. Design a website for PayTM or Google Pay app.
7. Design a website for the recently held G20 Summit.

**Judging Criteria:**

1. Creativity & Imagination
2. Idea Organization
3. Proper Use of HTML elements
4. Responsiveness of webpage
5. Use of Typography, colors & layout

**3. Create your own ICT based Innovations & Start-up**

- Students can participate in a **team of min 2 students / team of max 4 students**
- Topics will be communicated in advance on **khscyber.in**
- Students can choose any one topic from the given list and need to prepare a Descriptive Presentation (PPT) explaining the complete concept.
- Descriptive PPT needs to be submitted at scheduled dates through **Google form submission up to 9th December 2023**
- Based on the PPT submitted, candidates will be shortlisted for **Viva Round at KHS on 16<sup>th</sup> December 2023**, where IT Professionals and IT industry Experts can ask Questions regarding the selected Start-ups
- It is recommended to bring your own laptops/ products /models (if designed and created) and internet for actual demonstrations to experts

**Topics:**

1. Tech for Education (**Innovative solutions for improving the educational experience, such as e-learning platforms, digital classrooms, or educational games**)
2. Community Engagement Platforms (**Solutions that promote community involvement, volunteerism, or social awareness**)

3. Local Agriculture and Food Innovation (Start-ups addressing issues related to food production, distribution, or waste reduction)
4. Sports and Recreation (Start-ups that enhance sports and recreation experiences through technology or new equipment)
5. Local Tourism and Culture (Start-ups that encourage exploration of local culture and attractions, potentially boosting tourism in the area)
6. Cybersecurity for Kids (Products or services aimed at educating and protecting children online, teaching them about online safety)

**Note:**

1. Students need to prepare a presentation (Detailed PPT) explaining the complete concept
2. It can be both web app and mobile app or any other tools and technology-based offering
3. It can be a service or information portal which can show and connect with stakeholders
4. Presentation can have screenshots of Point no. 2 and 3
5. Shortlisted students may showcase their products /models (if designed and created) for actual demonstrations to experts in the final round

## Junior Group

### 1. *Scratch Programming*

- Students can participate individually or in a team of 2
- Topics will be communicated in advance on [khscyber.in](http://khscyber.in)
- Students can choose any one topic from the given list and complete the program using Scratch
- Completed program code (.sb3 file type) needs to be submitted at scheduled dates through [Google form submission up to 9<sup>th</sup> December 2023](#). Students can even upload the video recording of outputs along with program code
- Based on the outputs and program codes, candidates will be shortlisted for **Viva Round at KHS on 16<sup>th</sup> Dec 2023** where Domain experts can ask Questions regarding the completed program

#### **Topics:**

1. Mystery Adventure Game:
  - I. Treasure Hunt
  - II. Detective Games [Solve the mystery]
2. Interactive Storytelling:
  - I. Sustainable Development Goals (SDGs) for a joyful society
  - II. Importance of Healthy Diet
  - III. How Artificial Intelligence Solves Modern-Day Issues
3. Fun Quiz Game
4. Musical Melody Maker (Create a musical instrument)

#### **Judging Criteria:**

1. Relevance to theme & apt title
2. Thoroughness & Completeness
3. Usage of SCRATCH Tools
4. Creativity & Imagination
5. Idea Organization

### 2. *M.S. Paint (At KHS on 9<sup>th</sup> December 2023)*

- Students will participate **individually**
- No prepared images can be used
- **Topics will be communicated on the spot**
- Students need to complete the Paint drawings of chosen topic in the allotted time at KHS.

#### **Topics:**

1. Draw night scene by using brush
2. Draw imaginary face with 3 different gestures and colour it properly.
3. Draw 1 scene / glimpse from any game you like
4. Draw any object you like and make it 3D using Paint 3D

5. Create AI based image using cocreator- topic **Universe** (If available)

**Judging criteria:**

- Drawing skills
- Tips and tricks used while creating artwork
- Use of brush techniques/variation
- Color combinations/schemes
- Graphic art creation
- Picture editing skills
- Relevance to the context
- Number of objects covered in the picture

**3. Design a Greeting Card using MS PowerPoint / Google Slides**  
(At KHS on 9<sup>th</sup> December 2023)

- Students will participate individually
- No already prepared images can be used
- Students can choose only one topic from the pool of chits available at the competition desk
- Student can use any application such as MS PowerPoint or Google slides
- If you don't plan to BYOD, offline version of M.S. Power Point 2016 is available at KHS
- If you are planning to use the platform like **Google Slides**, Students can bring their own devices (Laptops) and internet for the competition (Optional)
- Laptops carried by students should have the respective software / applications installed for making the presentations
- Students need to complete the Presentation in the allotted time at KHS

**Judging Criteria:**

- Creativity and Imagination
- Usage of designs and images
- Thoroughness and Completeness
- Usage of Canva and Prezi
- Selection of Templates/Animated Templates/Animated

#### **4. RoboMission: (At KHS on 16<sup>th</sup> December 2023)**

##### **Team Composition:**

- Teams must consist of a maximum of 2 members.
- A team may have a faculty advisor, but their involvement should be limited to guidance and supervision.

##### **Robot Design:**

- Robot will be provided on the day of competition.
- The robot should be handled as per instructions.
- All components of the robot must be handled with proper technique without any interference with the robot of opponent team.

##### **Competition Arena:**

- The competition arena will simulate a city environment with various cleaning challenges.
- Teams should familiarize themselves with the arena layout and specific task areas.
- The arena will include obstacles and cleaning zones that the robots must navigate through to complete the task.

##### **Task Challenges:**

- Robots must be operated to complete a series of cleaning tasks within a specified time limit.
- Tasks may include waste collection, debris removal, and other activities promoting cleanliness.
- Points will be awarded based on the successful completion of tasks and the overall efficiency of the robot.

##### **Scoring System:**

A point system will be in place to evaluate the performance of each team.

- Points will be awarded for completing tasks accurately and within the designated time frame.
- Judges will also consider fastest time for task completion for bonus points.

##### **Robot Control:**

- Teams must use the robot provided controlled manually by remote controller.
- Remote control device should be operated by one team member only.
- Change in control is allowed only during task change.

##### **Safety Regulations:**

- Teams must ensure that their robots do not pose any safety risks to participants, spectators, or other robots.
- Safety inspections will be conducted before the competition to check for compliance with safety standards.

##### **Code of Conduct:**

- Teams are expected to exhibit sportsmanship and professionalism throughout the competition.

- Any form of cheating, unethical behavior, or violation of rules will result in penalties or disqualification.

**Judging Panel:**

- A panel of experienced judges will evaluate the performance of each team based on the established criteria.
- Judges' decisions will be final, and there will be no scope for disputes during or after the competition.

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