YOUNG PEOPLE FADE AWAY WHEN THERE IS NO VISION

Context

- Recent incidents in Kota, Rajasthan, have highlighted a disturbing trend: **young people driven to suicide by the overwhelming pressures of entrance examinations** and this alarming phenomenon is not isolated to only Kota.

- **The pressure to excel in competitive exams, compounded by familial and societal expectations,** has created an environment where the mental health and well-being of students are severely compromised.

- Therefore, **it is imperative to understand the root causes of this issue and to implement solutions** that prioritise the holistic development of young people.

The Pressure Cooker Environment: Cause and Consequence

- **The Rise of Coaching Institutes**
  - **Kota has earned its reputation as the coaching capital of India** due to the proliferation of coaching institutes that prepare students for entrance exams like the IIT-JEE (Joint Entrance Examination) and NEET (National Eligibility cum Entrance Test).
  - These **institutes promise high success rates** and have become the default choice for students aiming for top-tier engineering and medical colleges.
  - However, **this comes at a substantial cost to students' mental and emotional well-being.**

- **Inhumane Methods and Rigid Schedules**
  - Many coaching **institutes employ rigorous and often inhumane teaching methods.**
  - **Students are subjected to gruelling schedules** that leave little time for relaxation or personal development.
  - A **typical day in such an institute might begin at 5 a.m. and extend until 10 p.m. or later,** packed with study sessions, tests, and more study sessions.

- **The High Cost of Failure**
  - The **stakes are extraordinarily high in this pressure cooker environment and** success in entrance exams is often seen as the sole determinant of a student's future.
  - **Failure, on the other hand, can lead to severe consequences,** including social stigma and disappointment from family members who have invested heavily in their child's education, both emotionally and financially.
- **Psychological Toll and Mental Health Crisis**
  - **The constant pressure to perform well** academically takes a **significant toll on students' mental health.**
  - Reports of stress, anxiety, and depression are common among those attending these coaching institutes.

Conclusion

- **The crisis of student suicides in India is a multifaceted issue** that requires a comprehensive approach involving educators, policymakers, parents, and society at large.
- **By prioritising the well-being of students** over mere academic performance, and by implementing policies that recognise the importance of holistic development, **we can create an educational environment that nurtures rather than destroys young minds.**
- The incorporation of personal interviews and the strengthening of school education are crucial steps in this direction.

WHAT IS WHOLESALE PRICE INDEX (WPI)?

Inflation in India's wholesale prices rose to a 13-month high of 1.26% in April, owing to an uptick in food inflation and a 1.4% year-on-year rise in fuel and power prices after several months of deflation.

Wholesale Price Index (WPI) measures the **changes in** the **prices of goods** sold and traded in bulk by wholesale businesses to other businesses.

- It is calculated and **published by** the **Office of Economic Advisor**, Department of Industrial Policy and Promotion in the **Ministry of Commerce and Industry**.
  - WPI data is **published monthly**, with the index value representing an estimate of the price level for the month as a whole, rather than a specific date.
- Analysts use the numbers to track the supply and demand dynamics in industry, manufacturing, and construction.
- **An upward surge in the WPI indicates inflationary pressure** in the economy, and vice versa. The quantum of rise in the WPI month-after-month is used to measure the level of wholesale inflation in the economy.

Difference between WPI and Consumer Price Inflation (CPI) inflation:
  - While the WPI keeps track of the wholesale price of goods, the CPI measures the average price that households pay for a basket of different goods and services.
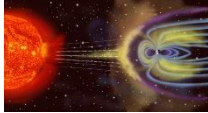 - WPI is restricted to only goods, while CPI is for both goods and services.

New series of WPI: With an aim to align the index with the base year of other important economic indicators such as GDP and IIP, the base year was **updated to 2011-12** from 2004-05 for the new series of WPI, effective from April 2017.

How do you calculate WPI?
  - It is calculated by taking a **weighted average of the prices of a basket of goods**, with each item's weight determined by its share of total wholesale sales.
  - The **basket of goods** comprises three major groups:
    - **Primary Articles** (Weight 22.62%)
    - **Fuel and Power** (Weight 13.15%)
    - **Manufactured Products** (**Weight 64.23%**)
  - The prices of a total of 697 items are tracked under the 2011-12 series of the WPI, which includes 117 primary items, 16 items of fuel and power, and 564 manufactured products.

WHAT ARE GEOMAGNETIC STORMS?

The strongest geomagnetic storm in over two decades recently hit Earth, causing radio blackouts and extending the northern lights to the southern United States.

- A geomagnetic storm is a major **disturbance of Earth's magnetosphere** that occurs when there is a very efficient exchange of energy from the solar wind into the space environment surrounding Earth.

- These storms result from variations in the solar wind that produce major changes in the **currents, plasmas, and fields in Earth's magnetosphere.**

- The solar wind conditions that are effective for creating geomagnetic storms are sustained (for several hours) periods of the high-speed solar wind and a southward-directed solar wind magnetic field (opposite the direction of Earth's field) at the dayside of the magnetosphere.

- The **largest such storms** are **associated with solar coronal mass ejections** (CMEs), where a billion tons or so of plasma from the sun, with its embedded magnetic field, arrives at Earth.

Effects:

- It **results in intense currents** in the magnetosphere, changes in the radiation belts, and changes in the ionosphere, including heating the ionosphere and an upper atmosphere region called the thermosphere.

- These storms can heat the ionosphere, **causing beautiful auroras** on earth.

- Because the ionosphere is heated and distorted during storms, l**ong-range radio communication** that relies on sub-ionospheric reflection gets affected.

- **Ionospheric expansion** due to these storms can increase satellite drag and make their orbits difficult to control.

- **Satellite electronics can be damaged** through the buildup and discharge of static-electric charges.

- It can **disrupt global navigation systems**.
- It can **create harmful geomagnetic-induced currents (GICs) in** the **power grid** and pipelines.

GREAT PYRAMID OF GIZA

A recent discovery of a mysterious structure buried beneath the sands near the iconic Great Pyramid of Giza might likely change the way we perceive these ancient structures.

- The Great Pyramid of Giza, also called Great Pyramid and Great Pyramid of Khufu, is an ancient Egyptian pyramid that is the largest of the three Pyramids of Giza.
- **Location**: It is located on the **Giza plateau,** five miles to the **west of** the **Nile River, near** the city of **Cairo, Egypt.**
- It was **built by Khufu** (Cheops), the **second king of Egypt's 4th dynasty** (c. 2575–c. 2465 BCE). Its construction began around 2580 BC, shortly after Khufu became pharaoh, and was **completed around 2560 BC.**
- Until the Eiffel Tower was completed in Paris, France, in 1889, the Great Pyramid was the tallest structure made by humans in the world; a record it held for over 3,000 years.
- The pyramid was **first excavated** using modern techniques and scientific analysis **in 1880 by Sir William Matthew Flinders Petrie** (l.1853-1942), the British archaeologist.
- **Features**:
  o When the pyramid was built, it was around 481 feet tall. Today, because of erosion and the removal of the top piece, the pyramid is around 455 feet tall. At its base, each side is approximately 755 feet long.
  o It is comprised of **over two million blocks of stone**. Each of the stone blocks is estimated to weigh over 2000 pounds (907 kg).
  o Inside the Great Pyramid are **three major rooms:** the **King's Chamber, t**he **Queen's Chamber, and the Grand Gallery**. Small tunnels and air shafts lead to the chambers from the outside.

- The **pyramid's sides** rise at an angle of 51.87° and **are accurately oriented to the four cardinal points of the compass.**
- The Great Pyramid's **core is made of yellowish limestone blocks**, and the inner passages are of finer, light-coloured limestone.
- The **interior burial chamber** is built of huge blocks of **granite**.

Key facts about the Pyramids of Giza:

- These are **three 4th-dynasty** (c. 2575–c. 2465 BCE) **pyramids** erected on a rocky plateau on the west bank of the Nile River in northern Egypt.
- The **designations of** the **pyramids—Khufu, Khafre, and Menkaure**—correspond to **the kings for whom they were built.**
  - The northernmost and oldest pyramid of the group was built for Khufu, the second king of the 4th dynasty.
  - The middle pyramid was built for Khafre, the fourth of the eight kings of the 4th dynasty.
  - The southernmost and last pyramid to be built was that of Menkaure, the fifth king of the 4th dynasty.
- The Pyramids of Giza is the last remaining of the **Seven Wonders of the ancient world.**

WHAT IS INDIAN CYBER CRIME COORDINATION CENTRE (I4C)?

The I4C, in collaboration with Microsoft, has blocked more than 1,000 Skype IDs involved in blackmail, extortion and "digital arrests" by cybercriminals posing as police and law enforcement authorities.

Indian Cyber Crime Coordination Centre (I4C) has been established **under the Ministry of Home Affairs** (MHA) to deal with cybercrime in the country in a coordinated and comprehensive manner.

- It focuses on tackling issues related to cybercrime for citizens, including **improving coordination between** various **Law Enforcement Agencies** (LEAs) and stakeholders. The centre is located in New Delhi.

    Functions:
    - To act as a **nodal point** in the fight against cybercrime.
    - **Identify** the **research problems** and needs of LEAs and take up R&D activities in developing new technologies and forensic tools in collaboration with academia / research institutes within India and abroad.
    - To **prevent misuse of cyberspace** for furthering the cause of extremist and terrorist groups.
    - **Suggest amendments**, if required, **in cyber laws** to keep pace with fast changing technologies and international cooperation.
    - To **coordinate all activities** related to implementation of Mutual Legal Assistance Treaties (MLAT) with other countries related to cybercrimes in consultation with the concerned nodal authority in MHA.

- I4C **brings together academia, industry**, **public** and **government** in the prevention, detection, investigation, and prosecution of cybercrimes.
    - I4C has envisaged the Cyber Crime Volunteers Program to bring together citizens with passion to serve the nation on a single platform and contribute in fight against cybercrime in the country.

- **Other Initiatives:**
    - **Citizen Financial Cyber Fraud Reporting and Management System**: For immediate reporting of financial cyber frauds and preventing the siphoning of funds by cyber criminals on a near-real-time basis.
    - National **Toll- free Helpline number '1930'** has been operationalized to provide citizen assistance in lodging online cyber complaints.
    - **CyberDost handle** on various social media platforms to generate cyber awareness among citizens.

GPT-4O, OPENAI'S NEWEST AI MODEL

Why in news?

OpenAI introduced its latest large language model (LLM) called GPT-4o, terming it as their fastest and most powerful AI model so far. The company claims that the new model will make ChatGPT smarter and easier to use. Until now, OpenAI's most advanced LLM was the GPT-4, which was only available to paid users. However, the GPT-4o will be freely available.

Generative Pre-trained Transformers (GPTs)

- GPTs are a type of large language model (LLM) that use transformer neural networks to generate human-like text.
- GPTs are trained on large amounts of unlabelled text data from the internet, enabling them to understand and generate coherent and contextually relevant text.
- They can be fine-tuned for specific tasks like: Language generation, Sentiment analysis, Language modelling, Machine translation, Text classification.
- GPTs use self-attention mechanisms to focus on different parts of the input text during each processing step.
- This allows GPT models to capture more context and improve performance on natural language processing (NLP) tasks.
  - NLP is the ability of a computer program to understand human language as it is spoken and written -- referred to as natural language.

ChatGPT

- ChatGPT is a state-of-the-art natural language processing (NLP) model developed by OpenAI.
- It is a variant of the popular GPT-3 (Generative Pertained Transformer 3) model, which has been trained on a massive amount of text data to generate human-like responses to a given input.
- The answers provided by this chatbot are intended to be technical and free of jargon.
- It can provide responses that sound like human speech, enabling natural dialogue between the user and the virtual assistant.

- o GPT-4o ("o" stands for "Omni") is considered a groundbreaking AI model designed to make interactions between humans and computers better.
- o It allows people to input text, audio, or images and get responses in those same formats.
- o This makes GPT-4o a special kind of AI that can handle different types of information, which is a big improvement from older models.

- **Functions**
  - o GPT-4o is capable of interacting using text and vision, meaning it can view screenshots, photos, documents, or charts uploaded by users and have conversations about them.
  - o It will also have updated memory capabilities and will learn from previous conversations with users.

- **Comparison with earlier version**
  - o When it comes to features and abilities, GPT-4o excels in areas like speed and efficiency.
    - ▪ It responds to queries as fast as a human does in conversation, in around 232 to 320 milliseconds.
    - ▪ This is a big leap over previous models, which came with response times of up to several seconds.
  - o It comes with multilingual support, and shows significant improvements in handling non-English text, making it more accessible to a global audience.
  - o The GPT-4o also features enhanced audio and vision understanding.
    - ▪ During the demo session at the live event, ChatGPT solved a linear equation in real-time when the user was writing it on paper.
  - o It could gauge the emotions of the speaker on camera and identify objects.