

March - 27

## TNPSC BITS

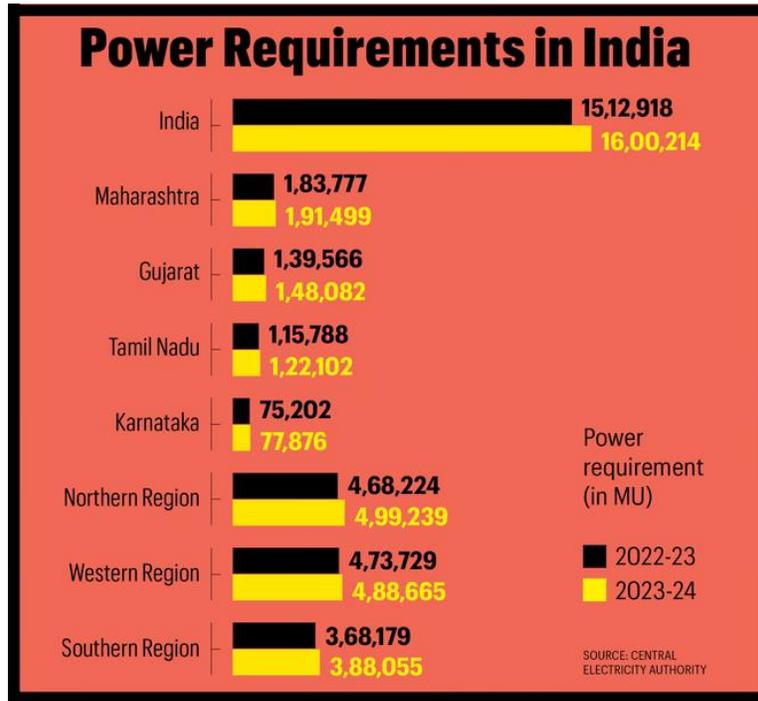
- ❖ The fourth edition of the Shanghai Cooperation Organisation (SCO) Startup Forum was convened in New Delhi.
- ❖ GoodEnough Energy has announced plans to launch India's first battery energy storage gigafactory in Jammu and Kashmir.
  - The facility aims to reduce over 5 million tons of carbon emissions annually.
- ❖ India, Mozambique and Tanzania navies are participating in the Second edition of Tri Lateral (TRILAT) maritime Exercise - IMT TRILAT 2024.
- ❖ Table tennis player Sharath Kamal will be the Indian team's flagbearer for the upcoming Paris 2024 Olympics.
  - Olympic bronze medallist MC Mary Kom has been named as the chef de mission for the Summer Games.
- ❖ The International Telecommunication Union (ITU) has elected India as co-chair of its Digital Innovation Board.
  - DoT Secretary, Dr Neeraj Mittal, was unanimously elected as co-chair of the Digital Innovation Board of ITU.
- ❖ Prime Minister Narendra Modi received Bhutan's highest civilian award, the 'Order of the Druk Gyalpo.'
  - He is the first foreign Head of the Government to receive the honour.
- ❖ The World Day of Theatre for Children and Young People is celebrated on March 20 to attract the attention of a wider public to the art of theatre for children and young people.

## TAMIL NADU

### Tamil Nadu's peak power demand in 2024

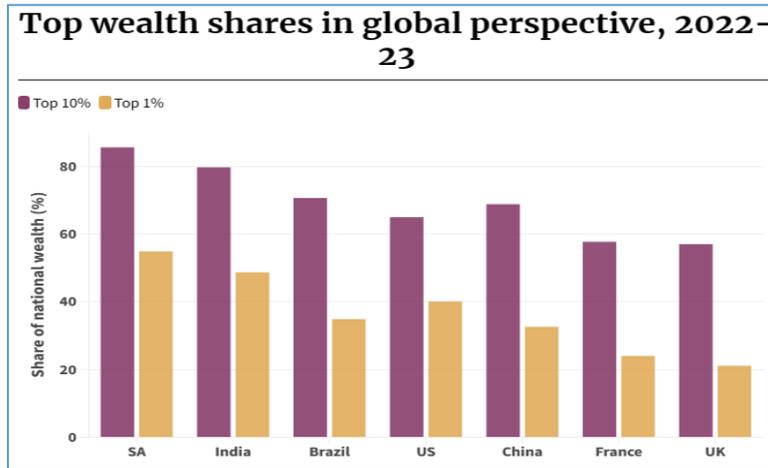
- ❖ Tamil Nadu's peak power demand hit a new record of 19,409 MW on March 22.
- ❖ This surpasses the previous record of 19,387 MW set on April 20, 2023.
- ❖ Tamil Nadu has the highest power demand among the southern States.
- ❖ The State's peak power demand is expected to touch 20,806 MW in 2024 summer.
- ❖ TANGEDCO's own thermal power capacity stands at 4,320 MW.

- ❖ The State’s conventional installed capacity stands at 16,417.38 MW.



## NATIONAL

### Income and Wealth Inequality in India, 1922-2023

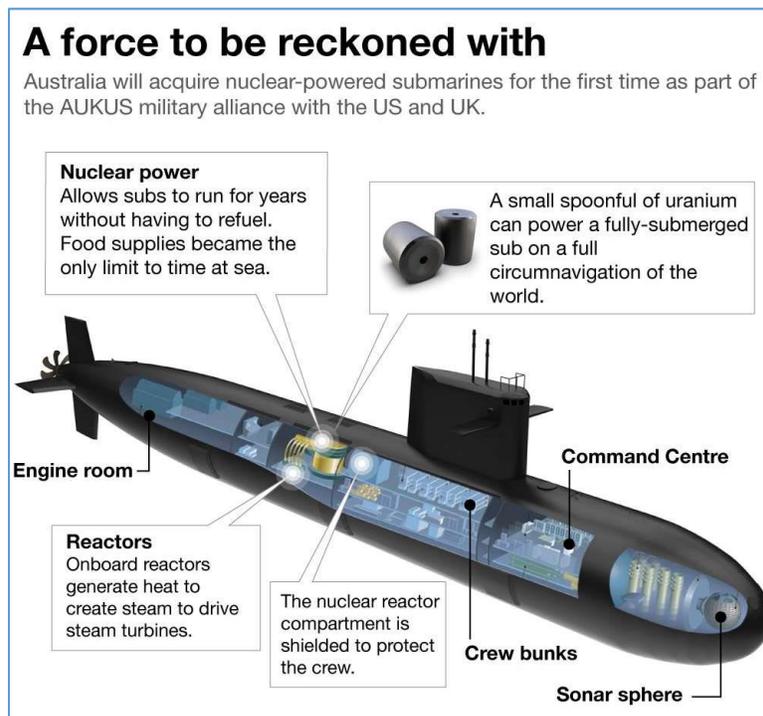


- ❖ The paper titled “Income and Wealth Inequality in India, 1922-2023: The Rise of the Billionaire Raj” was released recently.
- ❖ Inequality in India has skyrocketed since the early 2000s.
- ❖ The income and wealth share of the top one per cent of the population is rising to 22.6 per cent and 40.1 per cent, respectively, in 2022-23.

- ❖ By 2022-23, top one per cent income and wealth shares (22.6 per cent and 40.1 per cent) are at their highest historical levels.
- ❖ India's top one per cent income share is among the very highest in the world, higher than even South Africa, Brazil, and the US.
- ❖ The top 1 per cent income shares consistently fell over the next two decades and reached 6.1 per cent by 1982.
- ❖ It has consistently increased over the next 30 years to reach an all-time high of 22.6 per cent in 2022.
- ❖ A "super tax" of two per cent on the net wealth of the 167 wealthiest families in 2022-23 would yield 0.5 per cent of national income in revenues.
- ❖ From 13 per cent in 1922, the top 1 per cent income share increased significantly to over 20 per cent in the inter-war period.

## INTERNATIONAL

### SSN-AUKUS Submarine Program

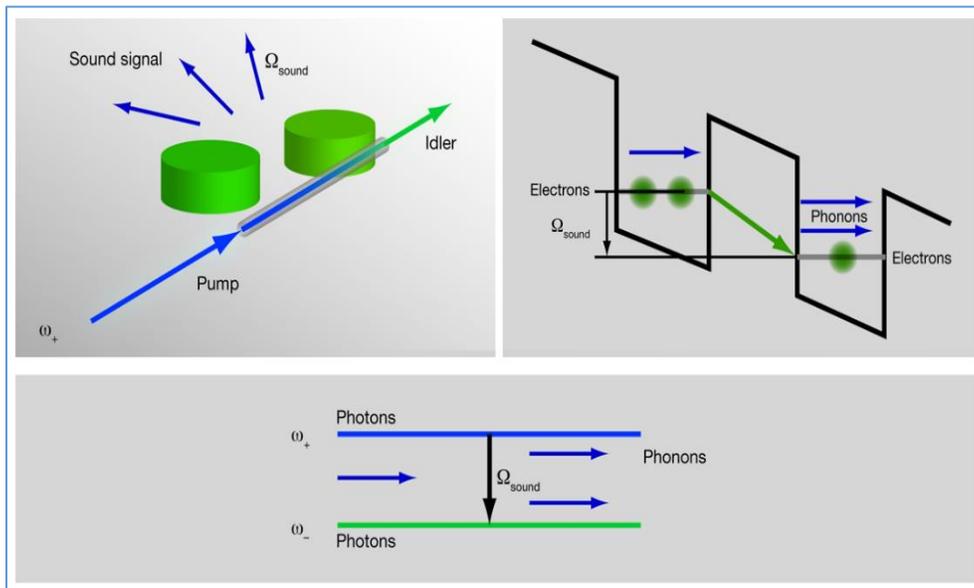


- ❖ Australia, the United Kingdom, and the United States have entered into a trilateral security partnership called AUKUS.
- ❖ It aims to build nuclear-powered submarines for the Royal Australian Navy.
- ❖ The AUKUS partnership was first announced in 2021.

- ❖ The Australian government has selected Australia's ASC to join BAE Systems in building the country's new fleet of nuclear-powered attack submarines (SSNs).

## SCIENCE AND TECHNOLOGY

### Sound Laser by China

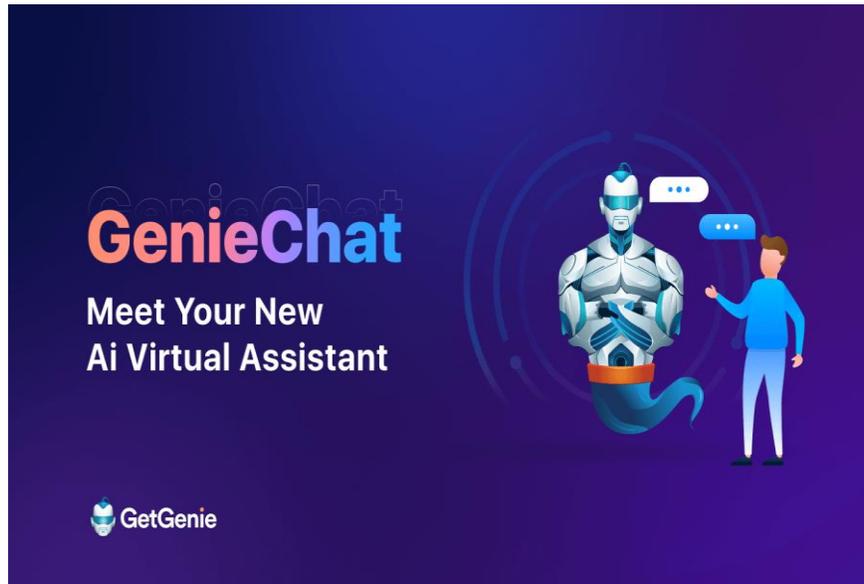


- ❖ Scientists in China have created an unprecedentedly bright laser that shoots particles of sound instead of light.
- ❖ This is the most powerful "sound laser" yet.
- ❖ Unlike regular lasers, that emit light particles called photons, these machines release particle-like chunks of sounds called phonons.
- ❖ The output is similar - the particles are released in a narrow beam, like optical lasers emit photons.
- ❖ Phonons are less affected while moving through liquids, and can be more effective in imaging watery tissues and deep-monitoring.
- ❖ Since they can emit sound in the terahertz frequency range, the beam can also be used in airport scans.

### Genie - AI Model

- ❖ Google DeepMind introduces Genie, an AI model that generates interactive virtual worlds for gameplay on 2D platforms.
- ❖ Genie can create playable environments from synthetic images, photographs, sketches, and even real-world photographs.

- ❖ Genie also has the ability to learn and reproduce controls for in-game characters exclusively from internet videos.



### Hanooman: Series of Large Language Models

## SPEECH-TO-TEXT ON OFFER TOO

➤ **BharatGPT** shared a sneak peek of its model **Hanooman** at a tech conference in Mumbai

making it **user-friendly** given millions in the country still cannot read or write

➤ It will work in **11 local languages**, and **four key fields**: health care, governance, financial services and education



➤ Large language models by larger cos like **OpenAI** involve workarounds due to computational constraints and simpler models affordable to smaller businesses and govt departments

➤ Hanooman will also offer **speech-to-text** capabilities,

- ❖ The Bharat GPT group — led by IIT Bombay along with seven other elite Indian engineering institutes has built the ‘Hanooman’ series of Indic language models.
- ❖ This can respond in 11 Indian languages like Hindi, Tamil, and Marathi, with plans to expand to more than 20 languages.
- ❖ Hanooman has been designed to work in four fields, including health care, governance, financial services, and education.

- ❖ Large language models use deep learning techniques to process large amounts of text.

### **Most Luminous Object**

- ❖ A team of astronomers in Australia has discovered a massive quasar, energized by a colossal black hole.
- ❖ It surpasses the brightness of our sun by an astonishing 500 trillion times.
- ❖ The black hole central to this quasar has a mass 17 billion times that of our sun.
- ❖ It consumes the equivalent of the sun's material every day.
- ❖ This voracious consumption powers the quasar's remarkable luminosity, allowing it to be visible.
- ❖ Its light is traveling a massive distance of 12 billion years to reach us.



## **REPORTS AND INDICES**

### **Global Trade Overview 2023 and 2024 Outlook**

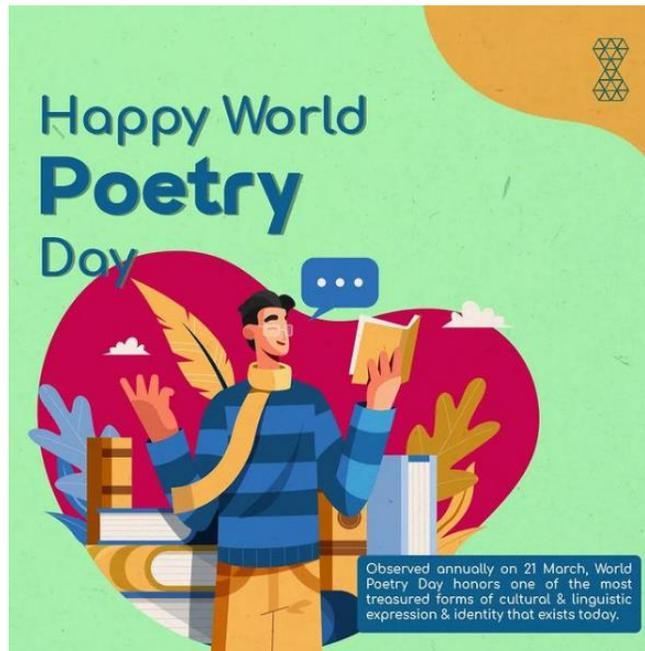
- ❖ The international trade is expected to rebound in 2024, reversing the last year's downturn.
- ❖ This report was released by the United Nations Conference on Trade and Development (UNCTAD).
- ❖ UNCTAD noted that global forecasts for GDP growth remain at around 3 per cent for 2024.
- ❖ During 2023, imports and exports of developing countries declined by an average of 5 and 7 per cent, respectively.

- ❖ Conversely, trade for developed countries are decreased by about 4 per cent for imports and 3 per cent for exports.
- ❖ India's goods imports are increased by 3 per cent and exports were up 5 per cent in the fourth quarter of 2023.
- ❖ However, both imports as well as exports declined in 2023.



## IMPORTANT DAYS

### World Poetry Day 2024 - March 21



- ❖ The day aims to honour poets and bring back the practice of poetry readings.

- ❖ UNESCO has decided to celebrate this day annually during its 30th General Conference in Paris in 1999.
- ❖ Some countries still celebrate Poetry Day on October 15, on the birthday of the Roman poet Virgil.
- ❖ ‘Standing on the Shoulders of Giants’ is the theme for 2024.

### **World Puppetry Day 2024 - March 21**

- ❖ The Day seeks to recognise puppetry as a global art form.
- ❖ The International Puppetry Association (UNIMA) was created in Prague of Czech Republic in 1929.
- ❖ In 2002, UNIMA declared this Day.
- ❖ The theme for 2024 is ‘the Climate’.

