IMPORTANT NEWS

INCOIS deploys two more deep sea gliders

Inside Story of the News:

- Under the Ministry of Earth Sciences (MoES), the Indian National Centre for Ocean Information Services (INCOIS) has just **launched two brand-new, modern deep sea "Slocum" gliders in the Bay of Bengal**.
- To study the physical and biogeochemical parameters of the sea and get insight into climate change, one is directed northward and the other southward.
- The state-of-the-art gliders are fitted with sensors that measure things like temperature, salinity, chlorophyll, dissolved oxygen, and PAR, or photosynthetic active radiation, in the water.
- The gliders were launched from the National Institute of Ocean Technology's (NIOT) Ocean Research Vehicle "Sagar Manjusha" off the coast of Chennai, outside of the EEZ's (exclusive economic zone) perimeter.
- The newly created "National Glider Operations Facility" at INCOIS in Pragatinagar, Kukatpally, will receive data continually from these gliders, which can dive underwater to a depth of roughly 1,000 metres and surface four to five times each day.
- The main feature of these lithium-ion-powered gliders is that they have a prolonged battery life of nine months or more, which allows them to cover both the north and south transects of the Bay of Bengal.
- One may simply control and monitor their operations, as well as obtain real-time data and updates regarding the battery life.
- They can go up to 15 kilometres every day.
- Despite the fact that the initiative falls under the Ministry's "Deep Ocean Mission," the institute has used gliders to search the sea before. Two years ago, two gliders were sent into the Bay of Bengal as part of the first attempt.

Hubble Unexpectedly Finds a Pair of Quasars

Inside Story of the News:

- Galaxies frequently collided with one another in the early universe and occasionally even fused. **A pair of gravitationally bound quasars that are both blazing away inside two merging galaxies** have been found by scientists studying these developments using **NASA's Hubble Space Telescope** and other space and ground-based observatories.
- This is the first instance of a pair of quasars being discovered in the cosmic noon, a period three billion years after the Big Bang when the universe's galaxies were rapidly generating stars.

- At such distance, identifying quasars is difficult. Given that the two host galaxies are barely 10,000 light years apart, it is highly possible that they are already undergoing a merger to form a single galaxy.
- A paper describing the findings has been published in Nature.

About Quasars:

- Quasars are bright objects propelled by ferocious supermassive black holes that feast themselves on gas, dust, and anything else that comes into their gravitational field.
- In the last 10 to 15 years, there has been a recent development in the field of finding close binary quasars.
- Astronomers have been able to spot examples of two quasars that are active at the same time and close enough to merge thanks to today's powerful new observatories.
- Growing data suggests that massive galaxies form through mergers. Together, smaller systems can create larger systems and ever-greater structures. Supermassive black hole pairs should occur within the merging galaxies throughout that phase.
- We will eventually learn about the progenitor population of black holes, which will help us understand how supermassive black holes first appeared in the early universe and how frequently they might have merged.
- The combined power of NASA's Hubble Space Telescope and the W.M. Keck Observatories in Hawaii was necessary for this needle-in-haystack quest.
- Understanding the dynamic duo also benefited from multi-wavelength data from the International Gemini Observatory in Hawaii, the NSF's Karl G. Jansky Very Large Array in New Mexico, and NASA's Chandra X-ray Observatory.
- Additionally, the Gaia space observatory of the ESA (European Space Agency) played a role in the initial discovery of this double quasar.
- Instead of two views of the same quasar produced by a foreground gravitational lens, Hubble clearly demonstrates that this is a genuine pair of supermassive black holes.
- In addition, Hubble displays a tidal phenomenon created by the merger of two galaxies, where gravity distorts the galaxies' shapes and creates two tails of stars.
- Hubble's sharp resolution is insufficient on its own to search for these two light beacons. Gaia, which debuted in 2013, was used by the researchers to identify prospective double-quasar candidates.

ER-ASR successfully test-fired for the first time

Inside Story of the News:

- Recently, the Navy's INS Chennai successfully test-fired the **Extended Range Anti-Submarine Rocket (ER-ASR)** for the first time.
- The ER-ASR was designed by Pune-based Armament Research and Development Establishment (ARDE) and High Energy Materials Research Laboratory (HEMRL) of the DRDO.
- At particular depths, it is intended to intercept submarines.

- The performance of the rocket system was assessed during the initial tests from the Navy's guided missile destroyer INS Chennai at short range of 2.7 kilometres and in long range mode at 8.5 kilometres.
- The indigenous rocket launcher mounted on several Indian military ships will be used to fire the rocket system during anti-submarine operations.
- Depending on the tactical mission requirements, ER-ASR can be fired in a single or salvo mode.
- The ship's first successful test is a step towards improving the Indian Navy's anti-submarine warfare capabilities and towards achieving "Atmanirbharta" in defence.
- The Russian-origin Rocket Guided Bombs (RGBs) that are now installed in ships will be replaced by the ER-ASR.
- The ER-ASR can have a range of nearly eight kilometres, whilst the RGB has a range of only five kilometres.

India elected to the 'highest' statistical body of the UN

Inside Story of the News:

- **India has overwhelmingly won a "competitive" election to the UN Statistical Commission**, where it will serve for four years.
- China and South Korea are still battling for the remaining Asia Pacific seat.
- India received an overwhelming 46 of the 53 votes.
- India was elected by secret ballot while Argentina, Sierra Leone, Slovenia, Ukraine, the United Republic of Tanzania and the United States of America were elected by acclamation for a four-year term of office beginning January 1, 2024.
- India has a seat on the UN Statistical Commission thanks to its expertise in statistics, diversity, and demography.

About the United Nations Statistical Commission:

- The Chief Statisticians from member states from all over the world are represented by the United Nations Statistical Commission, which was founded in 1947 and is the highest body of the global statistical system.
- It is in charge of creating statistical standards, developing concepts and methodologies, and ensuring their application at both the national and international levels.
- It is the highest decision-making organisation for international statistical activity.
- The United Nations Economic and Social Council selected the 24 member nations that make up the Commission based on an equitable geographical distribution.
- Five members are from African States, four from Asia-Pacific States, four from Eastern European States, four from Latin American and Caribbean States and seven members from Western European and other States.

Union Cabinet approves LIGO-India Project

Inside Story of the News:

- Recently, India's **Laser Interferometer Gravitational-Wave Observatory, or LIGO, project** received the final approval of the Union government.
- It is a ₹2,600 crore initiative to build a gravitational-wave detection facility in Maharashtra that received approval from the Union Cabinet.
- It will include a detector known as the Laser Interferometer Gravitational-wave Observatory (LIGO), which will be built in the style of the twin LIGO instruments now in use in the United States.
- The facility's construction is expected to be completed by 2030.
- The third observatory of its kind will be built to the precise specifications of the twin LIGO observatories in Louisiana and Washington, both of which are located in the United States. Alongside them, LIGO-India will work.
- As part of the LIGO-India collaboration, a third detector is being developed in India to enhance the detectors' combined ability to identify the sources of gravitational wave sources in the sky.
- The Cabinet's approval makes way for two opportunities:
    1. India might establish itself as a global site for gravitational physics research, facilitating training in the use of sophisticated control systems and precision technology, and ultimately establishing a reputation for successfully managing an experimental Big Science project.
    2. Using the opportunity provided by Big Science, LIGO-India can show that it has the capacity to consider the interaction between Indian society and science in a sensible manner.
- India has had a contested relationship with such projects, most recently with the Challakere Science City and the stalled Neutrino Observatory (INO) in India.
- The department of atomic energy and the department of science and technology both contribute funding to the initiative.
- The astronomy mega-science project promises chances for students and academics as well as ground-breaking research and the creation of cutting-edge technology.
- The Department of Atomic Energy and the Department of Science and Technology will build LIGO-India, and a memorandum of understanding has been signed with the U.S. National Science Foundation and a number of other national and international scientific organisations.
- Key laboratory components worth approximately Rs 560 crore will be supplied by the U.S.

LIGO and Gravitational waves:

- The LIGO is a massive L-shaped device. The 'L' has two 4 km long arms.
- Two laser pulses are simultaneously sent through each arm, bouncing off a mirror at the end before returning to the vertex. A detector tests if the pulses return at the same time.
- The pulses are slightly out of time when a gravitational wave goes through the detector.
- Gravitational waves can be found, recorded, and studied using this signal as well as others.

- Extreme conditions, such as when black holes collide, cause very massive objects in the cosmos to generate gravitational waves.
- The gravitational attributes of the source can be investigated using gravitational waves, much as light emitted by an object can be used to examine its electromagnetic characteristics.
- A third observatory is necessary to more accurately triangulate the location of a source in the sky even though two LIGOs can investigate gravitational waves.
- To record the same wave in a more optimal configuration, four observatories are needed. Researchers are installing and modernising detectors in Italy and Japan to achieve this.

Joint Military Exercise 'Ex KAVACH'

Inside Story of the News:

- **Ex KAVACH**, a significant Joint Military Exercise, was **carried out by the Andaman and Nicobar Command (ANC)** involving the assets of the Army, Navy, Air Force, and Coast Guard.
- On February 23, 2023, the exercise officially started. It ended on April 7, 2023.
- The goal of the exercise was to improve interoperability and operational synergy between the troops while also honing joint warfare skills and Standard Operating Procedures (SOPs).
- Participants in the multi-domain exercise that involved amphibious landing, air-landed operations, heliborne operations, and rapid insertion of the Special Forces from the mainland on a remote Island of the Andaman and Nicobar Islands included members of the Army's "Shatrujeet Brigade," the Armed Forces Special Operations Division (AFSOD), the Navy's Special Forces, and ANC amphibious troops.
- "Exercise KAVACH" showed the Armed Forces' capacity and readiness to protect India's maritime interests and guarantee the safety of the Andaman and Nicobar Islands.
- The exercise demonstrated the professionalism and cooperation amongst the various ANC components as they carried out successful joint operations in a challenging and dynamic environment.
- There were impressive demonstrations of rapid response capabilities during the exercise.
- Such training exercises help the country improve its defence capabilities while fostering regional stability and peace.

Rongali Bihu

Inside Story of the News:

- Recently, 11,304 dancers and musicians performed the **Assamese traditional dance known as the Bihu** in a stadium in Guwahati, setting two world records and introducing the dance to a wider audience.
- The Sarusajai Stadium witnessed a 15-minute performance by more than 7,000 dancers, the majority of whom were female, and more than 3,000 'dhol' drummers and other musicians who had been chosen from every district in the state and trained during the previous few weeks.
- A separate performance featuring drummers and other musicians followed this.

- Largest Bihu dance performance and largest performance by folk musicians, which included traditional instruments including the "dhol," "pepa," "gogona," and "toka," were two categories in which the performers attempted to set world records.
- The **Bohag Bihu or Rongali Bihu**, a spring event that marks the beginning of the Assamese New Year in mid-April, is when this traditional folk dance, which is very popular throughout Assam, is most frequently performed.
- The previous largest gathering of Bihu dancers in one location was 500, according to Rishi Nath, the official adjudicator of Guinness World Records, who gave the information prior to the dance performance.
- 9,892 Nati dancers from Kullu in Himanchal Pradesh entered the Guinness World Records for the greatest assembly of that folk dance form's artists in October 2015.

NASA, SpaceX launch instrument to check Earth's pollution levels from space

Inside Story of the News:

- Scientists will be able to monitor and assess air quality and pollution levels from space thanks to **a pollution monitoring instrument** that the National Aeronautics and Space Administration (NASA) and Elon Musk's SpaceX jointly launched.
- The **Tropospheric Emissions: Monitoring of Pollution (TEMPO)** was launched atop a SpaceX Falcon 9 rocket from Cape Canaveral Space Force Station in Florida on April 7.
- TEMPO will be **the first space-based instrument to assess air quality** over North America hourly during the day and in spatial regions of several square miles -- much better than current limits of roughly 100 square miles in the US. It will do this from a fixed geostationary orbit above the equator.
- Data from TEMPO would be crucial in enhancing air quality alerts, researching the impacts of lightning on ozone, and monitoring pollution levels in the case of forest fires, volcanoes, and the effects of fertiliser application, in addition to examining real-time pollution during rush hours.
- According to NASA, TEMPO will significantly enhance scientific data records on air pollution, including nitrogen oxide, sulphur dioxide, ozone, and formaldehyde, by observing air pollution over the continental United States, Canada, Mexico, Cuba, the Bahamas, and a portion of the island of Hispaniola.
- The TEMPO slogan, "It's about time," alludes to TEMPO’s ability to deliver hourly air pollution data.
- TEMPO will be a member of a virtual constellation of air quality satellites that will track pollution throughout the Northern Hemisphere from its geostationary orbit, a high Earth orbit that enables satellites to synchronise Earth's rotation.
- The TEMPO instrument was built by Ball Aerospace and integrated onto Intelsat 40E by Maxar.

Large deposits of 15 Rare Earth Elements found in Andhra Pradesh

Inside Story of the News:

- The Anantapur district of Andhra Pradesh recently saw the discovery of significant concentrations of **15 rare earth elements (REE)** by the National Geophysical Research Institute, situated in Hyderabad.
- In Anantapur, NGRI scientists searched for unusual rocks like syenites and were successful in locating the host minerals.
- Allanite, ceriate, thorite, columbite, tantalite, apatite, zircon, monazite, pyrochlore euxenite, and fluorite were the major REE identified.
- A number of alkaline syenite deposits previously reported by the Geological Survey of India (GSI) were re-examined for REE-bearing minerals, according to scientists.
- Dancherla, Peddavaduguru, Danduvaripalle, Reddypalle, Chintalchervu, and the Pulikonda complex in the Anantapur and Chittoor districts are a few prospective centres for these REE-bearing minerals.
- The GSI had found a lithium reserve in the Reasi district that was believed to be 5.9 million tonnes in size.
- Lithium is an essential mineral for the production of solar panels and electric vehicles.
- Many common electrical equipment, including cell phones, televisions, computers, cars used every day, and other industrial uses, depend on REE of the lanthanide class.
- Lithium is a key resource that wasn't previously available in India, hence the country was entirely dependent on imports.
- The Mata Vaishno Devi shrine at Salal Village (Reasi) is located in the foothills of best quality lithium, according to the GSI's G3 (advanced) analysis.

India’s First 3D-Printed Post Office

Inside Story of the News:

- Bengaluru, India’s IT hub, is also making great progress with its construction. The **first 3D-printed post office in India** will shortly be located in the city; work on it is already well under way.
- Construction company Larsen & Toubro Limited (L&T) is building the 1100 square feet post office, which is coming up at Cambridge Layout in **Bengaluru’s Halasuru**.
- The project is expected to be fully constructed in about 30 days.

What makes the new 3D printed post office special?

- The post office's building cost, excluding the use of technology, is INR 23 lakh. This is roughly 30 to 40% less than that of a typical building, which lowers the cost of construction.
- The structure was first proposed last year in August.

- About the construction: A churner with measured amounts of water is filled before adding the cement, sand, and waterproofing agent. The mixture is then extruded into blocks, which are subsequently stacked on top of one another with support provided by iron pillars.

Miyawaki forest coming up at Deonar in Govandi

Inside Story of the News:

- The Brihanmumbai Municipal Corporation (BMC) has started establishing a **Miyawaki forest in Deonar village in Govandi** to combat pollution and climate change.
- This practise, which is named after the Japanese botanist Akira Miyawaki, entails planting two to four different native tree species in each square metre.
- With this method, the trees reach their maximum size in three years and become self-sustaining.
- The BMC has started establishing Miyawaki gardens at a number of locations throughout Mumbai to boost the amount of greenery there.
- There are a number of industries and refineries in the Govandi and Chembur area. There is a landfill nearby as well, which raises the temperature and pollution level. As a result, it is intended to create a Miyawaki forest to aid in lowering the surface temperature.
- On the land parcel in Deonar hamlet, 3,500 indigenous tree species will be planted, including 42 types of medicinal plants.
- The Miyawaki method will be used by the BMC's garden cell to plant one lakh trees in 16 plots this year.
- The BMC had issued a circular in January mandating that any future real estate project constructed on a block of land larger than 10,000 square metres set aside 5% of its plot for Miyawaki forest.

‘Vibrant Villages Programme’ launched in Arunachal Pradesh

Inside Story of the News:

- Union Home Minister Amit Shah on Monday launched the **‘vibrant villages programme’ in Arunachal Pradesh bordering China**.
- For the financial years 2022–2023 through 2025–2026, the scheme's primary component will cost 4,800 crore, including 2,500 crore exclusively for road connectivity.
- Arunachal Pradesh, Sikkim, Uttarakhand, Himachal Pradesh, and the Union Territory of Ladakh have identified 2,967 villages in 46 blocks of 19 districts that border the northern border as needing comprehensive development as part of the "vibrant villages programme," which the Centre previously approved.
- 662 villages, including 455 in Arunachal Pradesh, have been chosen for priority coverage in the first phase.

- In addition, Shah launched 14 infrastructure projects worth Rs. 120 crore from the Indo-Tibetan Border Police (ITBP) and 9 micro-hydel projects from the Arunachal Government.
- Days after China renamed 11 locations in Arunachal Pradesh, the home minister visited the north-eastern state and dedicated a number of initiatives there, including nine micro-hydel plants built as part of the "Golden Jubilee Border Illumination Programme."

Indian-American mathematician C R Rao awarded math 'Nobel Prize'

Inside Story of the News:

- For his ground-breaking work that changed statistical thinking 75 years ago, **Calyampudi Radhakrishna Rao**, a well-known Indian-American mathematician and statistician, will win the **2023 International Prize in Statistics**, the field's equivalent of the Nobel Prize.
- Rao's work, more than 75 years ago, continues to exert a profound influence on science.
- This July, at the biennial International Statistical Institute World Statistics Congress in Ottawa, Ontario, Canada, Rao, who is currently 102, will receive the award, which includes a reward of $80,000.
- Rao demonstrated three essential conclusions in his outstanding 1945 paper, which was published in the Bulletin of the Calcutta Mathematical Society.
- These results paved the path for the contemporary study of statistics and gave statistical tools that are still widely utilised in science today.
- The first, now referred to as the Cramer-Rao lower bound, offers a way to determine when an estimation technique is as accurate as it can be.
- The second finding, known as the Rao-Blackwell Theorem (after the separate discovery of it by renowned statistician David Blackwell), offers a method for improving an estimate to an ideal one. These findings collectively serve as the cornerstone around which much of statistics is constructed.
- The third conclusion, dubbed "information geometry," offered insights that helped establish a brand-new interdisciplinary area that has since prospered. These findings collectively enable scientists to mine data more effectively for insights.
- The Large Hadron Collider, the biggest and most potent particle accelerator in the world, has recently used information geometry to help explain and optimise Higgs boson measurements.
- Recent research on radars and antennas has also found use for it, and it has made major contributions to the fields of artificial intelligence, data science, signal processing, shape classification, and image segregation.
- The Cramer-Rao lower bound is crucial in a variety of fields, including signal processing, spectroscopy, radar systems, multiple image radiography, risk analysis, and quantum physics, while the Rao-Blackwell process has been applied to stereology, particle filtering, and computational econometrics, among others.

Report of State Energy Efficiency Index (SEEI) 2021-22 released

Inside Story of the News:

- The **State Energy Efficiency Index (SEEI) 2021–22 report** was recently released by Union Minister of Power and New and Renewable Energy, Shri R. K. Singh.
- The RPM (Review, Planning and Monitoring) meeting of States and State Utilities in New Delhi saw the release of the SEEI.
- The Alliance for an Energy-Efficient Economy (AEEE) and the Bureau of Energy Efficiency (BEE), a statutory body under the Ministry of Power, devised an index to measure annual progress made by states and UTs in implementing energy efficiency during the fiscal years 2020–21 and 2021–22.
- An updated framework of 50 indicators that is in line with national priorities is included in SEEI 2021–22.
- This year, programme-specific indicators have been added to track the results and effects of state-level energy efficiency initiatives.
- In SEEI 2021-22, 5 states - Andhra Pradesh, Karnataka, Kerala, Rajasthan and Telangana - are in the Front Runner category (>60 points) while 4 states - Assam, Haryana, Maharashtra, and Punjab - are in the Achiever category (50-60 points).
- The top-performing states in their respective state groups are Karnataka, Andhra Pradesh, Assam and Chandigarh.
- The two states that improved the most from the previous index were Telangana and Andhra Pradesh.
- It is crucial to regularly monitor state energy efficiency progress and results in order to properly support the country's climate goals.
- India is dedicated to meeting the NDC objectives and making the switch to a net-zero economy by 2070. Collaboration between the federal and state governments, wise resource management, policy alignment, and consistent progress monitoring are all necessary for this.
- The SEEI promotes energy efficiency policies and activities at the state and local levels while monitoring success in controlling the energy footprint of states and India.
- The SEEI enhances data collecting, permits interstate cooperation, and generates programme ideas for energy efficiency.
- It supports states in identifying opportunities for development, learning from best practises, and implementing energy efficiency across the entire economy.
- It intends to advance decarbonisation efforts and create a more sustainable future by giving energy efficiency priority.
- The index includes the following recommendations to assist states in driving change in EE that will contribute to the realisation of the SDGs and NDC in order to help track progress on state goals for energy savings and reduction in emission intensity:
    - Enabling fiscal assistance for energy efficiency in the focus sectors
    - Developing institutional capacity in states and UTs to address emerging needs and challenges in energy efficiency implementation

- Enhancing cross-functional collaborations across financial institutions, energy service companies, and energy professionals in large-scale energy efficiency implementation in states
- Mainstreaming energy data reporting and monitoring across sectors

NSE launches India's first ever Reits and InvITs Index

Inside Story of the News:

- NSE Indices Ltd, a subsidiary of National Stock Exchange (NSE), has launched **India's first ever Real Estate Investment Trusts (Reits) and Infrastructure Investment Trusts (InvITs) Index**.
- The Nifty Reits and InvITs index, a new index, aims to measure the performance of publicly listed and traded Reits and InvITs on the NSE.
- The weights of the securities in the index are determined by their free-float market capitalization. Each security's weight in the index is capped at 33%, while the combined weight of the top three securities is capped at 72%.
- The Nifty Reits and InvITs Index has a base date of 1 July 2019 and a base value of 1,000.
- Every quarter, the index will be reviewed and rebalanced.
- Reits and InvITs are investment vehicles that own revenue-generating real estate and infrastructure assets, respectively.
- Investors looking for consistent income generation through a diverse portfolio of real estate or infrastructure assets may consider Reits and InvITs.
- The use of Reits and InvITs as strong alternative financial instruments to raise money for projects in the real estate and infrastructure sectors that will generate cash flow is well known.
- These products give investors exposure to real estate or infrastructure assets, provide risk diversification from more common asset classes like equity, debt, and gold, and produce consistent income.
- Reits and InvITs have globally been effective tools for investors to diversify their portfolios. The market, however, is still emerging and is relatively young in India.
- The top constituents of Nifty Reits and InvITs index include Embassy Office Parks Reit (32.9% weight), Powergrid Infrastructure Investment (20.2%), Mindspace Business Parks Reit (15.3%), India Grid Trust (15.3%).
- Including share price performance and income distribution to shareholders, the index has produced total returns of negative 2.1% year to date and negative 1.7% over the past 12 months.
- The index has delivered total returns at a compounded annual growth rate (CAGR) of 10.48% from its launch (1 July 2019), compared to the 12.06% delivered by Nippon India ETF Nifty BeES.
- Real estate is weighted 57.5%, power is 35.6%, and services is 6.8% in the index.

The Language Friendship Bridge

Inside Story of the News:

- **The Language Friendship Bridge** is a special project that the Indian Council for Cultural Relations has envisaged.
- It aims to develop a **pool of experts in 10 languages** from certain surrounding nations and other nations that have a shared cultural heritage with India.
- India is preparing to establish a pool of specialists in the languages used in its immediate neighbours in order to improve people-to-people relations.
- India is hoping to increase its cultural influence in countries with which it has historical ties, particularly those in its immediate neighbourhood.
- As of now, the ICCR has zeroed in on 10 languages: Kazakh, Uzbek, Bhutanese, Ghoti (spoken in Tibet), Burmese, Khmer (spoken in Cambodia), Thai, Sinhalese and Bahasa (spoken in both Indonesia and Malaysia).
- European languages like Spanish, French, and German as well as the languages of significant Asian economies like China and Japan have been the emphasis of language learning in India up until this point.
- Even while many universities and institutes offer courses in these languages, only a small number of institutions actually teach any of the 10 languages on the ICCR list. Sinhala, for example, is taught at the Banaras Hindu University and the School of Foreign Languages (SFL) under the Ministry of Defence.
- The SFL also has courses in Bahasa, Burmese and Tibetan.
- The goal is to make it possible for India to translate its epics, classics, and modern literature into these languages so that readers in both countries can enjoy them.

Cost Inflation Index notified by IT Dept

Inside Story of the News:

- The **Cost Inflation Index for the current fiscal year beginning in April 2023** has been announced by the Income Tax Department for use in computing long-term capital gains from the sale of immovable property, securities, and jewellery.
- Taxpayers use the Cost Inflation Index (CII) to calculate gains from the sale of capital assets after adjusting inflation.
- According to the Central Board of Direct Taxes (CBDT) notification, the Cost Inflation Index for FY 2023–24 applicable to AY 2024–25 was 348.
- Typically, the income tax department notifies CII in June.
- The CII number for the last fiscal year was 331; for the fiscal year 2021–2022 it was 317.
- By assisting taxpayers in computing long-term capital gains tax, the CII would enable them to pay advance tax on time.

- Under the Income-tax Act of 1961, the Cost Inflation Index, or CII, is announced each year.
- The "indexed cost of acquisition" is a commonly used formula to determine capital gains when selling any type of capital asset.
- In order to qualify as "long-term capital gains," an asset must typically be held for more than 36 months (24 months for real estate and unlisted shares, 12 months for listed securities).
- The CII is used to determine the inflation-adjusted purchasing price of assets in order to calculate taxable long-term capital gains (LTCG), as rising prices for products cause a decline in purchasing power over time.