

BRAHMASTRA

**ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS**

01 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

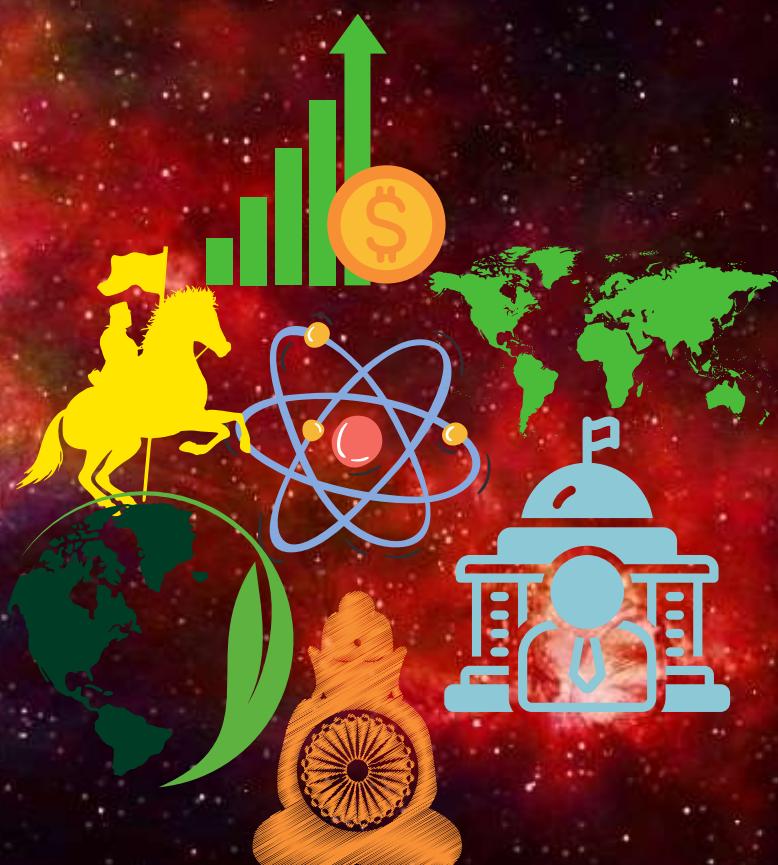
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : National Geospatial Policy, 2022

RELEVANCE : #GS-2 #Government Policies & Interventions

MAINS ANALYSIS

CONTEXT

The Ministry of Science and Technology has recently notified the National Geospatial Policy 2022.

- It is a **13-year guideline** which aims to promote the country's geospatial data industry and develop a national framework to use such data for improving citizen services
- India's geospatial economy is expected to cross Rs 63,000 crore by 2025 at a growth rate of 12.8%.
- In February 2021, ministry **deregulated the previous protocol and liberalised the sector to a more competitive field.**

KEY PROVISIONS

- **Geospatial Knowledge Infrastructure (GKI):** The govt will establish an Integrated Data Information Framework by 2030
- The government will also establish **National Digital Twin (for high-resolution topographical survey and mapping by 2035)**
- Institutional Infrastructure: **Geospatial Data Promotion & Development Committee ('GDPDC')** will be constituted for formulating and implementing guidelines, strategies, and programs for the promotion of activities related to the Geospatial sector.
- Will put in place a **legal framework by 2025** that supports the liberalization of the geospatial sector, & democratization of data for enhanced commercialization with value-added services.

WAY FORWARD

- There is a need to establish a **geo-portal to make all public-funded data accessible** through data as a service model. Develop a coherent national Geospatial framework in the country
- Move towards a digital economy and improve services to citizens **Ensure easy availability of valuable Geospatial data collected with private involvement.**
- **Made-in-India solutions:** There should be an increase in the development of made-in-India solutions, which would be backed by modern geospatial technologies.

MAINS QUESTION

Discuss the roadblocks to harnessing full benefits of India's geospatial sector and suggest measures to overcome these challenges.

10 Marks 150 Words

GEOSPATIAL TECHNOLOGY

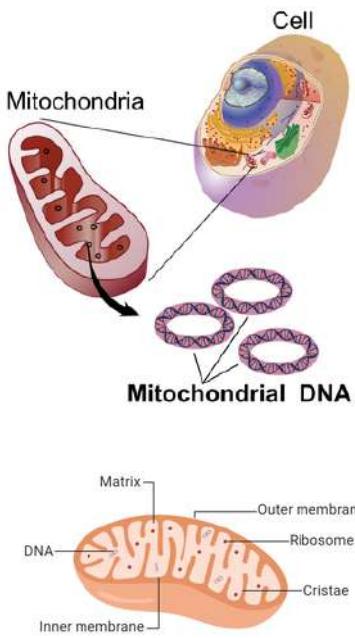
Geospatial technology is an **emerging technique to study real earth geographic information using Geographical Information System (GIS), Remote Sensing (RS) and other ground information from various devices and instruments.**

- **Diverse Applications :** Ecology, tourism, marine sciences, healthcare, agriculture, and forestry to defence, law enforcement, logistics.
- **Security :** e.g **smart border fencing.**
- Used by government departments : SVAMITVA.
- Meteorological Studies & Disaster Management.
- **Data Collection :** eg. **Survey of India (SoI).**

EFFORTS

- **Lack of commercial business:** India presently does not have enough commercial businesses to capture a significant share of this industry.
- **Absence of a framework:** geospatial technology has not been assimilated well enough in governance mechanisms due to the absence of a framework.
- Lack of **skilled manpower** across the entire pyramid is also a major issue.
- The **lack of clarity on data sharing** and collaboration prevents co-creation and asset maximisation.
- There are still **no ready-to-use solutions especially built** to solve the problems of India.
- Lack of private investment in the sector.





Mitochondria

In a world first, six children with rare disorders caused by deletions in the genomes of their mitochondria have been successfully treated with donor mitochondria from their mothers.

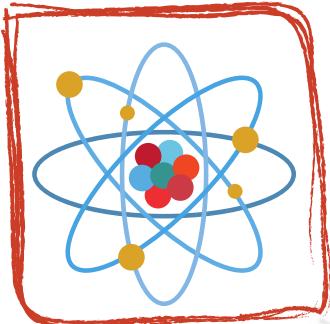
- Doctors transferred **healthy mitochondria** into the children's **haematopoietic stem cells**, which give rise to blood cells.

What is Mitochondria?

- Mitochondria are **membrane-bound cell organelles** (mitochondrion, singular) that generate most of the chemical energy needed to power the cell's biochemical reactions and dubbed as **power houses of the cell**.
- Chemical energy produced by the mitochondria is stored in a small molecule called **adenosine triphosphate (ATP)**.
- Mitochondria contain their own small chromosomes.
- Generally, mitochondria, and **therefore mitochondrial DNA, are inherited only from the mother**.
- Mitochondrial diseases: Alpers Disease, Barth Syndrome, Kearns-Sayre syndrome (KSS)
- The inner membrane of mitochondria has many folds. These folds form a layered structure called **cristae**.
- Mitochondria also detox ammonia in the liver cells

Standard Model of Physics

New data analyzed by the Large Hadron Collider beauty (LHC-b) experiment at CERN have found that previous data indicating a violation of the Standard Model of particle physics was flawed, with the new data matching up with the Standard Model.



- The Standard Model of particle physics is the theory which describes **three of the four known fundamental forces** (the electromagnetic, weak, and strong interactions, and not including the gravitational force) in the universe, as well as **classifies all known elementary particles**.
- It explains how particles called **quarks** (which make up protons and neutrons) and **leptons** (which include electrons) make up all known matter.
- Scientists do not yet know how to combine gravity with the Standard Model.**

Large Hadron Collider (LHC)

- Large Hadron Collider** is a giant, complex machine at **very cold temperature in Geneva, Switzerland**, built to study particles that are the smallest known building blocks of all things.
- In its operational state, it fires **two beams of protons almost at the speed of light in opposite directions** inside a ring of superconducting electromagnets through beam pipes and finally collide.



Prelims



K9-Vajra

The Defence Ministry has started the process for the procurement of 100 more K9-Vajra tracked self-propelled howitzers, which are built in India by **Larsen & Toubro (L&T)** using technology transferred from South Korean defence major Hanwha Defense Co. Ltd.

- It offers a high rate of **fire at long-range** and is compatible with Indian and standard North Atlantic Treaty Organisation (NATO) ammunition.



Net International Investment Position (NIIP)

The net claims of nonresidents on India increased by \$34.3 billion during the second quarter (Q2) of FY23 and stood at \$389.6 billion in September, according to data released by **Released Bank of India on India's International Investment Position (IIP)**.

- The **net international investment position** is the difference in the external financial assets and liabilities of a country. External debt of a country includes government debt and private debt.
- External assets publicly and privately held by a country's legal residents are also taken into account when calculating NIIP.



Vibrant Village Programme (VVP)

Union Home Minister asks border-guarding forces to strengthen **Vibrant Village Programme and ensure welfare programmes are implemented**

- It was announced in the 2022-23 budget with an aim to enhance the infrastructure in border villages along **India's border with China**.
- This objective will be met by strengthening infrastructure across villages located near the **Line of Actual Control (LAC)**
- Activities include Housing, Tourism promotion, Road Infrastructure, Renewable Energy, livelihood generation etc.
- Promotes community knowledge in the border management
- Other similar initiatives: Border Area Development Programme (BADP); Border Infrastructure and Management Scheme etc.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

02 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

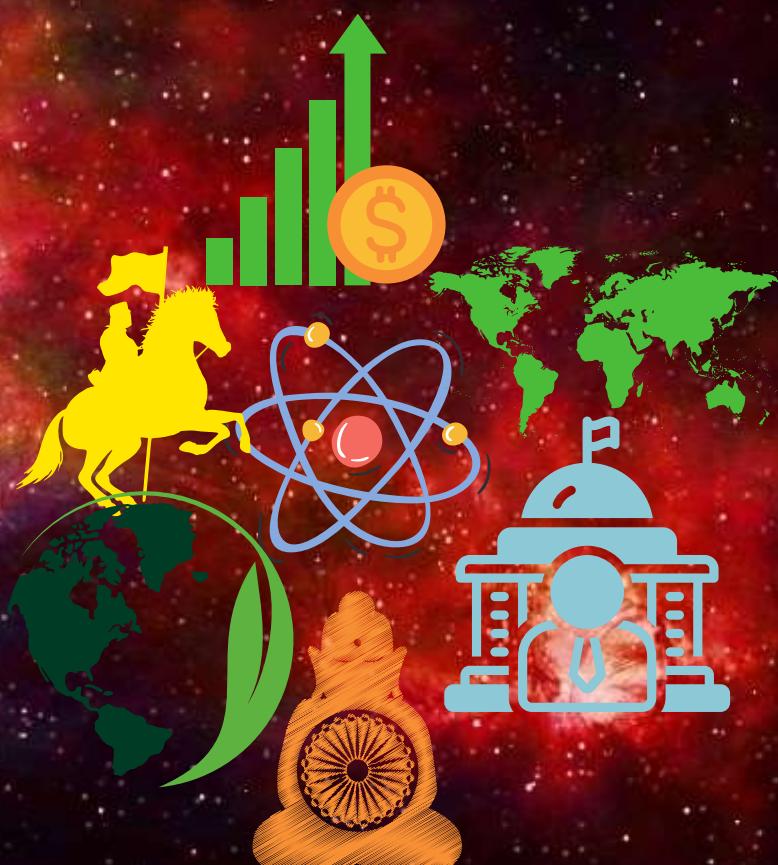
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Non-Performing Assets (NPAs)

RELEVANCE : #GS-3 #Economy #Banking

MAINS ANALYSIS

CONTEXT

In December 2022, Finance Minister told Parliament that banks had written off bad loans worth ₹ 10,09,511 crore during the last five financial years. **Significantly, only ₹ 1.32 lakh crore has been recovered.**

- Bad loans of MSMEs** now account for 9.6 % of gross advances of Rs 17.33 lakh crore as against 8.2 % in September 2020.
- As the NPA of the banks will rise, it will bring a **scarcity of funds in the Indian security markets**. Few banks will be willing to lend if they are not sure of the recovery of their money.

ISSUES

- Credit Boom during 2004-08** Indian firms borrowed furiously in order to avail of the growth opportunities they saw coming.
- Less profitable : The banks are required to provision for bad loans out of their operating income.
- Risk-averse**: The officials of such banks hesitate from extending loans to business ventures that may remotely appear risky for the fear of NPAs.
- Rising Bad Loans**: In spite of various efforts, a substantial amount of NPAs continue on the balance sheets of banks primarily because the stock of bad loans.
- Priority sector lending (PSL) sector** has contributed substantially to the NPAs

NON-PERFORMING ASSETS

A **non-performing asset (NPA)** is a classification for loans and advances on which the principal is past due and on which no interest payments have been made for a period of time

- A loan becomes an NPA when the principal or interest payment remains **overdue for 90 days**.
- Sub Standard**: An NPA for a period not exceeding twelve months.
- Doubtful**: An NPA for a period exceeding 12 months.
- Loss Assets** : An asset identified by Bank or by internal/external auditor/RBI as loss assets with a little salvage value

EFFORTS

- Bad Banks** : A National Asset Reconstruction Company Ltd. (NARCL) was announced to resolve stressed loans amounting to about ₹ 2 lakh crore in phases.
- Insolvency and Bankruptcy Code (IBC)**: With the RBI's push for the IBC, the resolution process is expected to quicken while continuing to control over the quality of the assets.
- Preventing Evergreening through Asset Quality Review**: India became more aggressive in recognising NPAs in 2014 to 2015 period.
- Provisioning** : Capital Adequacy Ratio (CAR) or Capital to Risk (weighted) Assets Ratio (CRAR).
- SARFAESI Act, 2002 and Debt Recovery Tribunals**

WAY FORWARD

- Through strategy of **recognition, resolution, recapitalisation and reforms**,” NPAs had since declined to 5.9% by March 2022 which can further strengthened.
- An alternative is to set up a **Loan Resolution Authority**, if necessary through an Act of Parliament. The government can't be expected to rescue the state-run banks with tax-payer's money every time they fall into a crisis. But, the kind of attention with which this problem has been received by policymakers and bankers alike is a big ray of hope. Right steps, timely and concerted actions and a revival of the Indian economy will put a lid on NPAs.

MAINS QUESTION

What is Non-Performing Assets? What are the challenges posed by NPAs? What are the various steps taken to tackle NPAs? Illustrate.

10 Marks 150 Words





Prelims

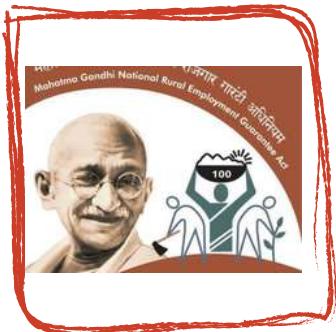


EU member Croatia joins the eurozone

Croatia switched to the shared European currency, the euro, and removed dozens of border checkpoints to join the **Eurozone & Schengen Area (world's largest passport-free travel area)**

- Adopting the euro will likewise offer Croatia the benefits stemming from deeper financial ties with the currency's 19 other users and with the European Central Bank.
- Croatia joined the EU in 2013, but to adopt the euro the country had to fulfill a set of strict economic conditions**, including having a stable exchange rate, controlled inflation and sound public spending.

National Mobile Monitoring System (NMMS)



Digitally capturing the attendance of workers employed under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MREGS) has been made universal by the Centre from January 1, 2023.

- The National Mobile Monitoring Software (NMMS) App was launched by the **Ministry of Rural Development in 2021** to bring more transparency and ensure proper monitoring of the schemes.
- The Ministry's directive claims that the app, which requires **two time-stamped and geotagged photographs of the workers in a day**, encourages transparency and increases citizen oversight.
- Poor internet connectivity, little access to smartphones and glitches in the app have created a problem in the daily activities of the workers.

MGNREGA Scheme:

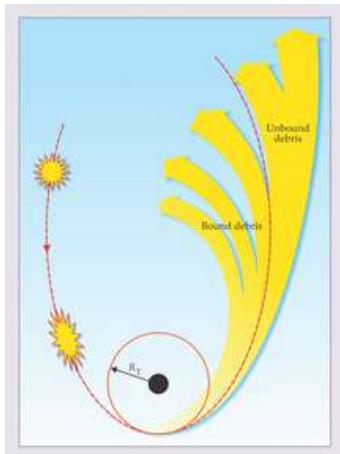
- The Mahatma Gandhi National Rural Employment Guarantee Act was passed in 2005 to augment employment generation and social security.
- The scheme is a demand-driven wage employment scheme, which functions under the Ministry of Rural Development.
- Every adult member of a household in a rural area with a job card is eligible for a job under the scheme.
- The scheme envisages providing 100 days of guaranteed wage employment in a financial year** to adult member volunteers for unskilled manual work.
- There is also a provision for additional 50 days of unskilled wage employment in drought/natural calamity notified rural areas.

Elephant corridor in the Mudumalai Tiger Reserve (MTR)

The court-appointed technical committee (**Sigur Elephant Corridor Inquiry Committee**) found **major irregularities such as viewing screens, specially designed shower (helps attract passing elephants)**.



- They have been held responsible in large part for transforming the behavior of the animal and had made it reliant on people for food.
- Mudumalai Tiger Reserve is located in the Nilgiris District of Tamil Nadu state at the **tri-junction of three states, viz, Karnataka, Kerala and TN**.
- It is a part of **Nilgiri Biosphere Reserve** (1st Biosphere Reserve in India) along with **Wayanad Wildlife Sanctuary (Kerala) in the West, Bandipur National Park (Karnataka) in the North, Mukurthi National Park and Silent Valley in the South**.

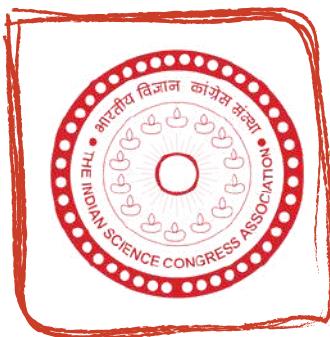


Tidal disruption event

Telescopes operated by the National Aeronautics and Space Administration (NASA) recently observed a massive black hole devouring a star.

- The astronomical phenomenon of the destruction of a star by a black hole is formally called a **tidal disruption event (TDE)**.
- A **tidal force** is a difference in the **strength of gravity** between two points. If the tidal force exerted on a body is greater than the intermolecular force that keeps it together, the body will get disrupted.
- During a TDE, the tidal force of a black hole disrupts the star in the vicinity. While about half of the star's debris continues on its original path, the other half is attracted by the black hole's gravitational pull. The gradual growth of this material bound to the black hole produces a short-lived flare of emission, known as a tidal disruption event.
- The event is formally called **AT2021ehb** and took place in a galaxy with a central black hole about 10 million times the mass of our sun.

108th Indian Science Congress



Prime Minister will virtually address the **108th Indian Science Congress (ISC)** on January 3, which is expected to focus on ways to increase the representation of women in Science, Technology, Engineering and Mathematics (STEM) fields.

- Theme : “Science and technology for sustainable development with women empowerment”**
- The Indian Science Congress Association (ISCA) owes its origin to the foresight and initiative of two British Chemists, namely, Professor J. L. Simonsen and Professor P.S. MacMahon.
- The first meeting of the Congress was held from January 15-17, 1914 at the premises of the Asiatic Society, Calcutta.

Millets



In an effort to promote cultivation and consumption of millets on a larger scale, the Union government, with the help of various States and Indian embassies around the globe, has launched the **International Year of Millets (IYM)**.

- India accounts for a fifth of the world's millets production.
- There are numerous varieties in **sorghum**, **ragi (finger millet)**, **kodo (kodo millet)**, **kutki (little millet)**, **kakun (foxtail millet)**, **sanwa (barnyard millet)**, **cheena (proso millet)**, **kuttu (buckwheat)** and **chaulai (amaranth)**.
- But, between 2003-04 and 2021-22, India's millet output has actually fallen from 21.32 million tonnes (mt) to 15.92 m.
- Millets also called as orphan crops.
- Benefits :** Millets are hardy and drought-resistant crops. This has to do with their short duration (70-100 days, against 115-150 days for rice and wheat), lower water requirement (350-500 mm versus 600-1,250 mm) They have ability to grow even on poor soils and in hilly terrain.

BRAHMASTRA

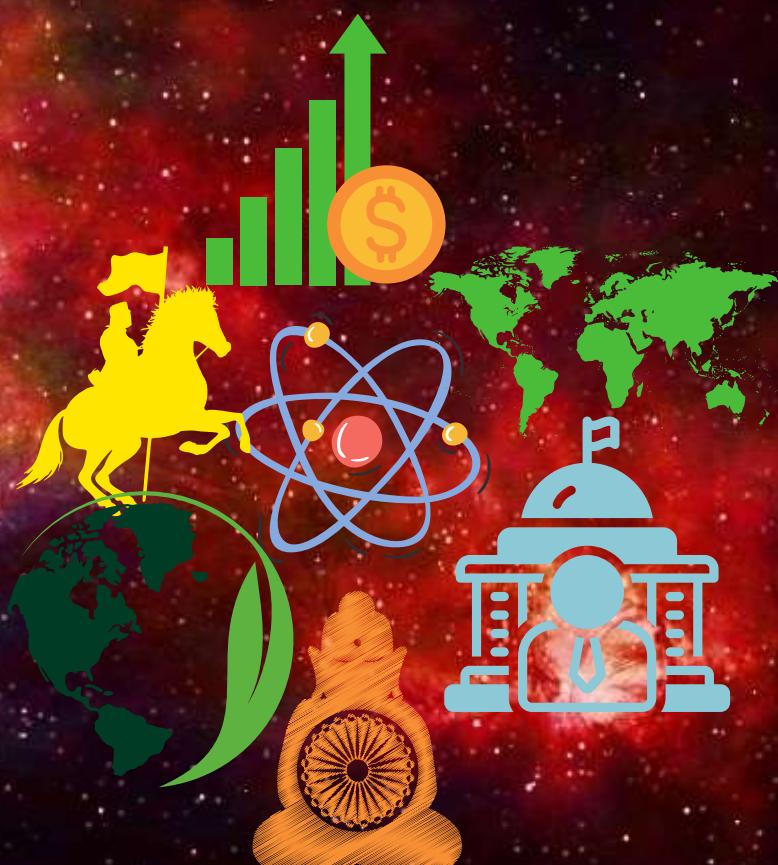
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

04 JANUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA
PIB
YOJANA
& MUCH MORE.



TOPIC : Crowd Disasters

RELEVANCE : #GS-3 #Disaster Management

MAINS ANALYSIS

CONTEXT

The two back-to-back stampedes at rallies attended by Telugu Desam Party (TDP) chief have once again put the spotlight on the crowd and their management.

- The term stampede is applied to a **sudden rush of a crowd of people, usually resulting in many injuries and death from suffocation and trampling**. Stampedes are caused by surge of individuals in a crowd, in response to a perceived danger, loss of physical space or excitement.
- According to the NCRB from 2000 to 2013, almost 2,000 people died in stampedes.

CAUSES

- **Collapse** of structures such as barricades, bridges, temporary structures etc.
- **Space** : Narrow entry/exits
- Poor **crowd behaviour**, especially the role of rumour mongers.
- Poor **crowd management** due to understaffed security personnel.
- **Lack of coordination** among various agencies.
- Incidents of fire and improper electricity wiring.
- The configuration, capacity, determine degrees of crowding. e.g. venues/events are filled beyond capacity with people (10 people per sq.km).
- Non properly organised celebrity, political meet.

CHALLENGES

- **No crowd management plan:** The state governments and local authorities have not yet implemented the NDMA guidelines on stampede.
- **Rising population:** With rising population and rapid urbanization, urban areas are likely to be more susceptible along with places of frequent mass gatherings like temples.
- **Tolerance to crowd:** According to scholar Teressa Moore, large-scale events in India are more susceptible to stampedes because of a greater tolerance for high-density crowds.
- **Governance and accountability:** Agencies responsible for issuing permissions/ licences for mass gatherings, events fail to follow requirements , Question of accountability post a preventable man-made disaster like stampede.

RECOMMENDATIONS

1. **Understanding venue**, visitors and stakeholders: e.g. Expected Crowd (age, gender, economic strata), Crowd Motives (such as social, academic, religious, entertainment, economic etc.) etc.
2. **Crowd Handling** : e.g. Traffic around the mass gathering venues should be properly regulated.
3. **Safety and Security**: The venue Organisers should ensure authorised use of electricity, fire safety extinguishers and other arrangements as per the safety guidelines.
4. **Communication**: A public address system, with loudspeakers installed at all crowded points, to communicate with the crowds.
5. **Medical and Emergency care**: Medical first-aid rooms and emergency operations centres to handle post-disaster emergencies should be set up

WAY FORWARD

- Recent Cases such as Satraganchi Railway Station, West Bengal 2018 , Post train accident during Dusshera festival, Amritsar in 2018 call for urgent attention by all States to prepare crowd disaster management plans keeping in view the guidelines of NDMA
- **Implementing best practices** : **Crowd management during Haj Pilgrimage in Makkah, Saudi Arabia , ASHIOTO (real time crowd flow analysis platform)** in Nasik Kumbh Mela.
- **Enhancing capacity building and role of civil society organization, police etc. & Use of ICT as per NDMA Guidelines.**

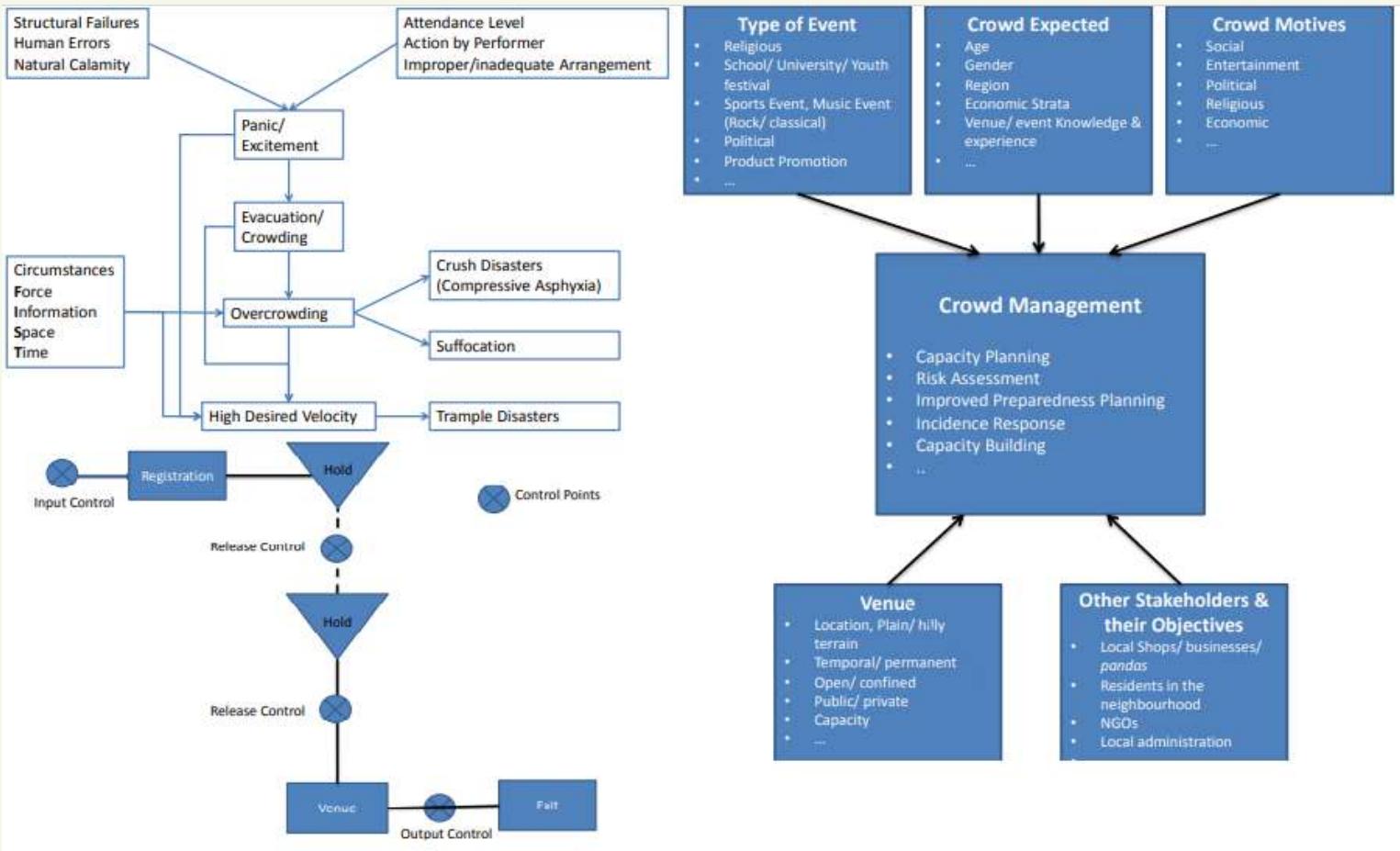
MAINS QUESTION

What are the causes behind Crowd Disasters? Discuss NDMA Guidelines to manage Crowd Disasters?

15 Marks 250 Words



CROWD PROCESS, CROWD CONTROL AND AN INTEGRATED APPROACH TO CROWD MANAGEMENT BY NATIONAL DISASTER MANAGEMENT AUTHORITY (NDMA)



USE OF ICT IN CROWD MANAGEMENT:

ICT for Disaster mitigation and Prevention	ICT in Disaster response and relief
<p>Technology</p> <ul style="list-style-type: none"> GIS, Remote Sensing Radio, Television, telephone SMS, UMS, Cell Broadcasting, Internet/Social Media RFID Space based sensors and balloons 	<p>Technology</p> <ul style="list-style-type: none"> PA system, SMS, UMS, Cell Broadcasting, Inter-operability of mobile service providers Emergency lighting, alarms RFID Tags Registration database software Space based sensors and balloons
<p>Typical Usage</p> <ul style="list-style-type: none"> Early warning system, Potential Risks, Vulnerabilities Registration of visitors, Virtual Queues, RFID Information dissemination To regulate flow of visitors Prepositioning of resources 	<p>Typical Usage</p> <ul style="list-style-type: none"> To ensure rumours do not spread Registering missing persons Search and rescue Keeping track of relief organizations, Camps of displaced persons Insurance processing Resource inventory management



UNEXPLODED ORDNANCE (UXO)

AN UNEXPLODED artillery shell was found near official residence of Punjab CM

- UXO: A piece of military ammunition or explosive device that remains unexploded even after it has been primed and fired is known as an Unexploded Ordnance (UXO) in military parlance.
- UXOs may be leftovers from a war, military battle inoculation exercise, field firing exercise, or may even be part of military scrap that is brought from other countries to extract metal.
- All unexploded munitions are treated as potentially dangerous and capable of getting detonated until proven otherwise in a professional assessment by military ammunition experts.

Sari Festival VIRAASAT

The second phase of the Sari Festival "VIRAASAT"- Celebrating 75 handwoven Saris of India will begin from 3rd to 17th January 2023 at Handloom Haat, Janpath, New Delhi.

- It is organised by Ministry of Textiles.

States	Prominent sari varieties
Andhra Pradesh	Uppada Jamdhani Sari, Venkatagiri Jamdani Cotton Sari, Kuppadam Sari, Chirala Silk Cotton Sari, Madhavaram Sari and Polavaram Sari
Kerala	Balaramapuram Sari and Kasavu Sari
Telengana	Pochampally Sari, Siddipet Gollabamma Sari and Narayanpet Sari
Tamilnadu	Kancheepuram Silk Sari, Arni Silk Saris, Thirubuvanam Silk Sari, Vilandai Cotton Sari, Madurai Sari, Paramakudi Cotton Sari, Aruppukottai Cotton Sari, Dindigul Cotton Sari, Coimbatore Cotton Sari, Salem Silk Sari and Coimbatore (Soft) Silk Saris & Kovai Kora Cotton Saris
Maharashtra	Paithani Sari, Karvath Kathi Sari and Nagpur Cotton Sari
Chhattisgarh	Tussar Silk Sari of Champa
Madhya Pradesh	Maheshwari Sari and Chanderi Sari
Gujarat	Patola Sari, Tangaliya Sari, Ashawali sari and Kuchchi Sari/ Bhujodi sari, Bandhani
Rajasthan	Kota Doria Sari , Kalamkari
Uttar Pradesh	Lalitpuri Sari, Banaras Brocade, Jangla, Tanchoi, Cutwork, and Jamdani
Jammu & Kashmir	Pashmina Sari
Bihar	Bhagalpuri Silk Sari and Bawan Buti Sari
Odisha	Kotpad Sari and Gopalpur Tassar Sari
West Bengal	Jamdani, Santipuri and Tangail
Jharkhand	Tussar and Gichha Silk Sari
Karnataka	Ilkal Sari
Assam	Muga Silk Sari, Mekhla Chadar (Sari)
Punjab	Embd. & Croch (Phulkari)



Prelims



Wassenaar Arrangement

India will assume **chairmanship of the plenary of the Wassenaar Arrangement for a year on January 1, 2023.**

- **The Wassenaar Arrangement is a voluntary export control regime.**
- The Arrangement, formally established in July 1996, has 42 members who exchange information on transfers of conventional weapons and dual-use goods and technologies.
- **Dual-use** refers to the ability of a good or technology to be used for multiple purposes - usually peaceful and military.
- Wassenaar Arrangement's **Secretariat is in Vienna, Austria.**
- India became a **member of the Arrangement in 2017.**
- **Indian home minister is also presently the chair of the No Money for Terrorism (NMFT) ministerial initiative.**



WALLABY

WALLABY, or the Widefield ASKAP L-band Legacy All-sky Blind survey, is a **radio telescope in Western Australia that is helping astronomers build a three-dimensional map of the night sky, mapping galaxies as far as a billion light years away.**

- **Radio astronomy involves tracking the signals from radio waves and helps detect and trace stellar objects that cannot be traced by light.**
- It Provides pictures of where galaxies are actually located in relation to one another in three-dimensional space. It will be able to tell apart galaxies that appear clustered together but are actually millions of light years apart.



International Court of Justice (ICJ)

The UNGA ended 2022 by passing a resolution that asked the body's highest court, the **International Court of Justice (ICJ) to render its opinion on the legal consequences of Israel's prolonged occupation of Palestinian land.**

- ICJ was established in 1945 by the UN charter.
- It is the principal judicial organ of the UN, situated at the Peace Palace in The Hague (Netherlands). Unlike the six principal organs of the United Nations, it is the only one not located in New York (USA).
- It settles legal disputes between States and gives advisory opinions in accordance with international law, on legal questions referred to it by authorized United Nations organs and specialized agencies.
- **While ICJ rulings are binding, the ICJ has no power to enforce them.**
- The Court is composed of **15 judges**, who are elected for terms of office of nine years by the **United Nations General Assembly** and the **Security Council**. These organs vote simultaneously but separately.
- ICJ is assisted by a **Registry**, its administrative organ. Its official languages are **English and French**.

BRAHMASTRA

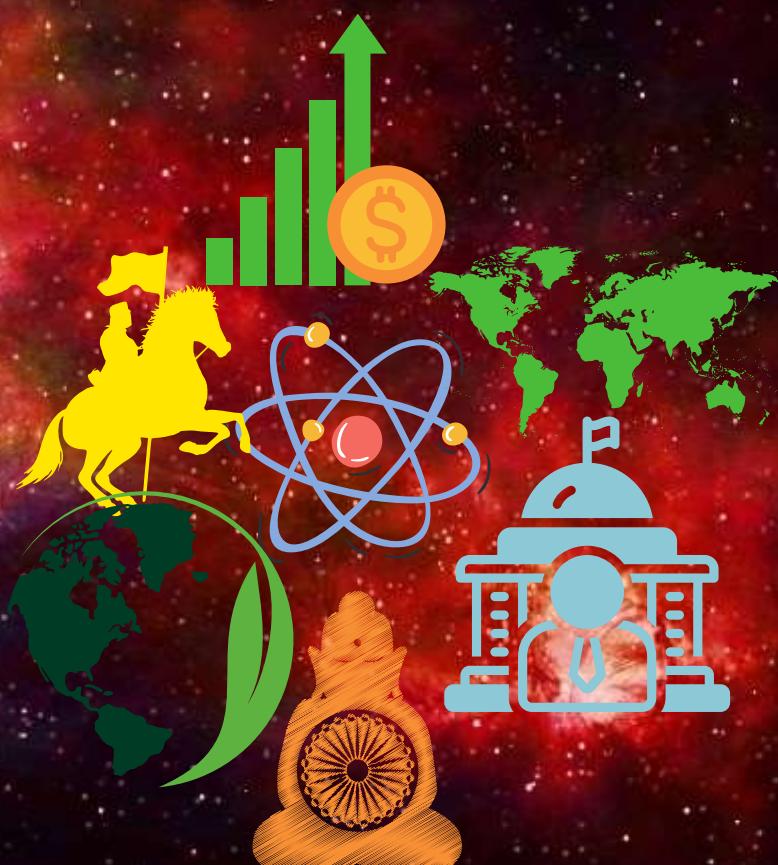
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

05 JANUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA
PIB
YOJANA
& MUCH MORE.



TOPIC : Green hydrogen: Fuel of the Future

RELEVANCE : #GS-3 #Environmental Pollution & Degradation

MAINS ANALYSIS

CONTEXT

The Union Cabinet approved the **National Green Hydrogen Mission** with an initial outlay of ₹ 19,744 crore, in a move aimed at making the country a global hub to produce, utilise and export green hydrogen and its derivatives.

- A major part of this is a proposed **Strategic Interventions for Green Hydrogen Transition Programme (SIGHT)**, under which two financial incentive mechanisms targeting domestic manufacturing of electrolyzers and the production of green hydrogen will be promoted.
- Recently, India's first **99.99% pure green hydrogen pilot plant was set up in Assam**.

ADVANTAGES

- Green hydrogen can be **stored for long periods** of time. The stored hydrogen can be used to produce electricity using fuel cells.
- **Lesser Emission & Imprts** :The government expects that the initiative will help abate nearly **50 million tonnes (MT) of annual greenhouse gas emissions** by 2030 and cumulatively reduce fossil fuel imports estimated at over **₹ 1 lakh Cr.**
- **Monetary benefits:** oxygen, produced as a by-product can also be monetised.
- **Flexible carrier:** Hydrogen is a flexible energy carrier and can be used for many energy applications like the integration of renewables and transportation.
- **The byproduct (water) is also eco-friendly.**

GREEN HYDROGEN

- Green Hydrogen is a colourless, odourless, tasteless, non-toxic and highly combustible gaseous substance.
- Green hydrogen is produced through electrolysis using renewable sources of energy such as solar, wind or hydel power.
- Hydrogen is the lightest, simplest and most abundant member of chemical elements.
- Other types of Hydrogen: Hydrogen can be 'Brown' (generated through fossil fuels), 'Grey' (from natural gas) and 'blue'(fossil fuels but with carbon capture technologies).

DISADVANTAGES

1. **Expensive to Extract:** Hydrogen only exists in chemical compounds like hydrocarbon and water. However, it can be separated using the method of electrolysis, which is quite expensive.
2. **Lack of Infrastructure:** There is no infrastructure that is there to replace hydrogen as the prime source of fuel (e.g. petrol or diesel) for land vehicles.
3. **Safety Issue: Hydrogen is highly combustible.** It is stored at very high (up to 700 bar) pressure, but the tank is outside the passenger bay. This makes the explosion risk very high.
4. **Hydrogen embrittlement** is a situation when the metal (pipeline) becomes brittle due to the diffusion of hydrogen into the material.

WAY FORWARD

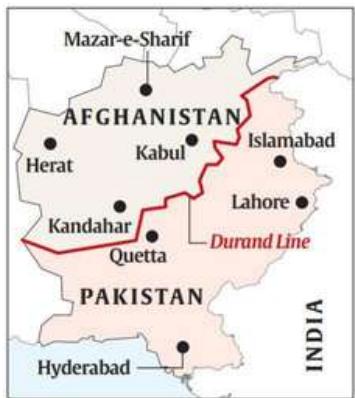
- Renewable developers see green hydrogen as an emerging market and some have targeted the transport sector, although electric vehicles have begun to catch the imagination of consumers today.
- Policymakers need to take a **holistic approach & robust financial mechanism involving private players** to plan and analyse the best model suited to adopt green hydrogen as a primary fuel.
- **Decentralised hydrogen production** must be promoted through open access of renewable power. India has set the goal to decarbonize by 2050. In this pursuit, Green Hydrogen Mission is a step in the right direction.

MAINS QUESTION

Green Hydrogen is being dubbed as the alternative fuel. However, there are many problems associated with the leveraging of hydrogen technology. Discuss.

10 Marks 150 Words





Durand Line: Afghanistan and Pakistan

Recently, Taliban has said that Afghans oppose the fence erected by Pakistan along the Durand Line.

- Established in the **Hindu Kush** in 1893, it runs through the **tribal lands between Afghanistan and British India**. In modern times it has marked the **border between Afghanistan and Pakistan**.
- It is a legacy of the **19th century Great Game** between the Russian and British empires in which Afghanistan was **used as a buffer by the British against a feared Russian expansionism to its east**.
- The agreement demarcating what became known as the **Durand Line** was signed between the **British civil servant Sir Henry Mortimer Durand** and **Amir Abdur Rahman**, then the **Afghan ruler** in 1893.

Heat Dome

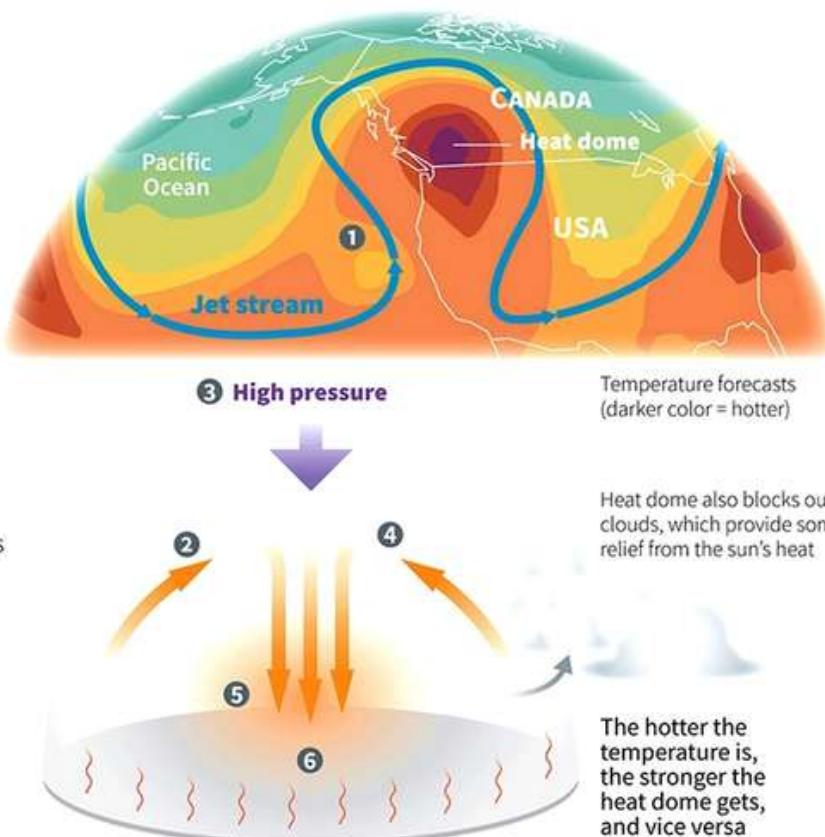
SEVERAL PARTS of Europe witnessed an unprecedented winter heat wave over New Year's weekend. Calling it an "extreme event", experts said temperatures increased 10 to 20 degrees Celsius above normal.

- According to experts, the continent experiencing a warm spell in the winter because of the formation of a **heat dome over the region**.
- A heat dome occurs when an area of high-pressure traps warm air over a region**, just like a lid on a pot, for an extended period of time. The longer that air remains trapped, the more the sun works to heat the air, producing warmer conditions with every passing day.
- Heat domes generally stay for few days but sometimes can extend upto weeks.
- The heat dome's formation is related to the behaviour of the jet stream**. The jetstream is believed to have a wave-like pattern that keeps moving from north to south and then north again. **When these waves get bigger and elongated, they move slowly and sometimes can become stationary**.
- This is when a high-pressure system gets stuck and leads to the occurrence of a heat dome.

The 'heat dome'

Occurs when the atmosphere traps hot ocean air like a lid or cap

- In summer, the **jet stream** (which moves the air) shifts northward
- Hot and stagnant **air expands upwards**
- Strong and **high-pressure** atmospheric conditions combine with influences from La Niña act like a dome or cap
- In a process known as **convection**, hot air attempts to escape but high pressure pushes it back down
- Under the dome, the air sinks and **compresses**, releasing more heat
- As winds move the hot air east, the jet stream traps the air where it sinks, resulting in **heat waves**

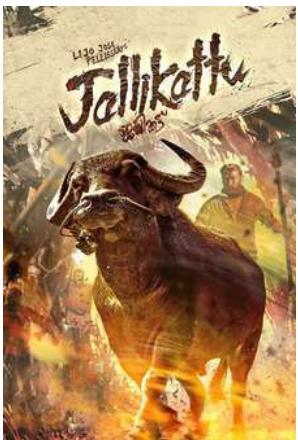




Centrally Protected Monuments

As per culture ministry 50 of India's 3,693 centrally protected monuments have gone missing such as **Barakhamba Cemetery (Delhi)**, **Guns of Emperor Sher Shah**, **Tinsukia (Assam)**; **the Ruins of Copper Temple, Paya, Lohit (Arunachal Pradesh)**; **Kos Minar, Mujesar, Faridabad (Haryana)**; **Kutumbari Temple, Dwarahat, Almora (Uttarakhand)**; **Rock Inscription, Satna (Madhya Pradesh)**; **Old European Tomb, Pune (Maharashtra)**; **12th Century Temple, Baran (Rajasthan)**; and **Telia Nala Buddhist ruins, Varanasi (UP)**.

- The Ancient Monuments and Archaeological Sites and Remains Act (AMASR Act) regulates the preservation of monuments and archaeological sites of national importance.
- The Archaeological Survey of India (ASI), which is under the Union Ministry of Culture, functions under this Act.
- The rules stipulate that area in the vicinity of the monument, within **100 metres is prohibited area**. The area within **200 meters of the monument is regulated category** under **National Monuments Authority**. Any repair or modifications of buildings in this area requires prior permission.



Jallikattu

The verdict of a five member Constitution Bench of the Supreme Court on a batch of petitions seeking to strike down a 2017 Tamil Nadu law that protects jallikattu is expected next week.

- Currently state government has legalised these events, which has been challenged in the court.
- Jallikattu is a religious and cultural event celebrated by the people of Tamil Nadu. It is a violent sport in which contestants try to tame a bull for a prize; if they fail, the bull owner wins the prize.**
- Describing jallikattu as "a tool for conserving this precious indigenous breed of livestock."
- It is celebrated in 2nd week of Jan, during Tamil harvest festival, Pongal.
- Kangayam, Pulikulam, Umbalachery, Bargur and Malai Maadu** are among the popular native cattle breeds used for Jallikattu.

High-powered Committee for Ladakh

Ministry of Home Affairs (MHA) constituted a **highpowered committee** chaired by Minister of State for Home **Nityanand Rai** Ladakh.

- Terms of Reference :** The committee will discuss measures to protect the region's unique culture and language ; ensure protection of land and employment for the people of Ladakh; strategise inclusive development and discuss issues related to the empowerment of the Ladakh Autonomous Hill.
- However, new committee avoids any mention of the primary demand for inclusion under the sixth schedule of the Constitution.
- The sixth schedule under Article 244 of the Constitution protects the autonomy of tribal populations through creation of autonomous development councils which can frame laws on land, public health and agriculture.**
- As of now ten autonomous councils exist in Assam, Meghalaya, Tripura and Mizoram**





Prelims

Virovore



Researchers have found the first known "Virovore" or organism that eats viruses.

- These virus-eating species of protists are now classified as **Virovores**.
- A Protista is any eukaryotic organism that is not an animal, plant, or fungus.
- **It is a species of Halteria - microscopic ciliates that populate freshwater worldwide.**
- The microbe Halteria is a common genus of protist known to flit about as its hair-like cilia propel it through the water.
- They're made up of nucleic acids, nitrogen, and phosphorus. It can eat huge numbers of infectious chloroviruses that share their aquatic habitat.
- These organisms can sustain themselves with viruses, consuming many and growing in size.
- A virus-only diet, termed "virovory," officially recognized.

Utkarsh 2.0



RBI's Medium-term strategy framework- **Utkarsh 2.0 (for 2023-2025)** was launched recently.

- Utkarsh 1.0 was for the period 2019-2022

Six Vision Statements

Vision 1 : Excellence in the Performance of its Functions

Vision 2 : Strengthened Trust of Citizens and Institutions in the RBI.

Vision 3 : Enhanced Relevance and Significance in National and Global Roles

Vision 4 : Transparent, Accountable and Ethics-Driven Internal Governance

Vision 5 : Best-in-class and Environment-friendly Digital and Physical Infrastructure

Vision 6 : Innovative, Dynamic, and Skilled Human Resources

SMART Program for Ayurveda



The National Commission for Indian System of Medicine (NCISM) and the Central Council for Research in Ayurvedic Sciences (CCRAS), under the Ministry of Ayush, have launched '**SMART**' (**S**cope for **M**ainstreaming **A**yurveda **R**esearch in **T**eaching **P**rofessionals).

- **It aimed to boost scientific research in Ayurveda colleges and hospitals for common health issues.**
- It aims to identify, support and promote innovative research ideas in healthcare research areas including Osteoarthritis, Iron Deficiency Anaemia, Chronic Bronchitis, Dyslipidemia, Rheumatoid Arthritis, Obesity, Diabetes Mellitus, Psoriasis, Generalised Anxiety Disorder, **Non-alcoholic fatty liver disease (NAFLD)**.

Other Initiatives to promote Ayurveda:

- Five Ayurveda national institutes established
- Launch of NAMASTE Portal to standardize Ayush system
- Ayush Oushadhi Gunavatta evam Utppadan Samvardhan Yojana (AOGUSY)
- Global Ayurvedic Herbs Market
- 9th World Ayurveda Congress in Goa

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

07 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

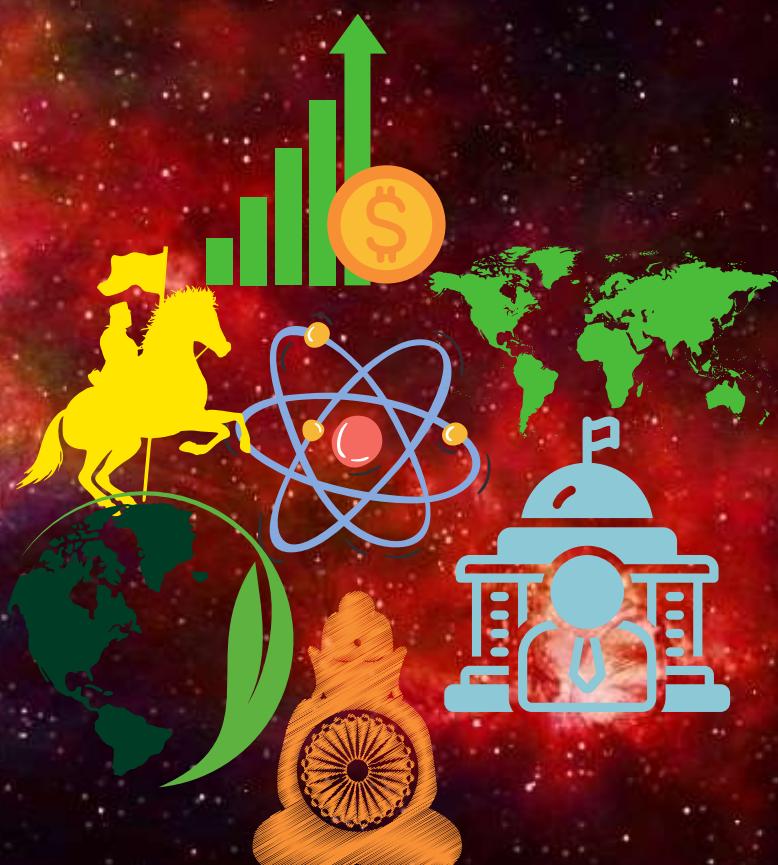
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Sweet Revolution

RELEVANCE : #GS-3 #Agricultural Marketing

MAINS ANALYSIS

CONTEXT

Under the Honey Mission, 1 lakh and 75 thousand bee boxes have been distributed so far by the Khadi and Village Industries Commission (KVIC) after providing beekeeping training to 17 thousand 500 beneficiaries across the country.

- Punjab is the highest honey-producing state in India
- **Sweet Revolution** is an ambitious initiative of the Government of India for promoting apiculture, popularly known as 'beekeeping'.
- **Apiculture is the science and culture of honeybees and their management.**

SIGNIFICANCE

- **Ecosystem** : A report highlighted, that the biodiversity of the bee population is essential to preserving the ecosystem function of crop pollination.
- **Low investment and highly skilled enterprise model.**
- The **demand for good-quality honey has grown**
- **Role in pollination**
- Scaling up beekeeping will **double farmers' income, generate employment**
- To ensure food security and bee conservation, and increase crop productivity.

CHALLENGES

- **Indigenous method of beekeeping:** This is the primitive and unplanned method of apiculture.
- **Lack of Technical Knowledge for Efficient Management of Colonies for High Honey Yields**
- **Lack of Infrastructure** at the Grass Roots and National Level for Beekeeping
- **Poor Quality Control for the Production of Honey:** contaminated not only by the use of sugar syrup in processing but also through pesticide and antibiotics use.
- Lack of sufficient **financial help** from government and lending institutions for the development of beekeeping.
- No Control on the **Use of Pesticides by Farmers.**

EFFORTS

- **Honey Mission** : was launched in 2017 in line with the 'Sweet Revolution' under the mission, the KVIC under Ministry of Micro, Small and Medium Enterprises.
 1. Practical training about the examination of honeybee colonies,
 2. Identification and management of bee enemies and diseases along with the management of bee colonies in all seasons.
 3. Acquaintance with apicultural equipment's and
 4. Honey extraction and wax purification.
- To provide a **booster shot to Sweet Revolution**, the government launched the **National Beekeeping and Honey Mission in 2020** as a part of the AtmaNirbhar Bharat scheme.

WAY FORWARD

Recommendations made by Beekeeping **Development Committee under Bibek Debroy**:

- Plantation of bee-friendly flora at appropriate places and engaging women SHG in managing such plantations.
- Institutionalizing the National Bee Board, Training and development of beekeepers by state govt.
- Development of national and regional infrastructure
- Use of tech & Research in the fields of beekeeping, bee-behaviour.
- **Recognition of apiculture as a subject for advanced research under the aegis of ICAR.**

MAINS QUESTION

Discuss the prospects and challenges faced by the Honey production sector in the country and recommend steps realize its full potential of it..

10 Marks 150 Words





Prelims

Eat Right Station



Indian Railways' Varanasi Cantt Railway Station has been awarded a 5-star 'Eat Right Station' certification for providing high-quality, nutritious food to passengers.

- The 'Eat Right Station' certification is awarded by FSSAI to railway stations that set benchmarks in providing safe and wholesome food to passengers.
- The apex food regulatory body comes under the Ministry of Health.**
- It has 240 parameters concerning food storage and hygiene, based on which the certification is accredited.
- They are also rated on a scale of one to five—five being the highest level of compliance with the standards and regulations in place.

Sagol Kangjei

HOME MINISTER inaugurated a 122-foot statue of a polo player astride a Manipur Pony at Imphal's Marjing Polo Complex.

- Modern polo is said to have originated from Sagol Kangjei, a sport indigenous to Manipur**, which is played on the Manipur Pony, one of the five recognised equine breeds (connected with horses) of India.
- The Manipur Pony, which is referenced in records dating back to the 14th century, has a powerful cultural significance in Manipuri society.
- The state government have launched Manipur Pony Conservation and Development Policy in 2016.

Phytotriid technology

The Municipal Corporation of Tirupati (MCT), Andhra Pradesh is set to take a significant step in water treatment by putting in place what is claimed to be the **country's largest liquid waste treatment plant to use phytotriid technology**.

- The phytotriid technology is developed by the Council of Scientific & Industrial Research's (CSIR) National Environmental Engineering Research Institute (NEERI). It is being used increasingly for various types of biodegradable wastewater across India.
- The technology involves a constructed wetland.
- This technology works without electricity, minimum maintenance, less manpower and importantly self-sustainable.**

Aldermen

Delhi's Lt. Governor, VK Saxena, nominated 10 aldermen amidst significant controversy. The 10 nominees, all BJP members, are expected to play a crucial role in determining who controls the Municipal Corporation of Delhi (MCD).

- Although they do not have the right to vote in the mayor polls, aldermen hold significant power and play an important role in the elections of Standing Committees, MCD in-house and ward committee meetings.
- "**Alderman**" refers to a **member of a city council or municipal body**, with exact responsibilities depending on the location of its usage. It is derived from Old English laws.
- They can also vote in the election of zonal chairmen in 12 zones.





Prelims

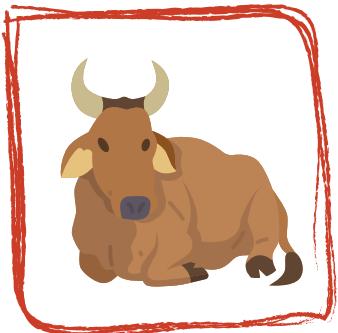
Vehicle Scrapping Policy



As per the Ministry of Road Transport and Highways (MoRTH), 11 states and UTs have joined the **National Single window system (NSWS)** for Voluntary Vehicle-Fleet Modernization Program (V-VMP)/Vehicle Scrapping Policy which came into effect from April 1, 2022

- It aims to **scrap old and unfit vehicles and replace them with modern and new vehicles on Indian roads**
- Private vehicles older than 20 years will be deregistered from June 1, 2024, if they fail the fitness test or their registration certificate is not renewed
- Heavy commercial vehicles > 15 years will be deregistered from April 2023.
- Setting up of **Registered Vehicle Scrapping Facility**
- **Road Tax Rebate:** Road-tax rebate of up to **25% for personal vehicles** and up to **15% for commercial vehicles b state govt.**
- **Vehicle Discount:** Vehicle manufacturers will also give a **discount of 5%** to people who will produce the '**Scraping Certificate**' and registration fees will be waived off on the purchase of a new vehicle.
- **Increased re-registration fees** would be applicable for **vehicles 15 years or older** from the initial date registration.

Indigenous livestock breeds



The Indian Council of Agricultural Research (ICAR) has registered 10 new breeds of livestock species, including cattle, buffalo, goat and pig. This has taken the total number of indigenous breeds to 212.

- The 10 new breeds included three **new cattle breeds** (Kathani, Sanchori, Masilum), one **buffalo breed** (Purnathadi), three **goat breeds** (Sojat, Karauli, Gujar) and three **pig breeds** (Banda, Manipuri Black, Wak Chambil)
- Purnathadi buffalo – Vidarbha region of Maharashtra.
- Kathani, a dual-purpose cattle, is also distributed in the region. It possesses the good draft ability and is suited to marshy land for paddy cultivation.
- **Masilum** is a small-sized but **well-built and sturdy cattle of Meghalaya**. Well adapted to the hill ecosystem, it is **reared by the Khasi and Jaintia communities** for sports, manure and socio-cultural festivals.
- **Sanchori** is found in the **Jalore district of Rajasthan**.
- Among goats, all **three new breeds** are from different regions of **Rajasthan**.
- Of the new pig breeds, **Manipuri Black** is a native of Manipur, **Banda** is from Jharkhand and **Wak Chambil** is from the Garo hills of Meghalaya.

BRAHMASTRA

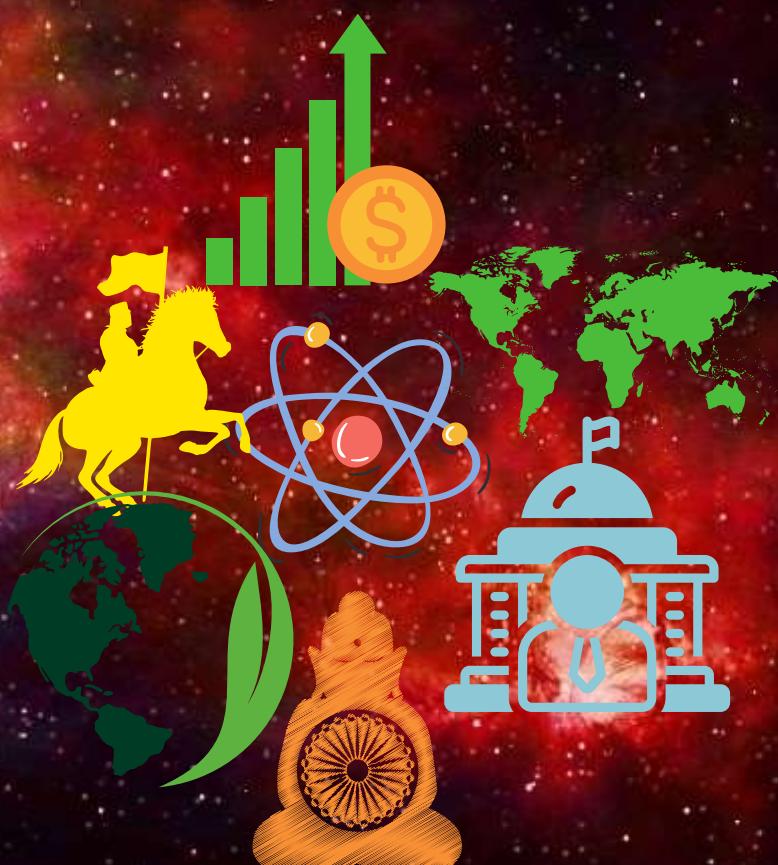
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

08 JANUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA
PIB
YOJANA
& MUCH MORE.



TOPIC : Land Subsidence

RELEVANCE : #GS-1 #Geography GS-3 #Disaster Management

MAINS ANALYSIS

CONTEXT

The land in Joshimath is sinking due to a phenomenon called land subsidence. Over 500 homes and several roads have developed cracks

- Recently study also found that Mumbai is sinking at an average rate of 2mm per year due to land subsidence
- Land Subsidence** refers to the vertical sinking of land in a region. It consists of the Earth's surface moving downwards vertically and involves little or no movement horizontally.
- It is **irreversible**, and can adversely alter local hydrology, causing floods and damaging civic infrastructure etc.

CAUSES

Natural factors: Gradual or sudden natural compaction or collapse of soils due to reasons like

- Tectonic activities (e.g. earthquake and faulting), Volcanic activities , Landslide ,Thawing of permafrost.

Anthropogenic causes:

- Compaction of aquifer systems due to **extensive groundwater withdrawals**
- Development of **underground infrastructure** such as metro, tunnels, etc.
- Excessive underground mining of minerals, oil
- High load of constructions & Mining.**

IMPACT

- It is estimated that by 2040, land subsidence will affect approximately **8% of the world's top layer and approximately**
- In India areas other than **Mumbai** like **Kolkata and Delhi** are also witnessing land subsidence. **Areas where the earth matter is made up of thin soil particles, like the alluvial deposits of fertile Gangetic plains, are more vulnerable.**
- Lines of weakness in the layers can also be activated and this may cause earthquake in the area. There can be indirect effects such as a change in gradient of streams or drains.
- Disaster caused displacement and socio-cultural vulnerabilities.**

EFFORTS

- The **Indian Institute of Remote Sensing** recently signed an MoU with the **Central Groundwater Board** to study the effect of land subsidence in northern India.
- A specific law (**Groundwater Act**) was enacted in 1977. Most severely affected areas were designated as critical zones, with more control over private and public groundwater activities.
- National Centre for Earth Science Studies (NCESS)** recommended the formation of a trained task force for the highlands to monitor ground signatures like hollows, cracks, and water spouts that often precede land subsidence, lateral spread and landslides.
- Overall disaster management institutions such as NDMA, SDMA NDRF etc.

WAY FORWARD

- Using **advanced satellite technology** to accurately identify hotspots afflicted by land deformation, can prompt local authorities to carry out ground measurements.
- Understanding the geophysical properties of the subsiding areas to tackle causes.
- Implementing solutions to offset the over-extraction of groundwater like- recharging groundwater by
- Evaluating building conditions in hazard zones to undertake necessary repair and maintenance.
- Incorporating land subsidence in the assessment and modeling of flooding and inundation in urban areas.**

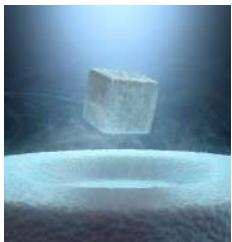
MAINS QUESTION

Land Subsidence are more than just a natural phenomena. Discuss the statement and suggest the ways to mitigate the disaster.

10 Marks 150 Words



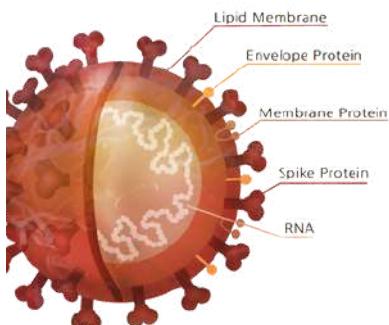
Superconductivity



In 1911, Dutch physicist **Heike Kamerlingh Onnes** discovered superconductivity in mercury. He found that at a very low temperature, called the **threshold temperature or critical temperature**, solid mercury offers no resistance to the flow of electric current.

- Superconductors are materials that conduct electricity with no resistance.
- No magnetic field can exist within a superconductor.
- Superconductor excludes magnetic fields, a phenomenon called the **Meissner effect**.
- The disappearance of electrical resistivity was modelled in terms of **electron pairing in the crystal lattice by John Bardeen, Leon Cooper, and Robert Schrieffer** in what is commonly called the **BCS theory**.
- As per BCS theory superconductors, vibrational energy released by the grid of atoms encourages electrons to pair up, forming so called **Cooper pairs**. These Cooper pairs can move like water in a stream, facing no resistance to their flow, below a threshold temperature.
- **Applications** : MRI machines, Power utilities, electronics companies, the military, transportation, and theoretical physics etc.

Spike Protein



The XBB.1.5 variant is the most transmissible variant that has been detected yet

- XBB.1.5 carried an additional mutation — S486P on the spike protein.
- Spike protein of SARS-CoV-2 changes its form after attaching to a human cell. It folds itself and assumes a rigid hairpin shape.
- **Spike Protein** : It is a protein that protrudes from the surface of a coronavirus, like the spikes of a crown or corona hence called 'coronavirus'.
- In the SARS-CoV-2 coronavirus, **it is the spike protein that initiates the process of infection in a human cell**.
- It attaches itself to a human enzyme, called the **ACE2 receptor**, before going on to enter the cell and make multiple copies of itself.

Viologen unit grafted organic framework (iVOFm)

Indian Institute of Science Education and Research (IISER), Pune came up with a custom designed unique **molecular sponge like material** —

macro/microporous ionic organic framework (iVOFm)— which can swiftly clean polluted water by soaking up sinister contaminants.

- The new material showed ultrafast removal of sulfa dimethoxine antibiotic from water almost completely
- The iVOFm material employs amalgamation of **electrostatics driven ion-exchange combined with nanometersized macropores** and specific binding sites for the targeted pollutants.
- **The size and number of tunable macropores along with the strong electrostatic interaction of iVOFm can quickly remove various toxic pollutants from water.**
- **The fast pollutant trapping capacity** is attributed to faster diffusion of pollutants through the ordered interconnected presence of macropores in the material.



Brahmastra

Prelims



World's First Palm-leaf Manuscript Museum

Recently, Asia's first Palm leaf Manuscript Museum was inaugurated in Kerala.

- The Museum is a repository of the administrative, socio-cultural and economic facets of the Travancore kingdom spanning a period of 650 years (till the end of 19th century).
- It has 187 manuscripts one of which accounts for the famous Battle of Colachel (1741) wherein the Travancore king defeated the Dutch East India Company at Colachel (TN).
- The museum has eight galleries representing many segments: '**History of Writing**', '**Land and people**', '**Administration**', '**War and peace**', '**Education and Health**', '**Economy**', '**Art and culture**' and '**Mathilakam Records**'.

Argentina: lithium & Copper mines

India has identified **two lithium mines** and one copper mine in Argentina, and it may acquire or lease them soon.



- KABIL (a CPSE) aims to ensure consistent supply of critical and strategic minerals in the domestic market.
- Together with Chile and Bolivia, Argentina forms the so-called "Lithium Triangle" and is currently the fourth largest producer. Australia is the top lithium producer globally.
- Lithium is found in **cedemine** rock formation (in Australia) and in brine form (in South American countries), which is called **salar** in Latin America.

Working Time and Work-Life Balance Around the World

A report titled 'Working Time and Work-Life Balance Around the World' has been recently released by the **International Labour Organisation (ILO)**.



- This first-ever ILO global report on working time focuses on the actual number of hours of work, working-time arrangements and their implications for work-life balance.
- Great resignation phenomenon:** It is an ongoing economic trend (beginning in early 2021) in which employees have voluntarily resigned from their jobs in mass, in the wake of the pandemic.
- It also highlighted **Remote / Tele working helped in maintaining organisational operations and preserving jobs**.

e-EPIC

Less than 1% of registered voters have downloaded digital voter ID, says EC in response to a Right to Information (RTI)



- e-EPIC is a secure portable document format (PDF) version of the Elector's Photo Identity Card (EPIC) which can be downloaded on mobile or in a self-printable form on the computer.
- A voter can thus store the card on his/her mobile, upload it as a PDF on Digi locker or print it and self-laminate it. This is in addition to PCV EPIC being issued currently
- An electronic card will help the EC save costs on printing and distributing hard copy of EPIC.
- Citizens can download e-EPIC from <https://eci.gov.in/e-epic/>

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

09 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

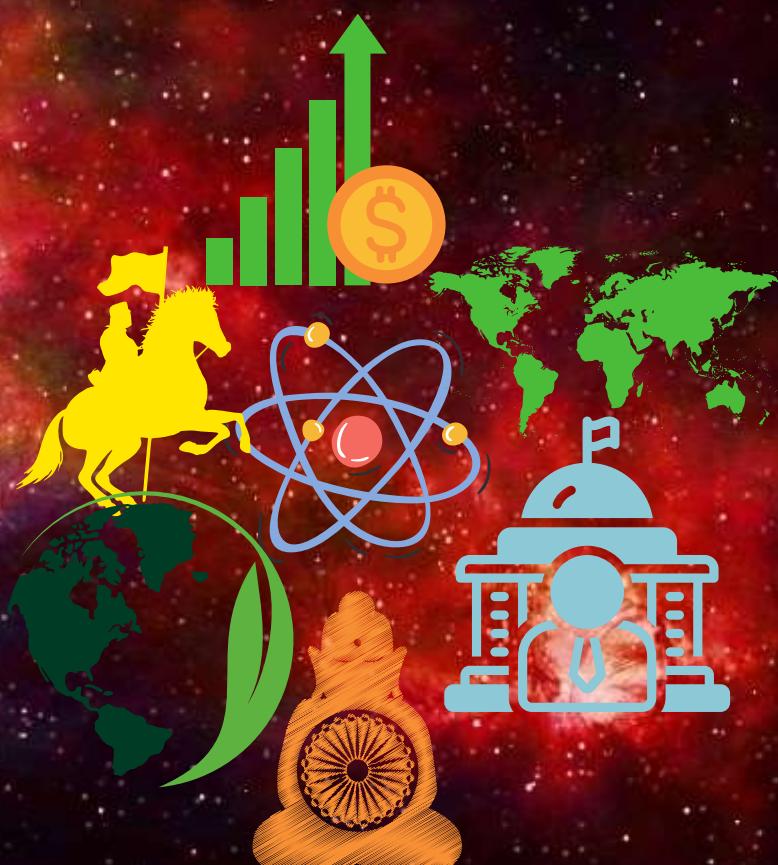
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Right to Strike

RELEVANCE : #GS-2 #Fundamental Rights

MAINS ANALYSIS

CONTEXT

The Kerala High Court has reiterated that government employees who participate in general strikes, affecting the normal life of the public and Public Exchequer, are **not entitled to be protected under Article 19(1)(c) of the Constitution** and are also a violation of the provisions of the Kerala Government Servants' Conduct Rules, 1960.

- Strike is the **collective refusal** by employees to work under the conditions required by employers.
- The word '**strike**' comes from 'strican to go' which means to quit, hit or impress in case of a trade dispute.

POSITION IN INDIA

- In India, the right to protest is a fundamental right under **Article 19** but **right to strike is not a fundamental right but a legal right and with this right statutory restriction is attached in the Industrial Dispute Act, 1947.**
- **The Industrial Dispute Act, 1947 is subsumed under The Industrial Relations Code, 2020.**
- In India, unlike America, the right to strike is not expressly recognized by the law.
- Right to strike has also been recognised by the conventions of the **International Labour Organization (ILO)**.

ARGUMENTS IN FAVOUR

- International Labour Organization mandates that a right to organize and collective bargaining shall be given to the employees.
- **Universal Declaration of Human Rights, 1948** provides for the protection of workers' interests. They have the right to form trade unions and associations. And the right to strike is a sequel of their constitutional privilege to form association.
- **International Covenant of Economic, Social and Cultural Rights, 1966** also provides for the recognition of the right to strike with the condition.
- Voice of employee and workers must be upheld and recognized.
- Article 43a: **Participation of workers in management of industries.**

SC JUDGEMENTS

- The Supreme Court settled the case of **Kameshwar Prasad v. The State of Bihar 1958** by stating that strike is not a fundamental right. Government employees have no legal or moral rights to go
- The Supreme Court in **Delhi Police v. Union of India (1986)** upheld the restrictions to form association by the members of the non-gazetted police force after the Police Forces (Restriction of Rights) Act, 1966, and the Rules as amended by Amendment Rules, 1970, came into effect.
- In **T.K. Rangarajan v. Government of Tamil Nadu (2003)**, the Supreme Court held that the employees have no fundamental right to resort to strike.

WAY FORWARD

- Strikes cannot be justified on any equitable ground. Strike as a weapon is mostly misused which results in chaos.
- When some representatives of policemen met Gandhi, he mentioned that "the police should never go on strike. Theirs was an essential service and they should render that service, irrespective of their pay.
- Collective bargaining is the essence of trade unions and associations but it is only possible if right to strike is given the fundamental right status.

MAINS QUESTION

A protest enables to openly express their feelings about something happening in society. Discuss the right to strike in this context.

10 Marks 150 Words





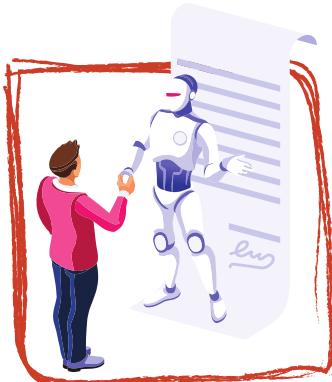
Prelims

Village Defence Guards (VDGs)



After MILITANTS killed six people in two days in the Upper Dangri village of Jammu and Kashmir, In response, Lt Governor M Sinha assured that a **Village Defence Committee (VDC) would be set up on the lines of Doda district.**

- Village Defence Committees VDCs were first created in the erstwhile Doda district in mid 1990s as a force multiplier against militant attacks.
- VDCs have now been renamed as **Village Defence Guards (VDGs)**. The new scheme to setup VDGs invulnerable areas of J&K was approved by the Home Ministry in March 2022.
- Like a VDC member, each VDG will be provided with a gun and 100 rounds of ammunition.
- VDGs refer to a group of civilians armed by the state to hold off militants until security forces arrive.
- Persons leading the VDGs will be paid Rs 4,500 per month others Rs4,000.
- **VDGs will function under the direction of the district SP or SSP.**



Generative AI

Generative AI is a cutting-edge technological advancement that utilizes machine learning and artificial intelligence to create new forms of media, such as text, audio, video, and animation.

- With the advent of advanced machine learning capabilities like large language models, neural translation, information understanding, and reinforcement learning, it is now possible to generate new and creative short and longform content, synthetic media, and even deepfakes with simple text, also known as **prompts**.
- Examples : DALL-E for image generation , ChatGPT can also help you write code to build a technology service or integration quickly.
- It can be challenging to determine who is responsible for the content generated by a generative AI system.



SOVEREIGN GREEN BONDS

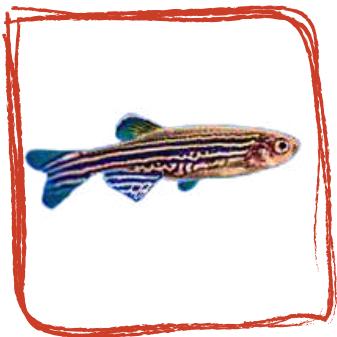
RBI has announced it will issue SOVEREIGN GREEN BONDS worth Rs 16,000 crore in the current financial year.

- **Green bonds are bonds issued by any sovereign entity, inter-governmental groups or alliances, and corporates with the aim that the proceeds of the bonds are utilised for projects classified as environmentally sustainable.**
- The government will use the proceeds from such bonds to finance or refinance expenditure (in part or whole) for various green projects, including in re-newable energy, clean transportation,energy efficiency, climate change adaptation, sustainable water and waste management, pollution and prevention control and green buildings.



Prelims

Zebrafish role in disc maintenance



A protein found in the backbone of zebrafish that plays a positive role in disc maintenance and promotes regeneration in aged discs between vertebrae can have potential therapeutic implications to promote regeneration in degenerated human discs.

- Currently, only symptomatic treatments for disc degeneration are available, including pain relievers or anti-inflammatories. In severe cases, disc replacement or disc fusion surgery is performed.
- A study by Agharkar Research Institute (ARI), Pune, discovered that a protein called Cellular communication network factor 2a (Ccn2a) secreted from intervertebral disc cells induces disc regeneration in aged degenerated discs by promoting cell proliferation and cell survival by modulating the pathway called the **FGFR1-SHH (Fibroblast growth factor receptor-Sonic Hedgehog) pathway**.

M sand



In an attempt towards environmental sustainability and reducing overmining of sand, Coal India Limited (CIL) has started a facility in West Bengal to produce manufactured sand, the first such initiative in the State.

- M-sand is a substitute of river sand for concrete construction.
- Manufactured sand is produced from hard granite stone by crushing.
- The crushed sand is of cubical shape with rounded edges, washed and graded to as a construction material.
- The size of manufactured sand (M-Sand) is less than 4.75mm.

Its significance:

- It can be dust free, the sizes of m-sand can be controlled easily so that it meets the required grading for the given construction.
- It is well graded in the required proportion.
- It does not contain organic and soluble compounds that affect the setting time and properties of cement, thus the required strength of concrete can be maintained.
- It does not have the presence of impurities such as clay, dust and silt coatings.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

10 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

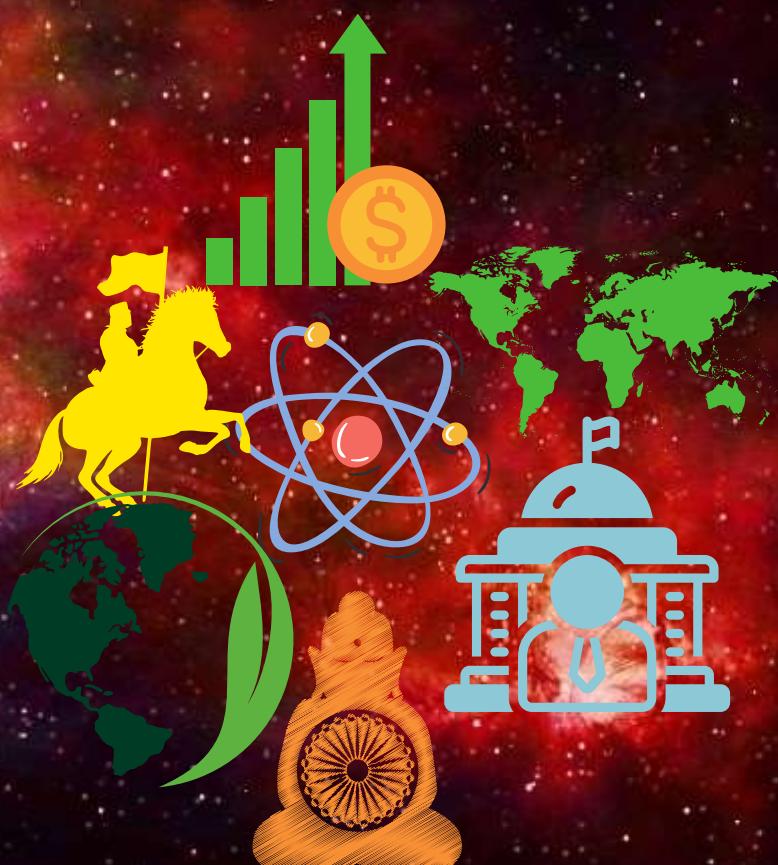
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Census

RELEVANCE : #GS-2 #Government Policies & Interventions

MAINS ANALYSIS

CONTEXT

Recently, the government has extended the date for states and Union territories to finalise their administrative boundaries **by June 2023**, which may delay the Census 2021 Exercise.

- As per the norms, the **census can be conducted only 3 months after the freezing of boundary limits** of administrative units (e.g. districts, sub-districts, tehsils etc.)
- As per the Registrar General of India (RGI), the **Census enumeration scheduled to take place in 2021 has been further pushed to 2024-25** until further orders due to the ongoing COVID pandemic.

SIGNIFICANCE

- Source of Information:** largest single source of a variety of statistical information on different characteristics of the people of India.
- Researchers and Demographers :** use census data to analyze growth and trends of population and make projections.
- Good Governance & Giving Grants :** The data collected is used for administration, planning and policy making as well as management and evaluation of various programmes by the govt.
- Demarcation:** Census data is also used for demarcation of constituencies and allocation of representation to Parliament, State legislative assemblies and the local bodies ,Reservation of seats for SCs and STs is based on their proportion in the population.

CENSUS IN INDIA

Population Census is the total process of **collecting, compiling, analyzing and disseminating demographic, economic and social data** pertaining, at a specific time, of all persons in a country or a well-defined part of a country.

- First non-synchronous Census conducted in 1872 during Lord Mayo but first synchronous census was taken in 1881.
- The decennial Census is conducted by the **Office of Registrar General & Census Commissioner**, Ministry of Home Affairs under the provisions of the **Census Act, 1948** as a **Union subject under Article 246** of India Constitution.

IMPLICATIONS OF DELAY

- Affect Political Representation:** Delay in the Census means that the data from the 2011 Census would continue to be used in seats to be reserved for SCs and STs.
- Rapid changes :** In many towns and even panchayats that have seen rapid changes in the composition of their population.
- Delimitation of Of Constituency:** Delimitation of parliamentary and Assembly constituencies would continue to be based on 2001 Census till data from a Census after 2026 are published.
- Unreliable Estimates on Welfare Measures:** e.g. Inclusion & Exclusion error in PDS.
- Fund allocation on the basis of census.**
- The new Census is likely to capture the extent of the observed movement in **migration trends**.

WAY FORWARD

Former bureaucrats also advised **National Population Register (NPR)**, which was to happen with the first phase of the Census, should be delinked, owing to its politically sensitive nature & urgency of the Census.

- Census is the basis for reviewing the country's progress in the past decade, monitoring the ongoing Schemes of the Government and most importantly, planning for the future.
- Considering these and other imperatives for the smooth planning and implementation of administrative, welfare and statistical management for governance, the Union government must show alacrity in commencing the Census.

MAINS QUESTION

What are the possible implications of the ongoing delay in conducting the 2021 census in India? Discuss the significance of census in India.

15 Marks 250 Words





Prelims



Pravasi Bharatiya Divas

The 17th Pravasi Bharatiya Divas (PBD) Convention in New Delhi will focus on Latin America's diaspora connection, with two Indian-origin Presidents from the region attending as special guests.

- It is being organized in partnership with the **Madhya Pradesh government**
- **Theme:** "Diaspora: Reliable partners for India's progress in Amrit Kaal"
- Pravasi Bharatiya Divas (PBD) is celebrated **biennially (once every two years)** on **9th January** to mark the contribution of the Overseas Indian community in the development of India.
- It is observed by the Ministry of External Affairs on this day in 1915 that **Mohandas Karamchand Gandhi returned from South Africa.**

Pravasi Bharatiya Samman Award :

- It is the highest honour conferred on a **Non-Resident Indian, Person of Indian Origin; or an organisation or institution established and run by Non-Resident Indians or Persons of Indian Origin**, who have made significant contribution in better understanding of India abroad, support India's causes and concerns in a tangible way.

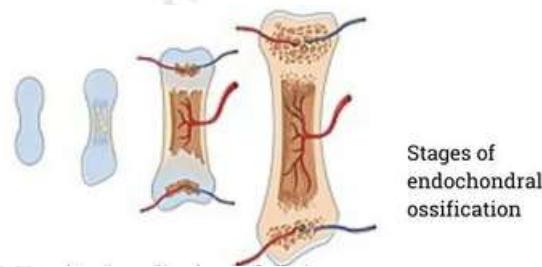
Lecanemab

US Food and Drug Administration (FDA) granted fast-track approval to an Alzheimer's medicine called **Lecanemab** the second such medicine, after **Aducanumab** in 2021, to be approved in **less than two years**.

- Marketed as **Legeambi**, it is a monoclonal antibody that reduces the beta-amyloid protein plaques in the brain, a classic symptom of **Alzheimer's**.
- Alzheimer is a **neurological disorder which causes brain cells to degenerate and die**. This leads to loss of memory, problems with words in speaking or writing, poor judgment, changes in mood and personality, confusion with time or place, etc.
- Alzheimer's is the most common cause of **dementia** among older adults.
- **Alzheimer's disease is thought to be caused by the abnormal build-up of proteins in and around brain cells. One of the proteins involved is called amyloid, deposits of which form plaques around brain cells and the other protein is called tau.**
- Alzheimer's is an incurable disease, as the death of **brain cells cannot be reversed**.
- **Women have a higher risk of having Alzheimer's disease than men.**

Ossification test

Ossification test or osteogenesis is the process of the bone formation based on the fusion of joints between the birth and age of twenty-five years in an individual.



- Bone age is an indicator of the skeletal and biological maturity of an individual which assists in the determination of age
- Based on the ossification test, minority could be proved only in one out of seven cases.



Prelims

Open Access Movement (OA)



Open access (OA) is a term associated with certain practices in academic publishing which improve access to scholarly work.

- It attempts to make online publications immediately available free of charge and free of most copyright and licensing restrictions.

Types of OA :

- It involves charging authors of a paper before publishing instead of the paper's readers after publishing — a fee that journals called an article processing charge (APC). The APC model is called **Gold OA**
- In **Green OA**, an institute level repository archives copies of papers by its researchers and makes them public after an embargo period.
- In **Diamond OA**, a journal publishes papers at no cost. Additionally, while hybrid journals follow the subscription model, once a paper is published and paywalled, its authors can pay extra to 'make' it OA.
- There are also **gratis and libre OA**. According to one definition, "gratis OA alone allows no uses beyond fair use, and libre OA allows one or more uses beyond fair use".

'One Nation, One Subscription' (ONOS) scheme

- The ONOS initiative aims to provide countrywide access to national and international scientific and academic content
- The government, instead of universities, will negotiate with publishers for a capped and fixed fee to access their papers (of studies funded by the state) and pay the fees, so that everyone in the country can read the papers at no additional cost.
- The Education Ministry** has so far shortlisted 70 publishers and set an implementation deadline of April 1, 2023 the government.



Parshuram Kund Festival

The Prime Minister has shared glimpses of **Parshuram Kund Festival** in Arunachal Pradesh.

- A Hindu pilgrimage on the Brahmaputra plateau in the lower reaches of the Lohit River.
- It is dedicated to sage Parshuram.
- The project "Development of Parasuram Kund, Lohit District Arunachal Pradesh" was approved by the Ministry of Tourism in January 2021.



Kangla Nongpok Thong

The Prime Minister has congratulated the **people of Manipur on opening of Kangla Nongpok Thong Bridge in the state**. The development came after Union home minister opened the eastern gate of the fort.

- The **Nongpok Thong was dismantled by the British after the 1891 Anglo-Manipur War**.
- The opening of Kangla Nongpok Thong has a very important cultural significance.
- The Eastern Gate of Kangla is considered to be the pathway to peace, prosperity and happiness for the people of Manipur.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

11 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

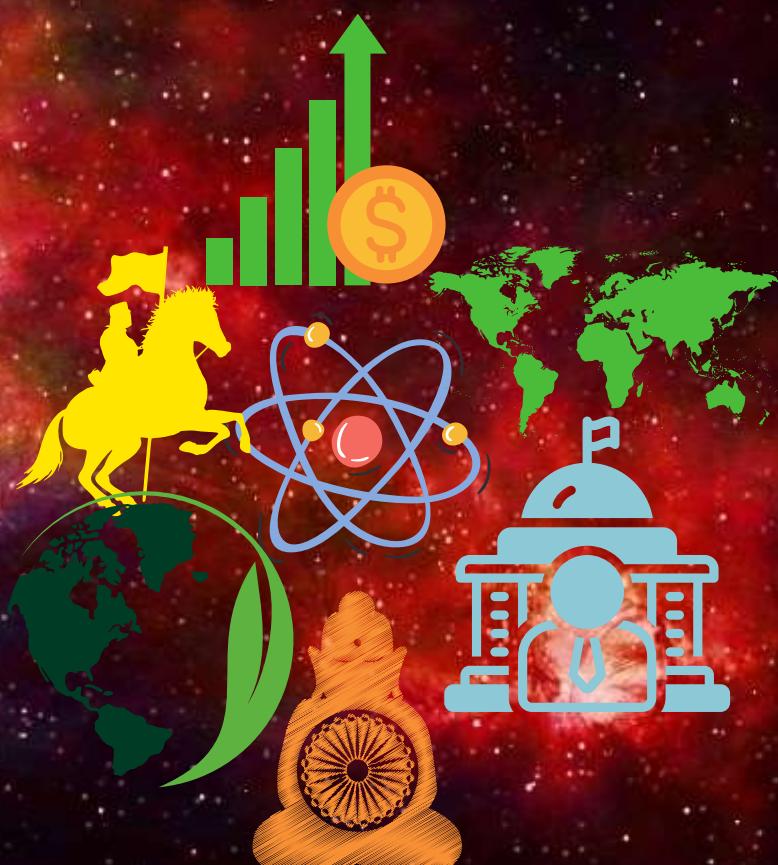
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Indian Diaspora

RELEVANCE : #GS-2 #International Relations

MAINS ANALYSIS

CONTEXT

Recently, the Prime Minister inaugurated the **17th Pravasi Bharatiya Diwas (PBD)** convention in Madhya Pradesh on the occasion of PBD.

- Over the years, the convention, which began in 2003, has grown in size and scope.
- According to the World Migration Report, 2022, India has the **largest emigrant population** in the world in 2020 & among the **top five remittance recipient countries**.
- TOP DESTINATIONS FOR INDIANS :** United Arab Emirates , United States & Saudi Arabia

SIGNIFICANCE

- Remittances** are a vital source of household income for low and middle-income countries
- Enhancing India's Soft Power:** Indian diaspora is one of the richest minorities in many developed countries.
- Their advantage is evident in "**diaspora diplomacy**" act as "bridge-builders" between their home and adopted countries.
- Employment :** The migration of less-skilled labor (especially to West Asia) has helped in bringing down disguised unemployment in India.
- Technological graduates:** They are the engineering and management graduates, who are in high-value jobs majorly located in, but not limited to, the western countries like US and Europe.

WAY FORWARD

- Collaborations : VAJRA Scheme or Viabhav Summit for Research & Development.
- Improvement in **ease of doing business** will go long, in enabling investments from the Indian diaspora.
- Strategic diaspora evacuation policy from conflict zones e.g. West Asian Countries, Ukraine.
- Communication : It is important to make the diaspora feel respected if we expect them to contribute to the development of the country.
- The participation and involvement in the PBD convention should be more broad-based, including vulnerable segments of the diaspora community.

MAINS QUESTION

Indian diaspora can provide the requisite strategic impulse to unlock India's potential as a global power. Discuss.

10 Marks 150 Words



WAVES OF INDIAN MIGRATION

- The 1st wave in 19th and early 20th centuries** took place under the 'Girmitya' indentured labourers were shipped to countries in the east Pacific and the Caribbean islands to work on plantations in British colonies
- Nearly 20 lakh Indians went to Singapore and Malaysia to work in farms in the 2nd wave.**
- Professionals** went to western countries and workers went to Gulf and west Asian countries in the aftermath of the oil boom during the **3rd and 4th waves**.

CHALLENGES

- Exclusion :** The Parliamentary Committee stated that conventions such as the PBD appear to exclude a large segment of the diaspora that is not wealthy (low/semi-skilled and blue-collar workers).
- Anti-Globalization:** With the rising Anti-globalization wave, there has been an increase in the incidents of suspected hate crimes against the Indian community.
- Returning Diaspora:** After the infrastructure boom will get over India should be ready for the eventuality of Indian workers returning.
- Regulatory Cholesterol:** inadequacies of the Indian system to collaborate or invest.
- Negative Fallout** e.g. separatist movements like the Khalistan movement.



Prelims

Cold Wave



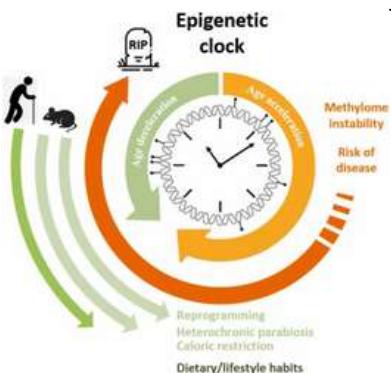
Delhi & other parts of northwest India have been reeling under a cold wave spell that set in last week.

- Cold wave : A rapid fall in temperature within 24 hours to a level requiring substantially increased protection to agriculture, industry, commerce, and social activities.

As per IMD Cold Wave Conditions:

- For plains, a cold wave is declared when the minimum temperature is 10 degrees Celsius or below and is 4.5 degrees Celsius (C) less than normal for two consecutive days.
- For coastal stations, the threshold value of minimum temperature of 10 degree Celsius is rarely reached. However, the local people feel discomfort due to the **wind chill factor** which reduces the minimum temperature by a few degrees depending upon the wind speed.
- **While westerly and northwesterly winds of around 5 to 10 kmph in the afternoon have also been contributing to the dip in temperature, an important factor is fog.**

Epigenetic Clock Technique



It measures DNA methylation levels to estimate the chronological age of the subject.

- **DNA methylation** is a process by which methyl groups are added to the DNA molecule, typically to the promoter region of a gene, resulting in the repression of gene transcription.
- This primarily occurs on cytosine that precedes a guanine nucleotide (CpG sites).
- **Cytosine** is a chemical compound that is used to make one of the building blocks of DNA and RNA.
- However, the use of this technique is yet to be explored by Indian forensic scientists.

Kala-azar Disease

Kala-azar cases in India declined by 98.7% between 2007 and 2022.

- The only block that is still in the endemic category is **Littipara in the Pakur district of Jharkhand** (1.23 cases per 10,000 population).
- It is also known as **Visceral Leishmaniasis or Black Fever or Dum dum Fever.**

Types of Leishmaniasis:

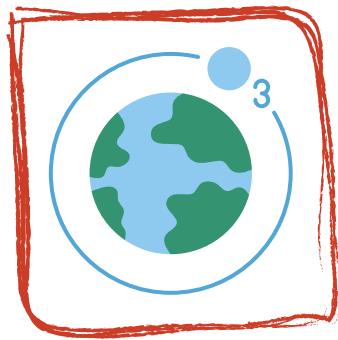
1. **Visceral Leishmaniasis**, which affects multiple organs and is the most serious form of the disease.
 2. **Cutaneous Leishmaniasis**, which causes skin sores and is the most common form.
 3. **Mucocutaneous Leishmaniasis**, which causes skin and mucosal lesions.
- It is a **deadly parasitic disease caused by** the protozoa **parasite Leishmania** & transmitted to humans by the bite of an **infected female phlebotomine sandfly**.
 - It mainly affects the people living in **Africa, Asia and Latin America**.
 - The disease **can cause death**, if left untreated.



DELEGATED LEGISLATION

IN UPHOLDING the Centre's 2016 decision on demonetisation , While the majority ruling upheld the validity of the delegated legislation, the **dissenting verdict noted that excessive delegation of power is arbitrary.**

- **Delegated legislation is referred to as secondary legislation. It is made by a person or body other than Parliament. Parliament, through an Act, can permit another person or body to make such legislation.**
- Parliament routinely delegates certain functions to authorities established by law, since every aspect cannot be dealt directly by the lawmakers themselves. This delegation of powers is noted in statutes, which are commonly referred to as delegated legislations.



THE OZONE 'HOLE'

THE OZONE 'hole', once considered to be the gravest danger to planetary life, is now expected to be completely repaired by 2066, a scientific assessment has suggested.

- In fact, it is only the ozone layer over Antarctica where the hole is the most prominent which will take a long time to heal completely. Over the rest of the world, the ozone layer is expected to be back to where it was in 1980 by 2040 itself, a UN-backed scientific report.

Efforts :

- **Vienna Convention** : Adopted in 1985, The Vienna Convention for the Protection of the Ozone Layer is the **precursor** to the Montreal Protocol.
- **The Montreal Protocol** : In 1987, to address the destruction of the ozone layer, the international community established the **Montreal Protocol on ozone-depleting substances**.
- It was the **first international treaty** to be signed by all countries of the world and is considered the greatest environmental success story in the history of the United Nations
- **Amendments to the Montreal Protocol**
 - **The London Amendment (1990)** changed the ODS emission schedule by requiring the complete phaseout of CFCs, halons, and carbon tetrachloride by 2000 in developed countries, and by 2010 in developing countries.
 - **The Copenhagen Amendment (1992)** significantly accelerated the phaseout of ODSs and incorporated an hydrochlorofluorocarbons (HCFC) phaseout for developed countries, beginning in 2004
 - **The Montreal Amendment (1997)** included the phaseout of HCFCs in developing countries, as well as the phaseout of methyl bromide in developed and developing countries in 2005 and 2015, respectively
 - **The Beijing Amendment (1999)** included tightened controls on the production and trade of HCFCs. Bromochloromethane was also added to the list of controlled substances with phaseout targeted for 2004
 - **The Kigali Amendment (2016)** extended controls to phase down the production and consumption of hydrofluorocarbons (HFCs) because these substances were adopted by industries in moving away from ozone-depleting substances and they are potent greenhouse gases damaging to the earth's climate.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

13 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

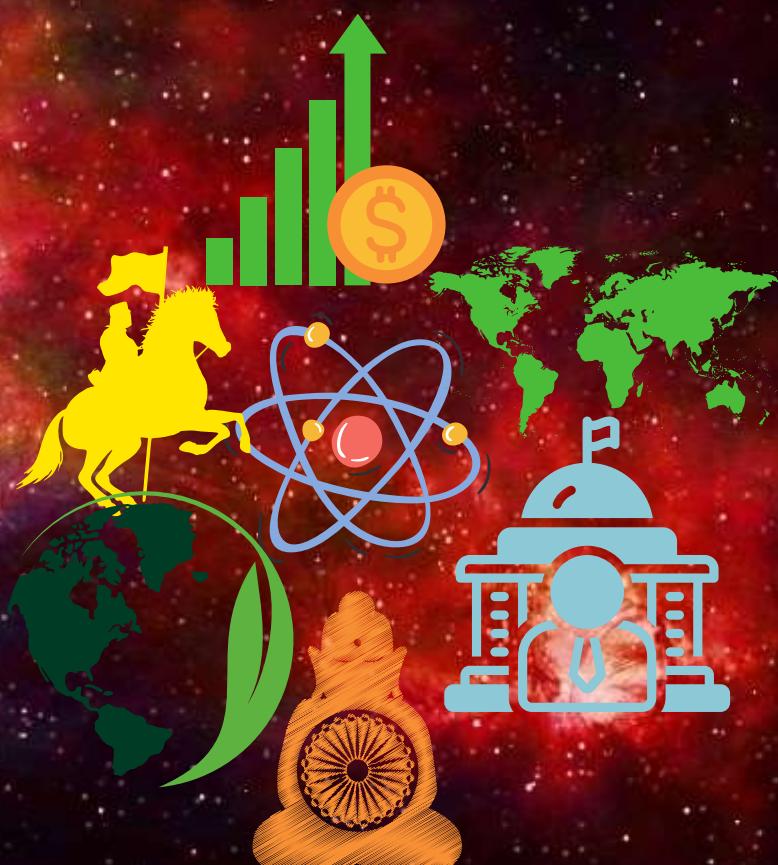
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Basic Structure of the Constitution

RELEVANCE : #GS-2 #Indian Constitution

MAINS ANALYSIS

CONTEXT

Vice President Dhankhar criticised the SC for using the basic structure doctrine to strike down constitutional amendments by Parliament, such as the NJAC Act.

- The concept of '**basic structure**' came into existence in the landmark judgment in **Kesavananda Bharati vs State of Kerala case (1973)** 47 years ago.
- It puts a limitation on the **amending powers of the Parliament** so that the 'basic structure of the basic law of the land' cannot be amended in exercise of its 'constituent power' under the Constitution.

SIGNIFICANCE

- Protection from authoritarian regime:** It certainly saved Indian democracy from degenerating into authoritarian regime.
- Independence of judiciary:** It strengthens our democracy by delineating a true separation of power where Judiciary is independent.
- Citizens rights:** It provides basic Rights to Citizens which no organ of State can overrule.
- Progressive :** Being dynamic in nature, it is more progressive and open to changes in time unlike the rigid nature of earlier judgements.
- Safeguards constitutionalism and its Philosophy :** e.g Secularism, Federalism etc.

EVOLUTION

- Sankari Prasad judgement 1951:** Amendment power of the parliament is unrestricted.
- Golak Nath V State of Punjab 1967:** parliament cannot amend the Part III (FRs) of the constitution and thus awarded fundamental rights a "Transcendental Position".
- Keshavanada Bharti V State of Kerala 1973:** It gave birth to the landmark judgement which pronounced that the parliaments cannot alter or disturb the basic structure of the constitution.
- In Indira Nehru Gandhi v. Raj Narain and Minerva Mills v. Union of India,** Constitution Benches of the Supreme Court used the basic structure doctrine to strike down the 39th Amendment and parts of the 42nd Amendment respectively

CRITICISM

- Undemocratic :** Critics of the doctrine have called it undemocratic, since unelected judges can strike down a constitutional amendment.
- Against Separation of Powers :** As judiciary can intervene into legislature and executive work through Basic Structure which may also lead to **Judicial Overreach**.
- Undefined Nature :** Hence applicability of the basic structure doctrine remain subject to person sitting on judicial position at a particular time.
- Escaping checks and balance :** Though Judiciary can keep checks on other organs but it can escape from judicial appointment reforms from collegium to a more transparent mechanism.

CONCLUSION

- Even though judiciary never gave a solid test to discover what basic structure is, it however, has acted as a **brake to the legislative enthusiasm of Parliament**, thereby preserving the **original ideals** envisioned by the constitution-makers and strengthening the democracy.
- The ruling of **Keshavananda Bharati case** has cemented the rejection of majoritarian impulses to make sweeping changes or even replace the Constitution and underlined the foundations of a modern democracy laid down by the makers of the Constitution.

MAINS QUESTION

Q. What do you understand by 'Doctrine of Basic Structure'? Discuss its evolution and significance in strengthening democracy.

10 Marks 150 Words





Prelims

Ganga Vilas



PM flag off the Ganga river cruise from Varanasi. The 51-day cruise, being pitched as the **world's longest river cruise**, is expected to reach its final destination — Dibrugarh in Assam — on March 1.

- MV Ganga Vilas's itinerary has been designed to showcase India's rich heritage while staying at places of historical, cultural and religious importance.
- The vessel has three decks and 18 suites, with luxury amenities. It has the capacity to carry 36 tourists.
- The cruise will pass through the biodiversity-rich World Heritage Sites of the Sundarbans in the Bay of Bengal Delta, famous for the Royal Bengal Tigers, as well as the Kaziranga National Park, famous for one-horned rhinoceros.
- **The Ministry of Ports, Shipping and Waterways** is the coordinator of this ship tourism project.

Indian Skimmers



As per the Asian Waterbird Census 2023 Andhra Pradesh has become a prime and safe habitat for the **Indian Skimmer (Rynchops albicollis)**.

- Around 250 Indian Skimmers, were sighted in Coringa Wildlife Sanctuary.
- Another common name for Indian skimmers is Indian scissors bill.
- They are more widespread in winter; the Indian skimmer is found in the coastal estuaries of western and eastern India.
- The species can be sighted near the Chambal River in Central India, in few parts of Odisha and in Andhra Pradesh.
- **IUCN Red List Status: Endangered**
- **CITES: Not listed**

SPRINT Scheme



Recently, Indian Navy has signed an agreement with **Sagar Defence Engineering Pvt. Ltd** for armed autonomous boat swarms under '**SPRINT**' (**Supporting Pole-vaulting In R&D**), an initiative to promote the development of niche defence technologies by domestic companies.

- This is the 50th contract under 'SPRINT', which aims at the development of 75 indigenous technologies by the industry for the Navy by August 15, 2023, as part of Azadi ka Amrit Mahotsav
- **Swarming in Defence : The main intent of the swarm would be to force the enemy to be confronted with multiple new threats from constantly changing directions.**
- The swarm would aim at the psychological dislocation of the enemy more than his physical destruction.



Prelims

Digital India Awards 2022



President Droupadi Murmu, recently conferred the **Digital India Award 2022 – Gold** to CBSE in the Data Sharing and Use for Socio-Economic Development category.

- CBSE's pioneering IT initiative "Digital Academic Repository – **Parinam Manjusha** was selected for the Gold category.

Other winners:

- Platinum: E-NAM: for creating a unified national market for agriculture
- Platinum Award: E-Vivechna App (MP): To help in Crime investigation in the State Crime Records Bureau of Madhya Pradesh
- Mine Mitra (UP) for online approval of mining plan
- Duare Sarkar (West Bengal) for doorstep delivery of services.

About DIA:

- DIA aims to encourage and honour innovative digital solutions and initiatives by various government entities and startups (included in 2022 awards)
- **Nodal Agency: Ministry for Electronics and Information Technology**
- **Implementation Agency: National Portal of India.**

Thullal- a Satirical Art Form



Recently, a traditional art Ottanthullal of Kerala which has a history of over 300 years was performed in Kerala School Kalolsavam 2023.

- Ottan Thullal is a **recite-and-dance art form of Kerala**, India. It was introduced in the eighteenth century by **Kunchan Nambiar**, one of the Prachina Kavithrayam
- Seen at temple festivals and cultural programmes, these performances use elaborate expressions and stories recited in verses to bring important mythological tales and stories to life.
- It is epitomized by humour, satire and social criticism
- The costume and makeup of the performer are similar to that of a Kathakali artist.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

15 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : National Disaster Management Authority (NDMA)

RELEVANCE : #GS-3 #Disaster Management

MAINS ANALYSIS

CONTEXT

NDMA has asked government institutions to refrain from sharing any details related to their findings on Joshimath land subsidence till an ‘integrated’ final report is submitted by the expert group.

- The National Disaster Management Authority (NDMA) is the apex **statutory body** for disaster management in India.
- The NDMA was formally constituted on **27th September 2006**, in accordance with the Disaster Management Act, 2005 with **Prime Minister as its Chairperson** and nine other members, and one such member to be designated as Vice-Chairperson

EVOLUTION

Government of India set up a **High-Powered Committee (HPC) in August 1999** and a National Committee after the Gujarat earthquake (2001), for making recommendations for disaster management.

- 10th Five-Year Plan** for the first time, a detailed chapter on Disaster Management.
- The **12th** was also mandated to review the financial arrangements for Disaster Management.
- Govt enacted the **Disaster Management Act 2005**, which envisaged the creation of NDMA, SDMAs to spearhead and implement a holistic & integrated approach to Disaster Management.

FUNCTIONS

- Approving the **National Disaster Plan**.
- Establish **disaster management policies & guidelines**.
- Approve plans prepared by central government in conformity with the National Plan.
- Establish **criteria** for state officials to follow while drafting legislation. Plan for the State
- Coordinate** disaster management policy and plan enforcement and implementation.
- As determined by the Central Government, provide such **assistance to other countries** impacted by significant calamities.
- Take **any other measures** it deems essential for disaster prevention, mitigation, readiness, and capacity building in the event of a dangerous disaster situation or disaster.

ISSUES

- The involvement of the NDMA during the Uttarakhand Floods of 2013, when it **failed to timely alert people of flash floods and landslides**, has been questioned. The post-disaster relief response was also inadequate.
- Experts accused **NDMA's inadequate planning** of the unfinished flood and landslide prevention measures.
- It claimed that there had been significant delays in the execution of river management activities.
- The devastation caused by the Kerala floods in 2018 & Chennai floods in 2015 were eye-opening for institutions in terms of disaster preparedness.
- The NDRF's personnel lack the necessary training, equipment, facilities, and living quarters to effectively deal with the problem.

WAY FORWARD

- At the macro level, policy guidelines are required to advise and guide the formulation and execution of disaster management and development strategies across sectors.
- Operational guidelines for incorporating disaster management techniques into development, as well as specific developmental programmes for disaster avoidance and mitigation, should be formulated.
- At the local, state, and national levels, robust early warning systems and effective reaction plans should be implemented.
- At all levels of disaster management, the community, NGOs, CSOs, and the media should be involved.

MAINS QUESTION

India has traditionally followed a reactive approach of disaster management. Discuss the functions of National Disaster Management Authority (NDMA) & Suggest a way forward.

10 Marks 150 Words



Zojilla tunnel

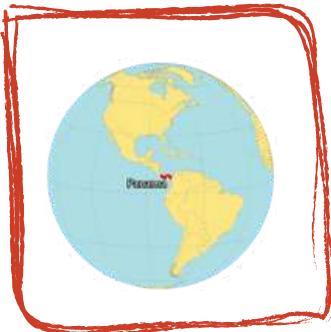


A DAY after two workers were killed in a snow avalanche near **Zojilla tunnel** in Sonamarg, the area was hit by two more avalanches simultaneously on Saturday.

- Zoji la is located in **Drass, Ladakh** at an altitude above **11,650 ft** and historically remains closed for the major part of the **winter season**.
- Zoji la is known as the “**Mountain Pass of Blizzards**”.
- In 2018, the Zojila tunnel project was launched. The Zojila tunnel will be **India's longest road tunnel and Asia's longest bi-directional tunnel**.
- The first part involves the development and expansion of the 18.475-km highway between **Z-Morh to Zojila**.
 - A 3-km stretch will be expanded; the rest will be newly developed.
- The highway will have 2 twin-tube tunnels, 5 bridges, and 2 snow galleries.

Panama Closure Hypothesis

The “Panama Hypothesis” states that the **gradual closure of the Panama Seaway**, between **13 million years ago (13 Ma)** and **2.6 Ma**, led to decreased mixing of Atlantic and Pacific water Masses, the formation of North Atlantic Deep water and strengthening of the Atlantic **thermohaline circulation**, increased temperatures and evaporation in the North Atlantic, increased **precipitation in Northern Hemisphere (NH)** high latitudes, culminating in the intensification of **Northern Hemisphere Glaciation (NHG)** during the Pliocene.



Kollam

Kollam in Kerala became **India's first Constitution-literate district**.

- 2,200 trainees as a part of the ambitious campaign, around 16.3 lakh people in the district above the age of 10 have been educated on various aspects of the Constitution and the strenuous process involved 2,200 trainers called ‘senators’.
- During the seven-month campaign, the senators visited schools, offices, auto stands and tribal councils to spread awareness.
- As part of the campaign, the **Preamble of the Constitution has been distributed in all households and installed at government, quasi-government and private institutions and schools**





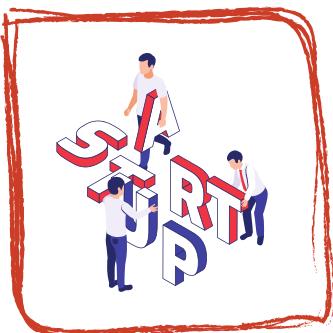
Prelims



Hemo-halt bandage

A newly developed bandage (by MACS-Agharkar Research Institute, an autonomous institute under DST) containing **chitosan** (a natural polymer that **halts bleeding**) and **agonist** (a substance that improves clotting) nanoparticles can rapidly minimize blood loss from wounds.

- Chitosan can control bleeding due to its cationic nature and hydrogel-forming ability leads to the concentration of erythrocytes and platelets in the injury site.
- The Hemo-halt bandage can **reduce blood loss before treatment**, save lives, and reduce disabilities on the battlefield. It can also contribute to the reduction in hospitalization costs.



MAARG portal

Commerce and industry minister will launch the **MAARG platform (Mentorship, Advisory, Assistance, Resilience, and Growth)** to facilitate mentorship between startups and entrepreneurs across sectors, stages, and functions.

- It is a one-stop platform to facilitate mentorship for startups across diverse sectors, functions, stages, geographies, and backgrounds.
- The government will also recognize the startups through the 'National Startup Awards', the previous version of 2020 and 2021 had recognized 367 startups as winners and finalists.

Startup India

- It is a flagship initiative of the Government of India, intended to catalyse startup culture and build a strong and inclusive ecosystem for innovation and entrepreneurship in India.
- In 2022, India has become the 3rd largest start-up ecosystem in the world after the US and China.



Centre of Excellence in Online Gaming

Digital India Startup Hub through the Software Technology Parks of India shall set up **India's first Centre of Excellence in Online Gaming at Shillong**

- The Centre of Excellence in Shillong is expected to catalyse startups and entrepreneurs from the entire North East Region to build the Next Gen Online Gaming Ecosystem.
- The Minister announced another initiative of **MeitY** to set up a state-of-the-art facility under the National Institute of Electronics and IT (NIELIT) to provide training on cutting-edge **Digital Skills at Shillong**.
- A 10-acre campus shall soon be ready for this purpose which shall cater to the skilling requirement of youth in the North East Region.
- 50,000 Youth in Meghalaya to be trained in Future Ready Skills with Industry backed Job Opportunities.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

14 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

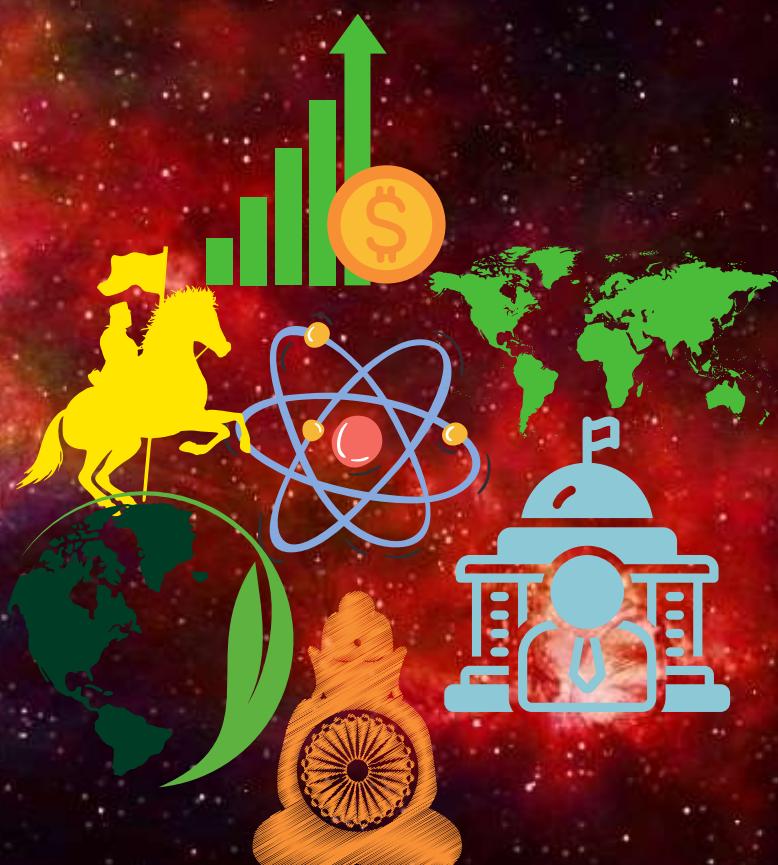
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Deepfake Technology

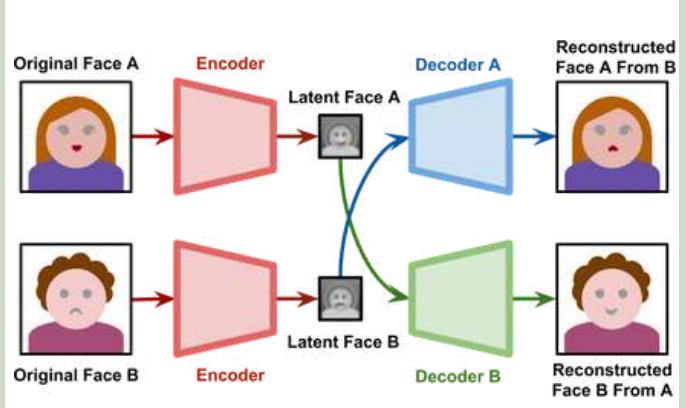
RELEVANCE : #GS-3 #Science & Tech

MAINS ANALYSIS

CONTEXT

The Cyberspace Administration of China, the country's cyberspace watchdog, is rolling out new regulations to restrict the use of deep synthesis technology and curb disinformation.

- The policy requires deep synthesis service providers and users to ensure that any doctored content using the technology is explicitly labelled and can be traced back to its source.
- Deepfake technology** is a method for manipulating **videos, images, audios** utilizing powerful computers and deep learning.
- It is used to generate **fake news** and **commit financial fraud** among other wrong doings.



ISSUES

- Deepfake technology is now being used for **nefarious purposes like scams and hoaxes, celebrity pornography, election manipulation, social engineering, automated disinformation attacks, identity theft and financial fraud etc.**
- Deepfake technology has been used to impersonate notable personalities like former U.S. Presidents Barack Obama and Donald Trump etc..
- Deepfake videos can be used to spread **misinformation and propaganda**
- Defamation** : For instance, there is no dearth of deepfake pornographic material of celebrities.
- Deepfakes can accelerate the **trust deficit** in traditional media and could be used by non-state actors to create chaos in the target country.

SOLUTIONS

- Need for comprehensive legislation to cater dynamic nature of deepfake challenges & AI.**
- Media literacy** for consumers is the most effective tool to combat disinformation and deep fakes.
- Meaningful regulations** with a collaborative discussion with the technology industry, civil society and policymakers to disincentivise the creation and distribution of malicious deepfakes.
- Easy-to-use and accessible technology solutions** to detect deepfakes, authenticate media, and amplify authoritative sources.
- Social media platforms are taking cognizance** of the deepfake issue, and almost all of them have some policy or acceptable terms of use for deepfakes.

WAY FORWARD

- As media consumers, we must be able to decipher, understand, translate, and use the information we encounter.
- Technical solutions supported by artificial intelligence e.g. **Intel's FakeCatcher can detect deepfakes in real-time with 96% accuracy**
- On the part of society, to counter the menace of deep fakes, there is a need to take the responsibility to be a critical consumer of media on the Internet, think and pause before sharing on social media, and be part of the solution.

MAINS QUESTION

What do you understand by DeepFake? Discuss the challenges posed by DeepFake.

10 Marks 150 Words





Prelims

Geo-heritage sites



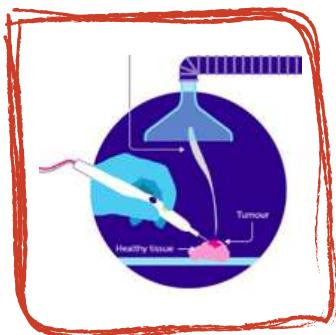
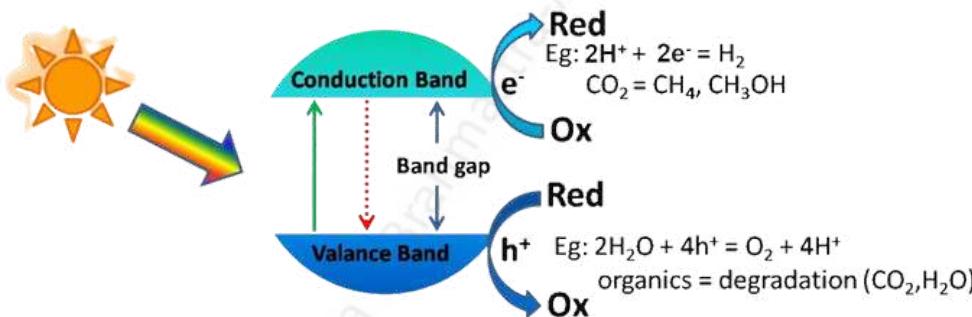
- The Congress government in Rajasthan will shortly come up with an action plan for the protection of 10 geo heritage sites in the State on the lines of conservation of archaeological monuments.
- Geological Survey of India (GSI) declares geo-heritage sites/ national geological monuments for protection and maintenance.**
- The term geological heritage is used for natural geological or geomorphological features that have aesthetic, intrinsic or scientific and educational value, that provide unique insight into geological processes affecting the formation or evolution of Earth.

S. No	Geological heritage site /National geological monument	S. No	Geological heritage site /National geological monument
	ANDHRA PRADESH	18	Kishangarh Nepheline Syenite, Ajmer Dist.
1	Volcanogenic bedded Barytes, Mangampeta, Cuddapah Dist.	19	Welded Tuff, Jodhpur Dist.
2	Eparchaeon Unconformity, Chittor Dist.	20	Jodhpur Group – Malani Igneous Suite Contact, Jodhpur Dist.
3	Natural Geological Arch, Tirumala Hills, Chittor Dist.	21	Great Boundary Fault at Satur, Bundi Dist.
4	Erra Matti Dibbalu		MAHARASHTRA
	KERALA	22	Lonar Lake, Buldana Dist.
5	Laterite near Angadipuram PWD rest house premises, Malapuram Dist.		CHATTISGARH
6	Varkala Cliff Section, Thiruvananthapuram Dist.	22	Lower Permian Marine bed at Manendragarh, Surguja Dist.
	TAMILNADU		KARNATAKA
7	Fossil wood near Tiruvakkai, South Arcot Dist.	24	Columnar Lava, St Mary Island Udupi Dist.
8	National fossil wood park, Sattanur, Tiruchirappalli Dist.	25	Pillow lavas near Mardihalli, Chitradurga Dist.
9	Charnockite, St. Thomas Mount, Madras.	26	Peninsular Gneiss, Lalbagh, Bangalore
10	Badlands of Karai Formation with Cretaceous fossils along Karai – Kulakkalnattam Section, Perambalur District.	27	Pyroclastics & Pillow lavas, Kolar Gold fields, Kolar Dist.
	GUJARAT		HIMACHAL PRADESH
11	Sedimentary Structures – Eddy Markings, Kadan Dam, Panch Mahals Dist.	28	Siwalik Fossil Park, Saketi, Sirmur dt.,
	RAJASTHAN		ODISHA
12	Sendra Granite, Pali Dist.	29	Pillow Lava in Iron ore belt at Nomira, Keonjhar dist.
13	Barr Conglomerate, Pali Dist.		JHARKHAND
14	Stromatolite Fossil Park, Jharkotra Rock Phosphate deposit, Udaipur Dist.	30	Plant Fossil bearing Inter-trappean beds of Rajmahal Formation, upper Gondwana sequence around Mandro, Sahibganj dist.
15	Gossan in Rajpura-Dariba Mineralised belt, Udaipur Dist.		NAGALAND
16	Stromatolite Park near Bhojunda, Chittaurgarh Dist.	31	Nagahill Ophiolite Site near Pungro,
17	Akal Fossil Wood Park, Jaisalmer Dist.		SIKKIM
		32	Stromatolite bearing Dolomite / Limestone of Buxa Formation at Mamley, near Namchi, South district.

Photocatalysis

A study published has reported a way to achieve relatively **high efficiency in an artificial photosynthesis reaction** in which water is split into oxygen and hydrogen using sunlight and a catalyst. The technique is called photocatalysis.

- Indian Scientists have designed a photochemical method (Photocatalyst) to convert Carbon Dioxide (CO_2) to Methane (CH_4).
- Photocatalytic STH is inspired by photosynthesis, where leaves use energy from incident sunlight to split water into oxygen and hydrogen. Here, "the process consists of a semiconductor photocatalyst wafer immersed in freshwater or seawater.
- The catalyst has a chemical called the **Conjugated Microporous Polymer (CMP)**.
- It can uptake CO_2 onto its surface due to its high CO_2 intake capability at room temperature, converting it into methane as a value-added product.



iKnife

A recently developed surgical knife **capable of identifying tumours** can detect **endometrial cancer within seconds**, allowing people with healthy uteruses to get the 'all-clear' faster.

- The knife uses **electric currents on biopsy tissue and then analyses the vapourised aerosols** from the tissue in a mass spectrometer to give real-time information about activity in the tissue.
- The study noted that the iKnife reliably diagnosed endometrial cancer in tissue within seconds with an accuracy of 89%.
- This would greatly minimise the delays faced by patients who wait for a normal histopathological diagnosis.



Lokur Committee (1965)

The Office of the Registrar-General of India (RGI) is following the set of criteria set out by the **Lokur Committee** nearly 60 years ago to define any new **community as a Scheduled Tribe**

Criteria :

1. Indications of primitive traits
 2. Distinctive culture
 3. Geographical isolation
 4. The shyness of contact with the community at large
 5. Backwardness
- The Office of the RGI's nod is mandatory for the inclusion of any community in ST lists, as per the procedure for scheduling tribes.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

16 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

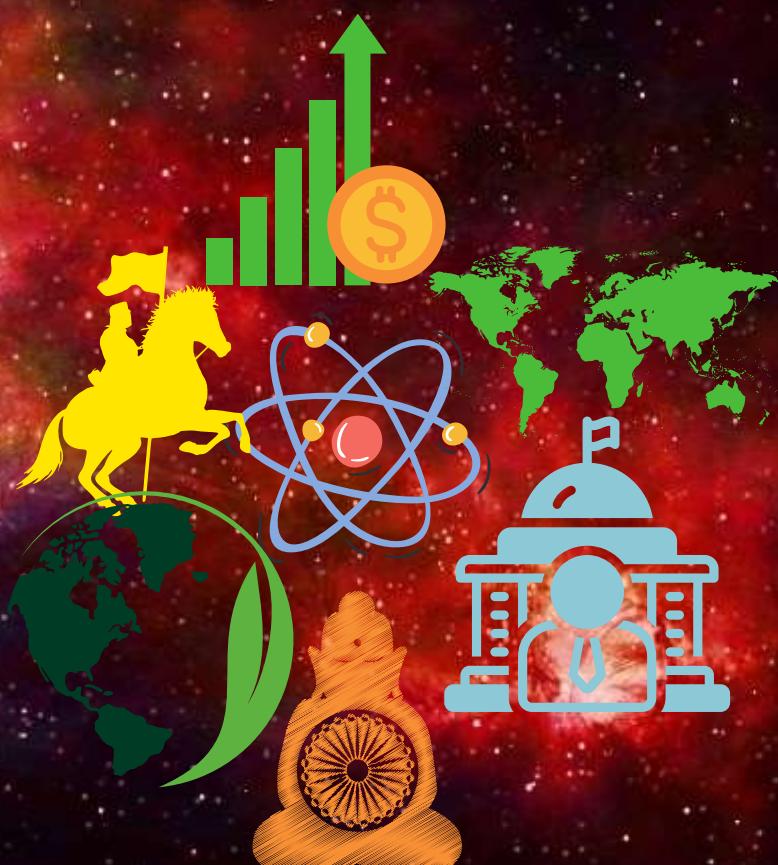
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Child Marriage

RELEVANCE : #GS-1 #Society

MAINS ANALYSIS

CONTEXT

Recently Supreme Court agreed to examine a decision of the Punjab and Haryana High Court that a Muslim girl could marry a person of her choice after attaining puberty

- United Nations Children's Fund [UNICEF] estimates suggest that each year, at least 1.5 million girls under 18 get married in India, accounting for a third of the global total
- Child marriage in India, according to Indian laws is a marriage where either the woman is below age 18 or the man is below age 21**
- It was outlawed by Indian law in 1929

CAUSES

- Poverty** : more than 30% of women from the lowest wealth quintiles were married by the age of 18
- Lack of education** : Around 45% of women with no education and 40% with primary education married before the age of 18
- Patriarchal setup & girl child Seen as a Burden due to **dowry culture**.
- The growing insecurity of girls eg. **Sexual harassments**
- Pandemic impact** : The UNFPA UNICEF estimates that 10 million children could become child brides as a result of the pandemic globally

ISSUES

- Consequences of child marriage are dire, not only because it violates children's rights, but also because it results in more infant and **maternal deaths**.
- Associated social issues eg. Dowry, **Child widowhood**.
- Right To Education Act** makes education free and compulsory up to the age of 14 only.
- Human Rights Violation**: Child marriage violates girls' human rights and makes them almost invisible to policy.
- Associated Health Issues**: The costs of child marriage include teenage pregnancy and child stunting, population growth.
- Economic issues : e.g. loss of women's participation in the workforce.

EFFORTS

- International efforts : e The Convention on the Rights of the Child(CRC) ,SDG 5,10
- National level:
 - Child Marriage Restraint Act, 1929**
 - Prohibition of Child Marriage Act(PCMA), 2006**: It was enacted to address and fix the shortcomings of the Child Marriage Restraint Act.
 - Juvenile Justice Care and Protection Act, 2015**
 - In India, child marriage reduced from 47.4% in 2005-06 to 26.8% in 2015-16
 - Karnataka amended the PCMA 2007, declaring every child marriage void ab initio.
 - The Protection of Children from Sexual Offences Act, 2012**: which aim at protecting children from violation of human and other rights.

WAY FORWARD

- Ensuring the completion of secondary education & activating community support groups of girls is essential to stop the practice of child marriage
 - Conditional Cash transfers eg. Dhaniakshami , SUKANYA , PM Matru Vandana Yojana etc.
 - Factors closely linked to child marriage, including eradication of poverty, better education and public infrastructure facilities for children, raising social awareness on health, nutrition, regressive social norms and inequalities should be focused to elimination of Child Marriages in India.
- Eg. West Bengal's Kanyashree scheme offers financial aid to girls wanting to pursue higher studies.

MAINS QUESTION

Drivers for social change like education, legal provisions and initiatives for creating awareness have still a lot to cover with respect to eliminating girl child marriage.
Comment.

10M 150 Words





Green Steel

Green Steel is the **manufacturing of steel using renewable or low-carbon energy sources such as hydrogen, coal gasification, or electricity** instead of the traditional carbon-intensive manufacturing route of coal-fired plants.

- Odisha and Jharkhand are the number one and number two steel producers in India.
- **Steel Manufacturing produces more CO₂** than any other heavy industry, comprising around 8% of total global emissions.
- India is currently the world's 2nd largest producer of crude steel important steel-producing centers are Bhilai (Chhattisgarh), Durgapur (West Bengal), Burnpur (West Bengal), Jamshedpur (Jharkhand), Rourkela (Odisha), Bokaro (Jharkhand).
- Consumption: India is the 2nd largest consumer of finished steel in 2021 after China.



Local Bubbles

Recently, new research on a giant cosmic cavity that surrounds the solar system could reveal the universe's secrets, including questions about the origins of stars.

- Researchers from the Center for Astrophysics (CfA) | Harvard & Smithsonian have generated a 3D magnetic map of the cavity called Local Bubble.
- **The Local Bubble is a 1,000-light-year-wide cavity or a superbubble. Other superbubbles also exist in the Milky Way.**
- The Local Bubble is a large, low-density region in the interstellar medium (ISM) of our galaxy, the Milky Way.
- The interstellar medium is the material which fills the space between the stars.
- It's a cavity that is thought to have been created by a series of supernovae explosions that occurred about 30 to 50 million years ago.



Makar Sankranti

Recently, the Prime Minister has greeted people across the nation on the occasion of **harvest festivals Makar Sankranti, Bhogi, Lohri and Pongal**. The festivals celebrate the hard work and enterprise of millions of farmers across the country.

- **Makar Sankranti denotes the entry of the sun into the zodiac sign of Makara (Capricorn) as it travels on its celestial path. The day marks the onset of summer and the six months auspicious period for Hindus known as Uttarayan – the northward movement of the sun.**
- The festivities associated with the day are known by different names in different parts of the country

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

17 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

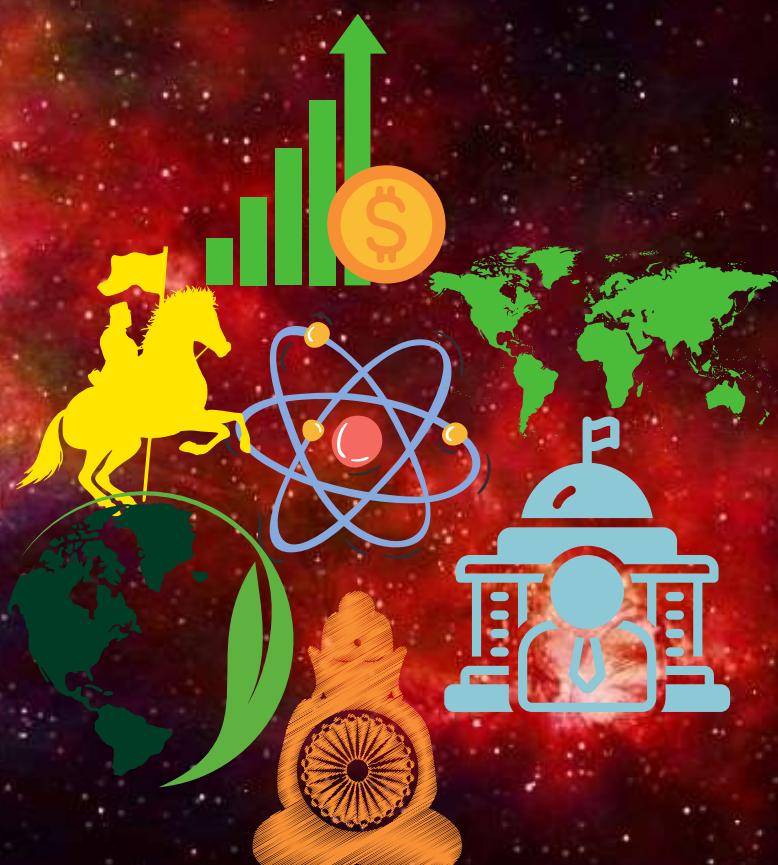
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Cancer

RELEVANCE : #GS-2 #Social Issues #Health

MAINS ANALYSIS

CONTEXT

An estimated 14.6 lakh new cancer cases were detected in 2022, up from 14.2 lakh in 2021 as per ICMR.

Cancer Burden : One in nine Indians will develop cancer during their lifetime, according to an ICMR study using data from population-based cancer registries.

- **One in 68 men will develop lung cancer and one in 29 women will develop breast cancer, according to the study.**
- **The incidence of cancer is higher among women — 103.6 per 100,000 in 2020 compared to 94.1 among men.**

CAUSES OF CANCER

- **Transformation** of normal cells into cancerous neoplastic cells may be induced by physical, chemical or biological agents. **These agents are called carcinogens.**
- **Ionizing radiations** like X-rays and gamma rays and non-ionizing radiations like UV cause DNA damage leading to neoplastic transformation.
- The chemical carcinogens present in **tobacco smoke** have been identified as a major cause of lung cancer.
- Cancer causing **viruses called oncogenic viruses** have genes called viral oncogenes.
- Furthermore, **several genes called cellular oncogenes (c-onc)** can cause cancer, when activated.

WHAT IS CANCER

Cancer is a generic term for a large group of diseases that can affect any part of the body.

- It is a serious disease wherein cells divide uncontrollably.
- Such cells go beyond their usual boundaries to invade adjoining parts of the body and/or spread to other organs called as **metastasizing** and is a major cause of death from cancer.
- The most common types are breast, lung, colon and rectum, and prostate cancers.
- Many cancers can be cured if detected early and treated effectively.

EFFORTS

- **Global Initiative:** The International Agency for Research on Cancer (IARC)
- **World Cancer Day** is observed on 4th February every year.

Indian Initiatives:

- **National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)** is being implemented under National Health Mission.
- **India's developed cervical cancer vaccine.**
- PM JAY to reduce the financial burden
- National Cancer Grid (NCG) is a network of major cancer centers, research institutes, patient groups and charitable institutions across India.
- National Cancer Awareness Day is observed on 7th November each year.

WAY FORWARD

- **Diagnosing and Screening facility :** The first intervention has to be screening for the three most common **types of cancer — breast, cervical, and oral etc.**
- **Raising Awareness and Health Insurance Coverage to minimize out of pocket expenditure.**
- **Strict Regulation of Cancer Causing products by coordination among different ministries.**
- Investment in Research and Development for finding solutions to untreated cancers.
- Emphasize inclusiveness in thinking and action for common solutions that can significantly reduce the impact of cancer on all socioeconomic levels in the country.

MAINS QUESTION

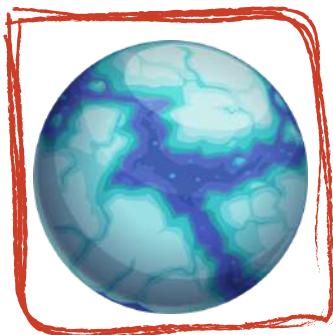
Cancer affects not only human life but also social and economic status. Discuss the steps taken for the proper diagnosis & treatment of cancer?

10M 150 Words



Brahmastra

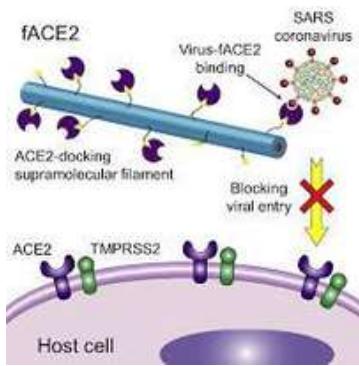
Prelims



Exoplanet

NASA announced last week that the James Webb Space Telescope has discovered an Earth-sized exoplanet, its first. Researchers have named the planet **LHS 475 b**. Located just 41 light years away.

- Exoplanets orbit other stars and are beyond our solar system. According to NASA, to date, more than 5,000 exoplanets have been discovered.
- **Red dwarfs stars** are dimmer than other stars, it is easier to find exoplanets that surround them.
- A red dwarf is the smallest and coolest kind of star on the main sequence. Red dwarfs are by far the most common type of star in the Milky Way, at least in the neighborhood of the Sun, but because of their **low luminosity**, individual red dwarfs cannot be easily observed.



fACE2 filament

Researchers have created **new molecules called supramolecular filaments** that can be sprayed into the nose to block the SARS-CoV-2 virus from entering the lungs and causing infection.

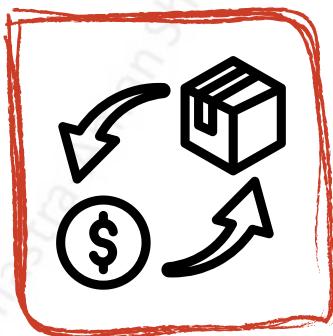
- The key to this approach is the way that the filaments carry a receptor called **angiotensin converting enzyme-2, or ACE2**, which is also found in cells in the nasal lining, the lung surface, and the small intestine.
- The team's **newly developed filament, called fACE2, serves as a decoy binding site for the virus**, with each filament offering several receptors for the COVID-19 spike protein to attach to, and silences ACE2's biological functions to avoid potential side effects.



National Coal Index

While launching the **sixth-round commercial coal mines' auction for 141 coal mines**, the ministry of Coal has decided to annually revise Performance Bank Guarantee (PBG) annually based on the National Coal Index (NCI) for the month of April at the beginning of the year.

- PBG is a **bank guarantee** that needs to be submitted for each **successfully auctioned coal mine by the winning entity**. It shows that the entity has the capability to carry on the mining activity.
- NCI is a price index reflecting the change in the price level of coal in a particular month relative to the fixed base year (**2017-18 in this case**)
- The ministry of coal has started the commercial auction of coal mines on a **revenue-share basis** using the National Coal Index.



Duty Drawback Scheme

As per the GST authorities, exporters are misusing the government's **duty drawback scheme (DDS)** by claiming it along with refunds of integrated goods and services tax (GST).

- The Duty Drawback Scheme provides exporters with a refund of customs duty paid on unused imported goods, or goods that will be treated, processed or incorporated into other goods for export.
- Claims must be lodged within 4 years from the date the goods were exported.
- Duty drawback can be only claimed for compensating unrelated taxes and duties and not for GST.

Doppler Weather Radar Network



On the Occasion of 148th Foundation Day of India Meteorological Department (IMD), **Ministry of Earth Science** has inaugurated the Doppler Weather Radar (DWR) Systems in **Jammu & Kashmir, Uttarakhand, and Himachal Pradesh**.

- Based on Doppler principle, the radar is designed to improve precision in long-range weather forecasting and surveillance using a parabolic dish antenna and a foam sandwich spherical radome.
- DWR has the equipment to measure rainfall intensity, wind shear and velocity and locate a storm centre and the direction of a tornado or gust front.
- Doppler effect:** When the source and the signal are in relative motion to each other there is a change in the frequency observed by the observer. If they are moving closer, frequency increases and vice versa.



Black Boxes

Both black boxes from the crashed Yeti Airlines flight in Nepal have been discovered, Kathmandu airport officials said.

- These are two large metallic boxes containing recorders that are required to be kept on most aircraft, one in the front and the other in the rear.
- Black boxes are a blazing, high-visibility orange in colour, so that crews looking for them at a crash site have the best chance of finding them.
- Black boxes are mandatory on commercial flights. Their purpose on aircraft is not to establish legal liability, but to identify the causes of a mishap and, therefore, help to prevent adverse incidents in the future.**
- Technology: **Black boxes use solid-state memory boards**, which came along in the 1990s. Solid state memory boards use stacked arrays of memory chips, and are stronger.
- Two separate pieces of equipment:
 - The **cockpit voice recorder (CVR)** records radio transmissions and other sounds in the cockpit, such as conversations between the pilots, and engine noises.
 - The **flight data recorder (FDR)** records more than 80 different types of information such as altitude, airspeed, flight heading, vertical acceleration, pitch, roll, autopilot status, etc.



Shukrayaan I

Venus mission and that the mission could as a result be postponed to 2031.

- ISRO's Venus mission, Shukrayaan I, was expected to be launched in December 2024.

Key Objectives of the Mission

- Investigation of surface process and shallow subsurface stratigraphy.
- Study of the **structure, composition and dynamics** of the atmosphere.
- Investigation of Solar wind interaction with **Venusian ionosphere**.
- It will help to learn how Earth-like planets evolve and what conditions exist on Earth-sized exoplanets (Planets that orbit a star other than our sun).
- It will help in modelling Earth's climate and serves as a cautionary tale on how dramatically a planet's climate can change.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

18 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

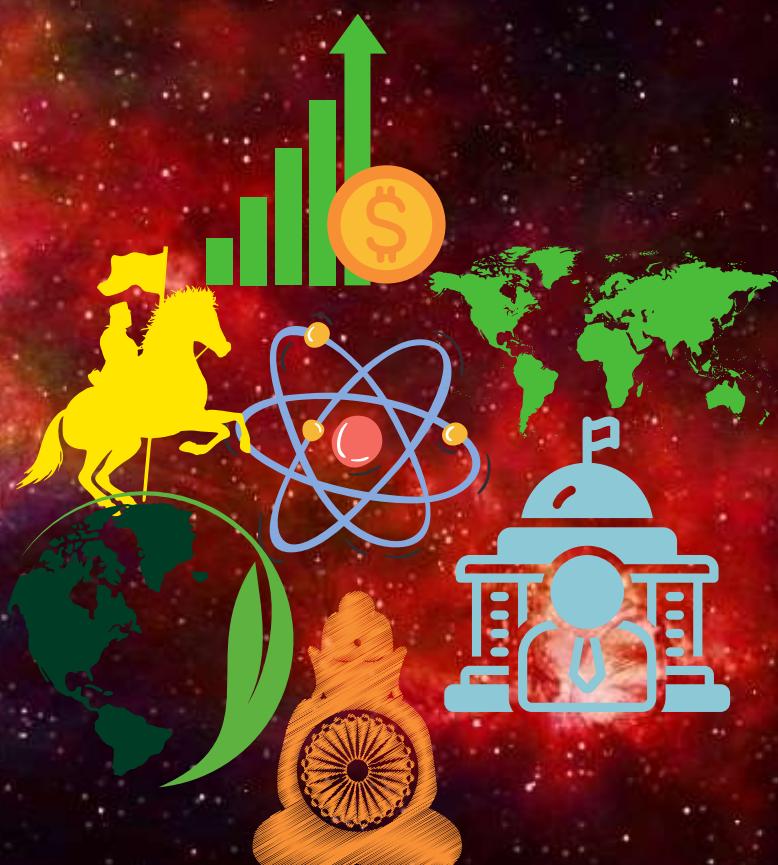
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Centre Vs Delhi Govt on Control Over Services

RELEVANCE : #GS-2 #Polity

MAINS ANALYSIS

CONTEXT

A five-judge Constitution Bench of the Supreme Court (SC) is hearing a dispute between the Delhi government and the Centre over the control of administrative services.

- Almost five years ago, another Constitution Bench had ruled in favour of the State government in a similar tussle
- The Centre on **27th April 2022 sought a reference to a larger Bench**, arguing that it **needed the power to make transfers and postings of officers in Delhi** on account of it being the national capital and the “face of nation”.

TIMELINE OF DISPUTE

- 2017** : Delhi High Court held that for administration purposes Lieutenant Governor (L-G) is not bound by the aid and advice of the Council of Ministers in every matter.
- 2018** : Five-judge Constitution bench had unanimously held that the L-G of Delhi is bound by the aid and advice of the elected government, and both needed to work harmoniously with each other.
- 2019 Judgement**: A two-judge Bench of the SC delivered a split verdict and referred the matter to a three-judge Bench.

ARGUMENTS OF CENTRE

- Face of country** :The Centre has consistently maintained that because Delhi is the national capital and the face of the country, it must have control over administrative services, which include appointments and transfers.
- This will increase the **administrative efficiency of Delhi** and will ensure a better relationship between the executive and the legislator. This is a technical Bill.
- It will bring **accountability and overall transparency in governance**.
- GNCTD 2021 have been brought to remove ambiguities in the existing Act.
- Powers of the Centre and NCT of Delhi, are limited with respect to the term “services”.

ARGUMENTS OF DELHI GOVT

- Federalism** : The Delhi government has argued that in the interest of federalism, the elected representatives must have power over transfers and postings.
- Basic Structure** : The Delhi government had also contended that the recent amendments to the Government of NCTD 2021Act, violate the doctrine of basic structure of the Constitution.
- Article 239 AA inserted by the **69th Amendment Act, 1991** conferred Special Status upon Delhi following the recommendations of the **S Balakrishnan Committee** that was set up in 1987 to look into Delhi's demands for statehood.
- Critics argue that the Lieutenant Governor could **politically exploit** these unbridled powers to hamper the government's administrative work.

WAY FORWARD

- The **federal nature of the Constitution** is its basic feature and cannot be altered, thus, the stakeholders wielding power intend to protect the federal feature of our Constitution.
- A diverse and large country like India requires a proper balance between the pillars of federalism, i.e., autonomy of states, national integration, centralisation, decentralisation, nationalisation, and regionalisation.
- With collective responsibility, aid, and advice as the pillars of democracy, it is critical to find a balance and decide whether the center or Delhi government should have control over services in Delhi.

MAINS QUESTION

Whether the Supreme Court Judgement (July 2018) can settle the political tussle between the Lt. Governor and the elected government of Delhi? Examine.

(UPSC 2018)

15M 250 Words





Prelims



Fake News

Any piece of news that has been identified as “fake” by the factchecking unit of the **Press Information Bureau (PIB)** will not be allowed on online intermediaries, including social media platforms like Facebook, YouTube and Twitter, the Ministry of Electronics and IT (MeitY) has said in a draft proposal.

- The requirement has been added under due diligence requirements that intermediaries need to follow to enjoy safe harbour, which is legal immunity from third-party content they host.
- The Press Information Bureau (PIB) is the **nodal agency** of the Government of India to disseminate information to the print and electronic media on government policies, programmes, initiatives and achievements.
- PIB has its Headquarters in **New Delhi**.



Manjuvirattu

2 Killed In Manjuvirattu Events In Tamil Nadu

- Manjuvirattu is a traditional sport where bulls are let in a vast area for the players to tame them. In some cases, currency notes are tied to the neck of the bull which the participants can take. However, Jallikattu is a traditional sport where bulls are released one by one through 'vaadivasal', an entry point in the arena, for players to tame them.
- In the past four days, four deaths have been reported in the bull-taming sport.

Jallikattu

- Jallikattu** is a traditional sport that is popular in the Indian state of **TN**.
- The sport involves **releasing a wild bull** into a **crowd of people**, and the participants attempt to **grab the bull's hump and ride it** for as long as possible, or **attempt to bring it under control**.
- It is celebrated in the month of **January**, during the **Tamil harvest festival, Pongal**.



VARUNA' - 2023

The 21st Edition of the **Bilateral Naval Exercise between India and France – Exercise Varuna commenced on the Western Seaboard, India**

- While the bilateral exercise between the two navies was initiated in 1993, it was christened as 'VARUNA' in 2001 and has become a hallmark of the India – France strategic bilateral relationship.
- The exercise facilitates operational-level interaction between the two navies to foster mutual cooperation for good order at sea, underscoring the shared commitment of both nations to security, safety, and freedom of the global maritime commons.

Other exercises between India and France:

- Army : SHAKTI
- Air Force : GARUDA



Prelims

Magh Bihu

Prime Minister greeted the people on the occasion of Magh Bihu.

About Magh Bihu:

- It is a **harvest festival of Assam where people express gratitude for a good harvest and marks the end of the harvest season.**
- It believes in sharing the gifts of nature as a community and strengthening a sense of identity and belonging.
- The festival of Bihu has three forms: Bohag Bihu, Kati Bihu, and Magh Bihu. Each of these falls in the agriculture calendar.



Asian Waterbird Census (AWC) 2023

Wetlands International's largest annual water bird census named "**Asian Water Bird Census (AWC) 2023**" began on January 7, 2023, across Asia and Australasia simultaneously and will conclude on January 22, 2023

About AWC:

- AWC (started in 1987) is part of the **International Waterbird census coordinated by Wetland International**
- In India, AWC is coordinated by the **Bombay Natural History Society (BNHS) (founded in 1883, an NGO)** and **Wetland International (NGO)**.

Significance: AWC supports the conservation of wetlands and water birds worldwide. AWC data is used to promote national water bird and wetland conservation and for other initiatives such as:

- Waterbird Population Estimates Programme (WI)
- Global Species Programme (Red List, by IUCN)
- Important Bird Area Programme (BirdLife international)
- Bonn Convention (for Migratory Species)
- Central Asian flyway Action plan



BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

19 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

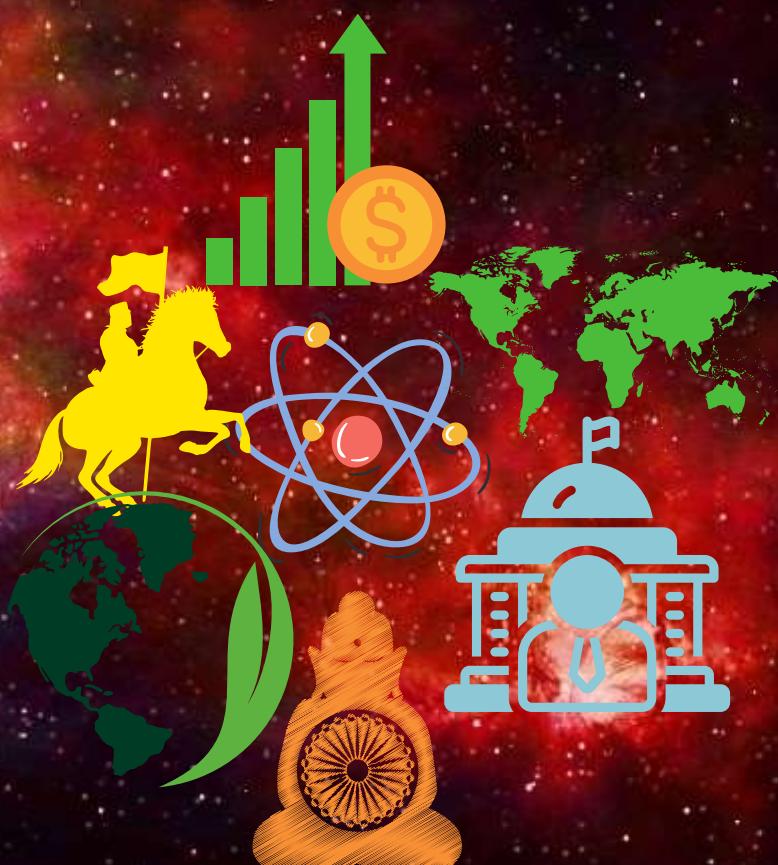
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Eco-Sensitive Zones

RELEVANCE : #GS-3 #Environment #Conservation

MAINS ANALYSIS

CONTEXT

The Supreme Court's directive to mark a 1 km aerial distance from the boundaries of all protected areas as ecologically sensitive has led to protests in Kerala.

- Farmers are facing fears that the government will take away the holding and render him landless once the ESZ regime comes into effect.
- Ecologically sensitive zones (ESZ) are intended to safeguard 'protected areas' national parks and wildlife sanctuaries by transitioning (~10 km) from an area of lower protection to an area of higher protection under **Environment Protection Act 1986**.

SIGNIFICANCE

- ESA act as “**shock absorbers**” : The effect of harmful anthropogenic activities happening in the vicinity of these areas remains restricted to these regions.
- Protect the Wildlife Corridors.
- To minimize the impact of Urbanization.
- To minimize **Human-Wildlife Conflict**.
- It is statistically proven that animals rarely venture beyond ESZs.
- It doesn't hamper daily livelihood activities, but seeks to **refine the environment area around the Protected Areas**.
- **ESZs help in in-situ conservation**, which deals with conservation of an endangered species in its natural habitat e.g. One-horned Rhino of Kaziranga National Park, Assam.

WAY FORWARD

- Centre has clarified people In Buffer Zones won't Be Displaced & Can Continue With Agriculture will help in calming down the protest and bringing them into fold of **participatory planning process**.
- It is important to consider ESZs on a **case-to-case basis** instead of giving the same limit for all.
- The Centre needs to come up with a plan to **incentivise farmers for sticking to green practices in Eco-Sensitive Zones (ESZs)**. The conservation of biodiversity requires special attention: forest dwellers willing to live in the forest must be allowed to stay.

MAINS QUESTION

Q. What are Eco Sensitive Zone (ESZ) ? Why were there protests in Kerala against ESZs? Suggest a suitable way forward.

10M 150 Words



ACTIVITIES IN ESZ

- **Prohibited** : Commercial mining , Sawmills - These generate dust that can harm biodiversity &Commercial use of wood, etc.
- **Regulated activities in ESZ** : Felling of trees , Establishment of hotels and resorts, Commercial use of natural water, Erection of electrical cables, A drastic change in the agriculture system like adopting heavy technology, Usage of Pesticides & Widening of roads.
- **Permitted Activities** : Ongoing agricultural or horticultural practices, Rainwater harvesting & Organic farming

ISSUES

- Insecurities to livelihood rights : As the creation of permanent structures is banned, people living in ESZ feel insecure about their livelihood activities.
- In cities, it can affect the lives of low-income households who reside in these areas as they can be forced to evict.
- **No Scientific basis against the current demarcation of ESZ**
- **Conflict with Forest rights act and other laws such as Gram Sabha jurisdiction**.
- Against the **participatory planning process**, as the people living around ESZ and getting affected by it haven't been consulted.
- **One size fit for all approach** undermining topographical differences.



Prelims



National Gallery of Modern Art (NGMA)

AIR India's massive collection of artworks, known as the '**Maharaja Collection**', was formally transferred to the National Gallery of Modern Art (NGMA).

- NGMA was established in **1954**, at the **Jaipur House**, New Delhi.
- It is run and administered as a subordinate office to the **Ministry of Culture, Government of India**.
- The NGMA has two branches, one at **Mumbai** and the other at **Bengaluru**.
- One of its objectives is to acquire and preserve works of modern art from the 1850s onward.

Major Non-NATO Ally (MNNA)

A US Congressman has moved a Bill in the House of Representatives to **revoke Pakistan's designation as a Major Non-NATO Ally (MNNA)** unless the US President can submit certification to Congress that Pakistan has met certain conditions such as conducting military operations disrupting the safe haven and freedom of movement of the Haqqani Network.

- MNNA status provides foreign partners with benefits in the "areas of defense trade and security cooperation."
- While MNNA status provides military and economic privileges, **it does not entail any security commitments to the designated country.**
- **India Isn't a 'Major Non-NATO Ally' of the United States.**

Operation Claw-Sword

On 20 November 2022 the Turkish Air Force launched Operation Claw-Sword (Turkish: Pençe-Kılıç Operasyonu), a series of airstrikes against **Syrian Democratic Forces** and Syrian Army positions in Northern Syria (in Aleppo, Raqqa, al-Hasaka) and against **Kurdistan Workers' Party (PKK)** positions in Northern Iraq.

- The airstrikes were launched following the 2022 Istanbul bombing on 13 November, that the Turkish government say was conducted by Kurdish separatists.
- Turkey has launched a military operation called **Operation Peace Spring** against the **Syrian Kurdish militia (YPG)** in Northeast Syria in 2019.

Kurdish–Turkish conflict (1978–present)

- The Kurdish–Turkish conflict is an armed conflict between the Republic of Turkey and various Kurdish insurgent groups who have either demanded **separation from Turkey** to create an independent Kurdistan, or attempted to secure autonomy and greater political and cultural rights for Kurds inside the Republic of Turkey.
- The Kurds are the world's largest stateless ethnic group.
- Kurdish nationalists claim a history going back 2,500 years, but they became identifiable as a distinct community only in the 7th century, when most tribes in the area adopted Islam.



Thiruvalluvar



The Prime Minister, has paid homage to Thiruvalluvar on Thiruvalluvar Day and recalled his noble thoughts. He also urged the youth to read the **Kural**.

- Thiruvalluvar, also called **Valluvar**, was a Tamil poet-saint.
- He contributed the **Tirukkural** or '**Kural**' to the Sangam literature.
- **Tirukkural** is comprised of 133 sections of 10 couplets each divided into three books: Aram (virtue), Porul (government and society), and Kamam (love).
- In the early 16th century, a temple dedicated to Thiruvalluvar was built within the Ekambareswarar temple complex in Mylapore, Chennai.
- A **133-foot-tall statue of Thiruvalluvar stands at Kanyakumari** as well.
- Another statue of the legendary Tamil poet was unveiled in **Ulsoor, near Bengaluru**, in 2009.



Voice of Global South Summit

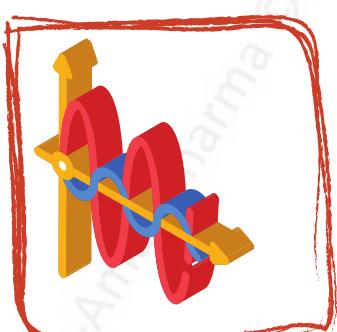
At the concluding session of the virtual **Voice of Global South Summit**, India unveiled initiatives to assist the Global South.

- **Aarogya Maitri project** for providing medical supplies to any disaster-hit country
- **Global-South Scholarships** for students from developing countries to pursue higher education in India
- **Global-South young diplomats** forum to connect officers of foreign ministries with other countries
- **Global-South Centre of excellence for R&D**
- **Global-South Science and Technology** for space and nuclear energy initiatives sharing

Global South is a term often used to identify regions within Latin America, Asia, Africa, and Oceania. The global south consists of the poorest and least industrialized countries, which are mainly in the southern part of the world.

About Summit :

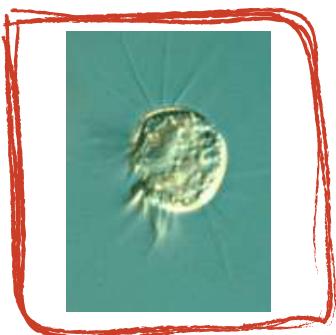
- India hosted the summit (as a president of G20) in a bid to collaborate on political, economic, social, environmental, cultural, and technical issues.
- Theme: '**Unity of Voice, Unity of Purpose**'



Solitary Wave

Recently, **Indian Institute of Geomagnetism (IIG)**, an autonomous institute of the Department of Science and Technology (DST) has found evidence of "**solitary waves**" in the weak magnetic field around Mars using **NASA's MAVEN spacecraft**.

- Solitary waves are the **distinct electric field fluctuations** (bipolar or monopolar) that follow **constant amplitude-phase relations**.
- Their **shape and size are less affected** during their propagation.
- Solitary waves have been found to play a significant role in the dynamics of various **physical systems**, such as in the **Earth's magnetosphere and in the Martian magnetosphere**.
- In the Earth's magnetosphere, they are known to be responsible for the energization and transport of plasma particles, which can affect the behaviour of satellites and other space-borne equipment.



Halteria

Researchers at the University of Nebraska Lincoln have reported that a particular genus of plankton, namely **Halteria**, can 'grow and divide given only viruses to eat'. This could be significant for the marine food chain

- **Halteria** plankton are found in large numbers in freshwater bodies. They are heterotrophs meaning they can't produce their own food. Instead, they are well known bacterivores they consume bacteria to power themselves
- **A virovore** is an organism which obtains energy and nutrients from the consumption of viruses.
- They found a species of **Halteria**. These are microscopic ciliates that populate freshwater throughout the world. These can eat huge numbers of infectious chloroviruses. Both share an aquatic habitat.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

20 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

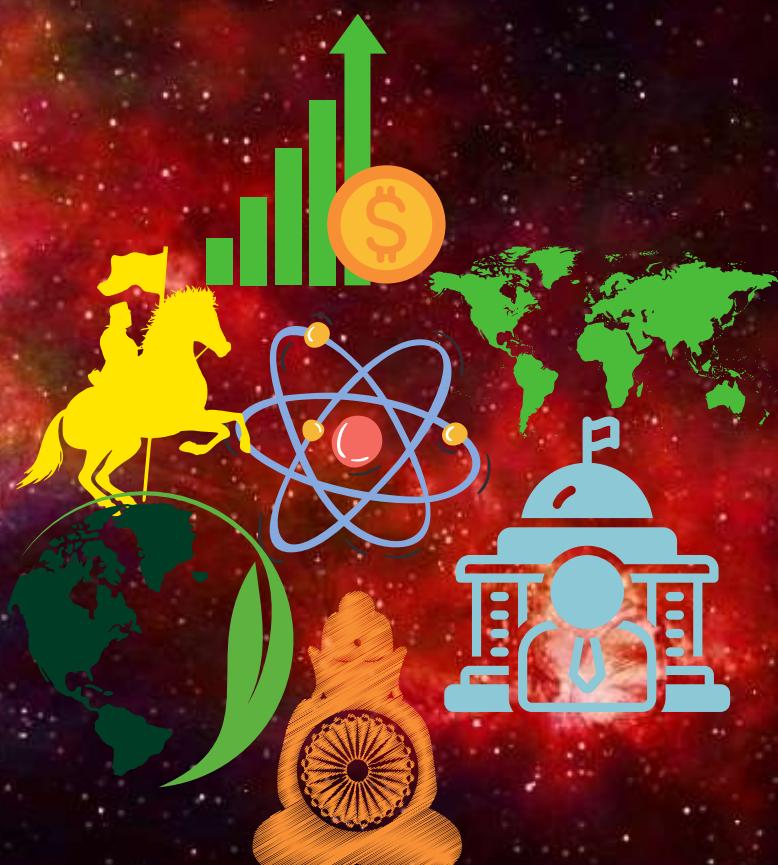
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Annual Status of Education Reports (ASER) Report

RELEVANCE : #GS-2 #Education

MAINS ANALYSIS

CONTEXT

After two years of a Covid-19 pandemic induced school shutdown, the recently released 17th ASER Report 2022 contains both good (high enrolment) and bad news (drop in learning levels).

- ASER, is an annual, **citizen-led household survey** that aims to understand whether children in rural India are enrolled in school and whether they are learning.
- It is conducted by **Pratham**, a non-government organization for the age group 3-16.
- This year's report (published after 2018) surveyed **7 lakh children in 19,060 villages across 616 districts across the country**.

CONCERN

- **Increase Private Tuition Trend** : A small, steady increase in the children availing private tuitions (from 26.4% to 30.5% between 2018-2022)
- **Drop in learning levels of foundational literacy and numeracy (FLN)** : Children of class 3 have become weaker in studies than before : In 2018, 18.7 percent of class 3 children could read against 14.3%(2022).
- **Infrastructure lacunas** : 11.3% schools do not have drinking water, 21.1% schools in the state do not have toilets, 27.1% schools are not using library books, 92.1% schools did not have electricity on electricity connection. 91.5 percent of schools do not have computers for children to use.

BRIGHT SPOTS

- **School enrolment** touched a record high (98.4% in 2022 with proportion of girls (aged 11-14) not enrolled has reduced from 10.3% in 2006 to 2% in 2022).
- **Government schools** enrollment has risen from 65% in 2018 to 71.7% in 2022. 83.3% students study in government schools
- In 2022, the **availability of smartphones** in the homes of enrolled students has nearly doubled.
- **CHILDREN NOT GOING TO SCHOOL**: has dropped to 2% or below for the first time in 2022.
- Increase in the children availing **private tuitions** slowed down.

STEPS TAKEN

- **Article 21A and Right to Education** : The 86th Constitution Amendment provides free and compulsory education.
- **Rashtriya Uchchatar Shiksha Abhiyan** provides funding to eligible State higher educational institutions.
- Creation of **Higher Education Financing Agency (HEFA)**, for high-quality infrastructure in Premier educational institutions.
- **Online Education** e.g. SWAYAM Platform, NPTEL , DTH Channels etc.
- National Education Policy 2020
- The National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN) Bharat
- **Foundational Literacy and Numeracy mission**

WAY FORWARD

- **Integration between the Anganwadi and school systems** is critical , particularly the education component of the Anganwadi system must be adequately funded.
- **Foundational Literacy and Numeracy** is critical for increasing the country's productivity in terms of human capital. As a result, the government's priority should be to raise learning and teaching standards.
- **Artificial Intelligence (AI)** can be used to Provide Personalized instructions based on Student needs.
- The government needs to work on **improving digital infrastructure** and ensure that students have access to mobile phones or laptops.

MAINS QUESTION

Recently released 17th Annual Status of Education Report (ASER) for 2022 contains both bright spots and areas of concern. Discuss and suggest to way forward to improve Foundational Literacy and Numeracy.

15M 250 Words





Follow-on public offer (FPO)

INDIA'S LARGEST follow-on public offer (FPO) for Rs 20,000 crore, by Adani Enterprises, will open for subscription on January 27.

- A **follow-on-public offer (FPO)**, also known as **secondary offering**, is a process in which an existing company listed on stock exchanges issues new shares to the existing shareholders as well as new investors.
- IPO (Initial Public Offering) is the process by which a privately held company, or a company owned by the government such as LIC, raises funds by offering shares to the public or to new investors.
- Following the IPO, the company is listed on the stock exchange. Stock exchange is an organized market for the sale and purchase of securities such as shares, stocks, and bonds.



Hybrid Immunity

A recent study held that "**hybrid immunity**" provides better protection against severe Covid-19, while all immunity against a re-infection wanes within a few months.

- Hybrid immunity refers to the immune protection in individuals **who have had one or more doses of a COVID-19 vaccine and at least one SARS-CoV-2 infection before or after the first vaccination**.
- The study said that a hybrid immunity offers a "higher magnitude and durability" of protection as compared to infection alone, emphasising the need for vaccination.



National Export Cooperative Society

Nano fertilizers produced by IFFCO and dairy products from Amul will be among the first few products that are expected to be exported by the first ever **National Export Cooperative Society** that was recently approved by the Union Cabinet.

- Cabinet approved setting up and promoting a **National Level multistate cooperative export society under the Multi State Cooperative Societies (MSCS) Act, 2002**
- It will receive support from relevant Ministries especially Ministry of External Affairs and Department of Commerce, Ministry of Commerce and Industry.
- It will follow the '**Whole of Government Approach**' for undertaking exports of all goods and services produced by cooperatives and related entities.
- The proposed society will provide thrust to exports from cooperative sector by acting as an umbrella organisation for carrying out and promoting exports.
- This will also help in achieving the goal of "**Sahakar-se-Samriddhi**" through the inclusive growth model of cooperatives

Nano Fertilizers

- Nano-formulations or nano-sized fertilizers are made using **ammonium humate, urea, ammonia, peat, plant wastes, and other synthetic fertilizers**. A nano-sized nitrogen (N) fertilizer prepared by deposition of **urea on calcium cyanamide** is an example of nano-formulation.
- Formulation: Nano-fertilizers are made utilizing both mechanical and biochemical processes.
- **Nano-fertilisers are released very slowly in comparison to conventional fertilisers.**



Prelims



Center for the Fourth Industrial Revolution (C4IR).

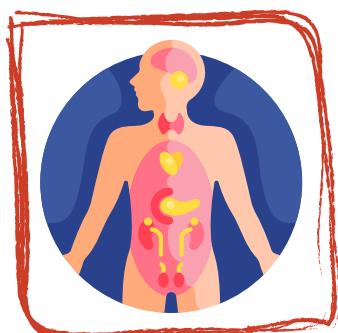
Recently, the World Economic Forum (WEF) has chosen **Hyderabad**, Telangana for establishing its Center for the Fourth Industrial Revolution (C4IR).

- The C4IR Telangana will be an autonomous, non-profit organisation with a thematic focus on healthcare and life sciences.
- Fourth Industrial Revolution is characterised by the use of technology to blur the boundaries between the digital, physical, and biological worlds, and is driven by data. e.g Xenobots, Heart Pacemaker etc.**
- Key technologies include cloud computing, **big data**, autonomous robots, **cybersecurity**, simulation, additive manufacturing, and the **internet of things (IoT)**.
- The term **4IR** was coined by Klaus Schwab, executive chairperson of the WEF, in 2016.



UNSC 1267 Committee

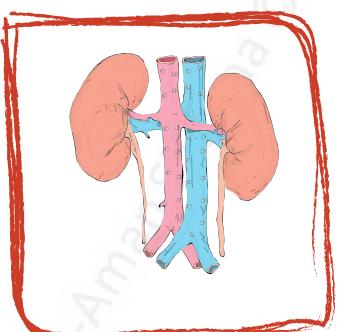
- The ISIL and Al Qaida Sanctions Committee of the UNSC (1267 Committee) has placed **Abdul Rehman Makki** - the key planner of the Pakistan-based Lashkar-e-Taiba (LeT), on its sanctions list.
- The move was made possible after China withdrew the “technical hold” that it had imposed in June 2022 when the US and India tried to get Makki on the global terror blacklist



Biosensing based EDC Detection System

MeitY has recently launched the Technology for **Biosensing system for the detection of Endocrine Disrupting Chemicals (EDC)** in aquatic ecosystems.

- The technology has been developed by **C-DAC, Kolkata** in collaboration with **ICAR-CIFRI** for qualitative and quantitative analysis of EDC content in water bodies.
- Endocrine disruptors are chemicals that may **interfere with the body's endocrine system and produce adverse developmental, reproductive, neurological, and immune effects** in both humans and wildlife



Parathormone (PTH)

Parathormone (PTH) is a hormone produced by the **parathyroid gland (located behind the thyroid at the bottom of your neck)** that helps regulate the levels of calcium in the blood.

- The parathyroid gland secretes PTH in response to low blood calcium levels, which helps to increase the levels of calcium in the blood by releasing it from the bones and increasing the absorption of calcium from the gut.
- PTH also works to decrease the excretion of calcium in the kidneys.
- High levels of PTH can lead to conditions such as **hypercalcemia**, while low levels can lead to **hypocalcemia**.
- Parathormone (PTH) is made up of 84 amino acids and is a peptide hormone

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

21 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

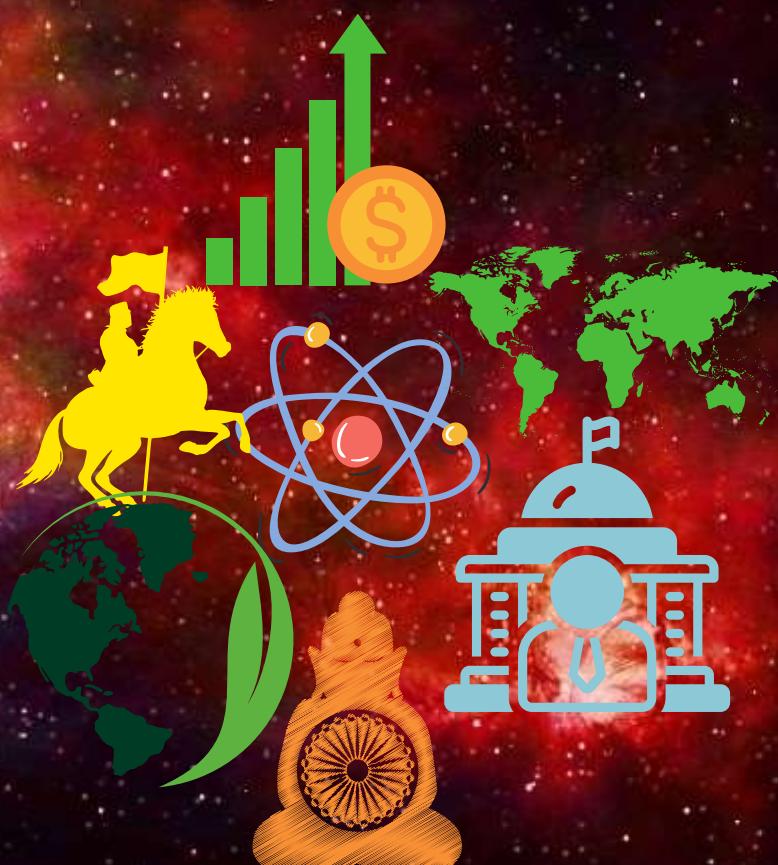
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Global Layoffs

RELEVANCE : #GS-3 #Employment

MAINS ANALYSIS

CONTEXT

Google is laying off 12,000 workers, or about 6% of its workforce, becoming the latest tech company to trim staff as the economic boom that the industry rode during the COVID19 pandemic ebbs.

- Recently, many of U.S. multinational companies has announced massive layoffs, which already crossed **60,000 in September and October 2022.**
- A layoff is the temporary or permanent termination of employment by an employer for reasons unrelated to the employee's performance.**

CAUSES

- Fear of upcoming economic recession :** As the demand is coming back to pre-Covid levels and seeing the debt bubble almost about to burst
- Over hiring during the Pandemic :** as people were in lockdown, and were spending a lot of time on the internet now decreasing dependence on Online Platform leading to layoffs.
- With inflation** soaring in most parts of the world, central banks have been scrambling since March 2022 to rein it in by increasing rates so as to make it more costly to borrow and consume.
- Global Turmoil e.g. due to Russia-Ukraine War , Pandemic , Trade Restrictions.**
- Cost reduction:** One of the main reasons why workers get laid off is because the company decides to cut back on costs in some way

OUTLOOK FOR IT SECTOR

- The Indian IT services firms are among the largest employers in the organised sector and any global economic trend is bound to have an impact on their growth projections.
- The attrition rates, or the number of employees per 100 quitting on their own, of the top two firms, TCS and Infosys, show that these rates are still high, which means that there is enough business for the sector for competitors to draw away employees with promise of higher salaries.
- News of layoffs in the Indian start-up front is predominantly in ED-tech, or the educational technology front.**

IMPACT

- On start-ups:** The Indian start-up layoff tracker by Inc42 showed that more than 15,700 employees had been laid off in 2022.
- Loss to the Workers:** Layoffs can be damaging psychologically as well as financially to the affected workers as well as their families, communities, colleagues, and other businesses.
- Decreases Customer Prospect :** When a company lays off its employees it sends out a message to customers that it is undergoing some sort of crisis.
- Emotional Distress:** The person who is laid off suffers the most distress, but remaining employees suffer emotionally as well.
- Prospects :** To make matters worse, the prospects of these Indian workers back home are also weak.

WAY FORWARD

- Indian startups grew at a faster pace than its neighboring regions. just because a startup had touched a sky-high valuation did not immediately mean its employees' jobs were insured.
- Voluntary retirement programs can enable individuals to transition to retirement smoothly.
- India must enhance its efforts towards "Make In India" becoming Atma Nirbhar (Self Reliance) and diversify its trade basket in goods and services with emerging economies.

It is the time for Indian investors to tap-up the potential for Indian human capital.

MAINS QUESTION

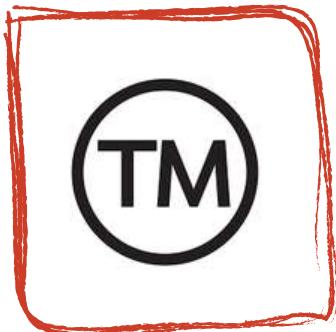
Over the past two months, a slew of U.S. multinational companies announced massive layoffs. Discuss the reasons and its impact on India.

10M 150 Words





Prelims



What is a Trademark ?

Delhi High Court ruled and dismissed a case of trademark infringement brought by the **global fast food chain subway** against Suberb, a Delhi based restaurant.

- A trademark is a symbol, design, word or phrase that is identified with a business. When a trademark is registered, its owner can claim "exclusive rights" on its use.
- The **Trademark Act,1999**, governs the regime on trademark and its registration. The Act guarantees protection for a trademark that is registered with the Controller General of Patents, Designs, and Trademarks, also known as the trademark registry.
- A trade- mark is valid for 10 years, and can be renewed by the owner indefinitely every 10 years.



Hakku Patra

Recently PM Modi launched the 'Hakku Patra' (land title deed) distribution drive to over 52,000 nomadic Lambani (Banjara) tribes at Malkhed in Kalaburagi district.

- A **hakku patra** or title deed is a document that establishes the bearer as the owner of the land/ property, and enables them to apply for a bank loan, as well as to buy or sell land.
- The **Lambanis** are nomadic people with a large population in the backward districts of the Kalyana Karnataka region of north Karnataka. They are SCs, even though they are considered to be a 'tribal' group because of their lifestyle.
- **Tanda** is a traditional name used for Banjara settlement. Tanda Villages are located in the northern tip of the Karnataka state.



Great Leap Forward

The Great Leap Forward (Second Five Year Plan) of the People's Republic of China (PRC) was an economic and social campaign led by the Chinese Communist Party (CCP) from 1958 to 1962.

- CCP Chairman Mao Zedong launched the campaign to **reconstruct the country from an agrarian economy into a communist society through the formation of people's communes**.
- Mao decreed that **efforts to multiply grain yields and bring industry to the countryside should be increased**.
- **Failure** : This breakdown of the Chinese economy caused the government to begin to repeal the Great Leap Forward program by early 1960.



Nature Risk profile (NRP)

The UN Environment Programme (UNEP) and S&P Global launched 'Nature Risk Profile', a new methodology for analyzing companies' impacts and dependencies on nature

- It was released at Davos World Economic Forum Summit
- Its methodology is based on **Kunming-Montreal Global Biodiversity Framework (GBF)**
- Aim of NRP: The Nature Risk Profile is aimed at enabling the financial sector to measure and address nature-related risk by providing scientifically robust and actionable analytics on nature impacts and dependencies.



Prelims

National Security Council (NSC) & D-NSA

Recently Pankaj Kumar Singh was appointed as the **Deputy National Security Advisor** in the **National Security Council Secretariat** for a period of 2 years.

- The National Security Advisor (NSA) is the primary advisor to the Prime Minister of India. He also presides over the **National Security Council (NSC)**. The current NSA is Ajit Doval.
- The NSC of India is a three-tiered organisation that oversees **political, economic, energy and security issues of strategic concern**.
- It was formed in 1998, where all aspects of national security are deliberated upon.
- NSC operates within the executive office of the PM, liaising between the government's executive branch and the intelligence services.**
- The Ministers of Home Affairs, Defence, External Affairs and Finance are its members.**



Bharat Pravah

Ministry of Shipping, Waterways, and Ports has launched '**Bharat Pravah-India along its Shores**', an initiative to highlight the significance and imagery of rivers, ports, and shipping in everyday life through a series of nationwide events.

- Kochi, Vizhinjam in Kerala and Galathea Bay ports in Andaman Nicobar Islands have made some headway in the direction of becoming full-fledged transhipment hubs.
- The initiative aims to highlight the importance of rivers-ports-shipping in the everyday life of the common man through literature, dialogue and communication.

The initiative plans to organise a series of regional, national and international events (dialogues/conferences) throughout the year around 8 themes.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

22 JANUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

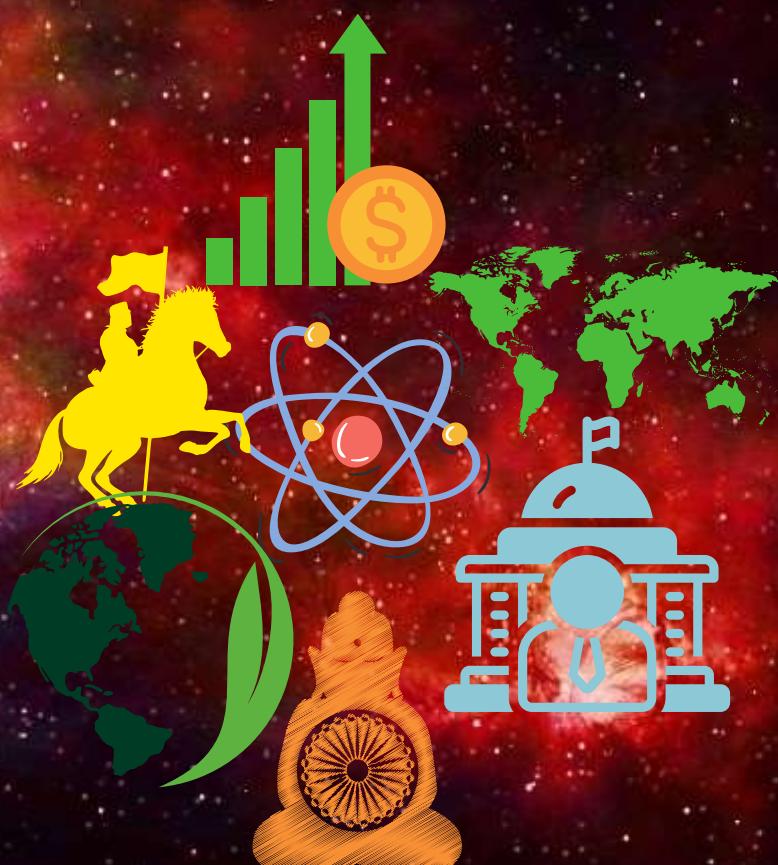
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Origin and Evolution of the Universe

RELEVANCE : #GS-1 #Geography

MAINS ANALYSIS

CONTEXT

Recently the broadcaster in Belgium reported that it had rediscovered the 'Lost' interview of **Georges Lemaître** that could not be found earlier because it had been misclassified.

- Lemaître was the originator of the **Big Bang theory of the universe's origin** and derived an important law that cosmologists still use to understand the motion of galaxies.
- All the existing matter and space including stars, planets, galaxies, etc. is termed as **Universe**.
- Scientist have often attempted to understand and quantify the **theories of origin of universe**.

STEADY-STATE THEORY

- Bondi, Gold, and Fred Hoyle devised the **steady-state theory**.
- According to this theory, **the number of galaxies in the observable universe remains constant, and new galaxies are constantly being formed out of empty space to fill up the gaps left by galaxies that have crossed the observable universe's border**.
- As a result, the size of the observable universe's overall mass remains constant. As a result, the universe's steady state is preserved.
- Issue : Hoyle had difficulty explaining the presence of hydrogen in the early universe. Hydrogen was required to form the first stars and galaxies and had to come from somewhere, but the steady state theory couldn't say where.

NEBULAR HYPOTHESIS

- It was developed by **Immanuel Kant and Laplace** :
- Planets were formed out of a cloud of material associated with a youthful sun, which was slowly rotating. In 1900, **Chamberlain and Moulton** considered that a wandering star approached the sun as a result, a cigar-shaped extension of material was separated from the solar surface and slowly condensed into planets. **Sir Jeffrey** supported binary theories considered sun's companion.
- In 1950, **Nebular Hypothesis was revised by Schmidt & Weizsäcker**: sun was surrounded by a solar nebula and friction and collision led to the formation of a disk-shaped cloud and planets were formed through the **process of accretion**.

BIG BANG THEORY

- After Edwin Hubble proposed the constant expansion of the Universe, Lemaître came up with the **Big Bang Theory in 1931 also called a expanding universe hypothesis**.
- It suggests** all of the matter that made up the universe resided in a single location with a volume smaller than an atom, an unlimited temperature, and an infinite density.
- The theory suggests that Universe, at some point in time, was condensed into a single particle and later started expanding infinitely after a huge explosion around 13.7 billion years ago.
- The expansion later gave birth to nebulæ that in turn, coalesced into stars and planets.
- Around 3 lakh years after the big bang, the universe turns transparent.

WAY FORWARD

- Researchers time and again came up with the theories to understand its origin, **Pythagoras** was the first person who applied the term cosmos to the order of the universe. In the 5th century AD **Aryabhatta** and in 6th century AD **Varamihira** also suggested a Heliocentric view. Further recent **Pulsating Theory** suggest that the universe is pulsing, or expanding and contracting alternately which also finds mention in Indian Concept of "*Kal Chakra*".
- Various theories can help in developing understanding of the universe.

MAINS QUESTION

What do you understand by expanding universe hypothesis? Explain how different theories came up to explain origin of the universe.

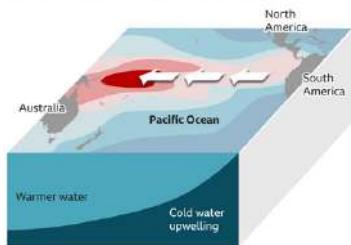
15 Marks 250 Words





Prelims

La Niña ocean temperature conditions
Warmer surface water further west than normal



"Triple-Dip" La Niña

Parts of the world are expected to experience severe weather for the rest of the year and into 2023, as part of a rare "triple dip La Niña" event, according to the World Meteorological Organization (WMO)

- According to WMO, the current **La Niña is projected to span three consecutive northern hemisphere winters**. It began in September 2020. If it continues for the next six months, it will be the first "triple-dip" La Niña event of the 21st century.
- La Niña refers to the **periodic cooling of ocean surface temperatures in the central and east-central equatorial Pacific**. Typically, La Niña events occur every 3 to 5 years or so, but on occasion can occur over successive years.
- Impact on India :** Over India, the La Niña can intensify summer monsoons, bring excess rainfall, and cause colder winters.



Additional Tier-1 (AT1) bonds

Recently, the Bombay High Court Friday quashed the write-off of Additional Tier-1 (AT1) bonds worth Rs 8,400 crore issued by Yes Bank Ltd bringing relief to investors.

What are AT1 bonds ?

- These are **unsecured bonds** issued by banks that have **perpetual tenor** (no maturity date). These bonds are typically used by banks **to raise their core or tier-1 capital to meet the Basel-III norms**.
- These bonds pay a **slightly higher rate of interest** compared to other bonds.
- They have a **call option**, which can be used by the banks to **buy these bonds back from investors**.
- AT1 bonds are **subordinate to all other debt and only senior to common equity**. Mutual funds (MFs) were among the largest investors in perpetual debt instruments.
- These bonds are also **listed and traded on the exchanges**. So, if an AT-1 bondholder needs money, he can sell it in the secondary market.
- AT-1 bonds are regulated by RBI. If the RBI feels that a bank needs a rescue, it can simply ask the bank to write off its outstanding AT-1 bonds without consulting its investors.



Assam's Charaideo Maidams

Government has decided to nominate Assam's **Charaideo Maidams** (the Ahom equivalent of the ancient Egyptian pyramids) for the **UNESCO World Heritage Site status this year**.

- Charaideo Maidams enshrine the mortal remains of the members of the Ahom royalty**
- There is currently no World Heritage Site in the category of cultural heritage in the northeast.
- Charaideo (east of Guwahati) was the first capital of the Ahom dynasty founded by Chao Lung Siu Ka Pha in 1253.
- Charaideo was also believed to be the abode of God "LANKURI" identified with lord "SHIVA".
- There are 40 UNESCO World Heritage Sites in India. Dholavira and Ramappa Temple are the latest addition to the list under the 'Cultural' category.



Prelims



Sambar deer

The sambar (*Rusa unicolor*) is a large deer native to the Indian subcontinent and Southeast Asia.

- The name "sambar" is also sometimes used to refer to the Philippine deer called the "Philippine sambar", and the Javan rusa called the "Sunda sambar".
- The sambar is distributed in much of South Asia as far north as the south-facing slopes of the Himalayas in Nepal, Bhutan and India, in mainland Southeast Asia.
- It is also the **State animal of Odisha**.

Conservation Status :

- **IUCN Status : Vulnerable**
- **Wildlife (Protection) act, 1972 : Schedule 1.**
- Protected areas like Kanha, Corbett, Ranthambore, Bandhavgarh, Gir, Dudhwa, Manas, Kaziranga and Sariska.



Ayushman Bharat School Health and Wellness Programme

It has been nearly three years since the School Health and Wellness Programme was launched under the Ayushman Bharat scheme, and so far only 15 States have started the weekly 40-minute classroom sessions with students.

- The School Health Programme (SHP) under Ayushman Bharat was launched in 2018 by the Prime Minister.
- It is a joint collaborative programme of the **Ministry of Health and Family Welfare and the Ministry of Education**.
- Under the programme teachers act as "**Health and Wellness Ambassadors**" and disseminate various key information by organising culturally sensitive activity based sessions for one hour per week for 24 weeks in a year to promote joyful learning.
- Further, the students act as "**Health and Wellness Messengers**" in the society. And every Tuesday is dedicated as Health and Wellness Day in the schools.



Measles and rubella (MR)

India had set a target to eliminate measles and rubella (MR) by 2023, having missed the earlier deadline of 2020, due to a variety of reasons, exacerbated by disruptions due to the pandemic.

- Both measles and rubella can be prevented by just two doses of a safe and effective vaccine.
- *Every year in India nearly 2.7 million children get measles and over 40,000 children are born with birth defects caused by Congenital Rubella Syndrome.*
- **Measles** is a **highly contagious viral disease** and is a cause of death among young children globally. It can cause serious complications, including blindness, encephalitis, severe diarrhoea, ear infection and pneumonia.
- Rubella (also called as German Measles) is a contagious, generally mild viral infection that occurs most often in children and young adults.
- Rubella infection in pregnant women may cause **death or congenital defects known as Congenital Rubella Syndrome (CRS)** which causes irreversible birth defects
- The **Ministry of Health and Family Welfare** launched the MR Vaccination program in 2017.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

23 JANUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA
PIB
YOJANA
& MUCH MORE.



TOPIC : Regulating Promotions on Social Media

RELEVANCE : #GS-2 #Government Policies & Interventions

MAINS ANALYSIS

CONTEXT

The Centre has released endorsement guidelines for celebrities and social media influencers that mandates compulsory disclosure of monetary or material benefits of a product or a brand they are promoting through their social media platforms.

- The new guidelines emphasize the increased risk of consumers being misled by advertisements and unfair trade practices by some individuals on social media platforms.
- Non-disclosure of brand affiliations by influencers may invite a penalty of up to **Rs 50 lakh under Consumer Protection Act 2019**.

ENDORSEMENT

Endorsements are a form of advertising that uses famous personalities or celebrities who command a high degree of recognition, trust, respect, or awareness among the people.

- Advertisers and clients hope such approval, or endorsement by a celebrity, will influence buyers favourably.
- For example, Salman Khan endorsing motorcycles and biscuits can influence young men or children who look up to him as a role model.
- *34 per cent of the respondents of the survey said they buy products or services after watching the social media posts of influencers*

SIGNIFICANCE

- **Unfair Trade Practice** : The new guidelines are in alignment with the Consumer Protection Act, of 2019, which was enacted to protect consumers from unfair trade practices and deceptive advertising.
- **Surrogate advertisements**: They refer to any advertisement that promotes regulated products, like cigarettes and alcohol, in the guise of another product.
- **Paid Review** : Social media platforms are also used to post product reviews by influencers, but some reviews may be fake or biased.
- **Harmful products endorsements** : Tobacco products or drinking intoxicants. e.g. **Lead in Maggi Case 2015**.

ISSUES

- **Difficult to define the accounts of social media influencer** as particular number of followers does not exist.
- The regulations also includes the virtual influencers such as Artificial Intelligence which can be vague and subjective.
- **Right to Privacy** under Article 21 can be infringed on restricting the promotion.
- **Lack of guidance and efforts in capacity building** : e.g. In the UK, the Committee of Advertising Practice (CAP) and the Broadcast Committee of Advertising Practice (BCAP) provide guidance on advertising and sponsorship across all media, including social media influencer marketing.

WAY FORWARD

- Misleading advertisement not only have harmful effects on health but also deteriorates social trust which is essential to form social capital.
- Ethical aspects of celebrities and influencers must be checked before judging a particular act.
- Use of AI : for more robust systems for identifying and removing harmful content.
- **A Dedicated Social Media Policy can be the way forward to regulate social media by creating accountability of social media platforms** to not target youth as consumers or future consumers.

MAINS QUESTION

Do you think that the brand ambassadors of products should be held accountable for misleading advertisements and endorsements? Examine.

10 Marks 150 Words





Prelims



Leopard 2 tank

GERMANY has not decided whether to allow its Leopard 2 tanks to be sent to Ukraine as a support to Ukraine.

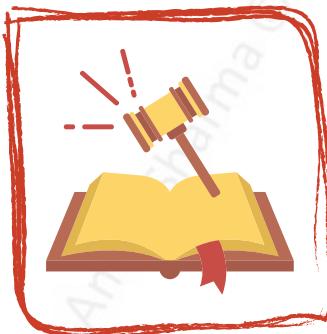
- The Leopard 2 is one of the world's leading battle tanks, used by the German army and by militaries of more than a dozen other nations.
- Key Features :** Powered by a diesel engine, Night Vision and a laser range finder.
- The Leopards can help offset Russia's superiority in artillery firepower.
- Re-exporting is illegal :** Although many countries have Leopards, under the contracts they sign with German weapons manufacturers, they require a re-export licence from the German federal government before they can send such weapons to another country. The US has similar requirements.



Jagannath Temple (White Pagoda)

Odisha governor has backed the entry of foreign nationals inside the world famous **Jagannath Temple in Puri** which triggered controversy due to practice of restriction on entry of non-Hindus.

- The Temple is one of the four dhams (**char dham** : Badrinath, Dwaraka, Puri, Rameswaram) where Lord Jagannath, a form of Lord Vishnu, is worshipped along with his elder brother Lord Balabhadra and sister Devi Subhadra.
- Lord Jagannath is also known as Patitabapan which literally means “saviour of the downtrodden”.
- The temple is believed to have been constructed in the **12th century** by King Anatavarman Chodaganga Deva of the **Eastern Ganga Dynasty**.
- Jagannath Puri temple is called ‘Yamanika Tirtha’ where, according to the Hindu beliefs, the power of ‘Yama’, the god of death has been nullified in Puri due to the presence of Lord Jagannath.
- Architecture : **Kalinga style of temple architecture**.
- There are four gates to the temple ,In front of the entrance stands the **Aruna stambha or sun pillar**, which was originally at the Sun Temple in Konark.



Charge sheet & FIR

Supreme Court held that a **chargesheet is not a “public document”**, and allowing it to be accessed freely will violate the Code of Criminal Procedure (CrPC), 1973, and compromise the rights of the accused, the victim, and investigating agencies.

- The chargesheet is nothing but a final report of the police officer under section 173(2) of the Cr.P.C which contain the details of the offences & parties.
- Unlike the term chargesheet, ‘FIR’ or First Information Report is not defined in the Indian Penal Code (IPC) or CrPC, but in police regulations, it refers to information recorded under Section 154 CrPC, which deals with “**Information in cognizable cases**”.
- F.I.R. means any information recorded by an on-duty officer given by an aggrieved person or any other person either in writing or made orally.
- The first information report (FIR) is registered only in cognizable crimes.**



Prelims

MoU between IREDA and MNRE



Recently, the Indian Renewable Energy Development Agency Ltd. (IREDA) signed a Memorandum of Understanding (MoU) with the Ministry of New and Renewable Energy (MNRE), Government of India (GoI), setting an annual performance target for the year 2022-23.

- Government has also set various performance-related key parameters such as Return on Net Worth (RoNW), Return on Capital Employed (ROCE), Non-Performing Assets (NPA) to Total Loans, Asset Turnover Ratio and Earning Per Share (EPS), etc for renewable energy projects.
- **Return on Equity (RoE) or RoNW:** The amount of profit or earnings a company generates on the sheer strength of its shareholders' equity.
- **Return on Capital Employed:** It refers to a financial ratio that can be used to assess a company's profitability and capital efficiency.
- **Asset Turnover Ratio:** It measures the value of a company's sales or revenues relative to the value of its assets.
- **Earning Per Share (EPS) :** It is calculated as a company's profit divided by the outstanding shares of its common stock

Pan-Transcriptome

Recently, researchers at the University of California, Santa Cruz, have proposed a “Pan-transcriptome” which combines a transcriptome and a pan-genome.

- **Transcriptome :** A transcriptome is the full range of messenger RNA, or mRNA, molecules expressed by an organism.
- **Genome :** It is the entire set of genetic material in an organism.
- **Pan genome :** The pan-genome represents the entire set of genes within a species, consisting of a core genome — containing sequences shared between all individuals of the species — and the 'dispensable' genome.

Significance of findings

- A **pan-transcriptome** can be used to identify **novel genes** that may not have been detected through traditional **genome sequencing methods**.
- Mapping transcriptome allows researchers to better understand an individual's gene expression.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

24 JANUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA
PIB
YOJANA
& MUCH MORE.



TOPIC : Women in sports

RELEVANCE : #GS-1 #Society #GS2 #Issues Related to Women

MAINS ANALYSIS

CONTEXT

Recently, some female sportspersons made allegations of **sexual harassment** against WFI (Wrestling Federation of India) president.

- The Wrestling Federation of India is the governing body of wrestling in India.
- According to Right to Information(RTI) Data, between **2010 to 2020**, there were **45 complaints of sexual harassment to the SAI (Sports Authority of India)**, of which **29 were against coaches**.
- Globally, by age 14, many girls are dropping out of sports at two times the rate of boys**

SIGNIFICANCE

- Capacity Building :** Women in sport leadership can shape personality towards women's capabilities as leaders, especially in traditional male areas.
- Upholding Right to Equality and opportunity.**
- Health:** Sports can help in physical and mental health.
- Breaking barriers and stereotypes** that limit women's potential and participation in other areas.
- Inclusive Community :** By promoting greater participation in sports among women, we can help to build stronger and more inclusive communities.
- Economic Independence
- Inspirational Women Athletes of India :** P.V. Sindhu(Badminton), Mary Kom(Boxing) etc.

ISSUES

- Lack of Access and Costlier:** Lack of physical education in schools and limited opportunities to play sports in both high school and college..
- Funding :** Sportswomen face a lack of equal funding compared to men's athletics, making it difficult for them to compete and run consistent programs.
- Patriarchal Mindset :** Considering women as weak and judging on the dress women wear can make them lose self confidence and self worth.
- Infrastructural lacunas :** For example, Manipur is a sporting powerhouse, but 48% of female athletes travel over 10 km to reach the practice facility.
- Social Attitudes :** e.g.fear of being tagged "gay"
- Pregnancy and Dual burden of House Chores.**

EFFORTS

- India had sent its biggest-ever contingent to **Tokyo Olympics with 126 athletes across 18 sports, out of which there were 54 female athletes.**
- Measures for sexual harassments :** The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 ,Sexual Harassment electronic Box (SHe-Box) & The Protection of Children from Sexual Offences (POCSO), 2012 etc.
- Policies and Programmes :** Khelo India Scheme ,National Sports Development Fund etc.
- National sports policy(2001)** was introduced with a dual aim of mass participation in sport and excellence at the elite level.

WAY FORWARD

- Gender Inclusive decision making :** Include women player association in decision making to prevent discrimination and negligent attitude towards women
- Scholarships :** Generous sponsorships to women games and events to attract more women into sports.
- Recognition and Respect through media,awards and movies** e.g "Dangal"
- Promoting local level tournaments which can solve the dual problem of Employment Generation and Encourage sports participation.

Sports are a creative tool that can be used to reach across divisions to promote inclusion and equality

MAINS QUESTION

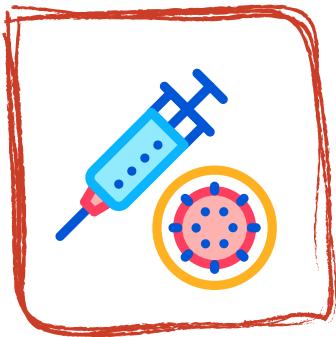
The Women in sport movement is becoming a global phenomenon however female participation in sports in India have been low. Discuss the issues faced by females in sports. Suggest the way forward.

15 Marks 250 Words





Prelims



Immune Imprinting

UK and the US have rolled out **variant-specific or bivalent boosters** against the coronavirus. However, recent studies have shown that a phenomenon in our body, called **immune imprinting**, might be making these new boosters less effective than expected.

What is Immune Imprinting ?

- Immune imprinting is a tendency of the body to repeat its immune response based on the first variant it encountered, through infection or vaccination, when it comes across a newer or slightly different variant of the same pathogen.**
- Role of memory B cells :** After our body is exposed to a virus for the first time, it produces memory B cells that circulate in the bloodstream and quickly produce antibodies whenever the same strain of the virus infects again.
- When encountered new variant the immune system, **rather than generating new B cells, activates memory B cells**, which produce **cross-reactive antibodies** that aren't as effective.



Netaji Subhas Chandra Bose

PM Modi unveiled a model of the **national memorial dedicated to Netaji Subhas Chandra Bose** that is to be built on Netaji Subhas Chandra Bose Dweep.

- In 2021, The central government has decided to observe Subhas Chandra Bose Jayanti as '**Parakram Diwas**' to be celebrated on **23rd January**.

About Netaji

- In 1919, he had cleared Indian Civil Services (ICS) examination. Bose, however, resigned later.
- He was highly influenced by Vivekananda's teachings and considered him as his spiritual Guru.**
- His political mentor was Chittaranjan Das.**
- Newspaper : **Swaraj**
- He also won **INC Presidential Elections at Haripura (1938) and Tripuri (1939)** but resigned from INC (1939) due to ideological differences with Gandhiji
- Founded 'the Forward Bloc' party to consolidate the Political Left.**
- Indian National Army:** He reached Japanese-controlled Singapore and issued his famous call, '**Delhi Chalo**', and announced the formation of the **Azad Hind Government** and the **Indian National Army** in 1943.



H1B Visa

Thousands of Indian IT professionals in the U.S. who lost their jobs following a series of layoffs at companies such as Google, Microsoft, Facebook and Amazon are now struggling to find new employment.

- The **H1B visa is a nonimmigrant visa** that allows U.S. companies to employ foreign workers in special occupations that require theoretical or technical expertise.
- L1A and L1B visas are available for temporary intracompany transferees who work in managerial positions or have specialised knowledge.**



Prelims



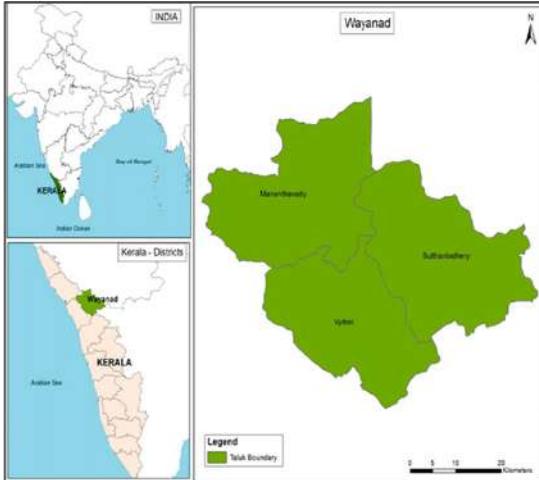
Kewda oil

The recent growth in demand for kewda oil has boosted the revenue of families in the coastal pockets of Odisha's Ganjam district who have been eking out a living by preparing aromatic kewda oil for years.

About Kewda:

- **Ganjam kewda** (*Pandanus fascicularis*) oil is **steam-distilled** from the flower of the aromatic **screwpine plant**.
- It is used as an **aromatic agent in the food industry, zarda (flavoured tobacco) and pharmaceutical companies**.
- It is registered under the **Geographical Indications of Goods (Registration and Protection) Act, 1999** by the Government of India.
- Found in tropical and subtropical regions, especially in **Asia, Africa, and Oceania**.
- Colour of Kewda depends on the sex of the pine : **While the male pines are colourful** and are used in oil making, the **female pines are green** and later turn brown.

Wayanad



Wayanad becomes the first district in the country to provide basic documents and facilities such as Aadhaar cards, ration cards, birth/death certificates, election ID cards, bank accounts and health insurance to all tribes people.

- Akshaya Big Campaign for Document Digitisation (ABCD): campaign organised by the Wayanad district administration for people's awareness.
- The drive was launched in November 2021 at Thondarnadu grama panchayat. The campaign is aimed at ensuring basic documents to all citizens belonging to the Scheduled Tribes communities and these documents are digitalised and saved in DigiLocker accounts opened for them



Basic Structure Of Constitution

Special

Context : Recently The Chief Justice of India, D. Y. Chandrachud compared the ‘basic structure’ of the Constitution to the North Star, an unfailing guide which shows the way when the path appears convoluted.

Introduction :

The concept of ‘basic structure’ originated from the German Constitution however it came into existence in the landmark judgment in Kesavananda Bharati vs State of Kerala case (1973) 47 years ago.

- The Kesavananda Bharati judgment held that Parliament cannot use its constituent power to alter the basic structure or the essential features of the Constitution.
- It is the “**soul**” of the Constitution, inextricably linked to the values enshrined in the Preamble, without which the document and the ideas that make it sacred would collapse.

Evolution :

- **Shankari Prasad case 1961 and Sajjan Singh case 1965 :** The SC held that Parliament has the absolute power to amend the Constitution under Article 358.
- **Golak Nath v/s State of Punjab 1967 :** Parliament cannot amend Fundamental Rights, and this power rests only with a Constituent Assembly
- **24th Amendment Act, 1971 :** The 24th Amendment Act modified Article 368 and Article 13 of the Constitution, allowing Parliament to unilaterally alter Fundamental Rights.
- **The 25th Constitutional Amendment 1972 :** introduced Article 31C into the Constitution to implement the Directive Principles of State Policy under Article 39 (b) and (c).
- **Kesavananda Bharti Case 1973 :** Parliament could amend any part of the Constitution, but it cannot not alter the basic structure or essential features of the Constitution.
- **Indira Nehru Gandhi v/s Raj Narain 1975 :** The Doctrine of Basic Structure reaffirmed and a provision of the 39th Amendment Act (1978) {keeping election disputes involving the PM and the Speaker outside the jurisdiction of all courts} was invalidated.
- **Minerva Mills v/s Union of India 1980:** Judicial review and harmony between Fundamental Rights and DPSP were added to the basic structure.

Significance :

1. Checks & balance on parliament
2. Safeguard essence & philosophy of constitution
3. Avoids authoritarianism by legislature

Criticism :

1. Not present in constitution
2. Interference in legislative matters
3. Against doctrine of separation of power.

BRAHMASTRA

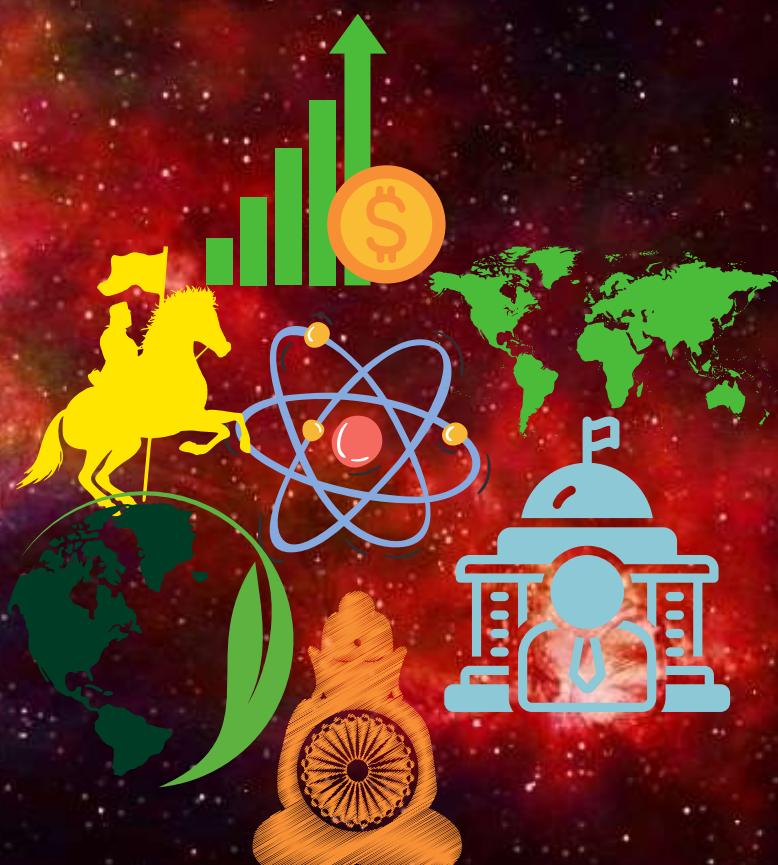
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

25 JANUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA
PIB
YOJANA
& MUCH MORE.



TOPIC : Ken-Betwa River Linking Project

RELEVANCE : #GS-1 #Geography

MAINS ANALYSIS

CONTEXT

On January 18, the **Steering Committee of the Ken-Betwa Link Project (KBLP)** held its third meeting in New Delhi.

- The Secretary, Ministry of Jal Shakti, reiterated that the KBLP was a “flagship” project of the national government and that it “is critical for the water security and socioeconomic development of Bundelkhand region”.
- The Ken-Betwa Link Project (KBLP) is the **River interlinking project that aims to transfer surplus water from the Ken river in MP to Betwa in UP** to irrigate the drought-prone Bundelkhand region.

SIGNIFICANCE



SIGNIFICANCE

- Benefit to the water-starved Bundelkhand region:** The project will be of immense benefit to the water-starved Bundelkhand region, spread across the states of MP and UP.
- It will boost socio-economic prosperity in the region on account of **increased agricultural activities** and **employment generation**.
- It would also help in arresting distress migration from this region.
- Pave the way for **more interlinking** of river projects
- Irrigation and Drinking water:** The project will provide an annual irrigation of 10.62 lakh ha, drinking water supply to a population of about 62 lakhs and also generate 103 MW of hydropower and 27 MW solar power

ISSUES

- Submerge the Panna Tiger Reserve:** The project will partly submerge the Panna Tiger Reserve in Madhya Pradesh and affect the habitat of vultures and jackals.
- Water sharing issue:** Uttar Pradesh and Madhya Pradesh could not agree on how water would be shared, particularly in the non-monsoonal months.
- The environmental clearance was challenged:** It is pending at the National Green Tribunal (NGT).
- In the case of the Panna Tiger Reserve, the **Central Empowered Committee (CEC)** of the Supreme Court has found such diversion to not be necessary to improve and better manage wildlife in the park.
- Destruction of forest and ecosystem:** at least 23 lakh trees will need to be cut down.

WAY FORWARD

- Need of a fresh detailed report:** The project would need a fresh detailed report and a landscape management plan.
- Local irrigation means should be exhausted first:** Several experts are of the view that local irrigation means should be exhausted before the government embarks on such a mammoth project.
- Need of rainwater harvesting: The two, when combined, propagate the idea that rainwater should be harvested and organic farming practised.
- Creation of lakes:** This entails creating lakes and producing local cereals, crops, and fruit.

MAINS QUESTION

Ken-Betwa Link project is the first major centrally-driven river interlinking project in the country between Madhya Pradesh and Uttar Pradesh. What are the concerns associated to project.

10 Marks 150 Words





Prelims



NOROVIRUS

Kerala confirmed two cases of the gastrointestinal infection norovirus in Class 1 students in Ernakulam district.

- **Norovirus has been circulating among humans for over 50 years** and is thought to be **one of the primary causes of gastroenteritis**.
- It causes **inflammation of the lining of the stomach and intestines**, in addition to severe vomiting and diarrhoea.
- More common during the **winter and in colder countries hence** referred to as "**winter vomiting disease**".
- **Transmission** : Through foods contaminated with the virus, touching surfaces, Direct Contact etc.
- The norovirus can survive temperatures as high as 60 degrees Celsius.
- The virus is estimated to kill 200,000 persons globally every year, with most deaths occurring among those **below the age of five years and those over the age of 65 years**.



Mahabali Frog

Mahabali Frog is waiting to be elevated as the **State Frog of Kerala**

- It buries itself all through the year and surfaces only one day to lay eggs.
- **Mahabali Frog (*Nasikabatrachus sahyadrensis*)** also known as **Purple Frog** is one of the rarest frog species endemic to the Western Ghats.
- **IUCN Status: Endangered**
- The frog was named after the mythical King Mahabali, who visits his people once a year from the underneath world.
- The conservation of Mahabali Frog will also help in conserving the **aquatic ecosystems in the Western Ghats**



Excavations at Bharatpur, West Bengal

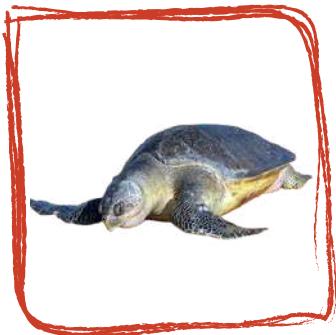
Recent excavations at **Bharatpur in West Bengal's Paschim Bardhaman district** have revealed the presence of a **Buddhist monastery**.

Key findings:

- A large **Buddhist stupa along with a monastery complex**.
- Black and red ware pottery from the Chalcolithic or Copper Age.
- In the 1970s, five beautiful seated **sculptures of the Buddha in Bhumisparsha Mudra**.

Buddhist stupa : A Buddhist stupa is a commemorative monument usually housing sacred relics associated with the Buddha or other saints or priests, whereas votive stupas have similar significance but are smaller structures originating in eight cylindrical structures.

- **Bhumisparsh Mudra** : It is the gesture of hand showing five fingers of the right hand towards the earth symbolising the Buddha's enlightenment, When he summoned the earth goddess, Sthavara, to bear witness to his attainment of enlightenment.



Olive Ridley Turtles

The breeding grounds such as **Sakhinetipalli, Malikapuram, Mamidikuduru and Allavaram** have been witnessing the mass mortality of the **Olive Ridley turtles over the past few weeks.**

- Scientific name: **Lepidochelys olivacea**
- The Olive ridley turtles are one of **smallest and most abundant of all sea turtles** found in the world. These turtles are **carnivores** and get their name from their **olive-coloured carapace**.
- They are best known for their **unique mass nesting called Arribada**, where thousands of females **come together on the same beach to lay eggs**.
- They **hatch eggs in 45 to 60 days**.
- They are found in warm waters of the **Pacific, Atlantic and Indian oceans**.
- The **Odisha's Gahirmatha Marine Sanctuary** is known as the **world's largest rookery (colony of breeding animals) of sea turtles**.

Conservation Status:

- IUCN : **Vulnerable**
- **Wildlife Protection Act, 1972:** Schedule 1
- **CITES:** Appendix I



Dark Sky Reserve

In 2022, the Department of Science & Technology (DST) in India set up the Hanle Dark Sky Reserve (HDSR) which is the **first International Dark Sky Reserve in Ladakh, India.**

- The Dark Sky Reserve comprises six hamlets within the **Changthang Wildlife Sanctuary**.
- A Dark Sky Reserve is a **designation given to a place that has policies in place to ensure that a tract of land or region has minimal artificial light interference.**
- According to IDA (International Dark-Sky Association) : It's a public or private land possessing an **exceptional or distinguished quality of starry nights and nocturnal environment that is specifically protected for its scientific, natural, educational, cultural, heritage and/or public enjoyment**

BRAHMASTRA

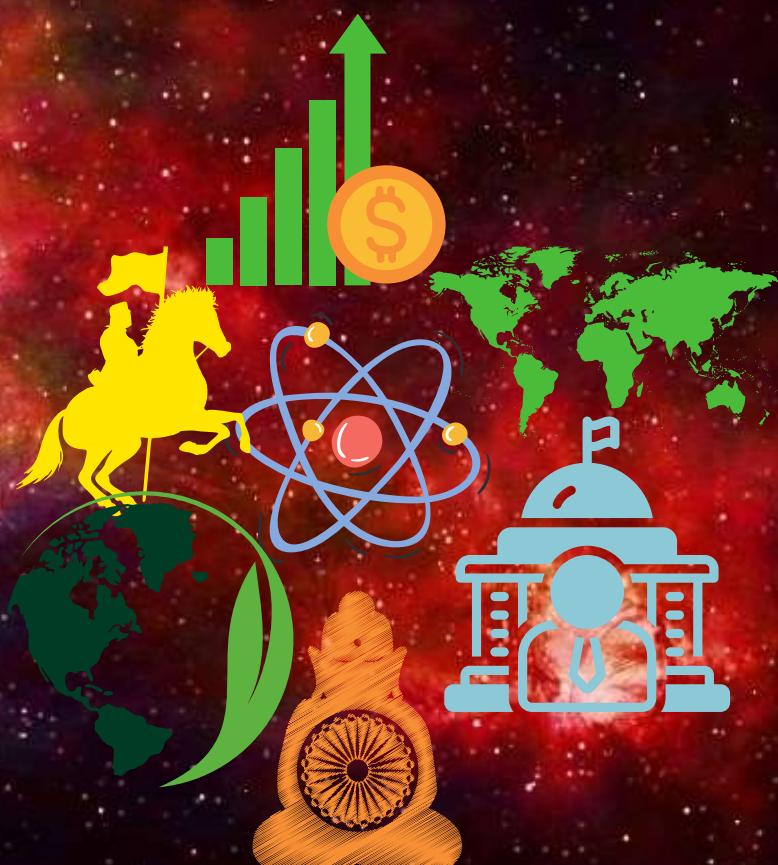
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

26 JANUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA
PIB
YOJANA
& MUCH MORE.



TOPIC : 74th Republic Day (2023)

RELEVANCE : #GS-2 #Indian Constitution

MAINS ANALYSIS

CONTEXT

Since 1950, January 26 has marked the day India's Constitution came into effect. However, the Constitution was prepared way before the chosen date, adopted officially by the Constituent Assembly on November 26, 1949.

- On January 26, 1930, the historic "**Poorna Swaraj**" declaration was officially promulgated, beginning the final phase of India's freedom struggle where the goal would be complete independence from British rule.
- The Constitution is the supreme law of the land and citizens are expected to abide by it.**

BACKGROUND:

- India became an independent nation on 15th August 1947. The laws were based on a common law system and a modified version of the "**Government of India Act, 1935**", which was brought in by the British government.
- The Indian Constitution was finally ready and adopted on **26th November, 1949 (Presently called as Constitution Day)**
- Lahore session:** It was declared 26th January, 1930, will be celebrated as "Independence Day" thus, when leaders had to decide on a day to promulgate India's new constitution, January 26 was thought to be ideal

SIGNIFICANCE

- Republic day is a **monumental day** in Indian history because it was on this day that India adopted its own Constitution and declared its own laws of the land.
- Additionally, it was also on this day that the **Preamble of the Constitution** came into effect.
- On this day India shed the **last relic of the colonial system** and effected a new dawn by becoming a Sovereign Democratic Republic.
- The day is an occasion to **commemorate the values of our democracy and Republic, to reaffirm our commitment to liberty, fraternity and equality** across our society and among all our citizens.
- A huge country is honoring its wish to be governed by one unified single constitution.

THREATS TO DEMOCRACY

- Poverty & Inequality** remains the biggest challenge of present day India, the majority of the people continue to live below the poverty line with a huge divide between the rich and the poor.
- Gender discrimination** remains at all level with skewed female ratio, few economic opportunities, disparities in wages, violence, malnutrition etc.
- Communalism and religious fundamentalism** have acquired a very dangerous form and alarming proportion in India.
- Elections which serve as the most evident expression of democracy are affected by **money and muscle abuse by politicians and political parties**.
- Recent changes in bodies e.g. RTI and attack on Independence are also a matter of concern.

WAY FORWARD

- Our Republic has come a long way and we must appreciate how far successive generations have brought us. Equally, we must appreciate that our voyage is far from complete.**
- The "Indian model" rests on a tripod of diversity, democracy and development where we cannot choose one above the other.
- The nation needs to encompass all segments and all communities, so that the nation transforms into a family that invokes, encourages and celebrates the uniqueness and potential in each person.

MAINS QUESTION

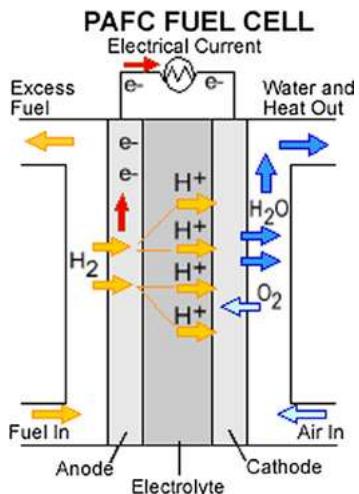
Why was January 26 chosen as India's Republic Day? Discuss its significance and threats to democratic principles in India.

10 Marks 150 Words





Prelims



Phosphoric acid fuel cells (PAFCs)

The Indian Navy's precarious submarine strength got a boost with the delivery of the fifth Kalvari class Scorpene submarine Vagir on December 20, 2022.

- India's DRDO has developed PAFC-based air-independent propulsion for integration into their Kalvari-class submarines.
- It is a fuel cell AIP based on **liquid phosphoric acid as an electrolyte**.
- The PAFC uses hydrogen or methanol-reformed gas as fuel.
- Liquid oxygen is stored onboard while hydrogen is generated on demand.
- This potentially allows efficiency increases of up to 70%
- The PAFC is considered the "first generation" of modern fuel cells. It is one of the most mature cell types and the first to be used commercially.**

Fuel Cells

- A fuel cell is a device that converts chemical energy (energy stored in molecular bonds) into electrical energy.
- It uses Hydrogen gas (H_2) and Oxygen gas (O_2) as fuel and the products of the reaction in the cell are water (H_2O), electricity, and heat.



Greater Tipraland

A TIPRA Motha delegation on its '**Greater Tipraland**' demand led by party supremo Pradyot Kishore Manikya Debbarma started talks with Union Home Minister.

- Tipraland** is the name of a proposed state in India for the indigenous Tripuri people in the tribal areas of the Tripura state.
- Demand: They want the Centre to carve out a separate state under **Articles 2 and 3 of the Constitution**.
- Tripura was a kingdom ruled by the **Manikya dynasty** from the late 13th century until the signing of the Instrument of Accession with the Indian government in 1949.



BharOS

An IIT MADRAS-incubated startup has developed a mobile phone operating system called BharOS, being pitched as India's answer to Google's Android and Apple's iOS.

- It is an indigenous mobile operating system (OS), like Android or iOS. It is focused on privacy and security.

Features :

- NO Default Apps:** BharOS is based on **Android Open-Source Project (AOSP)** and is somewhat similar to Google Android. However, it does not come preloaded with Google services like in regular Google Android phones.
- Native Over the Air:** BharOS would offer Native Over the Air (NOTA) updates, meaning that security updates and bug fixes will be automatically installed rather than users having to check for updates and implementing them on their own.
- PASS :** It will use a system known as Private App Store Services (PASS), which will examine and curate the apps that are safe for the users.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC CURRENT AFFAIRS

27,28 & 29 JANUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA
PIB
YOJANA
& MUCH MORE.



TOPIC : India-Egypt relations

RELEVANCE : #GS-2 #Indian Constitution

MAINS ANALYSIS

CONTEXT

This is the first time that an Egyptian President (Abdel Fattah El-Sisi) has been invited as **chief guest for the Republic Day celebrations in India**.

- India and Egypt share close political understanding based on a long history of cooperation in bilateral, regional and global issues.
- Diplomatic relations were established on August 18, 1947 (completed 75 years in 2022).
- **A military contingent from Egypt also participated in the parade.**

BACKGROUND:

- History can be traced from **Ashoka's edicts** refer to his relations with Egypt under Ptolemy-II.
- Mahatma Gandhi and the Egyptian revolutionary Saad Zaghloul shared the common goal of independence from British
- India's and Egypt signed the **Friendship Treaty of 1955** between the two countries, and they were key to forming the Non-Aligned Movement in 1961.
- High-level exchanges with Egypt continued post 2011 Egyptian Revolution. In 2016, the **joint statement** between India and Egypt identified political-security cooperation, economic etc.

RECENT ENGAGEMENTS

- India has invited Egypt as a special guest for the G-20 summit.
- **Exercise Cyclone-I – first ever exercise between Indian Army and Egyptian Army was held in Jaisalmer recently.**
- India and Egypt agreed to elevate their bilateral ties to a “**Strategic Partnership**” covering political, security, defence, energy, and economic aspects.
- MoU between Prasar Bharati and the National Media Authority of Egypt.
- India views Egypt as a moderate Islamic voice
- **Market:** India is looking at increasing investments in the country, especially in major infrastructure projects in and around the Suez Canal and special economic zones.

CHALLENGES FOR EGYPT

- **Terrorism:** India and Egypt are “worried about the spread of terrorism happening around world”
- Misuse of **cyberspace** to spread extremist ideologies and radicalisation is a growing menace.
- **Egypt's economy has been in shambles** over the past few years. It was battered by the collapse of tourism during the pandemic, and the Russia-Ukraine war has impacted its supply of food — almost 80% of **Egypt's grain came from these two countries** — and hit its foreign exchange reserves.
- Despite restrictions on the export of wheat, India had last year allowed shipments of 61,500 metric tonnes to Egypt. But the country needs more.
- China's bilateral trade with Egypt is currently at USD 15 billion, **double that of India's**.

WAY FORWARD

- Economic partnership – Egypt is in economic flux and requires an urgent infusion of capital to avoid any long-term economic distress. e.g Arab Spring, which was backed by people's anger against economic destitution, cronyism and corruption.
- Concerted action is necessary to **end cross-border terrorism**” and they will have to together alert the international community.
- More than 6 decades ago, the two countries founded the **NAM**. They now have an opportunity to forge a new path ahead, not just for their strategic and economic interests, but as the voice of the **Global South**.

MAINS QUESTION

“India's relations with Egypt do indeed reflect the aspirations of the global south.”
Discuss

10 Marks 150 Words



TOPIC : Euthanasia

RELEVANCE : #GS-4 #Indian Constitution

MAINS ANALYSIS

CONTEXT

A five-judge SC bench decided to modify the existing rules for “living wills” as established in its 2018 decision allowing passive euthanasia, in order to make the process of passive euthanasia easier.

- Meaning of ‘Living Will’: **Living will is a person’s right to make an advance directive about the course of his or her treatment, including the removal of life support, if such a situation arises.**
- This is in contrast to **active euthanasia**, which involves an active intervention to end a person’s life with substances or external force which is illegal in India.

MAJOR CHANGES

- The Supreme Court tweaked the previous judgement to do away with the necessity of a judicial magistrate to attest or countersign a living will. SC held that attestation by a notary or a gazetted officer would be sufficient for a person to make a valid living will.
- Instead of the living being in the custody the National Health Digital Record which can be accessed by hospitals and doctors from any part of the country.
- If the hospital’s medical board denies permission to withdraw medical treatment, the family of the patient can approach the relevant high court.

ARGUMENTS FOR:

- **Aruna Shanbaug case (2011)**: The SC allowed passive euthanasia for the nurse lying in a vegetative state at a hospital in Mumbai.
- **Matter of Privacy & Choice**: S. Puttaswamy case/ the Right to Privacy case (2017): – Article 21 includes the concept of individual dignity and thus allows passive euthanasia.
- **Dignity**: Every individual should be able to die with dignity.
- **Resources**: It makes more sense to channel the resources to those who can recover.
- **Loved ones**: It can help to shorten the grief and suffering of loved ones. It is more humane to allow a person with intractable suffering to be allowed to choose to end that suffering.
- Active euthanasia is still illegal in India,

ARGUMENTS AGAINST:

- **Patient Competence**: Euthanasia is only voluntary if the patient is mentally competent
- **Guilt**: Patients may feel they are a burden on resources and are psychologically pressured into consenting
- **Regulation**: Euthanasia cannot be properly regulated.
- **Slippery slope**: There is a risk that **physician-assisted suicide will start with those who are terminally ill** and wish to die because of intractable suffering, but then begin to include other individuals.
- **Moral and Religious Arguments**: Several faiths see **euthanasia as a form of murder and morally unacceptable**.

WAY FORWARD

- Netherlands, Luxembourg, and Belgium allows both euthanasia and assisted suicide for anyone who faces “unbearable suffering” that has no chance of improvement while Switzerland bans euthanasia but allows assisted dying in the presence of a doctor or physician.
- Hence Euthanasia is tight rope walk with various ethical dilemmas and the objective resolution is still difficult when the meaning of life is difficult to define however **regulation of euthanasia is necessary** to defy ill purposed acts & crime.

MAINS QUESTION

What arguments can be made in favour of euthanasia? Don’t you think humans have right to die when and how they want to?

10 Marks 150 Words



TOPIC : The Indus Waters Treaty

RELEVANCE : #GS-2 #International Relations

MAINS ANALYSIS

CONTEXT

India has issued a notice to Pakistan seeking a review and modification of the Indus Waters Treaty (IWT) citing Pakistan's "**intransigence** (meaning a refusal to change one's views or to agree about something)" in resolving disputes over the **Kishanganga and Ratle (on Chenab River) hydropower projects, both in Jammu and Kashmir.**

- India is invoking Article XII (3) of the treaty to bring changes to the 1960 pact.
- India and Pakistan signed the IWT in 1960 with the World Bank being a signatory to the pact.

KEY PROVISIONS

- **Water Sharing:** The treaty prescribed how water from the six rivers of the Indus River System would be shared between India and Pakistan. Three western rivers—**Indus, Chenab and Jhelum** to Pakistan for unrestricted use. Three Eastern rivers—**Ravi, Beas and Sutlej** were allocated to India for unrestricted usage.
- 80% of the share of water went to Pakistan while leaving 20% of water for use by India.
- **Permanent Indus Commission** as a forum for exchange & dispute resolution (3-level).
- **Rights:** According to Annexure C of the IWT, India is allowed to make use of agricultural resources, and Annexure D permits the construction of non-storage hydropower projects over three western rivers.

INDUS WATER TREATY(IWT)



ISSUE

- There has been a longstanding dispute over two hydroelectric power projects – one on the Kishanganga river (a tributary of Jhelum) and the other on the Chenab (Ratle).
- Pakistan has raised objections to these projects, and dispute resolution mechanisms under the Treaty have been invoked multiple times. But a resolution has not been reached.
- In 2022, the World Bank announced to concurrently appoint a **Neutral Expert and a Chair of the Court of Arbitration** to resolve the dispute, which as per India poses practical and legal challenges.
- Pakistan had demanded the constitution of a Court of Arbitration, while India demanded a Neutral Expert to resolve the dispute.

WAY FORWARD

- India has the right to generate hydroelectricity through run-of-the-river (RoR) projects on the western rivers
- The role of India, as a responsible upper riparian abiding by the provisions of the treaty, has been remarkable but the country is under pressure to rethink the extent to which it can remain committed to the provisions, as its overall political relations with Pakistan becomes intractable.
- IWT is often cited as an example of the possibilities of peaceful coexistence that exist despite the troubled relationship between both neighboring countries.

MAINS QUESTION

Present an account of the Indus Water Treaty and examine its ecological, economic and political implications in the context of changing bilateral relations.

UPSC Mains 2016

15 Marks 250 Words



Green comet



A green comet is estimated to come closest to Earth after 50,000 Years, termed the C/2022 E3 (ZTF), the comet was named to refer to those who first spotted it – astronomers using the wide-field survey camera at the Zwicky Transient Facility (ZTF) in the US.

Why Green?

- It gets its beautiful green glow from diatomic carbon (pairs of carbon atoms that are bound together) that is present in the comet's head.
- When the ultraviolet rays of solar radiation falling on the comet, these molecules emit green light.

What are comets?

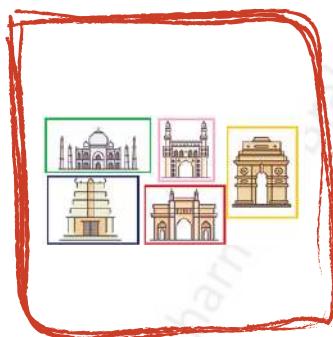
- Comets are **frozen rocky or gas-filled objects that are remnants of the formation of the solar system**.
- It looks like a bright star with a tail that moves around the sun
- When passing close to the Sun, warms and begins to release gases, a process that is called **outgassing**.



Nitride Semiconductors

A team of scientists from the Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) have used **scandium nitride (ScN)** and **Complementary Metal-Oxide-Semiconductor (CMOS) compatibility** to develop brain-like computing.

- The human brain is a supreme biological computer that is smaller and more efficient due to the presence of a **synapse which is the connection between two neurons**.
- Scientists used ScN to develop a device mimicking a synapse that controls the signal transmission as well as remembers the signal.
- It can perform functionalities like short-term memory, long-term memory, the transition from short-term to long-term memory etc.



Monument Mitra Scheme

As part of the Monument Mitra Scheme, the government will transfer around 1,000 monuments to the private sector for maintenance.

- The Scheme was started a few years back under the **Ministry of Tourism** and recently transferred to the **Ministry of Culture** under the Archaeological Survey of India(ASI).
- It applies to all **Centrally protected heritage properties**.
- Investment under this scheme also qualifies for **Corporate Social Responsibility**.
- It aims at **ensuring quality & inclusive provision of amenities and facilities across heritage, natural, & tourist sites** through the active participation of **private and public sector organizations and individuals**.
- These organizations would be known as “**Monument Mitras**” for their collaboration initiative

Water Hyacinth



In Madhya Pradesh, Sankhya Sagar, an artificial lake, has been almost entirely taken over by a thick covering of Water Hyacinth.

- **Sankhya Sagar was declared a Ramsar site in July 2022 and helps maintain the ecological balance of the Madhav National Park.**
- Water Hyacinth, though, native to South Africa, has naturalised itself in many other parts of the world.
- During British colonial rule, India was introduced to this aquatic plant from South America as a decorative plant.
- The plant produces beautiful purple flowers that have high aesthetic value.
- It acts as a **water purifier (scientifically known as *Eichhornia crassipes Mart.*)** by removing heavy metals present in small quantities while on the other, once it covers the entire surface of a water body, however it does not allow sunlight to penetrate the water and also starts **depleting oxygen**.
- **Phytoremediation:** Phytoremediation basically refers to the use of plants and associated soil microbes to reduce the concentrations or toxic effects of contaminants in the environment.
- **It is an expensive and labour-intensive process to remove this weed from time to time.**

Recent Exercises



- **Ops Alert Exercise:** In view of the upcoming Republic Day celebrations, the Border Security Force (BSF) has started an "Ops Alert" exercise (21-28 Jan 2023) to enhance security along the India-Pakistan border from Sir Creek (marshy area) to Kutch (Gujarat) and Barmer (Rajasthan) with the objective of "thwarting any ill designs of anti-national elements".
- **TROPEX 2023:** The 2023 edition of Indian Navy's major biennial maritime exercise TROPEX, was conducted in the Indian Ocean Region. All Indian Navy units have taken part, as well as the Indian Army, Indian Air Force and Indian Coast Guard.



Judicial Reforms

Recently, at the launch of the online e-inspection software, the Chief Justice of India (CJI) spoke about the Supreme Court's decisions being translated into four languages —**Hindi, Tamil, Gujarati and Odia**.

- This initiative will result in the **Indianisation of the Judiciary which is the need of the hour**.
- Malimath Committee (2000) suggested that a Schedule to the Code be brought out in all regional languages so that the accused knows his/her rights, as well as how to enforce them and whom to approach when there is a denial of those rights.
- The **All India Judicial Services (AIJS)** was first proposed by the **14th report of the Law Commission in 1958**.

Related News:

- **SUPACE Portal (May, 2020):** Supreme Court launched an Artificial Intelligence (AI) based portal **Supreme Court Portal for Assistance in Court's Efficiency (SUPACE)** in the judicial system with objective to assist judges with legal research.

Yellow Band Disease

Ecologists are concerned about Asia's coral health as yellow-band disease wipes out Thailand's reefs



- Yellow-band disease **named for the colour it turns corals before destroying them.** It was first spotted decades ago and has caused widespread damage to reefs in the Caribbean.
- There is **no known cure for this disease.**
- Causes:** It is caused by a **combination of environmental stressors, including increased water temperatures, pollution, sedimentation, overfishing as well as increased competition for space from other organisms.**
- These factors can weaken the coral and make it more susceptible to infection by pathogens, **such as bacteria and fungi.**
- Irreversible:** The disease's impact **cannot be reversed, unlike the effects of coral bleaching.**
- Coral reefs** are ecosystems located underwater, composed of colonies of coral polyps. Coral polyps live in a symbiotic relationship with a variety of photosynthetic algae called zooxanthellae, which live within their tissues.

Soft Corals:

- They attach themselves to such skeletons and older skeletons built by their ancestors.
- Soft corals are typically found in deeper waters and are less common than hard corals.

Hepatorenal Infection

One of the Eight cheetahs that were introduced in Kuno National Park (MP) has been detected with a hepatorenal infection.

- Hepatorenal Infection is a condition in which there is progressive kidney failure that occurs in a patient with poor functioning of the liver.**

Cheetah Relocation Plan

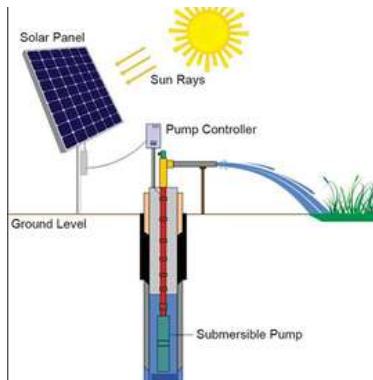
- In September 2022, 8 Cheetahs were relocated from South Africa and Namibia into the wild at Kuno Palpur National Park.
- It was the world's first inter-continental large wild carnivore translocation project.

Open Market Sale Scheme

The Food Corporation of India (FCI) will release 30 LMT wheat from Central storage to the market in different ways through the Open Market Sale Scheme.

- State Governments/UTs will be given wheat without going through an e-auction.
- What is Open Market Sale Scheme (OMSS)?
- FCI sells surplus stocks of wheat and rice at predetermined prices **through e-auction in the open market from time to time to enhance the supply of food grains.**
 - Objective: To **dispose of surplus stocks of wheat and rice held by FCI, and to regulate the prices of wheat in the open market.**
 - FCI conducts weekly auctions for the **OMSS** for wheat on the National Commodity and Derivatives Exchange Limited (**NCDEX**) platform.
 - Buffer Stock:** The FCI also maintains buffer stocks of food grains to ensure food security during times of scarcity or crisis.

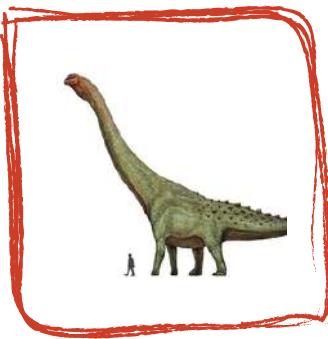




Solar lift irrigation system

Solar lift irrigation system helps farmers switch to multi-cropping

- Deputy Commissioner Kuldeep Chaudhary, promoted the installation of 'solar lift irrigation system' for achieving year-round cultivation through renewable energy.
- The solar-powered irrigation system is an application of a solar-powered water pumping system used in paddy fields, and gardens for watering plants, vegetables, etc
- solar pumps can be useful as **water lifting devices in irrigation canals** and also to **evenly distribute water in those areas where traditional water systems could not have access**, such as in the elevated hilly lands.



Lameta Formation

Researchers have uncovered 92 nesting sites containing a total of 256 fossil eggs in central India's **Narmada Valley belonging to titanosaurs**, which were among the largest dinosaurs to have ever lived.

- The Lameta Formation, located in the Narmada Valley, is wellknown for fossils of dinosaur skeletons and eggs of the Late Cretaceous Period that lasted from about 145 to 66 million years ago, the researchers said
- The Lameta Formation, also known as the Infratrappean Beds, is a sedimentary geological formation found in Madhya Pradesh, Gujarat, and Maharashtra, India, associated with the Deccan Traps.



Hormonal therapy

Work carried out by researchers from the Integrated Cancer Genomics Laboratory Mumbai's Tata Memorial Centre has shed more light on the molecular mechanism.

- Hormone therapy targets hormone receptors in breast cancer cells to slow/stop the growth of cancer.**
- Hormone therapy is a standard treatment for breast cancer and is often used in combination with other treatments such as surgery.**

Process:

- Through the action of SGK1 and two other genes, and two microRNAs, the ability of the breast cancer cells to migrate and invade is reduced.
- Current work focused on the role of non-coding genes.
- Non-coding genes do not produce any proteins but regulate the expression of other genes.
- As with progesterone therapy, reducing the expression of DSCAM-AS1 slowed down the ability of breast cancer cells to invade and migrate

BRAHMASTRA

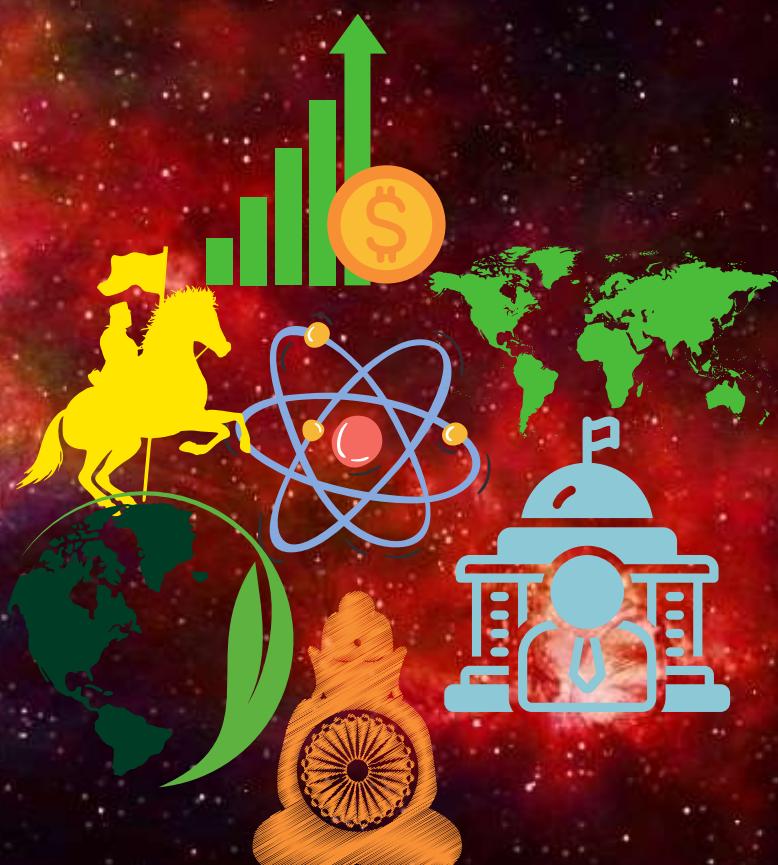
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

30 JANUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA
PIB
YOJANA
& MUCH MORE.



TOPIC : Mahatma Gandhi National Rural Employment Guarantee Act**RELEVANCE : #GS2 #Poverty #GS3 #Employment**

MAINS ANALYSIS

CONTEXT

The Central government has constituted a committee headed by former Rural Development secretary Amarjeet Sinha to review the implementation of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme, especially to assess the programme's efficacy as a poverty alleviation tool.

- The most recent concern of the central government is over the programme's "**regressive spending pattern**", where poorer States spend less NREGA funds than better-off ones.

ABOUT MGNREGA

MGNREGA was launched as a poverty alleviation instrument for the rural region, providing them with a safety net in the form of guaranteed work and wages

- It is one of the **largest work guarantee programmes in the world** launched in 2005 by the Ministry of Rural development.
- It provides for guarantee 100 days of employment to adult members of any rural household willing to do public work-related unskilled manual work.
- **As of 2022-23, there are 15.4 crore active workers under the MGNREGA**

SIGNIFICANCE

- **Demand-driven scheme** : The most important part of MGNREGA's design is its legally-backed guarantee for any rural adult to get work within 15 days of demanding it, failing which an 'unemployment allowance' must be given.
- **Legal Right to Work**: The act aims at addressing the causes of chronic poverty through a rights-based framework.
- **Gender Inclusive** : At least one-third of beneficiaries have to be women.
- **Decentralized planning** : The act mandates Gram sabhas to recommend works that are to be undertaken and at least 50% of the works must be executed by them.
- **Social Audit** of MGNREGA works is mandatory, which lends to accountability and transparency.

ISSUES

- **Delays in wage payments**: Most states have failed to disburse wages within 15 days as mandated by MGNREGA.
- Lack of tangible asset creation: Bihar, for example, despite its levels of poverty, does not generate assets to make a concrete difference.
- **Allocation of funds is not as per the needs of the states**: Bihar needs MGNREGA more, Kerala cannot be denied funds because of the current structure of the programme.
- Caste Based Segregation: There were significant variations in delays by caste.
- **Intermittent and unpredictable fund releases** : by the central government are one of the fundamental reasons why State governments are unable to ensure the full potential of NREGA

WAY FORWARD

- Strengthen implementation capacities where expenditure is low instead of curbing expenditure where employment generation is high.
- Exclusion must be identified at the household level.
- The online Management Information System of NREGA can flag areas where entitlements are violated instead of being used as a tool by bureaucrats to centralise and control things.

Regardless of all the criticism, MGNREGA acted as a crucial safety net during the COVID pandemic. Thus, the scheme needs to be reformed to provide not only social but also economic benefits.

MAINS QUESTION

Critically examine the performance of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), 2005. What are the various issues that need addressing to improve the performance of MGNREGA?

15 M 250 Words





Charbhag Style

Iconic Mughal Garden at Rashtrapati Bhavan was renamed 'Amrit Udyan' in keeping with the theme of Azadi ka Amrit Mahotsav.

- Its architecture was based on the gardens of medieval Persia, particularly the char bagh (literally four gardens) structure, which Babur, the founder of the Mughal empire, described in his memoir *Baburnama* as his personal favourite.
- Charbagh style was brought to India by the Mughals.
- Charbagh is a **Persian-style garden layout**, in which the main building is put at the centre of a quadrilateral garden, divided by walkways or flowing water into four smaller parts.
- Ram Bagh was the oldest Mughal Garden in India**, originally built by the Mughal Emperor Babur in 1528, in Charbagh style.
- Humayun's tomb is the first garden tomb in India. Humayun's tomb was declared a **UNESCO World Heritage Site in 1993**.

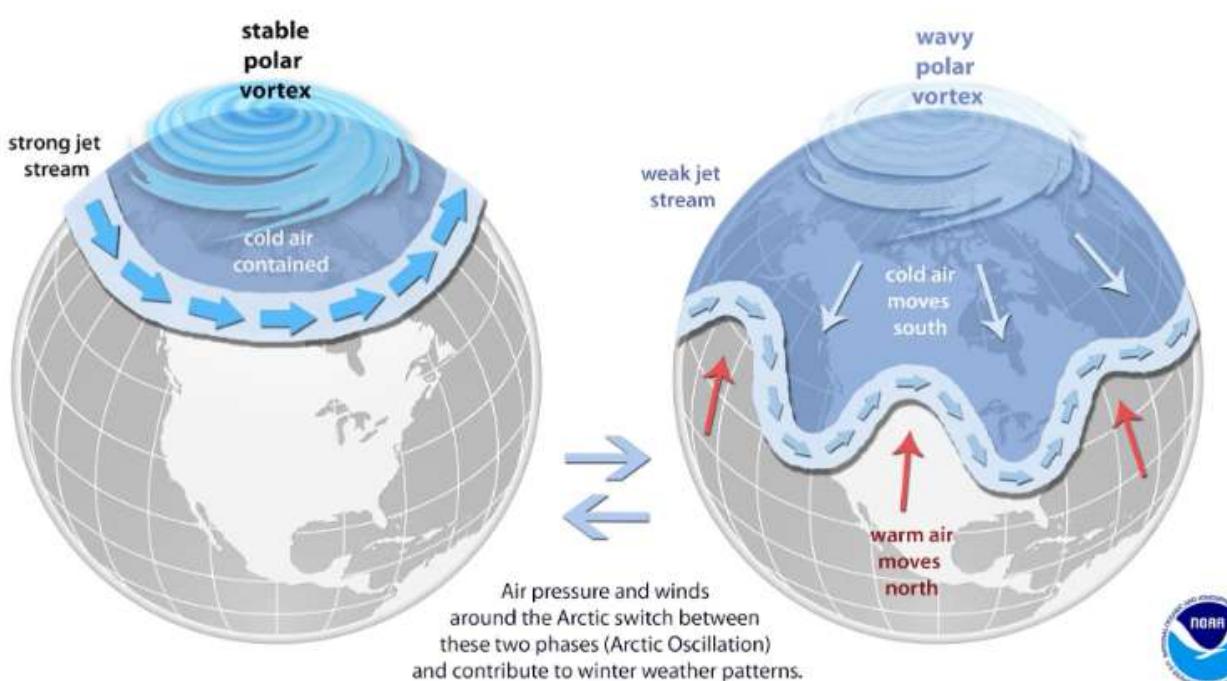
Polar Vortex

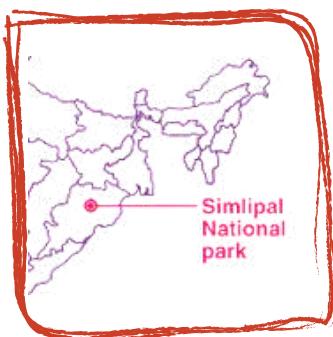
Scientists say Asia's extreme cold this year is largely the result of the so-called 'polar vortex', the same weather phenomenon that brought exceptionally cold weather to the United States last month.

What is Polar Vortex?

The polar vortex is a **large area of low-pressure and cold air surrounding both of the Earth's poles**. It was also known as the **Polar Pig**.

- The polar vortex is held in place by the Earth's rotation and temperature differences between the Arctic and mid-latitudes.
- When those variations (due to climate change) in temperatures grow, the polar vortex can shift south.
- The term "vortex" refers to the counterclockwise flow of air that helps keep the colder air near the Poles.





Simlipal National Park

Simlipal National Park (SNP) in Odisha's Mayurbhanj district has turned out to be the hunting ground for animal poachers over the last few years.

- Since 2019, it has witnessed 11 elephant deaths - hunted mainly for ivory.
- Simlipal derives its name from the '**Simul**' (silk cotton) tree.
- It is part of the Simlipal-Kuldiha-Hadgarh Elephant Reserve popularly known as **Mayurbhanj Elephant Reserve**.
- It was formally **designated a tiger reserve in 1956** and brought under **Project Tiger** in the year **1973** and **declared a biosphere reserve by the Government of India in June 1994**.
- It is also a part of the **UNESCO World Network of Biosphere Reserve** since **2009**.

Other Major Protected Areas in Odisha :

- Bhitarkanika National Park , Badrama WLS , Chilika (Nalaban island) WLS ,Hadgarh WLS, Baisipalli WLS, Kotagarh WLS, Nandankanan WLS, Lakhari Valley WLS & Gahirmatha (Marine) WLS



Maiden Exercise Veer Guardian

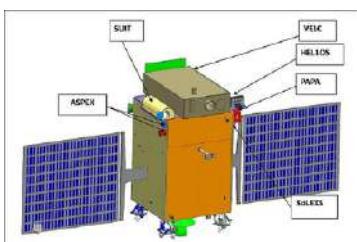
In order to strengthen the Air Defence cooperation, the Indian Air Force (IAF) and Japan Air Self Defence Force (JASDF) are executing their very first joint venture in air exercise in Japan, known as **Veer Guardian 2023**.

- Veer Guardian 2023 will be a 15-day-long bilateral exercise
- Veer Guardian 2023 is taking place at Hyakuri Air Base, Japan.

Other exercises with Japan:

Dharma Guardian (Military), **JIMEX (naval)**, **SHINYUU Maitri (air force)** and **Malabar** (along with Australia and the US)

Aditya-L1



Recently, the Indian Space Research Organisation (ISRO) was given the Visible Line Emission Coronagraph (VLEC), the primary payload on board Aditya-L1, by the Indian Institute of Astrophysics (IIA).

- Aditya L1 is a **planned coronagraphy spacecraft** to study solar atmosphere which will be placed in a halo orbit around the first **Lagrange (L1) point of the Sun-Earth system, which is about 1.5-million-km from Earth**.
- Aditya L1 will be launched **using the Polar Satellite Launch Vehicle (PSLV)** with 7 payloads (instruments) on board.
- The 7 payloads include:
 - Visible Line Emission Coronagraph (VLEC)
 - Solar Ultraviolet Imaging Telescope (SUIT)
 - Solar Low Energy X-ray Spectrometer (SoLEXS)
 - Aditya Solar wind Particle Experiment (ASPEX)
 - High Energy L1 Orbiting X-ray Spectrometer (HEL1OS)
 - Plasma Analyser Package for Aditya (PAPA)
 - Advanced Tri-axial High Resolution Digital Magnetometers
- Lagrange points are points of equilibrium for small-mass objects under the influence of two massive orbiting bodies.**

Short Selling



In their recent investigation, Hindenburg Research, a short seller, declared short positions in Adani Group, suggesting stock manipulation and accounting fraud.

- **Short selling, or shorting, on the other hand, is a trading strategy based on the expectation that the price of the security will fall.**
- While traditional investment strategy is based on the “buy low, sell high” approach, the sequence of transactions is reversed in short selling — to sell high first and buy low later.
- Short selling is profitable when a trader speculates correctly, and share prices do fall below the market price at which a trader sold short. In that case, a trader gets to keep the difference between the selling price and purchasing price as profit.

Justice Rohini Commission



- The President has extended the tenure of the commission for sub-categorisation of Other Backward Classes for six months till July 31, 2023.
- This is the 14th extension in tenure that the commission has been given.

About Commission:

- The commission was **set up on 2nd October, 2017 under Article 340 of the Constitution.**
- It was tasked with sub-categorisation of the Other Backward Classes (OBCs) and equitable distribution of benefits reserved for them.
- In 2015, the **National Commission for Backward Classes (NCBC)** had recommended that OBCs should be categorised into **extremely backward classes, more backward classes and backward classes.**
- NCBC has the **authority to examine complaints and welfare measures** regarding socially and educationally backward classes.

BRAHMASTRA

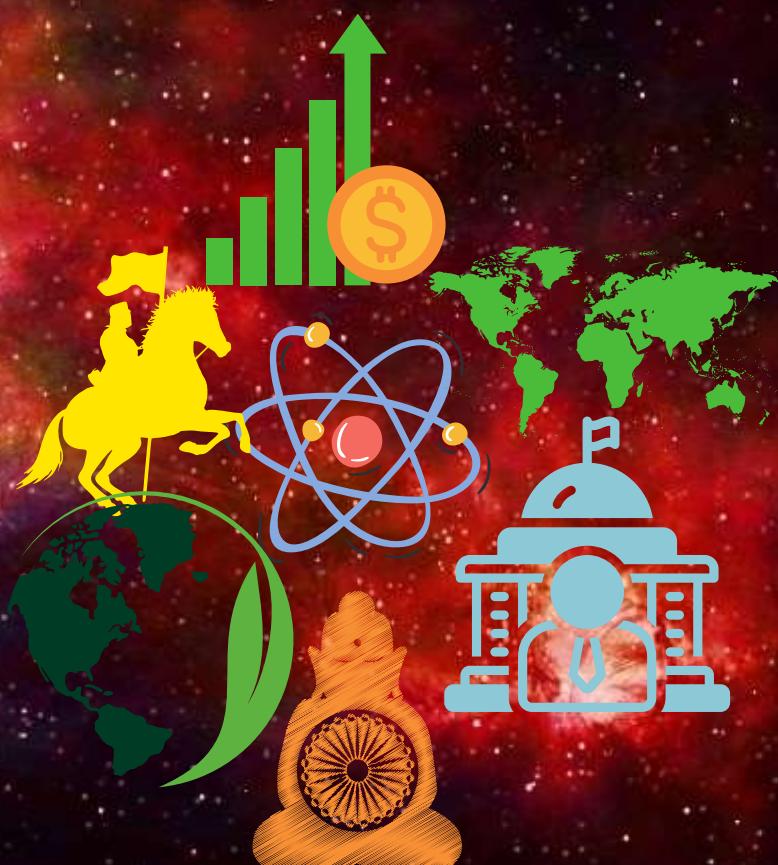
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

31 JANUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA
PIB
YOJANA
& MUCH MORE.



TOPIC : Mahatma Gandhi

RELEVANCE : #GS1 #Modern India #GS4 #Gandhian Ethics

MAINS ANALYSIS**CONTEXT**

The nation paid homage to the **Father of the Nation Mahatma Gandhi** on his 75th death anniversary (30th January 1948 - Martyrs' Day). Gandhi was a **social reformist** and leader of **Indian Independence Movement** who introduced the idea of **nonviolent resistance called Satyagraha**.

- Gandhian thought can not altogether be separated from ethics. His ideas are generally expressed in moral categories or terminology.
- **Gandhian Ethics** refers to ethical theories that provide the underpinnings for Gandhian thought in any sphere.

GANDHIAN ETHICS

- **Truth and nonviolence:** They are the **twin cardinal principles** of Gandhian thoughts.
- Nonviolence is understood by Mahatma Gandhi to denote active love.
- **Satyagraha:** Exercise of the purest soul-force against all injustice, oppression and exploitation.
- **Sarvodaya:** Sarvodaya is a term meaning 'Universal Uplift' or 'Progress of All'.
- **Swaraj:** Although the word swaraj means self-rule, Gandhi gave it the content of an **integral revolution** that encompasses all spheres of life.
- **Trusteeship:** It provides a means by which the wealthy people would be the trustees of trusts that looked after the welfare of the people.
- **Swadeshi:** Acting within and from one's own community, both politically and economically.

WAY FORWARD

- Gandhi's Seven Sins are an integral part of the Gandhian ethics and needed to be adopted in the society and in governance. Gandhian ethics shaped the creation of institutions and practices where the voice and perspective of everyone can be articulated, tested and transformed.
- As we celebrate the Azadi Ka Amrit Mahotsav, let us also recall how the Gandhian values of non-violence, inclusiveness and communal harmony enabled India to establish a unique democracy achieving momentous economic and social transformation through the ballot box rather than through the barrel of the gun.

MAINS QUESTION

Q. Throw light on the significance of the thoughts of Mahatma Gandhi in the present times. (UPSC 2018)

10 Marks 150 Words

**GANDHIJI'S ROLE****Outside India:**

- **Natal protest** – Gandhi organized Indian resistance, fought anti-Indian legislation in the courts and led large protests against the colonial government.
- Satyagraha Against registration certificates

In Indian National Movement:

- Champaran, Ahmedabad and Kheda Satyagraha.
- Rowlatt Satyagraha
- Non-Cooperation Movement
- Civil Disobedience Movement
- Gandhi-Irwin Pact
- Quit India Movement

SOCIAL WORK

- He worked for the upliftment of untouchables and gave them a new name '**Harijan**' meaning the children of God, and founded harijan sevak sangh.
- In September 1932, B.R. Ambedkar negotiated the Poona Pact with Mahatma Gandhi.
- He played a key role in pacifying people and averting the **Hindu-Muslim riots** as tensions rose before and during the partition of the country.
- He founded the **Hindustani Prachar Sabha in 1942** at Wardha in Maharashtra. The aim of the organisation was to promote Hindustani, a link language between Hindi and Urdu.
- **Majoor Mahajan** was founded by Mahatma Gandhi at Ahmedabad in 1916. It was related to the labor movement or textile movement in Gujarat.



Prelims

R-Aasman Portal



The Chief Minister of Delhi launched a website, www.raasman.com, which provides realtime data on the sources of air pollution in the city and is expected to help the Delhi government frame effective policies to curb it.

- The website reflects data collected and processed by **two laboratories: a 'super site' and a mobile laboratory**.
- The laboratories were used for the “realtime source apportionment study”, under which data on Delhi’s air were collected over many months and a model (software) created, which shows the sources of air pollution by using air from the surroundings as input.

Noble's Helen



An “extremely rare” swallowtail butterfly Noble’s Helen (*Papilio noblei*) disappearing from its previously known ranges from Myanmar and southern China to Vietnam has been recorded for the first time in India’s Namdapha National Park of Arunachal Pradesh.

What is the state butterfly of Arunachal Pradesh?

- **Kaiser-I-Hind**

Namdapha National Park:

- Namdapha lies in close proximity to the Indo-Myanmar-China trijunction in Arunachal Pradesh.
- It is the **fourth largest national park in India** after the Hemis National Park (Ladakh), Desert National Park (Rajasthan), and Gangotri National Park (Uttarakhand).
- It is also on the **tentative List of UNESCO World Heritage Sites in India and a biodiversity hotspot**.
- It is the only park in the World to have the four Feline species of big cat:- **Tiger, Leopard, Snow Leopard, and Clouded Leopard**.
- **Famous Fauna:** Namdapha flying squirrel (Critically Endangered species) and Hoolock Gibbons (the only ‘ape’ species found in India)

MeitY Startup Hub (MSH)



MeitY Startup Hub (MSH), an initiative of the Ministry of Electronics & Information Technology (MeitY), and Meta have announced the list of 120 startups and innovators for the XR Startup Program.

- XR Startup Program is a collaboration between MSH and Meta to discover, nurture, and accelerate **Extended Reality (XR) technology** startups and innovators across India.
- The XR Startup Program includes an Accelerator (for 40 early-age startups) and a Grand Challenge, aimed towards boosting the emerging tech ecosystem

What is Extended Reality (XR) technology?

- **Extended Reality (XR)** is the combination of human & computer-generated graphics interaction, which is in reality as well as the virtual environment.
- it is a superset of **Augmented Reality (AR), Virtual Reality (VR) & Mixed Reality (MR)**

MeitY Startup Hub (MSH) is a nodal entity for promoting technology innovation, start-ups and the creation of Intellectual Properties.



Prelims

Shumang Leela



Shumang Leela is a traditional form of theatre in Manipur where the roles of women are all played by men, called **Nupi Shabis**.

- In the case of women's theatre groups, the roles of men are played by women.
- 'Shumang' means 'open courtyard and 'Leela' means play and the literal meaning of Shumang Leela is "play of the open courtyard".
- Origin: It started as a comic genre presented before the kings and noblemen, which ultimately developed into the present form of courtyard-enacted play.
- It is a powerful medium for **mass education** besides giving entertainment and relaxation.

All India Survey on Higher Education (AISHE) 2020-2021



The Ministry of Education has released the **All India Survey on Higher Education (AISHE) 2020-2021**.

- The Ministry has been conducting the All India Survey on Higher Education (AISHE) **since 2011**, covering all higher educational institutions located in Indian Territory and imparting higher education in the country.
- The survey collects **detailed information on different parameters such as student enrollment, teacher data, infrastructural information, etc.**
- **For the first time:** HEIs have filled data using an **entirely online data collection platform** through the Web Data Capture Format (DCF) developed by the Department of Higher Education through the National Informatics Centre (NIC).

Key Highlights:

- **7.5%** increase in student enrolments across the country compared to 2019-20.
- Female enrollment reaches 2 crore mark, an increase of 13 Lakh from 2019-20
- **Gross Enrolment Ratio (GER) has improved from previous year for all social groups.**
- **Calculation:** Gross enrollment ratio for primary school is calculated by dividing the number of students enrolled in primary education regardless of age by the population of the age group which officially corresponds to primary education, and multiplying by 100.
- The number of Universities has increased by 70, the number of Colleges has increased by 1,453, in 2020-21 over 2019-20
- **Gender Parity Index (GPI)** (dividing the female value for the indicator by the male value) has increased from **1 in 2017-18 to 1.05 in 2020-21**.
- **The top 6 States in terms of Student Enrolment are Uttar Pradesh, Maharashtra, Tamil Nadu, Madhya Pradesh, Karnataka, and Rajasthan.**