

BRAHMASTRA

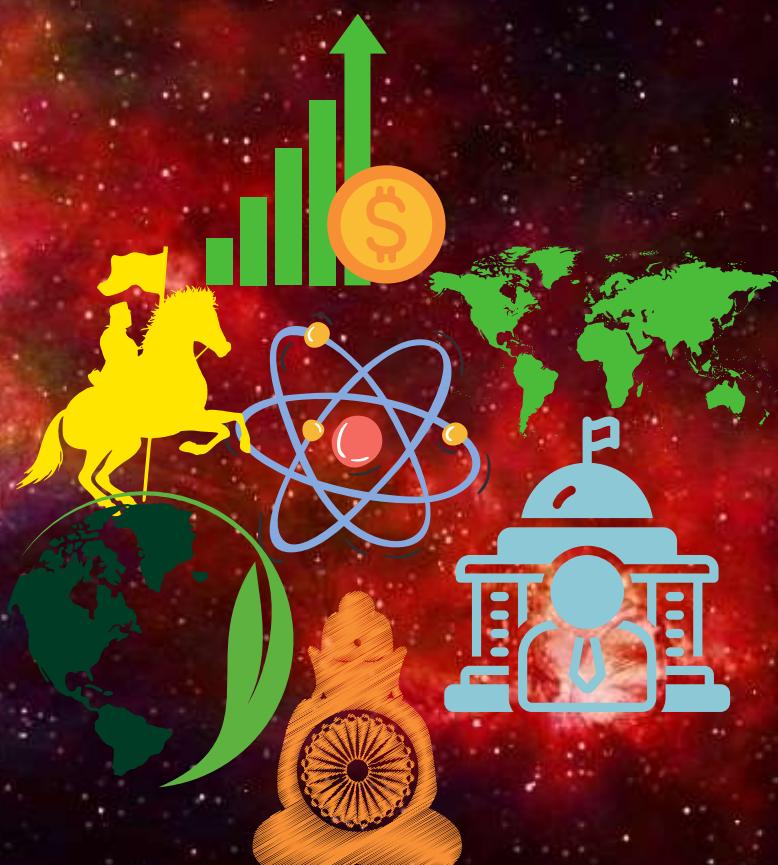
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

01 FEBRUARY 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 : Economic Survey
RELEVANCE : #GS3 #Economy

MAINS ANALYSIS

CONTEXT

Recently, the Economic Survey 2022-23 was tabled in Parliament by the **Finance Minister** soon after the President's address to both Houses.

- The central theme of this year's Economic Survey is the "**Vasudhaiva Kutumbakam: One Earth, One Family, One Future**".
- The Economic Survey of India is an annual document released by the Ministry of Finance.
- Definition:** *It is a report that the government presents on the state of the economy in the past year, the key challenges it anticipates, and their possible solutions.*

SIGNIFICANCE

- Schemes:** The Economic Survey discusses all the major government initiatives with explanations.
- Key Issues:** The Survey analyses and gives reasons for many issues happening around.
- Trends:** The Economic Survey gives a detailed account of the inflation rate, and trends in key segments such as industry and infrastructure, agriculture, and foreign exchange reserves, among others.
- Allocation of funds:** The Economic Survey also facilitates better allocation of funds in the Union Budget.
- Comprehending budget:** For the general public, the survey helps in comprehending the extensive Budget, which is presented a day later.
- Suggestions & way forward for key issues.

ABOUT SURVEY

- It is prepared by the **Economics Division of the Department of Economic Affairs (DEA) under the guidance of the Chief Economic Advisor.**
- It is usually presented a day before the Union Budget is presented in Parliament.
- The first Economic Survey in India was presented in the year 1950-51.** Up to 1964, it was presented along with the Union Budget. From 1964 onwards, it has been delinked from the Budget.
- The document is **non-binding**. Nevertheless, is constructed and presented each year due to its significance.

KEY TAKEAWAYS

- Growth:** India's growth estimate for FY23 is higher than for almost all major economies with a growth rate of 6.5-7 %.
- Headline Inflation:** 6.8% (Projected) is out of the comfort zone of 2%-6%.
- Employment:** With a rising labour force participation rate & decline in the unemployment rate from 9.8% (2021) to 7.2% (2022).
- Revenue:** Direct Tax collections for the period April-November 2022 remain **buoyant**.
- Gross Non-Performing Assets (GNPA) ratio of SCBs has fallen to a seven-year low of 5.0.**
- India is the largest recipient of remittances globally receiving US\$ 100 billion in 2022.
- Survey highlights the MPI report which says that 41.5 crore people exit poverty from 2006-2020.

WAY FORWARD

- Indian economy is well placed to grow faster in the coming decade once the global shocks of the pandemic and the spike in commodity prices in 2022 fade away.
- With improved and **healthier balance sheets of banks**, efficiency gains resulting from greater formalisation, higher financial inclusion, and economic opportunities created by digital technology-based economic reforms.
- The Government's **Capex-led growth strategy** will enable India to keep the **growth-interest rate differential positive**, leading to a sustainable debt to GDP in the medium run.

MAINS QUESTION

Despite the slowdown, India will remain the fastest-growing major economy in the world, as per the Economic Survey 2022-23. Discuss

10 Marks 150 Words



Entrenched Inflation



The Economic Survey may have presented an optimistic growth outlook for the next year, but it did highlight the risks of "**entrenched inflation**".

- Entrenched inflation occurs when consumers' expectations for inflation rise and price increases hit "**sticky**" categories like rent or medical services where they aren't likely to come down soon.
- It would mean that prices would not come back down and that the new prices we see in the market would be a more **permanent fixture**.
- It can lead to a wage-price spiral.

What is the wage-price spiral?

- Where workers demand wage increases to preserve their incomes as the cost of living soars. This then increases operational costs for companies, which, in turn, raise their prices to maintain profitability, thereby exacerbating inflation.

Related Term:

- Transitory inflation unlike entrenched inflation means higher prices will be short-lived and won't lead to any permanent economic damage.

Capital of Andhra Pradesh



Chief Minister Jagan Mohan Reddy announced that **Visakhapatnam** would be the new capital of Andhra Pradesh.

- The state government has already notified the **AP Decentralisation and Inclusive Development of All Regions Act, 2020**, and the **AP Capital Region Development Authority (Repeal) Act, 2020**.
- This law paves the way for three capitals for the state.
 1. **Amaravati**—legislative capital.
 2. **Visakhapatnam**—executive capital.
 3. **Kurnool**—judicial capital.
- Three capitals ensure equal development of different regions of the state.

World Economic Outlook

The IMF released the January update of its World Economic Outlook, as per which global growth is projected to fall from an estimated 3.4% in 2022 to 2.9% in 2023, and rise to 3.1% in 2024.

- It is expecting some slowdown in the Indian economy next fiscal year and projected growth at 6.1%.
- The IMF has said **India will remain the world's fastest-growing major economy in both 2023 and 2024**. China is set to grow at 5.4% in 2023 and 4.5% in 2024.

International Monetary Fund (IMF)

- The International Monetary Fund (IMF) is an organization of 190 member countries with the objective of furthering international monetary cooperation, encouraging the expansion of trade and economic growth and discouraging policies that would harm prosperity.
- The IMF, also known as the Fund, was conceived at a **UN conference in Bretton Woods**, New Hampshire, United States, in July **1944**.
- Any other state, **whether or not a member of the UN**, may become a member of the IMF.
- It also releases the **Global financial stability report**.

BRAHMASTRA

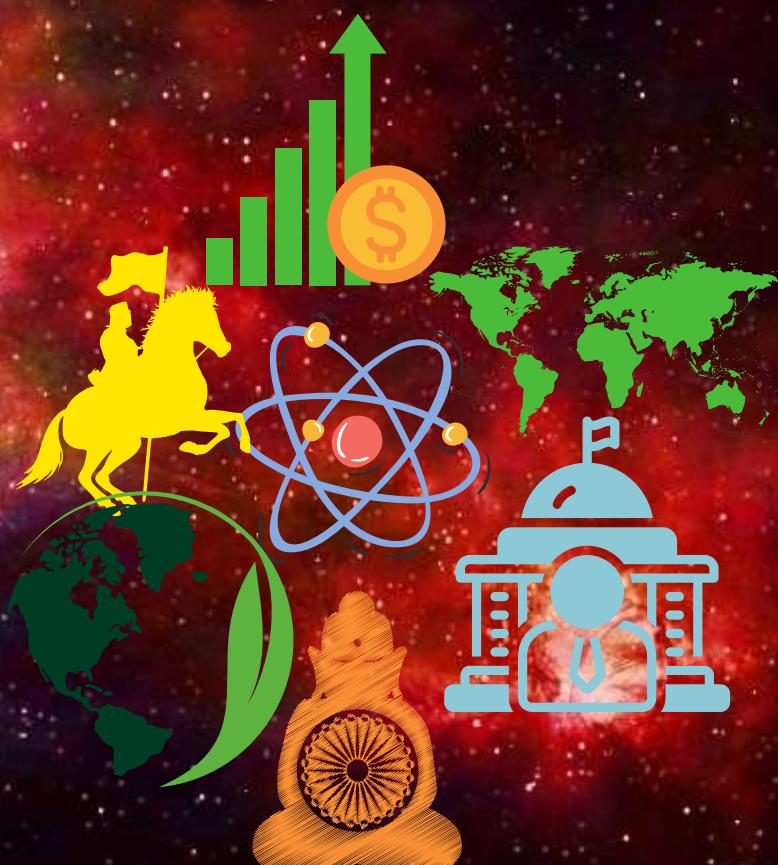
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

02 FEBRUARY 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 : Union Budget

RELEVANCE : #GS3 #Economy

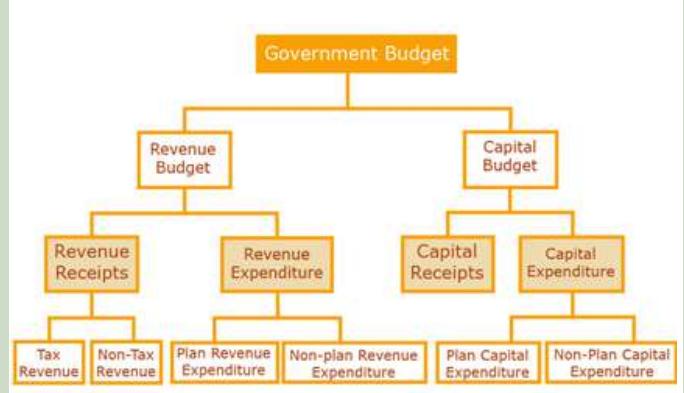
MAINS ANALYSIS

CONTEXT

Recently, Union Minister of Finance presented the Union Budget 2023-24 in Parliament.

- According to Article 112 of the Indian Constitution, the Union Budget of a year is referred to as the **Annual Financial Statement**.
- Definition:** It is a statement of the estimated receipts and expenditure of the Government in a financial year that begins on 01 April of the current year and ends on 31 March of the following year.
- Nodal body:** The Budget Division of the Department of Economic Affairs in the Finance Ministry.

COMPONENTS



SIGNIFICANCE

- Allocation** of funds to various sectors and depts.
- Resources Distribution:** It helps to **distribute resources** & reducing inequalities by imposing taxes on the elite class and spending the collected money on the welfare of the poor.
- Contributing to Economic Growth:** budgetary plan focuses on preparing adequate resources for investing in the public sector and raising the overall rate of investments and savings.
- Financial Stability:** The Budget works to keep business steady and bring economic stability.
- Managing Public Enterprises:** Many public sector industries are built for the **social welfare** of the people.
- Policies:** Announcing various schemes and policies of the government through budget.

KEY ISSUES

- Poor planning & limited links between policy-making, planning and budgeting
- Execution issue: Little relationship between the budget as formulated and the budget as executed.
- Inadequate accounting systems
- Inadequate reporting of financial performance.
- Doing away with plan and non-plan expenditure.
- Mis-stating of financial position: Parking of funds by implementing agencies, outside the government accounts portrays an incorrect picture of the financial position of the government.
- Ad hoc project announcements: Indiscriminate announcement of projects/schemes not included in the plan/budget is regularly made, often without proper consideration and detailing

WAY FORWARD

- Sound financial management is the responsibility of all government departments/agencies.
- Medium-term plan/budget frameworks and aligning plan budgets and accounts
- Realistic Budgeting: Unless the projections made in the budget are reasonably accurate, the budgetary exercise loses credibility.

The budgeting process needs to be clear, thorough, efficient and effective. Only then it would be able to create the necessary governance flux desired from it in the present context of India's political economy.

MAINS QUESTION

Despite the slowdown, India will remain the fastest-growing major economy in the world, as per the Economic Survey 2022-23. Discuss

10 Marks 150 Words





UPI for NRIs

The National Payments Corporation of India (NPCI) has issued new guidelines allowing NRIs in ten countries to access UPI services using their international mobile numbers for bank accounts that are classified as **Non Resident External (NRE)** or **Non Resident Ordinary (NRO)** accounts.

- In the first phase, **phone numbers from 10 countries** including Singapore, Australia, Canada, Hong Kong, Oman, Qatar, the US, Saudi Arabia, United Arab Emirates, and the UK have been allowed to be used on UPI.
- NPCI said it could extend this to other nations as well.

Unified Payments Interface (UPI):

- UPI is an instant real-time payment system developed by National Payments Corporation of India (NPCI) facilitating inter-bank transactions.
- The interface is regulated by the Reserve Bank of India and works by instantly transferring funds between two bank accounts on a mobile platform.
- **NPCI launched UPI** with 21 member banks **in 2016**.
- It also caters to the “Peer to Peer” collection request which can be scheduled and paid as per requirement and convenience.

NPCI:

- It is an umbrella organisation incorporated in **2008** as a “Not for Profit” Company under the Companies Act 1956 (now Section 8 of the Companies Act 2013).
- It is an initiative of **RBI and IBA** under the provisions of the Payment and Settlement Systems Act, 2007, for creating infrastructure for the entire Banking system in India for physical as well as electronic payment and settlement systems.

Initiative on Critical and Emerging Technologies (iCET)



India and the U.S. launched a programme to enhance their strategic partnership for the inaugural dialogue of the Initiative on Critical and Emerging Technologies (iCET).

- The iCET seeks to build supply chains that increase coproduction and co-development between the countries and increase linkages between the countries' startup ecosystems, both governments said in their statements describing the dialogue.
- Six areas of planned cooperation: **strengthening innovation ecosystems, defence innovation and technology cooperation, resilient semiconductor supply chains, space, STEM talent and next generation telecommunications.**

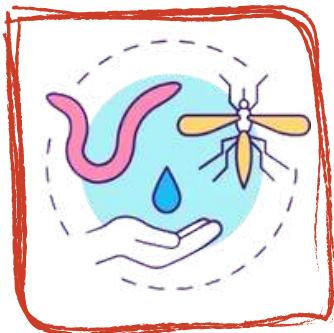
Ukraine's Odesa

Recently, the World Heritage Committee added the historic centre of Odesa, Ukraine to its list of World Heritage sites.



- This decision recognizes the extraordinary **universal value of the site and the duty of all humanity to protect it**. The Historic Centre of Odesa has also been inscribed on the List of World Heritage in Danger.
- As of 2023, the 52 properties are decided by the Committee to include on the List of World Heritage in danger.

Global Report on Neglected Tropical Diseases



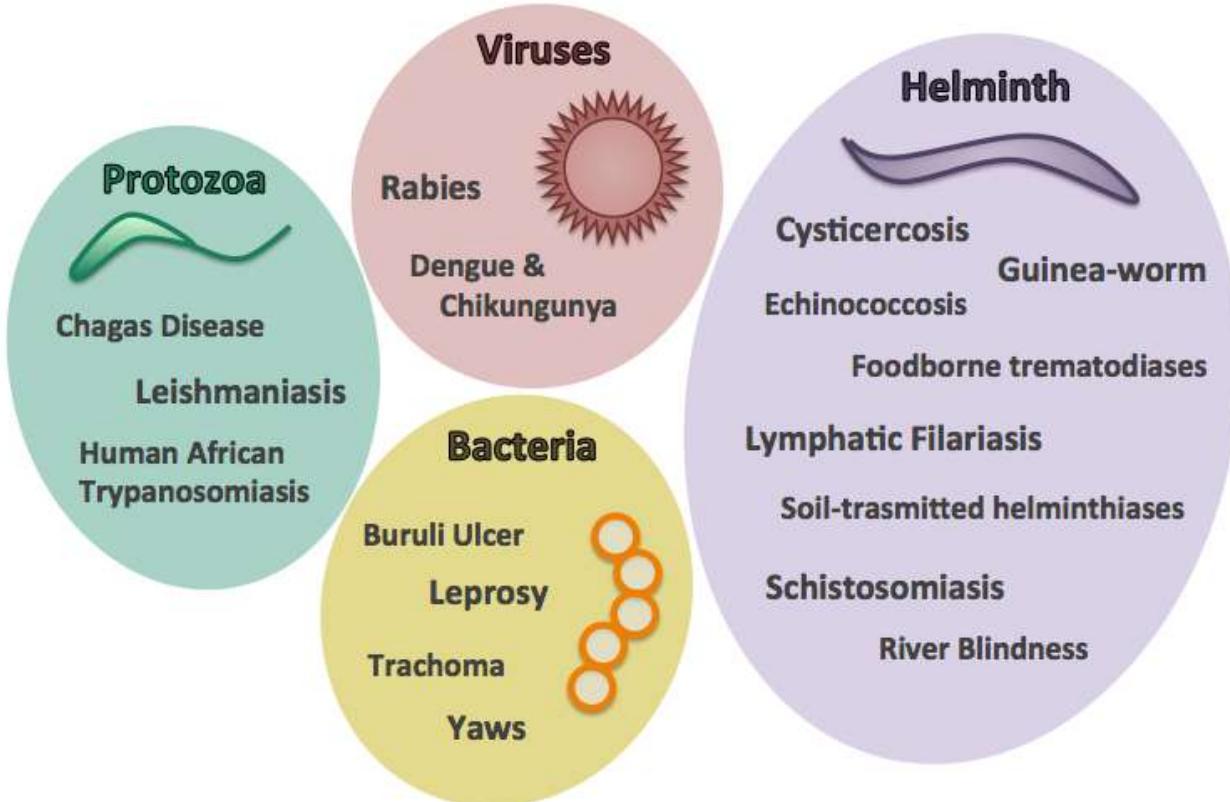
Recently, the World Health Organization (WHO) released a **Global report on Neglected Tropical Diseases (NTD) 2023**

- It states that NTD continues to disproportionately impact the most impoverished members of the international community.
- World NTD day is observed every year on 30th January. It was declared in the 74th World Health Assembly (2021).

What are **Neglected Tropical Diseases(NTD)?**

- Neglected tropical diseases (NTDs) are a diverse group of 20 conditions that are mainly prevalent in tropical areas, where they affect more than 1 billion people who live in impoverished communities.
- They are caused by a variety of pathogens including **viruses, bacteria, parasites, fungi and toxins**
- NTDs are a group of infections that are most common **among marginalized communities in the developing regions of Africa, Asia and the Americas**.
- Examples of NTDs are **snakebite envenomation, scabies, yaws, trachoma, Leishmaniasis and Chagas disease etc.**

Neglected Tropical Diseases



BRAHMASTRA

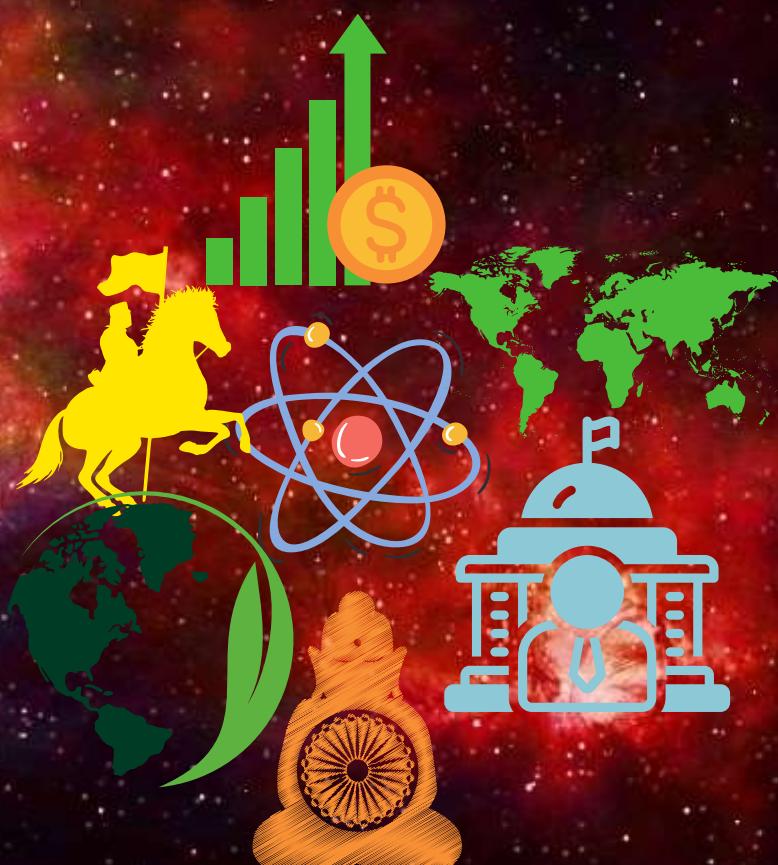
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

03 FEBRUARY 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 : Mental Healthcare in India

RELEVANCE : #GS2 #Health

MAINS ANALYSIS**CONTEXT**

Recently National Human Rights Commission (NHRC) issued notices over the “deplorable conditions” and “very pathetic handling” of all 46 government mental healthcare Institutions.

- NHRC said the cured patients were also being kept illegally in the hospitals and that there was an acute shortage of doctors and staff
- According to WHO, India's suicide rate in 2019, at 12.9/1,00,000, was higher than the global average of 9.0.
- **Nearly 56 million people in the country are thought to suffer from depression.**

SIGNIFICANCE

Mental health encompasses emotional, psychological and social well-being influencing cognition, perception, and behavior.

- Foster a healthy educational environment
- Promote life skills and resilience
- It helps to cope with the stresses of life.
- Have good relationships.
- Make meaningful contributions to your community.
- Work productively.
- Realize your full potential.

ISSUES

- **High prevalence of mental illness:** 14% of the population, according to a NIMHANS report of 2016.
- **Suicide has become the leading cause of death among those aged 15–29 in India.**
- **Lack of Access:** In India, according to National Institute of Mental Health and Neuro-Sciences data, more than **80% of people** do not have access to mental healthcare services for a multitude of reasons.
- **Lifestyle changes:** Use of drugs, Alcohol etc.
- Lack of **agency of social control** with changing value system.
- Lack of Self-esteem e.g. Inferiority Complex.
- **Associated Stereotypes with mental health.**

STEPS TAKEN

- **National Mental Health Program (NMHP):** The NMHP was adopted by the government in 1982 in response to a large number of mental disorders and shortage of mental health professionals.
- **Mental Health Act:** As part of the Mental Health Care Act 2017, every affected person has access to mental healthcare and treatment from government institutions.
- **Kiran Helpline:** In 2020, the Ministry of Social Justice and Empowerment launched a 24/7 toll-free helpline 'Kiran' to provide mental health support, **MANODARPAN for schools etc.**
- **MANAS Mobile App:** To promote mental wellbeing across age groups, the Government of India launched MANAS (Mental Health and Normalcy Augmentation System) in 2021.

WAY FORWARD

- **Destigmatizing Mental Health:** Killing the deep stigma surrounding mental health issues which prevent patients from seeking timely treatment and make them feel shameful, isolated and weak.
- **Affordability and accessibility should be strengthened** e.g. Ayushman Insurance can cover wide range of mental health problems.
- Increasing staff and mental health studies with continuous monitoring of mental health care centres.
- Research and development: NIMHANS has developed **Indian Brain Templates (IBT)**.

MAINS QUESTION

We can never obtain peace in the outer world until and unless we obtain peace within ourselves.

UPSC 2021

10 Marks 150 Words



The Paris Club



The Paris Club of creditor nations is ready to provide financing assurances to Sri Lanka, a key step needed to unlock a \$2.9 billion bailout by the International Monetary Fund (IMF).

- **The Paris Club is an informal group of creditor nations whose objective is to find workable solutions to payment problems faced by debtor nations.**
- The Paris Club has 22 permanent members, including most of the western European and Scandinavian nations, the United States, the United Kingdom, and Japan.
- The group is organized around the principles that each debtor nation be treated case by case, with **consensus**, conditionality, solidarity, and comparability of treatment.
- The Paris Club stresses the informal nature of its existence. As an **informal group, it has no official statutes and no formal inception date**, although its first meeting with a debtor nation was in 1956, in Argentina.
- **China and India, are not the member of Paris Club members.**

Red Sanders



The CITES trade database has recorded 28 incidents of red sanders confiscation, seizure and specimens from the wild being exported from India.

- CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) is an international agreement between governments, whose aim is to ensure that international trade in wild animals and plants does not threaten the survival of the species.
- **Red Sanders (*Pterocarpus santalinus*), or red sandalwood, is an endemic tree species with distribution restricted to the Eastern Ghats of India.**
- **IUCN: Endangered**
- **CITES: Appendix II**
- **Wildlife (Protection) Act 1972: Schedule II**
- Red Sanders usually grow in rocky, degraded and fallow lands with Red Soil and hot and dry climate.
- Scientists have also found traces of radioactive materials like **Thorium and uranium in red sanders**, but experts say the quantity is too small to be used in nuclear reactors as suspected by many.



Exercise Tri-shakti Prahar

Indian military holds joint training exercise Trishakti Prahar in north Bengal

- It is a joint training exercise involving – the Army, Air force and CAPFs to **practice battle preparedness of security forces**.
- It just concluded in North Bengal (near the Siliguri corridor)

Reverse Flipping



Indian start-ups are exploring ‘reverse flipping’, or shifting their domicile back to India, with easy access to capital from private equity and venture capital, changes in rules regarding round-tripping, and the growing maturity of India’s capital markets, observed by the Economic Survey 2022-23.

What is Flipping?

- Flipping refers to the process of **transferring the entire ownership of an Indian company to an overseas entity**, accompanied by a transfer of intellectual property (IP) and all data hitherto owned by the Indian company.
- This effectively transforms an Indian company into a 100 per cent subsidiary of a foreign entity, with the founders and investors retaining the same ownership via the foreign entity, having swapped all shares.
- **Reverse flipping is shifting their domicile back to India.**

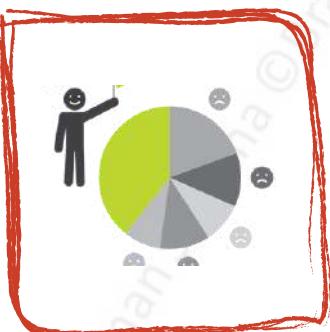
Leprosy



Every year last Sunday in January is observed as Leprosy Day. This year, it falls on the 29th of January with the theme **Act Now, End Leprosy**.

- Leprosy is also known as Hansen's disease.
- Leprosy is a chronic infectious disease which is caused by a type of **bacteria called Mycobacterium leprae**.
- Leprosy is a **Neglected Tropical Disease (NTD)** which still occurs in more than 120 countries, with more than 200000 new cases reported every year.
- **Symptoms:** The disease mainly affects the skin, the peripheral nerves, mucosa of the upper respiratory tract and eyes.
- **Transmission:** Leprosy is transmitted via droplets, from the nose and mouth, during close and frequent contact with untreated cases. The disease is not hereditary, leprosy does not transmit from parents to children.
- **Cure:** Leprosy is curable **with MDT (multi drug therapy)** and treatment in the early stages can prevent disability.

Judicial majoritarianism



This term has been in news recently after the recent Supreme Court Judgement on demonetization.

- **Judicial majoritarianism:** Blind acceptance of numerical majority in judgements disregarding deep analysis of dissenting opinion can be referred to as **Judicial majoritarianism**.
- The requirement for a majority consensus flows from Article 145(5) of the Constitution, which states that **no judgment in such cases can be delivered except with the concurrence of a majority of the judges but that judges are free to deliver dissenting judgments or opinions**.
- **Numerical majorities** are of particular importance to cases, which involve a substantial interpretation of constitutional provisions. In such cases, Constitutional Benches, consisting of five or more judges, are set up in consonance with Article 145(3) of the Constitution.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

04 FEBRUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

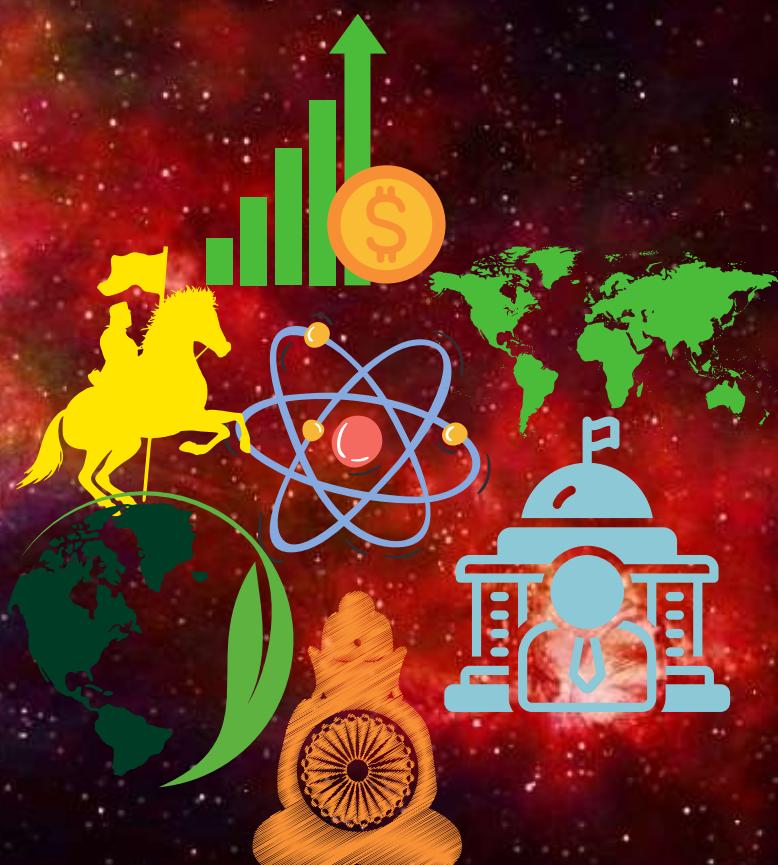
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Space Debris

RELEVANCE : #GS3 #Science & Technology

MAINS ANALYSIS**CONTEXT**

Recently, A total of **111 payloads and 105 space debris identified as 'Indian objects'** orbiting the Earth have been tracked and catalogued till January 20 by the US Space Command.

- **Space debris** refers to man-made objects in Earth's orbit that no longer serve a useful purpose.
- Most Space debris comprises human-generated objects, such as pieces of spacecraft, tiny flecks of paint from a spacecraft, parts of rockets, satellites that are no longer working, or explosions of objects in orbit flying around in space at high speeds.

ISSUE

- **Threat for Operational Satellites:** The floating space debris is a potential hazard for operational satellites and colliding with them can leave the satellites dysfunctional.
- **Kessler Syndrome:** It states that if there was too much space junk in orbit, it could result in a chain reaction causing "collisional cascading".
- It limits the availability of desirable orbital slots for future missions.
- **Difficult to track** and predict the orbits of objects in space.
- Limits the incoming solar radiation: It may impact photosynthesis or solar projects.

CHALLENGES

- **Difficulty in tracking uncontrolled descents:** A miscalculation of even a minute in re-entry time could result in the final resting place of the debris changing by hundreds of kilometres.
- Unfortunately, there is an **explosion risk in removing more dangerous objects**.
- The issue of **property rights**; one can't grab a satellite or rocket that belongs to another country without their permission.
- It is hard to eliminate space debris as there are huge chances of **creating more junk while doing it**.
- **Lack of international mechanism**
- Most satellite operators require hours or days to plan and execute a collision-avoidance manoeuvre.

STEPS TAKEN

- Inter-Agency Space Debris Coordination Committee (IADC).
- The United Nations has established the **Committee on the Peaceful Uses of Outer Space (COPUOS)** to develop guidelines for the long-term sustainability of outer space activities.
- **Clean Space initiative** by ESA.
- **IS4OM:** In 2022, ISRO set up the System for Safe and Sustainable Operations Management (IS 4 OM) to continually monitor objects posing collision threats, predict the evolution of space debris, and mitigate the risk posed by space debris.
- '**Project NETRA**' is also an early warning system in space to detect debris and other hazards to Indian satellites.

WAY FORWARD

- Spacefaring nations must minimize the risks to people and property on Earth of re-entries of space objects and maximize transparency regarding those operations.
- It is critical that all spacefaring nations and commercial entities act responsibly and transparently in space to ensure the safety, stability, security and long-term sustainability of outer space.
- The problem of managing space debris is an international challenge & a law should be framed by an international agency against space junk crashing back to earth.

MAINS QUESTION

Space debris has become a major issue for the world today. Discuss the problem caused due to space debris and also give solutions to it.

10 Marks 150 Words





Pioneer Investor

International Seabed Authority with headquarters in Jamaica has officially designated India as a "Pioneer Investor" recognising India's Blue Economy resources.

- **Pioneer Investor:** Who invests in early investment made in any new sector or technology. e.g. Poly Metallic Nodules.
- International Seabed Authority (ISA) and Ministry of Earth Sciences also exchanged PMN (Polymetallic Nodules) exploration extension contract.

What is PMN (Polymetallic Nodules)?

- Polymetallic nodules primarily consist of precipitated iron oxyhydroxides and manganese oxides, onto which metals such as nickel, cobalt, copper, titanium and rare earth elements sorb.
- Deep Ocean Mission: It aims to develop a **manned submersible** that can carry three people to a depth of 6,000 meters in the ocean for exploring and, then, extracting minerals in the deep seabed.
- It's also aiming to examine marine biodiversity resources that can be used in a sustainable way.

Yaya Tso



Yaya Tso, known for its gorgeous lake, a bird lover's delight, has been proposed as Ladakh's first Biodiversity Heritage Site (BHS).

- "Biodiversity Heritage Sites" (BHS) are well-defined areas that are **unique, ecologically fragile ecosystems** - terrestrial, coastal and inland waters and, marine having a rich biodiversity.
- They are declared under Biological Diversity Act (BDA) 2002.
- The **State Governments** are empowered to notify BHS, in consultation with 'local bodies', of areas of biodiversity importance as Biodiversity Heritage Sites.
- India has a total of 36 BHS, with the most recent one being **Mahendragiri hill in Odisha in 2022**.

Dar-es-Salaam Declaration

The inaugural countries leading the Global Alliance to end AIDS in Children together with community representatives, UN agencies, stakeholders and partners gathered in Dar es Salaam, Tanzania on February 1st, 2023, to discuss our progress and our plans to end AIDS in Children by 2030.

- The **Dar-es-Salaam Declaration on ending AIDS in children** was endorsed unanimously.

Do you know?

- **While the HIV-AIDS Virus binds with CD4 Receptor, COVID binds with the ACE-2 Receptor for COVID Spike protein.**



Thalattosuchian



Palaeontologists have uncovered a new thalattosuchian—an ancient “cousin” of modern-day crocodiles—which could be the oldest of its kind ever discovered.

- The newly-discovered fossils of *Turnersuchus hingleyae* represent the only complete Thalattosuchian of its age and date back to the early Jurassic, Pliensbachian period, which was about 185 million years ago.
- Fossils have relatively long, slender snouts, which looked similar to the currently living **gharial crocodiles**.
- **Gharial (Critically Endangered)** crocodiles are usually found in the major river systems of Northern India.



Large Exposure Framework (LEF)

The Reserve Bank of India (RBI) said as per its current assessment, the banking sector remained resilient and stable. Banks are also in compliance with the Large Exposure Framework (LEF) guidelines issued by the RBI.

- A large exposure is defined as the sum of all exposure values of a bank to a single counterparty or to a group of connected counterparties that are equal to or above 10% of its Tier 1 capital.

Minimum requirements:

1. The sum of all exposure values of a bank to a single counterparty or to a group of connected counterparties must not be higher than 25% of the bank's Tier 1 capital at all times.
2. For a global systemically important bank (G-SIB), a more stringent limit is imposed – a G-SIB's exposure to another G-SIB must not exceed 15% of its Tier 1 capital.

If the limits are breached, immediate reporting to the supervisor and rapid rectification are required.

- In 2019, The modified 'Large Exposures Framework' (LEF) provides exclusion of entities connected with the sovereign from definition of group of connected counter-parties.

BRAHMASTRA

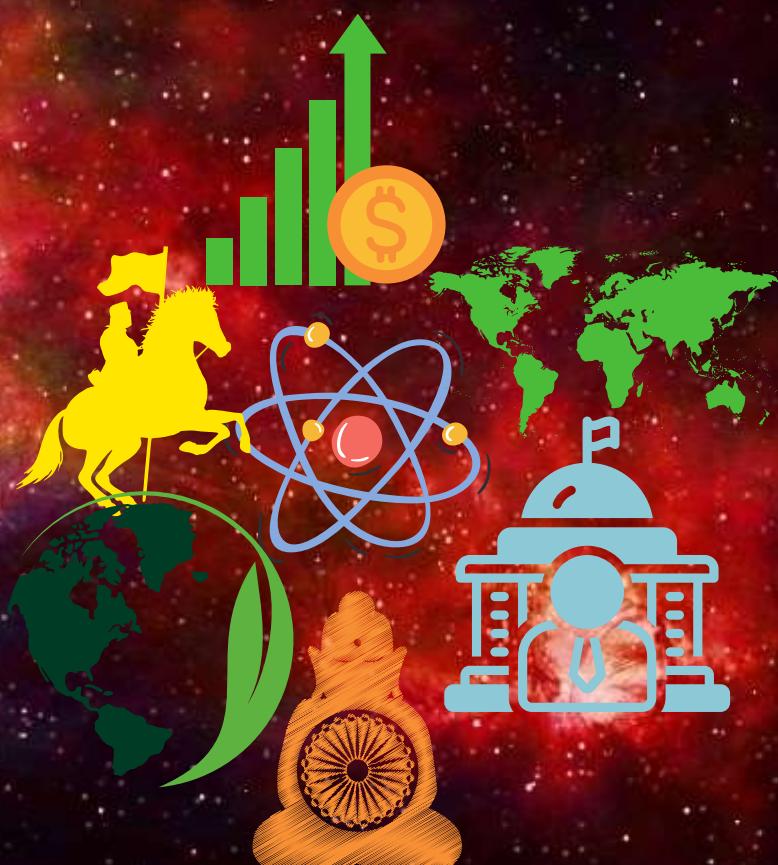
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

05 FEBRUARY 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 : Mangroves

RELEVANCE : #GS3 #Environmental Pollution & Degradation

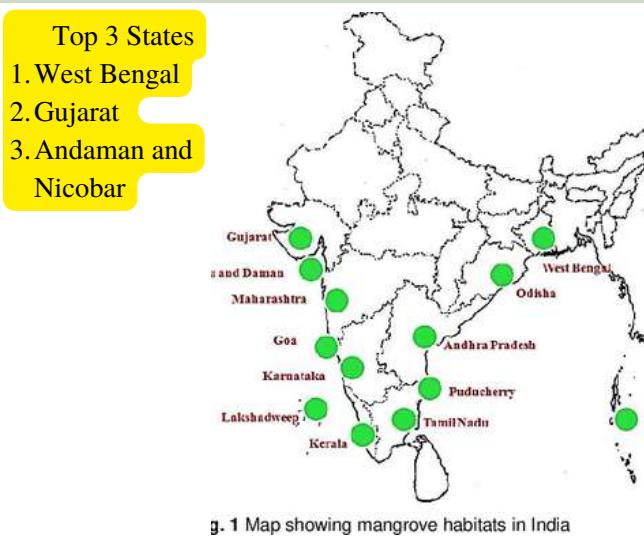
MAINS ANALYSIS**CONTEXT**

The Union Budget for 2023-24 announced an initiative for mangrove plantation along the coastline and on saltpan lands, under **MISHTI** (Mangrove Initiative for Shoreline Habitats & Tangible Incomes)

- Mangroves are **salt-tolerant plant communities** belonging to the families Rhizophoraceae, Acanthaceae etc. found in tropical and subtropical intertidal regions.
- Mangrove Cover in India is **4975 sq km (0.15 percent of the total geographical area.)** which are threatened from commercialisation of coastal area & Excessive Human Intervention.

FEATURES

- A Mangrove is a small flowering tree or shrub that grows along coastlines**, taking root in salty sediments, often underwater.
- Thick succulent leaves**: Minimises evaporation
- Mangrove forests can survive extreme weather conditions and require low oxygen levels.
- It can store up to **10 times more** carbon than terrestrial forests.
- Special roots**: Mangroves have breathing roots or **pneumatophores**.
- Viviparous**: Their seeds germinate while still attached to the parent tree.

HABITAT DISTRIBUTION**STEPS TAKEN**

- 'State of World Mangroves 2022' report by the Global Mangrove Alliance
- Mangroves for the Future Initiative by IUCN and UNDP including India as a member.
- UAE and Indonesia launched the "**Mangrove Alliance for Climate**" at COP 27.(includes India)
- National Mangrove Committee**: Government of India set up a National Mangrove Committee in 1976 which advises the government about the conservation and development of mangroves.
- State of Andhra Pradesh has established Eco-Development Committees and Van Samrakshan Samithi to implement conservation projects in mangrove areas.
- Regulation: e.g. Coastal Regulation Zone (CRZ) Notification (2019) under the EPA, 1986.

WAY FORWARD

- As per the India State of Forest Report (ISFR) 2021, mangrove cover has increased by only 17 sq. km. in 2021 as compared to the mangrove cover assessed in 2019.
- The integration of mangroves into the national programmes for reducing emissions from deforestation and forest degradation is the need of the hour.
- Mangroves are the economic foundations of many tropical coastal regions. To sustain the blue economy, it is imperative to ensure the sustainability of coastal habitats, particularly mangroves for tropical nations, at the local, regional, and international levels.

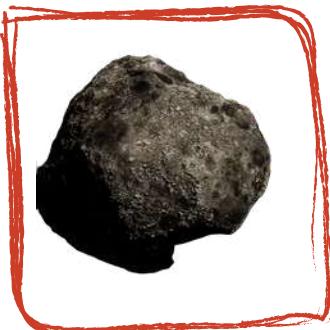
MAINS QUESTION

Mangroves are under pressure due to the increasing population in coastal areas and the rising demand for land. Comment

10 Marks 150 Words



Earth's volatile chemicals(EVCs)



By analysing meteorites, researchers have found the origin of Earth's volatile chemicals.

What are EVCs?

- **Volatiles are elements or compounds that change from solid or liquid state into vapour at relatively low temperatures that** includes nitrogen, carbon dioxide, ammonia, hydrogen, methane, sulfur dioxide, water and others.

What researchers found?

- They found that **around half the Earth's inventory of the volatile element zinc came from asteroids originating in the outer Solar System.**
- To carry out the study, the researchers examined 18 meteorites of varying origins — eleven from the **inner Solar System, known as non-carbonaceous meteorites**, and seven from the **outer Solar System, known as carbonaceous meteorites**.

Antrix Corporation Limited



A special court in Bengaluru ordered the closure of a money laundering case registered by the Enforcement Directorate (ED) against K R Sridharamurthi, former executive director of Antrix Corporation, a commercial arm of the Indian Space Research Organisation (ISRO).

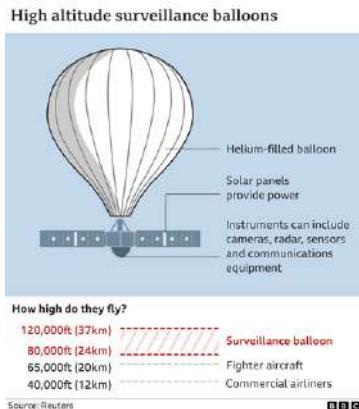
- Antrix Corporation Limited (ACL), Bengaluru is a **wholly owned Government of India Company** under the **administrative control of the Department of Space**.
- It was **incorporated as a private limited company owned by Government of India** in September 1992.
- It is a **marketing arm of ISRO** for promotion and **commercial exploitation of space products, technical consultancy services** and transfer of technologies developed by ISRO.
- Another major objective is to **facilitate development of space related industrial capabilities in India**.

Sickle Cell Disease



In Union Budget 2023-24, the government has announced a mission to eliminate Sickle cell Anaemia by 2047.

- Sickle Cell Anaemia is an inherited blood disease that affects haemoglobin, the molecule in red blood cells that delivers oxygen to cells throughout the body.
- People with this disease have atypical haemoglobin molecules called **haemoglobin S**, which can **distort red blood cells into a sickle, or crescent shape** which blocks blood flow and oxygen from reaching all parts of the body.
- **SCD Support Corner:** The Ministry of Tribal Affairs (MoTA) has launched the Sickle Cell Disease Support Corner to bridge the gap between patients and health care services in tribal areas.
- The support corner is envisioned as a one-stop portal with information around SCD in Tribal Regions of India.



Spy balloon

The United States has accused China of flying a “spy balloon” in its airspace. Beijing has responded, calling the object “a civilian airship used for meteorological research”

What is spy balloon?

- Spy balloons include a certain piece of surveillance equipment — like a camera or a radar — held below a balloon that is guided by wind currents.
- Using balloons for reconnaissance and other military missions dates as far back as the late 18th century. High-altitude balloons have been used since World War II.

PM KUSUM

The Ministry of New and Renewable Energy has extended the timeline to implement 30,000 MW of solar energy in rural India, with PM-KUSUM set to meet its goal by March 2026.

- The PM-KUSUM was launched by the MNRE in 2019, in order to **endow installation of off-grid solar pumps in rural areas** and reduce dependence on grid, in grid-connected areas.
- **Objectives** of the scheme: **De-dieselisation** of the farm sector, providing **water and energy security** to farmers, increasing the **income** of farmers and curbing **environmental pollution**.

To achieve these objectives, following targets have been kept under the Scheme:

1. Component-A: 10,000 MW of Decentralized Ground Mounted Grid Connected Solar Power Plants.
2. Component-B: Installation of 20 lakh standalone Solar Powered Agriculture Pumps.
3. Component-C: Solarisation of 15 Lakh Grid-connected Agriculture Pumps including through Feeder Level Solarisation.

Protecting groundwater:

- To avoid disruption of the groundwater table, particularly in the districts with depleted levels of groundwater, installation of new solar pumps is not allowed under the Scheme in the dark zones/ areas notified by **Central Ground Water Board (CGWB)**.
- **Only the existing diesel pumps can be replaced with solar pumps under Component-B and existing electric pumps can be solarized under Component-C in these areas provided they use micro-irrigation techniques to save water.**

Embalming

Specific ancient Egyptian recipes for chemical mixtures used in embalming different human body parts have been identified (Nature).

- The mummification process involved the use of many different embalming substance like *elemi resin*, *Pistacia tree resin*, byproducts of juniper or cypress and beeswax etc
- Embalming is the process of preserving a body by delaying the natural effects of death

BRAHMASTRA

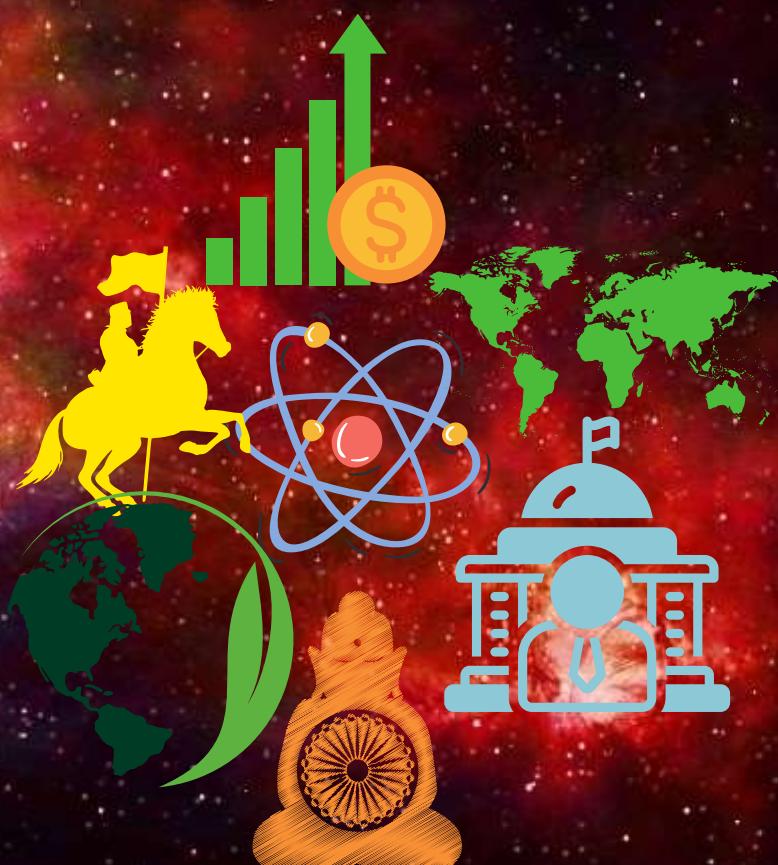
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

06 FEBRUARY 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 : Ladakh's Demand of Sixth Schedule

RELEVANCE : #GS2 #Indian Constitution #Federalism

MAINS ANALYSIS**CONTEXT**

Residents of the Kargil and Leh regions of Ladakh have been protesting for over two years seeking special rights & safeguards for the Union Territory.

- Sonam Wangchuk through **climate fast** expressed the demand for the preservation of land, culture, and jobs under the 6th Schedule.
- Ladakh is among the most vulnerable parts of the country to the impacts of climate change, such as retreating glaciers.
- However, the Union government responded that sufficient funds are being provided to UT and the UT had recently increased the reservation for STs in direct recruitment from 10% to 45%.

DEMANDS

- **Distant administration:** The administration of the UT of Ladakh region is now completely in the hands of bureaucrats. The government now looks even more distant than Srinagar.
- Earlier the UT had 4 MLAs in State Assembly (J&K) but now has **zero representation**.
- The **National Commission for Scheduled Tribes (NCST)** has recommended that the Union Territory (UT) of Ladakh be included in the Sixth Schedule of the Constitution.
- The Ladakh region has several **distinct cultural heritages** by communities such as Drokpa, Balti and Changpa, among others, which needs to be preserved and promoted.
- Job reservation: 12,000 jobs were promised but process was completed only for 800 positions.

SIXTH SCHEDULE

- The Sixth Schedule under Article 244 provides for the formation of autonomous administrative divisions — **Autonomous District Councils (ADCs)** that have some legislative, judicial, and administrative autonomy within a state.
- As of now, **10** autonomous councils exist in **Assam, Meghalaya, Tripura and Mizoram**.
- ADCs have up to 30 members with a term of five years. They can make laws, rules and regulations with regard to land, forest, water, agriculture, village councils, health, sanitation, village- and town-level policing, inheritance, marriage and divorce, social customs and mining, etc.

GOVERNMENT OPINION

- Ladakh administration had recently increased the reservation for Scheduled Tribes in direct recruitment from 10% to 45%
- Notably, no region outside the Northeast has been included in the **Sixth Schedule**. Nagaland and Arunachal Pradesh, which are totally tribal, are also not in the Sixth Schedule.
- **The Constitution is very clear, Sixth Schedule is for the Northeast. For tribal areas in the rest of the country, there is the Fifth Schedule.**
- So, Ladakh's inclusion in the Sixth Schedule would be difficult.
- 6th schedule status is not a panacea and hence ministry of home affairs recommends **overall socio-economic development**.

WAY FORWARD

- The Parliamentary Standing Committee on Home Affairs recently tabled a report in the Rajya Sabha.
- The report stated that, according to the 2011 Census, the tribal population in the Union Territory of Ladakh is 2,18,355, that is 79.61% of the total population of 2,74,289.
- The Committee further recommends that the possibility of including Ladakh in fifth or sixth Schedule may be examined.
- **The legitimate concerns raised by the UT need to be addressed soon, otherwise love for India will subside and will benefit those looking to cause trouble.**

MAINS QUESTION

The Ministry of Home Affairs (MHA) constituted a high-powered committee for the Union Territory of Ladakh, Discuss in light of the recent demand for the sixth schedule of Ladakh.

15 Marks 250 Words



Operation SADBHAVANA



As part of 'Operation SADBHAVANA', Indian Army is undertaking multiple welfare activities such as running Army Goodwill Schools, Infrastructure Development Projects Education Tours etc. for the children living in remote areas of Union Territory (UT) of Ladakh.

- Operation Sadbhavana, also referred to as Operation Goodwill, was launched in **Jammu and Kashmir** by the Indian Army under their Military Civic Action programmes launched in the 1990s.
- It aims at "**Winning the Hearts and Minds**" (WHAM) of the people in the region.

VIHANGAM

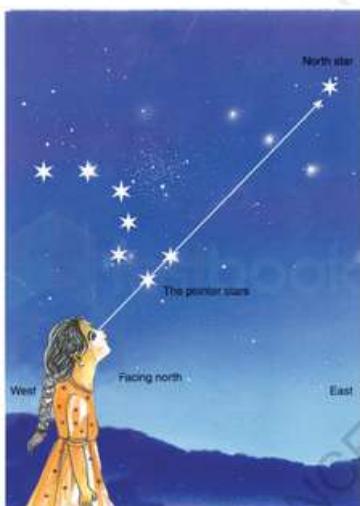
Mahanadi Coalfields Ltd (MCL), CPSE under Coal Ministry has introduced drone technology in coal mines.



- It launched a web-based portal VIHANGAM along with a drone and ground control system.
- The portal allows an authorised person (*having ID and password*) to access real-time drone video from the mine through a **dedicated 40 Mbps internet lease line** near the mines.
- The pilot project is active and running in the Bhubaneswar and Lingaraj opencast mines within the Talcher Coalfields (Odisha).

Similar Initiatives:

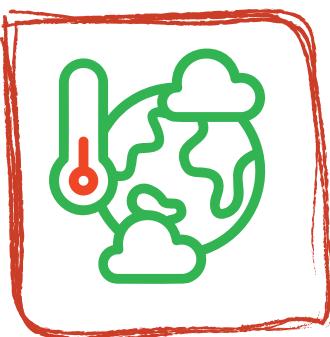
- **Drone Response and Outreach in North East (i-Drone):** A Drone-Based Vaccine Delivery Model by Ministry of Health and Family Welfare.
- Medicine from the Sky Project by Telangana government.



NORTH STAR (Dhruva Tara)

Recently Vice president referred to Parliament as the "**North Star**" of democracy while Last month, the Chief Justice of India described the basic structure doctrine as the "North Star".

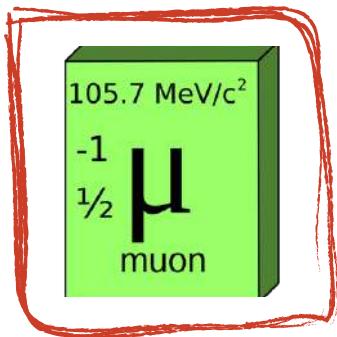
- **Polaris, Known as the North Star or Pole Star, is a very bright star — around 2,500 times more luminous than the Sun.**
- It is part of the constellation Ursa Minor and is around 323 light years away from the Earth.
- **Since Polaris is less than 1° away from the north celestial pole,** almost in direct line with the Earth's rotational axis, it appears to sit motionless in the northern sky, with all the other stars appearing to rotate around it thus helping in providing direction.



Climate Forcing

Recently, a study published states that the planet is likely to warm up by **two degrees Celsius by 2050**, even under a low-emission scenario due to climate forcing.

- Climate forcing is the physical process of affecting the climate on the Earth through a number of forcing factors. These factors are specifically known as forcings
- Examples of some of the most important types of forcings include: variations in solar radiation levels, volcanic eruptions, changing albedo, and changing levels of greenhouse gases in the atmosphere
- The researchers used **artificial intelligence called Artificial Neural Networks (ANN)** to predict the time for reaching the 1.5°C and 2°C thresholds.
- ANN is a form of machine learning that is inspired from the structure and function of the human brain.



Muon

Researchers are examining the fortress wall of the ancient Chinese city of Xi'an (12 metres high, 18 metres thick, and 14 km long) using subatomic particles that can penetrate hundreds of metres inside stone surfaces.

- These particles, known as **muons**, have helped find small density anomalies, which are potential safety hazards, inside the wall.
- Muons(μ) are **subatomic particles** that rain down from space. They are created when the particles in Earth's atmosphere collide with cosmic rays — clusters of high-energy particles.
- It is an elementary particle similar to the electron, with an electric charge of $-1e$ and a spin of $1/2$, but with a much greater mass (107 times). It is classified as a lepton
- About 10,000 muons reach every square metre of the Earth's surface every minute.



BRAHMASTRA
SPECIAL
EDITION

ECONOMIC SURVEY 2023-24

“Vasudhaiva Kutumbakam: One Earth, One Family, One Future,,.

SUMMARY



AMAN SHARMA

Current Affairs Expert

INCLUDES

BUDGET
2023-24

<https://studyias.myinstamojo.co>

UNACADEMY DISCOUNT

Coupon code - AMSLIVE

What you can expect

- 50+ Questions in Prelims 2024
- 50% of prelims syllabus completed
 - 30% GS Mains Completed
- Daily Answer Writing & Answer Building
- Free Daily Pdf of Brahmastra Magazine

<https://unacademy.com/store/batch/annual-batch-yearly-daily-current-affairs/8907B88C>

Use Code – AMSLIVE to get this at 5500 Only .



Economic Survey 2022-23

Recently, the Economic Survey 2022-23 was tabled in Parliament by the **Finance Minister** soon after the President's address to both Houses.

- The central theme of this year's Economic Survey is the "**Vasudhaiva Kutumbakam: One Earth, One Family, One Future**".

About Economic Survey

- The Economic Survey of India is an annual document released by the Ministry of Finance.
- **Definition:** It is a report that the government presents on the state of the economy in the past year, the key challenges it anticipates, and their possible solutions.
- It is prepared by the **Economics Division of the Department of Economic Affairs (DEA) under the guidance of the Chief Economic Advisor.**
- **Currently, Venkatramanan Anantha Nageswaran** is an Indian economist and the 18th Chief Economic Advisor to the Government of India.
- It is usually presented a day before the Union Budget is presented in Parliament.
- **The first Economic Survey in India was presented in the year 1950-51.** Up to 1964, it was presented along with the Union Budget. From 1964 onwards, it has been delinked from the Budget.

Importance of Economic Survey:

- **Initiatives:** The Economic Survey discusses all the major government initiatives with explanations.
- **Issues:** The Survey analyzes and gives reasons for many issues happening around.
- **Trends:** The Economic Survey gives a detailed account of the inflation rate, and trends in key segments such as industry and infrastructure, agriculture, and foreign exchange reserves, among others.
- **Allocation of funds:** The Economic Survey also facilitates better allocation of funds in the Union Budget.
- **Comprehending budget:** For the general public, the survey helps in comprehending the extensive Budget, which is presented a day later.
- **Suggestions & way forward** for key issues: with the help of various experts economic survey lays down the solutions and suggestions to various issues.

Key Highlights of the Economic Survey:

1. State of the Economy 2022-23: Recovery Complete

- **Growth:** India's growth estimate for FY23 is higher than for almost all major economies with a growth rate of 6.5-7 %,and that too without the advantage of a **base effect**.
- India's GDP growth is expected to remain robust in FY24. GDP forecast for FY24 to be in the range of 6-6.8 %.
- **Consumption:** Private consumption in the first half is the highest since FY15 and this has led to a boost to production activity resulting in enhanced capacity utilization across sectors.
- **Credit Growth:** The credit growth to the MSME sector was over 30.6 per cent on average during Jan-Nov 2022.
- **Rupee:** Indian Rupee performed well compared to other Emerging Market Economies in Apr-Dec2022.
- **Revenue:** Direct Tax collections for the period April-November 2022 remain **buoyant**.
- **Headline Inflation:** 6.8%(Projected) is out of the comfort zone of 2%-6%. However Retail inflation is back within RBI's target range in November 2022.

- **Employment:** With a rising labor force participation rate & a decline in the unemployment rate from 9.8%(2021) to 7.2%(2022).
- Economic growth to be boosted by the expansion of **public digital platforms** and measures to boost **manufacturing output**.
- **Poverty:** Survey highlights the findings of the 2022 report of the UNDP on Multidimensional Poverty Index which says that 41.5 crore people exited poverty in India between 2005-06 and 2019-20
- **Private Capex:** Growth in credit offtake, increased private capex to usher virtuous investment cycle.
- India declared **Net Zero Pledge**, to achieve net zero emissions goal by 2070
- A **mass movement LIFE– Lifestyle** for Environment launched.
- **National Green Hydrogen Mission** to enable India to be energy independent by 2047.
- **Digital Transactions:** UPI-based transactions grew in value (121 per cent) and volume (115 per cent) terms, between 2019-2022, paving the way for its international adoption
- **Positive g-i differential:** The Government's Capex-led growth strategy will enable India to keep the growth-interest rate differential positive, leading to a sustainable debt to GDP in the medium run.

Notes:

2. India's Medium-Term Growth Outlook: Optimism and Hope

The Indian economy has undergone a transformative process of New Age reforms in the last eight years. These diverse policies converge towards improving the economy's overall efficiency and lifting its potential growth.

- The Indian economy underwent wide-ranging structural and governance reforms that strengthened the economy's fundamentals by enhancing its overall efficiency during 2014-2022.
- With an underlying emphasis on improving the ease of living and doing business, the reforms after 2014 were based on the broad principles of **creating public goods, adopting trust-based governance, co-partnering with the private sector for development, and improving agricultural productivity.**
- The period of 2014-2022 also witnessed **balance sheet stress** caused by the credit boom in the previous years and one-off global shocks that adversely impacted the key macroeconomic variables such as credit growth, capital formation, and hence economic growth during this period. This situation is analogous to the period 1998-2002 when transformative reforms undertaken by the government had lagged growth returns due to temporary shocks in the economy. Once these shocks faded, the structural reforms paid growth dividends from 2003.
- **Similarly, the Indian economy is well placed to grow faster in the coming decade once the global shocks of the pandemic and the spike in commodity prices in 2022 fade away.**
- With improved and healthier balance sheets of the banking, non-banking and corporate sectors, a fresh credit cycle has already begun, evident from the double-digit growth in bank credit over the past months.
- The Indian economy has also started benefiting from the efficiency gains resulting from **greater formalization, higher financial inclusion, and economic opportunities created by digital technology-based economic reforms.**
- Thus Chapter 2 of the Survey shows that India's growth outlook seems better than in the pre-pandemic years, and the Indian economy is prepared to grow at its potential in the medium term.

3. Fiscal Developments: Revenue Relish

- **The Union Government finances have shown a resilient performance during the year FY23, facilitated by the recovery in economic activity, buoyancy in revenues from direct taxes and GST, and realistic assumptions in the Budget.**
- **The Gross Tax Revenue registered a YoY growth of 15.5 percent from April to November 2022, driven by robust growth in the direct taxes and Goods and Services Tax (GST).**
- **Fiscal Deficit: The fiscal deficit of the Union Government, which reached 9.2 percent of GDP during the pandemic year FY21, has moderated to 6.7 percent of GDP in FY22 PA and is further budgeted to reach 6.4 percent of GDP in FY23.**
- Growth in direct taxes during the first eight months of the year was much higher than their corresponding longer-term averages.
- GST has stabilized as a vital revenue source for central and state governments, with the gross GST collections increasing at 24.8 percent on YoY basis from April to December 2022.
- The Union Government's emphasis on capital expenditure (Capex) has continued despite higher revenue expenditure requirements during the year. **The Centre's Capex has steadily increased from a long-term average of 1.7 percent of GDP (FY09 to FY20) to 2.5 percent of GDP in FY22 PA.**
- The Centre has also incentivised the State Governments through interest-free loans and enhanced borrowing ceilings to prioritize their spending on Capex.
- With an emphasis on infrastructure-intensive sectors like roads and highways, railways, and housing and urban affairs, the increase in Capex has large-scale positive implications for medium-term growth.
- **The Government's Capex-led growth strategy will enable India to keep the growth-interest rate differential positive, leading to a sustainable debt to GDP in the medium run.**

4. Monetary Management & Financial InterMediation: A Good year

- The RBI initiated its monetary tightening cycle in April 2022 and has since raised the repo rate by 225 bps, leading to moderation of surplus liquidity conditions.
- Cleaner balance sheets led to enhanced lending by financial institutions.
- The growth in credit offtake is expected to sustain, and combined with a pick-up in private capex, will usher in a virtuous investment cycle.
- Non-food credit offtake by scheduled Commercial Banks (SCBs) has been growing in double digits since April 2022.
- Credit disbursed by Non-Banking Financial Companies (NBFCs) has also been on the rise.
- **The Gross Non-Performing Assets (GNPA) ratio of SCBs has fallen to a seven-year low of 5.0.**
- The Capital-to-Risk Weighted Assets Ratio (CRAR) remains healthy at 16.0.
- The recovery rate for the SCBs through Insolvency and Bankruptcy (IBC) was highest in FY22 compared to other channels.
- India is the largest recipient of remittances globally receiving US\$ 100 billion in 2022.

5. Prices and Inflation: Successful Tight-Rope Walking

- While the year 2022 witnessed a return of high inflation in the advanced world after three to four decades, India caps the rise in prices.
- **While India's retail inflation rate peaked at 7.8 per cent in April 2022, above the RBI's upper tolerance limit of 6 per cent, the overshoot of inflation above the upper end of the target range in India was however one of the lowest in the world.**

Efforts: The government adopted a multi-pronged approach to tame the increase in price levels

1. Phase wise reduction in export duty of petrol and diesel
2. **Import duty on major inputs were brought to zero while tax on export of iron ores and concentrates increased from 30 to 50 per cent**
3. Waived customs duty on cotton imports w.e.f 14 April 2022, until 30 September 2022
4. Prohibition on the export of wheat products under HS Code 1101 and imposition of export duty on rice
5. **Reduction in basic duty on crude and refined palm oil, crude soybean oil and crude sunflower oil**
6. Timely policy intervention by the government in the housing sector, coupled with low home loan interest rates propped up demand and attracted buyers more readily in the affordable segment in FY23.
7. **Revival of Housing Sector: An overall increase in composite Housing Price Indices (HPI) assessment and Housing Price Indices market prices indicates a revival in the housing finance sector.**
- India's inflation management has been particularly noteworthy and can be contrasted with advanced economies that are still grappling with sticky inflation rates.

6. Social Infrastructure and Employment: Big Tent

- The Social Sector witnessed a significant **increase in government spending**: the Central and State Government's budgeted expenditure on the **health sector touched 2.1% of GDP in FY23 (BE) and 2.2% in FY22 (RE) against 1.6% in FY21.**
- ***Survey highlights the findings of the 2022 report of the UNDP on Multidimensional Poverty Index which says that 41.5 crore people exited poverty in India between 2005-06 and 2019-20.***
- The Aspirational Districts Programme has emerged as a template for good governance, especially in remote and difficult areas.
- **e-Shram portal developed for creating a National database of unorganized workers, which is verified with Aadhaar. As on 31 December 2022, a total of over 28.5 crore unorganized workers have been registered on eShram portal.**
- JAM (Jan-Dhan, Aadhaar, and Mobile) trinity, combined with the power of DBT, has brought the marginalized sections of society into the formal financial system, revolutionizing the path of transparent and accountable governance by empowering the people.
- Aadhaar played a vital role in developing the **Co-WIN platform** and in administration of over 2 billion vaccine doses.
- The year FY22 saw **improvement in Gross Enrolment Ratios (GER) in schools and improvement in gender parity.**
- Due to several steps taken by the government on health, **out-of-pocket expenditure as a percentage of total health expenditure declined from 64.2% in FY14 to 48.2% in FY19.**
- **Infant Mortality Rate (IMR), Under Five mortality rate (U5MR) and neonatal Mortality Rate (NMR) have shown a steady decline.**
- Nearly 22 crore beneficiaries have been verified under the Ayushman Bharat Scheme as on 04 January, 2023. Over 1.54 lakh Health and Wellness Centres have been operationalized across the country under Ayushman Bharat.

7. Climate Change and Environment: Preparing to Face the Future

- India declared the Net Zero Pledge to achieve a net zero emissions goal by 2070.
- **India achieved its target of 40 per cent installed electric capacity from non-fossil fuels ahead of 2030.**
- The likely installed capacity from non-fossil fuels to be more than 500 GW by 2030 resulting in a decline of average emission rate by around 29% by 2029-30, compared to 2014-15.
- India to reduce emissions intensity of its GDP by 45% by 2030 from 2005 levels.
- About 50% cumulative electric power installed capacity will come from non-fossil fuel-based energy resources by 2030.
- **A mass movement LIFE— Life style for Environment launched.**
- **Sovereign Green Bond Framework (SGRBs) issued in November 2022.**
- **National Green Hydrogen Mission to enable India to be energy independent by 2047.**
- The Survey highlights the progress on eight missions under the NAP on CC to address climate concerns and promote sustainable development.
- **Solar power capacity installed, a key metric under the National Solar Mission, stood at 61.6 GW as of October 2022.**
- India becoming a favored destination for renewables; investments in 7 years stand at USD 78.1 billion.
- 62.8 lakh individual household toilets and 6.2 lakh community and public toilets constructed (August 2022) under the **National Mission on Sustainable Habitat.**

8. Agriculture and Food Management

The performance of the agriculture and allied sector has been buoyant over the past several years, much of which is on account of the measures taken by the government to augment crop and livestock productivity, ensure certainty of returns to the farmers through price support, promote crop diversification, improve market infrastructure through the impetus provided for the setting up of farmer-producer organizations and promotion of investment in infrastructure facilities through the Agriculture Infrastructure Fund.

- **Private investment in agriculture increases to 9.3% in 2020-21.**
- **MSP for all mandated crops fixed at 1.5 times of all India weighted average cost of production since 2018.**
- **Foodgrains production in India saw sustained increase and stood at 315.7 million tonnes in 2021-22.**
- Online, Competitive, Transparent Bidding System with 1.74 crore farmers and 2.39 lakh traders put in place under the **National Agriculture Market (e-NAM) Scheme.**
- **Organic Farming** being promoted through Farmer Producer Organisations (FPO) under the Paramparagat Krishi Vikas Yojana (PKVY).
- India stands at the forefront to promote millets through the **International Year of Millets initiative.**

9. Industry: Steady Recovery

- Overall Gross Value Added (GVA) by the Industrial Sector (for the first half of FY 22-23) rose 3.7 per cent, which is higher than the average growth of 2.8 per cent achieved in the first half of the last decade.
- Robust growth in **Private Final Consumption Expenditure**, export stimulus during the first half of the year, increase in investment demand triggered by enhanced public capex and strengthened bank and corporate balance sheets have provided a demand stimulus to industrial growth.
- PMI manufacturing has remained in the expansion zone for 18 months since July 2021, and the Index of Industrial Production (IIP) grows at a healthy pace.
- **Credit to Micro, Small and Medium Enterprises (MSMEs) has grown by an average of around 30% since January 2022 and credit to large industry has been showing double-digit growth since October 2022.**
- Electronics exports rose nearly threefold, from US \$4.4 billion in FY19 to US \$11.6 Billion in FY22.
- **India has become the second-largest mobile phone manufacturer globally, with the production of handsets going up from 6 crore units in FY15 to 29 crore units in FY21.**
- Foreign Direct Investment (FDI) flows into the Pharma Industry has risen four times, from US \$180 million in FY19 to US \$699 million in FY22.
- The Production Linked Incentive (PLI) schemes introduced across 14 categories
- Over 39,000 compliances have been reduced and more than 3500 provisions decriminalized as of January 2023.

10. Services: Source of Strength

The services sector is expected to grow at 9.1% in FY23, as against 8.4% (YoY) in FY22.

- **Robust expansion in PMI services, indicative of service sector activity, observed since July 2022.**
- India was among the top ten services exporting countries in 2021, with its share in world commercial services exports increasing from 3 per cent in 2015 to 4 per cent in 2021.
- India's services exports remained resilient during the Covid-19 pandemic and amid geopolitical uncertainties driven by higher demand for digital support, cloud services, and infrastructure modernization.
- Credit to the services sector has grown by over 16% since July 2022.
- US\$ 7.1 billion FDI equity inflows in the services sector in FY22.
- **Contact-intensive services are set to reclaim pre-pandemic level growth rates in FY23.**
- Sustained growth in the real estate sector is taking housing sales to pre-pandemic levels, with a 50% rise between 2021 and 2022.
- Hotel occupancy rate has improved from 30-32% in April 2021 to 68-70% in November 2022.
- Tourism sector is showing signs of revival, with foreign tourist arrivals in India in FY23 growing month-on-month with resumption of scheduled international flights and easing of Covid-19 regulations.
- **Digital platforms are transforming India's financial services.**
- **India's e-commerce market is projected to grow at 18 per cent annually through 2025.**

11. External Sector

- Merchandise exports were US\$ 332.8 billion for April-December 2022.
- **India diversified its markets and increased its exports to Brazil, South Africa and Saudi Arabia.**
- To increase its market size and ensure better penetration, in 2022, **CEPA with UAE and ECTA with Australia come into force.**
- **India is the largest recipient of remittances in the world receiving US\$ 100 bn in 2022. Remittances are the second largest major source of external financing after service export**
- As of December 2022, Forex Reserves stood at **US\$ 563 bn covering 9.3 months of imports.**
- As of end-November 2022, India is the sixth largest foreign exchange reserves holder in the world.
- The current stock of external debt is well shielded by the comfortable level of foreign exchange reserves.
- **India has relatively low levels of total debt as a percentage of Gross National Income and short-term debt as a percentage of total debt.**

12. Physical and Digital Infrastructure

Government's Vision for Infrastructure Development

- **Public Private Partnerships**
 - **In-Principal Approval granted to 56 projects with Total Project Cost of ₹57,870.1 crore under the VGF Scheme, from 2014-15 to 2022-23. : Viability Gap Funding (VGF) is designed to provide capital support to PPP projects which would not otherwise be financially viable.**
 - IIPDF Scheme with ₹150 crore outlay from FY 23-25 was notified by the government on 03 November, 2022.
- **National Infrastructure Pipeline:** NIP and Project Monitoring Group (PMG) portal linkage to fast-track approvals/ clearances for projects.NIP includes economic and social infrastructure projects.
- **National Monetisation Pipeline:** It aims to unlock value in brownfield projects by engaging the private sector, transferring to them revenue rights and not ownership in the projects, and using the funds generated for infrastructure creation across the country.
 - ₹ 9.0 lakh crore is the estimated cumulative investment potential.
 - ₹ 0.9 lakh crore monetisation target achieved against expected ₹0.8 lakh crore in FY22.
 - FY23 target is envisaged to be ₹1.6 lakh crore (27 per cent of overall NMP Target)

GatiShakti

- PM GatiShakti National Master Plan creates a comprehensive database for integrated planning and synchronized implementation across Ministries/ Departments.
- Aims to improve multimodal connectivity and logistics efficiency while addressing the critical gaps for the seamless movement of people and goods.

Electricity Sector and Renewables: As on 30 September 2022, the government has

sanctioned the entire target capacity of 40 GW for the development of 59 Solar Parks in 16 states. The total installed power capacity (industries having demand of 1 Mega Watt (MW) and above) increased from 460.7 GW on 31 March 2021 to 482.2 GW on 31 March 2022.

Making Indian Logistics Globally Competitive: National Logistics Policy envisions developing a technologically enabled, integrated, cost-efficient, resilient, sustainable and trusted logistics ecosystem in the country for accelerated and inclusive growth.

- Rapid increase in National Highways (NHs) /Roads Construction with 10457 km NHs/roads constructed in FY22 compared to 6061 km in FY16.
- 2359 Kisan rails transported approximately 7.91 lakh tonnes of perishables, as of October 2022.
- More than one crore air passengers availed the benefit of the UDAN scheme since its inception in 2016.
- Near doubling of capacity of major ports in 8 years.
- Inland Vessels Act 2021 replaced the 100-year-old Act to ensure hassle free movement of Vessels promoting Inland Water Transport. A key feature of the Bill is a unified law for the entire country, instead of separate rules framed by the States.

India's Digital Public Infrastructure

Unified Payment Interface (UPI): UPI-based transactions grew in value (121 per cent) and volume (115 per cent) terms, between 2019-22, paving the way for its international adoption.

Telephone and Radio - For Digital Empowerment: Total telephone subscriber base in India stands at 117.8 crore (as of Sept,22), with 44.3 percent of subscribers in rural India. More than 98 percent of the total telephone subscribers are connected wirelessly.

Digital Public Goods

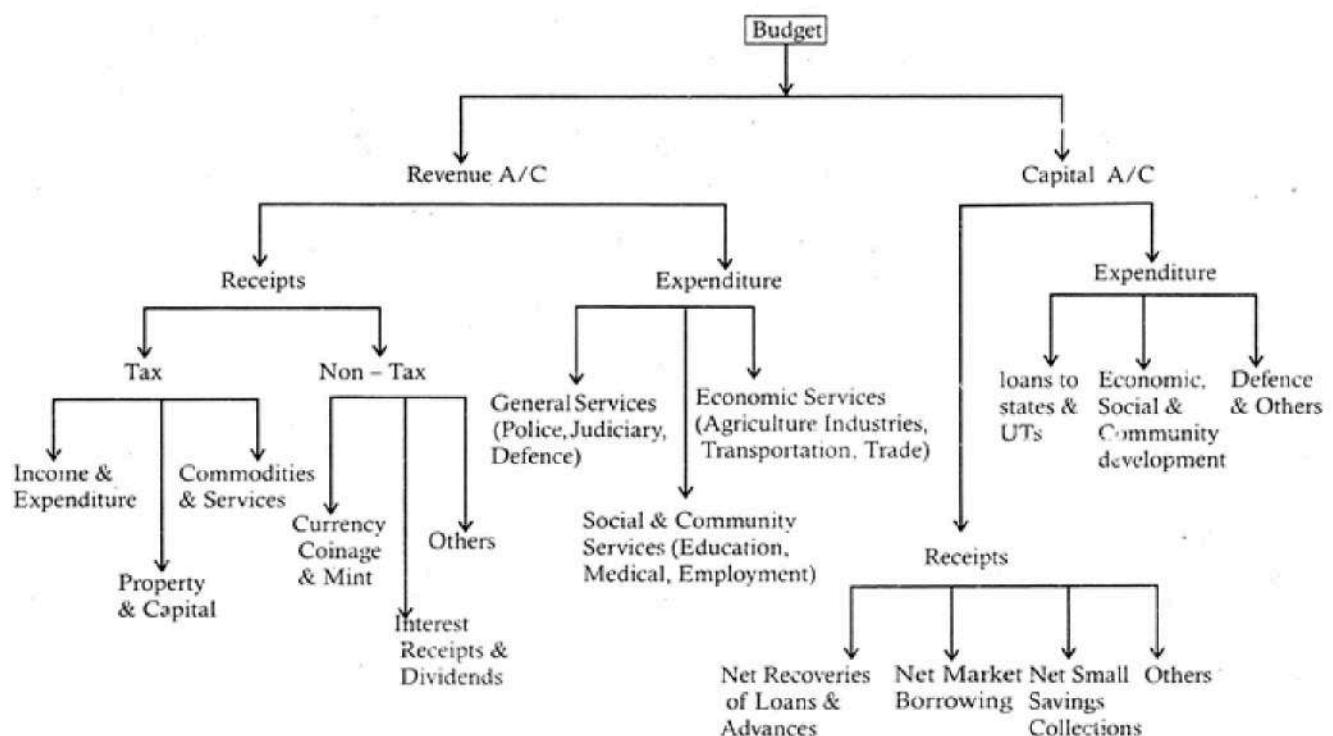
- Achieved low-cost accessibility since the launch of Aadhaar in 2009
- Under the government schemes, MyScheme, TrEDS, GEM, e-NAM, UMANG has transformed market place and has enabled citizens to access services across sectors
- Under Account Aggregator, the consent-based data sharing framework is currently live across over 110 crore bank accounts.
- Open Credit Enablement Network aims towards democratizing lending operations while allowing end-to-end digital loan applications
- National AI portal has published 1520 articles, 262 videos, and 120 government initiatives and is being viewed as a tool for overcoming the language barrier e.g. 'Bhashini'.
- Legislations are being introduced for enhanced user privacy and creating an ecosystem for standard, open, and interoperable protocols underlining robust data governance.

Union Budget 2023-24

Recently, The **Union Minister of Finance and Corporate Affairs** Smt. Nirmala Sitharaman presented the Union Budget 2023-24 in Parliament with the theme - Sabka Sath, Sabka Vikas.

- Budget is the government's blueprint on expenditure, taxes it plans to levy, and other transactions which affect the economy and lives of citizens. It is a statement of the estimated receipts and expenditure of the Government in a financial year that which begins on 01 April of the current year and ends on 31 March of the following year.
- According to Article 112 of the Indian Constitution, the Union Budget for a year is referred to as the Annual Financial Statement (AFS).
- Nodal body: The Budget Division of the Department of Economic Affairs in the Finance Ministry is the nodal body responsible for preparing the Budget.

Components of Budget :



| भारत सरकार

Importance:

- **Allocation** of funds to various sectors and departments.
- **Resources Distribution:** It helps to **distribute resources** & reducing inequalities by imposing taxes on the elite class and spending the collected money on the welfare of the poor.
- **Financial Stability:** The Budget works to keep business steady and bring economic stability.
- **Managing Public Enterprises:** Many public sector industries are built for the **social welfare** of the people.
- **Policies:** Announcing various schemes and policies of the government through the budget.

Budgeting Methods

- #1 – Incremental Budgeting
- #2 – Zero-based Budgeting (ZBB)
- #3 – Activity-based Budgeting
- #4 – Participative Budgeting
- #5 – Negotiated Budgeting
- #6 – Value Proposition Budgeting

Issues with budgeting:

- Inadequate accounting systems
- Inadequate reporting of financial performance.
- Doing away with plan and non-plan expenditures.
- Poor planning & limited links between policy-making, planning and budgeting
- Execution issue: Little relationship between budget as formulated and budget as executed.

Highlights

Vision for the Amrit Kaal:

1. Opportunities for Citizens with a focus on the Youth
2. Growth and Job Creation
3. Strong and Stable Macro-Economic Environment

The Budget focuses on Seven Priorities - *Saptarishi*:

Priority 1: Inclusive Development

Agriculture & Cooperatives:

- **Digital Public Infrastructure:** Building an accessible, inclusive and informative solution for Farmers e.g. Computerisation of 63,000 Primary Agricultural Credit Societies (PACS) with an investment of ₹2,516 crore initiated.
 - Inclusive farmer-centric solutions
 - Relevant information services for crop planning/health
 - Better access to farm inputs, credit, and insurance
 - Growth-support of the agri-tech industry and start-ups
- **Agriculture Accelerator Fund** will be set-up to encourage agri-startups by young entrepreneurs in rural areas.
- **Targeted Fuding:** Agriculture credit target to be increased to Rs 20 lakh crore with a focus on animal husbandry, dairy and fisheries.
- A new sub-scheme of **PM Matsya Sampada Yojana** with targeted investment of Rs 6,000 crore to be launched **for fishermen, fish vendors and MSMEs**.
- **Atmanirbhar Clean Plant Programme** will be launched to boost availability of disease-free, quality planting material for **high value horticultural crops**.
- **Shree Anna:** To make India a global hub for 'Shree Anna', the Indian Institute of Millet Research, Hyderabad will be supported as the Centre of Excellence for sharing best practices, research and technologies at the international level.
- **Sahakar Se Samriddhi:** To fulfil the vision of "*Sabakar Se Samriddhi*", the Government plans to establish decentralized storage capacity and set up **multiple cooperative societies in uncovered villages over the next 5 years**.
- **Storage Capacity:** Massive decentralised storage capacity to be set up to help farmers store their produce and realize remunerative prices through sale at appropriate times.

Health:

- **Sickle Cell Anaemia** elimination mission to be launched to eliminate Sickle Cell Anaemia by 2047.
- Joint public and Private Medical research to be encouraged via select ICMR labs for encouraging collaborative research and innovation.
- New Programme to **promote research in Pharmaceuticals** to be launched.
- 157 New Nursing Colleges to be established

Education and Skilling:

- **District Institutes of Education and Training:** Revamped Teachers' training via District Institutes of Education and Training
- **National Digital Library** to be set up for children and adolescents
- States will be encouraged to set up **physical libraries at Panchayat and ward levels.**

Inclusive Development achievements:

- Per capita income has more than doubled to ₹1.97 lakh in around nine years.
- Indian economy has increased in size from being 10th to 5th largest in the world in the past nine years.
- EPFO membership has more than doubled to 27 crore.
- 7,400 crore digital payments of ₹126 lakh crore has taken place through UPI in 2022.
- 11.7 crore household toilets constructed under Swachh Bharat Mission.
- 9.6 crore LPG connections provided under Ujjwala.
- 220 crore covid vaccination of 102 crore persons.
- 47.8 crore PM Jan Dhan bank accounts.
- Insurance cover for 44.6 crore persons under **PM Suraksha Bima and PM Jeevan Jyoti Yojana.**
- Cash transfer of ₹2.2 lakh crore to over 11.4 crore farmers under **PM Kisan Samman Nidhi**

Priority 2: Reaching the Last Mile

- **Aspirational Blocks Programme** covering 500 blocks launched for saturation of essential government services across multiple domains such as **health, nutrition, education, agriculture, water resources, financial inclusion, skill development, and basic infrastructure.**
- Rs. 15,000 crore for implementation of **Pradhan Mantri PVTG Development Mission over the next three years under the Development Action Plan** for the Scheduled Tribes.
- Investment of Rs. 75,000 crore, including Rs. 15,000 crore from private sources, for one hundred critical transport infrastructure projects, for last and first mile connectivity for ports, coal, steel, fertilizer, and food grains sectors.
- The Centre will also recruit 38,800 teachers and support staff for the 740 **Eklavya Model Residential Schools**, serving 3.5 lakh tribal students.
- **Upper Bhadra Project:** Rs. 5,300 crore to be given as central assistance to **Upper Bhadra Project, Karnataka** to provide sustainable micro irrigation and filling up of surface tanks for drinking water.
- **Bharat (SHRI):** Bharat Shared Repository of Inscriptions' to be set up in a **digital epigraphy museum**, with digitization of one lakh ancient inscriptions in the first stage.

Priority 3: Infrastructure & Investment

- Increased **capital investment** outlay by 33.4% to 10 lakh crore
- Continuation of **50 year interest free loan** to State Governments to incentivize infrastructure investment
- Highest ever Capital outlay of 22.4 lakh crore for Railways
- 100 transport infrastructure projects identified for end-to-end connectivity for ports, coal, steel, fertilizer sectors
- Creating Urban Infrastructure in Tier 2 and 3 cities via the establishment of **Urban Infrastructure Development Fund (UIDF)**

Priority 4: Unleashing the Potential

- Phase-3 of the **E-Courts project** to be launched with an outlay of Rs. 7,000 crore for efficient administration of justice.
- More than 39,000 compliances reduced and more than 3,400 legal provisions decriminalized to enhance **Ease Of Doing Business**.
- **Jan Vishwas Bill** to amend 42 Central Acts have been introduced to further **trust-based governance**.
- Three **centres of excellence for Artificial Intelligence** to be set up in top educational institutions to realise the vision of “**Make AI in India and Make AI work for India**”
- **National Data Governance Policy** to be brought out to unleash innovation and research by start-ups and academia.
- **One-stop solution** for reconciliation and updation of identity and address of individuals to be established using **DigiLocker service and Aadhaar as foundational identity**.
- **PAN will be used as the common identifier** for all digital systems of specified government agencies to bring in Ease of Doing Business.
- R & D grant for **Lab Grown Diamonds (LGD)** sector to encourage indigenous production of LGD seeds and machines and to reduce import dependency.
- 100 labs to be **set up for 5G services-based application** development to realize a new range of opportunities, business models, and employment potential

Priority5: Green Growth

- **PM Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth” (PM-PRANAM)** to be launched to incentivize States and Union Territories to **promote alternative fertilizers** and balanced use of chemical fertilizers
- **Mangrove Initiative for Shoreline Habitats & Tangible Incomes’, MISHTI**, to be taken up for mangrove plantation along the coastline and on salt pan lands, through convergence between **MGNREGS, CAMPA Fund and other sources**.
- **Green Credit Programme** to be notified under the **Environment (Protection) Act, 1986** to **incentivize and mobilize additional resources for environmentally sustainable and responsive actions**.
- **Amrit Dharohar scheme** to be implemented over the next **30 years** to encourage optimal use of **wetlands**, enhance bio-diversity, carbon stock, eco-tourism opportunities and income generation for local communities.
- GOBARdhan: 500 new ‘waste to wealth’ plants under **GOBARdhan (Galvanizing Organic Bio-Agro Resources Dhan) scheme** to be established for promoting circular economy at a total investment of Rs 10,000 crore. 5 per cent compressed biogas mandate to be introduced for all organizations marketing natural and biogas.
- **Bhartiya Prakritik Kheti Bio-Input Resource Centres:** Over the next 3 years, the government will facilitate **1 crore farmers to adopt natural farming by setting up 10,000 Bio-Input Resource Centres**, creating a national-level distributed micro-fertilizer and pesticide manufacturing network.
- Annual production of 5 MMT under **Green Hydrogen Mission** to be targeted by 2030 to facilitate transition of the economy to low carbon intensity and to reduce dependence on fossil fuel imports.
- ₹35000 crore outlay for energy security, energy transition and net zero objectives.
- **Battery energy storage systems** to be promoted to steer the economy on the sustainable development path.

Priority 6: Youth Power

- **Pradhan Mantri Kaushal Vikas Yojana 4.0:** On-job training, industry partnership, new age courses like AI, robotics, mechatronics, 3D printing, drones, etc
- **Skill India Digital Platform:** Expanding digital ecosystem to enable demand-based formal skilling, linking with employers and facilitating access to entrepreneurship schemes.
- **National Apprenticeship Promotion Scheme** To provide stipend support to 47 lakh youth in three years.
- **Boosting Tourism:** 50 destinations to be selected and developed as complete package for domestic & foreign tourists
- Sector specific skilling and entrepreneurship development to be dovetailed to achieve the objectives of the 'Dekho Apna Desh' initiative.
- Tourism infrastructure and amenities to be facilitated in border villages through the **Vibrant Villages Programme**.
- Setting Up Of **Unity Malls** In State Capitals: For promotion and sale of ODOPs (One District, One Product), GI and handicraft products

Priority 7: Financial Sector

- **National Financial Information Registry** to be set up to serve as the central repository of financial and ancillary information for facilitating the efficient flow of credit, promoting financial inclusion, and fostering financial stability.
- A new legislative framework to be designed in consultation with RBI to govern this **credit public infrastructure**.
- **Financial sector regulators** to carry out a comprehensive review of existing regulations in consultation with public and regulated entities. Time limits to decide the applications under various regulations would also be laid down
- To enhance business activities in **GIFT IFSC**, the following measures to be taken.
- **Delegating powers under the SEZ Act to IFSCA to avoid dual regulation.**
- Setting up a single window IT system for registration and approval from IFSCA, SEZ authorities, GSTN, RBI, SEBI and IRDAI.

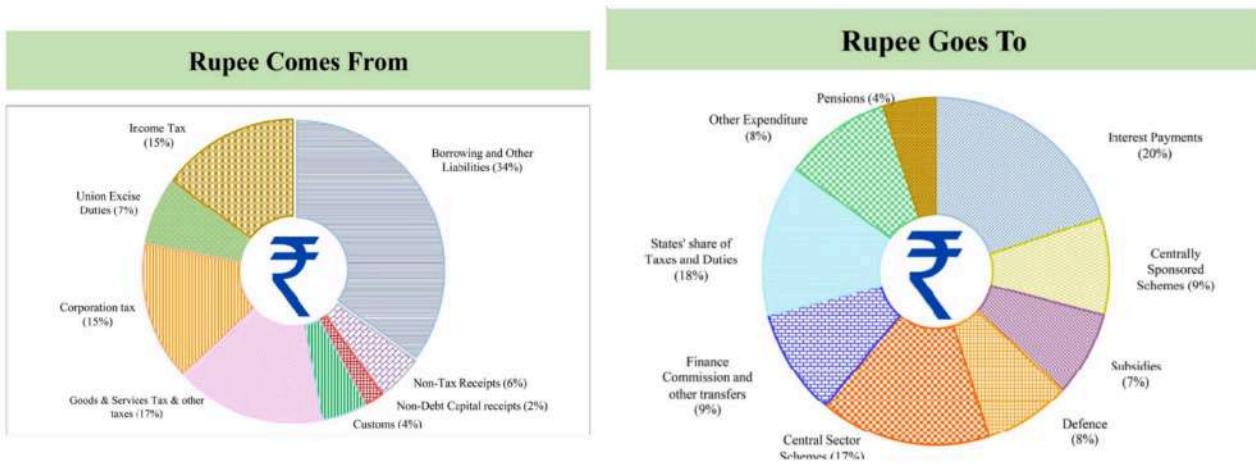
- Permitting acquisition financing by IFSC Banking Units of foreign bank.
- Establishing a subsidiary of EXIM Bank for trade re-financing.
- Amendments proposed to the Banking Regulation Act, the Banking Companies Act and the Reserve of India Act to improve bank governance and enhance investors' protection.
- Countries looking for digital continuity solutions would be facilitated for setting up of their **Data Embassies** in GIFT IFSC.
- SEBI to be empowered to develop, regulate, maintain and enforce norms and standards for education in the **National Institute of Securities Markets and to recognize award of degrees, diplomas and certificates**.
- Integrated IT portal to be established to enable investors to easily reclaim the unclaimed shares and unpaid dividends from the **Investor Education and Protection Fund Authority**.
- To commemorate **Azadi Ka Amrit Mahotsav, a one-time new small savings scheme, Mahila Samman Savings Certificate** to be launched.
- The maximum deposit limit for Monthly Income Account Scheme to be enhanced from Rs 4.5 lakh to Rs 9 lakh for single account and from Rs 9 lakh to Rs 15 lakh for joint account.
- The maximum deposit limit for Senior Citizen Savings Scheme to be enhanced from Rs 15 lakh to Rs 30 lakh.
- **Central Processing Centre** to be setup for faster response to companies through centralized handling of various forms filed with field offices under the **Companies Act**.
- Revamped **credit guarantee scheme for MSMEs** to take effect from 1st April 2023 through infusion of Rs 9,000 crore in the corpus. This scheme would enable additional **collateral-free guaranteed credit of Rs 2 lakh crore and also reduce the cost of the credit by about 1 per cent**.

Direct Taxes

- **Common IT Return Form:** To further improve tax payer services, a proposal to roll out a next-generation **Common IT Return Form** for tax payer convenience, along with plans to strengthen the grievance redressal mechanism.
- **Rebate limit** of Personal Income Tax to be **increased to Rs. 7 lakh** from the current Rs. 5 lakh in the new tax regime. **Thus, persons in the new tax regime, with income up to Rs. 7 lakh to not pay any tax.**
- Tax structure in new personal income tax regime, introduced in 2020 with six income slabs, to change by reducing the **number of slabs to five** and **increasing the tax exemption limit to Rs. 3 lakh**. Change to provide major relief to all tax payers in the new regime.
- Minimum threshold of Rs. 10,000/- for TDS to be removed.
- Conversion of gold into electronic gold receipt and vice versa will not be treated as capital gains
- **Taxability relating to online gaming** to be clarified. Proposal to provide for TDS and taxability on net winnings at the time of withdrawal or at the end of the financial year.
- **Agniveer Fund to be provided EEE status.** The payment received from the Agniveer Corpus Fund by the Agniveers enrolled in Agnipath Scheme, 2022 proposed to be exempt from taxes.
- New co-operatives that commence manufacturing activities till 31.3.2024 to get the benefit of a lower tax rate of 15 per cent, as presently available to new manufacturing companies.
- Period of tax benefits to funds relocating to IFSC, GIFT City extended till 31.03.2025.

Indirect Taxes

- Number of basic customs duty rates on goods, other than textiles and agriculture, reduced to 13 from 21.
- Excise duty exempted on GST-paid compressed bio gas contained in blended compressed natural gas.
- Denatured ethyl alcohol used in chemical industry exempted from basic customs duty
- Basic customs duty reduced on **acid grade fluorspar (containing by weight more than 97 per cent of calcium fluoride)** to 2.5 per cent from 5 per cent.
- Basic customs duty reduced on seeds used in the manufacture of lab grown diamonds.
- CGST Act to be amended to enable unregistered suppliers and composition taxpayers to make the intra-state supply of goods through E-Commerce Operators (ECOs).



BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

09 FEBRUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

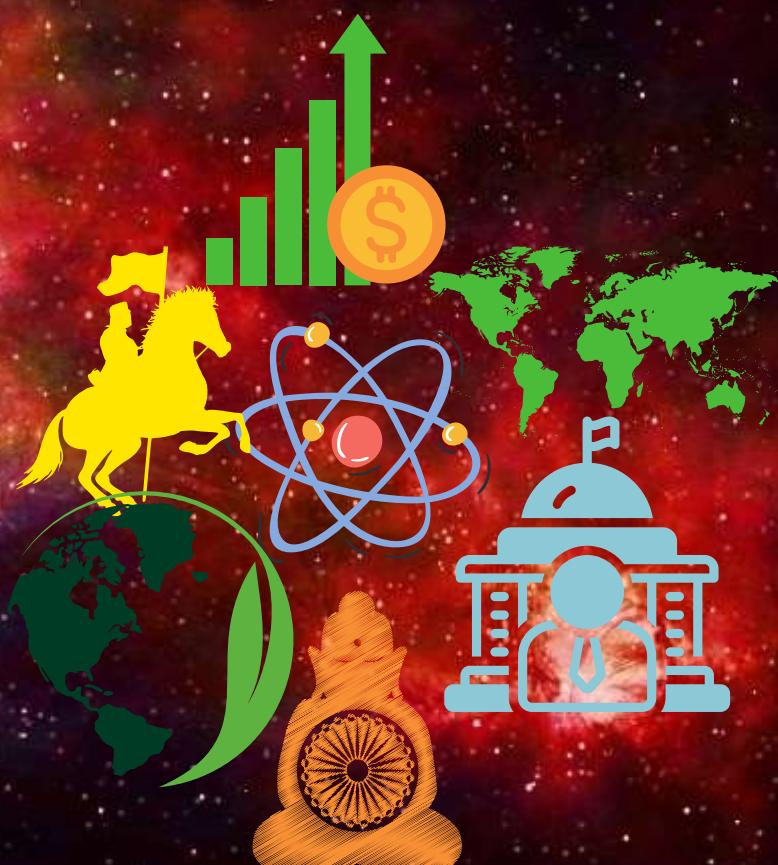
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Child Marriages

RELEVANCE : #GS1 #Society #Child Marriages

MAINS ANALYSIS**CONTEXT**

More than 2,000 people have been arrested under the POCSO Act and Prohibition of Child Marriage Act in the **State of Assam**.

- The police will **retrospectively** arrest people who participated in child marriage in the last seven years and the focus will especially be on "**mullahs, kazis, and pujaris**" conducting these marriages.
- Child marriage:** According to Indian laws is a marriage where either the woman is below age 18 or the man is below age 21
- Child marriage 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
- Religious laws on conducting child marriages.
- Pandemic impact:** The UNFPA UNICEF estimates that 10 million children could become child brides as a result of the pandemic globally

IMPACT

- West Bengal, Bihar and Tripura top the list with more than 40% of women aged 20 to 24 years married below 18, according to NFHS data
- 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:** poor learning outcomes for children and the loss of women's participation in the workforce.

STEPS TAKEN

International efforts :

- The Convention on the Rights of the Child[CRC] , SDG 5,10

National level :

- The Age of Consent Acts of 1861 and 1891** brought in reform in conjugal rights.
- 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

States level:

- Karnataka amended the PCMA 2017,declaring every child marriage void ab initio.

WAY FORWARD

- In 2021, the Central government sought to introduce the Prevention of Child Marriage (Amendment) Bill 2021, to raise the manageable age for women across all religions, from 18 to 21 years. However, the Parliament panel examining this is yet to submit its report.

Factors closely linked to child marriage, including **the 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.

MAINS QUESTION

Examine the causes leading to the menace of child marriage in India. How can child marriage be prevented through a combination of Legislation, education, and government action?

10 Marks 150 Words



Jupiter moons



Astronomers have uncovered 12 additional moons orbiting Jupiter, bringing the grand total to an astonishing 92.

- The gas giant Jupiter now holds the record for the most known moons of any planet in the solar system.
- Jupiter and Saturn are loaded with small moons, believed to be fragments of once bigger moons that collided with one another or with comets or asteroids.

About Jupiter

- Jupiter is the biggest planet in our solar system.
- It has big storms like the **Great Red Spot**, which has been going on for hundreds of years.
- **Jupiter is a gas giant and doesn't have a solid surface**, but it may have a solid inner core about the size of Earth. Jupiter also has rings, but they're too faint to see very well.
- Numerous spacecraft, orbiters and probes have gone to or passed by Jupiter, such as Pioneer 10 and 11, Voyager 1 and 2, Cassini, New Horizons, and Juno.

Monetary Policy Stances



The Reserve Bank of India (RBI) Governor-headed Monetary Policy Committee (MPC) **raised the repo rate by 25 basis points to 6.5 per cent** on Wednesday from 6.25 per cent.

- The reason RBI has stuck to the hawkish stance could lie in its outlook for India's economic growth and inflation in 2023-24.

1. Hawkish Stance: A hawkish stance indicates that the central bank's top priority is to keep inflation low. The central bank is willing to hike interest rates to curb money supply and thus reduce the demand & follows tight monetary policy.

2. Dovish Monetary Policy Stance: This monetary policy stance involves low-interest rates & High Inflation which will cause balanced Economic Growth.

3. Accommodative Monetary Policy Stance: Central bank (RBI) attempts to expand the overall money supply. The major aim is to increase spending by low-interest rates. This is also known as "easy monetary policy".

4. Calibrated Tightening: Calibrated tightening means during the current rate cycle, a cut in the repo rate is off the table. However, the rate hike will happen in a calibrated manner.

5. Neutral: A 'neutral stance' suggests that the central bank can either cut rate or increase the rate. This stance is typically adopted when the policy priority is equal on both inflation and growth.

BARD VS CHATGPT

	Bard	ChatGPT
Language model	LaMDA	GPT-3
Source of Information	Internet	Data feed
Information cutoff	None	2021
Access	Limited	Unlimited
Limitations	Biases of Internet	Biases of data

Bard, AI Chatbot

Google has announced Bard, a new AI chatbot that uses Google's own language model – Language Model for Dialogue Applications (LaMDA).

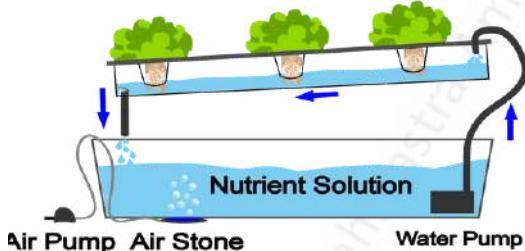
- Google Bard is an AI-powered chatbot that can respond to various inquiries in a conversational manner, similar to ChatGPT.
- However, the model is currently a “lightweight” version of LaMDA, and the one being “requires significantly less computing power, enabling it to scale to **more users**.

Transformer technology

- According to Google, Bard uses online information to give fresh, high-quality replies. LaMDA, Google's language model built on **Transformer, a neural network architecture, is at the heart of Google's chatbot**.
- **Transformer technology** was pioneered by Google and made open source in 2017.
- ChatGPT also uses Transformer technology.

Nutrient Film Technique (NFT)

Nutrient Film Technique



Nutrient Film Technique (NFT) is a type of hydroponic system in which a thin film of nutrient-rich water is continuously circulated past the roots of the plants, which are supported by a growth medium.

- **NFT** is a simple and efficient system that is well suited to grow small, fast-growing plants such as lettuce, herbs, and microgreens.
- A properly designed NFT system is based on using the right channel slope, the right flow rate, and the right channel length. The plant roots are exposed to adequate supplies of water, oxygen and nutrients.
- **Hydroponics** is the cultivation of plants without using soil. Hydroponic flowers, herbs, and vegetables are planted in inert growing media and supplied with nutrient-rich solutions, oxygen, and water.
- It is also used in **urban farming** which allows plants to be grown without soil.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

10 FEBRUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

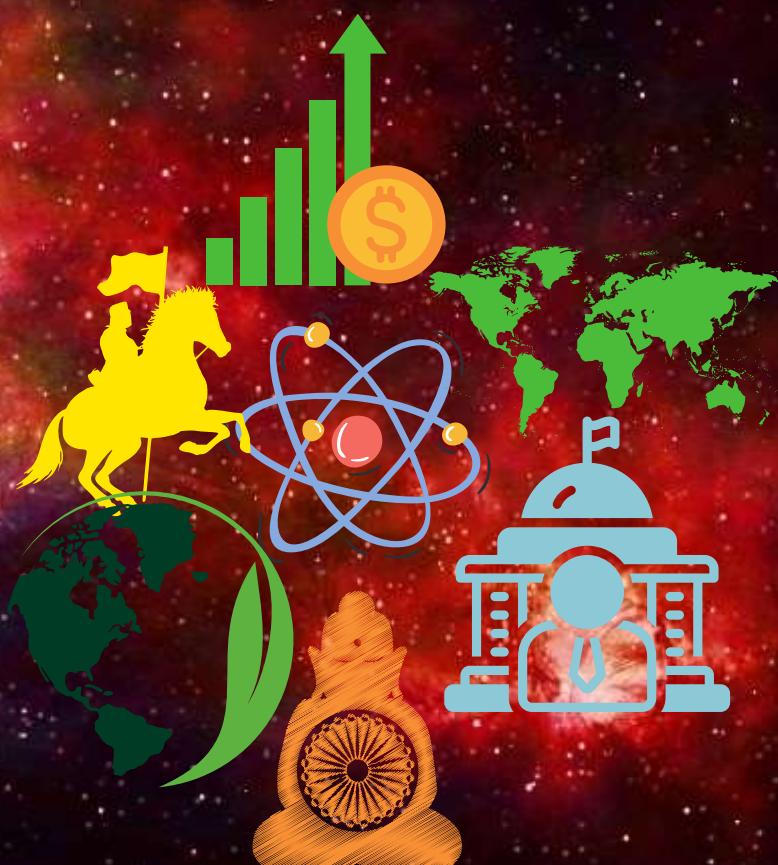
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Marine Protected Areas

RELEVANCE : #GS3 #Environmental Pollution & Degradation

MAINS ANALYSIS

CONTEXT

Recently, the 5th International Marine Protected Areas Congress (IMPAC5) was held in Canada in order to discuss the solutions to address the Funding Gap of Marine Protected Areas (MPAs).

- This meeting is crucial since nations agreed to protect 30% of Earth's lands and oceans by 2030 at the 15th Conference of the Parties to the Convention on Biological Diversity.
- A marine protected area (MPA) is essentially a **space in the ocean where human activities are more strictly regulated than the surrounding waters** - similar to parks we have on land.

SIGNIFICANCE

- Biodiversity Conservation: MPAs help to conserve the diversity of marine species and their habitats, preserving the delicate balance of marine ecosystems and the services they provide, such as food and oxygen production.
- Fishing: MPAs can help to regulate fishing activities and prevent overfishing.
- MPAs can provide valuable opportunities for scientific research and educational activities.
- MPAs can generate **sustainable revenues** for their own management. e.g. Tourism programmes.

ISSUES

- As many as 70% of MPAs are **underfunded**. A well-managed and sufficiently funded MPA can restore good health to vulnerable ecosystems.
- Most current MPAs are located in coastal areas, while only 2% of the high seas are protected.
- Nations agreed to protect 30% of the planet's lands and oceans by 2030 at the COP15 to the CBD held in 2022.
- MPAs cover less than 4.01% of the total area of all Protected Areas of India.
- Marine Pollution and Plastics in oceans harming the marine ecosystem.

STEPS TAKEN

International efforts :

- Commission for the Conservation of Antarctic Marine Living Resources (**CCAMLR**) is a multilateral response to concerns that unregulated increases in krill catches in the Southern Ocean.
- CITES for biodiversity conservation.
- Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area.

National level :

- MPAs in India are regarded as one of the most potent conservation tools for the protection of marine habitats and their resources.
- There are a total of 31 major MPAs in India (as of Feb 2022) covering coastal areas that have been notified under Wildlife Protection Act, 1972.

WAY FORWARD

- India's highly endangered marine species must be protected as a priority through a special Species Recovery Plan. In this context, seven endangered species were selected and recovery plans were developed: dugongs, whale sharks, sea turtles (two species), etc.
- Master's degree-based, university-level program in marine ecosystem ecology with an emphasis on rigorous scientific research, hypothesis testing, taxonomy, and conservation.
- Global Programmes & Campaigns can help to increase our understanding of the marine environment and promote ocean literacy.

MAINS QUESTION

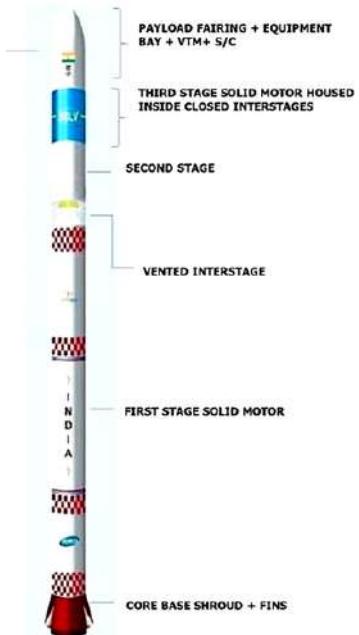
The International Union for Conservation of Nature has spotted the marine diversity of India as one of the leading twenty biodiversities all across the globe. Discuss the issues and conservation efforts for marine protected areas in India

10 Marks 150 Words



Brahmastra Prelims

Small Satellite Launch Vehicle (SSLV-D2) Mission



The **Small Satellite Launch Vehicle (SSLV-D2)** will place the ISRO earth observation satellite **EOS-07** and two co-passenger satellites **Janus-1** and **AzaadiSat2**, developed by startups in a 450-km circular orbit around the Earth.

- The launch vehicle uses three solid stages followed by a **liquid-fuel-based Velocity Trimming Module (VTM)** to place satellites in orbit.

Failed Attempt of SSLV-D1

- The vehicle's first development flight took place last August 2022, after repeated delays due to the pandemic, which failed to place the Satellites in a precise orbit **due to excessive vibration sensed by accelerometers** during the second stage separation.
- According to **ISRO**, the malfunctioning of a sensor resulted in **placing the satellites in an elliptical orbit, rather than a circular orbit**.
- Artificial **satellites** that orbit the Earth are mostly placed in **circular orbits** because it is easier to **image the Earth if the satellite is at a fixed distance from it**.

Janus-1: It is a technology demonstrator satellite built by United States-based Antaris and its Indian partners XDLinks and Ananth Technologies.

AzaadiSat2: The payloads have been built by 750 girl students from across India. The satellite will also carry the G20 logo to space and the NCC song to celebrate 75 years of the organisation. **It is an expandable satellite.**



Nord Stream

An investigative journalist claimed the **bombing of the undersea Nord Stream gas pipelines was carried out by the US agency Central Intelligence Agency (CIA)**.

What is Nord Stream?

- Nord Stream and Nord Stream 2 pipelines are essentially the **network of underwater gas pipelines in Europe to supply natural gas from Russia to Germany** through the Baltic sea.
- Nord Stream 1:** It is a 1,224 km underwater gas pipeline running from Vyborg, Russia to Lubmin, Germany via the Baltic Sea. **It was completed in 2011.**
- Nord Stream 2:** It runs from Ust-Luga, Russia to Lubmin, Germany was completed in September 2021.
- The Nord Stream crosses the **Exclusive Economic Zones (EEZs)** of several countries including Russia, Finland, Sweden, Denmark and Germany, and the territorial waters of Russia, Denmark, and Germany.

What are EEZs?

- It is an area of the sea in which a sovereign state has special rights regarding the exploration and use of marine resources, including energy production from water and wind.

Operation Dost



As part of "Operation Dost," India is deploying a field hospital, supplies, and rescue personnel to the earthquake-stricken countries of Turkey and Syria.

- Operation Dost is an ongoing search and rescue operation initiated by the Government of India to aid **Syria and Turkey**, after a violent earthquake devastated both countries on 6 February 2023.
- India has sent its sixth plane carrying **National Disaster Response Force (NDRF) personnel**, essentials, and medical equipment for the earthquake-hit Turkey.

NISAR Mission

Recently, **NISAR (NASA-ISRO Synthetic Aperture Radar)** received a send-off ceremony at NASA's Jet Propulsion Laboratory (JPL) in California.

- NISAR is a **joint Earth-observing mission** between NASA and ISRO.
- **Radars:** NASA and ISRO are providing two radars(L-band from NASA and S-band from ISRO) that are optimized each in their own way to allow the mission to observe a wider range of changes than either one alone.
- It is expected to be launched in **January 2024** from Satish Dhawan Space Centre into a near-polar orbit.

Utility of Mission:

- It will help to measure changes in our planet's surface less than a centimetre across.
- NISAR's data can help people worldwide better manage natural resources and hazards, as well as providing information for scientists to better understand the effects and pace of climate change

Quick Reaction Surface to Air Missile System

The indigenous Quick Reaction Surface to Air Missile (QRSAM) being developed by the **Defence Research and Development Organisation (DRDO)** is set to be tested again with some changes suggested by the Army.

- It is a **Short-Range Surface to Air Missile (SAM) canister-based system**, primarily designed and developed by the DRDO to provide a protective shield to the moving armoured columns of the Army from aerial attacks.
- It is equipped with state-of-the-art guidance and control algorithms including warhead chains with a **range of 25 to 30 km**.
- The uniqueness of the QRSAM weapon system is that it can operate **on the move with search and track capability** and fire on a short halt.
- Data captured by range instruments like telemetry, radar and Electro Optical Tracking Systems (EOTS) were used to confirm the system's performance.



BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

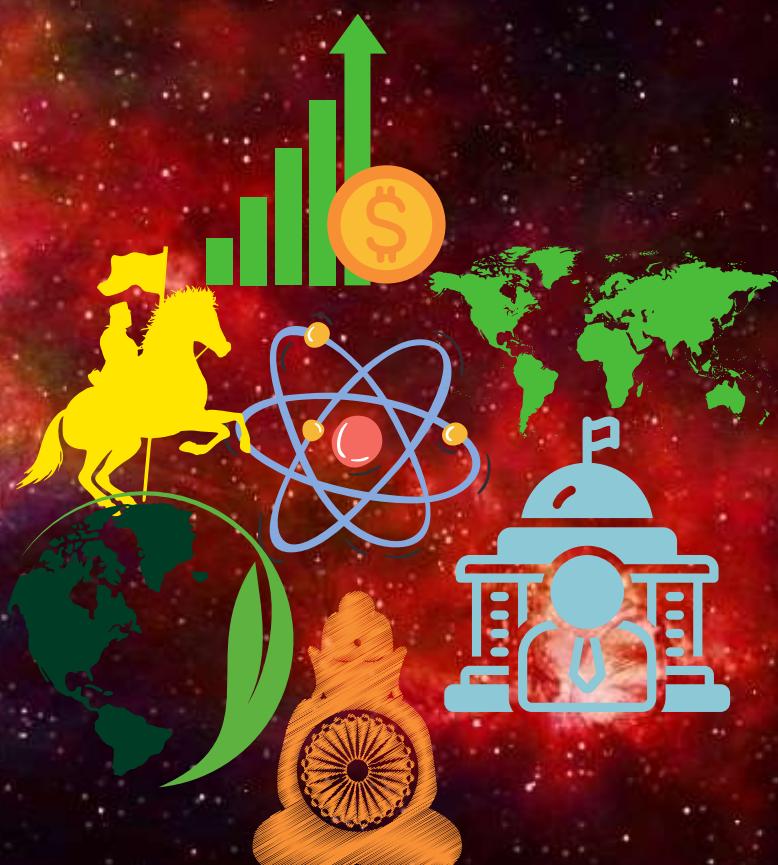
11 FEBRUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA

PIB
YOJANA
& MUCH MORE.



TOPIC : Expunging in Parliament

RELEVANCE : #GS2 #Indian Constitution #Parliament

MAINS ANALYSIS**CONTEXT**

Portions of Congress leader Rahul Gandhi's speech delivered in Lok Sabha on February 7 have been expunged — or removed — from the records of Parliament by the orders of the Speaker.

- According to **Rules 380** of Rules of Procedure and Conduct of Business in Lok Sabha expunging of certain words, sentences, or portions of a speech from the records is fairly routine procedure and is carried out in accordance with laid down rules.
- The decision of what parts of a speech are to be expunged **lies with the Presiding Officer** of the House.

PROCESS OF EXPUNGING

- The decision to expunge a word or portion of a speech is taken by the Speaker under Rule 380, **based on a recommendation from the head of the reporting section, taking into account the context in which the word or sentence was used.**
- The context is key in making the decision to expunge a remark. The focus is on removing the minimum number of words.
- The expunged portions cease to exist in the records of Parliament and cannot be reported by media houses, although they may have been heard during the live telecast of the proceedings.

NEED

- Unparliamentary Expressions:** The Lok Sabha Secretariat has brought out a bulky volume of 'Unparliamentary Expressions'. This book contains words or expressions that would likely be considered rude or offensive in most cultures. But it also contains content that would appear to be fairly harmless and innocuous.
- MPs do not enjoy the freedom to say whatever they want inside the House.** Whatever an MP says is subject to the discipline of the Rules of Parliament.
- Social Media:** However, the proliferation of social media has introduced challenges in implementing expunction orders.
- Parliamentary speeches should be concise, clear and fact-based.

ISSUES

- Against parliamentary privilege:** Under Article 105(2) of the Constitution, "no Member of Parliament shall be liable to any proceedings in any court in respect of anything said...in Parliament or any committee thereof".
- Vague:** The Lok Sabha Secretariat has brought out a bulky volume of 'Unparliamentary Expressions'. This book contains words or expressions that would likely be considered rude or offensive in most cultures. But it also contains content that would appear to be fairly harmless and innocuous.
- Misuse of expunging as a political tool.**
- Against democratic principle where representatives are supposed to forward their concerns.

WAY FORWARD

- Parliamentary speeches should be polite, respectful and dignified, avoiding any kind of personal attacks or slurs. They should focus on the issue at hand, avoiding any kind of partisan rhetoric.
- No offensive language should be used and all debates should be conducted in an atmosphere of mutual respect and understanding.
- As a rule, all speakers should show due consideration for their colleagues and refrain from any kind of personal criticism. Finally, all members should remain mindful of their role as representatives of the people and should strive to maintain the highest standards of public discourse.

MAINS QUESTION

Under Article 105(2) of the Constitution, Member of Parliament shall not be liable in respect of anything said in Parliament or any committee thereof". However, MPs don't enjoy the freedom to say whatever they want inside the House. Discuss.

10 Marks 150 Words

Amrit Sarovar Mission



50,000 Amrit Sarovars were expected to be constructed by August 15, 2023. 60% of the goal has been accomplished in the last 9 months with more than 30,000 Amrit Sarovars constructed.

- Prime Minister has launched a new initiative named Mission Amrit Sarovar on 24th April 2022.
- Aim: The Mission is aimed at developing and **rejuvenating 75 water bodies in each district** of the country as a part of the celebration of Azadi ka Amrit Mahotsav.
- ‘Jan Bhagidari’ has been the core of this Mission and involves people’s participation at all levels.
- ‘Whole of Government’ approach: Six Central Ministries, namely **Ministry of Rural Development together with Ministry of Railways, Ministry of Road Transport and Highways, Ministry of Jal Shakti, Ministry of Panchayati Raj, Ministry of Environment, Forest and Climate Change**.
- Technical organizations, namely **Bhaskaracharya National Institute of Space Applications and Geo-Informatics (BISAG-N)** is also working for the mission.

Section 69 (A) of IT Act



Recently, The Ministry of Electronics and Information Technology (MeitY) under **Section 69(A) of the IT Act, 2000**, issued orders to block 138 online betting platforms and 94 money lending apps on an “urgent” and “emergency” basis.

- **Rationale:** MHA received inputs from central intelligence agencies that some of the sites and apps were allegedly linked to China and contained “material prejudicial to the sovereignty and integrity of India”.

What is Section 69 of the Information Technology Act?

Section 69 of the IT Act confers the center and the state government powers to issue content-blocking orders to online intermediaries such as Internet Service Providers (ISPs), telecom service providers, web hosting services, search engines, online marketplaces, etc on the condition information or content being blocked to be deemed a **threat to India’s national security, sovereignty, or public order**.

- **Penalty:** Social media intermediaries failing to comply with the rules are liable to be monetarily penalized along with an imprisonment term which may extend up to 7 years.
- Supreme Court in **“Shreya Singhal vs Union of India”** struck down Section **66A of the IT Act, 2000**, which entailed punishment for sending offensive messages through communication services, etc being violative of Article 19(1)(a) and not saved under Article 19(2).
- The plea had also challenged **Section 69A** of the Information Technology Rules 2009, but the SC held this to be “constitutionally valid”.

NAMASTE scheme



The Ministry of Social Justice & Empowerment (MoSJE) has formulated a scheme “National Action for Mechanized Sanitation Ecosystem” (NAMASTE). The process of extending the Scheme to all the Urban Local Bodies (ULBs) of the country has been initiated.

- It was launched in 2022 as a **Central Sector Scheme**.
- The **Ministry of Housing and Urban Affairs and the Ministry of Social Justice & Empowerment (MoSJE)** has formulated a plan to work together in order to put an end to hazardous sewer and septic tank cleaning practices.

Main features of the Scheme to be implemented in all ULBs are:-

- **Identification:** NAMASTE envisages identifying the Sewer/Septic Tank Workers (SSWs).
- **Occupational Training and distribution of PPE Kits to SSWs.**
- Assistance for Safety Devices to Sanitation Response Units (SRUs).
- **Extending Health Insurance Scheme** Benefits to identified SSWs and their families under the Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana (AB-PMJAY).
- **Livelihood Assistance:** funding support and subsidy (capital +interest) to the sanitation workers, to procure sanitation-related equipment.
- **IEC Campaign:** Massive campaigns would be undertaken jointly by the ULBs & NSKDFC to spread awareness.

Index of Industrial Production



India's industrial output growth moderated to 4.3% in December 2022 from 7.3% in November.

- The **Index of Industrial Production(IIP)** is a composite indicator that measures the changes in the **volume of production** of industrial products during a given period.
- It is compiled and published monthly by the **National Statistical Office (NSO), Ministry of Statistics and Programme Implementation.**
- **Base Year for IIP: 2011-2012.**

Classification of Industrial Sectors:

- **Broad sectors: Mining, Manufacturing, and Electricity.**
- **Use-based sectors: Basic Goods, Capital Goods, and Intermediate Goods.**

Uses: It is used by government agencies including the Ministry of Finance, the Reserve Bank of India, etc, for policy-making purposes.

- **Eight Core Sectors** comprise **40.27%** of the weight of items included in the Index of Industrial Production (IIP).
- The eight core sector industries in decreasing order of their weightage: **Refinery Products> Electricity> Steel> Coal> Crude Oil> Natural Gas> Cement> Fertilizers.**

BRAHMASTRA

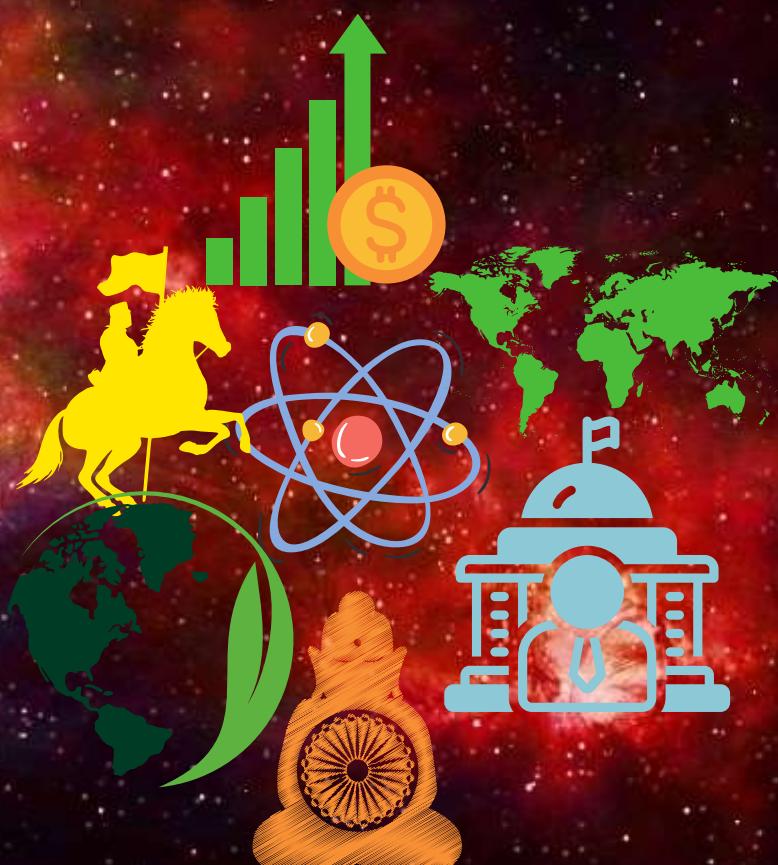
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

12 FEBRUARY 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 : Crony Capitalism

RELEVANCE : #GS2 #GS4 #Transparency & Accountability

MAINS ANALYSIS

CONTEXT

Questioning the exponential rise in Adani's wealth opposition accused the government of **crony capitalism/Cronyism**.

- Parliament also witnessed sharp exchanges over the **Adani-Hindenburg issue**.

What is Crony Capitalism?

- Crony capitalism is a term used to explain a capitalist economy in which those with **connections to government officials or political leaders take advantage** of their links to get more than their fair share of marketplace success.

ISSUES

- India was seventh in The Economist's Crony Capitalism Index 2021.
- Unfair Advantage in Marketplace: Crony capitalism can lead to corruption as businesses use their political connections to gain an unfair advantage

Ethical issues with Crony Capitalism:

- Corruption: It undermines the integrity of public institutions and erodes trust in the democratic process.
- Inequality: It creates a two-tiered system and exacerbates income and wealth inequality, contributing to social injustice.
- Lack of Social Responsibility: Crony capitalists often prioritize their own self-interest over the well-being of society.

REASONS FOR CRONYISM

- Weak governance and lack of transparency in the political and bureaucratic systems
- Corruption
- Lack of competition in the business sector dominated by a few large conglomerates
- Influence of money and power where financial resources shape government policies
- Weak legal and regulatory frameworks with slow and inefficient courts
- Weak enforcement of laws and regulations
- Complex rules and regulations

EFFORTS

Uday Kotak Committee recommendations against Crony Capitalism:

- Transparency in related-party transactions through complete disclosure**
- Independent directors: Companies should have a minimum of 50% independent directors**
- Enhanced role of audit committees**
- Strengthening the corporate governance framework**

Other Efforts:

- Digitisation and Transparency
- Faceless assessment & Single window mechanism.
- Structural efforts: Competition commission of India, Standards Bureau (BIS) etc.

WAY FORWARD

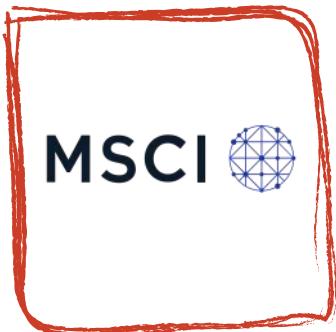
- Encouraging Responsible Political Behaviour: India can encourage responsible political behaviour by increasing the transparency of political donations and lobbying activities.
- Towards Corporate Ethical Responsibility: India can promote responsible business practices by implementing measures to ensure that businesses act ethically and sustainably, in lines of corporate social responsibility and sustainability initiatives.
- Improving Transparency and Accountability: India can improve transparency and accountability in its political and economic systems by implementing measures such as open data initiatives etc.

MAINS QUESTION

What do you understand by crony capitalism? What are its causes and impacts on the society?

10 Marks 150 Words





Free float status

Morgan Stanley Capital International (MSCI), a global index provider for financial markets, announced that it will reduce the **free float designations** for four Adani Group companies in multiple indices.

What is free float?

Free float refers to the proportion of the total outstanding shares of a publicly listed company that is readily available for trading in the market.

Free Float = Outstanding Shares - Restricted Shares - Closely-held Shares

- Generally speaking, shares held by promoters and large institutional investors are normally not freely traded in the market.
- The free float of a company gives investors a rough idea about the likely **liquidity of the company's shares** in the public market.
- The **MSCI Emerging Markets Index** is an index created by Morgan Stanley Capital International (MSCI) designed to measure equity market performance in global emerging markets and **consists of indices from 23 emerging economies**.
- MSCI also publishes the MSCI BRIC, MSCI World and MSCI EAFE Indexes.



Lithium discovery in J&K

For the first time, the Geological Survey of India (GSI) has confirmed **Lithium 'inferred' resources** (G3) totaling 5.9 million tonnes in the Salal-Haimana area of Jammu & Kashmir.

What are Inferred Resources?

- The term "Inferred Mineral Resource" refers to that part of a Mineral Resource for which **quantity and grade or quality can be estimated on the basis of geological evidence** and limited sampling and reasonably assumed, but not verified, geological and grade continuity.
- It is based on the classification from United Nations International Framework Classification for Reserves/Resources – Solid Fuels and Mineral Commodities of 1997 (UNFC-1997).



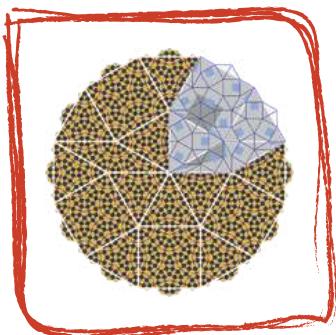
About Lithium:

- Lithium is a soft, silvery metal also referred as 'White gold'.** It has the lowest density of all metals. It reacts vigorously with water.
- Lithium is widely used in batteries, Glass and Ceramics, Pharmaceuticals etc.
- Lithium is primarily extracted from brine pools ('Salar' in Chile) and rock minerals such as spodumene (in Australia)**

Major Global Lithium Reserves:

- Countries with Largest Reserves: **Chile > Australia > Argentina**
- Lithium Triangle: Chile, Argentina, Bolivia.**

Quasicrystals



Scientists have reported finding only the **third natural source of quasicrystals**, a material once deemed impossible and whose unusual properties scientists are still unravelling.

What are Quasicrystals?

In a crystal, the atoms are arranged in a pattern that periodically repeats itself. A **quasicrystal's atoms are arranged in a pattern that repeats itself at irregular intervals**. Quasicrystals were discovered in the lab in 1982.

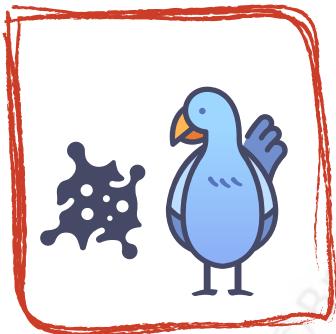
- In quasicrystal matter formed atomically in a manner somewhere between the amorphous solids of glasses and the precise pattern of crystals.

Natural Sources:

1. In 2009 as microscopic grains in a piece of the Khatyrka meteorite in the Koryak mountains of Russia.
2. In 2021, a quasicrystal was found in the remains of the first nuclear weapon test conducted on July 16, 1945.
3. Recently in the Sand Hills dunes in northern Nebraska, where scientists found silicate glass which is a **dodecagonal quasicrystal**, rare even for quasicrystals.

Applications: surgical instruments, LED lights and non-stick frying pans, good insulators, solar absorbers for power conversion etc.

New bird flu (H5N1)



The new bird flu (H5N1) strain 2.3.4.4b emerged in 2020 and spread rapidly across Asia, Africa and Europe.

- It subsequently spread to North and South America by 2021 and 2022, respectively.
- Increased H5N1 spread in mammals highlights the need for heightened vigilance due to the inherent possibility of the virus jumping to humans.
- **Avian influenza, or bird flu, is a highly contagious viral infection that primarily affects birds. Infrequently, the virus can infect mammals from birds, a phenomenon called spillover and rarely can spread between mammals.**
- H5N1 is a highly pathogenic subtype of avian influenza that causes severe disease and death in birds. It can cause severe illness and death in humans.



Prelims

Central Board of Film Certification (CBFC)



PAST CONCERNS:

- Violence
- Sexual content
- Abusive language

SOME RECENT ADDITIONS:

- Integrity of India
- Security of the State
- Friendly relations with foreign States
- Mentions of the government, PM
- Reference to beef

There have been over 1,000 cuts/revisions demanded in 300 movies cleared for screening in cinema halls over the past three months or so.

- The CBFC routinely orders changes to movies: a toning down or removal of sexual content, violence, and abusive language, etc.
- Of late though, a different kind of censorship has taken shape, regardless of what a film's classification is. These modifications go beyond the guidelines on the CBFC website.

Central Board of Film Certification (CBFC) is a statutory body under the **Ministry of Information and Broadcasting**, regulating the public exhibition of films under the provisions of the **Cinematograph Act 1952**.

- The Board consists of non-official members and a Chairman (Appointed by the Central Government) and functions with **headquarters in Mumbai**.
- Films can be **publicly exhibited in India** (on cinema halls, T.V. channels) only after they have been certified by the **Central Board of Film Certification**.
- **With Film Certification Appellate Tribunal abolished in 2021, appeals can only be made in a High Court**

At present, films are certified under 4 categories: U, U/A, A & S.

1. Unrestricted Public Exhibition (U)
2. Unrestricted Public Exhibition - but with a word of caution that Parental discretion required for children below 12 years (U/A)
3. Restricted to adults (A)
4. Restricted to any special class of persons (S)

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

13 FEBRUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

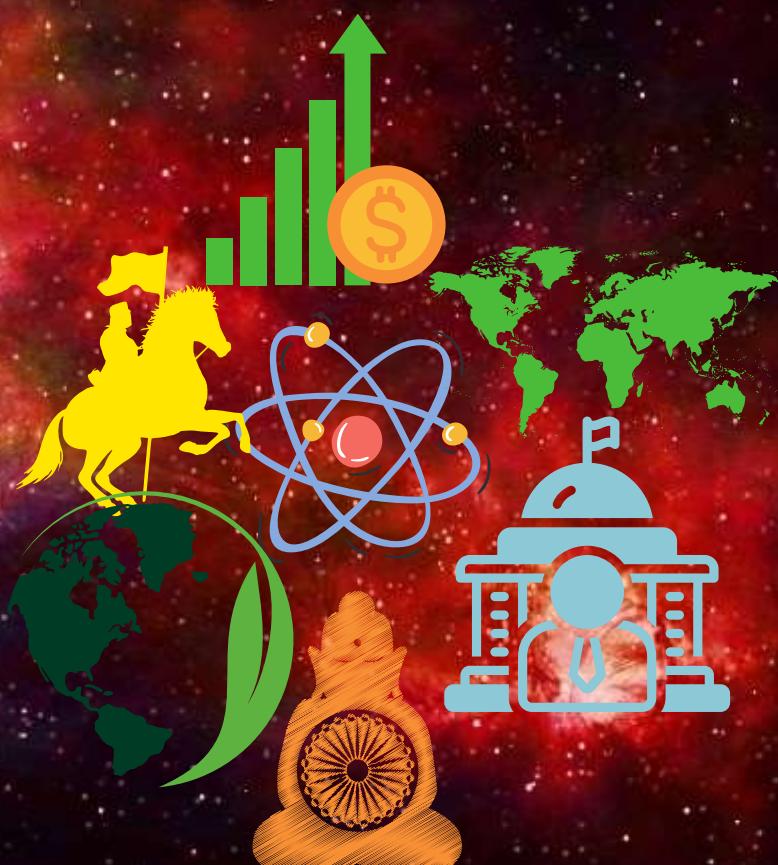
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC : Swami Dayanand Saraswati

RELEVANCE : #GS1 #Modern Indian History #Personalities

MAINS ANALYSIS

CONTEXT

Kicking off the two year celebrations commemorating **Maharishi Dayanand Saraswati's 200th birth anniversary on 12th February**, Prime Minister said the Arya Samaj founder removed "all evils falsely attributed to religion with the light of religion itself"

- Maharishi Dayanand Saraswati, born on 12th February, 1824, was a social reformer who founded **Arya Samaj in 1875** to counter then prevalent social inequities.
- Arya Samaj has played a key role in the cultural and social awakening of the country by its emphasis on social reforms and education

WHAT IS ARYA SAMAJ?

- Arya Samaj is a **monotheistic Indian Hindu reform movement that promotes values and practices based on the belief in the infallible authority of the Vedas**.
- It was founded in Bombay on 10 April 1875 by Swami Dayananda Saraswati.
- He gave the slogan "**Back to the Vedas**".
- **Shuddhi**: It was the first Hindu organisation to introduce **proselytisation (धर्मात्परण)** in Hinduism.
- The Samaj opposes basing caste upon birth rather than upon merit, untouchability, child marriage, pilgrimages, priestly craft, and temple offerings.
- It has worked to further female education and intercaste marriage.

HIS CONTRIBUTION

Maharishi ji was an Indian philosopher, social leader and founder of the Arya Samaj.

- He was the first to give the call for **Swaraj** as "India for Indians" in 1876.
- He **denounced idolatry, social discrimination, women inequality & untouchability** and ritualistic worship and worked towards reviving Vedic ideologies.
- He introduced a complete overhaul of the education system and is often considered one of the visionaries of modern India. The DAV (**Dayanand Anglo Vedic**) schools came into existence in 1886 to realize his vision.

FAMOUS WORKS

- Dayananda's views were published in his famous work, **Satyarth Prakash (The True Exposition)**.
- **Vedang Prakash**: This includes a 16-volume explanation of the six Vedangas
- An incomplete commentary on the Ashtadhyayi (Panini's grammar)
- Analysis of rival doctrines (such as Advaita Vedanta, Islam and Christianity).
- Other Works: **Satyarth Bhumika, Sanskarvidhi, Rigvedadi Bhashya Bhumika, Rigved Bhashyam (up to 7/61/2) and Yajurved Bhashyam**.
- The **Paropakarini Sabha** in Ajmer was founded by Saraswati to publish and preach his works and Vedic texts

WAY FORWARD

- Maharshi Ji started a strong campaign against social ills like discrimination and untouchability." Shri Modi cited the reactions against his emphasis on duty as a challenge in the 21st century to illustrate the enormity of the effort of the Maharshi in his time.
- The government has been committed to celebrating the social reformers and important personalities, especially those whose contributions were not given their due yet on a pan-India scale. From declaring the birth anniversary of Bhagwan Birsa Munda as Janjatiya Gaurav Diwas to participating in a programme commemorating Sri Aurobindo's 150th birth anniversary.

MAINS QUESTION

Swami Dayanand Saraswati, Arya Samaj founder removed "all evils falsely attributed to religion with the light of religion itself". Comment

10 Marks 150 Words



Minor minerals and Major minerals



Odisha has gone overboard in tightening the noose around **minor minerals** smugglers, seizing 138 vehicles, and clamping prohibitory orders under Section 144 of CrPC at 28 places.

- Mining of minor minerals is allowed only if the District Survey Report (DSR) is finalised. Balasore is yet to get its DSR.
- In India, the minerals are **classified as minor minerals and major minerals under MMDRA, 1957**.
- Classification is not related to quantum/ availability/ level of production/ mechanization/ EXIM of these minerals **but related to relative value and end use of these minerals**.

Minor Minerals	Major Minerals
<ul style="list-style-type: none"> According to Mines and Minerals (Development and Regulation) Act, 1957 "Minor Minerals" means building stones, gravel, ordinary clay, ordinary sand other than sand used for prescribed purposes, and any other Central Govt notified mineral. The Center has the power to notify "minor minerals" under MMDR Act, 1957. India has 86 minor minerals out of which 31 were added in 2015. The power to frame law for minor minerals is entirely delegated to State Govts. Thus, the administrative and regulatory jurisdiction of minor minerals falls under State govts. Andhra Pradesh tops in the value of minor minerals produced in India followed by Gujarat, Maharashtra, Rajasthan and UP. few minerals that the Central Government has declared as minor minerals: <u>boulder</u>, <u>shingle</u>, <u>chalcedony pebbles</u>, <u>lime shell</u>, <u>kankar</u> and <u>limestone</u>, <u>brick-earth</u>, <u>fuller's earth</u>, <u>bentonite</u>, <u>road metal</u>, <u>slate</u>, <u>marble</u>, <u>stone used for making household utensils</u>, <u>quartzite</u> and <u>sandstone</u>, <u>salt peter</u> and <u>ordinary earth</u>. 	<ul style="list-style-type: none"> Major minerals are those specified in the first schedule appended in the MMDR Act 1957 and the common major minerals are Lignite, Coal, Uranium, iron ore, gold etc. <u>There is no official definition for "major minerals" in the MMDR Act. Hence, whatever is not declared as a "minor mineral" may be treated as a major mineral.</u> The power to frame law for major minerals is dealt with by the Ministry of Mines under Center. Some of the major minerals include Lignite, Uranium, Coal, Gold, Iron ore, Lead-Zinc, Magnesium, Tungsten, and Diamond etc.

TARKASH Exercise

TARKASH, the exercise by the **National Security Guard (NSG)** and **US Special Operations Forces (SOF)** is currently underway in Chennai.

- 
- This is the **sixth edition** of the exercise which began on January 16 and will end on February 14.
 - With chemical and biological warfare being recognised as a coming threat to the world, an ongoing Indo-US joint exercise has for the first time included a **Chemical, Biological, Radiological and Nuclear (CBRN) terror response** in its drill.
 - The **objective** of the joint exercise was to rapidly **neutralise the terrorists, rescue the hostages safely and deactivate the chemical weapons being carried by the terrorists**.

ORCAS/Killer whales



Scientists have previously seen that some **killer whale mothers share food with their grown sons**. In a study, researchers found that this prolonged feeding carries a **huge reproductive cost for mothers**.

- Males over age 30 were eight times more likely to die in the year following their own mothers' deaths. One likely factor is that the mothers continue to feed them all their lives.
- Members of this family include all dolphin species, as well as other larger species, such as long-finned pilot whales and short-finned pilot whales, whose common names also contain "whale" instead of "dolphin".
- Killer whales are highly social, and most live in social groups called pods (groups of **maternally related individuals** seen together more than half the time). The families are led by **matriarchs** who can **live 80-90 years**.
- **Southern Resident killer whales** are the only endangered population of killer whales in the United States

Dawoodi Bohras



A five-judge Constitution Bench of the Supreme Court referred the challenge to the constitutional validity of the practice of ex-communication in the Dawoodi Bohra community to the nine-judge Bench.

Who are the Dawoodi Bohras?

- **The Dawoodi Bohras are Shia Muslims whose leader is known as the Al-Dai-Al-Mutlaq. According to members of the community, there are around 1 million Dawoodi Bohras spread around the world.**

For over 400 years, the leader of the community has been based in India, including the current and the 53rd leader.

- The leader of the community is recognized by the members as having the right to excommunicate its members. In practical terms, ex-communication means not being allowed to access a mosque belonging to the community or a burial dedicated to the community.

Mission Antyodaya Survey (MAS) 2022-23



Ministry of Rural Development and Panchayati Raj will inaugurate the Mission Antyodaya Survey (MAS) 2022-23 including the launching of its portal and mobile application.

- The survey aims to lend support to the process of participatory planning for Gram Panchayat Development Plan (GPDP) which will improve service delivery, enhance citizenship, create pace for an alliance of people's institutions, and groups and improve governance at the local level.
- MA Survey data will also serve as a key input in the preparation of block and district plans.
- The village-wise survey is expected to be conducted over a period of one month involving **Community Resource Persons (CRPs)**.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

14 FEBRUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

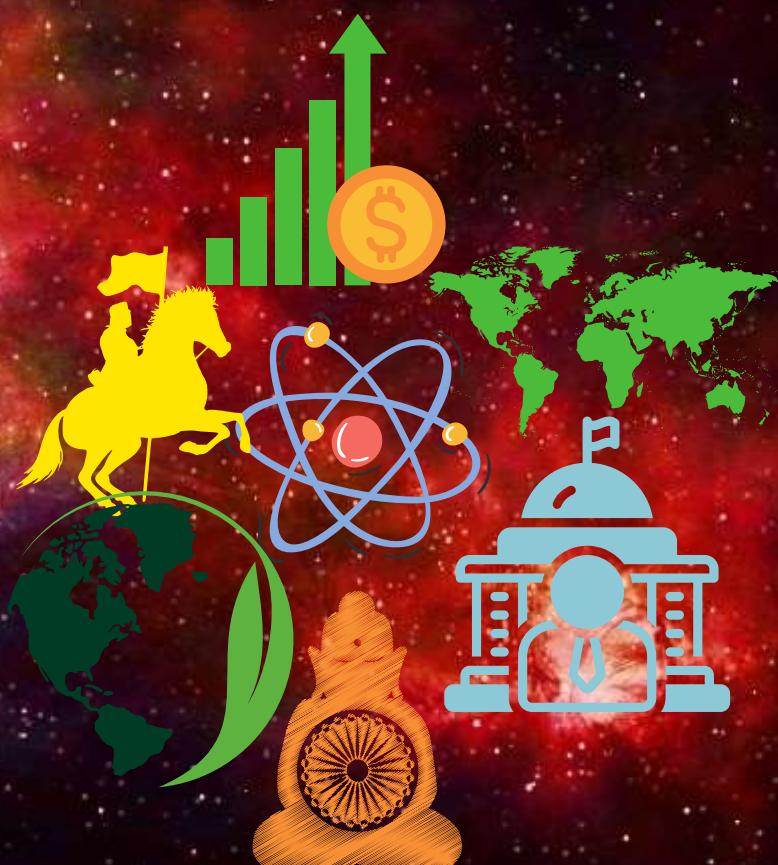
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



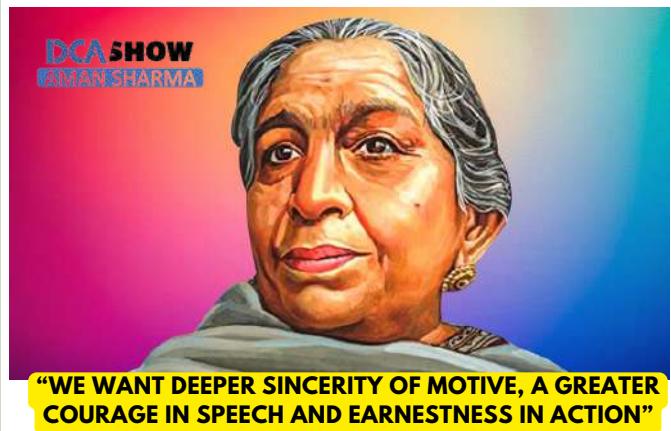
TOPIC: Sarojini Naidu - The Nightingale of India

RELEVANCE : #GS1 #Modern Indian History #Personalities

MAINS ANALYSIS**CONTEXT**

On the 13th of February, the birth of Sarojini Naidu is celebrated. India celebrates Sarojini Naidu's birth anniversary as **National Women's Day**.

- Sarojini Naidu, was an Indian independence activist, poet, and politician.
- She joined the **Indian national movement in the wake of the partition of Bengal in 1905**.
- The British government gave Sarojini Naidu the '**Kaisar-i-Hind**' Medal in recognition of her contribution during the plague epidemic in India.
- She was famously known as **The Nightingale of India**.

**HER CONTRIBUTION**

- **First Indian Woman President** of the Indian National Congress in 1925.
- Accompanied Gandhi to London for the inconclusive **second session of the Round Table Conference for Indian-British cooperation (1931)**
- A significant leader of the **Salt Satyagraha Movement (1930)**; Led Dharasana Satyagraha
- She also represented India at various international forums and spoke about the Indian independence movement and women's rights.
- In 1942, Sarojini Naidu was arrested during the "**Quit India**" movement and was jailed for 21 months with Gandhiji

FAMOUS WORKS

- **A Renowned Poetess:** Naidu was a renowned poetess and wrote in both English and Urdu.
- Published in 1912, '**In the Bazaars of Hyderabad**' remains one of her most popular poems.
- Her other works include "**The Golden Threshold (1905)**", "**The Bird of Time (1912)**", and "**The Broken Wing (1912)**".
- Worked for Women's Empowerment: Naidu was a strong advocate of women's rights and worked tirelessly to empower women in India.
- "**The Song of the Palanquin Bearers**", lyrics by Naidu
- She was also a **member of the All-India Women's Conference** and worked to improve the status of women in India.

WAY FORWARD

- After India gained independence, Naidu was appointed as the **governor of Uttar Pradesh, becoming the first woman to hold a governor's office in India**.
- In Lucknow, India, she passed away on March 2, 1949.
- Sarojini Naidu was a person with many talents and is still respected as a role model for women in India and beyond. Her **courage, dedication, and leadership inspired millions of Indians** and continue to inspire generations to come.

MAINS QUESTION

How did Sarojini Naidu Earn the sobriquet 'Nightingale of India'? What role did she play during the freedom struggle? Discuss.

10 Marks 150 Words



India Energy Week (IEW) 2023



Prime Minister inaugurated India Energy Week (IEW) 2023 in Bengaluru, Karnataka. Being held from 6th to 8th February, IEW is aimed to showcase India's rising prowess as an energy transition powerhouse.

- As part of the event, he also Launched **E20 Fuel and Flagged off Green Mobility Rally** organised by Hindustan Petroleum Corporation Limited.

E20 Fuel:

- Prime Minister launched E20 fuel at 84 Retail Outlets of Oil Marketing Companies in 11 States/UTs.
- E20 is a blend of 20% ethanol with petrol.** The Government aims to achieve a complete 20% blending of ethanol by 2025.
- Bioethanol:** Under the National Policy on Biofuels 'bioethanol' is defined as ethanol produced from biomass such as sugar-containing materials, like sugar cane, sugar beet, sweet sorghum, etc.

Green Mobility Rally:

- The Rally witnessed the participation of 57 vehicles running on sustainable green energy sources viz., E20, E85, Flex Fuel, Hydrogen, Electric etc. **The Rally helped in creating public awareness of the Green fuels.**

G-20 tourists can use UPI



Reserve Bank of India (RBI) permitted **all inbound travellers from the Group of Twenty (G-20) countries and non-resident Indians to access Unified Payment Interface (UPI)** for their merchant payments (P2M) at select airports while they are in the country.

- Banks and non-banks authorised to issue prepaid payment instruments (PPIs)** can issue rupee-denominated full-KYC PPIs to G-20 foreign nationals and NRIs visiting India.
- Such PPIs can also be issued in a co-branding arrangement with entities authorised to deal in foreign exchange under FEMA.
- The PPIs can be issued in the form of wallets linked to UPI — like Google Pay and Philip — and can be used for merchant payments (P2M) only.
- The PPIs can be issued after **physical verification of the Passport** and Visa of the customers at the point of issuance. The unutilised balances in such PPIs can be encashed in foreign currency or transferred 'back to source'.

What are PPIs?

- PPIs are instruments that facilitate purchase of goods and services, conduct of financial services, enable remittance facilities, etc., against the value stored therein.**

What is Foreign Exchange Management Act, 1999 (FEMA)?

- The conversion to the Indian rupee can be carried out only by entities authorised to deal in foreign exchange under FEMA.

Jeevan Mission(JJM)



In the Budget address, Finance Minister apportioned a 27% increase for Jal Jeevan Mission(JJM).

- It was launched in 2019 under Jal Shakti Ministry, it envisages **a supply of 55 litres of water per person per day to every rural household through Functional Household Tap Connections (FHTC) by 2024.**
- **Community approach:** JJM looks to create a *jan andolan* for water, thereby making it everyone's priority.
- The fund-sharing pattern between the Centre and states is **90:10** for Himalayan and North-Eastern States, **50:50 for other states**, and 100% for Union Territories.
- It also provides functional tap connections to Schools, Anganwadi centres, Gram Panchayat buildings, Health centres, wellness centres and community buildings.
- **Achievement:** The JJM dashboard on the Jal Shakti Ministry website says that as of February 2023, over 11 crore households, or about 57% of the targeted, now have tap water.

The Draft Geoheritage Sites and Georelics (Preservation and Maintenance) Bill, 2022



A draft Bill, aimed at protecting India's geological heritage that includes fossils, sedimentary rocks, and natural structures, has raised alarm in India's geosciences and palaeontology community.

- The Ministry of Mines has released the draft Geoheritage Sites and Georelics (Preservation and Maintenance) Bill, 2022.

Key features of the bill:

- **Declaration of geoheritage sites:** The central government may declare a site as a geoheritage site of national importance. Geoheritage sites must contain features of **geological significance**, such as geo-relics or natural rock sculptures. **Geo-relics are movable relics such as fossils or meteorites.**
- **Protection of geoheritage sites:** It empowers the central government to acquire, preserve, and maintain geoheritage sites. **The Director General of the Geological Survey of India** will be given powers for this purpose, such as surveying and excavation. **Construction on these sites will be prohibited.** However, it may be authorised by the Director General to preserve the site or to repair a structure that predates the declaration of the site.
- **Protection of geo-relics:** The central government may declare that a **geo-relic cannot be moved from its site**, by notification, unless permitted by the Director General. The Director General may direct the acquisition of a geo-relic to protect it.
- **Offences and penalties:** On destruction or misuse, damage, etc.



List of member states

State	Accession ^[121]
Vietnam	28 July 1995
Thailand	8 August 1967
Singapore	8 August 1967
Philippines	8 August 1967
Myanmar	23 July 1997
Malaysia	8 August 1967
Laos	23 July 1997
Indonesia	8 August 1967
Cambodia	30 April 1999
Brunei	7 January 1984

3rd ASEAN Digital Ministers Meeting

The 3rd ASEAN Digital Ministers (ADGMIN) meeting with India was held recently on a virtual platform.

- **Theme:** Synergy Towards a Sustainable Digital Future.
- The Meeting approved the **India-ASEAN Digital Work Plan 2023** which includes capacity building and knowledge sharing in emerging areas in the field of **Information and Communication Technologies(ICT)** such as **Artificial Intelligence(AI)** in Cyber Security, Application of IoT & AI in Next Generation Smart City & Society 5.0, Sustainable Data and Transport Network for Future etc.

About ASEAN Grouping:

- ASEAN refers to Association of Southeast Asian Nations
- It is a **regional grouping** that promotes **economic, political, and security cooperation**.
- **Bangkok Declaration:** It was established in August 1967 in Bangkok, Thailand with the signing of the **ASEAN Declaration** by the founding fathers of ASEAN, namely Indonesia, Malaysia, Philippines, Singapore and Thailand.
- The **chairmanship changes** each year, based on the alphabetical order of the English names of Member States.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

15 FEBRUARY 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- Canada Relations

RELEVANCE : #GS 2 #IR #Bilateral Groupings & Agreements

MAINS ANALYSIS**CONTEXT**

Recently, India and Canada held an '**India-Canada Strategic Dialogue'** Bilateral meeting in ahead of the G20 Foreign Ministers' meeting in March in New Delhi.

- India welcomed the announcement of Canada's **Indo-Pacific Strategy** given the **shared vision of a free, open and inclusive Indo pacific**.
- Canadian FM termed **India as a critical partner** for Canada in the Indo- Pacific. In return, Canada can be a **reliable supplier of critical minerals**, a strong **partner in the green transition** and a **major investor**.

SIGNIFICANCE OF MEETING

- The Ministers discussed strengthening the **economic partnership, advancing security cooperation, facilitating migration and mobility, and growing our strong people-to-people ties**.
- Both countries hope that the **Early Progress Trade Agreement (EPTA)** will be a first step toward the Comprehensive Economic Partnership Agreement (CEPA).
- Both countries share a **suspicion of China** and are **seeking to expand trade ties, improve supply chain resilience**.

BILATERAL RELATIONS

- India established diplomatic relations with Canada in 1947. PM of India's visit to Canada in April 2015 elevated the bilateral relationship to a **strategic partnership**.
- The Appropriate Arrangement (AA) for the Nuclear Cooperation Agreement (NCA) was signed in March 2013, under which a Joint **Committee on Civil Nuclear Cooperation** was constituted.
- Indo-Canadian Science and Technology cooperation has been primarily focussed on promoting Industrial R&D which has potential for application through the development of new IP, processes, prototypes or products.
- Recently India became the top source of foreign students studying in Canada.

CHALLENGES

- **Sikh extremism:** A number of issues including attacks on Indian-origin people and establishments by **Khalistani groups in Canada**, **Canadian comments over India's farmer protests** and Hindu temple vandalised in Canada with anti-India graffiti.
- **Nuclear Cooperation:** Indo-Canadian relations deteriorated in the wake of India's Smiling Buddha nuclear test of May 1974. However, in June 2010, a Nuclear Cooperation Agreement (NCA) with Canada was signed and came into force in September 2013.
- **Inadequate trade:** While India-Canada economic relations have made some progress, Canada remains an insignificant trading partner for India.

WAY FORWARD

- India-Canada relations have struggled to prosper, despite the two countries sharing various complementarities such as their democratic character and association in the Commonwealth.
- Even so, India's economic potential, including the investment opportunities it offers, has led Canada to periodically review the economic dimension of this bilateral relationship in its India policy.
- India must foster a deeper understanding of Canada and the potential it holds for India. e.g. -ANTRIX, the Commercial arm of ISRO, has launched several nanosatellites from Canada.

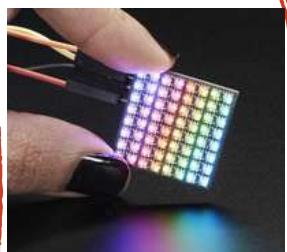
MAINS QUESTION

Discuss India's bilateral relations with Canada. What importance does it hold for India with respect to other international forums?

10 Marks 150 Words



Micro-LEDs



MicroLEDs are considered the next big transition in display technology as many big tech companies are shifting towards it.

What is Micro-LED?

- MicroLEDs are **self-illuminating diodes** that have brighter and **better colour reproduction** than **Organic Light Emitting Diode (OLED) display technology**. The technology involves the use of **tiny light-emitting diodes (LEDs)** that are **packed tightly together** to create a **bright and high-quality display**.
- A microLED is as small as cutting a centimetre of hair into 200 smaller pieces.
- It is based on the **use of sapphires**, which are known for their ability to **shine on their own indefinitely**.
- Unlike OLED displays, **microLED displays use inorganic materials such as gallium nitride**.
- They have the ability to **freely resize the screen in any form for practical usage**.
- **Self-emissive micro-LEDs** individually produce **red, green, and blue colours** without needing **backlighting or colour filters**.
- **Challenges:** High-Cost and Power Consumption.

Aero India 2023



Asia's largest Aero Show- Aero India, 2023 to be inaugurated by the PM on February 13, 2023.

- The five-day event- Aero India, 2023 on the theme "**The runaway to a billion opportunities**" will reflect the rise of a strong and self-reliant New India by displaying India's growth in aerospace and defence. The event will contribute immensely to the development of the aerospace and aviation sector of the country.

The event comprises a Defence Ministers' Conclave; a CEOs Round Table; Manthan start-up event; Bandhan ceremony; breath-taking air shows; a large exhibition; India Pavilion and a trade fair of aerospace companies.

- Aero India is a **biennial air show and aviation exhibition held in Bengaluru, India** at the Yelahanka Air Force Station.
- It is organised by the **Defence Exhibition Organisation, Ministry of Defence**

Khanan Prahari App



Recently Government has launched one mobile app namely "**KhananPrahari**" and one web app **Coal Mine Surveillance and Management System (CMSMS)** for reporting **unauthorized coal mining activities**.

- The mobile app is developed by **Ministry of Coal**.
- It enables **citizens to report incidents of illegal coal mining using geo-tagged photos and textual information** from the location of the incident.
- CMSMS has been developed to curb illegal mining and take transparent action as an **e-Governance initiative** of the government on the use of **Space Technology**.
- **Training:** Existing security/CISF personnel are being trained. Committees have been formed at different levels in some subsidiaries of CIL (Coal India Ltd.) to monitor different aspects of illegal mining.
- **Statutory measures:** Coal Mines (Nationalisation) Act, 1973, Mineral Concession Rules, 1960, Colliery Control Rules, 2004, Mines & Minerals (Development & Regulation) Act, 1957.

Nirman Se Shakti



Employees' State Insurance Corporation (ESIC) under the Ministry of Labour and Employment presented an initiative named as 'Nirman Se Shakti' to modernize infrastructure.

- The initiative includes **upgradation/modernization of ESI Scheme (ESIS) hospitals and dispensaries** in a phased manner, formulation of standard design for 100/200/500 bedded hospitals with better modern facilities, online real-time dashboard for project monitoring/supervision etc.

What is **Employees' State Insurance Scheme (ESI)**?

- The Employees' State Insurance Scheme (ESI) is an **integrated measure of social Insurance** for the worker population and immediate dependent or family embodied in the **Employees' State Insurance Act, of 1948**.
- **It protects employees** against the impact of incidences of sickness, maternity, disablement and death due to employment injury and provides medical care to insured persons and their families.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

16 FEBRUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

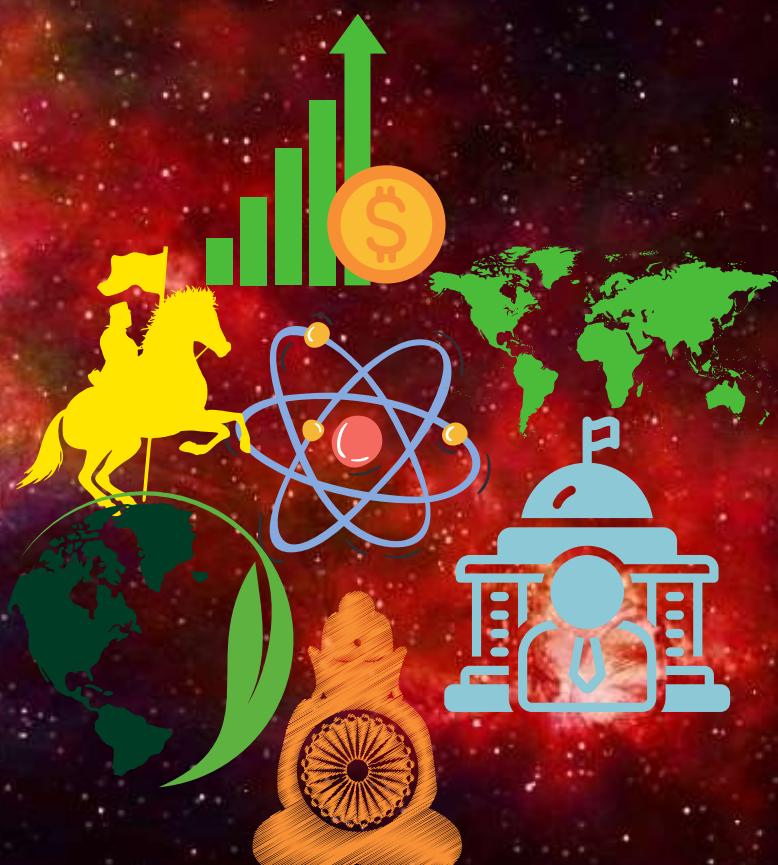
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC: Office of Deputy Speaker

RELEVANCE : #GS 2 #Indian Constitution #Parliament

MAINS ANALYSIS

CONTEXT

The Supreme Court has issued notices on a petition highlighting the **vacant posts of Deputy Speakers in Lok Sabha since 2019 and five state assemblies.**

- The post has also been lying vacant in the five state Assemblies including **Rajasthan, Uttarakhand, Madhya Pradesh, Uttar Pradesh, and Jharkhand.**
- The bench sought responses on a PIL that contends that not electing a Deputy Speaker to the 17th (present) Lok Sabha, is “**against the letter and spirit of the Constitution**”.

NEED OF DY. SPEAKER

- **Mandatory office:** Constitutional experts point out that **both Articles 93 and 178 use the word “shall”**, indicating that the election of Speaker and Deputy Speaker is mandatory under the Constitution.
- Not subordinate: Deputy Speaker is **not subordinate** to the Speaker and is directly responsible to the House.
- Para 5 of the Tenth Schedule (**commonly known as the anti-defection law**) exempts Speaker/ Deputy Speaker shall not be disqualified
- **Strengthens the Opposition:** Since 2011, the convention has been to offer the position of deputy Speaker to Opposition party.

CONSTITUTIONAL STATUS

- **Article 93** of the Constitution of India establishes the post of the Deputy Speaker of Lok Sabha.
- **Article 95:** In the absence of the Speaker, the **Deputy Speaker serves as the Speaker** and wields the full powers of the Speaker.
- **Assemblies:** **Article 178** of the Constitution establishes the post of Deputy Speaker of assemblies and Articles 179-181 deal with their powers and appointment or resignation.
- Articles 94-96 detail their appointment, removal, and powers.

GOVT ARGUMENT

- The government argues that there is no **“immediate requirement”** for a Deputy Speaker as “bills are being passed and discussions are being held” as **normal** in the House.
- Panel: Further, **there is a panel of nine members selected from different parties** who can act as chairpersons to assist the Speaker to run the House.
- **The court can not direct:** Article 122 says, “The validity of any proceedings in Parliament shall not be called in question on the ground of any alleged irregularity of procedure.”

WAY FORWARD

- Experts argue that the courts do have jurisdiction to at least inquire into why there has been no election to the post of Deputy Speaker since the Constitution does envisage an election “as soon as may be”.
- Deputy Speaker maintains continuity of the office whenever the speaker is absent or the office becomes vacant.
- Thus office of deputy speaker should be elected as soon as possible.

MAINS QUESTION

The office of the Deputy Speaker is not a ceremonious post but a constitutionally mandated one. Comment on its importance.

10 Marks 150 Words





What is an I-T Survey?

Recently INCOME TAX (I-T) Department conducted “surveys” at the British Broadcasting Corporation’s (BBC) India office.

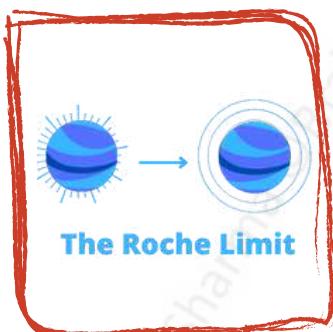
- **Section 133A of the I-T Act, 1961**, gives the I-T Department the power to carry out “surveys” to collect hidden information.
- An authorised officer can enter any place of business or profession or charitable activity within their **assigned area** to verify the books of account or other documents, cash, stock, or other valuable article or thing, which may be useful for or relevant to any proceeding under the Act.

What is I-T Raid/Search?

- A “search” is often called a “raid” — **although the word ‘raid’ has not been defined in the IT Act**. However, “search” has been defined under Section 132 of the Act.
- Under this Section, the I-T Department can carry out an **inspection by entering and searching any building where it has reasons to believe someone is in possession of undisclosed income or property like money or gold**.

How IT Survey is different from I-T Raid/Search?

- IT search/raid is a more serious proceeding than a survey, with **larger consequences, jurisdiction and scope**.
- The survey can only be conducted within the limits of the area assigned to the officer at which a business or profession is carried on while a raid can be conducted in any area within the assigned area of the officer.
- **Surveys can be carried out only during working hours** on business days while **searches can happen on any day after sunrise** and continue until the procedures are completed.



Roche Limit

Astronomers have recently found a ring around a dwarf planet called Quaoar, located in the Kuiper Belt.

- The ring is positioned much further away from the planet and is outside its **Roche limit**.

What is Roche Limit?

- It is the minimum distance at which the gravitational forces of one celestial body cause a second celestial body to disintegrate.
- The limit was first calculated by the French astronomer **Édouard Roche** (1820–83).

Understand with Example:

- The Earth's gravity pulls on the moon. The result is the so-called tidal force, which either stretches or compresses the moon. What keeps the moon intact is its own gravity, which counteracts the tidal force.
- If you bring the moon closer to the Earth, the tidal force will overcome the Satellite's gravity and disintegrate it, turning the moon into a ring. The minimum distance at which this happens is known as the Roche limit.

Windfall Tax



The Centre has **cut windfall tax** on domestically produced crude oil, diesel and ATF in line with rising international oil prices.

- The new rates come into effect from February 16, 2023, the Ministry of Finance stated. **Petrol continues to have zero windfall tax.**

What is Windfall Tax?

- A windfall tax is a tax levied by governments against certain industries when economic conditions allow those industries to experience significantly above-average profits.
- 'Windfall profits' refer to an **unanticipated spike** in earnings of an entity resulting from an exogenous event (which could be one off and/or prolonged) and not resulting from a business decision.

Need of Such Tax:

- The **B.K. Chaturvedi committee's** report on the Financial Position of Oil Companies (2008) stated that taxing these windfall gains has been seen as a prerogative of governments, in part to meet fiscal needs and in part to pursue **redistributive justice**.

Mammatus Clouds



Recently, a cluster of clouds that appear like bubbles from the bottom are observed hovering over Nebraska, United States.

- NASA explained that clouds do look bubbly "because **moist warm air that rises and cools will condense into water droplets at a specific temperature, which usually corresponds to a very specific height**. As water droplets grow, an opaque cloud forms."
- However, **in certain circumstances, cloud pockets can form containing substantial droplets of water or ice, which fall into clear air as they dissipate**. These pockets can arise in the air that is turbulent close to a thunderstorm. When sunlit from the side, Mammatus clouds that form as a result can appear particularly striking.

Uttarakhand's Anti Cheating Law



Uttarakhand Governor gave his assent to the **Uttarakhand Competitive Examination (Measures for Control and Prevention of Unfair Means in Recruitment) Ordinance, 2023** to prevent the use of unfair means in exams.

- The ordinance has provisions for **fines up to Rs 10 crore** and life imprisonment for the guilty.
- It aims to **prevent offences related to obstructing the sanctity of examinations, use of unfair means, leakage of question papers, and other irregularities**.
- The **offences are cognizable, non-bailable, and non-compoundable**.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

17 FEBRUARY 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: Custodial Death

RELEVANCE : #GS 2 #Indian Constitution #Judiciary

MAINS ANALYSIS**CONTEXT**

The Ministry of Home Affairs (MHA) has reported that in the past five years, Gujarat is the state with the most custodial deaths, reaching 80.

- Custodial death is a **death that occurs while a person is in the custody of law enforcement officials or in a correctional facility**.
- The causes of this can be attributed to a range of factors, including the use of **excessive force, neglect, or ill-treatment** by those in authority.
- National Human Rights Commission (NHRC) reported 2,150 deaths in judicial custody in 2021-2022 which show a constant increase in custodial deaths.

ISSUES

- India does **not have anti-torture legislation** and is yet to criminalize custodial violence.
- India signed the **UN Convention against Torture** (1985) in 1997 but hasn't ratified it yet.
- Medical neglect** or lack of medical attention, and even suicide.
- Poor training or lack of accountability** among law enforcement officials.
- Inadequate or substandard conditions** in detention centers.
- Use of excessive force including torture to target **marginalized communities**.
- Against **fundamental rights**: Protection from torture (Article 21), Protection against arrest and detention in certain cases, Right to Counsel (Article 22).

CONSTITUTIONAL STATUS

Maharashtra > Gujarat > Bihar > Uttar Pradesh > Tamil Nadu

STATES WITH HIGHEST CUSTODIAL DEATHS

■ 2017-18 ■ 2018-19 ■ 2019-20 ■ 2020-21 ■ 2021-22

**EFFORTS**

- No one should be subject to torture or any form of cruel treatment according to the **Universal Declaration of Human Rights, 1948 (UDHR)**.

Legal Provisions:

- CrPC Section 41 (Amended in 2009): arrests and detentions for interrogation to have reasonable grounds and documented procedures.
- IPC Sec 302, 304, 304A, and 306 - Include crime of **custodial torture**, Sec 330, 331 - Punishment for injury inflicted for extorting confession.
- NHRC**: Complaints of such human rights violations are received by the NHRC under Protection of Human Rights Act, 1993.
- Directives and Guidelines: laid down in **Prakash Singh v. Union of India, PUCL vs State of Maharashtra case 2014** & other judgments.

WAY FORWARD

- Ensuring **strict adherence to human rights laws and regulations**, including the prevention of torture and cruel, inhuman, or degrading treatment or punishment.
- Taking stringent action against personnel breaching the commandments issued by the SC in **D.K. Basu v. State of West Bengal (1997)** such as all police personnel to be wear name tags clearly indicating their name, designation.
- Establishing independent and **impartial investigations** into all custodial deaths to determine the cause of death and hold responsible parties accountable.

MAINS QUESTION

India has a grim record in police brutality and custodial violence. Discuss the issues and suggest ways to improve the situation.

10 Marks 150 Words



Palm oil



Recently, Indonesia, world's biggest producer, exporter, and consumer of palm oil, is **planning to suspend some export permits** to reduce domestic cooking oil prices.

- **Palm oil** is an edible vegetable oil derived from the **mesocarp (reddish pulp)** of the fruit of the oil palms.
- **USES:** Cooking oil, and in everything from cosmetics, processed foods, cakes, chocolates, spreads, soaps, shampoo, bio-diesel, and cleaning products to biofuel.
- **It is rich in Vitamin A and E with no trans fatty acids.**
- **Impact on India:** India is the biggest importer of palm oil, which makes up 40% of its vegetable oil consumption. Thus, an export ban will affect India's interests.
- India's major palm oil growing states: Andhra Pradesh, Telangana and Kerala account for 98% of total production.
- **Govt Efforts:** It is important that, last year, the Centre also unveiled National Mission on Edible Oil-Oil Palm to boost India's domestic palm oil production.

Leprosy



Despite India being declared "Leprosy Eliminated" in 2005, the country still accounts for over half (52%) of the world's new leprosy patients.

- Leprosy is a chronic bacterial infection, which affects skin, nerves, lungs and eyes.
- It is caused by the bacterium *Mycobacterium leprae*.

Efforts

- National Strategic Plan and Roadmap for **Leprosy 2023-2027**.
- **National Leprosy Eradication Programme (NLEP)** is a Centrally Sponsored Scheme under the umbrella of National Health Mission (NHM). The NLEP aims at eliminating leprosy in each of the districts by 2030.
- **SPARSH Leprosy Awareness Campaign**

Aadi Mahotsav



Recently Prime Minister inaugurated the Aadi Mahotsav tribal festival. This year, it is being organised from 16 to 27 February at Major Dhyan Chand National Stadium in Delhi with Special focus on showcasing **Shree Anna (Millets) grown by tribals**.

- The Aadi Mahotsav celebrates the spirit of tribal culture, crafts, cuisine, commerce and traditional art.
- It is an annual initiative of **Tribal Cooperative Marketing Development Federation Limited (TRIFED)** under the **Ministry of Tribal Affairs**.
- The programme will showcase the rich and diverse heritage of tribes from across the country in over 200 stalls at the venue. Around 1000 tribal artisans will participate in the Mahotsav.

Agasthyarkoodam



Research sheds light on the **Agasthiyar Observatory** which was one of the few magnetic observatories in the world during the 19th century.

- The **Agasthyarkoodam peak located in the Western Ghat**.
- It was established by **John Allan Broun**
- Magnetic observatories continuously measure and record Earth's magnetic field at a number of locations.
- The first geomagnetic observatory of India was set up in Alibag and was named the **Alibag Magnetic Observatory**. Established in 1904, this observatory is one of its kind in the entire Asia.
- This peak is a part of the **Agasthyamala Biosphere Reserve** (UNESCO-MAB Programme) which lies on the border between the Indian states of Tamil Nadu, Tirunelveli district and Kerala, Thiruvananthapuram district.
- Agastyaarkoodam** is a pilgrimage centre for devotees of the Hindu sage Agastya, who is considered to be one of the seven rishis (Saptarishi) of Hindu Puranas.



Cyclone Gabrielle

Severe Tropical Cyclone Gabrielle was a tropical cyclone affecting New Zealand and Norfolk Island in February 2023.

- The fifth named storm of the 2022–23 Australian region cyclone season, and first severe tropical cyclone of the 2022–23 South Pacific cyclone season.
- New Zealand **comprises two main islands—the North and the South Islands and a number of small islands**.

Do You Know?

- New Zealand's Wetapunga, one of the heaviest insects in the world, can weigh more than a sparrow.**

Omorgus Khandesh: Keratin Beetle

A new beetle species Omorgus Khandesh has been discovered in **India**, according to a paper published in the New Zealand-based journal **Zootaxa**.

- The beetle is important for forensic science as it helps detect the time of death of an animal or human.
- Omorgus Khandesh is necrophagous (eats dead or decaying animal flesh) and is, therefore, also called a keratin beetle.**
- The new species belongs to the Trogidae family.
- The **beetles of this group are sometimes called hide beetles** as they tend to cover their body under the soil and hide.



BRAHMASTRA

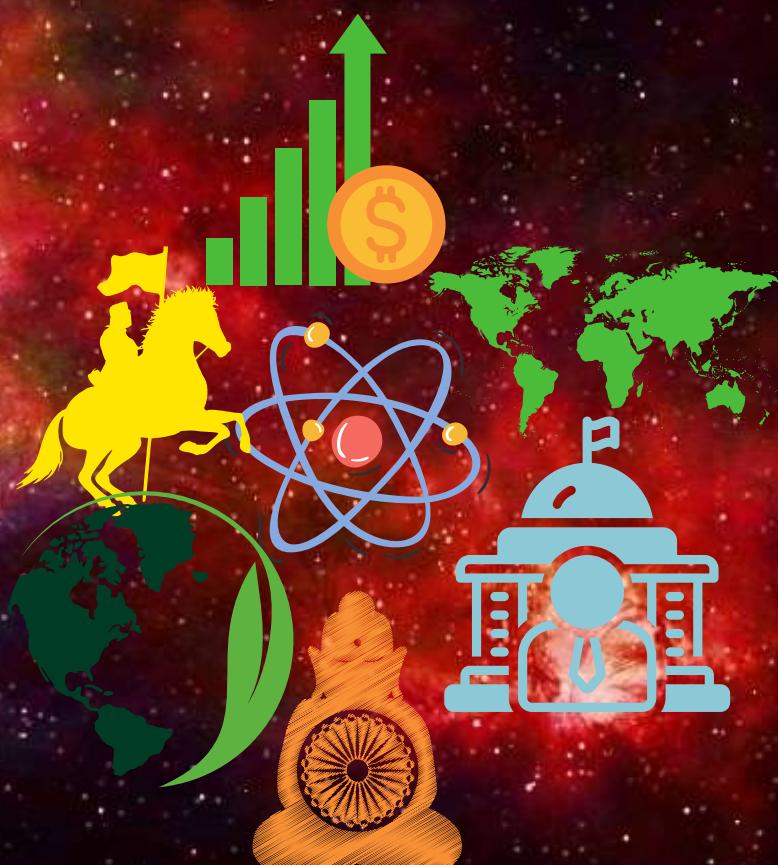
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

18 FEBRUARY 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: Impact of Covid-19 on Human Capital

RELEVANCE : #GS 3 #Economy #Human Capital

MAINS ANALYSIS

CONTEXT

Recently, the World Bank released a document called "**Collapse and Recovery: How COVID-19 Eroded Human Capital and What to Do**", which states that Covid-19 led to a massive fall in human capital, mainly impacting children and the younger generation.

- It analyzed global data on the pandemic's impacts on young people.
- Human capital consists of the knowledge, skills, and health that people invest in and accumulate throughout their lives, enabling them to realize their potential as productive members of society.

FINDINGS OF REPORT

- **Missed vaccinations and health care:** Millions of children faced reductions in health care—including missed critical vaccines. They also faced more stress in their care environments—**orphanhood, domestic violence, and suboptimal nutrition.**
- **Learning loss:** Preschool-age children in multiple countries lost more than **34 per cent of learning in early language** and literacy.
- **School closures and ineffective remote learning:** caused students to **miss out on learning and to forget what they had learned.**
- **Youth unemployment:** 40 million people, who would have had a job in the absence of the pandemic, did not have one at the end of 2021, **worsening youth unemployment trends.**

WAY FORWARD

- According to the report, The cognitive deficit in today's toddlers **could translate into a 25% decline in earnings** at their prime working age. Countries should act urgently to recover these losses and invest better in their people.
- Increasing instructional time; **assessing learning and matching instruction to students' learning level;** and streamlining the curriculum to focus on foundational learning.
- In the longer term, **countries need to build agile, resilient, and adaptive human development systems** that can better prepare for and respond to current and future shocks.

MAINS QUESTION

COVID-19 pandemic massive fall in human capital, mainly impacting children and the younger generation in India. Comment.

10 Marks 150 Words



SIGNIFICANCE OF HUMAN CAPITAL

- **Growth:** Human capital is a key driver of poverty reduction and inclusive growth.
- **Resilience:** It is imperative for building resilience in the face of current and future crises and shocks.
- **Innovation:** Human capital leads to more innovations in the areas of production and other related activities.
- **Quality of life & wide opportunities:**
- **High rate of participation and equality:** By improving the productive measures of the labour force, the formation of human capital increases excellent employment.

EFFORTS

- **Health:** Ayushman Bharat Yojana, Mental Health Care, National Digital Health Mission etc.
- **Skills:** Skill India Mission, PM Kaushal Vikas Yojana, Vocational education, Urban Learning Internship Programme etc.
- **Education:** PM-Shri Schools, National Education Policy,, Samagra Siksha Abhiyan, which subsumed the three erstwhile schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE) aims to provide equal opportunities for schooling and equitable learning outcomes.
- **Employment:** MGNREGA, Startup India, PM MUDRA Yojana etc.
- **Opportunity:** One Nation, One Subscription etc.

Legal Guardians



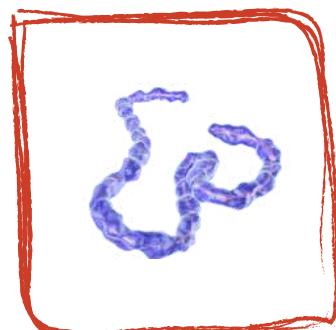
The Delhi High Court has observed that a foreign national cannot claim a vested or constitutional right to be appointed as guardian of a person with disabilities.

- It also observed that guardianship cannot be recognised as a right that may flow from any of the provisions enshrined in Fundamental Rights.

What are Major Points Related to the Issue?

- The concerned foreigner challenged the validity of certain rules and regulations prescribed by the **National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Rules, 2001**, which allow only Indian citizens to be guardian of a person.
- Committee: The High Court directed the **Local Level Committee** to examine and evaluate the circumstances which may consider the appointment of an Indian citizen as a statutory guardian.

Marburg virus

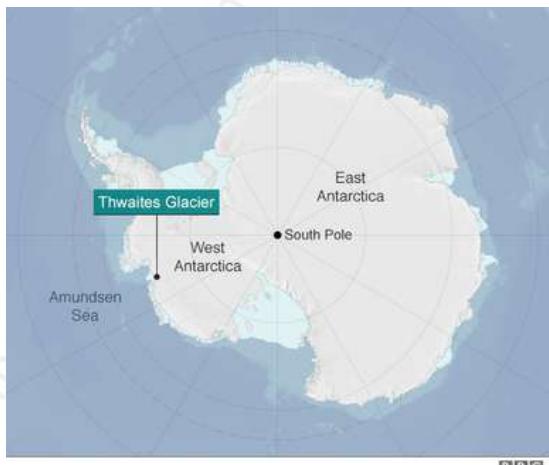


Central African nation Equatorial Guinea confirmed its first outbreak of the highly infectious **Marburg virus disease or MVD**.

- Marburg virus disease is a highly virulent disease that causes **haemorrhagic fever**, with a fatality ratio of up to 88 per cent.
- Marburg and Ebola viruses are both members of the Filoviridae family (filovirus). Though caused by different viruses, the two diseases are clinically similar.
- There are **no vaccines or antiviral treatments** approved yet.
- Transmission: *Rousettus aegyptiacus*, **fruit bats** of the Pteropodidae family, are considered to be natural hosts of the Marburg virus. The Marburg virus is transmitted to people from fruit bats and spreads among humans through **human-to-human transmission**.

What is Haemorrhagic Fever?

- It is a condition that affects many organ systems of the body, damages the overall cardiovascular system, and reduces the body's ability to function on its own.



Doomsday Glacier

Antarctica's "**Doomsday Glacier**" is melting rapidly in unexpected ways, according to new research.

- Thwaites Glacier** is nicknamed Doomsday because its collapse could drive catastrophic sea level rise.
- Thwaites Glacier** is an unusually broad and vast Antarctic glacier flowing into Pine Island Bay, part of the **Amundsen Sea**
- Currently, the Thwaites contribute **four per cent to the average sea-level rise** rate of 1.5 inches per decade.

Marine Spatial Planning Framework



Puducherry has launched the **country's first Marine Spatial Planning (MSP) framework** as part of a pact under the **Indo-Norway Integrated Ocean Initiative**.

- **It aims** to balance growth alongside sustainable management of ocean resources and coastal environment preservation.
- MSP Framework provides guidance and a process for achieving integrated and coordinated planning and management of the marine environment
- Puducherry and Lakshadweep were chosen as coastlines to pilot the MSP initiative in 2019
- The **Ministry of Earth Sciences** is in charge of carrying out the MSP **in collaboration with the Norwegian Environment Agency along with other institutional bodies**.

National Organ Transplantation Guidelines



The Ministry of Health and Family Welfare has recently amended the National Organ Transplantation Guidelines,

- **India's Transplantation of Human Organs Act, 1994** has regulations governing the removal and storage of human organs. It also regulates the transplantation of human organs for therapeutic purposes and for the prevention of commercial dealings in human organs.

Key Changes:

- **UPPER LIMIT CHANGED:** Allowing those who are 65 and over to receive an organ from a deceased donor. The Centre has removed the upper age limit as life expectancy has increased, and a 65-year-old is no longer considered too old.
- **NO DOMICILE REQUIREMENT:** A citizen can now register for organ donation in any state; previous requirement of registering in the state of domicile has been removed.
- **NO REGISTRATION FEES:** The Centre has asked state governments to stop taking fees to register a patient for organ transplants.

However, **Health being a state subject**, the rules formed by the central government **are not binding on the states**.

Exercise Dharma Guardian



The fourth edition of the India-Japan bilateral Army exercise 'Dharma Guardian' took place at Camp Imazu in Shiga province, Japan.

- Two Japanese Navy ships Uraga and Awaji made port call in Kochi from February 14 to 16
- It is an annual training event which is being conducted in India since **2018**.

Other India-Japan Exercises:

- Japan-India Maritime Exercise (JIMEX) (Naval)
- Malabar Exercise (India – US – Japan - Australia)
- SHINYUU Maitri (Air Force)

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

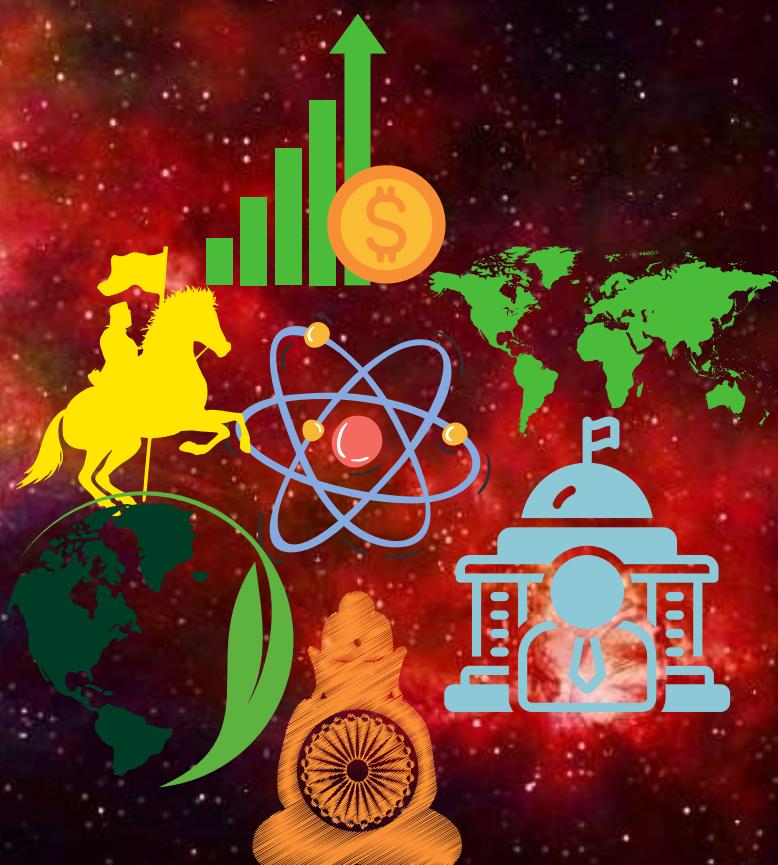
19 FEBRUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA

PIB
YOJANA
& MUCH MORE.



TOPIC: Special Marriage Act, 1954

RELEVANCE : #GS 1 #Indian Society #GS 2

MAINS ANALYSIS**CONTEXT**

Recently several interfaith couples including some celebrities chose to marry under a secular personal law i.e. through the **Special Marriage Act, of 1954**.

- The Special Marriage Act (SMA), 1954 is an Indian law that provides a legal framework for the **marriage of people belonging to different religions or castes. It also provides a number of legal benefits to the couple.**
- It governs a **civil marriage** where the state sanctions the marriage rather than the religion.
- The Indian system, where **both civil and religious marriages are recognised**, is similar to the laws in the UK's Marriage Act of 1949.

NEED FOR SMA,1954

- Conversion:** Personal laws, such as the Muslim Marriage Act, 1954, and the Hindu Marriage Act, 1955, require either spouse to convert to the religion of the other before marriage. However, the SMA enables marriage between inter-faith or inter-caste couples **without them giving up their religious identity** or resorting to conversion.
- Legal Benefits:** SMA provides a number of legal benefits and protections to the couple, such as inheritance rights, succession rights, and social security benefits.
- Once the declaration is accepted, the parties will be given a "**Certificate of marriage**" which is essentially proof of the marriage.

PROVISIONS

- Applicability:** The applicability of the Act extends to the people of all faiths, including Hindus, Muslims, Sikhs, Christians, Sikhs, Jains, and Buddhists, across India.
- The **minimum age** under the SMA is 21 years for males and 18 years for females.
- Written Notice:** Parties must give written notice to the Marriage Officer of the District & at least one of the parties must have lived in the district for at least 30 days immediately before the date of such notification.
- The Act allows any person to object to the marriage before 30 days from the notice.

ISSUES

- Objections to Marriage:** One of the main issues with the Special Marriage Act is the provision for objections to be raised against marriage. This can often be used to harass consenting couples and delay or prevent their marriage from taking place.
- Privacy Concerns:** The requirement for notices to be published can also be seen as a **violation of privacy**, as it can disclose personal information and their plans to get married.
- Social Stigma:** Couples who choose to get married under the SMA may face social stigma and discrimination from their families and communities.
- Rules and laws in different states: 11 States passed anti-conversion laws.example: Uttar Pradesh, Madhya Pradesh etc

WAY FORWARD

- Streamlining the Process:** The government could work to simplify and streamline the process to make it easier for couples to get married under this law.
- Raising Awareness:** Many people in India are not aware of the provisions of the Special Marriage Act or may not know that they have the option to marry someone from a different religion or caste under this law.
 - The government could work to raise awareness about this law and its benefits, especially in rural areas where awareness is low.

MAINS QUESTION

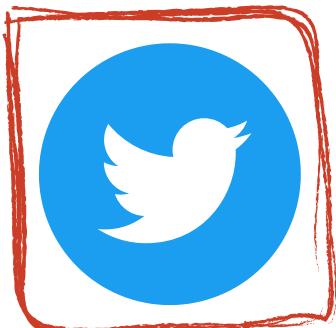
Q. Special Marriage Act (SMA) 1954, provides an alternate route to religious laws for marriage to interfaith couples. Critically analyze the provisions of the special marriage Act 1954.

10 Marks 150 Words



Brahmastra Prelims

Two-factor authentication (2fA)



Twitter proposed to **disable SMS-based two-factor authentication** for people who have not subscribed to Twitter Blue.

- Twitter Blue users: a subscription priced at around Rs 900 per month in India — will be allowed to use the safety feature.
- **Two-factor authentication is an extra layer of security for online accounts.** Instead of just logging in using a password, it allows users to set up an additional step through a code or a security key.
- Apart from **SMS authentication**, there are two other and far secure ways of enabling two-factor authentication on Twitter. One uses a **third-party authenticator app**, and the other uses a **physical security key**.

All India Council for Technical Education (AICTE)



All India Council for Technical Education (AICTE) has launched a curriculum for two new programmes with an aim to provide a variety of employment roles and salary incentives for students.

1. A **B.Tech programme in semiconductors** and a diploma in semiconductors have been launched..
2. AICTE has launched the curriculum designed for **B. Tech Electronics VLSI Design & Technology** and Diploma in integrated circuit manufacturing.

What is VLSI?

VLSI, or very large-scale integration, is the process of integrating or embedding hundreds of thousands of transistors on a single silicon semiconductor microchip.

All India Council for Technical Education (AICTE)

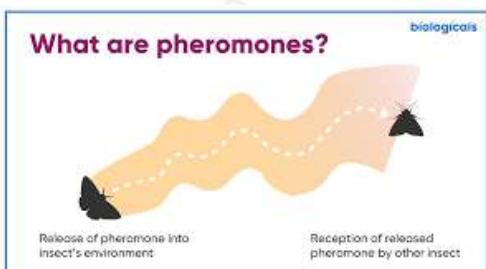
- It was set up in November 1945 as a national-level apex advisory body and comes under the **department of higher education, Ministry of Education**.
- AICTE is responsible for proper planning and coordinated development of the technical education and management education system in India.

Pheromones

A new insight into how tsetse flies mate could bolster the arsenal of tools to manage the spread of disease by these insects.

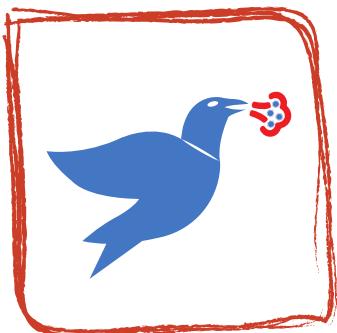
- Tsetse flies transmit **trypanosomes (causes sleeping sickness)**. The insects produce volatile pheromones that control their mating behaviour.

What are Pheromones?



- A **pheromone is a secreted or excreted chemical factor that triggers a social response in members of the same species**.
- Pheromones are chemicals capable of acting like hormones outside the body of the secreting individual, to affect the behavior of the receiving individuals.

Avian influenza



India is the fastest-growing egg producer in the world, yet poultry birds are not vaccinated against the flu.

- Recently, **intra-mammal transmission of H5N1** in captivity in mink farms was recorded, posing a bigger concern in relation to zoonotic potential.
- Avian influenza, known informally as avian flu, is a bird flu caused by the **influenza A virus**, which can infect people
- Wild aquatic birds in the Orders *Anseriformes* and *Charadriiformes* are the primordial reservoir for the virus.
- Types:** high pathogenicity (HP) or low pathogenicity (LP). The most well-known HPAI strain, **H5N1**.
- Transmission:** Within wild bird populations is dependent on faecal/oral transmission via contaminated water

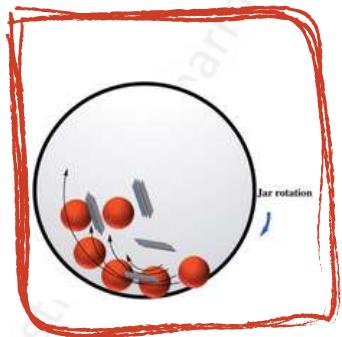
Underwater noise emissions (UNE)



Sound is a form of energy for marine mammals which is being denied to them by man-made noise with disastrous results for marine species, finds a study.

- The rising man-made (anthropogenic) underwater noise emissions (UNE) from ships in the Indian waters are posing a threat to the life of marine mammals like **Bottlenose dolphin, Manatees, Pilot whale, Seal and Sperm whale**.
- Impact:** Internal injuries, loss of hearing ability, change in behavioural responses, masking, and stress.
- Masking:** The frequencies of ships' underwater selfnoise and machinery vibration levels are overlapping the marine species' communication frequencies in the low frequency range of less than 500 Hz. This is called masking.

Ball milling



Ball milling “ordinary” ice at low temperatures creates an **amorphous form** with a density close to liquid water.

- Ball milling a process that involves **vigorously shaking a cryogenically-cooled container full of ice and steel balls**.
- A ball mill is a type of grinder used to grind or blend materials for use in mineral dressing processes, paints, pyrotechnics, ceramics, and selective laser sintering.
- The finding suggests that water is more complex at low temperatures than previously recognised.

FAMOUS FOLK DANCES OF INDIA

Brahmastra



State of Origin	List of Folk Dances in India
Andhra Pradesh	Vilasini Natyam, Bhamakalpam, Veeranatyam, Kolattam
Arunachal Pradesh	Buiya, Chalo, Wancho, Ponung, Popir
Assam	Bihu, Bichhua, Natpuja, Maharas, Kaligopal, Bagurumba, Naga dance, Khel Gopal
Bihar	Jata-Jattin, Jhijhiya
Chhattisgarh	Gaur Maria, Raut Nacha, Vedamati, Kapalik
Gujarat	Garba, Dandiya Raas, Bhavai
Goa	Tarangamel, Koli, Fugdi, Samayi nrutya
Haryana	Jhumar, Phag, Daph
Himachal Pradesh	Jhora, Jhali, Dhaman, Chhapeli
Jammu & Kashmir	Rauf, Kud Dandi Nach
Jharkhand	Agni, Jhumar, Janani Jhumar, Paika, Phagua
Karnataka	Yakshagana, Huttari, Karga
Kerala	Ottam Thullal, Kaikottikali
Maharashtra	Lavani, Nakata, Koli, Lezim, Gafa, Dahikala Dasavtar
Madhya Pradesh	Jawara, Matki, Aada, Khada Nach, Phulpatti, Selalarki, Selabhadoni
Manipur	Dol Cholam, Thang Ta, Lai Haraoba, Pung Cholom
Meghalaya	Nongkrem, Laho
Mizoram	Cheraw Dance, Khuallam, Chailam, Zangtalam
Nagaland	Rangma, Zeliang, Bamboo dance
Odisha	Savari, Ghumara, Painka,
Punjab	Bhangra, Giddha, Daff, Dhaman, Bhand
Rajasthan	Ghumar, Chakri, Ganagor, Jhulan Leela, Jhuma
Sikkim	Singhi Chaam or the Snow Lion, Yak Chaam
Tamil Nadu	Kumi, Kolattam, Kavadi
Tripura	Hojagiri
Uttar Pradesh	Nautanki, Raslila, Kajri, Jhora, Chappeli
Uttarakhand	Garhwali, Kumayuni, Kajari, Jhora, Raslila

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

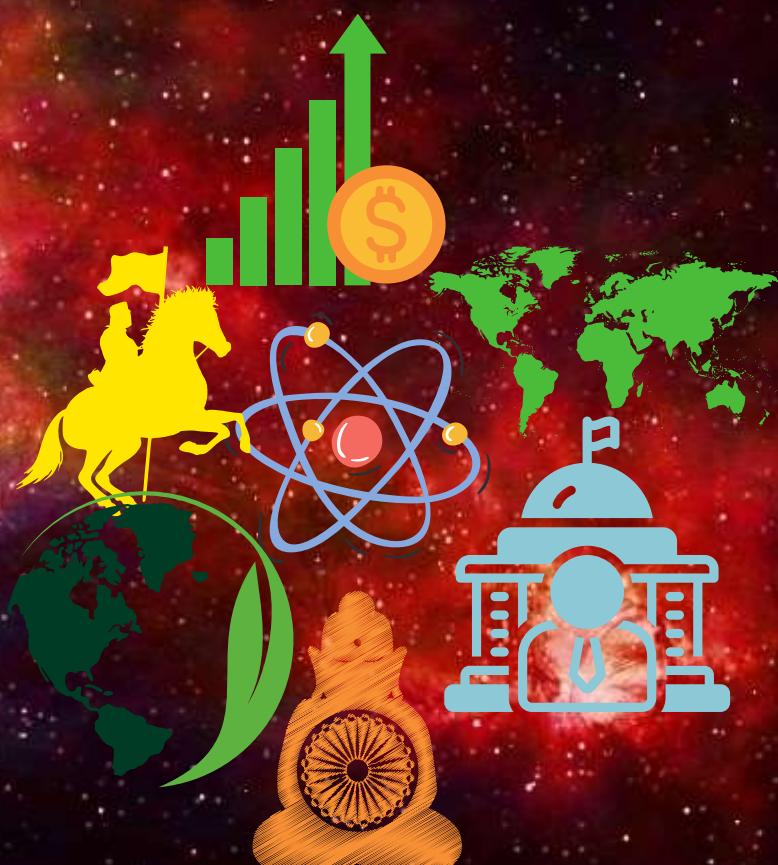
20 FEBRUARY 2023

INCLUDES
MAINS ANALYSIS
DAILY MAINS QUESTION
PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU
INDIAN EXPRESS
ECONOMIC TIMES
TIMES OF INDIA

PIB
YOJANA
& MUCH MORE.



TOPIC: Sealed Cover Jurisprudence

RELEVANCE : #GS 2 #Judiciary #Indian Constitution

MAINS ANALYSIS

CONTEXT

Chief Justice of India firmly refused ‘suggestions’ offered by the government in a **sealed cover** on the formation of a proposed committee to enquire into the **Hindenburg report on the Adani Group**.

- Hindenburg Research has alleged that the **Adani Group was “engaged in a stock manipulation and accounting fraud”**.
- This signals the Supreme Court’s acute awareness of how ‘sealed cover jurisprudence’ has begun to threaten the very credibility of the judicial institution

SEALED COVER JURISPRUDENCE

- It is a practice used by the **Supreme Court and sometimes lower courts**, of asking for or accepting information from government agencies in sealed envelopes that can only be accessed by judges.
- While a specific law does not define the **doctrine of sealed cover**, the Supreme Court derives its power to use it from **Rule 7 of order XIII of the Supreme Court Rules** and **Section 123 of the Indian Evidence Act of 1872**.

Examples: Rafale jets’ purchase deal, Assam National Register of Citizens case, Ayodhya title dispute, etc.

NEED OF SEALED COVER

- When the matter pertained to the **Official Secrets Act**.
- To maintain **public confidence** in the Government agency.
- **Security Sensitive Information:** Delicate international negotiations or those that relate to **sensitive aspects of security**.
- **Right to Privacy:** Details about survivors of sexual assaults or child abuse may affect their future life and bring unnecessary shame affecting the Right to Live with Dignity.
- Disclosure sometimes affects the ongoing investigation.

ASSOCIATED ISSUES

- **Against the Principles of Transparency and Accountability:** In any process of adjudication, especially one that involves fundamental rights, evidence “must be shared with both parties to the dispute”.
- **Reduces the Scope of Reasoning:** To enlarge the scope for arbitrariness in court decisions, as judges are supposed to lay down reasoning for their decisions, but this cannot be done when they are based upon information submitted confidentially.
- **Obstruction to Fair Trial and Adjudication:** The SC held in P. Gopalakrishnan vs The State of Kerala case 2019 that disclosure of documents to the accused is constitutionally mandated
- **Arbitrary in Nature.**

WAY FORWARD

- The use of Sealed Cover Jurisprudence must be **carefully balanced** with the principles of due process, fair trial, and open justice, and be justified and proportionate to the specific circumstances of the case.
- **Courts and tribunals should also ensure that the parties who are not privy to the information** in the sealed cover are given a **fair opportunity to present their case** and challenge the evidence or arguments presented in it.
- When an action is alleged to have curtailed fundamental rights, the court is bound to examine the legality of the action through the lens of proportionality.

MAINS QUESTION

What is 'Sealed Cover' Jurisprudence? Examine its rationale and the criticism against this judicial practice.

15 Marks 250 Words





Prelims

GM Poplar Tree



The GM poplars may be the first genetically modified trees planted in the United States outside of a research trial or a commercial fruit orchard.

- Living Carbon, a biotechnology company, hopes its seedlings can help manage climate change.
 - *Populus* is a genus of 25–30 species of deciduous flowering plants in the family **Salicaceae**, native to most of the **Northern Hemisphere**.
 - Genetically Modified Organisms (GMO) are living organisms whose **genetic material has been artificially manipulated** in a laboratory through genetic engineering.
 - India approved **GM cotton** in 2002 & **Genetically Modified (GM) Mustard hybrid DMH-11 (2022)**.

Do You Know?

- The name **Russian poplar** is a misnomer and has nothing to do with Russia. The tree is a Western American species known as Eastern Cottonwood.

Election Symbols



Almost 7 months after Maharashtra Chief Minister Eknath Shinde petitioned the **Election Commission(EC)** to recognise his faction of the Shiv Sena as the ‘real’ Shiv Sena, the EC ruled in his favour.

- The EC relied on the “**test of majority**” to determine which faction would get to use the name ‘Shiv Sena’ and election symbol ‘Bow and Arrow’.
 - **What is Election Symbol?**

An election symbol is a standardized symbol allocated to a political party.

- The **Election Symbols (Reservation and Allotment) Order, 1968** empowers the Election Commission to recognise political parties and allot symbols.
 - As per the Order, The EC is the **only authority** to decide issues on a dispute or a merger under the order. The Supreme Court (SC) upheld its validity in **Sadiq Ali and another vs. ECI, 1971**.

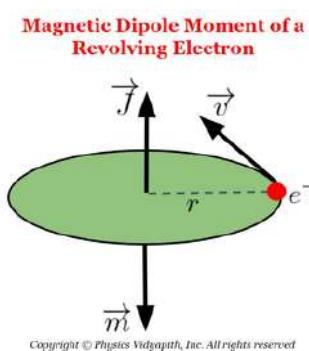
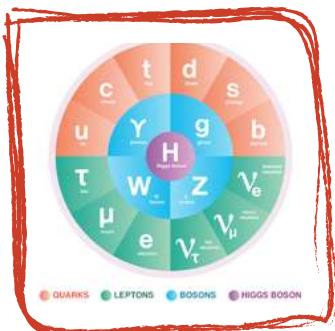
Allotment of symbols:

- **Registration & Recognition:** The Election Commission registers political parties for the purpose of elections and grants them the status of recognised national or state parties on the basis of their poll performance in the last election.
 - **Reserved Symbols:** Every national party and every state party is allotted a symbol exclusively reserved for its use throughout the country and the states respectively.
 - **Free Symbols:** Symbols other than the reserved symbols, which Election Commission enables the party to choose are Free Symbols.



Prelims

Standard Model of particle physics



In an astonishing feat of metrology, **physicists recently reported measuring the electron's magnetic moment with a precision of 0.13 parts per trillion (ppt)**.

This, however, has raised some questions about one of physics's most successful theories — the **Standard Model of particle physics** signaling beyond-SM forces acting on the particle.

- The Standard Model (SM) is the **theory that describes the properties of all subatomic particles, classifies them into different groups, and determines how they're affected** by three of the four fundamental forces of nature: **strongnuclear force, weaknuclear force, and electromagnetic force (it can't explain gravity)**.
- In the 1960s, physicists used SM to predict the existence of a particle called the **Higgs boson**, which was finally discovered in 2012.

What are the limitations of SM theory?

- SM Theory still **can't explain why the universe has more matter than antimatter, what dark matter is, or what dark energy is**.

What is an Electron magnetic moment?

- Electron magnetic moment is the **magnetic moment** (strength of magnet or other objects that produces a **magnetic field**) of an electron resulting from its intrinsic properties of spin and electric charge.

Uroosi - Mughal Era Architecture

A Mughal-era architectural feature called Uroosi is one of Kashmir's answers to the seismic threat it faces

- Uroosi, a Mughal-era home architectural element are wooden shutters used as partition walls within homes, instead of concrete walls.**
- Uroosi's work includes octagonal and decagonal ornamental pillars too. Jalali House is a landmark in Srinagar that has this architectural element.
- Uroosi is believed to be a Persian term meaning 'hidden bride'.**

Responsible Use of Artificial intelligence in the Military (REAIM 2023)

Recently, the world's **First International Summit on the Responsible Use of Artificial intelligence in the Military (REAIM 2023)** took place in the Hague, Netherlands.

- India was not a participant in the summit.**
- The conference, **co-hosted by South Korea**, hosted 80 government delegations (including those from the **US and China**), and over 100s of researchers and defence contractors.
- It appealed to the multi-stakeholder community to build common standards to mitigate risks arising from the use of AI.

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC CURRENT AFFAIRS

21 FEBRUARY 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: Chatbots and Associated Ethical Concerns
RELEVANCE : #GS-3 #IT and Computers #GS-4

MAINS ANALYSIS

CONTEXT

Months after the **ChatGPT** a Chatbot that wowed the world with its remarkable abilities development of similar technology has acquired pace such as **Google, Bing and Baidu, etc.**

- This has also **raised concerns** among experts, as there are numerous ways in which such a tool could be **exploited**.
- A chatbot is a computer program that uses **artificial intelligence (AI) and natural language processing (NLP)** to understand customer questions and automate responses to them, simulating human conversation like messaging apps or websites.

LIMITATIONS

- **Hallucinating Chatbots:** Some of the answers generated by the chatbot have been inaccurate, misleading, or bizarre which has **led to concerns** that the chatbot has **become sentient or aware of the world around it.**
- **Comprehensibility:** Even with natural language processing, they may **not fully comprehend** a customer's input and may provide incoherent answers.
- **Limited understanding of context and background** information, especially the use of jargon, phrases, sarcasm etc.
- **Cyber security concerns** due to high global interconnectivity and critical information infrastructures which may be vulnerable to such AI attacks.

WAY FORWARD

Improving its ability to understand and respond to context, such as being able to maintain a conversation on a specific topic or understanding the tone and intent of a message.

- Increasing its knowledge base and ability to generate more accurate and informative responses.
- Developing more advanced language generation capabilities, such as being able to write coherent and persuasive essays or generate creative and engaging fiction.
- Improving its ability to understand and respond to different languages and dialects.

MAINS QUESTION

What is ChatGPT? How has it changed the contours of conversational artificial intelligence (AI)? Evaluate the threats and opportunities posed by it.

15 Marks 250 Words



Pangolin



An investigation conducted jointly by **TRAFFIC** and **World Wide Fund for Nature-India** found that 1,203 pangolins had been victimized by illegal wildlife trade in India from 2018-2022.

- The highest number of seizure incidents and pangolins seized were in **Odisha**.
- Pangolins are **nocturnal mammals** that dig burrows and feed on ants and termites, and play a vital role in ecosystem management, mostly in aerating and adding moisture to the soil.
- Pangolin comes from '**penggulung**', the Malay word for roller – the action a pangolin takes in self-defence.
- Pangolins are known for their unique appearance. They have scales made of keratin that cover their entire body.**
- Habitat: The Indian Pangolin is found across the Indian subcontinent; Bihar, West Bengal, and Assam also have the presence of Chinese pangolin.

Protection Status:

- IUCN: Indian Pangolin is listed in the **Endangered (EN)** category, while the Chinese pangolin has been listed as "**critically endangered**".
- WPA 1972: Schedule 1
- All pangolin species are listed in Convention on International Trade in Endangered Species (CITES) Appendix I.

New breeds of Indigenous Livestock Species



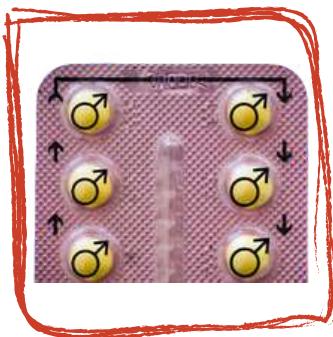
The Indian Council of Agricultural Research (ICAR) recently held a Ceremony for the Distribution of Animal Breed Registration Certificates.

- ICAR** has registered 10 new breeds of livestock species. This has taken the total number of indigenous breeds to **212 as of January 2023**.
- Ceremony emphasised the importance of identifying a large number of **indigenous livestock breeds** in India to make the agriculture and animal husbandry sector prosperous.
- Cattles:** Kathani cattle (Maharashtra), Sanchori cattle (Rajasthan) and Masilum cattle (Meghalaya);
- Buffalo:** Purnathadi buffalo (Maharashtra)
- Goat:** Sojat goat (Rajasthan), Karauli goat (Rajasthan) and Gujar goat (Rajasthan)
- Pig:** Banda pig (Jharkhand), Manipuri Black pig (Manipur) and Wak Chambil pig (Meghalaya).

Indian Council of Agricultural Research (ICAR) is an autonomous organisation and registered society under Societies Registration Act, 1860.

- ICAR is the largest network of agricultural research and education institutes in the world and comes under the **Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare**.

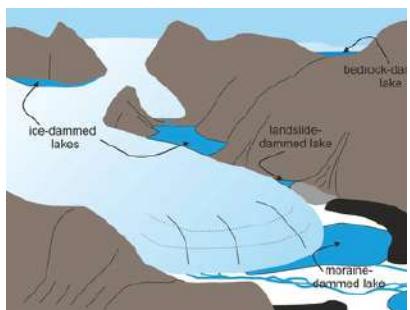
Male Contraceptive Pill



US researchers report promising development for male contraceptive pill.

- It is an **experimental contraceptive** drug candidate that “temporarily stops sperm in their tracks and prevents pregnancies in preclinical models.”
- This means that a new kind of contraceptive for men, currently available through physical barriers (condoms) and surgical options (vasectomy), could be developed, similar to how a pill exists for women.
- A single dose of an **sAC inhibitor**, called TDI-11861, was found to immobilise mice sperm for up to two and half hours, and effects persist in the female reproductive tract after mating.

Glacial lake outburst flood (GLOF)



Around 15 million people across the world face the risk of sudden and deadly flooding from glacial lakes, according to a new study. More than half of these people live in four countries: India, Pakistan, Peru and China.

- Glacial lakes result from a shrinking glaciers. In case water is released from them, it can cause flooding in the downstream areas. This is known as glacial lake outburst floods, or GLOF.
- A glacial lake outburst flood (GLOF) is a release of meltwater from a moraine-dam or ice-dam glacial lake due to dam failure.
- An event similar to a GLOF, where a body of water contained by a glacier melts or overflows the glacier, is called a **jökulhlaup**.
- Increasing glacial melting because of climate change, alongside other environmental effects of climate change (i.e permafrost melting)

Autism Spectrum Disorder (ASD)



According to the WHO, autism spectrum disorder affects one in 100 children.

- Investigations of the dynamic crosstalk between the **gut microbiome** and the host environment have revealed potential connections to **ASD symptoms**.
- Gut microbes are microorganisms**, including bacteria, archaea, fungi, and viruses that live in the **digestive tracts** of animals.

What is ASD?

- ASD refers to a range of conditions where children have **impaired social interactions, lack verbal and nonverbal communication skills**, and display restricted and repetitive behaviours.
- It is **not mental retardation** as people with autism may show excellent skills in spheres like art, music, writing etc.
- In 2008, the United Nations General Assembly unanimously declared 2nd April as **World Autism Awareness Day**.

BRAHMASTRA

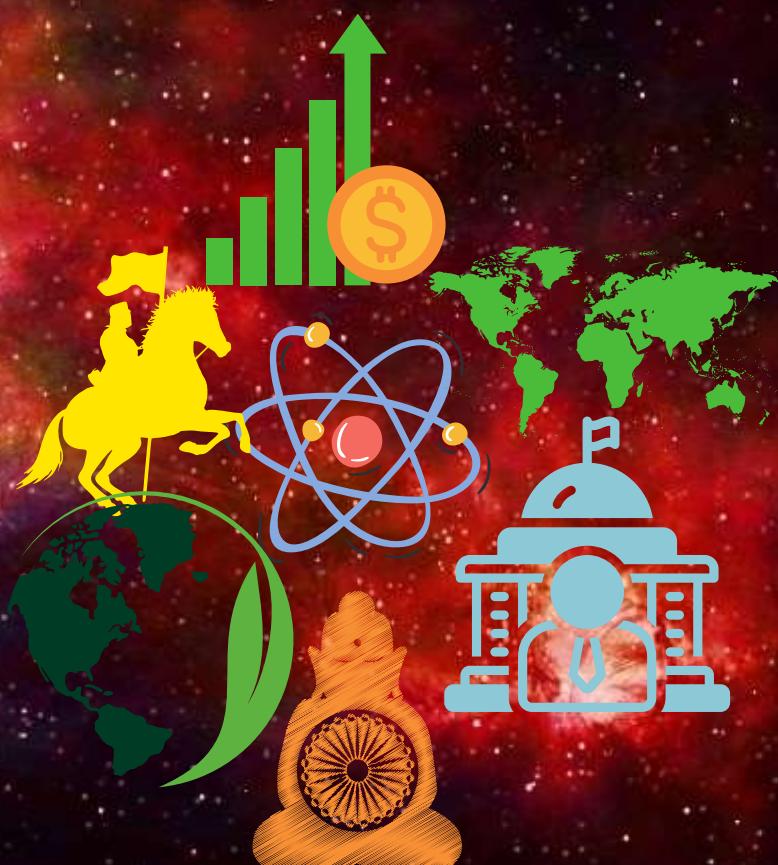
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

23 FEBRUARY 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: Sangam Age

RELEVANCE : #GS-1 #Ancient Indian History # Culture

MAINS ANALYSIS

CONTEXT

Keeladi Excavations by the Archaeological Survey of India (ASI) and Tamil Nadu State Archaeology Department (TNSDA) have pushed the Sangam age further back to 800 BC.

- The Sangam age is a period of history in ancient Tamil Nadu which was earlier believed to be from the third century BCE to the third century CE.
- The name is derived from the renowned Sangam poets of Madurai under Pandyas' royal support.
- The unearthed Keeladi artefacts have led academics to describe the site as part of the Vaigai Valley Civilisation.

SANGAM LITERATURE

- Sangam's works contain mines of information for the study of early history of Tamilakam.
- The Sangam literature includes *Tolkappiyam* (*Tamil grammar*), *Ettutogai* (*Eight Anthologies*), *Pattuppattu* (*Ten Idylls*), *Pathinenkilkanakku*, and two epics named – *Silappathikaram* and *Manimegalai*.
- The two epics *Silappathikaram* is written by **Elango Adikal** and **Manimegalai** by **Sittalai Sattanar**. They also provide valuable details about the Sangam society and polity.
- Pathinenkilkanakku* contains eighteen works about ethics and morals. The most important among these works is **Tirukkural** authored by **Thiruvalluvar**, the Tamil great poet and philosopher.

WAY FORWARD

- Thus, the picture that emerges from the study of Sangam literature reflects that the period witnessed the conception of state for the first time in South India. However, it was still in the process of crystallization.
- Sangam polity was characterized by the patriarchal and patrimonial systems in which the administrative staff system and various offices were directly controlled by the rulers. We also notice social inequalities with the dominance of the Brahmanas. Agriculture was the backbone of Sangam economy.

Toward the end of the third century AD, the Sangam period slowly witnessed its decline. The Kalabhras occupied the Tamil country for about two and a half centuries.

MAINS QUESTION

Highlight the socio-political conditions of the Sangam period with special mention of three literary assemblies.

15 Marks 250 Words



THREE SANGAMS

According to the Tamil legends, there were three Sangams - Academy of Tamil poets held in **ancient South India** popularly called Muchchangam.

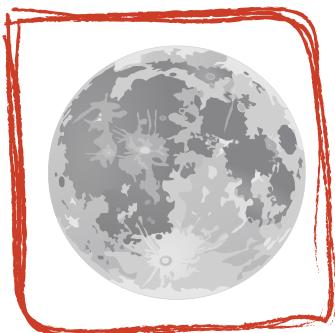
- First Sangam:** It is believed to be held at Madurai, attended by gods and legendary sages. **No literary work of this Sangam is available.**
- Second Sangam:** It was held at **Kapadapuram**, only Tolkappiyam survives from this.
- Third Sangam:** It was also held at **Madurai**. A few of these Tamil literary works have survived and are useful sources to reconstruct the history of the Sangam period.

SANGAM SOCIETY

Three Muvendar (three crowned monarch) the **Cholas** controlled the fully irrigated fertile Cauvery (Kaveri) basin with their capital at Uraiur, the **Pandya**s ruled over the pastoral and littoral parts with the capital at Madurai, and the **Cheras** had their sway over the hilly country in the west with Vanji (Karur) as the capital.

- Tolkappiyam refers to the fivefold division of lands: Kurinji, Mullai, Marudam, Neydal & Palai.
- The primary deity of the Sangam period was Seyon or Murugan, who is hailed as Tamil God.
- Women poets like Avvaiyar, Nachchellaiyar, and Kakkaipadiniyar flourished in this period.
- Love marriage & *sati* was also practiced.
- Koothu** was the most popular entertainment.

Moon Dust to slow down Global-Warming



A group of US scientists proposed an unorthodox scheme to combat global warming: creating **large clouds of Moon-dust in space to reflect sunlight and cool the Earth.**

- Proposed measures to cool Earth by reducing the amount of sunlight reaching the surface are often called “**solar geo-engineering**” or “solar radiation management”.

Proposal:

- Scientists proposed the regular transport of moon dust to a gravity point called as **Lagrange Point** between Earth and the Sun to temper the ravages of global warming by the dimming of the amount of incoming sunlight with Moon Dust.

Why moon dust?

- Moondust is plentiful, and launching dust clouds from the Moon’s lower gravity would require substantially less energy than similar launches from Earth.

What is Solar Geo-engineering?

- Solar geoengineering, or solar radiation modification (SRM), is a type of climate engineering in which sunlight (solar radiation) would be reflected back to outer space to limit or reverse human-caused climate change.
- Example: Injecting a thin layer of aerosol particles into Earth’s upper atmosphere known as **Stratospheric aerosol injection**.
- It is not a substitute for reducing greenhouse gas emissions but would act as a **temporary measure to limit warming**.

Anubhuti Inclusive Park

Recently, **Union Minister for Road Transport and Highways** laid the foundation stone of the ‘**Divyang Anubhuti Inclusive Park**’ in Nagpur, Maharashtra.



- It is the world's first inclusive disabled park that is made by the **Ministry of Social Justice and Empowerment**.
- It is a facility that will have **tactile pathways, touch and smell garden and a host of other amenities for persons with disabilities (PwDs)**.
- The park will have a play area for special children, **hydrotherapy** (use of water to treat any symptom of the body) room, waterfall sound therapy, clay unit, **sensory park** and **amphitheatre**.
- In 2016, the central government enacted the **Rights of Persons with Disabilities Act** in order to protect the rights of those with disabilities.

Mohiniyattam Dance

Classical dance legend Kanak Rele passed away. The **Mohiniyattam** artiste was awarded the first **Guru Gopinath National Puraskaram** of the Government of Kerala.

- **Mohiniyattam** literally interpreted as the dance of ‘**Mohini**’, the celestial enchantress of Hindu mythology, is the **classical solo dance form of Kerala**.

Key Features:

- It is performed by women.
- The thumping of footsteps is absent & Footwork is gentle.
- It narrates the story of the feminine dance of Vishnu.

Description:

- Mohiniyattam is characterized by **graceful, swaying body movements** with no abrupt jerks or sudden leaps. It belongs to the ***lasya style*** which is feminine, tender and graceful.
- The foot work is not terse and is rendered softly. Importance is given to the hand gestures and ***Mukhabhinaya*** with subtle facial expressions & nine sentiments.
- Mohiniyattam lays emphasis on acting. The dancer identifies herself with the character and sentiments existing in the compositions like the Padams and Pada Varnams which give ample opportunity for facial expressions.
- The hand gestures, 24 in number, are mainly adopted from Hastalakshana Deepika, a text followed by Kathakali. Few are also borrowed from NatyaShastra, AbhinayaDarpana and Balarambharam.
- The gestures and facial expressions are closer to the natural (gramya) and the realistic (lokadharmi) than to the dramatic or rigidly conventional (natyadharmi).
- The traditional repertoire includes **Chollukettu, Jatiswaram, Padavarnam, Padam, Tillana and Slokam**.
- Besides these Pandattam and Omanatinkal (lullaby), introduced by Vallatol are also popular and are often included in a recital.
- Most of the compositions included in the repertoire have been composed by Swati Tirunal which emphasizes the **Sahitya Bhava** i.e. the literary content.
- The famous Malayali poet V. N. Menon revived it along with Kalyani Amma.



BRAHMASTRA

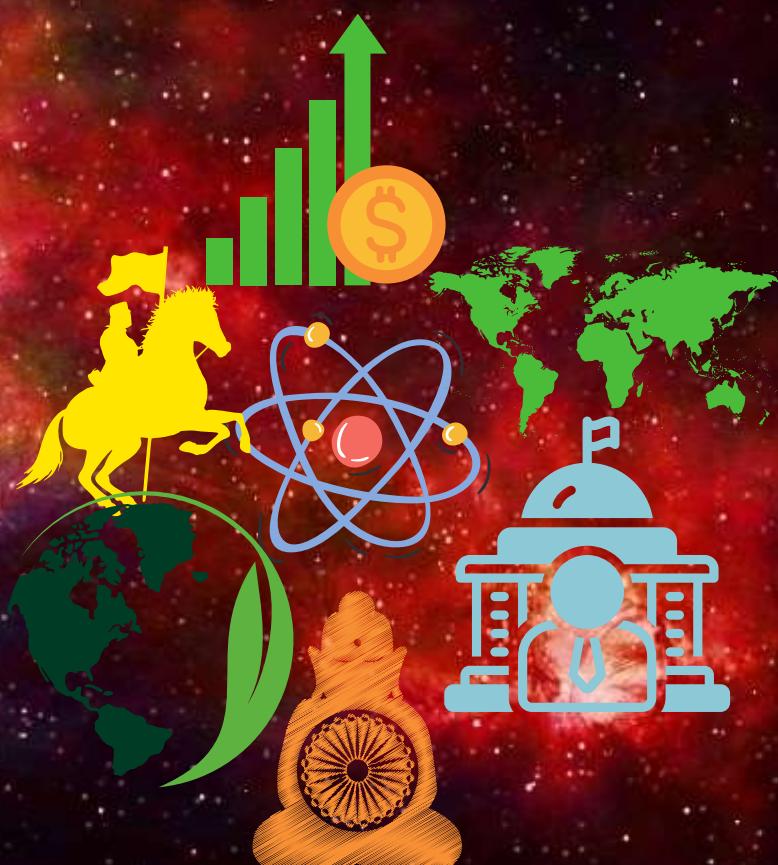
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

24 FEBRUARY 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: A Year for Russia-Ukraine Conflict

RELEVANCE : #GS-2 #International Relations

MAINS ANALYSIS

CONTEXT

A year after Russia launched its invasion of Ukraine, there are signs of escalation everywhere. The West has recently announced the **supply of more advanced weapons** to Ukraine, deepening its involvement in the conflict. In response, Russian President Vladimir Putin announced the suspension of his country's participation in the **New Start treaty**, which could trigger a.

- Russia's territorial gains in Ukraine peaked in March 2022. Since then, Ukraine recaptured some land in Kharkiv and Kherson. But still, Russia controls some **17% of Ukraine as of February 2023**.

CONFLICT

- Ukraine and Russia share hundreds of years of cultural, linguistic and familial links. As part of the Soviet Union, Ukraine was the second-most powerful Soviet republic after Russia.
- Russia–Ukraine War, has been ongoing between Russia (alongside Russian separatists in Ukraine) and Ukraine since February 2014.
- Following **Ukraine's Revolution of Dignity**, **Russia annexed Crimea from Ukraine** and supported **pro-Russian separatists** in the war in Donbas against Ukrainian government forces
- On February 2022, the conflict saw a major escalation as Russia launched a full-scale invasion of Ukraine & agreements like the Minsk Protocols of 2014, and the Russia-NATO Act of 1997 stand all but voided.

PRESENT STATUS



POSITION OF INDIA

- It has abstained from successive votes in the UN Security Council, General Assembly, and Human Rights Council that condemned Russian aggression in Ukraine
- It has refused to openly call out Russia as the instigator of the crisis.
- India's position on the Ukraine crisis is not an isolated one : eg. China too abstained, along with the United Arab Emirates (UAE).
- India has supported Implementation of international order ,peace establishment and condemned aggression.

India has advocated political and diplomatic solutions that protect the legitimate interests of all countries in the region and ensure long term peace and stability in Europe and beyond.

WAY FORWARD

Ukraine, given its dependence on the West, would require clearance from western capitals for any final settlement, which also means that for a lasting solution, Washington and Moscow should reach some kind of understanding.

India being at unique position can play a role of mediator considering the following things : Dynamics of Russia-Ukraine & Regional politics has to be understood well.

India have to walk on a diplomatic tightrope balancing western and eastern influences and maintaining its own national interest and sovereignty.

MAINS QUESTION

Given its unique position and international relationships, could India be a mediator between Russia and Ukraine? Discuss.

150 Words 10 Marks





Prelims

Child's Right To Protect Genetic Data



Recently, the Supreme Court declared that **DNA testing cannot be used in every situation** of parents in conflict as a way to determine infidelity.

- Children have the right not to have their legitimacy called into question in court on impractical grounds as it is an essential feature of the **right to privacy**.
- Supreme Court also directed to acknowledge that **children must not be regarded as material objects** and that they are subjected to forensic/DNA testing only as a last resort particularly when they are not parties to a divorce proceeding.
- Supreme Court of India drew attention to the rights to privacy, autonomy, and identity recognized by the **United Nations Convention on the Rights of the Child, 1989** which India ratified in 1992.

What is DNA?

- Deoxyribonucleic acid (DNA) is an organic molecule with a complex molecular structure. The strands of a DNA molecule are composed of a long chain of monomer nucleotides with a **double helix structure**.
- It is essential for the transmission of **genetic characteristics from one generation to the next**.
- DNA Test:** It refers to a genetic test used in genetic genealogy that looks at specific locations of a **person's genome to find or verify ancestral genealogical relationships**, or to estimate ethnic mixture of an individual.

World Day of Social Justice



On February 20 each year, the world celebrates **World Day of Social Justice** started by the **United Nations General Assembly** in 2007.

- It is an international day recognizing the need to promote social justice, which includes efforts to tackle issues such as poverty, exclusion, gender inequality, unemployment, human rights, and social protection.
- The **theme** for this year is "Overcoming Barriers and Unleashing Opportunities for Social Justice".
- International Labour Organisation (ILO) endorsed the **ILO Declaration on Social Justice for Equitable Globalization** which is the ILO's third major declaration of principles and policy since the ILO's Constitution of 1919.

Sagar Parikrama



The Department of Fisheries, **Ministry of Fisheries**, Animal Husbandry and Dairying, and National Fisheries Development Board launched Sagar Parikrama Phase III on 19th Feb 2023 in Surat, Gujarat.

- Sagar Parikrama is a navigation journey to be conducted in all coastal states/UTs through a pre-decided sea route to **demonstrate solidarity with all fisherfolk, fish farmers and concerned stakeholders**.
- It will also disseminate information about various fisheries-related schemes and programs



Gross Domestic Climate Risk Ranking

India has nine states listed in Cross Dependency Initiative's (XDI) **Gross Domestic Climate Risk ranking**, including *Punjab, Bihar, Uttar Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Gujarat, Kerala and Assam*, among the 50 highest-risk states globally.

- The index calculated the '**Physical climate risk**' to built environments such as buildings and properties across 2,600 States and provinces globally in 2050.
- Physical climate risk** refers to vulnerability from **eight climate change events** like heat waves, coastal flooding, extreme wind, etc.
- Aggregated Damage Ratio (ADR)**: The index also assigned ADR to each region signifying the total amount of **damage a region's-built environment would sustain in 2050**.

Key Findings:

- 80% of the 50 provinces facing the highest climate risk to their physical infrastructure by 2050 belong to **China, the US, and India**.
- Assam, in particular, would witness the maximum increase in climate risk, rising up to 330% by 2050 as compared to 1990.
- 11 of the 36 districts in Maharashtra were found to be "highly vulnerable" to extreme weather events, droughts and dwindling water security.



Beyond National Jurisdiction (BBNJ) Treaty

India implored the member nations of the United Nations Convention on the Law of Sea (UNCLOS) to reach a speedy conclusion to the **International Legally Binding Instrument – Biodiversity Beyond National Jurisdiction (BBNJ)** in fourth meeting of the Intergovernmental Conference (IGC-4).

What is BBNJ Treat?

- The "**BBNJ Treaty**", also known as the "**Treaty of the High Seas**", is an international legally binding agreement on the **conservation and sustainable use of marine biological diversity** of areas beyond national jurisdiction.
- This new instrument is being developed within the framework of the UNCLOS, the main international agreement governing human activities at sea.
- It will also address **existing inequalities in sharing the benefits** (including access) accrued from the organisms of areas beyond national jurisdiction. According to the IIUCN, these areas account for "almost half of the Earth's surface".

What is UNCLOS?

- The United Nations Convention on the Law of the Sea was adopted in 1982. It lays down a **comprehensive regime of law and order in the world's oceans and seas** establishing rules governing all uses of the oceans and their resources.

BRAHMASTRA

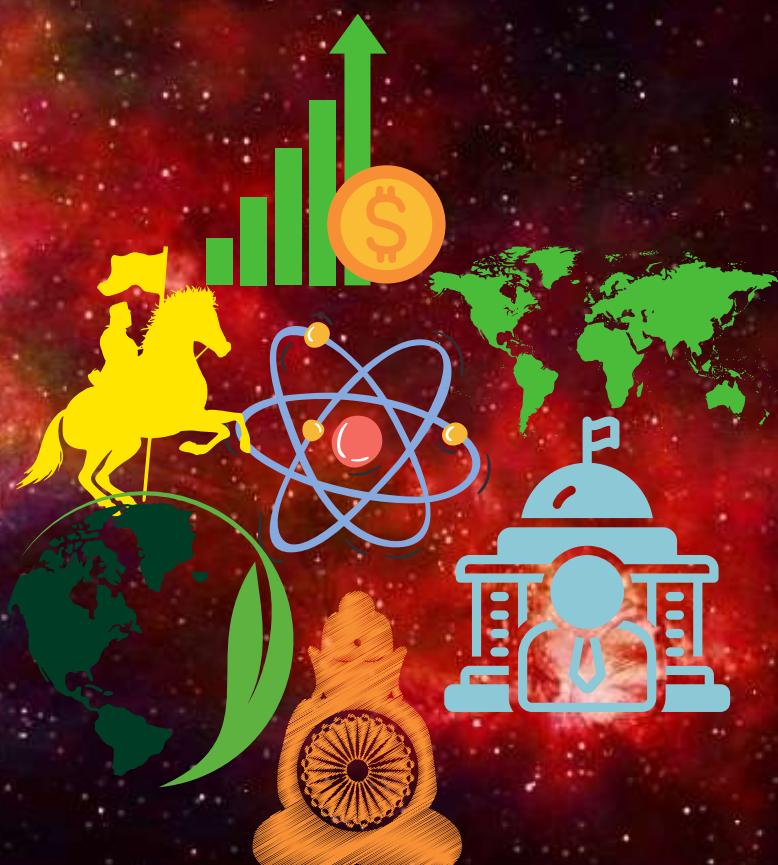
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

25 FEBRUARY 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: Hate Speech-Section 153A

RELEVANCE : #GS-1 #Society #GS-2 #Govt Policies

MAINS ANALYSIS**CONTEXT**

Recently, Pawan Khera, Congress leader, was arrested for alleged hate speech by Assam Police under Section 153A.

- The invocation of hate speech laws is often criticised for restricting free speech and misusing the legal processes for political purposes.
- According to United Nations, Hate speech is “discriminatory” (biased, bigoted or intolerant) or “pejorative” (prejudiced, contemptuous or demeaning) of an individual or group.**

LEGAL PROVISIONS

- IPC Section 153A: It deals with actions promoting enmity between different groups on grounds of religion, race, place of birth, residence, language, etc., and doing acts prejudicial to the maintenance of harmony.
- IPC Section 295A: It deals with deliberate and malicious acts, intended to outrage the religious feelings of any class by insulting its religion or religious beliefs.
- Similarly, IPC Sec 505, Section 8 of Representation of the People Act, 1951, Information Technology Act and CrPC also provides for action against Hate Speech.

ISSUES WITH SUCH LAWS

- In 1969, the offence was widely amended to enlarge its scope to prevent communal tensions. In the same amendment, the offence was also made cognisable, which means a police officer can make an arrest without a warrant.
- Shreya Singhal v. Union of India (2015):** The court struck down Section 66A of the IT Act, which criminalized online speech, stating that it violated the right to freedom of speech and expression.
- Definition of hate speech remains subjective with reference to the context.**
- Using hate speech laws as a political tool**
- Against article 19 of Indian Constitutions.**
- Difficult challenges in identifying and removing hate speech online**

NEED OF SUCH LAWS

- Ramji Lal Modi case (1957): Supreme court reasoned that while Article 19(2) allows reasonable limits on freedom of speech and expression for the sake of public order.
- Sukumar v. State of Tamil Nadu (2019): the court held that hate speech on social media platforms is not protected by the right to freedom of speech and expression.
- Hate Speech undermines social equality as it reaffirms historical marginalization, oppression & discrimination.
- It is enacted to cause psychological and physical harm to its victims as it incites violence.
- It is used to provoke individuals or society to commit acts of terrorism, genocides, ethnic cleansing etc.

WAY FORWARD

- India has a diverse population with different languages, religions, and cultures, thus there is a need to curb incidents of hate speech and crimes that can have a detrimental impact on individuals and communities.
- It is a complex and multifaceted issue that poses significant challenges for regulators and policymakers which will require a multifaceted approach that includes education, technology, and legal enforcement. Thus, it becomes important for governments, civil society organizations, and individuals to work together to combat hate speech and promote a more inclusive and tolerant society.

MAINS QUESTION

Hate Speech, Hurt Sentiment, and Free Speech discuss the triad and critically analyse the hate speech laws in India.

250 Words 15 Marks





UN's Trends in Maternal Mortality Report

The UN's new report "Trends in Maternal Mortality" was released by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division.

- WHO has defined the **Maternal Mortality Ratio (MMR)** as the **number of maternal deaths during a given time period per 100,000 live births during the same time period**.

Key Findings:

- Every two minutes, a woman dies during pregnancy or childbirth.
- The top three sub-regions in the world with a high or very high MMR were found in sub-Saharan Africa.
- India** recorded the **second-highest number of maternal deaths** in 2020, coming second at 24,000 to only **Nigeria**. In India, the MMR has declined dramatically by **73.5%** from 2000 to 2020.



Jaipur Declaration

"Jaipur Declaration" was adopted at the 18th World Security Congress jointly organized by the Railway Protection Force and the International Union of Railways (UIC).

- It outlines an actionable agenda for UIC to explore **innovative approaches** that can **help global Railway organizations achieve their long-term goal of safety and security**.

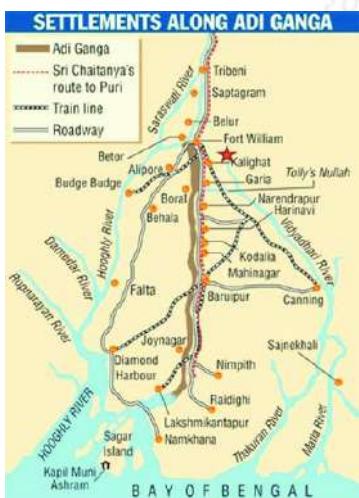
Railway Protection Force initiatives

- Operation Nanhe Farishte** for the rescue of children.
- Operation AAHT** for rescuing women and children from the clutches of traffickers.

Railway Protection Force (RPF) under the Ministry of Railways (India) is the prime security and law-enforcement organization in the field of Railway Security in India. Constituted as a federal Force in the year 1957

Adi Ganga Revival Plan

Plans to revive the dying Adi Ganga may finally see the light of the day.



- The National Mission for Clean Ganga (NMCG) has assigned around Rs 650 crore to revive the ancient river, and it has also been brought into a multi-country river project to fight pollution.
- Adi Ganga refers to the original channel of River Ganga passing through the city of Kolkata.** The Adi Ganga, also known as the Gobindapur creek, Surman's Canal and (presently) **Tolly's Canal**, was the main flow of the Hooghly River between the 15th and 17th centuries that virtually dried up due to natural reasons and Hooghly became the main river stretch and Adi Ganga turned into a secondary tributary.
- The objective of the NMCG is to reduce pollution and ensure the rejuvenation of the Ganga river being implemented by **National Ganga Council** under chairmanship of Hon'ble Prime Minister of India.

Sinhan Top



For the first time, the road to **Sinhan Top** has been opened for traffic in the month of February 2023 with an aim to promote tourism to this off-beat destination in Jammu and Kashmir.

- Sinhan Top is a **mountain pass**, a popular tourist destination located between South Kashmir's **Breng Valley (Sub-District Kokernag)** in Anantnag district and **Kishtwar district of Chenab Valley** in the Indian union territory of Jammu and Kashmir.
- Some major tourist attractions in Jammu and Kashmir are Srinagar, with its renowned **Dal Lake and Mughal Gardens, Gulmarg, Pahalgam, Bhaderwah, Vaishno Devi, Patnitop and Jammu**.

Dickinsonia



Two years ago, the discovery of a rare old fossil of **Dickinsonia**, was reported from the **Bhimbetka rock shelters (a UNESCO World Heritage Site)** near Bhopal, **Madhya Pradesh**. However, a closer look at the site revealed the Dickinsonia fossil to really be wax smeared on a rock by a beehive.

- Dickinsonia is an **extinct genus of basal animal** (radially symmetric) that lived during the late **Ediacaran period** (around 600-500 million years ago) in what is now Australia, China, Russia and Ukraine.
- It is believed to be one of the **earliest animals** to have existed on earth. The Bhimbetka rock shelters were founded by **V S Wakankar in 1957**. The oldest of the cave paintings in Bhimbetka is believed to be from about 12,000 years ago.

MAPPING - ITALY



Some of Venice's canals have dried up due to a prolonged spell of drought and severe low tides. Italy is a sovereign nation occupying 301,340 km²(116,350 sq mi) in southern Europe.

- **Lake Garda on Adige River**
- **Po River (Italy's longest river)**
- **City of Venice**
- **Corsica**
- **Ionian sea**
- **Malta Channel**
- **Adriatic Sea**
- **Alps Mts**
- **Apennines Mts**

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

26 FEBRUARY 2023

INCLUDES

MAINS ANALYSIS

DAILY MAINS QUESTION

PRELIMS CURRENT AFFAIRS

COVERING

THE HINDU

INDIAN EXPRESS

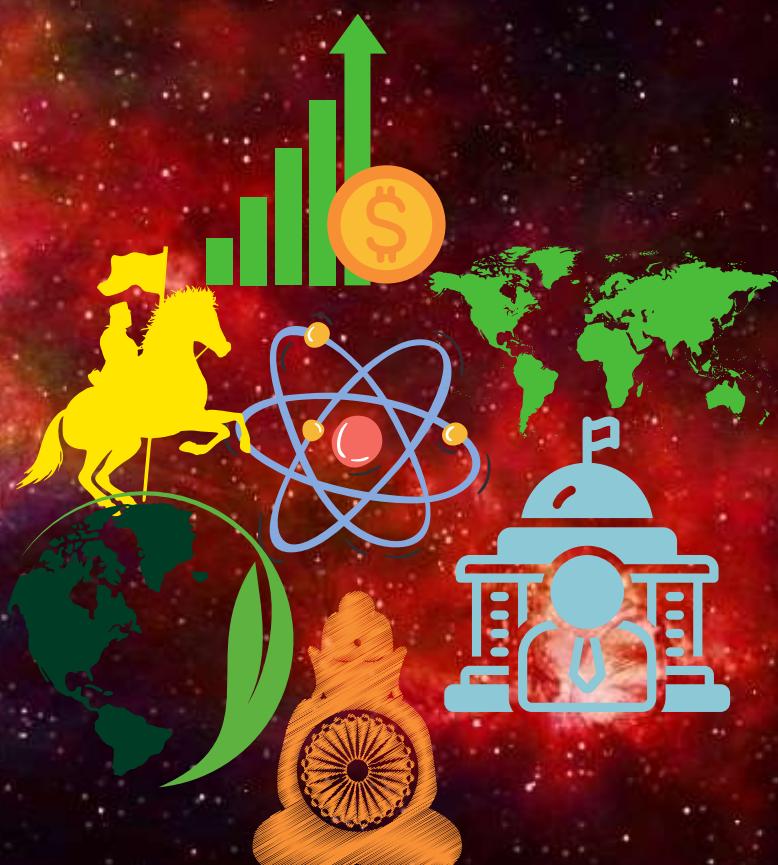
ECONOMIC TIMES

TIMES OF INDIA

PIB

YOJANA

& MUCH MORE.



TOPIC: Blue Food

RELEVANCE : #GS-3 #Environment #GS-2 #Health

MAINS ANALYSIS**CONTEXT**

A new study suggests that blue food sourced from aquatic environments can help reduce nutritional deficiencies and contribute to employment and export revenue in India.

- Blue food is food derived from **aquatic animals, plants or algae** that are **caught or cultivated in freshwater and marine environments**.
- Blue foods are important for the **economies, livelihoods, nutritional security, and cultures of people in many countries**.

SIGNIFICANCE:

- Key Source of Nutrient: They supply protein to over 3.2 billion people.
- Low Emission and Tackle Deficiencies: They **generate lower emissions** compared to terrestrial meat.
- **Reduce Cardiovascular Diseases:** Promoting blue foods over red meat overconsumption could address health and environmental concerns for about 82% of the 22 countries suffering from a high **cardiovascular disease** risk
- Livelihoods and Revenue Potential: improve nutrition, livelihoods or national revenue for the global south and indigenous communities.

ISSUES

- **Bycatch:** This refers to the **accidental capture of non-target species** in fishing nets, which can lead to the death of these animals.
- **Pollution:** The presence of pollutants such as heavy metals, PCBs and **microplastics** in the **ocean can affect the quality and safety of seafood**.
- **Mislabeling and Fraud:** There have been instances of mislabeling of seafood products, where a **cheaper fish is sold as a more expensive one**.
- **Over exploitation:** Almost 90% of global marine fish stocks are now fully exploited or overfished according to the World Bank.
- Danger of invasive species: in case of imports for culturing in a country

EFFORTS

- **Blue Food Assessment (BFA) report** by Sweden-based Stockholm Resilience Centre, United States-based Stanford University and the non-profit EAT.
- The Ministry of Earth Sciences (MoES) has rolled out the draft **Blue Economy policy**, inviting suggestions and inputs from various stakeholders.
- **Pradhan Mantri Matsya Sampada Yojana** under Nodal Ministry/ Department: Department of Fisheries which aims to facilitate private investment and growth of entrepreneurship in the fisheries sector.

WAY FORWARD

- Increasing Awareness: Governments, NGOs, and the private sector should work together to increase awareness about the benefits of blue food and its potential to address malnutrition, poverty, and environmental degradation.
- Promoting Sustainable Fishing Practices and **Encouraging Aquaculture:** Aquaculture can be a sustainable way of producing blue food if it is done in an environmentally responsible manner.

MAINS QUESTION

Blue Food can help reduce nutritional deficiencies and contribute to employment and export revenue in India. Discuss

150 Words 10 Marks



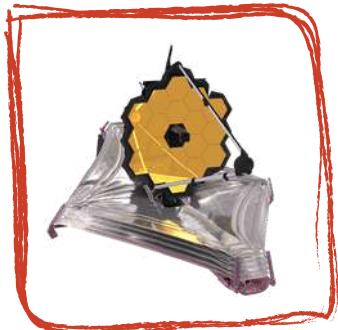


Prelims

Neutrino's Antiparticle

Particle	An experiment in Japan recently reported that it failed to find "strong evidence" for neutrinos being their own antiparticles which was predicted earlier.
Electron	-
Proton	+
Neutrino	Spin
Antiparticle	<ul style="list-style-type: none"> A neutrino is a fundamental elementary particle, and atmospheric neutrinos can be studied when solar radiation hits the earth's atmosphere. Their lack of electrical charge makes them almost impossible to detect as they don't interact with other forms of matter. Neutrinos are the second most abundant particles in the cosmos after photons. Every elementary particle has an antiparticle. If the two meet, they will destroy each other in a flash of energy. For Example, an electron's antiparticle is the positron with an opposite charge. <p>Do You Know?</p> <ul style="list-style-type: none"> India-based Neutrino Observatory (INO) is a particle physics research project under construction to primarily study atmospheric neutrinos in a 1,200-meter-deep cave under INO Peak near Theni, Tamil Nadu, India.

James Webb Space Telescope (JWST)



Observations by the **James Webb Space Telescope (JWST)** suggest that **galaxies grew quicker than expected** early in the history of the Universe.

- The telescope made observations of a population of candidate massive galaxies that formed around 500-700 million years after the Big Bang.
- Big Bang Theory:** The **Big Bang** event is a physical theory that describes how the universe expanded from an **initial state of high density and temperature**.

About JWST:

- The James Webb Space Telescope (JWST) is a space telescope currently conducting **infrared** astronomy being described as "a giant leap forward in the quest to understand the Universe and our origins".
- It was developed by **NASA** with the assistance of the **European Space Agency and the Canadian Space Agency**.

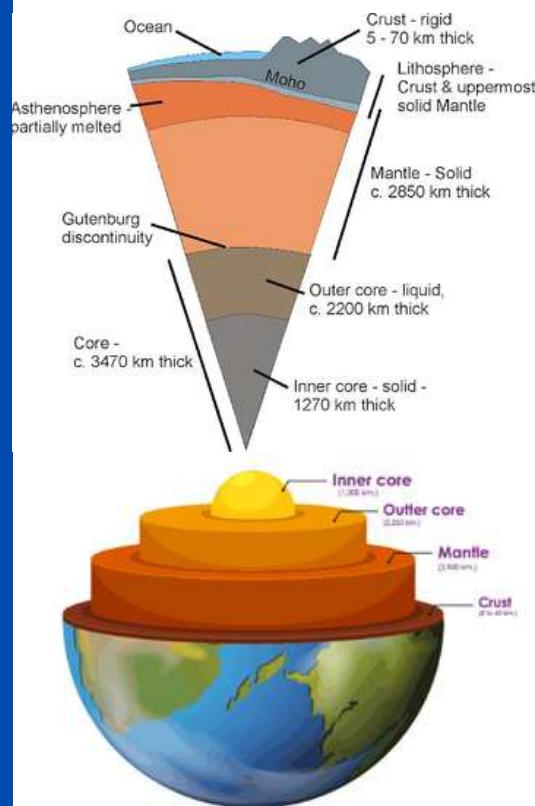
Marconi Prize

Computer scientist **Hari Balakrishnan** has been awarded the 2023 **Marconi Prize**.



- Dr Balakrishnan is a Professor in the Department of Electrical Engineering and Computer Science, at Massachusetts Institute of Technology (MIT).
- The **Marconi Prize** is a top honour for computer scientists and is awarded by the U.S.-based Marconi Foundation. It is given to those "who have made a significant contribution to increasing digital inclusivity through advanced information and communications technology."

Inner Core of Earth



Measurements of earthquake reverberations have revealed that our planet's inner core — a solid ball of iron-nickel (Ni-Fe) — has **two distinct layers** made of **differently structured iron crystals**.

The factual sources concerning the interior of the earth are not readily available. Therefore, the knowledge about the interior of the Earth is based on some direct and indirect sources.

- Direct Sources:** Surface rock, Volcanos, Mining Projects, Drilling Projects, Deep Ocean Drilling Projects, Integrated Ocean Drilling Projects etc.
- Indirect Sources:** Earthquake/Seismic activities, Meteorites, Gravitation, Magnetic field etc.

Chemically, Earth can be divided into the **crust, upper mantle, lower mantle, outer core, and inner core**.

About Inner Core

- The inner core extends from the centre of the earth to 5100 km below the earth's surface. Earth's inner core **rotates slightly faster** relative to the rotation of the surface.
- The **solid inner core is too hot to hold a permanent magnetic field**.

UPI-PayNow Linkage

India's Unified Payments Interface — better known as UPI — and

Singapore's PayNow have been officially integrated.

- Singapore is the first country with which cross-border Person to Person (P2P) payment facilities have been launched.
- With this facility, funds held in bank accounts or e-wallets can be transferred to /from India using just the UPI ID, mobile number, or VPA.
- This facility will do away with the requirement of entering beneficiary information, including bank account numbers, bank codes etc.

Significance

- Crossborder interoperability of payments** using cards and QR codes between India and Singapore would further anchor **trade, travel and remittance flows** between the two countries.

About UPI and PayNow

UPI is India's mobile-based fast payment system, which facilitates customers to make round-the-clock payments instantly, using a **Virtual Payment Address (VPA)**. It was developed by NPCI in 2016.

- UPI supports both Person-to-Person (P2P) and Person-to-Merchant (P2M) payments and it also enables a user to send or receive money.
- PayNow is a fast payment system in Singapore. It enables **peer-to-peer funds transfer service**, available to retail customers through participating banks and Non-Bank Financial Institutions (NBFIs).

BRAHMASTRA

ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

28 FEBRUARY 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: Electronic Waste

RELEVANCE : #GS-3 #Environmental Pollution & Degradation

MAINS ANALYSIS

CONTEXT

In November 2022, the Ministry of Environment and Forests further notified a **new set of e-waste rules**, which will come into force from April 1, 2023.

- E-Waste refers to **old, end-of-life or discarded electronic appliances**. It includes their components, consumables, parts and spares.
- Laws to manage **e-waste** have been in place in India since 2011, mandating that only authorised dismantlers and recyclers collect e-waste.
- **Only 22.7%** of the e-waste in 2019-20 in India was collected, dismantled, and recycled or disposed of. Maharashtra generates the most e-waste among all the Indian states.

E-WASTE RULES 2022

- **'Registration of Stakeholders'**: It will apply to every manufacturer, producer, refurbisher, dismantler and recycler.
- Restriction of Imports and use of hazardous substances like lead, cadmium, and mercury in manufacturing **electrical and electronic equipment (EEE)** following deaths due to exposure to radioactive material.
- **Extended Producer Responsibility Certificates**
- Central Pollution Control Board shall conduct random sampling of EEE.
- Manufacturers collect e-waste generated during manufacture and ensure its recycling or **disposal**.

ISSUES

- Lack of People's Involvement.
- **Involvement of Child Labor**: In India, about 4.5 lakh child labourers in the age group of 10-14 are observed to be engaged in various E-waste activities.
- **Ineffective Legislation**: There is the absence of any public information on most State Pollution Control Boards (SPCBs)/PCC websites.
- Lack of Right to Repair Laws.
- Health Hazards: E-waste contains over 1,000 toxic materials, which contaminate soil and groundwater.
- E-waste Imports: Cross-border flow of waste equipment into India via developed countries.
- Lack of coordination between various authorities responsible for E-waste management.

EFFORTS

- The **Nairobi Declaration** was adopted at COP9 of the **Basel Convention** on the Control of the Trans-boundary Movement of Hazardous Waste.
- India's first e-waste clinic has been set-up in Bhopal, Madhya Pradesh.
- E-waste rules 2016, amended in 2018, were comprehensive and included provisions to promote '**authorisation**' and '**product stewardship**'. Other categories of stakeholders such as Producers Responsibility Organisations (**PRO**) were also introduced in these rules.
- Urban Local Bodies (Municipal Committee/Council/Corporation) has been assigned the duty to collect and channelize the orphan products to authorized dismantlers or recyclers.

WAY FORWARD

- Recycling: To reduce the dangerous impacts of e-waste, it is critical to e-cycle goods effectively so they can be recycled, refurbished, resold, or repurposed.
- Need to address safe disposal of domestic waste and attract investment in this sector.
- 95% of ewaste is channelised to the informal sector should be focused. For Example **Karo Sambhav**', a Delhibased PRO, has integrated informal aggregators in its collection mechanism
- Standardising the ewaste value chain through a **common digital 'portal'** may ensure transparency and is crucial to reduce the frequency of 'paper trading' or 'false trail'

MAINS QUESTION

E-waste is a serious threat accompanying the digital revolution in India. Do you agree? What are the current provisions to address the challenge of e-waste in India? Critically review.

150 Words 10 Marks





Prelims

Contempt Of Court



Kerala High Court had directed the issuance of a **non-bailable warrant** for the arrest and production of Nipun Cherian due to the willful and continued absence of Cherian before the court in the **contempt matter** pertaining to the comments made by him on Kerala high court.

- Contempt of court is the crime of **being disobedient to or disrespectful toward a court of law and its officers** in the form of behaviour that opposes or defies the authority, justice, and dignity of the court.
- Contempt of court has **not been defined** by the Constitution. However, **Article 129 of the Constitution** conferred on the Supreme Court the power to punish contempt of itself. **Article 215** conferred a corresponding power on the High Courts.

Contempt of Courts Act, of 1971

- An Act to **define and limit** the powers of certain courts in punishing contempt of courts and to regulate their procedure in relation thereto.
- While **civil contempt refers to wilful disobedience** to any judgment of the court.
- Criminal contempt can be invoked if an act:
 - (i) **Scandalises** or tends to scandalise, or lowers or tends to lower the authority of, any court; or
 - (ii) **Prejudices, or interferes** or tends to interfere with, the due course of any judicial proceeding; or
 - (iii) **Interferes** or tends to interfere with, or obstructs or tends to obstruct, the administration of justice in any other manner.

Agnipath scheme

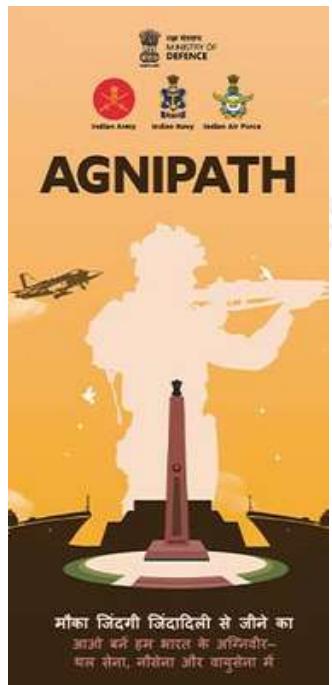
Upholding the validity of the Agnipath scheme, the Delhi High Court says it has been introduced in the national interest. In July 2022, the Supreme Court made the Delhi High Court the core forum to examine the legality of the scheme.

What is the Agnipath scheme?

- Agnipath Scheme) is a **tour of duty style scheme** introduced by the Government of India on 14 June 2022, for recruitment of soldiers below the rank of commissioned officers into the three services of the armed forces.

Key Features:

- Eligibility: Age 17.5-21 years.
- **Duration of service is four years**, including a training period 1st year salary package of Rs. 4.76 lakh (approx.) with upgradation of up to Rs. 6.92 lakh (approx.) in 4th year.
- Post release: **Seva Nidhi package** of approx. Rs. 11.71 lakh, including interest (tax-free)
- **Non-contributory insurance cover** of Rs. 48 lakh **Agniveer skill certificate** will assist in post-release job opportunities.
- Of the total annual recruits, **only 25 per cent** will be allowed to continue for another 15 years under a permanent commission.





Prelims

Organs-on-Chips



Researchers and biomedical companies in the U.S. have started to build assemblies of different organ chips.

- Organ chips are **small devices containing human cells that are used to mimic the environment in human organs**, including blood flow and breathing movements, serving as synthetic environments in which to **test new drugs**.
- These are **Microfluidic devices** lined with living human cells for **drug development, disease modelling, and personalized medicine**.
- Examples: **Brain-on-a-chip, Gut-on-a-chip etc.**

Raisina Dialogue



Italian PM Meloni was invited as chief guest at **8th Raisina Dialogue**. The **1st edition was held in 2016**.

- It is a **multilateral conference** committed to addressing the most challenging issues facing the global community held annually.
- This Dialogue is set up as a multi-stakeholder and cross-sectoral conversation, with heads of state, cabinet ministers, local government officials, important private sector executives, media representatives, and academics all involved.
- The conference is **hosted** by the **Observer Research Foundation**, an independent think tank, in collaboration with the **Ministry of External Affairs, Government of India**. It is designed on the lines of Singapore's Shangri-La Dialogue.

Do You Know?

- The name "Raisina Dialogue" comes from **Raisina Hill**, an elevation in New Delhi, the seat of Indian Government, as well as Rashtrapati Bhavan.

Exercise Desert Flag VIII



For the first time, **India's indigenously-made Light Combat Aircraft (LCA Tejas)** will be participating in exercise Desert Flag VIII in UAE.

- Exercise Desert Flag is a **multilateral air exercise** in which Air Forces from UAE, France, Kuwait, Australia, UK, Bahrain, Morocco, Spain, Republic of Korea, and USA. The aim of the exercise is to participate in diverse fighter engagements and learn from the **best practices**.

Do You Know?

- 'Desert Eagle is a joint air combat exercise, between the air forces of India and UAE.

Related News: Indian Air Force (IAF) also participated in the multilateral air exercise '**Exercise Cobra Warrior**' at the Royal Air Force's (RAF) in the United Kingdom, along with Finland, Sweden, South Africa, the United States of America and Singapore.

- **Other exercises between India and UK:** Ajeya Warrior (Military), Konkan (Navy), Indradhanush (Air Force) and Konkan Shakti (First ever tri-services joint exercise)

BRAHMASTRA

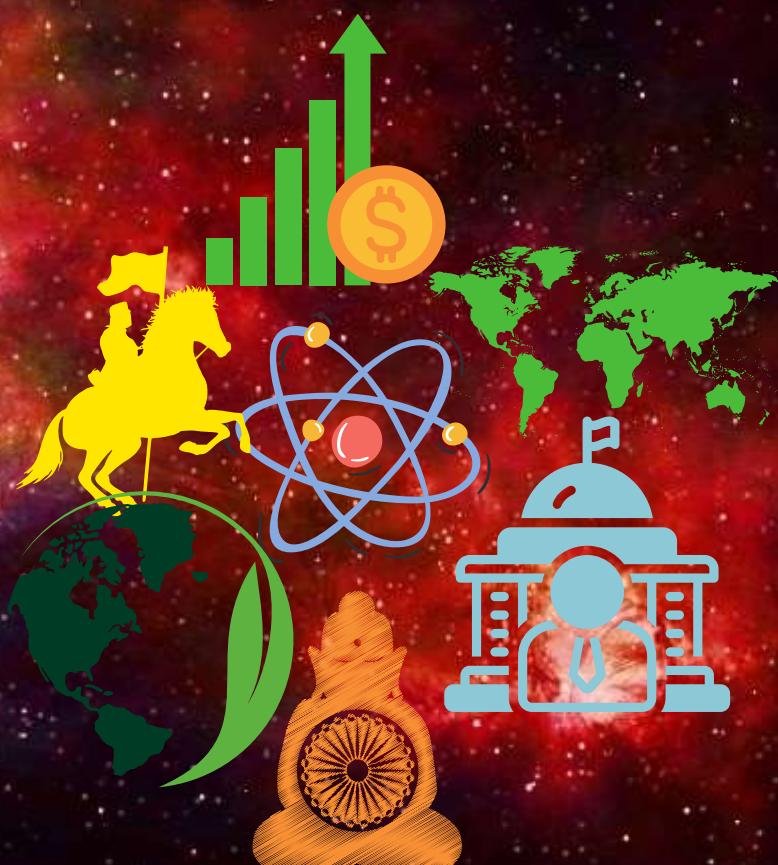
ONE STOP SOLUTION FOR UPSC AND PSC
CURRENT AFFAIRS

27 FEBRUARY 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: A brief history of the Khalistan movement

RELEVANCE : #GS-1 #Post-Independence

MAINS ANALYSIS**CONTEXT**

Hundreds of followers of a radical preacher and pro-Khalistan leader (Amritpal Singh) clashed violently with police near Amritsar, demanding the release of one of their colleagues.

- Amritpal Singh is a follower of the slain Sikh militant Jarnail Singh Bhindranwale and took the reins of the '**Waris Punjab De**' organisation following the death of its founder (Deep Sidhu).
- The **Khalistan movement** is a **Sikh separatist movement seeking to create a homeland for Sikhs** by establishing a sovereign state, called Khalistan ('Land of the Khalsa'), in the Punjab region.

STATE REORGANISATION

- While most Sikhs found themselves in India, they were a small minority (2% of the population) in the country.
- The States Reorganisation Commission report (1955) rejected this demand, but the state of **Punjab was reorganised (trifurcated into the Hindi-Hindu-majority HP and Haryana, and Punjabi-Sikh-majority Punjab) in 1966**.
- The Punjabi Suba movement had galvanised the Akali Dal, which concluded the Anandpur Sahib Resolution (1973) demanding autonomy (not secession from India) for the state of Punjab.
- This demand had gone global by 1971 – when an advertisement in The New York Times proclaimed the birth of Khalistan.

ORIGIN OF THE MOVEMENT

- Its origins have been traced back to **India's independence** and subsequent Partition along religious lines.
- The Punjab province, which was divided between India and Pakistan, witnessed communal violence and generated millions of refugees.
- The **historic Sikh Empire's capital**, Lahore, as well as sacred Sikh sites like Nankana Sahib, the birthplace of Guru Nanak, went to Pakistan.
- The political struggle for greater autonomy began with the **Punjabi Suba Movement** for the creation of a Punjabi-speaking state.

OPERATION BLUE STAR

- The Khalistan movement was crushed in India following Operation Blue Star (by the Indian Army to flush out militants from the Golden Temple and **neutralise Bhindranwale** in 1984) and **Operation Black Thunder** (1986 and 1988).
- While the operations were ostensibly successful in their aims, they gravely wounded (by the desecration of the Golden Temple) the Sikh community around the world and also galvanised the demand for Khalistan.
- PM Indira Gandhi was assassinated (on October 31, 1984), triggering the worst communal violence since Partition. Punjab became the hub of a long drawn-out insurgency (allegedly supported by Pakistan) that lasted till 1995.

WAY FORWARD

- The movement continues to evoke sympathy and support among sections of the Sikh population, especially in the Sikh diaspora.
- Today, the movement is fuelled by vote bank politics, social issues (unemployment, drug menace in Punjab), dissatisfaction among the Sikh diaspora and support from non-state actors.

In order to curb the Khalistan movement and ideology, the Indian government needs to address the above-mentioned issues.

MAINS QUESTION

Critically examine the roots of Khalistan movement, its objectives and the causes of its fall.

150 Words 10 Marks



Brahmastra Prelims

Open Network for Digital Commerce

Amazon has declared it will be part of the **Open Network for Digital Commerce** program set up by the Indian government.

- ONDC is an open e-commerce protocol set up by the **Department of Promotion of Industry and Internal Trade (DPIIT) under the Ministry of Commerce**.
- Open Network for Digital Commerce (ONDC) is an initiative aiming at promoting **open networks for all aspects of exchange of goods and services over digital or electronic networks**. ONDC is to be based on **open-sourced methodology**, using open specifications and open network protocols independent of any specific platform.
- Under ONDC, it is envisaged that a **buyer registered on one participating e-commerce site may purchase goods from a seller on another participating e-commerce site** (for example, Flipkart).
- Presently, buyers and sellers have to be on the same app for a transaction that happens through the same platform.

Mad Cow Disease

Brazil recently put a halt to its beef shipments to China after a case of Mad Cow Disease was discovered in the northern state of Para.

- Also known as **Bovine Spongiform Encephalopathy (BSE)** is a **degenerative, transmissible, slowly progressive, and fatal** infection that affects the **central nervous system** of adult cattle.
- Transmission:** Humans may acquire the disorder by eating diseased meat products.
- BSE is caused by a **protein called a prion** normally found on cell surfaces, the normal prion protein changes into an abnormal prion protein that is harmful. After getting altered, these proteins destroy the nervous system tissue- the brain and spinal cord.
- The cow's body has no idea of the abnormal prion's presence. Without knowing it is there, the **cow's body cannot fight off the disease**.
- Treatment:** There is no treatment for BSE and no vaccine to prevent it

Mulethi

Himachal Pradesh has started the commercial growth of **liquorice (Mulethi)** with the CSIR- IHBT distributing planting material to farmers.



- Liquorice (**mulethi**) or liquorice is the common name of **Glycyrrhiza glabra**, a flowering plant of the bean family Fabaceae, from the root of which a **sweet, aromatic flavouring** can be extracted.
- The liquorice plant is a **herbaceous perennial legume** native to Western Asia, North Africa, and Southern Europe in **subtropical and warm temperate regions**.
- Mulethi has been used as medicine in Ayurveda (known in Ayurveda as '**Yashtimadhu**') for rejuvenation having anti-viral, anti-inflammatory, and antioxidant properties to boost immunity.



Prelims

Singareni Thermal Power Plant



Singareni Thermal Power Plant (STPP) in **Telangana** is set to become the first State PSU in the country to have a **flu gas desulphurization (FGD)** plant.

What is flu gas desulphurization?

- The **FGD plant would process the sulphur and other gases (nitrogen oxides)** generated in firing the coal for power generation. The flue gas desulfurization (FGD) plant **removes sulfur dioxide(SO₂)** from flue gas produced by boilers, furnaces, and other sources and hence reduces its environmental impact.
- Types of FGD Systems:** FGD systems are characterized as either “wet” or “dry” corresponding to the phase in which the flue gas reactions take place.

Four types of FGD systems:

- Wet FGD systems** use liquid absorbent.
- Spray Dry Absorbers (SDA)** are semi-dry systems in which a small amount of water is mixed with the sorbent.
- Circulating Dry Scrubbers (CDS)** are either dry or semi-dry systems.
- Dry Sorbent Injection (DSI)** injects dry sorbent directly into the furnace or into the ductwork following the furnace.

Deadline: Non-retiring coal-based power plants have been given a deadline set by the Ministry of Environment, Forest and Climate Change (MoEF&CC) for the installation of FGD plants by **December 2026** and as **December 2027** for retiring plants.

Do You Know?

India has a total Thermal installed capacity of 236.1 GW of which **58.6% of the thermal power is obtained from coal** and the rest from Lignite, Diesel, and Gas.

MAPPING

