

CURRENT AFFAIRS



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MONTHLY CURRENT AFFAIRS MARCH : 2024



Near Riddhi-Siddhi Circle, Gopalpura Bypass, Jaipur

1. RAJASTHAN AFFAIRS

Constitution of 'RITI' in Rajasthan on the lines of NITI Aayog

- **Full name:** Rajasthan Institute for Transformation & Innovation
- **Formation:** 13 March 2024 (by order issued by the state government)
- **Predecessor organization:** Chief Minister's Economic Transformation Advisory Council
- **Chairman:** Chief Minister.
- **Vice-Chairman:** Nominated by the Chief Minister.
- **Chief Executive Officer:** Administrative Secretary, Planning Department.
- **Additional Chief Executive Officer:** Officer of the rank of Joint Secretary to the Government of Economic and Statistical Service.
- **Full-time Member:** Nominated by the Chief Minister.
 - **Qualification:** Must be a renowned expert of the subject, public servant, social worker or entrepreneur.
- **Special Invitees:** Eminent experts from various subjects.
- **Special Invitee Minister:** Nominated by the Chief Minister.

Functions

- Formulating policies and giving suggestions for the development of the state in various fields.
- Formulation and policy formulation of developed Rajasthan 2047
- Reviewing the implementation of schemes and programs run by the state government and making suggestions for their improvement.
- Studying successful policies in the country and abroad and giving suggestions regarding their implementation in the state.

Financial consent to implement National e-Vidhan Application in Rajasthan

- Financial consent has been given by Rajasthan to implement the National e-Vidhan Application.
- Complete computerization will be done in the National e-Vidhan Application.

- Under this, Rs 17.52 crore will be spent and the funding between the Center and the states will be in 60:40 ratio.
- For this complete computerization, a tripartite agreement will be made between the Ministry of Parliamentary Affairs, Government of Rajasthan and Rajasthan Assembly Secretariat.

National e-Vidhan Application (NeVA)

- It is one of the 44 mission mode projects under the Digital India program of the Government of India.
- Its objective is to make all state legislatures paperless by completely converting them into digital form.
- NeVA consists of a website and a mobile app.
- The Ministry of Parliamentary Affairs is the 'Nodal Ministry' for the implementation of NeVA in the States and Union Territories.

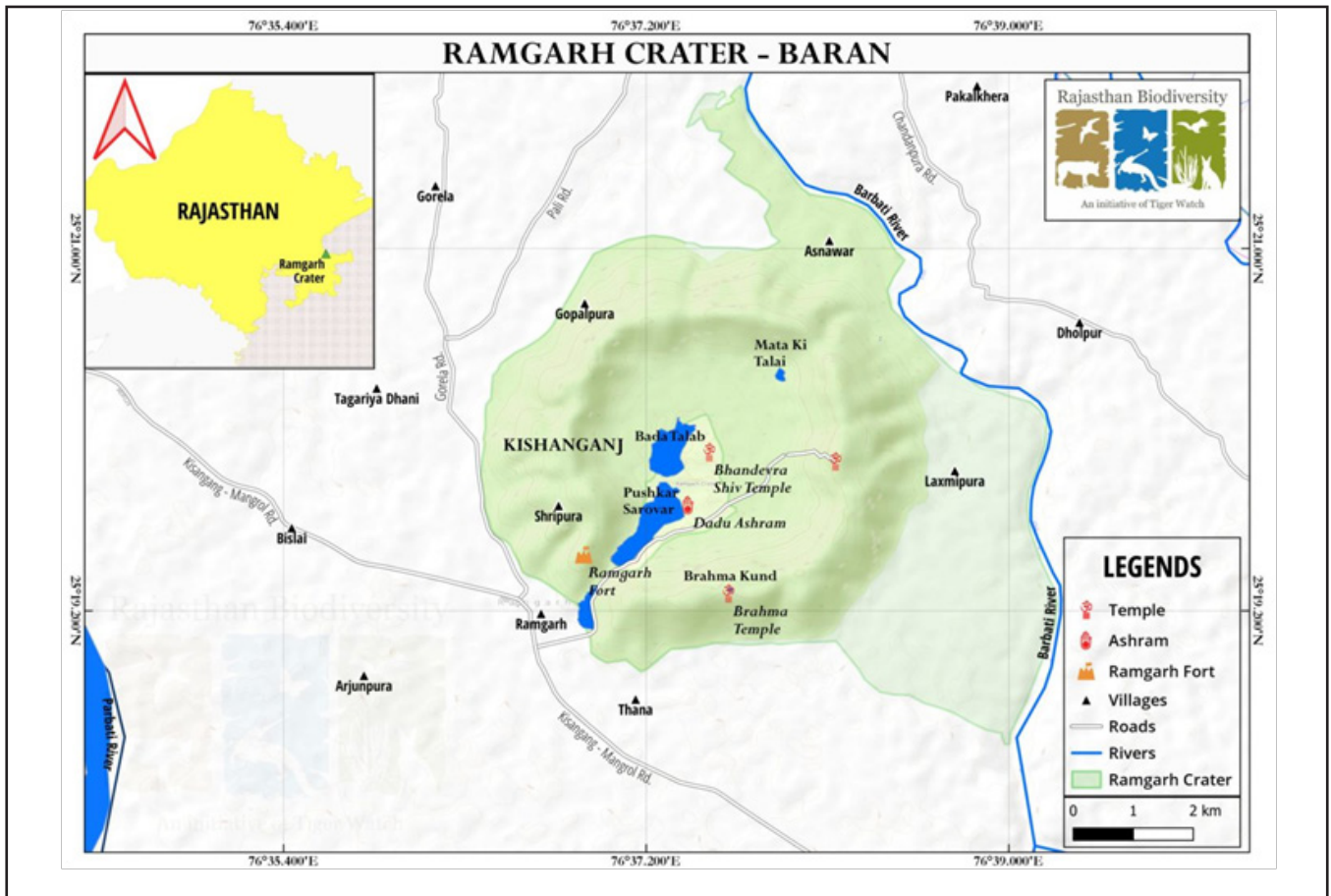
Prorogation of the first session of the 16th Legislative Assembly

- The first session of the 16th Rajasthan Legislative Assembly was prorogued on 7 March 2024.
- Now every MLA in Rajasthan Assembly can ask one inter-session unstarred question every week.
- The Government will have to send the answer to each such question directly to the member within a period of 30 days and a copy of the answer will have to be sent to the Assembly.
- Apart from this, every MLA can ask 40 starred and 60 unstarred questions in the state budget session.

Ramgarh Crater declared the country's first notified geo-heritage site

- Ramgarh Crater of Baran has been officially declared as India's first Geo-Heritage Site (Notified Geo-Heritage Site) by the State Government.
- Ramgarh crater is located 40 km from Baran district headquarters.
- This will give Baran global recognition and promote eco-tourism and wildlife tourism.

- According to scientists and researchers, about 650 crore years ago, a meteorite fell in the Ramgarh area, due to which an impact crater was formed here.



Major tourist places of Baran

- Shahabad Fort
- Religious place of Baran - Bhand Devra Temple
- Shergarh Fort
- Shahabad Shahi Jama Masjid
- Shergarh Sanctuary
- Sitabari
- Tapasvi Ji Ki Bagichi
- Kakuni Temple
- Sorsan Wildlife Sanctuary
- Suraj Kund
- Brahmani Mata Temple
- Nahargarh Fort
- Gugor Fort

- Under this project, both the cities will get loans from A.F.D. of France, KfW of Germany, European Union and NIUA for Integrated Waste Management Programme.
- The amount from this loan will be used for purchasing equipment used in cleaning and construction of garbage transfer stations under the waste management program.
- Both the cities will get a grant of about Rs 300 crore from the Central Government for better transportation of waste.
- In this project, 80% amount will be borne by the state and central government, while 20% will be borne by the local body.

Selection of two cities of Rajasthan in the CITIIS 2.0 scheme of the Central Government

- Under this, a total of 18 cities of the country were selected, which include Jaipur and Udaipur cities of Rajasthan.
- Its objective is to make cities garbage free and to provide better disposal of waste.

CITIIS 2.0 Scheme

- **Full name:** City Investments to Innovate, Integrate and Sustain 2.0
- The Central Government announced this program in 2023.
- It is a part of the Smart Cities Mission and aims to promote integrated waste management and climate-resilient improvement actions.

- CITIIS includes the following 4 components:
 - Sustainable mobility
 - Public open space
 - Urban e- Governance and ICT
 - Social and organizational innovations for low-income settlements
- This program is for a period of four years i.e. 2023 to 2027.
- In this, 100 smart cities of the country could apply, out of which 84 cities had applied.
- Out of these, the Central Government selected 18 smart cities.

MAA Voucher Scheme

- Full name: **Mukhyamantri Ayushman Arogya (MAA) – Voucher Scheme.**
- It is run by the Medical and Health Department of the Government of Rajasthan.
- It was started as a **pilot project by the state government in Baran, Bharatpur and Phalodi.**
- This scheme will be implemented in the entire state from April.
- Under this, pregnant women in Rajasthan will now be able to get free ultrasound done in private centers also.
- This will also reduce the infant mortality rate.
- In this, pregnant women will get QR code based e-voucher. By giving this voucher, ultrasound can be done in any private centre.
- This will benefit 3 lakh pregnant women in the state.
- In Rajasthan, where government hospitals do not have ultrasound facilities, at least one test can be done free of cost in the second or third trimester at private sonography centers.

Name of Mukhyamantri Chiranjeevi Durghatna Bima Yojana changed

- The name of Mukhyamantri Chiranjeevi Durghatna Bima Yojana has been changed to **Mukhyamantri Ayushman Durghatna Bima yojana.**
- Terms of this scheme have also been changed.
- Accidents in electrical and agricultural fields are also included in this scheme.
- The insurance cover under this scheme has been kept at **Rs 10 lakh.**

- Benefits under this scheme will not be available in cases related to natural events, war, murder, suicide, drinking alcohol and death during delivery.
- Along with the families included in the Chief Minister Ayushman Arogya Yojana and Rajasthan Government Health Scheme, the electrical workers of the five electricity companies will also be able to get the benefit of this scheme.
- Mukhyamantri Chiranjeevi Durghatna Bima Yojana was launched on 1 May 2022.

'NaMo Drone Didi' scheme

- In Rajasthan, 'NaMo Drone Didi' scheme was started from Kota district on 11 March 2024.
- It is sponsored by the Central Government.
- Its is aimed to increase women empowerment, increase agricultural productivity, reduce costs and increase employment opportunities.
- Under this scheme, drones will be given to women and self-help groups and they will also be trained to operate them.
- Under this scheme, drones were handed over to 104 women of Hadoti.
- Under this scheme, Rajasthan has been divided into 5 zones and responsibility has been given to 5 companies.
- These include IFFCO, Chambal Fertilizer, NFCL.
- These drones will be helpful in monitoring crops, spraying pesticides and fertilizers and sowing seeds.

Namo Drone Didi Dcheme

- This scheme was launched on 30 November 2023.
- Under this scheme, a target has been set to make more than 15,000 women members of self-help groups in the country as Drone Didis.
- The benefit of this scheme will be given only to women of self-help groups.
- Under this, the selected women will be trained to operate drones for 15 days.

Division of work in Rajasthan Panchayati Raj Department

- Governor Kalraj Mishra, under Article 166 of the Constitution, on March 16, 2024, on the advice of Chief Minister Bhajanlal Sharma, allocated the charge of Panchayati Raj Department among different ministers.

- **Article 166:** All executive action of the Government of a State shall be expressed to be taken in the name of the Governor. The Governor shall make rules for the more convenient transaction of the business of the Government of the State, and for the allocation among Ministers of the said business in so far as it is not business with respect to which the Governor is by or under this Constitution required to act in his discretion.
- Department of Women and Child Development under Panchayati Raj Department - Diya Kumari
- Agriculture Department under Panchayati Raj Department - Kirodilal Meena
- Medical and Health Department under Panchayati Raj Department - Gajendra Singh Trivansar
- Education Department under Panchayati Raj Department - Madan Dilawar
- Social Justice Department subordinate to Panchayati Raj Department - Avinash Gehlot
- In Rajasthan, 5 departments (Agriculture, Medicine, Education, Women and Child, Social Justice) come under Panchayati Raj.
- Keeping in mind the workload of the present Panchayati Raj Department, the Governor has placed the responsibility of delegating the work of core departments under the concerned Minister.

Raj Rishi Gokul Gram Pariyojana Karyakram

- It was organized on 05 March 2024 at Durgapura Agricultural Research Centre (Jaipur).
- Under this, a team of farmers will be sent to Raj Rishi Gokul Gram (Mount Abu) in Brahma Kumari for agricultural innovations, and there they will learn about yogic techniques.
- This is a joint effort of the Department of Agriculture and Brahma Kumari whose objective is to promote natural heritage.
- In compound farming, all the rules of natural farming are followed and there is higher and pure yield at less cost.

Mount Abu: India's first Agro Eco Tourism and International Flower Research Center

- The country's first Agro Eco Tourism and International Flower Research Center will be built in Mount Abu (Sirohi), Rajasthan.
- For this, a budget of Rs 10 crore has also been released for 12 bighas of land near Sunset Point in Mount Abu.

- There will be research on cut flowers of foreign species.
- The climate of Mount Abu is favorable for flowering species. In such a situation, orchids, grasshoppers, Rajni Gandha and other foreign species can be developed in this area.

Jahota Village (Jaipur Rural)

- This is the first ODF Plus Panchayat of Rajasthan and 25,000 commercial trees have been planted here in the fields of 101 farmers.
- This village has been selected by the Government of India as a model village under the Atal Bhujal Yojana.

'Center of Excellence for treating rare diseases' will be established in Jaipur

- For the treatment of rare diseases in children, a "Center of Excellence for treating rare diseases" will be established in Jaipur, Rajasthan (at JK Lone Hospital).
- A proposal for this has been sent to the Government of India.

Selection of 237 schools of Rajasthan in the second phase of PM Shri Yojana

- In the second phase of the PM Shri Vidyalaya Yojana, **237 PM Shri Vidyalayas of Rajasthan** were selected on 7 March 2024.
- Note: **402 schools of the state** were selected in the first phase of the centrally promoted PM Shri Vidyalaya Yojana.
- Till now, a **total of 639 schools of Rajasthan** have been selected in this scheme.
- In the second phase of this scheme, **maximum 12-12 schools have been selected from Nagaur, Pali and Alwar** while **minimum 3-3 schools have been selected from Sawai Madhopur and Jaisalmer**.
- The objective of this scheme is to completely transform schools by ensuring access to quality, equitable and inclusive education at all levels as per the recommendations of the National Education Policy.

School at Home (24X7 educational helpline) launched

- This helpline for students of special schools under the Directorate of Specially Abled Persons was launched on 13 March 2024.
- This helpline has been started with the help of NGO 'Helping Hand India'.
- This NGO provides regular free education to specially abled children.

- The School at Home program is an inclusive educational initiative that takes school education directly to the homes of children with disabilities and other underprivileged students, without the need for internet or smart phones.
- It has the curriculum from Class 1 to Class 12 along with co-curricular educational programs and online classes.
- This facility is available 24x7 at home.
- It also includes a missed call facility to easily connect with disabled/poor students across the country.

Rajasthan government's announcements on International Women's Day

- On the occasion of Women's Day, Rajasthan Government launched several initiatives for women including distribution of loans worth Rs 100 crore to women of self-help groups on 8 March 2024.
- In this, under Rajivika, a provision has been made for distribution of loans worth Rs 100 crore to the women of self-help groups by various banks.
- Cheques of the loan amount were distributed under Mahila Shakti Udyam Protsahan Yojana.
- Mahila Nidhi mobile app was launched.
- One stop centers were inaugurated in **Phalodi, Bhiwadi and Amer**.
- Cheques for assistance were distributed to the beneficiaries of Pradhan Mantri Matru Vandana Yojana.
- New vehicles were made available under Dial 112 and 1090 services for women safety.
- A day before Women's Day, the state government increased the quota of women reservation in police recruitment from 30% to 33%.

Approval to increase the amount of Mukhyamantri Balika Sambal Yojana

- The increase in the amount given under 'Mukhyamantri Balika Sambal Yojana' was approved by the Rajasthan Government on 9 March 2024.
- The amount has been increased from Rs 10,000 to Rs 30,000.
- The objective of this scheme is to eliminate gender discrimination in the society and encourage the birth of girl child.
- The amount will be given on the birth of the first and second girl child and after sterilization.

10% increase in honorarium of ASHA associates approved

- This honorarium increase will come into effect from April 1, 2024.
- Now ASHA associates will be given an amount of Rs 4,508 instead of Rs 4,098.

Asha Sahayogini

- The full name of ASHA Sahyogini is Accredited Social Health Activist.
- She is a worker actively working in rural areas in the field of health services.
- ASHA worker deals with nutrition, health, pre-school education and planning of services in Anganwadi centres.

State branch of the National Disease Control Center to be established in Jaipur.

- An MOU for this was signed between the Government of India and the Medical Department of Rajasthan on 6 March 2024.
- This will provide a national level testing facility for disease diagnosis in Rajasthan.
- Under this MoU, the State Branch of the National Disease Control Center will be instituted in the Urban Primary Health Centre, **Banipark (Jaipur)**.
- Note: The National Center for Disease Control plays an important role in infectious disease control.
- This center prevents and controls infectious diseases through surveillance, testing, data analysis, feedback, outbreak investigation, training, etc.
- It already has 8 branches located in Alwar (Rajasthan), Bengaluru (Karnataka), Kozhikode (Kerala), Coonoor (Tamil Nadu), Jagdalpur (Chhattisgarh), Patna (Bihar), Rajahmundry (Andhra Pradesh) and Varanasi (Uttar Pradesh).
- Note: 'Establishment of 30 units (including 8 existing units) of National Center for Disease Control' is proposed in all the states and one Union Territory.

Approval to build 365 model Anganwadis in Rajasthan

- The Integrated Child Development Department of Rajasthan has given approval to convert 365 ordinary Anganwadis of the state into Model Anganwadis.
- One Anganwadi from each project/block will be developed as a Model Center in all the districts of the State.

- For this, approximately Rs 5 lakh will be spent on making an Anganwadi center a model centre.
- Its objective is to empower women and ensure a healthy and educated future of children.
- Under this, a play school like environment will be provided to the children of Anganwadis.
- For this, general repairs and renovation, wall painting, solar energy, child friendly furniture, toys for children, sports equipment, construction of rainwater harvesting structure, modern facilities in toilets, RO, LED, CCTV, WiFi, pendrive, nutritional containers, All types of works like library corner etc. will be executed. Besides this, Nutri Garden will also be developed.
- Note: This was announced in the vote-on-account budget of the state for the year 2024-25.

- This squadron will have 6 helicopters, out of which 2 helicopters will be deployed in May.
- It will also have the indigenous Rudra attack helicopter, considered the most lethal in ground combat along with the Apache.
- Both of them will strengthen the Western Front adjacent to Pakistan in ground attacks along with air cavalry i.e. tanks and cannons.
- At present the Indian Air Force has 22 Apache attack helicopters, which are deployed on the front with Pakistan and China.

Prime Minister Shri Narendra Modi inaugurated and laid the foundation stone of various development schemes.

- Prime Minister Shri Narendra Modi recently inaugurated and laid the foundation stone of 58 different development schemes across the country from Srinagar in Jammu and Kashmir on March 7, 2024.
- This also includes the development work of **3 major spiritual places of Rajasthan** under Swadesh Darshan and Prasad Scheme, which are-
 1. Sanwaliya Seth Temple, Mandaphiya (Chittorgarh)
 2. Karni Mata Temple, Deshnok (Bikaner)
 3. Keshoraipatan (Bundi).
- The Central Government has identified more than 40 such places in the country which will be developed as tourist destinations.
- The Prime Minister launched the **DeKHo Apna Desh People's Choice campaign** on 7 March 2024.
 - The aim of this campaign is to motivate people living abroad to visit India.

First squadron of Apache helicopter to be deployed at Jodhpur

- The squadron of helicopter AH-64 E Apache will be deployed at Jodhpur Military Station.

IAF'S NEW COMBAT MUSCLE
APACHE AH-64E

IAF inducts 8 Apache AH-64E attack helicopters on Sept 3, 2019


Manufactured by Boeing; used by US Army and international defence forces

To replace old Russia-made Mi-35 attack helicopters

THE APACHE ADVANTAGE

Two high-performance turboshaft engines for maximum cruise speed of 284km/hr

World's most advanced multi-role combat helicopter



Advanced laser, infrared & target acquisition designation to attack targets

Wing Span: **17.15 ft**

Height: **15.24ft**

Laser guided precision Hellfire missiles, 70mm rockets, 30mm automatic cannon

SPECIFICATIONS

Primary mission gross weight **6,838Kg**

Vertical rate of climb **More than 2000ft per min**

Maximum rate of climb **More than 2,800ft per min**

Source: Boeing, news reports

AH-64E Apache

- Apache helicopter is a state-of-the-art helicopter manufactured by American company Boeing.
- During the war in Afghanistan, Apache helicopters conducted successful operations against Taliban and Al Qaeda terrorists hiding in the Hindukush hills.
- These helicopters have been designed as per the demands of the Indian Air Force.
- These include air-to-ground Hellfire Missiles, 17 mm Hydra Rockets and air-to-air Stinger Missiles.

First squadron of Tejas on India's western border

- The first squadron of Tejas Mark 1A manufactured by HAL (Hindustan Aeronautics Limited) has been deployed at **Nal air base in Bikaner** on the western border adjacent to Rajasthan.

- This squadron will replace the MiG-21 and MiG-27 that have been retired from the Air Force.
- Two more squadrons of Tejas will be deployed on the Western Front in the next 5 years.
- The second squadron will be deployed at Naliya air base in Kutch and the third squadron will be deployed at the forward base in Kashmir on the Western Front.

Baya Weaver counted for the first time in Abheda Biological Park in Rajasthan

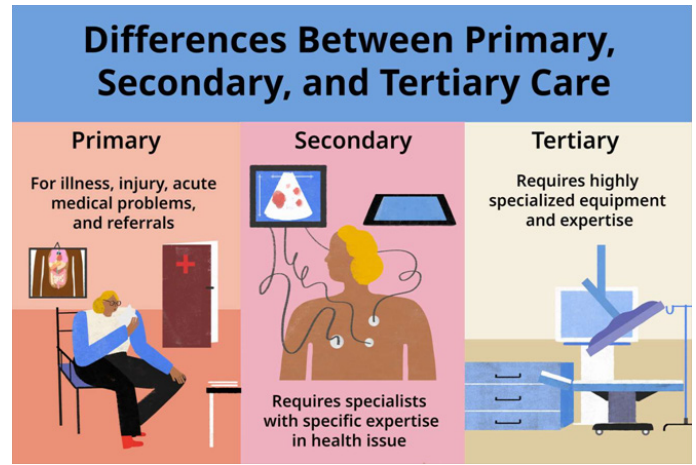
- The Wildlife Department has conducted a census of the Baya Weaver in Abheda Biological Park (Kota).
- There are more than 40 nests of Baya Weaver in this park.
- An official census of this bird has been conducted for the first time by the Rajasthan government.
- Their habitat has been developed in Abheda Biological Park and the grassland and ecosystem is also favourable.

Rajasthan's first Tertiary Cancer Care Center (TCCC)

- It is named Acharya Tulsi Tertiary Cancer Care Center and it will be started in Bikaner district.
- For this, the funding ratio between Center and State has been fixed at 60:40.
- While upgrading the Acharya Tulsi Regional Cancer Treatment and Research Center in 2015, Rs 45 crore was sanctioned to establish the state's first tertiary cancer care center here.
- It has also been announced to make Acharya Tulsi Regional Cancer Treatment and Research Center a '**Center for Excellence**'.

Tertiary Care Center

- If a patient is admitted to the hospital and requires a higher level of specialized care, he or she may be referred to a tertiary care center.
- Tertiary care centers deal with highly specialized equipment and expertise with the goal of treating specific, complex health conditions.
- It provides facilities for dialysis, coronary artery bypass graft (CABG), or burn treatment.



World's First Electrified Tunnel

- It is situated on **the Rewari - Dadri section**.
- It has been installed for double stack container goods trains.
- It is part of the Western Dedicated Freight Corridor.
- At present, 100% work of the Railways' Eastern Corridor and 95% of the Western Freight Corridor has been completed.
- After the complete opening of the freight corridor, about 75% of the goods trains (goods trains) of the Railways will shift to it.
- For the first time, an agreement has been signed between e-commerce companies and Railways to promote the operation of trains in DFC.

Dedicated Freight Corridor (DFC)

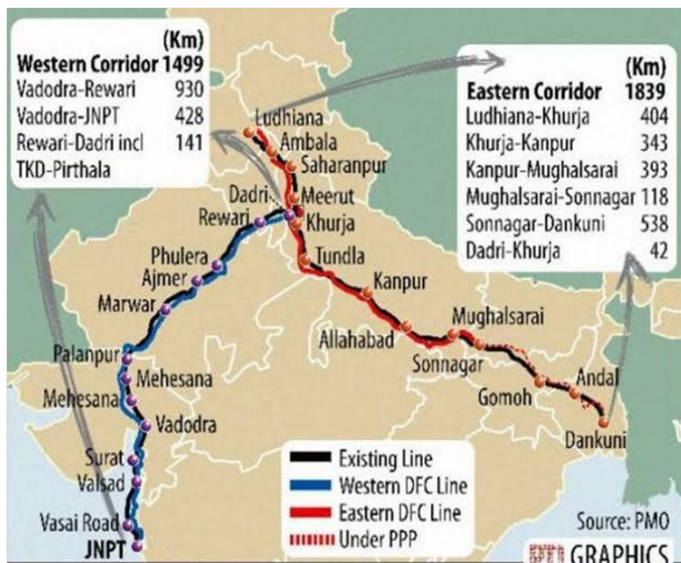
- It is a high speed and high capacity railway with world class technology. It is specially made for **transportation of goods and commodities**.
- It involves better infrastructure and state-of-the-art technology.
- Two dedicated freight corridors are being built by the Central Government -
 - Eastern Dedicated Freight Corridor (EDFC)
 - Western Dedicated Freight Corridor (WDFC)

Eastern Dedicated Freight Corridor (EDFC)

- It ranges from Sahnewal (Ludhiana) in Punjab to Dankuni in West Bengal.
- Coal mines, thermal power plants and industrial cities are present along its route.
- This includes states like Punjab, Haryana, Uttar Pradesh, Bihar, Jharkhand and West Bengal etc.
- It is financed by the World Bank.

Western Dedicated Freight Corridor (WDFC)

- It runs from Jawaharlal Nehru Port Terminal (Maharashtra) to Dadri (Uttar Pradesh).
- It passes through the major ports of the country.
- Its length is 1504 kilometers.
- This includes Haryana, Rajasthan, Gujarat, Maharashtra and Uttar Pradesh.
- It is funded by Japan International Cooperation Agency (JICA).
- Note: A section is being built between Dadri and Khurja to connect the Eastern Dedicated Freight Corridor and Western Dedicated Freight Corridor.



- There will be 10 Fowler beds in these wards. Of these, 5 beds will be reserved for women and 5 for men.
- Nursing alarm systems have been installed near the bed, so that in case of emergency, the elderly can immediately call the nursing staff.

Asia's First Bacteria Free Laundry

- Asia's first laundry has been started in Jaipur SMS Hospital, in which bedsheets and uniforms will become bacteria free.
- When clothes are put in it, they will be washed as well as ironed.
- With this, everything from the bedsheets of the patients to the uniforms of the doctors and nursing staff will be completely bacteria-free.
- With this, the work will be done quickly and systematically and patients and staff will be provided with infection-free clothes.

Rajasthan's Longest Rail Tunnel

- The longest rail tunnel of Rajasthan has been built on the Dausa-Gangapur City railway line.
- The work of this 2.3 kilometer rail tunnel located near Didwana has been completed.
- This is the **first railway tunnel in which a ballast-free track has been made using German technology.**
- The height of this tunnel is 6.15 meters and the width of the tunnel is 5.20 meters.

The Country's Largest Dumping Yard

- It is being developed in 535 bigha area of **Kishangarh.**
- It will take 20 years to be filled with marble slurry produced from 2,000 factories.
- Film shooting and pre-wedding shoots take place in this yard.
- Currently, the second largest dumping yard in the country is in Devnagar, Maharashtra with an area of 506 bighas.

First state in the country to create geriatric wards in district hospitals

- Rajasthan has become the first state in the country to create a separate ward for the elderly in every district hospital. These will be known as '**Ramashray**'.
- With this geriatric ward, the service, care and treatment of the elderly will be further improved.
- This facility has started in 49 district hospitals of Rajasthan.

State Railway Tunnels

- **Debari:** 750 meters long between Chittorgarh and Udaipur.
- **Kamli Ghat:** 500 meters long on Marwar - Mavli (Meter Gauge) line.
- **Kamli Ghat:** 300 meters long on Marwar - Mavli (Meter Gauge).
- The country's longest 11 km rail tunnel in Pir Panjal of Jammu and Kashmir.)

The first Sanskrit university in the country to start law studies

- LLB course will be started for the first time in Central Sanskrit University, Jaipur.
- In this university, L.L.B will be taught to study the original texts of Hindu law of ancient sages, theology and new laws.
- This university will have a mix of Indian ancient law and new laws.
- From the new session 2024-25, admission will be available on 60 seats through the test.

- Yajnavalkya, Narada and Manusmriti, Kautilya Arthashastra will also be taught in theology.
- It is also proposed to run such a degree course in Banaras Hindu University. This innovation is being done for the first time in the country in Jaipur.

Number of leopards in Rajasthan

- The "Report on the Status of Leopards in India" was released on 29 February 2024.
- According to this report, the number of leopards in Rajasthan has increased from 476 to 721 between 2018-2022.
- In this report, four tiger reserves of Rajasthan, namely Mukundra, Ramgarh Vishdhari, Ranthambore and Sariska have been included.
- Sariska and Ranthambore Tiger Reserves are among the top-15 in the country in terms of the highest number of leopards.
- Sariska ranks third in the category of tiger reserves having the highest population of leopards in the country.
- There are 269 leopards in Sariska. There has been an increase of 102 leopards here between 2018-2022.
- Sariska has 21.43 leopards per 100 sq km (highest density among camera-trap sites in the country).

New Panorama in Rajasthan

- With the aim of preserving the glorious historical heritage and cultural heritage of Rajasthan, new panorama, monument, museum construction and development works have been announced.
- These are the following-
 - Mahavirji Panorama – At Mahavirji in Karauli District
 - Jain Muni Shri Vidyasagar Ji Maharaj Panorama - Ajmer
 - Bhakt Shiromani Karma Bai Panorama - Didwana - Kalwa, Kuchaman
 - Shri Jasnathji Panorama - Katriyasar, Bikaner
 - Shrirema Baba Panorama - Baytu of Balotra
 - Shri Bhamashah Panorama-Chittorgarh
 - Rao Chandrasen Panorama - Jodhpur
 - Gokula Jat Panorama - Bharatpur
 - Jaisalmer Panorama – Jaisalmer
- These panoramas will be made by Rajasthan Heritage Authority.

- Apart from this, Swatantrya Veer Museum will be constructed in Sri Brij Chaurasi Kos Parikrama Marg (Kaman, Deeg), Jaipur district and 'Swatantrya Gaon' memorial will be constructed in memory of the contribution of villages in the first independence movement of 1857.

Foundation stone of Metro Phase 1D

- The foundation stone of Metro Phase 1D was laid in Jaipur on March 15, 2024 to connect Mansarovar Metro Station to Ajmer Road intersection.
- Consultancy has been appointed to Delhi Metro to prepare the DPR for the second phase of Jaipur Metro.
- Phase-1D of the metro will be built at a cost of Rs 204 crore and its work will be completed by March 2026.
- After the completion of Phase-1C and 1D of Metro in Jaipur, the metro will expand to 16 km.
- With this, there will be 16 metro stations in Jaipur Metro.

MSME Facilitation and Development Center in all divisions

- To help entrepreneurs in Rajasthan, MSME Facilitation and Development Centers have been started **by the Micro, Small and Medium Department** at all divisional headquarters.
- The objective of these centers is to act as a single point of contact for statutory compliance and guidance in various schemes.
- Under this, a target has been set to promote economic development and employment in the state.

IIT Jodhpur creates hybrid drone to detect oil spill in sea

- Indian Institute of Technology Jodhpur has created a prototype of a hybrid drone that works on land, air and water.
- This hybrid drone can operate on both land and water.
- This will mainly be helpful in preventing oil leakage in sea and rivers.
- It can also prove effective in preventing underwater erosion and pollution.
- This prototype can move like a ship, fly in the air and navigate even when submerged in water.
- It can stay underwater for up to 8 hours and its flight time is 15 minutes.

RCDF Launches Camel Milk

- Rajasthan Cooperative Dairy Federation has launched Saras brand of camel milk.
- It will initially be available at Saras Dairy booths in **Bikaner**.
- This will later be implemented in the entire state.
- Consumers will get 200 grams of milk for Rs 20.

GIS mapping of 65,000 schools of Rajasthan

- Geographic Information System (GIS) mapping of 65 thousand government schools of Rajasthan will be done.
- Under this, the latitudes and longitudes of schools will be linked online.
- This will benefit students and candidates of competitive exams.

Ajmer-Delhi Cantt Vande Bharat train will now reach Chandigarh

- Prime Minister Narendra Modi laid the foundation stone of railway projects worth about Rs 1 lakh crore on March 12, 2024.'

Announcement for Rajasthan

- Ajmer- Delhi- Cantt Vande Bharat Express train extended up to Chandigarh
- Doubling of Kuchaman City-Nawan City and Phulera Govindi Marwar railway lines.
- Modernization work of Jodhpur Carriage.
- Foundation stone for the construction of a train maintenance depot in Jaisalmer

National 'Sanjeevani' Art Festival

- This is an environment-based art festival organized by **Orion Greens** in collaboration with the Ministry of Culture, Government of India.
- It was organized on 10 March, 13 March and 20 March in **Ajmer, Jaipur and Aurangabad** respectively.
- In this, Kathak dance, Dhrupad singing, sitar playing and plays on the environmental theme were staged by famous artists of the country.
- It was an environment based festival which was dedicated to Dhrupad Singer Late Pandit Laxman Bhatt Tailang this time.

'Dharma Guardian' Exercise

- It is conducted between the Indian Army and Japan Ground Self Defense Force.
- It was organized at Mahajan Field Firing Range in Bikaner.

Fulbright Teaching Excellence and Achievement Program

- Under this, government teachers of Rajasthan will now learn the art of teaching children in schools of the United States.
- It will be funded by the United States India Education Foundation (USIEF).
- Under this program, any teacher who takes American training will also be given a fellowship.
- This program will be started under the cultural agreement between India and America.
- The United States India Education Foundation operates the Full Bright Fellowship and works to foster innovation based on the cultural ties between the two countries.

Dewas Project: Foundation stone of third and fourth dam and tunnel construction laid

- The foundation stone of Dewas Project: Third and Fourth Dam and Tunnel construction work was laid by the Chief Minister on March 01, 2024 in Gogunda, Udaipur.
- The cost of this project is ₹690 crore.
- This project has been started to ensure drinking water supply throughout the year in Udaipur.

Financial Assistance to those affected by Lightning

- Chief Minister Shri Bhajanlal Sharma will provide financial assistance of Rs 5 lakh each to the families of those who died due to lightning at various places in Rajasthan on March 01, 2024 in which assistance of Rs 4 lakh will be provided by the Disaster Management and Relief Department and assistance of Rs 1 lakh will be provided by the Chief Minister's Relief Fund.

53rd National Security Day

- State level programme for National Security Day was organized in Jaipur on 04 March 2024.
- This year's theme-' Focus on Safety Leadership for ESG (Environmental, Social, and Governance) Excellence.
- Aim: To promote the adoption of safe practices in all sectors including industries, workplaces and communities.

National Conference for Sustainable Development Goals

- Organized on 4th and 5th March at Rajasthan International Centre, Jaipur.
- It was organized under the joint aegis of NITI Aayog in partnership with the Government of Rajasthan and UNDP and UN.
- Aim: To take stock on SDG localisation, institutionalize the SDGs at the subnational level, exchange experiences, explore the finance landscape and accelerate progress.
- The conference serves as a platform to share experiences and good practices on SDGs from across the country.

- During this, the Chief Minister of Rajasthan inaugurated the **UNDP SDG Knowledge Hub Portal, ECL-2 Dashboard** prepared by the State Government and **Food and Nutrition Security Analysis Dashboard**.

RUDSICO appointed as executive agency for water supply works in Rajasthan under Amrut 2.0 Mission

- RUDSICO, an agency of the Autonomous Government Department of Rajasthan, has been appointed as the executing agency for water supply works in 183 municipalities under the AMRUT 2.0 Mission.
- M/s WEPCOS has been appointed as consultant by RUDSICO for preparation of Detailed Project Report (DPR) of Municipalities.

Atal Mission for Rejuvenation and Urban Transformation Mission (AMRUT)	Jal Jeevan Mission
<ul style="list-style-type: none"> Launch: June 25, 2015. Ministry: Ministry of Housing and Urban Affairs Around 500 cities were selected under AMRUT Mission. Focuses on infrastructure development in the areas of water supply, sewerage and septage management, rain water drainage, green spaces and parks, and non-motorized urban transport in selected cities and towns. The central government launched the second phase of the scheme, AMRUT 2.0, on 3 October 2021. Under this, work will be done for startups and entrepreneurs under PPP (Public Private Partnership). 	<ul style="list-style-type: none"> Launch: August 2019. Ministry: Union Water Supply Ministry <p>Objective</p> <ul style="list-style-type: none"> Access to tap water has to be ensured for every household in India. Jal Jeevan Mission envisages providing safe and adequate drinking water to all households in rural India through individual household tap connections by the year 2024. Jal Jeevan Mission will be based on community approach towards water. The mission will include information, education and communication as key components. Additionally, the Har Ghar Nal Se Jal program was announced in the Budget 2019-20. This is an important part of Jal Jeevan Mission.

500 electric buses will start in 7 cities of Rajasthan

- To strengthen the public transport system in Rajasthan, approval was given on 5 March 2024 to operate 500 electric buses in 7 cities.
- Under the Vote on Account Budget 2024-25 announcement, electric buses will be made available for urban bus service in the cities of **Jaipur, Jodhpur, Kota, Ajmer, Bikaner, Bharatpur and Udaipur**.
- This will provide pollution-free transportation facility to the general public and by promoting public transport, they will get the benefit of quick and better transportation facilities.
- These buses will be operated and maintained by the Autonomous Government Department through Convergence Energy Services Limited (CESL).
- Under this, 300 e-buses will be operated in Jaipur, 70 in Jodhpur, 50 in Kota, 35 in Udaipur, 30 in Ajmer and 15 in Bikaner and Bharatpur.

Approval for installation of automation and SCADA in Gangnahar

- State-of-the-art automation and SCADA will be installed in the Gangnahar system.
- For this, the project (cost: Rs 695 crore) has been approved by the Central Government on 8 March 2024.
- With this, farmers till the last mile will get complete water for irrigation and in the first phase, 1 lakh hectare irrigated area of the main canal and four distributaries will get its benefit.
- It aims to implement state-of-the-art SCADA based automation for 1.9 lakh hectares in the Ganganagar system.
- Under this, the irrigation capacity of various canals of Gangnahar system will be increased from 79% to 86.5%.

SCADA System

- **Full name:** Supervisory Control And Data Acquisition.
- It is a remote control based automated centralized system.
- Its entire system is centralized. This will provide information about faults in water supply.
- This will issue alerts and will help in time saving voltage control by knowing the exact location of the fault location.
- Through this, online guidelines can also be given to engineers regarding problems arising on the line from the system itself.

Badshah Fair

- It is organized every year in **Beawar**.
- The historic Badshah's procession is taken out on the second day of Dhulandi.
- This fair gives the message of brotherhood and goodwill in the form of Hindu-Muslim unity.
- This fair is being organized since the year 1851.
- In this fair, an Agarwal plays the role of the king and an Brahmin plays the role of Birbal.
- According to mythological belief, one day Todarmal, through magical charisma, provided equipment and currency to King Akbar in the forest during his visit, due to which the king was pleased and granted Todarmal the kingship for three hours.

- To keep this memory of Akbar fresh, Badshah Fair is being organized in Beawar on the second day of Dhulandi on the festival of Holi since the Mughal period.

National Saras Craft Fair- 2024

- It was held in Sawai Madhopur from 8-18 March.
- The fair was organized under the joint aegis of Sawai Madhopur Administration, Rajasthan, and Rajasthan Grameen Aajeevika Vikas Parishad (Rajeevika), an autonomous body of the Rural Development Department.
- Under this, poor women in rural areas are organized into self-help groups and provided training and given financial assistance to increase their livelihood.
- This fair focuses on tradition, arts, crafts and culture.
- It also provides opportunities for preserving cultural heritage as well as establishing rural women as entrepreneurs at the national level.

Retrofitting of Bundi Cluster mega project inaugurated

- Under Jal Jeevan Mission, Retrofitting of Bundi Cluster Major Project (Expansion Chambal Bhilwara Project) was inaugurated on 7 March 2024 at a cost of Rs 76.69 crore in Bundi.
- This will ensure drinking water supply in Bundi and Bhilwara.
- Under this, 9,227 domestic connections have been issued. More than 97,000 population will benefit from this project.

First dedicated portal for real time information of water in dams and canals

- This portal was launched in Jaipur.
- This portal will provide real-time information on water level in dams and reservoirs in different parts of Rajasthan.
- It will also provide real-time information on the quantity of water available in canals in different parts of Rajasthan.
- This portal will help in efficient management of water. This will also make it easier to predict floods and droughts.
- Rajasthan was the first state to develop a system to bring water availability information to the public domain.
- This system has been developed by the Department of Water Resources under the National Hydrology Project.

Constitution Park inaugurated in Rajasthan Technical University, Kota

- Governor and Chancellor Shri Kalraj Mishra virtually inaugurated the Constitution Park built in Rajasthan Technical University, Kota on 11 March 2024.
- Constitution Park has been constructed in a 65 thousand square feet area in RTU, Kota.
- This is the **first Constitution Park to be built in a Technical University** in Rajasthan.
- A 75 feet high Constitution Pillar has been built in this park.
- Note: As per the instructions of the Governor, Constitution Parks are being built in all the universities of Rajasthan.
- Apart from Rajasthan University, Jaipur, Constitution Parks have been established in Udaipur and Bikaner Universities.

Senior citizens will get a 50% discount on fare on roadways.

- Rajasthan Government has now approved 50% discount for senior citizens aged between 60 to 80 years in ordinary and fast class buses of roadways. (Earlier it was 30%.)

Postal Buddy

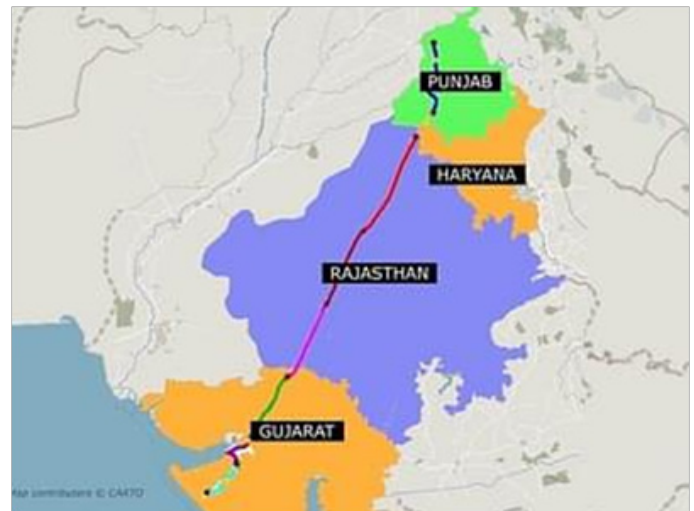
- This is an app developed by Rajasthan Election Commission for online monitoring of postal and home voting process.
- It was launched on March 21, 2024 by Chief Electoral Officer Praveen Gupta.
- This app has been developed by National Informatics Center (NIC), Sriganaganagar.
- Note: 'Election Buddy' was created during the Rajasthan Assembly Elections 2023 under the direction of **Anshdeep, the then District Collector of Sri Ganganagar district**. It was awarded the 'National Award' of the Election Commission.

Rajasthan's record of auctioning 31 major mineral blocks in a year in mining sector

- Rajasthan has set a new record by auctioning 31 major mineral blocks on March 13, 2024.
- The Department of Mines & Geology has successfully auctioned mineral blocks through the e-portal of the Government of India.
- A total of 31 major mineral blocks were auctioned in Rajasthan, which is the highest in the entire country.
- Earlier in the last financial year, a maximum of 29 blocks were auctioned in Madhya Pradesh.

Inauguration of 2 sections of Amritsar-Jamnagar Economic Corridor

- Prime Minister Shri Narendra Modi inaugurated two segments of the Amritsar-Jamnagar Economic Corridor in Gurugram, Haryana on 11 March 2024.
- Two packages of this project, **Dabwali (Sirsa)- Pilibanga (Hanumangarh)** of ~ 53 km length and costing Rs 1799 crore were inaugurated.
- The development of Amritsar- Jamnagar Economic Corridor will establish direct connectivity of Rajasthan and especially the border districts of **Ganganagar, Hanumangarh, Bikaner, Jodhpur, Barmer and Jalore** with major industrial cities and ports of Punjab and Gujarat.
- The development of this corridor will boost tourism and exports along with industrial development and new employment opportunities will be created.



Amritsar-Jamnagar Economic Corridor

- Amritsar - Jamnagar Economic Corridor is a 917 km long 6 lane access controlled greenfield corridor which will be built at a cost of approximately Rs 22,500 crore.
- It will connect Amritsar (Punjab) to the port city of Jamnagar (Gujarat).
- Its approximately 637 km stretch is passing through Hanumangarh, Ganganagar, Bikaner, Jodhpur, Barmer and Jalore districts of Rajasthan.
- In Rajasthan, it is spread from Jadrawali village of Hanumangarh district to Khetalawas village of Jalore district.
- This project has 23 packages of 637 km in Rajasthan. Out of which 18 packages of 502 km length have been dedicated to the nation so far.

MOU-PPA signed between power corporations and central undertakings of Rajasthan

- Under this, central undertakings in Rajasthan will set up 31,825 MW capacity renewable and thermal power projects at a cost of Rs 1.60 lakh crore in the next 2-3 years and the transmission system will be developed.
- Under this, on March 10, 2024, 5 MoUs and 1 Power Purchase Agreement (PPA) were signed between 3 power corporations and 6 central undertakings of Rajasthan.
- With this, Rajasthan will be able to come into surplus category in electricity production and the energy needs of the state will be met.
- Note: For the first time in the country, potash production has started in Rajasthan.
- The auction process for potash mining in two blocks located in Hanumangarh and Bikaner of the state has been started.
- These new projects will be developed through joint ventures.

Detailed description of MoUs and PPA

Joint ventures will be developed under the following MOUs and PPAs-

- Agreement between Rajasthan Vidyut Utpadan Nigam (RVUN) and NTPC for setting up 1600 MW Ultra Super Critical Coal based Power Project at Chhabra Thermal Plant.
- MoU between RVUN and NTPC Green Energy Limited to set up 25,000 MW renewable energy projects.
- Agreement between RVUN and Coal India Limited to set up 1600 MW coal based and 2500 MW renewable energy projects.
- MoU between RVUN and NLC India Limited for setting up 125 MW lignite based projects and 1000 MW solar project.
- Agreement between RVPN and Power Grid to strengthen the power transmission system in Rajasthan.
- Power Purchase Agreement (PPA) between RUVITL (Rajasthan Urja Vikas and IT Services Limited) and SJVN (Satluj Jal Vidyut Nigam) to provide 600 MW solar power to the state's distribution companies.
- MoU between the Finance Department, Government of Rajasthan and REC Limited to provide loans of Rs 20 thousand crores for various departments, undertakings, institutions and schemes of Rajasthan.

State Government approves the draft of MoU of Kota Airport

- Greenfield airport will be built in Shambhupura, Kota.
- An MOU was signed between Power Grid and UIT regarding shifting of high tension lines for the proposed new greenfield airport in Kota.
- The state government has approved the draft of the proposed MoU between Kota Development Authority (KDA), the state government and the Airport Authority of India (AAI) regarding the airport.

National Security Model Training

- This is the training of 77th batch of Indian Revenue Service (IRS).
- It was organized on 4-6 March 2024 at Central Intelligence Training Institute (CITI), Jaipur.
- In this, an MoU was signed between **Central Intelligence Training Institute (CITI) and IIT, Jodhpur** on 06 March 2024 on Technology Mission.
- This MOU will help the police to solve cyber challenges.
- Under this, there will be exchange of technology, training, research, consultancy and educational qualifications between the two institutions as well as exchange of information about Artificial Intelligence (AI), data analysis, cyber security, global technology information system etc. .

MoU between Higher Education Department and CRISP

- A Memorandum of Understanding (MoU) was signed between the Higher and Technical Education Department and the Center for Research in Schemes and Policies (CRISP) in Rajasthan on 4 March 2024.
- Its objective is to promote world-class skill-based education in the field of higher education.
- Keeping in mind the needs of universities, colleges, industries etc., world class employment oriented skill education has been added in this MOU.
- Through this MoU, courses and training in sectors like Tourism, Banking and Finance, Healthcare and Hospitality, Retail, Media and Entertainment, Life Sciences, Logistics etc. will be integrated with degree courses in the colleges of the state.

- All the courses are proposed to be started in various colleges identified by the state government from the academic year 2024-25.

Center for Research in Schemes and Policies (CRISP)

- It is a non-governmental organization started by Indian Administrative Service officers holding the post of Secretary in the Government of India.
- This organization works closely with state governments in the skill development sector.

Sunita wins silver medal in National Para Powerlifting Championship-2024

- It was held at JLN Stadium in New Delhi.
- In this, Sunita Dhobi won a silver medal in the 79 kg weight category.
- She was also a gold medal winner in the Khelo India Para Games- 2023.
- Sunita Dhobi is a disabled girl resident of Peethawas, Hathoj (Jaipur).

24th DAF National Chess Championship

- This championship was held in Patna (Bihar).
- Rajasthan stood third in this championship.
- Women's and men's teams from Rajasthan participated in it.
- In this, Suman Bhamu got first place in the women category.

Master National Badminton Championship

- This competition was held in Panchkula (Haryana).
- In this, Himani Poonia of Jaipur (in the age group above 40 years) became the winner for the second time.
- She defeated Aditi Rode of Maharashtra in the final.

52nd Senior Women's National Handball Championship

- It was organized in Hathras (Uttar Pradesh).
- Rajasthan won the silver medal in this competition.
- Indian Railways won the gold medal by defeating Rajasthan in the final match.
- Uttar Pradesh and Haryana jointly stood third and won the bronze medal.

22nd Junior National Athletics Federation Competition

- It was organized in Lucknow (Uttar Pradesh).
- In this, **Misty Kajla** of Rajasthan has won the bronze medal in 200 meter race.
- She qualified for the Asian Championships to be held in Dubai.
- She became the champion of 200 and 400 meter race in Rajasthan for the last 2 consecutive years.

1st Khelo India Taekwondo National Women's League

- It was organized in Cuttack city of Odisha.
- In this, Tulip Ojha from Jaipur, Rajasthan won the gold medal in 46 kg weight category in the junior category.

First Shooting ball World cup

- It was held in New Delhi.
- It was organized under the hosting of the Shooting Ball Federation of India.
- In this, India won gold medals in both categories, men and women.

Para World Cup-2024

- It was organized in Delhi.
- In this, **shooter Mona Agarwal of Rajasthan won the gold medal** in 10 meter air rifle SH-1 category.
- Mona defeated China's star shooter Zheng in the final.
- Apart from this, Mona won the silver medal in the mixed team event of 10 meter air rifle.
- Along with winning the gold medal, Mona has also secured a quota in the Paris Olympics (2024).

Khelo India Inter Zonal Sub Junior and Junior Women's Kho-kho League

- It was held at Chaugan Stadium in Jaipur.
- It was organized under the aegis of Rajasthan Tro-Tro Sangh, Ajmer and Jaipur District Tro-Tro Sangh.
- Teams from Delhi, Chhattisgarh, Maharashtra, Haryana, Tamil Nadu and Rajasthan participated in it.
- In the sub-junior team, Rajasthan team got first position and Maharashtra team got second position.

Khelo India National Women League

- This league was organized in Jharkhand on 27 February 2024.
- In this, Rajasthan won the **all over team championship** trophy.
- Rajasthan Wushu women's team performed brilliantly and won a total of 6 medals including 1 gold, 1 silver and 4 bronze. (runner up trophy)
- Rajasthan's Neelam Chaudhary won gold, Abhinav Sharma won silver and Megha Joshi, Divya Yadav, Prachi and Divya won bronze.

National Powerlifting Championship 2024

- It was organized by the Indian Powerlifting Federation from 23-25 February, 2024 in Surat, Gujarat.
- In this, Deepak won two silver medals in the sub-junior's 80 kg weight category, Saurabh won the gold medal in the 56 kg weight category and Shivam won two bronze medals in the 56 kg weight category.
- In the junior category, Vineet won silver medal in 65 kg weight category, Lalit won gold medal in 72 kg weight category, Sahab Singh won gold medal in 60 kg weight category and Bhura Pehalwaan won two gold and bronze medals in 90 kg weight category.

Jodhpur discom on top in PM Kusum C scheme

- Jodhpur Discom is the first electricity distribution company in the country, which has signed an agreement with 1.56 lakh farmers to set up 3 thousand MW solar power plants in a month.
- Jodhpur Discom along with the Union Energy Ministry issued tenders for setting up plants of more than 3,000 MW.
- 1,134 plants will be set up in 14 districts under Jodhpur Discom. This will lead to direct investment of Rs 12 thousand crores.
- It will take one year for this plant to be established and operational. After this, farmers will start getting electricity in the upcoming Rabi season.

PM-KUSUM Scheme

- **Full name:** Pradhan Mantri Kisan Urja Suraksha Evam Utthan Mahabhiyan
- The scheme was launched by the Ministry of New and Renewable Energy (MNRE) in February 2019 for installation of off-grid solar pumps in rural areas and to reduce grid dependence in grid connected areas.

Components of PM Kusum Yojana:

- PM Kusum Yojana has three components and under these components the target was to achieve additional solar capacity of 30.8 gigawatt by the year 2022.
- Component A: Connecting 10,000 MW of decentralized grids to renewable energy plants installed on land.
- Component B: Installation of 20 lakh solar powered agricultural pumps.
- Component C: Solarisation of 15 lakh solar powered agricultural pumps connected to the grid.

Jaipur Airport ranks 12th in the list of busy airports.

- Jaipur Airport is included in the top 15 airports of the country in terms of passenger load occupancy (currently 12th position).
- In this context, Delhi Airport ranks first in the country (62.74 lakh passengers).
- In this list, Mumbai (45.51 lakh), Bengaluru (30.46 lakh), Hyderabad (20.77 lakh) and Chennai (17.51 lakh) are at second, third, fourth and fifth place respectively.

Har Ghar Jal - 11 districts of the state were top performers while 24 districts are extremely backward.

- Under this, for the first time ranking of the districts of Rajasthan has been decided on the basis of performance.
- In this, a ranking of 48 districts of Rajasthan has been released.
- For this, 14 standards or goals were set in three focus areas (comprehensive information, education and communication).
- Jal Jeevan Mission (JJM) is an initiative of the Union Water Supply Ministry to provide tap water to every household.
- The districts of Jodhpur and Jaipur urban areas have not been included in these.
- Under the Jal Jeevan Mission, 11 out of 48 districts were top performers.
- In this, **Didwana-Kuchaman** (75.95 points out of 100) (1st position) and Khairthal-Tijara (70.47 points) districts are the top performers (in "A" category).
- Apart from this, Sriganganagar, Salumber, Shahpura, Chittorgarh, Neem Ka Thana, Pratapgarh, Banswara, Kota and Udaipur have been categorized as "B".
- The performance in 13 districts of Rajasthan is average ("C" category).

- The performance of 24 districts of the state is the worst. These districts have been included in the "D" category.

Ranking regarding providing 100 days employment in MNREGA

- Sikar district in Rajasthan stood first in Rajasthan (with 87 points) in providing 100 days of employment under MNREGA.
- Bundi district stood at 33rd position in this ranking.

Anand Chaudhary gets Ramnath Goenka Award for the second time

- Senior journalist Anand Chaudhary has been awarded the country's prestigious Ramnath Goenka Excellence in Journalism Award for the second time.
- Chaudhary has been given this award for his reporting on irregularities in the Pradhan Mantri Awas Yojana in Rajasthan.
- Anand Chaudhary's report 'Garib apaatra, Kothiyon wale patra' was selected for 2022 in the Hindi print category.

Sundar Kanti Joshi Cricket Award 2024

- This award is given by Radha Niwas Cricket Club for the best senior and junior women cricketers of the state.
- This year this award will be given to Jyoti Chaudhary in the senior category and Vrinda Sharma in the sub-junior category.
- This year, Life Time Achievement Award has been started for women players who have made significant contribution to the cricket of Rajasthan.
- The Lifetime Achievement Award has been given to Sita Bhargava of Rajasthan, who played in the Indian team in the 70s.
- In the senior category, wicketkeeper batsman Jyoti Chaudhary scored a total of 369 runs in BCCI tournaments this year and also took 41 catches as a wicketkeeper.
- Vrinda Sharma, selected for the award in the sub-junior category, took four wickets with 209 runs.
- This time this award has not been given to anyone in the junior category.
- Siddhi Sharma had the best performance in the junior category but she had been given this award last time.

Sangeet Natak Akademi Award 2022-23 to 4 artists of Rajasthan

- President Draupadi Murmu presented the Sangeet Natak Akademi Awards for the

year 2022-23 for music, dance, drama and folk arts on 6 March 2024.

- Awarded for 2022 and 2023 to 94 eminent artists (two joint awards) in the field of music, dance, drama, folk and tribal arts, puppetry and allied theater arts.
- 4 artistes from Rajasthan were honored with Sangeet Natak Akademi Award.
 1. **Vasant Kbra** (Sarod player) Sangeet Natak Akademi Award for the year 2022
 2. **Daulatram Vedha** (Allied Theater Arts (Lighting)) Sangeet Natak Akademi Award for the year 2022
 3. **Gafaruddin Mewati Jogi** (Bhapang player) Sangeet Natak Akademi Award for the year 2022
 4. **Moinuddin Singh** (Sarangi player) Sangeet Natak Akademi Award for the year 2023

Sangeet Natak Akademi Award

- The Academy Awards are being given since 1952.
- Apart from the plaque and Angavastram, a cash amount of Rs 1 lakh is given.
- A cash amount of Rs 3,00,000/- (Rupees Three Lakh) is provided under the Academy Fellowship.

Sahitya Akademi Award to Dr. Gajesingh

- The eminent poet-critic of Rajasthani language, Dr. Gajesingh Rajpurohit was awarded by the Sahitya Akademi for his Rajasthani poetry work 'Palkati Preet'.
- Under this award, Dr. Rajpurohit was rewarded with a cheque of Rs 1 lakh, citation, copper plaque and quince.

Deeg Collector Shruti Bhardwaj got first place in e-KYC

- Deeg Collector Shruti Bhardwaj has secured first position in Ayushman Bharat Card e-KYC in the state.
- Shruti Bhardwaj, while being Neem ka thana Collector, did excellent work in Ayushman Bharat Card e-KYC in the district.

e-KYC

- e-KYC: Electronic Know Your Customer
- It is a process in which your identity is confirmed and personal information is obtained in digital form.
- It enables Aadhaar card authentication by the Government of India and makes citizens eligible for official functions and services.

- It is used in various sectors, such as financial services, obtaining mobile SIM cards, and other online processes.
- Its process is secure and easy and it helps in authenticating the identity of people.

Rajasthan Roadways ranks second in the country in diesel category

- Rajasthan Roadways has been honored with the National Public Bus Transport Excellence Award in the 64th Annual Conference organized by the Association of State Road Transport Undertakings (ASRTU) in New Delhi.
- Roadways was given this award in the fuel efficiency category and employee productivity category.

Diya Kumari

- She has been appointed chairperson of Rajasthan State Road Development And Construction Corporation.
- Diya Kumari is currently the Deputy Chief Minister and Finance Minister of Rajasthan.
- Sandeep Verma (Additional Chief Secretary, Public Works) has been appointed as its Vice Chairman.

Rajasthan State Road Development and Construction Corporation Limited (RSRDC)

- It was established in 1979 as RSBCC, renamed RSRDC in 2001.
- It is an enterprise owned by the Government of Rajasthan.
- It was established under the Companies Act 1956.

Maharaja Hukum Singh

- He is a member of the royal family of Jaisalmer and a former MLA of Jaisalmer.
- He recently died on March 17, 2024 at the age of 97.
- He was the first District Chief of Jaisalmer (1959-1967). Apart from this, he was also elected MLA from Jaisalmer consecutively in the years 1957 and 1962.

Ankit Khandelwal

- He is a famous anchor of the country and world record holder.
- He has been appointed as the brand ambassador of 'Swachh Bharat Abhiyan' in Jaipur.

Omkar Singh Lakhawat

- He has been appointed Chairman of Rajasthan Heritage Conservation and

Promotion Authority (RHCPA).

- Omkar Singh has become the chairman of this authority for the second time.
- **Note:** 'Rajasthan Heritage Conservation and Promotion Authority' was established on 19 August 2006.

Dhananjai Singh Khimsar

- He has been appointed the acting president of Rajasthan Cricket Association.

Chairman of 7 boards including Sainik Kalyan and Dev Narayan Board appointed

- The Rajasthan government has made appointments in 7 corporations and boards.
 - Chairman of Farmers Commission - Chhotu Ram (C.R.) Chaudhary (Former MP, Nagaur)
 - Chairman of Animal Welfare Board - Jaswant Vishnoi
 - Chairman of Sainik Welfare Advisory Committee - Prem Singh Bajaur
 - Chairman of Vishwakarma Skill Development Board - Ram Gopal
 - Chairman of Scheduled Caste Finance and Development Commission - Rajendra Nayak
 - Chairman of Clay Art Board - Prahlad Tank
 - Chairman of Devnarayan Board - Omprakash Bhadana

Rajasthan government appointed 6 new additional Advocate Generals

- The following 6 new Advocates General were appointed by the Rajasthan Government on 12 March 2024-
 - Shri Sandeep Taneja (Rajasthan High Court, Jaipur)
 - Shri Vigyan Shah (Rajasthan High Court, Jaipur)
 - Shri Rajesh Panwar (Rajasthan High Court, Jodhpur)
 - Shri Mahavir Vishnoi (Rajasthan High Court, Jodhpur)
 - Shri Manish (Rajasthan High Court, Jodhpur)
 - Shri Shivmangal Sharma (Supreme Court, New Delhi)

Prof. Nishtha Jaswal

- She was appointed Vice Chancellor of Dr. Bhimrao Ambedkar Law University, which is located in Jaipur, by Governor Shri Kalraj Mishra on 4 March 2024.

- Prof. Nishtha Jaswal will hold the post for 3 years from the date of assumption of charge or till she attains the age of 70 years, whichever is earlier.

Rosie Barolia becomes the first transgender of the state to get a passport

- Transwoman Rosie Barolia has become the first transgender of Rajasthan to get a passport.
- Rosie is a resident of Jaipur and is also a makeup artist and trans rights activist by profession.

Gold Mines Auctioned for the first time in Rajasthan

- The first gold mine auction in Rajasthan will be held on 2nd and 3rd May.
- These mines are in Bhukia-Jagpura and Kankaria-Gara of Banswara.
- Among these, there will be e-auction for mining lease of Bhukia-Jagpura and composite license (rose and gold) of Kankaria-Gara.
- These will be auctioned through the MSTC portal of the Government of India.
- There are huge reserves of gold in the 14 square kilometer area of Bhukia-Jagpura in Ghatol tehsil of Banswara.
- After extensive exploration in this area, an initial estimate of 113.52 million tonnes of gold ore has been made, of which only 222.39 tonnes of gold metal has been estimated.
- Along with gold, abundant quantities of copper, nickel and cobalt will be obtained from these gold mines in Bhukia Jagpura.
- Note: Chief Minister Shri Bhajan Lal Sharma is also the Minister of Energy and Geology Department.
- **Bihar has the highest gold reserves** in the country, while Rajasthan has an estimated 25% of the country's gold reserves.

Gold deposit districts of Rajasthan

- Banswara: Bhukia- Jagpura
- Dausa: Dhani Basedi
- Dungarpur: Bharkundi Aravalli region
- Udaipur: Degocha

Rajasthan first in the country in renewable energy production

- According to the latest report (December 2023) of the Union Ministry of New and Renewable Energy, Rajasthan is the top state in the country in renewable energy production (24,120 MW).

- Rajasthan has the highest availability of solar and wind energy of 426 gigawatts.
- So far, 24 GW of renewable energy capacity has been installed in Rajasthan, which includes 19 GW of solar energy and 5 GW of wind energy.
- The world's largest solar park is established at Bhadla (Phalodi) (2245 MW).

'App' facility for voters in Lok Sabha elections

- For the 18th Lok Sabha elections in Rajasthan, the Election Commission has provided various facilities through various apps to help the voters.
- Under this, more than 5 crore voters of the state will be able to get information about booths and candidates from enrollment details to information about the booths and candidates on the app.
- Under this, applications will have to be submitted through an online system. Approval will be given by the Commission only through the app.
- Information about vote counting and election results for every Lok Sabha seat will be available at home.
- In this, the entire process from application for postal ballots to voting can be monitored online through the Postal Bureau portal.

- Currently there are 5.32 crore voters in Rajasthan. (9.48% increase compared to 2019)
 - Male voters: 2.77 crore
 - Women voters: 2.55 crore
 - Third Gender Voters: 616
- The gender ratio of voters in Rajasthan has improved to 923 per thousand males as compared to 920 at present.

Various apps for Lok Sabha elections

- **Saksham:** Through this app of the Election Commission of India, you can apply online to get your name registered in the disabled voter list. Voting wheelchairs can be booked by requesting in advance.
- **Voter Helpline:** You can use it for all the services related to elections including inclusion of name in the list. Through this, people can easily put their names in the voter list. If the name is not included or is deleted, an online application can be made to include the name in the voter list.

- **Know Your Candidate:** Any individual or voter can get information about the names, education, criminal records etc. of the candidates contesting from their parliamentary constituency.
- **E-learning:** This is to make voters aware and increase voting.
- **C-Vigil App:** Under this, anyone can inform the Election Commission about violation of election code of conduct and illegal activities by filing a complaint. Any case related to violation of the Election Code of Conduct, its video or photo can also be uploaded.
- **Voter Turnout:** Under this, if it is activated at the time of counting of votes, information related to vote counting will be available.
- **Convenience Candidate:** Political parties and candidates will no longer need to visit election officials for approval of any election programme.
- **InCore:** People associated with the core team of election management can coordinate through this app. The information regarding action related to violation of election code of conduct will remain updated.

Home Voting

- Home voting facility will be provided for the first time in the country in the Lok Sabha elections.
- Home voting facility was given to people above 80 years of age in Rajasthan Assembly Elections 2023. In the Lok Sabha, this time limit has been increased to 85 years.
- Home voting initiative has been taken in the country for senior citizens above 85 years of age and specially abled voters with more than 40% disability.
- In the presence of political parties and candidates, a special team will reach the home of the home voting voter and conduct the voting through postal ballot.
- The present Chief Electoral Officer of Rajasthan is Praveen Gupta.

'Operation Nirbhay'

- This operation has been started in all the districts of Bharatpur range, Bharatpur, Dholpur, Karauli, Sawai Madhopur, Deeg and Gangapur City.
- It has been started with the aim of conducting free and fear-free elections in the upcoming Lok Sabha elections.
- Under this, wanted criminals and anti-social elements were arrested.

2. NATIONAL AFFAIRS

Polity and Governance

Citizenship Amendment Rules 2024 Notified

- The Citizenship (Amendment) Act came into force in the country on 11 March 2024.
- Under this Act, the Citizenship Act, 1955 was amended.
- This Act has a provision to grant Indian citizenship to immigrants from Hindu, Shia, Buddhist, Jain, Parsi and Christian communities who came to India from **Afghanistan, Bangladesh and Pakistan** before 31 December 2014.
- This is a law to grant Indian citizenship to refugees who came to India after being persecuted on religious grounds from three neighboring countries of India.
- Before CAA 2019, it was mandatory for any person to live in India for at least 11 years to get Indian citizenship, but now this time period has been reduced to 5 years for minorities from neighboring countries.

Major Provisions

- As per the notified rules, applicants will have to provide six types of documents and mention the 'date of entry' into India.
- The list of acceptable documents includes birth certificates, land tenure records, identity cards, any license, school or educational certificate issued by a government authority in Afghanistan, Pakistan and Bangladesh.
- Applicants must submit an eligibility certificate issued by a locally recognized community institution confirming that he/she belongs to the Hindu/Sir/Buddhist/Jain/Parsi/Christian community and remains a member of the above community.
- The petition for citizenship will have to be filed online and an empowered committee through a district-level committee will scrutinize all the applications.
- The district level committee will be headed by the Senior Postal Superintendent.
- Note: The Citizenship Amendment Act (CAA) 2019 was passed on 11 December 2019. The President assent to the bill on December 12, 2019.

Supreme Court ends privilege waiver in Note for Vote cases of MPs and MLAs

- The Supreme Court ruled on 4 March 2024 that MPs and MLAs cannot get any immunity from prosecution if they take bribes to vote.
- A 7-judge Constitution bench headed by Chief Justice of India DY Chandrachud gave the unanimous verdict.
- The Supreme Court set aside its 1998 judgment in the case of P-V-Narasimha Rao vs State.
- The Court has permitted agencies to initiate prosecution against MPs/MLAs in bribery cases under the Prevention of Corruption Act 1988 (Act).
- The Supreme Court has ruled that only those who satisfy the two-tier test can be exempted from judicial action.
 - He should be connected to the collective functioning of the House.
 - That privilege must be related to the discharge of the essential duties of an MP or MLA.
- The court said that this decision regarding the privileges given to MPs or MLAs will be equally applicable to the elections to the Rajya Sabha and the elections to be held for the appointment of the President and Vice President of the country.
- Article 105(2) of the Indian Constitution provides immunity to MPs from legal action in respect of any statement made or vote given in Parliament or any parliamentary committee.
- Similarly, Article 194(2) provides immunity to MLAs from legal action in respect of any statement made or vote given in the Legislature or any committee.
- This decision also rejected the decision of Kuldeep Nayar v. Union of India (2006) which held that Rajya Sabha elections are not a proceeding of the legislature but a mere exercise of the franchise.

Kovind Committee's recommendations on 'One Nation One Election'

- The high-level committee on One Nation One Election, headed by former President

Ram Nath Kovind, submitted its report to President Draupadi Murmu on March 14, 2024.

- This report has recommended holding simultaneous elections in 2029.

Main Recommendations

- According to this report, the first phase of Lok Sabha and Assembly elections should be held simultaneously in the country from 2029.
- After this, elections for local bodies (municipalities and panchayats) should be held in the second phase within 100 days.
- The committee has suggested 15 amendments to the Constitution of India. This can be done through two constitutional amendment bills.

First Bill

- The first Bill will simultaneously provide for changes in the electoral system and the process of holding fresh elections for the Lok Sabha or the State Assembly before the expiry of their prescribed five-year term.
- For this, a proposal has been made to insert a new Article 82A in the Constitution.
- The bill can be passed by Parliament without the need for consultation with state governments or ratification by state legislatures.
- Article 82A will establish the process by which the country will move towards a system of simultaneous elections for the Lok Sabha and the State Legislative Assemblies.
- Under the proposed provision of Article 82A(2), 'all Legislative Assemblies constituted at any general election held after the appointed date shall stand dissolved on the completion of the term of the House of the People'.
- The proposed bill also recommends amendments to Article 327, which empowers Parliament to make laws relating to elections to the Lok Sabha, Rajya Sabha and state assemblies, including preparation of electoral rolls and delimitation of constituencies.
- If the Lok Sabha or a State Assembly is dissolved before the expiry of its full term, the remaining term will be referred to as 'unexpired term' as per the suggested amendments to Articles 83(3) and 172(3).

Second Bill

- The second bill will relate to municipal and panchayat elections as well as the creation by the Election Commission of India of an electoral roll containing details of each voter and the seat for which he or she is eligible to vote.
- The Bill deals with subjects on which states have the primary power to make laws and hence, it will require the approval or ratification of more than half of the states in India before it can be implemented.
- Under Article 368(2), any constitutional amendment relating to the subjects in the State List has to be approved by at least half of the State Legislatures of the country before it is passed.
- The Bill relates to municipal and panchayat elections which fall under Entry 5 of the State List titled Local Governments and will require ratification by the states.
- The committee has suggested including a new Article 324A in the Constitution. This new article will empower Parliament to make laws to ensure that municipal and panchayat elections are held simultaneously with general elections (Lok Sabha and state assemblies).
- The new Article 325(2) proposed by the Committee will create 'a single electoral roll for each territorial constituency for election to the House of the People or to the Legislative Assembly of a State or to a Municipality or Panchayat'.

Committee for One Nation, One Election

- A committee was formed on 2 September 2023 under the chairmanship of former President Ramnath Kovind for One Nation-One Election.
- The members of this committee include Ghulam Nabi Azad, Amit Shah, NK Singh, Subhash Kashyap, Sanjay Kothari and Harish Salve.
- Law Minister Arjun Ram Meghwal and Dr. Niten Chandra were special invitees in the committee.

Uniform Civil Code (UCC) came into force in Uttarakhand after the approval of the President.

- President Draupadi Murmu recently gave assent to the 'Uniform Civil Code Uttarakhand 2024' bill passed by the Uttarakhand Legislative Assembly on March 11, 2024.

- This approval was given under **Article 201** of the Constitution of India.
- It is mentioned in Article 201 of the Constitution that when a bill is reserved by the Governor for the consideration of the President, then only the President will determine assent or disagreement with respect to that bill.
- After the approval of the Uniform Civil Code (UCC) Act, Uttarakhand has become the first state in independent India to implement the Uniform Civil Code (UCC).
- Note: Goa also has a uniform civil code but it dates back to the 1870s when the state was under the Portuguese.
- The bill was passed by the Uttarakhand State Assembly on 07 February 2024.
- The committee headed by retired judge **Ranjana Prakash Desai** had presented the draft of the Uniform Civil Code in Uttarakhand.

Uttarakhand Uniform Civil Code

- This law has been divided into four sections: Marriage and Divorce, Inheritance, Live-in Relationship and Miscellaneous.
- Tribal people have been left out of the scope of the Uttar Pradesh Uniform Civil Code.
- This law completely bans practices like Halala, Iddat and Talaq (customs related to marriage and divorce in Muslim personal law).
- If a person is proven guilty of Halala, then under this Act there is a provision of imprisonment of 3 years or a fine of Rs 1 lakh or both.
- Under this, marriage only between a man and a woman is valid and recognised. The age of marriage has been fixed at 21 years for boys and 18 years for girls.
- UCC law also makes it mandatory to register marriage and divorce, failing which the couple concerned will be deprived of the benefits of all government facilities.
- It ensures equal rights to women in matters related to property and inheritance rights.
- There is no distinction made in this Act between legitimate and illegitimate children. Registration of live-in relationships has been made mandatory.

Uniform Civil Code

- Uniform Civil Code is mentioned in Article 44 of Part IV of the Constitution of India.
- It is part of the Directive Principles of State Policy (DPSP) which is not enforceable by court but plays an important role in governance.

AFSPA extended for six months in Assam, Arunachal Pradesh and Nagaland

- The Armed Forces Special Powers Act (AFSPA) has been extended for an additional six months in some districts of Assam, Arunachal Pradesh and Nagaland.
- Its notification was recently issued by the Home Ministry which became effective from April 1, 2024.
- AFSPA has been extended for six months from April 1 in four districts of Assam. These districts are Tinsukia, Dibrugarh, Charaideo and Sivasagar.
- AFSPA in Arunachal Pradesh has been extended for six months in three police station areas of Tirap, Changlang and Longding districts, along with another district.
- AFSPA has been extended for six months in 21 police station areas of five other districts including Dimapur, Newland, Chümoukedima, Mon, Kiphire, Nokkala, Phek and Peren in Nagaland.
- The Home Department has said in the notification that these districts have been considered disturbed areas from the law and order point of view, hence the duration of the Act has been extended till September 30.

AFSPA

- The full name of AFSPA is The Armed Forces (Special Powers) Act, 1958.
- This Act came into force on 11 September 1958.
- The Central Government or the Governor can impose AFSPA in the entire state or any part of it.
- Under AFSPA, security forces have the power to search and arrest anyone who goes against the law.
- Under this, no legal action can be taken against the soldiers for taking any action.

Ban on two groups of Muslim Conference in Jammu and Kashmir

- Muslim Conference Jammu and Kashmir (Sumji faction) has been banned by the Central Government under Section 3 of the Unlawful Activities (Prevention) Act, 1967.
- This arrangement came into effect with immediate effect and will last for 5 years.
- Both groups were held guilty of indulging in activities prejudicial to the sovereignty and integrity of India.
- The Sumji faction and the Muslim Conference Jammu and Kashmir (Bhat faction) were involved in aiding and abetting separatist movements in Jammu and Kashmir.

Unlawful Activities (Prevention) Act (UAPA)

- It was amended in the year 2019 as the Unlawful Activities (Prevention) Amendment Act, 2019.
- It is also known as 'anti-terrorism law'.
- Its main objective is to stop illegal activities and organizations related to it in India.

Tripartite agreement signed between Government of India, Government of Tripura and Tipra Motha

- A tripartite agreement was signed between the Central Government, Government of Tripura and Tipra Motha and other stakeholders on 2 March 2024.
- This agreement has been made to bring a permanent solution to the problems of the local people of the state.

Salient Points

- TIPRA MOTHA is also known as Tipraha Indigenous Progressive Regional Alliance. It is a regional political party and was earlier a social organization in Tripura.
- TIPRA (The Indigenous Progressive Regional Alliance) is led by Pradyot Debbarma. It is currently the largest opposition party in the Tripura Assembly.
- Under the agreement, it was agreed to amicably resolve all issues related to history, land and political rights, economic development, identity, culture and language of the original inhabitants of Tripura.
- To ensure resolution of disputes between all parties, it was also agreed to form a Joint Working Group to implement mutually agreed points within the stipulated time frame.

Announcement of elections for the 18th Lok Sabha

- Assembly elections in 4 states were announced along with the general elections of 2024 by the Election Commission on 16 March.
- Lok Sabha elections in the country will be held in 7 phases from April 19 to June 1, while the counting of votes will take place on June 4.
- Apart from this, assembly elections were also announced by the Election Commission in Sikkim, Odisha, Andhra Pradesh and Arunachal Pradesh.
- There are 97 crore registered voters in India and more than 10 lakh polling stations staffed by 1.5 crore personnel. There will be 1.82 crore first time voters in this election.
- The tenure of the current 17th Lok Sabha is ending on 16 June 2024.
- There are 543 Lok Sabha seats in the country, out of which 84 parliamentary constituencies are reserved for Scheduled Castes and 47 for Scheduled Tribes.
- With the announcement of elections, the Model Code of Conduct (MCC) came into force.

Model Code of Conduct (MCC)

- Model Code of Conduct (MCC) is a set of guidelines issued to regulate political parties and candidates before elections to ensure free and fair elections.
- MCC remains in force from the date of announcement of the election schedule till the date of declaration of results.
- As soon as the Code comes into force, the party in power – whether at the Center or in the State, has to ensure that it does not misuse its official position for publicity.
- Therefore, no such policy, project or scheme can be announced by the Central Government or the State Government which can influence the voting behavior.
- Under this code, ministers cannot combine official visits with election work and cannot use official machinery for this.
- The Election Commission rarely resorts to punitive action to enforce the MCC, such as during the 2019 Lok Sabha elections, when it banned some leaders from campaigning to prevent their speeches from spoiling the election atmosphere.

3. ECONOMY

PM-Surya Ghar: Free Electricity Scheme

- The Union Cabinet has approved the PM-Surya Ghar: Muft Bijli Yojana.
- The Central Government has approved an amount of Rs 75,021 crore for this scheme.
- This scheme was launched on 13 February 2024.
- Under this scheme, up to 300 units of free electricity per month will be provided for installing rooftop solar energy and for 1 crore houses.
- The central government will bear 60% of the cost of installing a 2 kW system and 40% of the cost of a 2-3 kW capacity system.
- Under this, a subsidy of Rs 30,000 will be given for a system of 1 kW capacity, Rs 60,000 for a system of 2 kW capacity and Rs 78,000 for a system of 3 kW or more.
- Under this scheme, the installation of residential rooftop solar systems up to 3 kW will currently provide the benefit of collateral-free low-interest rate loan of about 7 percent.
- A model solar village will be developed in each district of the country as a role model for rooftop solar adoption in rural areas.
- Under this scheme, solar capacity of 30 GW will be increased in residential areas through rooftop solar energy.

Foundation stone laid for 3 semiconductor projects in India

- Prime Minister Narendra Modi laid the foundation stone of 3 semiconductor projects on 13 March 2024.
- These projects will be established in Dholera, Sanand in Gujarat and Morigaon in Assam.
- These semiconductor projects come under the Bharat Semiconductor Mission.
- The cost of these projects is around Rs 1.25 lakh crore.
- Their objective is to transform India into a global semiconductor hub, boost economic growth and promote innovation in the country.

Dholera

- **India's first commercial semiconductor fab (fabrication plant)** will be set up by Tata Electronics Private Limited (TEPL) in **Dholera Special Investment Region (DSIR) in Gujarat**.
- The project will be set up by Tata Electronics Pvt Ltd (TEPL) in partnership with Taiwan's Powerchip Semiconductor Manufacturing Corporation (PSMC).
- There will be an investment of more than Rs 91,000 crore on this project.

Morigaon

- **The Outsourced Semiconductor Assembly and Test (OSAT) facility will be set up at Morigaon, Assam** by Tata Electronics Private Limited (TEPL) for Semiconductor Assembly, Testing, Marking and Packaging (ATMP).
- The total investment on this will be around Rs 27,000 crore.

Sanand

- **The Outsourced Semiconductor Assembly and Test (OSAT) facility will be set up in Sanand, Gujarat** by CG Power and Industrial Solutions Limited.
- The total investment on this will be around Rs 7,500 crore.

Semiconductor Mission of India

- The mission was launched in the year 2021 under the aegis of the Ministry of Electronics and Information Technology (MeitY) with a total budget of Rs 76,000 crore.
- It is part of a broader program to develop a sustainable semiconductor and display ecosystem in the country.
- Its objective is to encourage companies investing in semiconductor, display manufacturing and design ecosystems.
- The mission aims to establish India as a major global hub for semiconductor design, manufacturing and technology development.

New Electric Vehicle Policy approved by Central Government

- The central government approved the new electric vehicle policy on March 15.
- The policy aims to encourage domestic EV manufacturing and attract global EV manufacturers to invest in India.
- Under this policy a company will have to invest a minimum of Rs 4,150 crore and there is no maximum limit on investment.
- Under this, the company will have to start its plant in 3 years.
- The company will also have to reach 50% domestic value addition (DVA) within 5 years.
- To increase domestic value addition (DVA) in manufacturing, the government aims to achieve localization levels of 25% by the third year and 50% by the fifth year.
- 15% customs duty will be applicable on vehicles with minimum cost, insurance, and freight (CIF) value of US\$ 35,000 and above for a total period of 5 years.
- This will require the manufacturer to set up manufacturing facilities in India within a period of 3 years.
- The bank guarantees of the companies will be refunded once the domestic value addition (DVA) reaches 50%.

T+0 settlement

- It was implemented by the Securities and Exchange Board of India (SEBI) on an optional basis in the stock market from March 28, 2024.
- This is being implemented on the first 25 shares for which same-day settlement is being implemented.

- Through this system, money will be credited to the investor's account on the same day of selling the shares (i.e. the shares will be credited to the demat account on the same day of purchase of shares).
- Investors will be able to use this amount for other purposes.

Grid-India got the status of Miniratna company

- Grid Controller of India Limited (GRID-India) has achieved the status of Miniratna Category-I Central Public Sector Enterprise (CPSE).
- Grid-India ensures the efficient transfer of power to allow fault-free and uninterrupted operation of the Indian power system.
- It facilitates affordable and efficient wholesale electricity markets and manages settlement systems.
- Miniratna Category-I status is given to those central enterprises which have been continuously profitable for the last three years, with pre-tax profit of Rs 30 crore or more in at least one of the three years. And even if there is net profit, they are given the status of Miniratna-I.

Grid Controller of India Limited (GRID-INDIA):

- It was established in March 2009 and is headquartered in New Delhi.
- It is a company of the Ministry of Power, Government of India.
- It was earlier known as Power System Operation Corporation Limited (POSOCO).
- Its name was changed to Grid Controller of India Limited (GRID-India) on 09 November 2022.

4. INTERNATIONAL AFFAIRS

Country making Abortion a Constitutional Right

- By amending the Constitution, France has given women the constitutional right to have abortion.
- France is the first country in the world to do so.

Background of abortion laws in France

- In France, a law was passed in 1975 giving legal rights to abortion.
- This law allowed abortion up to ten weeks.
- In the year 2001 it was increased to 12 weeks and in 2022 it was increased to 14 weeks.
- This provision was made in the 25th constitutional amendment after the establishment of modern France and the first amendment since 2008.

Sweden officially becomes the 32nd member of NATO

- Sweden has officially become the 32nd member of the North Atlantic Treaty Organization (NATO).
- In this context, the process of joining Washington was completed on 7 March 2024.
- In 2023, Finland joined NATO as the 31st member.

Sweden

- Sweden has been a member of the European Union (EU) since 1995.
- Sweden shares land borders with Norway to the west and Finland to the northeast.
- The Arctic North of the Nordic country Sweden is called the 'land of the midnight sun'.

North Atlantic Treaty Organization (NATO)

- It is an intergovernmental political and military alliance of North American and European countries.
- It was formed in 1949 under the North Atlantic Treaty.
- Its headquarters is located in Brussels (Belgium).

India introduced 'G4 Model' to reform the Security Council

- The 'G4 Model' for dialogue and negotiation on Security Council reforms has been presented by Brazil, Germany, Japan and India.
- This model was proposed at the intergovernmental talks on Security Council reform on March 7, 2024.

G4 Model

- Under this, the membership of the Security Council will increase from 15 to 25-26 by adding 6 new permanent and four or five temporary members.
- Out of the 6 new permanent members, 2 from the African continent, 2 from Asia Pacific countries, 1 from Latin American and Caribbean countries and 1 member from Western European and other countries have been proposed.
- It does not determine which member states will become new permanent members under the G4 model.
- Under this, this decision will be taken by the United Nations General Assembly in a democratic and inclusive election.
- The new permanent members will, in principle, have the same responsibilities and obligations as the current permanent members but will not exercise a veto unless a decision is taken on the matter during the review.

Need for reform in the Security Council

- Since its inception, there have been radical changes at the global level which are necessary to improve it and make it inclusive for all.
- The Global South, including Africa, Asia and Latin America, is not represented in the current Council, which is unfair to developing countries.
- The Council's inability to maintain international peace and security under the current arrangement highlights the urgent need for reform.

- Currently, only 5 permanent members have veto powers which hinders global challenges and conflicts like Ukraine and Gaza.

'Trade and Economic Partnership Agreement (TEPA)'

- India and the European Free Trade Association (EFTA) signed a Trade and Economic Partnership Agreement (TEPA) on 10 March 2024.

TEPA

- **Full Form:** Trade and Economic Partnership Agreement
- Trade agreement between India and four developed countries, known as TEPA.
- For the first time, India has signed a Free Trade Agreement (FTA) with a major economic organization of Europe.
- The agreement has a **binding commitment** of \$100 billion of investment and 1 million direct jobs within the next 15 years.
- With this FTA, Indian exporters will have access to larger European and global markets, creating promising growth prospects.

Main provisions of the Agreement

- EFTA has committed to promoting investment in India. It aims to increase the stock of foreign direct investment to US\$100 billion over the next 15 years. The investment will create ten million direct jobs in India.
- EFTA is offering 92.2% of its tariff lines, covering 99.6% of India's exports.
- This market access proposal includes 100% tariff concession on non-agricultural products and processed agricultural products (PAP).
- India has excluded dairy, soya, coal and sensitive agricultural products.
- TEPA will promote exports of services in various sectors such as IT, business, education, rail and audio-visual services.
- It provides better accessibility through digital delivery of services, business presence and better entry and temporary migration of key personnel.
- TEPA provides an opportunity for Indian companies to expand their market access to the EU through Switzerland.
- This agreement will promote domestic manufacturing in India in various sectors like infrastructure, manufacturing, pharmaceuticals and others.

EFTA

- Full Form: European Free Trade Association
- EFTA is an intergovernmental organization established in 1960.
- This includes the European countries of Switzerland, Iceland, Norway and Liechtenstein.
- Its objective is to promote free trade and economic integration to benefit member countries.
- EFTA is one of the three important economic blocks in Europe (the other two being the EU and the UK).
- Among the EFTA countries, Switzerland is India's largest trading partner, followed by Norway.

13th WTO Ministerial Conference

- The conference was held in Abu Dhabi, United Arab Emirates (UAE) from 26 February to 1 March 2024.
- The conference was chaired by Dr. Thani bin Ahmed Al Zayed, UAE Minister of State for Foreign Trade.

WTO's 'New disciplines on good regulatory practice for services trade' come into force

- The World Trade Organization (WTO) adopted New Disciplines on Services Domestic Regulation on 27 February.
- Its goal is to reduce trade costs by approximately \$150 billion per year.
- 72 countries including major economies like the United States (USA), Canada, Japan, China, United Kingdom and Switzerland are part of this Plurilateral Agreement.
- **Note:** India is not a part of this agreement.
- India has, in principle, been against multilateral agreements on platforms like the WTO as it believes it could weaken its multilateral trade framework.
- Multilateral agreements are binding on all WTO members and must be approved as a whole along with the WTO Agreement.
- Plurilateral agreements, in contrast, are optional and binding only on those members who choose to ratify them.
- New obligations on domestic regulation of services This is the first commitment in a WTO agreement to eliminate discrimination between men and women when seeking permits for the supply of services.

- The new agreement aims to reduce the unintended trade-restrictive effects of measures related to licensing requirements and procedures, qualification requirements and procedures and technical standards.
- This will especially help small businesses and women entrepreneurs.
- This discipline will be implemented on the most favored nation principle, meaning that these obligations will benefit all WTO members.

Comoros and Timor-Leste become new members of the World Trade Organization (WTO)

- Comoros and Timor-Leste have become new members of the World Trade Organization (WTO). These countries were granted formal membership in the 13th WTO Ministerial Meeting in Abu Dhabi.
- With this the total number of WTO members has increased to 166. Comoros has become the 165th member of WTO and Timor-Leste has become the 166th member.

Prime Minister's visit to Bhutan

- Prime Minister Shri Narendra Modi is on a state visit to Bhutan on 21-22 March 2024.
- India has decided to double assistance to Bhutan from ₹5,000 crore in 2019-2024 to ₹10,000 crore by 2029.
- India and Bhutan signed seven agreements on cooperation in space and research for energy, food security.
- It was also announced to establish new rail connectivity between Basirhat (West Bengal) and Samtse (Bhutan) and Kokrajhar (Assam) and Gelephu (Bhutan).
- The Prime Ministers of the two countries inaugurated the state-of-the-art hospital, Gyalsuen Jetsun Pema Wangchuck Mother and Child Hospital in Thimphu with the assistance of the Government of India.

Bhutan's highest honor for Prime Minister Modi

- Prime Minister Shri Narendra Modi was awarded the Order of the Druk Gyalpo, Bhutan's highest civilian honour.
- India is Bhutan's top trading partner. India has contributed 73% of Bhutan's total foreign aid.

UN adopts first global resolution on Artificial Intelligence

- The United Nations General Assembly unanimously passed the first global resolution on Artificial Intelligence on 24 March 2024.
- The resolution was sponsored by the United States and co-sponsored by 123 countries, including Russia, China, and Cuba.
- Its purpose is to ensure that powerful new technologies benefit all countries, protect human rights, and ensure safe and reliable technology.
- The resolution stressed the importance of eliminating the digital divide between developed and developing countries.

Artificial Intelligence

- It is a way of creating computer-controlled robots or software that can think intelligently like humans.
- John McCarthy is considered the father of Artificial Intelligence.
- A committee has been formed under the chairmanship of NITI Aayog Vice Chairman Rajiv Kumar to create a framework for the AI program at the national level in India.

Operation Indravati Launch

- India started this operation on 21 March 2024 to evacuate Indian citizens from Haiti to the Dominican Republic.
- There is a serious conflict situation in Haiti between armed groups and the government.
- Haiti is a country on the island of Hispaniola in the Caribbean Sea. Its capital is Port-au-Prince.

Group of Friends (GOF)

- The India-led Group of Friends (GOF) held its second meeting on 26 March 2024.
- India also launched a new database designed to record crimes against UN peacekeepers and monitor progress in holding perpetrators accountable.
- GOF is to be launched in 2022 during India's presidency of the UN Security Council.
- Its purpose is to promote accountability for crimes against Blue Helmets (United Nations peacekeepers).
- India, Bangladesh, Egypt, France, Morocco and Nepal are the co-chairs of the GOF. It has 40 members.

New agreement signed for construction of SSN-AUKUS Submarines

- This agreement was made between the **United States of America, the United Kingdom and Australia.**
- Australia's ASC and UK-based BAE Systems will build SSN-AUKUS submarines for the Royal Australian Navy under a new trilateral security partnership.
- These submarines will be capable of intelligence, surveillance, underwater warfare and strike missions.
- This will provide maximum interoperability among AUKUS partners.

SSN-AUKUS

- AUKUS is a trilateral security partnership between Australia, the UK and the US for the Indo-Pacific region.
- It will strengthen military capabilities and promote stability and security in the Indo-Pacific.
- It is designed to create a stronger, more flexible trilateral submarine industrial base that will support submarine production and maintenance in all three countries.

Inter-Governmental Framework Agreement (IGFA) between India and UAE approved

- This agreement is on cooperation for the stabilization and operation of the India-Middle East-Europe Economic Corridor (IMEC).
- This Intergovernmental Framework Agreement (IGFA) was signed on 13 February 2024.
- IGFA aims to further enhance and strengthen bilateral relations between India and UAE in the ports, maritime and logistics sectors.
- There will be collaboration between India and UAE for the development of IMEC in IGFA.

India-Middle East-Europe Economic Corridor (IMEC)

- It is a proposed economic corridor from India to Europe via the United Arab Emirates, Saudi Arabia, Jordan, Israel and Greece.
- It will have two separate corridors, Eastern Corridor and Northern Corridor.
- The Eastern Corridor will connect India to the Arabian Gulf. The Northern Corridor will connect India to Europe.

- On 9 September 2023, the leaders of India, the European Union, France, Germany, Italy, Saudi Arabia, the United Arab Emirates, and the United States announced an MoU on the sidelines of the G20 Leaders' Summit.

Approval to establish International Big Cat Alliance (IBCA)

- The Union Cabinet has approved the establishment of the International Big Cat Alliance (IBCA).
- IBCA will be headquartered in India.
- It will be set up with an investment of Rs 150 crore for a period of five years from 2023-24 to 2027-28.
- PM Modi formally announced the launch of the International Big Cat Alliance on 9 April 2023 to mark 50 years of India's Project Tiger.
- Its aim is to secure the future of big cats including tigers, lions, leopards, snow leopards and cheetahs.
- Big cats include 7 cats, tigers, lions, leopards, snow leopards, pumas, jaguars and cheetahs.
- India has all the other big cat species except the puma and jaguar.
- Note: In the year 2023, cheetah was brought from South Africa and Namibia to Kuno National Park in Madhya Pradesh.
- This alliance will ensure sustainable use of natural resources and mitigate the challenges posed by climate change.
- IBCA will help in knowledge sharing, capacity building, networking, finance and resource support, research and technical assistance.
- 16 countries including Brazil, Nepal, Bangladesh and Malaysia have formally joined the Big Cat Alliance.

Alliance for Global Good – Gender Equity and Equality Launched

- It was launched by India at the Davos 2024 summit.
- Recently its logo and website have been released by the Central Government.
- The main objective of the Alliance is to strengthen global best practices, promote knowledge exchange and attract investment in women's health, education and entrepreneurship.

India inaugurates new airstrip at Agaléga Island in Mauritius

- Prime Minister Shri Narendra Modi and Prime Minister of Mauritius Shri Pravind Jugnauth jointly inaugurated six community development projects as well as a new airstrip at Agaléga Island in Mauritius through video conferencing on 29 February 2024.
- These projects will address the need for better connectivity between mainland Mauritius and Agaléga Island.
- Agaléga is in the western Indian Ocean. The Agaléga of Mauritius consists of two islands: the main North Island and the smaller South Island.
- While operating from Agaléga, long range aircraft of the Indian Navy will be able to maintain surveillance over the western and southern Indian Ocean and the eastern and southern coast of Africa.

President's visit to Mauritius

- President Draupadi Murmu was on a state visit to Mauritius from 11-13 March.
- She was the chief guest at the National Day celebrations of Mauritius on 12 March.
- The University of Mauritius conferred **the Honorary Degree of Doctor of Civil Law (Honoris Causa Degree)** on President Smt. Draupadi Murmu on 12 March 2024.
- The President announced the expansion of Overseas Indian Citizenship eligibility for Indian origin with the aim of reintegrating young people of Indian origin back to India.

Shanghai Cooperation Organization (SCO) Startup Forum

- Its fourth edition was organized on 19 March 2024 in New Delhi.
- The initiative focuses on broadening startup interactions among SCO member countries, promoting an enabling environment for innovation and job creation.
- India aims to promote cooperation and coordination with member countries in the context of startup activities with a view to strengthen the local startup ecosystem in SCO member countries.
- **Note:** At the Summit of SCO Heads of State in Samarkand (Uzbekistan) on 16

September 2022, all the member countries agreed to form a Special Working Group (SWG) for Startups and Innovation and **India was made the permanent chair** of this group.

Thailand becomes first Southeast Asian country to allow gay marriage

- Thailand's parliament has passed a bill to approve gay marriage.
- The bill would amend Thailand's Civil and Commercial Code and replace gender-related terms such as 'husband and wife' with gender-neutral language such as 'husband/wife' and 'person'.
- **Note:** Taiwan was the first Asian country to legalize same-sex marriage in 2019.
- **Note:** In November 2023, Nepal became the first South Asian nation to formally recognize and register same-sex marriage.

The world's first 3D-printed Mosque

- The world's first mosque built using 3D printing technology has been built in Saudi Arabia.
- It is located in the Al-Jawhara suburb of Jeddah.
- This mosque has been named after the late Abdulaziz Abdullah Sharbatly.

India becomes the world's second largest mobile phone producer

- According to the India Cellular and Electronics Association, the sector changed from 78% import-dependent to 97% self-reliant in 2014.
- Currently, imports account for only 3% of all mobile phones sold in India.
- India's mobile phone manufacturing is worth about Rs 20 lakh crore.
- In ten years (2014-2024), India produced 2.45 billion mobile phones against the target of 2.5 billion.

Nepal declared Pokhara as its Tourism Capital

- Prime Minister Pushpa Kamala Dahal declared Pokhara the tourism capital of Nepal.
- China had built Pokhara International Airport. It was slated for commercial operation in January 2022.

The 3rd Summit for Democracy

- It was planned in a hybrid format from 18-20 March 2024 in Seoul, South Korea.
- The summit was inaugurated by South Korean President Yoon Suk Yeol in the presence of US Secretary of State Antony Blinken.
- Prime Minister Narendra Modi addressed this summit virtually on March 20, 2024.
- The conference was initiated in 2021 by US President Joe Biden to address emerging challenges to democracy from authoritarianism and to protect and promote human rights.
- **Note:** The first Summit for Democracy was organized by the US on 9-10 December 2021 in virtual mode.

5. SCIENCE AND TECHNOLOGY

Mission Divyastra

- The Defense Research and Development Organization (DRDO) on March 11 conducted the first successful flight test of the indigenously developed **Agni-5 missile** with **Multiple Independently Targetable Re-entry Vehicle (MIRV) technology**.
- Under this, the Agni-5 missile is capable of carrying multiple warheads and targeting multiple targets.
- This test was named Mission Divyastra.
- This flight test was conducted from Dr. APJ Abdul Kalam Island in Odisha.
- The development of MIRV capability is a significant upgrade to India's missile systems and expands its nuclear options.
- Conventional missiles carry a single warhead, which attacks a fixed target.
- Missiles equipped with MIRVs can carry multiple warheads, each of which can be programmed to attack a different target. All of them can also be made to attack the same place one after the other.
- This technology was deployed by the United States and the then Soviet Union in the 1970s. France, the United Kingdom and China also have this technology.

Agni-5 Missile

- Agni-5 missile (Range: 5000 km) is India's first and only intercontinental ballistic missile.
- This missile is developed by the Defense Research and Development Organization (DRDO).
- It is a long-range surface-to-surface ballistic missile developed under the Integrated Guided Missile Development Program (IGMDP).
- It is equipped with Multiple Independently Targetable Reentry Vehicle (MIRV) technology. That is, it can be launched on multiple targets simultaneously.
- It can carry up to 1.5 tons of nuclear weapons. Its speed is Mach 24 (24 times more than the speed of sound).

Successful test of Reusable Launch Vehicle (RLV) 'Pushpak'

- The Indian Space Research Organization (ISRO) successfully conducted the landing test of the **Reusable Launch Vehicle (RLV)** on 22 March 2024.
- This reusable launch vehicle (RLV) has been named 'Pushpak'.
- The test was conducted at the Challakere Aeronautical Test Range in Chitradurga, Karnataka.
- Pushpak is ISRO's second series of RLV landing experiments and this time RLV demonstrated autonomous landing capability.
- Earlier on 4 April 2023, ISRO had conducted the test with **Reusable Launch Vehicle-Technology Demonstration (RLV-TD)**.
- This is part of efforts to develop the technologies required for a fully reusable launch vehicle to launch satellites into space at a low cost.
- Pushpak is a three type space shuttle. It is designed to perform complex maneuvers, correct errors and land on the runway completely autonomously.
- The estimated cost of the Pushpak project is Rs 100 crore (about \$13.5 million).
- The primary objective of the Pushpak Mission is to develop the technologies required for a Reusable Launch Vehicle (Reusable Launch Vehicle) to reduce launch costs.
- In this test, Pushpak RLV was lifted by Chinook helicopter of Indian Air Force and then released from a height of 4.5 kilometers.
- It landed on the runway and stopped using brake parachutes, landing gear brakes and a nose wheel steering system.
- The next phase of reusable launch vehicles could potentially be able to return satellites to orbit for refueling or refurbishing.



ISRO’s satellite PSLV completes zero orbital debris mission

- Indian Space Research Organization (ISRO)’s rocket PSLV (Polar Satellite Launch Vehicle) has achieved a major achievement by completing the Zero Orbital Debris Mission on March 21.
- In this, PSLV Orbital Experimental Model-3 (POEM-3) re-entered the Earth’s atmosphere and completed the mission.
- After installing any satellite in its orbit, PSLV gets divided into three parts. It is called POEM-3.
- With this, whatever rocket ISRO launches for a new mission, its debris will not be scattered in space.
- In this test the **PSLV-C58/(X-ray Polarimeter Satellite- XPoSat)** mission has left practically zero debris in orbit.
- In this test, PSLV was first brought from an orbit with an altitude of 650 kilometers to an orbit with an altitude of 350 kilometers.
- The success of this mission will reduce the risk of any satellite crashing during orbit change.
- PSLV-C58 mission was completed on 1 January 2024.

First Rocket launch of India’s private startup Agnikul Cosmos

- Tamil Nadu-based space start-up Agnikul Cosmos Pvt Ltd launched its first rocket on March 22.
- Agnibaan Sub Orbital Technology Demonstrator (SOOrTeD) rocket was launched from the Satish Dhawan Space Center in Sriharikota, Andhra Pradesh.
- After Skyroot, Agnikul Cosmos is the second private company in India to develop its own launch vehicle.
- Agnibaan is a three-stage rocket, the first stage of which is equipped with seven Agnilet engines.

Important facts regarding Agnibaan SOOrTeD:

- This is India’s first rocket launch from a private launchpad.
- This will be India’s first semi-cryogenic engine-powered rocket launch.
- It is the world’s first single-piece 3D-printed engine, designed and manufactured indigenously.

Agnikul Cosmos

- It is a private space start-up established in 2017 and headquartered in Chennai (Tamil Nadu).

- In December 2020, Agnibaan became the first company in the country to sign an agreement with ISRO. (To gain access to the space agency's expertise and its facilities)
- Note: In 2022, India's first privately developed rocket, Vikram-S, was launched from the ISRO launch pad in Sriharikota.
- It was developed by Hyderabad-based start-up Skyroot Aerospace Pvt. Ltd. This mission was named 'Prarambh'.

Chandrayaan-3 landing site name "Statio Shiv Shakti" approved by IAU

- 'Statio Shiv Shakti' is the landing site of Vikram lander of Chandrayaan-3.

Chandrayaan-3 mission

- ISRO's Chandrayaan-3 mission was launched on July 14, 2023.
- Chandrayaan-3's Vikram lander successfully made a soft landing near the south pole of the Moon on 23 August 2023.
- India has become the fourth country in the world (after America, Russia, China) to make a soft landing on the Moon and the first country in the world to make a soft landing near the south pole of the Moon.
- On August 26, 2023, PM Modi had announced the name of the place where Chandrayaan-3's Vikram Lander touched down as 'Shiv Shakti'.
- Prime Minister Modi had named the impact point of Chandrayaan-2 as 'Tiranga'. It is noteworthy that in the year 2019, the lander of Chandrayaan-2 crashed here.
- On 23 August 2023, Vikram Lander reached the surface of the Moon, hence it was announced to celebrate it as 'National Space Day'.

Shiv-Shakti: The oldest building blocks of the Milky Way Galaxy

- Astronomers at Germany's Max Planck Institute for Astronomy have identified the oldest building blocks of the Milky Way, dating back 12-13 billion years, using the Gaia space telescope.
- These stellar clusters named 'Shakti' and 'Shiva' provide information about the formation of the galaxy.
- These ancient stellar clusters probably came together and are the foundation of the Milky Way Galaxy.

- The stars 'Shakti' and 'Shiva' have higher angular momentum relative to the center of the galaxy.
- It sheds light on the process of formation of the Milky Way.

INS Jatayu

- It is India's state-of-the-art naval base in Lakshadweep.
- INS Jatayu was commissioned on 6 March 2024.
- India has had a naval contingent at Minicoy, the southernmost atoll of the Lakshadweep archipelago, since the 1980s.
- INS Jatayu is the country's second naval base in Lakshadweep.
- The navy's first base on the islands, INS Dweeprakshak at Kavaratti, was commissioned in 2012.
- This is a significant step forward in the Indian Navy's resolve to enhance security infrastructure in the strategically important Lakshadweep Islands.
- With the commissioning of Chhaya Jatayu, the Indian Navy will increase its strength on the western seaboard.

Satellite launched to track Methane Emissions

- To track methane emissions globally, a satellite named **MethaneSAT** was launched on SpaceX Falcon-9 rocket from California (USA) on March 4, 2024.
- It has been launched by the US-based non-profit environmental organization 'Environment Defense Fund (EDF)'.
- To develop the satellite, EDF has partnered with Harvard University, the Smithsonian Astrophysical Observatory and the New Zealand Space Agency.
- MethaneSat aims to help by providing an independent source of methane monitoring with a primary focus on methane leaked from oil and gas fields.
- It will collect large amounts of data and analyze methane emissions, causes and measures.

Methane

- Methane in particular is a greenhouse gas that causes about 30% of the warming that has occurred on Earth.
- It decomposes in the atmosphere in only 12 years, which is much less than the hundreds of years taken by CO₂ to decompose.

Indian Navy inducts its first MH 60R Squadron

- The Indian Navy inducted multi-role MH 60R Seahawk multi-role helicopters into its fleet on 6 March 2024.
- The Indian Navy has named this squadron as '**Indian Naval Air Squadron 334' (INAS 334)**.
- It will be led by Captain M Abhishek Ram.

MH 60R Seahawk helicopter

- It is also known as 'Romeo'.
- It is manufactured by Lockheed Martin Corporation of America.
- The MH 60R Seahawk is a Marine version of the Blackhawk helicopter.
- It is suitable for other missions including anti-submarine warfare, anti-surface warfare, rescue and medical operations.

INS Agray and INS Akshay inducted into Indian Navy

- Two new ships **INS Agray and INS Akshay** were commissioned into the Indian Navy on 13 March 2024.
- They were built by Garden Reach Shipbuilders and Engineers Limited (GRSE).
- These 8 x ASW Shallow Water Craft (SWC) are the 5th and 6th ships of the GRSE project.
- These ships are designed for anti-submarine warfare, low intensity maritime operations and mine laying in coastal waters.
- These ships are 77.6 meters long and 105 meters wide.
- These are ships with a displacement of 900 tonnes and a carrying capacity of more than 1800 Nm.

Dragonfire successfully tested

- Britain has successfully tested high power laser weapon Dragon Fire on 19 March 2024.
- This is an anti-drone laser technology.
- The full name of this weapon is 'Dragonfire Laser Directed Energy Weapon' (Laser Directed-Energy Weapon- LDEW).
- It is capable of shooting down aerial targets like drones in the air itself.
- It has been prepared by the British Defense Ministry with the joint effort of MBDA, Leonardo and QinetiQ companies.
- The laser beam can target even small targets up to a kilometer away.

- Note: America, Germany, Israel and Türkiye have also developed laser based weapons under Britain.

Successful flight test of Very Short Range Air Defense System (VSHORADS)

- Two successful flight tests of the Very Short Range Air Defense System (VSHORADS) missile were conducted by the Defense Research and Development Organization (DRDO) on 28 and 29 February.
- These tests were conducted from a ground-based portable launcher at the Integrated Test Range, Chandipur, off the coast of Odisha.
- These were aimed at destroying high-speed unmanned aerial targets under various interception scenarios.

VSHORADS

- It is a Man Portable Air Defense System (MANPAD).
- It has been developed and designed by Research Center Bhartiya, Hyderabad in collaboration with other DRDO laboratories and Indian industry partners.
- The VSHORADS missile is powered by a dual thrust solid motor designed to destroy low-altitude air bases at short ranges.

Signals Technology Evaluation and Adoption Group (STEAG)

- The Indian Army has converted 21 Signals Group into Signals Technology Evaluation and Adoption Group (STEAG).

STEAG

- It is a unit dedicated to research and evaluation of future communications technologies such as 6G, Artificial Intelligence (AI), Machine Learning and Quantum Computing for military applications.
- Its primary objective is to enhance the communication infrastructure of the Indian Army.
- This group will work under the Signal Directorate.

First successful test of LCA Tejas Mark 1A Fighter Aircraft

- The indigenous Tejas Mark 1A fighter aircraft manufactured in India made its successful first flight on March 28.

LCA Tejas

- LCA (Light Combat Aircraft) Tejas is a single-engine multi-role light combat aircraft. Its speed is 2200 km per hour.
- It can reach a maximum height of 50 thousand feet. It can be equipped with 9 rockets, bombs and missiles.
- It is designed and developed by the Aeronautical Development Agency (ADA) and Hindustan Aeronautics Limited (HAL) for the Indian Air Force and Indian Navy.
- Tejas is designed to carry air-to-air, air-to-surface precision-guided and standoff weapons. Its maximum payload capacity is 3A500 kg.

Tejas Mark 1A

- Tejas Mark 1A is an upgraded version of Mark 1. This is a 4th generation fighter aircraft.
- It has the capacity of air -to-air refuelling.
- It is equipped with radar and self-protection jammers.
- The Indian Air Force has ordered 83 Tejas Mark 1A aircraft to strengthen its fleet.

India's Fastest Router Launched

- India's fastest and indigenously designed IP/MPLS (Multiprotocol Label Switching) router launched by Union Minister Ashwini Vaishnav in Bengaluru on 9 March 2024.
- This router has been developed in collaboration with the Government's Department of Telecommunications, CDOT and Nivetti.
- Its speed is 2.4 terabytes per second (tdps).
- It can prove helpful in the development of many sectors including railway communication network, power grid, telecommunication and television media.

MPLS technology

- Multiprotocol label switching (MPLS) is a routing technology used in telecommunication networks to direct data from one node to another.
- MPLS technology was first developed in the 1990s. Its main purpose is to speed up network connections by sending packets over predetermined network paths.

DefConnect 2024

- DefConnect 2024 was inaugurated on 4 March 2024 to encourage indigenous defense innovation.

- It brings together key stakeholders including leaders from the armed forces, defense industry, start-ups, academics and policy makers.
- It aims to foster meaningful engagement and showcase cutting-edge technologies.
- It will attract innovators and investors from India's key defense sector industries.
- The event was organized by Innovation for Defense Excellence- Defense Innovation Organization (iDEX-DIO).
- iDEX was launched by the Central Government in 2018. It provides an integrated platform for defense and aerospace sector stakeholders.

Kulasekarapattinam Launch Center

- The foundation stone of Kulasekarapattinam spaceport in Tamil Nadu was laid by Prime Minister Narendra Modi on 28 February 2024.
- It is the second satellite launch center of ISRO after Sriharikota (Andhra Pradesh) to launch SSLVs (Small Satellite Launch Vehicle).

Importance

- When a satellite is launched into space from ISRO's Sriharikota in Andhra Pradesh, the rocket first moves towards the east and then turns towards the south. Since Sri Lanka is located south of Sriharikota, this diversion has been done to avoid the airspace of the neighboring country.
- This turn is not required for satellite launch from the space center at Kulasekarapattinam and the rockets can now go straight in the southern direction.

Benefit

- The rocket will not have to cover much distance.
- Fuel will be saved.
- Kulasekarapattinam is closer to the equator than Sriharikota.

SSLV (Small Satellite Launch Vehicle)

- ISRO has designed SSLV (Small Satellite Launch Vehicle) to launch lightweight satellites at low cost.
- These SSLVs can be used to launch satellites weighing less than 500 kg into low Earth orbit.

Start of 'Core Loading' in Fast Breeder Reactor (PFBR)

- Prime Minister Shri Narendra Modi inaugurated the 'core loading' of India's first indigenous fast breeder reactor (Prototype Fast Breeder Reactor: PFBR) at **Kalpakkam, Tamil Nadu** on 4 March 2024.
- This is a 500 MW capacity reactor.
- This relates to India's entry into the second phase of its three-phase nuclear programme.
- The Fast Breeder Reactor (FBR) will provide a safe, efficient and clean source of energy and contribute to the goal of net zero.
- PFBR has been completely indigenously designed and manufactured by BHAVINI.
 - Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI) is a wholly owned enterprise of the Government of India under the Department of Atomic Energy.
- After its full operation, India will be the second country after Russia to commercially operate Fast Breeder Reactor.

Prototype Fast Breeder Reactor (PFBR)

- India has a three-phase nuclear energy programme.
- In the first phase, Pressurized Heavy Water Reactors (PHWRs) and natural uranium-238 (N-238) are used as fissile material in India.
- PHWRs use natural or low-enriched U-238 as fissionable material and produce Pu-239 as a byproduct.
- Fast Breeder Reactor is the second stage nuclear power programme.
- A breeder reactor is a nuclear reactor that produces more fissile material from the reactor.
- The FBR is an important step towards the third phase of the program which will ultimately pave the way for the full utilization of India's abundant thorium reserves.
- It produces more nuclear fuel than it emits.
- It is an advanced third generation reactor with inherent safety features that ensure quick and safe shutdown of the reactor in case of an emergency.

Noctis Volcano

- This is the largest volcano recently found on Mars.

- Its height is 29,600 feet and width is 450 kilometers.
- It is located just south of Mars' equator, within the eastern Noctis Labyrinthus region.
- The feat was accomplished using data from multiple missions, including NASA's Mariner 9, Viking Orbiters 1 and 2, Mars Global Surveyor and others.

Bharat Shakti Exercise 2024

- This is a tri-services exercise at the Pokharan Field Firing Range in Jaisalmer, Rajasthan.
- Its theme was 'Empowerment through Indigenization'.
- Under this, a range of indigenous weapon systems and platforms were displayed.

Maritime Exercise Samudra Lakshman

- Between the Indian and Royal Malaysian navies.
- It was held in Visakhapatnam from 28 February to 2 March 2024.
- Indian Naval Ship Kiltan and Royal Malaysian Ship KD Lakir participated in the third edition of the exercise.
- The objective of the exercise is to strengthen relations and enhance mutual understanding between the Indian and Royal Malaysian Navies.

Cutlass Express - 24 (CE-24)

- It is a multilateral exercise in which the Indian Navy participated along with 16 friendly countries.
- It was held in Port Victoria, Seychelles from 26 Feb to 08 Mar 24.

LAMITIYE-2024

- It is a joint military exercise between the Indian Army and Seychelles Defense Forces.
- It was held in Seychelles from 18-27 March 2024.
- In Creole language 'Lamitiye' means 'friendship'.

Tiger Triumph-24 Exercise

- It is a bilateral tri-service Humanitarian Assistance and Disaster Relief (HDR) exercise between India and the US.
- Held on the eastern seacoast in the US from 18 to 31 March 2024.

6. SPORTS

Satwiksairaj Rankireddy and Chirag Shetty won the doubles title at the French Open badminton tournament

- This tournament was organized in Paris (France).
- Indian pair Satwiksairaj Rankireddy and Chirag Shetty won their second French Open men's doubles badminton title.
- The Indian pair won the men's doubles title by defeating Chinese Taipei's Li Zhe Hui and Yang Po Wan in straight games.
- Earlier, Satwik and Chirag had earlier **won the doubles title in the French Open badminton tournament in 2022**, while they were runners-up in the French Open in 2019.

4th Khelo India University Games (KIUG) 2023

- Its fourth edition was organized from 17 to 29 February 2024 in 7 states of North-East India.
- Chandigarh University won the title of Khelo India University Games for the first time.
- Medal tally of Yellow India University Games, 2024:-
 1. Chandigarh University – A total of 71 medals including 32 gold, 18 silver and 21 bronze.
 2. Lovely Professional University–20 Gold, 14 Silver and 8 Bronze.
 3. Guru Nanak Dev University – 12 gold, 20 silver and 19 bronze.

Khelo India University Games (KIUG)

- KIUG is a national level multi-sport competition for university students.
- It is organized by the Government of India under its Khelo India scheme to encourage sports and fitness among the youth.
- These games were initiated in the year 2020.
- These games are a part of the Khelo India initiative of the Government of India.

KIRTI program launched

- Full Name: Khelo India Rising Talent Identification (KIRTI) Programme.

- Union Minister of Youth Affairs and Railways Shri Anurag Singh Thakur launched a unique talent hunt program named KIRTI in Chandigarh on 12 March 2024.
- This is a nationwide program under the Khelo India Mission.
- It aims to identify talented athletes between the ages of 9 to 18, who are currently enrolled in schools across the country.

Mumbai won the Ranji Trophy title

- Mumbai won the Ranji Trophy 2024 title by defeating Vidarbha by 169 runs on March 14.
- This is the 42nd title of Mumbai.
- Earlier, Mumbai had won the title in the year 2015-16.
- Mushir Khan was declared player of the match for the final and Tanush Kotian was declared player of the series.
- Note: In 2023, Saurashtra won the Ranji Trophy title by defeating Bengal.

Ranji Trophy:

- The Board of Control for Cricket in India (BCCI) organizes the Ranji Trophy every year.
- It is a domestic first-class cricket match between the state and regional cricket associations of the country.
- This tournament is named after Ranjit Singh, the first cricketer to represent India.
- Mumbai has won the first edition of this trophy and also the most number of Ranji trophies.

WTT Feeder Beirut Tournament 2024

- The WTT (World Table Tennis) feeder tournament was held in Beirut, Lebanon.
- India's Sathiyam Gnanasekaran won the men's singles title in this tournament.
- Sathiyam defeated Manav Vikas Thakkar of India in the final.
- In this tournament, Sathiyam and Manush Utpal Shah were the runners-up in men's doubles.
- The Indian pair of Diya Chitale and Manush Shah emerged victorious in the mixed doubles final.

WTT Feeder Beirut II Tournament 2024

- It was held in Lebanon.
- In this, Sreeja Akula won the women's singles title in table tennis.
- This is Akula's second WTT single title.
- Manush Shah and Manav Thakkar won the men's doubles title in this tournament.
- In this, the mixed doubles title was won by Poymantee Baisya and Akash Pal.

Sharath Kamal will be India's flag bearer at Paris 2024 Olympics

- Indian **table tennis player Sharath Kamal** will be the flag bearer of the Indian team for the upcoming Paris 2024 Olympics.
- Additionally, Olympic bronze medalist **MC Mary Kom** has been named as the Chef de Mission for the summer camps.
- Sharath Kamal has won the National Table Tennis Championship a record 10 times.
- MC Mary Kom is the first female boxer to win 6 world titles.
- Gagan Narang has been appointed head of shooting village operations for the Paris Olympics.
- Narang is a bronze medalist in the 10 meter air rifle event at the 2012 London Olympics.
- Note: Paris Olympics will be held from 26 July to 11 August 2024.

19th World Indoor Athletics Championships 2024

- It was organized by the International Athletics Federation (IAAF) in Glasgow, Scotland from 1-3 March 2024.
- A total of 26 competitions were included in it.
- In this championship, the United States stood first (total 20 medals including 6 gold, 9 silver and 5 bronze) while Belgium stood second.
- Two athletes from India, triple jumper Praveen Chitravel and long jumper Jesswin Aldrin participated in this meet.
- Christian Coleman of America and Julian Alfred of St. Lucia were the fastest runners in the men's and women's categories respectively.
 - Coleman completed the 60m in 6.41 seconds and Julian completed it in 6.98 seconds.
 - This is Coleman's second gold and third overall medal in the Indoor Championship.

BNP Paribas Open (Indian Wells Masters) 2024

- It was organized from 6-17 March 2024 in Indian Wells, California (USA).
- It is also known as Indian Wells (Masters) Tournament.
- The men's and women's singles titles of this tournament were won by Carlos Alcaraz and Inga Swiatek respectively.

ATP Tour Masters 1000 (Men)

- Spain's Alcaraz won the men's singles title by defeating Russia's Daniil Medvedev.
- This is Alcaraz's first title since Wimbledon.

WTA 1000 (Women)

- In the women's singles title, Poland's Iga Swiatek defeated Greece's Maria Sakkari.
- Swiatek won this title in the year 2022.

Royal Challengers Bangalore win first Women's Premier League title

- Royal Challengers Bangalore won the Women's Premier League 2024 by defeating Delhi Capitals by 8 wickets on March 17.
- Sophie Molineux was declared player of the match in the final.

Award Category	Winner
Emerging Player of the Year Award	Shreyanka Patil (RCB)
Most Valuable Player	Deepti Sharma (UPW)
Orange Cap	Alyssa Perry (RCB)
Purple Cap	Shreyanka Patil (RCB)
Fair Play Award	Royal Challengers Bangalore

- Note: In 2023, Mumbai Indians won the first Women's Premier League trophy by defeating Delhi Capitals.

Women's Premier League (WPL):

- It is a women's Twenty20 cricket tournament.
- It is organized by the Board of Control for Cricket in India (BCCI).
- Till now its 2 editions have been organized.

Puneri Paltan wins Pro Kabaddi League Season 10 title

- Puneri Paltan won the Pro Kabaddi League Season 10 final by defeating Haryana Steelers on 1 March.

- This victory is the first record for the Pune team.
- Most Valuable Player: Aslam Inamdar (Captain of Puneri Paltan)
- Best Defender: Mohammadreza Chianeh (Vice-captain of Puneri Paltan)
- Best Raider: Ashu Malik (Dabang Delhi)

B Sai Praneeth retires from International Badminton

- B Sai Praneeth is an Indian badminton player.

Achievements

- Bronze medal at the World Championships (2019)
- India represented in Tokyo 2020 Olympics
- Singapore Open title (2017)
- Awarded the Arjuna Award in the year 2019.
- Note: He became the second male Indian shuttler to earn a bronze medal at the BWF World Championships in 2019, after Prakash Padukone in 1983.

Pankaj Advani included in 'Billiards Hall of Fame'

- India's great cueist Pankaj Advani has been inducted into the 'Hall of Fame' at the 'World Billiards Museum' in Shangrao City, China.
- In November 2023, Advani won the 26th International Billiards and Snooker

Federation (IBSF) title by defeating Saurav Kohari of India.

- Pankaj Advani has won a total of 26 world titles, which includes 18 billiards and 8 snooker world titles.
- The Government of India has honored Pankaj Advani with Padma Bhushan (2018), PP Shri (2009), Major Dhyan Chand khel Ratna (2006) and Arjuna Award (2004).

Khelo India athletes will be eligible for government jobs

- Revisions were made in the eligibility criteria for athletes applying for government jobs by the Department of Personnel and Training and the Ministry of Railways.
- Under this, medal winners of the Youth, University, Para and Winter Games of the Khelo India Games have been made eligible for government jobs.
- Additionally, events and programs have been clearly defined to ensure inclusivity across different events.
- Those who have achieved success in School Games Federation of India will also remain eligible for these posts.
- Those who have successfully competed in junior national competitions or represented their country or state in international or national competitions will be eligible for employment.

7. AWARDS AND HONORS

Saraswati Samman literary honor of 2023 to Prabha Varma

- Renowned poet and litterateur Prabha Varma has been selected for the 33rd Saraswati Samman 2023 by the KK Birla Foundation for her novel 'Raudra Satvikam'.
- 'Raudra Satvikam' is written in poetic verse in Malayalam language.
- The novel tells about the conflict between power and politics, the individual and the state, and art and power.
- She was selected by the selection committee headed by former Supreme Court judge Justice Arjan Kumar Sikri.

Prabha Varma

- Prabha Varma is from Thiruvalla, Kerala.
- He writes in both English and Malayalam.
- Major works: Sowparnika, Arkapurnima, Shyama Madhavam, Chandana Naji, Ardham, and Kanal Chilambu.
- Prabha Varma has been honored with the Kerala Sahitya Akademi Award, the Central Government's Sahitya Akademi Award and the Vayalar Award.
- Prabha Varma is currently the media advisor to Kerala Chief Minister Pinarayi Vijayan.

Saraswati Samman

- It was started in 1991.
- This is an annual award given by the KK Birla Foundation.
- It is awarded annually for prose or poetry in any one of the 22 languages included in the Eighth Schedule of the Indian Constitution.
- It consists of a plaque, a citation and a cash prize of ₹15 lakh. It is given for works published within the last 10 years.
- The first Saraswati Samman was given to Harivansh Rai Bachchan in 1991.
- The 32nd Saraswati Samman was given to Sivashankari for his work 'Surya Vamsam' written in Tamil language.

President Draupadi Murmu awarded Bharat Ratna

- President Draupadi Murmu honored 5 personalities with the country's highest civilian award Bharat Ratna.
- This honor was given posthumously on 30 March 2024 to former Prime Minister Chaudhary Charan Singh and Shri PV Narsimha Rao, former Chief Minister of Bihar Karpuri Thakur and eminent scientist Dr. MS Swaminathan.
- On March 31, former Deputy Prime Minister and senior Bharatiya Janata Party leader Lal Krishna Advani was awarded the country's highest civilian decoration by President Draupadi Murmu.

Bharat Ratna

- This is the highest civilian honor of the country given for national service.
- This honor was started on 2 January 1954 by the then President of India, Shri Rajendra Prasad.
- The Bharat Ratna awardee is presented with a medal in the shape of a Peepal leaf and a Sanad (certificate) signed by the President of India.
- A person awarded Bharat Ratna does not get any amount but gets a very special status equivalent to a cabinet minister.
- The first Bharat Ratna award was given to independent India's first Governor General Chakraborty Rajagopalachari, former President Dr. Sarvepalli Radhakrishnan and scientist Dr. Chandrashekhar Venkata Raman in 1954.
- Sachin Tendulkar is the only cricketer to have received the Bharat Ratna and is also the youngest person to receive the Bharat Ratna.

24 writers honored with Sahitya Akademi Award 2023

- The Sahitya Akademi Awards for the year 2023 were presented on March 12, 2024.
- These awards were given for all the 22 languages included in the 8th Schedule and for English and Rajasthani language.
- These awards include 9 poetry collections, 6 novels, 5 story collections, 3 essays and 1 literary study (critic).

Major Award Recipients:

- **Hindi:** To Sanjeev for the novel "Mujhe Pehchano"
- **English:** Neelam Sharan Gaur for the novel Requiem in Raag Janaki
- **Punjabi:** Swarnjeet Savi for poetry collection 'Mann Di Chip'
- **Urdu:** Sadiqa Nawab Sahar for 'Rajdev Ki Amrai'

Other award recipients:

- **Poetry:** Vijay Verma (Dogri), Vinod Joshi (Gujarati), Manshoor Banihali (Kashmiri), Sorokhyabam Gambhini (Manipuri), Ashutosh Parida (Odia), Gajesingh Rajpurohit (Rajasthani), Arun Ranjan Mishra (Sanskrit), Vinod Asudani (Sindhi).
- **Novels:** Swapanmoy Chakraborty (Bengali), Krishnat Khot (Marathi), Rajashekharan (Tamil).
- **Story collection:** Pranavjyoti Deka (Assamese), Nandeshwar Daimary (Bodo), Prakash S. Paryankar (Konkani), Tarasin Baski (Santali), T. Patanjali Shastri (Telugu).
- **Essay:** Laxmisha Tolpadi (Kannada), Basukinath Jha (Maithili), Yudhveer Rana (Nepali).
- **Literary Studies (Critic):** E.V. Ramakrishnan (Malayalam).

Sahitya Akademi Award:

- This award is given for contribution in the field of literature and language.
- This award is given for all the languages included in the 8th Schedule and a total of 24 languages including English and Rajasthani.
- It was established in 1954.
- In this, the award winner is given a prize money of Rs 1 lakh.
- Its objective is to promote and preserve the rich and diverse literary heritage of India.
- The Sahitya Akademi Award is the second highest literary honor given by the Government of India after the Jnanpith Award.

96th Oscar Academy Awards 2024

- The winners of the 96th Academy Awards 2024 were announced on March 10, 2024 in Los Angeles, California, USA.
- Films released in 2023 were honored in this awards ceremony.
- In this, the best film award was given to the American film **Oppenheimer**.

- The film is based on the biography of J. Robert Oppenheimer, physicist and inventor of the atomic bomb.

- Oppenheimer won the maximum number of awards - 7.
- In addition to Best Film, the film also won awards for Best Director, Best Actor (Cillian Murphy), Best Supporting Actor (Robert Downey Jr.), Best Cinematography, Best Film Editing and Best Original Score.

Main Awards of the 96th Oscar Academy

- Best Film: Oppenheimer
- Best Director: Christopher Nolan (for Oppenheimer)
- Best Actor: Cillian Murphy (for Oppenheimer)
- Best Actress: Emma Stone (Poor Things)
- Best Documentary Feature: 20 Days in Mariupol

Oscar Academy Award

- The Academy Award itself is known as the Oscar.
- This is the most respected award in the entertainment sector.
- This award is presented by the American Academy of Motion Picture Arts and Sciences (AMPAS).
- Oscar award winners are awarded a copy of the 'Golden Statue'. This golden statue is officially called 'Academy of Merit'.

Oscar Awards won by India

- Bhanu Athaiya (1982)
- Satyajit Ray (1992)
- Resul Pookutthi (2009)
- Gulzar (2009)
- A R Rahman (2009)
- Kartiki Gonsalves and Guneet Monga, The Elephant Whispers (2023)
- Naatu Naatu Song of RRR Movie (2023)

Pritzker Architecture Prize 2024

- The 2024 Pritzker Architecture Prize will be awarded to **Japanese architect Riken Yamamoto**.
- Yamamoto is known for innovative housing projects and educational institutions.
- This is the highest international award in the field of architecture, which is also called 'Nobel for Architecture'.
- In 2023, David Chipperfield won the Pritzker Prize.
- The award is presented every year since its inception in 1979.

- Riken Yamamoto is the ninth laureate from Japan.
- In 1979, American architect Philip Johnson won the first Pritzker Prize.
- Japanese architects have won the largest number of Pritzker Prizes.

Pritzker Architecture Prize

- The Pritzker Architecture Prize was established in 1979 by J. A. Pritzker, the late founder of the Hyatt hotel chain, and his wife, Cindy.
- The prize is funded by the Pritzker family and sponsored by the Hyatt Foundation.
- The award carries a cash prize of \$100,000, a citation and a bronze medal.
- The only Indian to win this award is the late Balkrishna Doshi (2018).

Christina Piskova becomes Miss World 2023

- Miss World 2023 competition was held in **Mumbai (Maharashtra)**.
- Kristina Piskova of Czech Republic has become the 71st Miss World.
- She is the second woman representing the Czech Republic to win Miss World.
- Yasmina Zaytoun (Lebanon) was the first runner-up.
- **Note:** The title of Miss World 2022 was won by Karolina Bielawska (Poland).

India's first National Creators Award

- The first National Creators Award was presented by Prime Minister Shri Narendra Modi on 8 March 2024 at the Bharat Pavilion, New Delhi.
- The Central Government has started the 'National Creators Award' to honor the talent of social media influencers.
- Its objective is to honor the steps taken towards innovation and creativity in the country's social media content community.
- A total of 23 winners including 3 international creators were honored.

Tiger Woods wins Bob Jones Award

- Tiger Woods has won 15 majors out of his 82 career wins on the PGA Tour.
- The Bob Jones Award is the highest honor given by the United States Golf Association (USGA).
- In 2022, he was inducted into the World Golf Hall of Fame.
- In 2019, he received the Presidential Medal of Freedom from Donald Trump.

India honored with 'Measles and Rubella Champion' award

- India was honored with the prestigious 'Measles and Rubella Champion' award at the Red Cross Headquarters in Washington DCA, USA on 6 March.
- This award was given to India for its exemplary efforts in the prevention of Measles and rubella diseases.
- In India, 50 districts have consistently had no cases of measles in the last 12 months, while 226 districts have had no cases of rubella.

Measles and Rubella

- 'Measles and rubella are vaccine-preventable diseases (VPDs).
- The 'Measles and Rubella (MR) vaccine has been part of the country's public immunization program since 2017.
- The combination vaccine for 'Measles and rubella is widely used to immunize children in some areas of the world.

Rubella

- Rubella is a type of infection caused by virus.
- It causes mild fever and rash in infants and children.
- Pregnant women who have rubella have an increased chance of having babies with birth defects.

Measles

- Measles is a highly contagious viral disease.
- Despite the availability of safe and effective vaccines, it remains a significant cause of death in young children globally.

Sunil Bharti Mittal honored with Honorary Knighthood by King Charles III of the United Kingdom

- Sunil Bharti Mittal has become the first Indian citizen to receive this award.
- The award recognizes his achievements in developing closer trade relations between India and the UK.
- Honorary knighthood is the highest honor awarded to citizens by the British Sovereign.
- Foreign nationals receive it as a token of appreciation for their outstanding achievements.
- Sunil Bharti Mittal is the founder and chairman of Bharti Enterprises.

5th National Youth Parliament Festival 2024

- National Youth Parliament Festival concluded in New Delhi on 6 March.
- The National Youth Parliament 2024 was organized on the theme of 'Young Voices: Engage and Empower for Nation Transformation'.
- It was organized by the Ministry of Youth Affairs and Railways through Nehru Yuva Kendra Sangathan (NYKS) and National Service Scheme (NSS).
- In this, **Yatin Bhaskar Duggal** of Haryana won the **first prize**.
- Vaishna Pitchai from Tamil Nadu won the second prize and **Kanishka Sharma from Rajasthan won the third prize**.
- The first National Youth Parliament Festival (NYPF)-2019 was held from 12 January to 27 February 2019.

Amitav Ghosh to receive Erasmus Prize 2024

- Writer Amitav Ghosh has been awarded the prestigious Erasmus Prize 2024.
- He has been awarded for his contribution on the theme 'Imagining the Unimaginable' to highlight the global crisis of climate change through his creations.
- Amitav Ghosh is a famous writer born in Kolkata.
- The award was also given to famous filmmakers Ingmar Bergman and Charles Chaplin.
- Amitav Ghosh's works include novels like 'The Shadow Lines', 'The Hungry Tide' and 'The Ibis Trilogy'.
- Amitav Ghosh was awarded the Jnanpith Award in 2018.

Erasmus Award

- The Erasmus Prize is awarded by the Praemium Erasmianum Foundation of the Netherlands.
- The Erasmus Prize is an elite award for individuals or institutions who have made an exceptional contribution to culture or scholarship in Europe and beyond.
- The prize money includes 1,50,000 euros and decorations.
- It was started in 1958 and is awarded annually.

Michel Talgrand wins the 2024 Abel Prize

- Michel Talgrand has won the Abel prize for 2024.

- He was given this award for his research on probability theory and describing randomness.
- The Abel Prize is also called the 'Nobel Prize of Mathematics'.
- The development of probability theory was inspired by problems arising in the context of gambling or estimating risks.

Abel Prize

- The Abel Prize is awarded by the Norwegian Academy of Science and Letters.
- The award recognizes lifetime achievement in mathematics.
- Under this, an amount of 7.5 million Norwegian kroner (about ₹600,000) is provided.

ISRO gets Aviation Week Laureates Award

- Indian Space Research Organization (ISRO) was awarded the Aviation Week Laureates Award for its achievements in the historic Chandrayaan-3 mission.
- The Aviation Week Laureates Awards are known for recognizing exceptional achievements within the aerospace industry.
- Chandrayaan-3 mission had achieved a historic feat by successfully landing on the south pole of the Moon at a cost of only \$75 million.
- Recently, ISRO was given the Leif Erikson Lunar Award by the Húsavík Museum for its unwavering commitment and significant contribution to lunar exploration.

First 'Global Inequality Research Award'

- **Bina Agarwal and James Boyce** have been awarded the first Global Inequality Research Prize for their significant contributions to understanding global inequalities.
- The award is given under the joint auspices of the World Inequality Lab (WIL) and Sciences Po's Center for Research on Social Inequalities (CRIS), a Global Inequality Research Award (GiRA).
- It aims to honor researchers from all disciplines who have made significant contributions to the understanding of global inequalities.
- This Global Inequality Research Award will be awarded every two years.
- Economist Bina Agrawal (University of Manchester) is a writer on gender inequalities, environmental governance, eco-feminism and environmental inequalities.

- Economist James K. Boyce (University of Massachusetts Amherst) is an author of the relationship between social inequality and environmental degradation.

Sangeet Kalanidhi Award 2024

- Famous Carnatic singer **Thodur Madabusi (T.M.) Krishna** will be honored with the 'Sangeeta Kalanidhi Award' for the year 2024.
- T.M.Krishna has also been honored with the Ramon Magsaysay Award (year 2016) and the Indira Gandhi Award for National Integration.

- 'Sangeeth Kalanidhi Award' is the highest honor given in the field of Carnatic music.
- It is given by the Madras Music Academy.

Other Awards

- Musician Award: Dr. Margaret Bastin.
- Nritya Kalanidhi Award: Dr. Neena Prasad.
- Sangeetha Kala Acharya Award: Mridangam player Parasala Ravi (V- Ravindran Nair) and singer Geeta Raja.
- TTK Awards: Thiruvaiyaru brothers S Narasimhan and S Venkatesan and violinist HK Narasimhamurthy.

8. PERSON IN NEWS

Gyanesh Kumar and Sukhbir Singh Sandhu

- Gyanesh Kumar and Sukhbir Singh Sandhu have been appointed as new election commissioners.
- He was appointed by the President of India.
- Gyanesh Kumar is a retired IAS officer of Kerala cadre of 1988 batch. He has been Secretary in the Home Ministry.
- Retired IAS officer of Uttar Pradesh cadre Sukhbir Singh Sandhu is originally from Punjab. He has held the post of Chief Secretary of Uttarakhand.

Sub-Inspector Suman Kumari

- Sub-Inspector Suman Kumari has become the first woman sniper of BSF.
- She completed eight weeks of sniper training at the Central School of Weapons and Tactics (CSWT), Indore.
- She was the only woman in the sniper course along with 56 male teammates.
- She is from Mandi district of Himachal Pradesh.

Sudha Murthy

- Renowned writer and philanthropist Sudha Murthy has been nominated to the Rajya Sabha by the President.
- She was awarded the Padma Shri Award in 2006 and the Padma Bhushan in 2023.
- She was the first woman engineer of Tata Engineering and Locomotive Company (TELCO) i.e. Tata Motors.

Nominated members of Rajya Sabha

- Under Article 80 (3) of the Constitution, out of 245 members of the Rajya Sabha, 12 are nominated by the President on the recommendation of the Government.
- The President of India nominates 12 persons from the fields of literature, arts, science and social service to the Rajya Sabha for 6 years.
- A nominated member is allowed to join a political party within the first six months of assuming his seat.
- According to the Tenth Schedule of the Constitution, a nominated member of a House shall be disqualified for being a member of the House if he joins any

- political party after the expiry of six months from the date of assumption of his seat.
- Nominated members are not eligible to vote in the Presidential election, however, they are eligible to vote in the Vice-Presidential election.

Kishore Makwana

- President Draupadi Murmu has appointed Kishore Makwana as the Chairman of the National Scheduled Castes Commission (NCSC).

National Scheduled Caste Commission (NCSC)

- NCSC is a constitutional body. This is mentioned in Article 338.
- It has been established to provide safeguards against exploitation of the Scheduled Caste and Anglo-Indian communities and to protect and promote their social, economic, educational and cultural interests.
- The Chairman, Vice-Chairman and other members of the Commission are appointed by the President.
- The Commission has all the powers of a civil court hearing a case.
- Note: Shri Luv Kush Kumar has been appointed member of the National Scheduled Castes Commission (NCSC).

Sheetal Devi

- Election Commission has declared her the National Persons with Disabilities (PwD) Icon.
- A dedicated voter guide for persons with disabilities and senior citizen voters was also launched by the Election Commission.
- Sheetal Devi is a para archer and Arjuna Award winner. He received the Arjuna Award 2023 on 9 January 2024.
- She is the first and only international para-archery champion without arms.

Naib Singh Saini

- Naib Singh Saini took oath as the new Chief Minister of Haryana.
- He is an MP from Kurukshetra, Haryana state.

- Haryana Governor Bandaru Dattatreya administered the oath to him.

Arvind Kejriwal

- Arvind Kejriwal became the first Chief Minister to be arrested while being the Chief Minister.
- The Enforcement Directorate (ED) arrested Delhi Chief Minister Arvind Kejriwal under the Prevention of Money Laundering Act of 2002 in the liquor policy scam.
- Tamil Nadu's AIADMK chief J Jayalalitha was the first former chief minister to be arrested in 1996.

Prevention of Money Laundering Act (PMLA) 2002:

- It was enacted in 2002 and came into force on 1 July 2005.
- Its main objective is to prevent money laundering.
- It was amended in 2012 to bring banks, mutual funds and insurance companies under its ambit.
- All offenses under PMLA are cognizable and non-bailable. There is no provision for anticipatory bail in this.
- In 2018, more stringent conditions were added to bail under PMLA under Section 45.

Justice Rituraj Awasthi

- Rituraj Awasthi took oath as Judicial Member of Lokpal of India on 27 March 2024.
- Justice AM Ranvilkar, Chairman of the Lokpal of India, administered the oath.
- Shri Pankaj Kumar and Shri Ajay Tirkey took oath as Lokpal members.
- Justice Rituraj Awasthi has been the Chairman of the 22nd Law Commission of India.
- Shri Pankaj Kumar is a 1986 batch IAS officer of Gujarat cadre. He has been the Chief Secretary of Gujarat.
- Shri Ajay Tirkey is a 1987 batch IAS officer of Madhya Pradesh cadre. He has been the Secretary of the Land Resources Department of the Government of India.

Sadanand Vasant Daate

- Sadanand Vasant has been appointed the Director General of the National Investigation Agency (NIA).
- He is a senior Indian Police Service (IPS) officer of the 1990-batch.
- He is currently serving as the Chief of Maharashtra Anti Terrorism Squad.

- His appointment has been approved by the Appointments Committee of the Cabinet (ACC) for a tenure till his superannuation on December 31, 2026.

Rajeev Kumar Sharma

- Rajeev Kumar Sharma has been appointed as the Director General of Bureau of Police Research and Development.
- Rajiv Kumar Sharma is a 1990 batch IPS officer of Rajasthan cadre.

Piyush Anand

- Piyush Anand has been appointed Director General (DG) of the National Disaster Response Force (NDRF).
- He is an IPS officer of Uttar Pradesh cadre.

Vinay Mohan Kwatra

- The Central Government has extended the service tenure of Foreign Secretary Vinay Mohan Kwatra by six months.
- Kwatra is a 1988 batch Indian Foreign Service (IFS) officer.
- He will continue till October 31, 2024 or until further orders, whichever is earlier.
- He was appointed the 34th Foreign Secretary of India in April 2022.
- He replaced Harsh Vardhan Shringla.

Rahul Singh

- Rahul Singh has been appointed the new Chairman of the Central Board of Secondary Education (CBSE).
- He will replace Nidhi Chhibber who has been appointed advisor to NITI Aayog.
- He is an Indian Administrative Service (IAS) officer of Bihar cadre who served as Additional Secretary in the Department of Personnel and Training (DoPT).

Devendra Jhajharia

- Devendra Jhajharia has become the President of the Indian Paralympic Committee.
- Devendra replaced Deepa Malik.
- Devendra Jhajharia won 2 gold medals for India in the Paralympic Games.
- He won his first Paralympic gold in Athens in 2004. He won his second gold in Rio in 2016.
- He won a silver medal at the Tokyo Paralympics 2020.

Navneet Kumar Sehgal

- Navneet Kumar Sehgal has become the new president of Prasar Bharati.

- Navneet Kumar Sehgal is a retired officer of 1988 batch of UP cadre.
- He replaced A. Surya Prakash.

Prasar Bharti

- It allows the operation of Doordarshan and All India Radio.
- Prasar Bharati was formed in November 1997. Its headquarters is in New Delhi.

PR Sreejesh and Camilla Carrom

- PR Sreejesh and Camilla Carrom have been appointed as co-chairs of the new Athletes Committee of the International Hockey Federation (FIH).
- The FIH Athletes Committee is an advisory body.
- PR Sreejesh is the goalkeeper of the Indian hockey team.
- He is from Kerala. He won the FIH Player of the Year award for best male goalkeeper.
- Camila Carrom is a Chilean field hockey player.
- Fédération Internationale de Hockey (FIH) is known as the International Hockey Federation.
 - Its headquarters is in Lausanne, Switzerland.

Jayant Murthy

- An asteroid has been named 'Jayanta Murthy' after the eminent Indian professor and scientist.
- He is known for his contributions to space missions and ultraviolet astronomy.
- The asteroid (215884), previously cataloged as 2005 EX296, is now designated as Jayantimurthy.
- This announcement was made by a working group of the International Astronomical Union (IAU).
- Asteroid (215884) Jayantimurthy was discovered in 2005.
- It completes a complete orbit around the Sun between Mars and Jupiter every 3.3 years.

Admiral Lakshminarayan Ramdas

- He died at the age of 91.
- He was a former Indian Navy Chief. He served as the 13th Chief of the Naval Staff between December 1990 and September 1993.
- He was awarded the Ramon Magsaysay Award in 2004.

- He was honored with this award for his efforts towards demilitarization and nuclear disarmament of South Asia.

- He played an important role during the India-Pakistan war of 1971.
- He was also awarded the Vir Chakra, Param Vishisht Seva Medal, Ati Vishisht Seva Medal and Vishisht Seva Medal.

Vinay Kumar

- He has been appointed as the Ambassador of India to Russia on 19 March 2023.

Vladimir Putin

- Russian President Vladimir Putin has become the President of Russia for the fifth time.
- He got about 87% votes. Putin's tenure will be for 6 years.
- Vladimir Putin has become the longest-serving Russian leader since Catherine the Great in the 18th century.

President of Russia:

- The President of the Russian Federation is the executive head of state of Russia.
- The President of Russia is the supreme commander-in-chief of the Russian armed forces.
- A presidential candidate must be a citizen of the Russian Federation and at least 35 years old.
- Following constitutional changes in 2020, the President can remain in office for more than two terms.

Asif Ali Zardari

- Asif Ali Zardari has been elected the 14th President of Pakistan.
- Asif Ali Zardari has become the President of Pakistan for the second time.
- Earlier, he had become the 11th President of Pakistan between 2008 and 2013.
- He replaced Dr. Arif Alvi.
- Mr Zardari was the joint candidate of the Pakistan People's Party and Pakistan Muslim League-Nawaz, facing off against Mahmud Khan Achakzai of the Sunni Ittehad Council.
- President Asif Ali Zardari declared his daughter Asifa Bhutto Zardari as the first lady of the country.

Shahbaz Sharif

- Shahbaz Sharif has become the Prime Minister of Pakistan for the second time.

- Shehbaz is the joint candidate of Pakistan Muslim League-Nawaz (PML-N) and Pakistan Peoples Party (PPP).
- Shahbaz got 201 votes in the 336-member House, while his rival Omar Ayub Khan of Pakistan Tehreek-e-Insaf (PTI) got 92 votes.
- Earlier, Shahbaz was the Prime Minister of Pakistan from April 2022 to August 2023.

Mohammad Mustafa

- Mohammed Mustafa becomes Prime Minister of the Palestinian Authority.
- Mustafa replaced Mohammad Shatayeh.
- The Palestinian Authority (PA) was established under an interim peace agreement called the Oslo Accords.
- It rules limited parts of the occupied West Bank.
- It could also play an important role in governing Gaza after the conflict with Israel ends.
- Extremist organization Hamas seized control of Gaza from PA in 2007.

Bassirou Diomaye Faye

- Bassirou Diomaye Faye has become the next President of Senegal.
- He has become the youngest elected president in the African continent.
- This is the fourth democratic transfer of power since Senegal's independence.
- Senegal became independent from France in 1960.

Senegal:

- It is the westernmost country in continental Africa.
- Its capital is Dakar.
- It is bordered by Mauritania in the north, Mali in the east and Guinea in the south-east.

Simon Harris

- Simon Harris has been elected the new Prime Minister of Ireland.
- Ireland's ruling Fine Gael party elected Simon Harris as its leader on March 24.
- Simon Harris replaced Leo Varadkar.
- Harris is the youngest Prime Minister of Ireland (37 years old).

Chris Brown

- He has become the first person in the world to reach 'Point Nemo', the most remote point on Earth.
- Point Nemo - located in the South Pacific Ocean, east of New Zealand, is the most remote point on Earth.

DEMISES

Lama Lobzang

- He was a former member of the National Commission for Scheduled Castes and Scheduled Tribes and was the chief monk of Laddha.
- He died on 16 March 2024 in New Delhi.
- He was a distinguished tribal leader who served as a member of the National Commission for Scheduled Castes and Tribes for 19 years.

Kapil Dev Prasad

- He was a famous weaver.
- She was awarded the Padma Shri in 2023 for weaving Baban Buti Saree.

9. PLACES IN NEWS

Kolkata: India's first underwater metro line

- Prime Minister Narendra Modi inaugurated India's first underwater metro line in Kolkata on 6 March 2024.
- The Howrah Maidan – Esplanade metro section of the Kolkata Metro has India's first underwater transportation system.
- Kolkata's underwater metro transportation has been constructed beneath the Hooghly River.
- In this, the total length of the tunnel between two stations i.e. Howrah Maidan and Esplanade is 4.8 kilometers.
- The 1.2 km tunnel lies 30 meters below the Hooghly River, making it 'the country's first transport tunnel under any river'.
- Howrah Maidan-Esplanade is part of the East-West Metro Corridor.
- Howrah Metro station is the deepest metro station in India. It is 33 meters below the surface.
- The 16.5 km long metro line connects Howrah on the west bank of the Hooghly to Salt Lake City on the east bank. 10.8 km portion is underground.

Thoothukudi (Tamil Nadu): India's first indigenous hydrogen fuel cell ferry

- India's first indigenously developed Hydrogen Fuel Cell Ferry was launched in **Thoothukudi (Tamil Nadu)** on 28 February 2024.
- It is built by Cochin Shipyard Limited (CSL).
- This ship will be deployed in Varanasi, Uttar Pradesh.
- This ship is air conditioned and can carry 50 people.
- The ship runs on hydrogen fuel and does not use conventional batteries.

Ahmedabad: Kochrab Ashram

- Prime Minister visited Sabarmati Ashram and inaugurated Kochrab Ashram in Ahmedabad on 12 March 2024.
- Apart from this, the master plan of Gandhi Ashram Memorial was also inaugurated.
- Kochrab Ashram was the first ashram established by Mahatma Gandhi after coming to India from South Africa in 1915.

- It has been preserved by Gujarat University as a monument and tourist destination.
- Note: Mahatma Gandhi started the Dandi March on 12 March 1930.

Patna: India's first research center on conservation of Ganga River Dolphin

- The National Dolphin Research Center (NDRC) was inaugurated on March 4, 2024 in Patna, Bihar.
- It is **India's first center for research on the conservation of the endangered Ganges river dolphin.**
- Its objective is to assist scientists and researchers in conducting a comprehensive study of the Ganges dolphin.

Ganga River Dolphin

- The Ganges river dolphin occurs only in the Ganges-Brahmaputra-Meghna and adjacent Karnaphuli-Sangu river systems of Bangladesh, India and Nepal.
- The Ganges dolphin is listed in Schedule I under the Indian Wildlife (Protection) Act 1972.
- Every year 5 October is celebrated as National Dolphin Day.
- It is the national aquatic animal of India.

Chhavani (Delhi): New Naval Headquarters inaugurated

- The new Naval Headquarters 'Nausena Bhawan' was inaugurated on 15 March 2024 in the Delhi Cantonment.
- This is the Navy's first independent headquarters.
- Earlier the Navy was operated from 13 different locations.
- The building is equipped with modern facilities and state-of-the-art technologies. This building has a three layer security system.
- This includes automated underbelly scanning, face recognition, electrical cordons, bollards and vehicle stoppers.

Bhopal: Highest weather tower of the country

- The country's tallest weather tower was inaugurated on March 13, 2024 in Bhopal, Madhya Pradesh.
- This 72 meter high tower installed in Silk-heda near Bhopal is capable of tracing

clouds from a distance of 200 kilometers.

- This tower will bring more accuracy in weather forecasting.
- The location of clouds and timing of rain will be known 3 hours in advance.
- This is the only and largest center in South Asia.

Thiruvananthapuram: India's first FutureLabs center inaugurated

- Union Minister Rajiv Chandrashekar has inaugurated India's first FutureLABS center at C-DAC Thiruvananthapuram on 12 March 2024.
- This Center has been named '**Center for Semiconductor Chips and Systems for Strategic Electronics**'.
- This center will play an important role in next generation chip design, manufacturing and research.
- In this event, an agreement was signed between the Ministry of Railways and C-DAC (T) for the development of electric locomotive technology.
- An MoU was signed between C-DAC (T) and Tata Power for development and installation of microgrid technology.
- This center will prove helpful in exploring new opportunities in future.
- FutureLABS, as a system of Government of India, will prove helpful in connecting C-DAC with industry, students, startups and academia.

Jammu and Kashmir: India's first battery storage gigafactory

- India's first battery storage gigafactory will start functioning in Jammu and Kashmir by October 2024.
- This battery storage factory will reduce carbon emissions by more than 5 million tons annually.
- This will support India's commitment to achieve net zero by 2070.
- These projects are important for India's goal of reaching 500 GW of renewable energy capacity by 2030.
- These battery storage initiatives will facilitate the storage and use of energy from various renewable sources such as solar and wind.

Bengaluru: Karnataka and World Economic Forum to set up a center for Artificial Intelligence

- This center will be set up in Bengaluru.

- This will be the only World Economic Forum center dedicated to Artificial Intelligence in India.
- It is part of the World Economic Forum's Center for the Fourth Industrial Revolution (C4IR).
- This center will play an important role in establishing industry-academia networks and facilitating exchange of technological trends.
- Its main goal is to contribute to the global conversation on the ethical and practical dimensions of AI.
- Bengaluru is considered one of the top five cities globally for Artificial Intelligence (AI).

Hisar: India's first green hydrogen plant in stainless steel sector

- It has been inaugurated at Jindal Stainless Limited, Hisar, Haryana.
- This will be the world's first off-grid green hydrogen plant for the stainless steel industry.
- This will be the world's first green hydrogen plant with rooftop and floating solar.
- This will reduce carbon emissions by approximately 2,700 metric tons per year.
- National Green Hydrogen Mission was launched in 2023.
- It was launched to make India a global hub for the production, utilization and export of green hydrogen and its derivatives.

Lower Dibang Valley: First oil mill based on National Mission on Oil Palm (NMEO-OP)

- The Prime Minister inaugurated the first oil mill under the National Mission on Oil Palm (NMEO-OP) in Arunachal Pradesh.
- This mill is located in Lower Dibang Valley of Arunachal Pradesh.
- This is India's first integrated oil palm processing unit by 3rd Oil Palm.

National Mission on Oil Palm (NMEO-OP)

- The Government of India launched the National Mission on Oil Palm (NMEO-OP) in August 2021.
- The mission aims to make the country self-reliant in the production of edible oil through promotion of oilseeds and palm oil.
- This mission was launched to increase the production of oil palm and increase the production of crude palm oil to 11-20 million tonnes by 2025-26.

- NMEO-OP has made a provision of Rs 5,870 crore out of the total national budget of Rs 11,040 crore specifically for the North Eastern Region region, where 90% contribution will be made by the Central Government.
- The Oil Palm Mission has been strategically designed to promote oil palm cultivation in new geographical areas and provide comprehensive support to farmers.
- India is currently a net importer of edible oil, with 57% of the total edible oil being imported from various countries.

Kashmir Valley: Asia's largest Tulip Garden

- This garden is located in the Kashmir Valley, which was inaugurated on 23 March 2024.

Mundra: World's largest single-site copper manufacturing plant

- Adani Group launches the first phase of the world's largest single-location copper manufacturing plant in Mundra, Gujarat.
- Kutch Copper, a subsidiary of Adani Enterprises Limited, has commissioned the first phase of its \$1.2 billion 'Greenfield Copper Refinery'.
- The first phase of this facility will produce 0.5 million metric tonnes of refined copper.
- The plant will reach its full capacity of 1 million tonnes by FY 2029.
- Kutch Copper will produce copper cathodes and rods as well as valuable by-products such as gold, silver, selenium and platinum.

New Delhi: AYUSH- ICMR Advanced Center

- AYUSH- ICMR Advanced Center for Integrated Health Research launched at AIIMS, New Delhi.
- It aims to provide holistic health care to patients using traditional Indian knowledge and modern medicine together.
- These centers will be established in AIIMS Delhi, AIIMS Jodhpur, AIIMS Nagpur and AIIMS Rishikesh.
- It will focus on important research areas to develop comprehensive treatment plans and guidelines.

Jorhat: 125-foot bronze statue of Lachit Borphukan unveiled in Assam

- Prime Minister Narendra Modi unveiled a 125-foot bronze statue of Ahom general Lachit Borphukan in Jorhat district of eastern Assam on March 9, 2024.
- Lachit Borphukan was a renowned army commander of the Ahom Kingdom (1228–1826) best known for his leadership in the 'Battle of Saraighat' of 1671.
- He defeated the Mughal army in this battle and foiled the Mughals' attempt to take back Assam.
- Borphukan died of illness at the age of 49 and was buried at 'Maidam' – the graveyard of Ahom royals and nobles – at Hologapar, where a memorial is being built.

Panama: Becomes 97th member to ratify ISA

- It is the southernmost country of Central America.
- Panama recently became the 97th member to ratify the International Solar Alliance (ISA).
- Panama handed over the instruments of ratification in New Delhi on March 7, 2024.
- Note: Malta became the 119th country to join the International Solar Alliance.

Tonkin River

- China recently announced a new baseline to define its territory in the northern part of the Gulf of Tonkin, shared with Vietnam.
- Due to China drawing a new base line in this area, a situation of conflict has arisen between China and Vietnam over the demarcation in the Tonkin Strait.
- The Gulf of Tonkin is known as Beibu Gulf in Chinese.

Ahmednagar district in Maharashtra will be re-named as Ahilyanagar

- The state cabinet of Maharashtra government has decided to change the name of Ahmednagar district to Ahilya Nagar.
 - ♦ Ahilyanagar is named after Ahilyabai Holkar. She was the ruler of Malwa province in the 18th century.
 - ♦ Ahilyabai was born on 31 May 1725 in Ahmednagar district of Maharashtra.
- Apart from this, the name of Velha tehsil has been changed to Rajgarh. It was the first capital of the Maratha Empire under Shivaji.

- The Maharashtra government also approved renaming of eight suburban railway stations in Mumbai.
 1. Currey Road Station – Lalbagh Station
 2. Sandhurst Road Station–Dongri Station
 3. Marine Lines - Mumbadevi
 4. Charni Road - Girgaon Road
 5. Cotton Green – Kalachowki
 6. Dockyard – Mazgaon
 7. Kings Circle–Tirthankar Parshvanath Circle
 8. Mumbai Central - Nana Jagannath Shankarseth
- **Note:** Social reformer, educationist and philanthropist Nana Jagannath Shankarseth is considered the 'architect' of Mumbai (then Bombay).

Nimmu, Padam, and Darcha

- This is a strategic road located in Ladakh.
- It was unveiled on 25 March 2024.
- This road (length 298 km) will connect Manali to Leh via Darcha and Nimmu on the Kargil-Leh Highway.
- The road passes through the Shinkun La Pass (16,558 feet), which is strategically important.
- After the construction of Shinku-La Tunnel, it will be the third all-weather axis for Ladda.

Silkheda (Sehore): Atmospheric Research Experiment in Central India (ART-CI)

- The first phase of the Atmospheric Research Testbed in Central India (ART-CI) was inaugurated on March 12 at **Silkheda in Sehore district of Madhya Pradesh**.
- It is funded by the Ministry of Earth Sciences (MOES).
- The facility will house 25 high-end meteorological instruments to study important cloud processes associated with the monsoon over the Monsoon Core Zone (MCZ) of Central India.
- ART is an area-focused observational and analytical research program at Silkheda.
- The setup at ART will also be used to calibrate various satellite-based observations, part of weather prediction and forecasting.
- Silkheda is a location that is directly in line with the path of the major rain-carrying synoptic systems. This will facilitate direct monitoring and tracking.

Padampur (Kharsawan): Center for Conservation and Promotion of Tribal Culture and Heritage.

- The Union Tribal Ministry laid the foundation stone of 'Centre for Preservation and promotion of Tribal Culture - Heritage' at Padampur in Rasawan district of Jharkhand.
- The museum will depict and preserve the rich heritage of the tribal community in the state of Jharkhand and also showcase the rich tribal lifestyle and culture.
- Additionally, it will be a knowledge and information center to assist the tribal communities in their development.

Keyi Panyor

- It is the 26th new district of recently formed Arunachal Pradesh.
- Keyi Panyor has been created by separating areas from lower Subansiri.
- The headquarters of this district will be Ter Gapin-Sam Sarth.
- This new district has been created on the demand of the people of Nyishi community.

Arunachal Pradesh:

- It was formed from the North-East Frontier Agency (NEFA) area.
- It was declared a state on 20 February 1987.
- Its capital is Itanagar (the largest city of the state).

Arunachal Pradesh: Inauguration of 'Sela Tunnel'

- Prime Minister Narendra Modi inaugurated the Sela Tunnel in Arunachal Pradesh on March 9.
- It is the **Longest double-lane tunnel in the world**.
- This will help in faster troop movement along the Line of Actual Control (LAC).
- It aims to provide all-weather connectivity to Tawang across the Sela Pass on the Balipara-Charidwar-Tawang (BCT) road.
- Sela Tunnel is built at a height of 13,700 feet and it connects Tezpur in Assam to Tawang in Arunachal Pradesh.
- **Note:** Indian soldiers clashed with Chinese soldiers in the year 2022 in Tawang.
- Its design and infrastructure has been prepared by the Border Road Organization (BRO), a special wing of the Indian Army.

Books

- 11 Rules For Life: Secrets to Level Up - Chetan Bhagat
 - The Winner’s Mindset - Bringing the Best
 - Version of You to Every Game and to Life - Shane Watson
 - The Conspiracy to oust me from the Presidency – Gotabaya Rajapaksa (Former President of Sri Lanka)
 - Swallowing the Sun - Lakshmi Murdeshwar Puri
She has been a former Assistant Secretary General of the United Nations. It contains multi-generational stories related to the freedom movement.
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10. IMPORTANT FACTS

India's first government-backed OTT platform launched

- Kerala Chief Minister Pinarayi Vijayan inaugurated the state's over-the-top (OTT) platform, 'Cspace'.
- This is the first state government supported OTT platform launch in the country.
- Managed by the Kerala State Film Development Corporation (KSFDC), 'Cspace' operates in collaboration with the Department of Cultural Affairs of the Government of Kerala.
- It has been launched to address the growing imbalance and diverse challenges in the OTT sector.
- Each submission on Seaspace goes through a careful evaluation process by three curators who consider its artistic, cultural and entertainment value. Only approved content appears on the platform.
- Cspace adopts a pay-per-view model, charging users Rs 75 per movie.
- It is a state-owned company to promote Malayalam cinema and industry.
- A panel of 60 members will select and approve the content for this OTT platform.

National Time Protocol inaugurated for dissemination of Indian Standard Time (IST)

- Union Minister for Consumer Affairs Piyush Goyal inaugurated the National Time Protocol (NTP) for dissemination of Indian Standard Time in Mumbai on 15 March 2024.
- This will provide uniform and accurate time information with millisecond accuracy and will also increase cyber security.
- It can be accessed through time.nplindia.org or time.nplindia.in.
- Timing infrastructure at Regional Reference Standards Laboratory (RRSL) at Faridabad and Ahmedabad was also inaugurated.
- India is the first country to implement time distribution system.
- Under this, atomic clocks will be installed in RRSL in Bengaluru, Bhubaneswar, Guwahati and Delhi by December 2024.
- Earlier the time was taken from Global Positioning System (GPS) but now it will

have its own system with the help of Navigation with Indian Constellation (NavIC).

- All mobile operators across the country will have to sync time with this system.

Electoral bond information made public

- Under the instructions of the Supreme Court, the Election Commission uploaded the information about electoral bonds provided by State Bank of India (SBI) on its website on March 14, 2024.
- The Supreme Court had declared electoral bonds unconstitutional on 15 February 2024.

Top 3 political parties taking donations

- BJP Rs. 6,060 crore
- Trinamool Congress Rs. 1,609 crore
- Congress Rs. 1,421 crores

Top 3 Donating Companies

- Future Gaming and Hotel Services Rs.1,368 crore
- Megha Engineering & Infrastructure Rs. 966 crore
- Crick Rs. 410 crore

Frontier Technology Labs (FTLs)

- Atal Innovation Mission (AIM), NITI Aayog and META have announced the launch of Frontier Technology Labs (FTLs).
- To provide equal opportunities to students from diverse backgrounds in India to learn and engage with leading technologies, Atal Innovation Mission and META will partner to set up FTL in schools of strategic importance.
- It aims to democratize future technologies and empower youth to innovate.
- So far, AIM has established 10,000 Atal Tinkering Labs (ATLs) in schools across 722 districts in India.
- ATL aims to encourage curiosity, creativity in young minds and develop skills like design mindset, computational thinking and physical computing.
- FTL is an upgraded version of Atal Tinkering Lab equipped with state-of-the-art infrastructure that includes all the components of a Tinkering Lab.

- These enable students to innovate using technologies such as Artificial Intelligence, Augmented and Virtual Reality, Blockchain, Cyber Security, Robotics, 3D Printing and Internet of Things.

'Jal Shakti Abhiyan: Catch the Rain-2024' Campaign

- Union Water Minister Shri Gajendra Singh Sherawat launched the 5th edition of 'Jal Shakti Abhiyan: Catch the Rain' campaign in New Delhi on March 9, 2024.
- The fifth edition of the campaign has been launched under the theme 'Nari Shakti Se Jal Shakti'.
- This campaign will run from March 9, 2024 to November 30, 2024.
- The following points have been focused in this campaign-
 1. Water conservation and rain water harvesting
 2. Census, geo-tagging and inventory of all water bodies, making Scientific plans for water conservation
 3. Establishment of water purification centers in all districts
 4. Dense Afforestation
 5. Awareness Generation
- **Note:** 'Jal Shakti Abhiyan: Catch the Rain' campaign was launched in 2021.

Dibang Multipurpose Hydroelectric Project

- The foundation stone of this project was laid by Prime Minister Narendra Modi on March 9, 2024 in **Arunachal Pradesh**.
- NHPC Limited's 2,880 MW Dibang Multipurpose Project will be built near Munli village in **Lower Dibang Valley district of Arunachal Pradesh**.
- Its main objective includes flood control apart from power generation.
- The dam built on this project will be the highest dam in the country.
- This dam is a 278 meter high dam which will be the tallest concrete-gravity dam in India.
- This dam will be constructed using Roller Compacted Concrete (RCC) technology.
- The cost of this project is approximately ₹ 31,875 crore.
- This project will generate 11,223 million units of hydro power per year.
- This project has been designed as an energy storage project.
- This project can start by February 2032.

South Eastern Coalfields Limited (SECL) Gevra Mine becomes Asia's largest coal Mine

- It is a subsidiary of Chhattisgarh based Coal India.
- Environmental clearance has been granted to increase the production capacity of this facility from the existing 52.5 million tonnes to 70 million tonnes per annum.
- Gevra is one of the major projects of South Eastern Coalfields Limited and has become the largest coal deposit in the country.
- The strike length of this mine is about 10 kilometers and its width is four kilometers.
- The mine is equipped with environment friendly blast-free mining technology in the form of Surface Miner and Ripper Mining.

SheRNI

- Its full name is She Research Network in India- SheRNI.
- It was launched on March 9, 2024.
- Its objective is to establish gender parity among scientists and faculty.
- It was launched by the Information and Library Network Center of the University Grants Commission.
- This initiative is designed to achieve equal representation of women scientists in various research fields.

Sindri Fertilizer Plant

- This is a fertilizer plant of Hindustan Fertilizers and Chemicals Limited (HURL) located in Jharkhand, which was dedicated to the nation on March 2024.
- This fertilizer plant will increase indigenous urea production in the country by about 12.7 LMT per year.
- This is the third fertilizer plant to be revived in the country.
 - Gorapur (December 2021)
 - Ramagundam (November 2022)
 - Sindri (March 2024)

Melanochlamys Droupadi

- This is a **new marine species, which will be named after President Draupadi Murmu**.
- Recently, a new variety of sea slug mollusk has been discovered by the Zoological Survey of India (ZSI) on the coasts of Odisha and Bengal.
- This new species is found only in India.
- This is the second species of head-shield sea slug found in India. The first species is

Melanochlamys bengalensis off the West Bengal and Odisha coast.

- It is a small invertebrate and hermaphroditic animal.
- This species inhabits wet and soft sandy beaches, isolated from other species.

Digital Intelligence Platform and Chakshu Portal launched on Sanchar Sathi Portal

- Digital intelligence platform to investigate cyber fraud and Chakshu - Report Suspected Fraud communication facility was launched in New Delhi by Union Communications Minister Ashwini Vaishnav on March 4.
- This digital intelligence platform has been developed by the Department of Telecommunications.
- It aims to create coordination among stakeholders to prevent misuse of telecom resources in cyber crimes and financial frauds.
- Any individual can report fraudulent calls, SMS or suspicious messages received on WhatsApp on the Chakshu portal.
- After the launch of Sanchar Sathi portal, more than 1 crore fake mobile connections have been stopped.

NITI Aayog's 'Policy for States' platform launched

- It is a cross-sectoral knowledge platform.
- It is designed to create a digital public infrastructure for good governance and policy.
- The platform includes a multi-regional live repository of 7,500 best practices, 5,000 policy documents and 350 policy publications.
- There are 10 areas of knowledge products covered on this platform.
- These 10 sectors include agriculture, education, energy, health, livelihood and skills, manufacturing, MSME, tourism, urban and water resources.
- It will provide district collectors and block-level officials access to best practices across various states and union territories.

National Cooperative Database launched

- National Cooperative Database has been launched by Union Cooperative Minister Amit Shah.
- This will help in the expansion and development of cooperative societies in the country.

- There are more than 8 lakh registered societies in India and more than 30 crore people are associated with them.
- National Cooperative Database is a web-based digital dashboard. It contains information about 8 lakh cooperative societies.
- This database will play an important role in the expansion of cooperative societies, digital development and distribution through the database.
- It has the potential to connect Primary Agricultural Credit Societies (PACS) to apex villages, cities and mandis to the global market.

Start-up Mahakumbh

- It was organized on 18 March 2024 at Bharat Mandapam Convention Centre, New Delhi.
- It is India's largest start-up event and the first of its kind.
- It was organized under the joint aegis of ASSOCHAM, NASSCOM, Bootstrap Incubation and Advisory Foundation, TIEE and Indian Venture and Alternative Capital Association (IVCA).
- Its objective is to connect investors with start-ups and prepare corporate partners for them.

Kerala declares 'human-wildlife conflict' as state-specific disaster

- Kerala declared Man-Animal Conflict a State-Specific Disaster on 6 March 2024.
- Kerala is the first state in the country to declare human-wildlife conflict as a state-specific disaster.
- If a problem is declared a state-specific disaster, the responsibility to deal with it rests with the State Disaster Management Authority.

State-Specific Disaster

- At the state level, the Chief Minister is the ex-officio Chairman of the State Disaster Management Authority and several departments including the Forest Department are stakeholders.
- The District Collector is authorized to take decisions himself as the Chairman of the District Disaster Authority.
- When an issue is declared a state-specific disaster or a national disaster, the disaster management authority can take quick decisions and actions, bypassing all other parameters.

Loan Agreement between the Government of India and the Asian Development Bank (ADB) for the City of Ahmedabad

- A loan agreement worth \$181 million has been signed between the Government of India and the Asian Development Bank.
- This agreement has been signed to improve the efficiency and mobility of urbanization in Ahmedabad.
- The project aims to develop peri-urban areas of Ahmedabad with livable, environmentally sustainable and robust physical and social infrastructure.
- The project will also build the capacity of government agencies in financial planning, revenue generation and infrastructure asset operations.

Expert committee constituted for the conservation of Great Indian Bustard

- The Supreme Court has constituted an expert committee for the conservation of Great Indian Bustard (GIB).
- This order was passed by the court on March 21, 2024.
- Wildlife experts, conservationists and government officials from concerned ministries have been included in this committee.
- This committee will suggest conservation measures in the area identified as priority areas in the report of the Wildlife Institute of India in Rajasthan and Gujarat.

Committee constituted on Uniform Know Your Customer (KYC)

- This committee has been constituted under the chairmanship of TV Somanathan.
- This committee will recommend ways to implement a uniform KYC mechanism.
- The Financial Stability and Development Council (FSDC) had decided to formulate a strategy to digitize and simplify the KYC process in the financial sector.
- Simplification of the KYC process was announced in Budget 2023-24.

PM-Suraj National Portal launched

- Prime Minister Social Upliftment and Employment Based Public Welfare (PM-SURAJ) National Portal was launched by Prime Minister Shri Narendra Modi on 13 March 2024.
- Under this, funds were sanctioned to more than 1 lakh underprivileged class beneficiaries.

- Through this portal, the loan amount will continue to be transferred to the families of the deprived people without any middleman, commission, cut and recommendation.

Digital Criminal Case Management System (CCMS) and 'Sankalan' App inaugurated

- Union Home Minister inaugurated a unique Digital Criminal Case Management System (CCMS) designed by the National Investigative Agency (NIA) in New Delhi.
- The new CCMS system will enable NIA to better coordinate terrorism and organized crime cases, thereby improving the justice system.
- It has been developed by NIA as a user-friendly, customizable browser-based software.

Mobile app 'Sankalan'

- The mobile app 'Sankalan' is a compilation of new criminal laws by the National Crime Records Bureau (NCRB).
- This app will act as a comprehensive guide that is able to compare the old and new legal provisions in detail.
- 'Sankalan' app has been designed to work in offline mode.

Chapchar Kut Festival

- This is the biggest festival of Mizoram.
- The festival showcases the traditional and cultural richness of the Mizo community through the performance of songs and cultural dances.
- This festival is celebrated every year on the first Friday of the month of March.
- This festival is celebrated to thank God at the beginning of the year after the completion of the most difficult task of Jhumeshreti of 'clearing the forest'.

Gorsam Kora Festival

- It is celebrated in Tawang district of Arunachal Pradesh.
- The festival symbolizes the enduring friendship between India and Bhutan and highlights the cultural richness of the region.
- It is organized in collaboration with the local community, civil authorities and the Indian Army.

Environment

'Status of leopards in India' Report

- The report 'Status of Leopards in India' has been released by the Union Ministry of Environment, Forest and Climate Change.
- The National Tiger Conservation Authority and the Wildlife Institute of India in collaboration with state forest departments have released leopard population estimates.
- The number of leopards in India has increased by more than 1,000 from 2018 to 2022.
- The number of leopards in the country has increased to 13,874, whereas in 2018 the number was 12,852.
- The highest population of leopards has been recorded in Madhya Pradesh (3,907).
- After this, the number of leopards is 1985 in Maharashtra, 1879 in Karnataka and 1070 in Tamil Nadu.
- The number of leopards in the Shivalik Hills and the Indo-Gangetic plains has declined from 1,253 in 2018 to 1,109 in 2022.
- In the Shivalik hills and the Ganga plains there was a decline of 3.4% per year.

'Mass coral bleaching' in the Great Barrier Reef

- Australia's Great Barrier Reef (GBR) is experiencing mass coral bleaching for the 5th time in the last 8 years.
- Large-scale coral bleaching in the Great Barrier Reef was first recorded in 1998. After this it has been recorded in 2002, 2016, 2017, 2020, 2022 and now again in 2024.
- This bleaching is happening due to global warming and the El Nino climate pattern.
- According to scientists, climate change is a major threat to coral reef ecosystems in the oceans around the world, including the Great Barrier Reef.

Corals

- Corals are invertebrates that belong to a large group of colorful and attractive organisms called Cnidaria.
- Each coral organism is called a polyp, and hundreds to thousands of genetically identical polyps live in groups and form a 'colony'.

- Hard corals extract abundant calcium from the surrounding sea water and use it to create a hard structure for protection and growth. These structures of coral are called coral reefs or coral reefs.
- Coral reefs are the largest living structures on Earth and the only ones visible from space.

Coral Bleaching

- Coral and algae depend on each other for survival. Corals have a symbiotic relationship with microscopic algae called zooxanthellae that live in their tissues.
- When corals become stressed due to higher than average ocean temperatures, they expel the algae that live inside them and provide them with their nutrients and different colors.
- Without the algae that provide their main source of food, corals become white or very pale. This increases the risk of getting sick.

Causes of Coral Bleaching

- Increased ocean temperatures due to climate change are the main cause of coral bleaching.
- Runoff and pollution from shores after rainfall can enter ocean waters and bleach coastal corals.
- When temperatures are high, high solar radiation contributes to bleaching of shallow water corals.

The Great Barrier Reef

- The Great Barrier Reef in Australia is the largest coral system in the world.
- It is approximately 2,300 km long, covers an area larger than the size of Italy and is made up of approximately 3,000 individual reefs.
- It is a UNESCO World Heritage Site.

'Ethanol 100' (E100) automotive fuel launched

- 'Ethanol 100' automotive fuel was launched by the Union Ministry of Petroleum and Natural Gas on March 15 in New Delhi.
- Under this initiative, Ethanol 100 will be available at select 183 retail petrol outlets

across 5 states namely Maharashtra, Karnataka, Uttar Pradesh, New Delhi and Tamil Nadu.

Ethanol 100

- Ethanol 100 is a cleaner, greener alternative to gasoline.
- E100 fuel is a mixture of 92-94% ethanol, 4-5% motor spirit and 1.5% co-solvent higher saturated alcohol.
- It emits less greenhouse gases and pollutants and can prove helpful in combating climate change and improving air quality.
- It has the potential to reduce India's dependence on fossil fuels.

- Rock art paintings depict wildlife like bison, antelope, tiger, leopard etc.
- These pictures include Swastika symbols, circles and squares, depicted weapons like bow, arrow, sword and spear etc.

Geoheritage sites

- Geo-heritage sites are rare and unique sites of geological and geomorphological importance, having geomorphological, petrological, paleontological and stratigraphic significance, including caves, natural rock sculptures of national and international interest. Are included.
- The Geological Survey of India (GSI) recognizes and conserves heritage sites in India.

Asia's First Certified Green Municipal Bond

- Vadodara Municipal Corporation has issued Asia's first certified green municipal bond.
- Under this, Rs 1 billion (\$12.07 million) has been raised.
- This will be used for waste management infrastructure across the city.
- The bond is rated AA+ and has received a green security certificate from the Climate Bond Initiative.

First Indigenously built Hydrogen Electrolyzer

- It has been installed by Larsen & Toubro (L&T) at its green hydrogen plant in **Hazira, Gujarat**.
- This electrolyzer has a rated power capacity of 1 MW (expandable to 2 MW) and can produce 200 Nm³/hour (Normal Meter Cubed per Hour) hydrogen.
- Hydrogen is made by splitting H₂O (water) into two molecules – hydrogen and oxygen – through electrolysis, which is an electrical process.
- This method requires an electrolyzer and if it is powered by renewable energy, the product formed is green hydrogen.
- Larsen & Toubro's newly incorporated unit L&T Electrolyzers focuses on manufacturing pressurized alkaline electrolyzers using technology from McPhee Energy in France.

Pandavula Gutta

- Pandavula Gutta has been officially recognized as a Geoheritage Site. It is the only Geoheritage site in Telangana.
- This is a geological site older than the Himalayan hills.
- Location: Jayashankar Bhupalpally District (Telangana).
- It was first created in the year 1990.
- Pandavula Gutta is famous for its rock art paintings.

11. INDEX AND REPORTS

Human Development Index (HDI) 2023/24: India ranked 134th

- The United Nations Development Program (UNDP) published its Human Development Report 2023/24 titled 'Breaking the Gridlock: Reimagining Cooperation in a Polarized World'.
- This report has been released for the year 2022.
- In this index, India is ranked 134th among 193 countries in the year 2022, whereas India was ranked 135th in the year 2021.
- India's Human Development Index (HDI) value increased from 0.633 in 2021 to 0.644 in 2022. India is in the **Medium Human Development category** along with Bhutan and Bangladesh.
- Switzerland is in first place.
- India's life expectancy at birth is expected to increase from 67.2 years in 2021 to 67.7 years in 2022.
- There was an overall increase (5.88%) in expected years of schooling (EYS) from 11.9 years to 12.6 years, an improvement of 18 places.
- India's per capita gross national income (GNI) also increased from \$6,542 to \$6,951.
- HDI is a composite index which is calculated on the basis of three parameters.
 - Life Expectancy
 - Average Years of Schooling
 - Average Income.
- The first Human Development Index was released in 1990 in collaboration with Indian Nobel laureate Amartya Sen and Pakistani economist Mehboob ul Haq.
- After this it is released every year by the United Nations Development Program (UNDP).

Gender Inequality Index (GII) 2022

- The Gender Inequality Index 2022 is part of the Human Development Report 2023-24 released by UNDP.
- India ranks 108th among 193 countries with a score of 0.437 in GII 2022. (India's score in GII 2021 was 0.490 and ranked 122nd out of 191 countries.)
- GII measures gender inequality based on three indicators.

- These three indicators are: reproductive health, empowerment and labor markets.
- GII score is given between 0 to 1.
- A lower GII score indicates less inequality between women and men, and a higher score indicates greater inequality.
- India's rank in the GII has steadily improved over the last 10 years.
- India's rank in the year 2014 was 127.
- However, India's labor force participation rate varies the most. There is a difference of 47.8% between women (28.3%) and men (76.1%).

World Happiness Report 2024

- The UN Sustainable Development Solutions Network publishes the World Poverty Report annually.
- In this report, India is ranked 126th among 143 countries.
- Finland has secured first place for the seventh consecutive time.
- Denmark and Iceland ranked second and third respectively.
- Afghanistan is at the last position in this list.
- Among India's neighboring countries, China is at 60th, Nepal at 93, 108, Myanmar at 118, Sri Lanka at 128 and Bangladesh at 129.
- This report is based on 6 factors. These factors include GDP per capita, healthy life expectancy, trust, freedom to make life choices, generosity, and freedom from corruption.

Women, Business & Law Index 2024

- The 10th edition Women, Business and Law Index 2024 was released by the World Bank.
- It reflects the difference between the legal rights enjoyed by men and women and their enforcement.
- India ranks 113th out of 190 countries in this index.
- According to the new report, Indian women enjoy 60% of the legal rights given to men, which is lower than the global average of 64.2% as per the 2024 index report.
- This index is released on the basis of the following 10 indicators_

- Mobility, Workplace, Pay, Marriage, Parenthood, Entrepreneurship, Assets, Pensions, Safety and Childcare.

SIPRI Report 2024

- A report on global arms purchases by Sweden's Stockholm International Peace Research Institute (SIPRI) was released on 11 March 2024.
- According to this report, India is the world's largest arms importer in the last 5 years (2019-2023).
- India's share in total global arms imports during the period 2019-2023 was 9.8%.
- Europe's arms imports will double in 2019-2023 compared to 2014-2018 due to the war between Russia and Ukraine.
- The 5 largest buyers of arms in the world: India (9.8%), Saudi Arabia (8.4%), Qatar (7.6%), Ukraine (4.9%) and Pakistan (4.3%)
- In terms of arms exports, America, France and Russia rank first, second and third respectively.
- India's arms imports grew by 4.7% between 2014-18 and 2019-23, while India's imports declined by 11% between 2013-17 and 2018-22. The main reason for this is to emphasize the use of India's indigenous weapons.

Global Climate Report 2023

- Global Climate Report 2023 released by the World Meteorological Organization (WMO).
- According to this report, the year 2023 has been declared as the hottest year till date.
- It details various climate indicators, including greenhouse gas levels, surface temperatures, ocean warmth and acidity, sea level rise, Antarctic sea ice cover and glacier melt.
- Floods, intense wildfires and intense tropical cyclones caused severe disruption to the everyday lives of millions of people and resulted in billions of dollars in economic losses.
- The world's glaciers have suffered the greatest loss of ice since the 1950s due to severe melting, primarily in western North America and Europe.
- The levels of the three main greenhouse gases – carbon dioxide, methane and nitrous oxide – reached new heights in 2022. This trend will continue in 2023 as well.

World Water Development Report 2024

- This report was published by UNESCO on behalf of UN-Water with the title Water crises threatening world peace.
- According to this report, tension over water may increase conflicts around the world.
- According to this, 2.2 billion people still live without access to safely managed drinking water.
- Ensuring access to safe drinking water for all by 2030 remains a challenge.
- More than 1.4 billion people were affected by the virus between 2002 and 2021.
- By 2022, almost half of the world's population will face severe water scarcity at some point in the year, with a quarter facing extreme water stress.

India Employment Report 2024

- This report was released by the International Labor Organization (ILO) and the Institute for Human Development (IHD).
- According to this report, the share of India's youth in the unemployed workforce is approximately 83%.
- The share of youth with secondary or higher education in the total unemployed youth has increased from 35.2% in 2000 to 65.7% in 2022.
- Unemployment levels were high among the educated youth of the country during the pandemic.
- The labor force participation rate (LFPR), worker population ratio (WPR) and unemployment rate (UR) declined between 2000 and 2018. However, there has been improvement after 2019.
- About 90% of the workers are engaged in the informal sector. The share of regular work increased continuously after 2000, while it declined after 2018.
- Scheduled Castes and Scheduled Tribes are engaged in low-paid temporary casual wage work and informal employment.

Mumbai becomes the new billionaire center of Asia in the list of Hurun Research.

- According to Hurun Research's 2024 Global Rich List, Mumbai has the highest number of billionaires in Asia.
- Mumbai now has 92 billionaires, more than Beijing's 91 billionaires.
- China has 814 billionaires, compared to India's 271.

- In terms of billionaires, Mumbai ranks third globally, followed by New York (119 billionaires) and London (97 billionaires).

India TB Report 2024

- This report was released by the Union Health Ministry on March 27.
 - TB incidence in India declined by 16% from 2015 to 2022, which is greater than the global decline of 9%.
 - Apart from this, the death rate due to TB has declined by 18%.
 - According to the report, the rate of cases (new cases emerging every year) has decreased from 237 per lakh population in 2015 to 199 per lakh population in 2022.
 - The death rate in India has fallen from 28 per lakh population in 2015 to 23 per lakh population in 2022.
- The highest number of TB cases in decline were recorded in the states of Uttar Pradesh and Bihar.
 - Of the total TB cases notified in 2023, 60.7% were males, 39.2% were females and 0.04% were transgender.
 - **Note:** India has set the target of eliminating TB by 2025.

Tuberculosis (TB)

- Tuberculosis (TB) is an infectious disease caused by a bacterium called *Mycobacterium tuberculosis*.
- It mainly affects the lungs but can affect other parts of the body as well.
- TB spreads through the air when an infected person breathes, sneezes or speaks.
- Its common symptoms include persistent diarrhea, night sweats and weight loss.

12. IMPORTANT DAYS & WEEKS

World Civil Defense Day

- It is celebrated every year on 1 March.
- Its objective is to spread public awareness for self-protection measures and to prepare citizens for self-defense in case of emergency.
- The day focuses on raising awareness about the importance of civil defense and prevention of accidents or disasters.
- The theme of the year 2024 is 'Honour Heroes and Promote Safety Skills'.

Zero Discrimination Day

- It is celebrated every year on 1 March.
- The day is observed to combat discrimination against women and girls, including those living with HIV/AIDS.
- Its objective is to promote equality before the law and in practice in all member states of the United Nations.
- The theme of the year 2024 is 'To protect everyone's health, protect everyone's rights'.
- This theme emphasizes on linking human rights and public health to achieve the goal of eliminating AIDS by 2030.

World Wildlife Day

- It is celebrated every year on 3 March.
- It is celebrated with the aim of making people aware about the conservation of plants and animals which are rapidly becoming extinct in the world.
- Under this, people are made aware about the conservation of various species of wild flora and fauna.
- The theme of the year 2024 is "Connecting People and Planet: Exploring Digital Innovation in Wildlife Conservation".

World Hearing Day

- It is celebrated every year on 3 March
- It is organized to raise awareness about preventing deafness and promote ear and hearing care around the world.
- The theme of the year 2024 is "Changing mindsets: Let's make ear and hearing care a reality for all".
- Each year, WHO sets a theme and develops evidence-based advocacy materials such as brochures, flyers, posters, banners and

infographics.

National Security Day

- It is celebrated every year on 4 March.
- The theme of the year 2024 is "Focus on Safety Leadership For ESG Excellence".
- International Day for Disarmament and Non-Proliferation Awareness
- It is celebrated every year on 5 March.

International Women's Day

- It is celebrated every year on 8 March.
- It is supposed to create awareness in the areas of gender equality, role of women in society, abuse against women, equal rights for women.
- The theme of the year 2024 is - "Inspire Inclusive".
- In the year 1975, the United Nations officially recognized International Women's Day and this year was also declared International Women's Year.

55th CISF Raising Day

- It is celebrated every year on 10 March.
- It is celebrated to mark the establishment of the Central Industrial Security Force (CISF) and its contributions.
- It is the top level Central Armed Police Force of the Ministry of Home Affairs.
- It was established on 10 March 1969 by the CISF Act of the Indian Parliament.
- CISF provides security to important government and industrial buildings as well as airports in India.
- The current Director General of CISF is Neena Singh (first woman DG).

International Day of Women Judges

- It is celebrated every year on 10 March.
- Its purpose is to call upon all Member States to adhere to it in order to promote full and equal opportunities for women at all levels of the judiciary.
- It was celebrated for the first time in India and the world by the Supreme Court on 10 March 2022.
- There are currently three women judges in the Supreme Court of India, Justice Hima Kohli, Justice B.V. Nagarathna and Justice Bela M. Trivedi.

No Smoking Day

- It is celebrated every year on the second Wednesday of March (this time on 13 March).
- The theme of the year 2024 is 'Protecting children from tobacco industry interference'.

International Mathematics Day

- It is celebrated every year on 14 March.
- The theme of the year 2024 is 'Playing with Math'.

International Day of Action for Rivers

- It is celebrated every year on 14 March.
- The theme of the year 2024 is "Water for All".
- Its objective is to curb the increasing pollution in rivers, to make people aware of the measures to protect rivers and to improve the policies made for them.

World Consumer Rights Day

- It is celebrated every year on 15 March.
- Its objective is to make consumers aware of their rights and encourage them to take action to protect their rights.
- The theme of the year 2024 is 'Fair and responsible AI for consumers'.

National Vaccination Day

- It is celebrated every year on 16 March in the country.
- Its main objective is to make people aware about vaccination to fight serious diseases and to recognize the achievements of doctors and frontline health care workers.
- The theme of the year 2024 for this day is "Vaccines Work for All".

Global Recycling Day

- It is celebrated every year on 18 March.

International Day of Happiness

- It is celebrated every year on 20 March.
- The day recognizes the importance of happiness as a fundamental foundation in people's lives and encourages individuals, groups and the government to spread happiness and positivity.
- The theme for the year 2024 is "Reconnecting for Happiness: Building Resilient Communities".

International Forest Day: 21 March

- International Forest Day is celebrated every year on 21 March.

- Its main objective is to raise awareness about the important role of forests in sustaining life on earth.
- The United Nations General Assembly designated 21 March as International Forest Day in 2012.
- The theme of International Day of Forests 2024 is 'Forests and Innovation: New Solutions for a Better World'.

International Day for the Elimination of Racial Discrimination

- It is celebrated every year on 21 March.
- The theme of the year 2024 is 'A Decade of Recognition, Justice and Development: Implementation of the International Decade for People of African Descent'.

World Water Day

- It is celebrated every year on 22 March.
- Its objective is to create awareness about the importance of water and the impact of water crisis on a global scale.
- The theme of the year 2024 is "Leveraging Water for Peace".

18th Earth Hour

- Every year 'Earth Hour' is celebrated on the fourth/last Saturday of March.
- This year Earth Hour was celebrated all over the world on 23 March 2024.
- Its objective is to protect the earth by saving energy.
- On this occasion, people from more than 180 countries of the world save energy by switching off the lights of their homes from 8:30 to 9:30.
- The main theme of Earth Hour 2024 is 'Green, Low-carbon, High-quality Development'.

'Shaheed Diwas'

- It is celebrated every year on 23 March.
- It is celebrated to honor the martyrs and remember their sacrifice.
- On this day i.e. 23 March 1931, Bhagat Singh Sudev and Rajguru were hanged.

Good Friday

- This is the main festival of Christianity. This year it will be celebrated on 29 March (Friday) in 2024.
- On this day, Jesus Christ (Lord Jesus) was crucified, hence it is celebrated as a day of mourning.

International Day of Zero Waste

- It is celebrated every year on 30 March
- Its objective is to promote waste management of all types and reduce waste generation.
- This day is jointly celebrated by the UN Human Settlements Program (UN-Habitat) and the United Nations Environment Program (UNEP).

Rajasthan Diwas

- It is celebrated every year on 30 March.
- The 75th day of Rajasthan was celebrated on 30 March 2024.
- At the time of unification, Rajasthan had 19 princely states, three bases of Neemrana, Kushalgarh and Lava and a union territory named Ajmer-Merwara.
- On March 30, 1949, Sardar Vallabhbhai Patel inaugurated Greater Rajasthan at a ceremony in Jaipur.
- Before independence, Rajasthan was known as Rajputana.

13. GIST [Yojana - Kurukshetra]

YOJANA

TRADITIONAL ART FORMS IN DIGITAL AGE

Artistic traditions of any civilisation comprise its cultural scaffold. Its progressional journey is made alongside a framework that is provided by various arts and their sublime forms, a fact that has not changed even in today's digital age of connecting through the multiverse. The multi-dimensional equations today's generation is beginning to touch upon cannot possibly be gratified without our artistic traditions finding a way to merge with technology.

Benefits of Digitisation of Art

- **Allows the artist** immense diversity and spontaneity.
- **Experimentation with visualisation:** It enables the blending of varied disciplines, providing multifarious planes of exploration with the components to achieve unique and imaginative outcomes.
- **Unfathomable scope for creating and popularising masterpieces of Art:** Through interactive multimedia elements, installations, and 2D (2 dimensional), 3D, or 4 dimensional projections, plus cutting-edge concepts like virtual reality (VR) or augmented reality (AR).
- **Instrumental in keeping the journey of artists** synced with the human race.

Use in Performing Arts

- **Digitisation inapplicable beyond an exterior role:** The mastery of performances that get displayed materially, are imbibed by the audiences ; hence technology can only be used for just promotions
- **Positive use of the internet:**
 - ◆ Offers multiple avenues to create better awareness for a performance,
 - ◆ Gives high-tech tools to bring the art-performer-audience trio closer.

- ◆ Helps popularise an artistic performance through social media and other cyber platforms.

- **Resurgence of dying art forms:** So many Durbal or dying Art forms have seen a resurgence orchestrated through dedicated digital media campaigns.

Concerns for Digital Transition Preservation

- **Potential dilution** of the subtle, abstract, and intuitive elements inherent in traditional folk art forms.
- **Need to preserve the purity** and authenticity of folk-art forms as they represent in-depth human expressions.
- **Risk of reducing art to mere computational algorithms** or digitised templates confined within the non-human electronic music sphere.
- **Danger of algorithmic bias and mass standardisation** for these artforms, which can inadvertently erase the locality-specific nuances of folk traditions.
- **Risk that as these art forms enter the digital domain**, they risk being homogenised, commodified, or reduced to superficial representations devoid of their original depth and meaning.
- **History, symbolism, and cultural significance** within folk art which may not easily translate the binary language of computers or the virtual spaces of the digitised realm.
- **Essence and soul of these art forms** are not lost amidst the digital adaptation.

Way forward

- **Approaching the digitisation of folk art with sensitivity** and respect for its diversity and its connection to heritage.
- **Collaborative efforts between modern technologists and artists** can be endeavoured to ensure that digital adaptations retain the genuineness and richness of their traditional counterparts.

POPULAR MUSIC IN INDIA

Popular music is a genre that has recently emerged from traditional music. It is a type of music that pleases the senses of the masses. It is not entirely devoid of rules, though they are less stringent in popular music than they are in classical music. It sounds very different from traditional music, yet it has its roots in the tradition from which it evolved. The primary reason for its existence is the need of 'newness' in current music. 'Freshness' or 'newness' of music is an important element of popular music as it is meant to cater to the masses. Popular music gives importance to words along with the tune; it is pleasing and entertaining and thus far from abstract.

Forms of popular music that are currently sung

1. Natyasangeet

- **Diverse nature of popular music:** It has many forms like classical music, film music, band music, bhav sangeet, abhangs, bhajans and bhakti geet.
- **Reasons for emergence of popular music:** Monarchy ended in India leaving no patronage for classical music and musicians. Both music and musicians became entirely dependent on people that resulted in a change in the format of music so as to appeal to the masses.
- **Theatre music/ Natyasangeet:** A full-fledged khayal presentation was encapsulated into soft compositions for appreciation and entertainment. These compositions were presented as a parte theatre.
- **Natya geet:** Songs based on ragas with Marathi texts & ornamented by alaaps and by short, rapid taans. The taal 'Gandharva theka' was a newly invented during the Sangeet Natak era that was used for the accompaniment of Natya Sangeet.
- **Sangeet Swayamwar:** A play by Vishnudas Bhave, was the first Sangeet Natak to be staged in Sangli in 1843..

2. Film Music

- **Advent:** After recording technology came to India from the West in the 1920s.
- **Features:**
 - ◆ A significant amount of importance is given to words.
 - ◆ Based on classical ragas. Eg, bandishes
 - ◆ Has multi-track recording which is less prone to errors, plus it gives the

freedom and liberty of recording one track at a time and enables variety in sounds.

3. Band music

- **Evolution:** It started taking shape in India in 1980's and was fully established by 1990's.

Benefits of art as a source of healing and power

- **Aid to expression:** When a person is able to see his or her emotional thoughts, and visualise them, it helps in analysing the source of such feelings. This is the first step to healing.
- **Building Confidence and gaining control:** Art is never 'wrong'. This basic nature of art gives the artist a sense of control and the ability to make a choice.
- **Improving motor skills and cognitive capacity in any child:** A person making art is naturally required to be in a calm and focused state of mind - a prerequisite for cognitive development.
- **Creative outlet:** All Art is always constructive and creative, as opposed to destructive and restrictive. It breeds self-expression which leads to creativity.

Kurukshetra

Adoption of Digital and Innovative Farming Techniques

Agriculture has undergone a series of revolutions that have increased efficiency, production, and profitability to unprecedented levels. The present decade has been witnessing the emergence of a 'digital 3 revolution' as the latest transformation, poised to address the numerous challenges of agriculture and the food sector caused by a growing population, resulting in increased demand for food and an increasingly limited availability of natural resources such as fertile land and fresh water.

To achieve the UN Sustainable Development Goal of a 'world with zero hunger' by 2030, the existing agrifood system must be transformed into one that is more productive, sustainable, efficient, and resilient. In this setting, digital agriculture has the potential to generate economic benefits by increasing agricultural output, improving cost efficiency, and expanding market prospects. It can also have a positive impact on society and culture by encouraging more communication and inclusion. Furthermore, digital agriculture bene-

fits the environment by improving resource utilisation and promoting climate change adaptation.

Innovative Farming Practices

1. Precision Agriculture

- **Meaning:** Management approach that involves collecting, processing, and analysing temporal, spatial, and individual data which is then integrated with other information to aid management decisions based on estimated variability, aiming to enhance resource utilisation efficiency, productivity, quality, profitability, and sustainability in agricultural production.
- **Technologies used:** Global Positioning System (GPS), sensors, drones, and data analytics.
- **Benefits:** Allows farmers to precisely regulate inputs such as water, fertiliser, and pesticides, leading to higher efficiency and less waste.

2. Smart Farming

- **Meaning:** Managing farms with IoT, robotics, drones, and artificial intelligence (AI) to boost the number and quality of products while optimising the human labour required for production.
- **Applications:**
 - ◆ A centralised platform allows farmers to remotely monitor and control many parts of their business.
 - ◆ Modern agriculture is increasingly reliant on automated machinery, such as self-driving tractors and robotic harvesters.
- **Benefits:** They reduce farmers' physical workload while increasing precision and efficiency in tasks such as planting, harvesting, and weed control.

3. Vertical Farming and Controlled-Environment Agriculture

- **About:** They involve growing crops in stacked layers or under regulated conditions, such as greenhouses or hydroponic systems.
- **Benefits:**
 - ◆ It maximises land use efficiency while minimising the environmental impact of traditional farming operations.
 - ◆ Farmers may establish ideal circumstances for plant development

all year by using artificial lighting, climate control, and fertiliser solutions.

- ◆ This increases agricultural yields & enables crop growth in climatically vulnerable areas.

4. Blockchain Technology in Agriculture

- **Use:** Farmers, wholesalers, and consumers can use blockchain to keep a secure and unalterable record of all agricultural product transactions and movements.
- **Benefits:** This ensures the authenticity of food products, lowers the danger of fraud, and allows consumers to make informed decisions about the origin and quality of their foods.

Digital Farming Techniques

1. Technologies in Precision Agriculture:

- **GPS technology:** It enables farmers to plan their fields precisely, which makes it easier for machines to navigate and applies resources in the right places.
- **Additional technologies:** Use of field-based sensors, offer real-time information on crop health, nutrient levels, and soil moisture.
- **IoT equipment:** Weather stations and environmental sensors.

2. Drones

- **To take high-resolution photographs of fields:** Farmers can spot problem regions, including pest infestations, nutrient shortages, or water stress with it.

3. Automated Technology

- **Automated equipment with GPS & sensor technology:** It can carry out operations including planting, harvesting, and ploughing (autonomous tractors and harvesters).
- **Benefits:** This guarantees accuracy in farming operations while simultaneously lowering labour expenses.

4. Variable Rate Technology (VRT)

- **About:** It enables the application of inputs such as water, herbicides, and fertilisers to a field at different rates.
- **Benefits:** This method makes sure resources are applied exactly where and when they are needed by considering the spatial variability of crop and soil conditions.

5. Smart Irrigation System

- **Soil moisture sensors:** To calculate the amount and timing of water that crops require.
- **Benefits:**
 - ◆ Through this, excessive irrigation is avoided, protecting water supplies and enhancing crop health.
 - ◆ Remote control of automated irrigation systems is possible via web or mobile applications.

6. Data-driven Farm Management

- **About:** These technologies frequently combine information from several sources, such as crop health, soil conditions, and weather forecasts.
- **Benefits:** With this, farmers can plan their planting, watering, and harvesting operations with confidence.

7. Robots for Agricultural Operations

- **Benefits:**
 - ◆ These autonomous vehicles can go across fields, effectively harvesting crops or spotting and eliminating weeds.
 - ◆ Robotics decreases the need for physical labour while increasing efficiency.

8. Machine Learning

- **Purpose:** To forecast crop yields, disease outbreaks, and market trends.
- **Benefits:** Farmers may now make proactive decisions and modify their plans in response to situations that are predicted through these predictive analytics.

9. Blockchain

- **Benefit:**
 - ◆ A blockchain can record every step of the agricultural supply chain, from planting to delivery.
 - ◆ It can ensure traceability, & promote consumer confidence in the origin and quality of agricultural products.

10. Digital Twins

- **About:** They create virtual replicas of physical farms.
- **Benefits:** This allows farmers to simulate and optimise various scenarios before implementing changes in the real world.

Factors for Digital Transformation

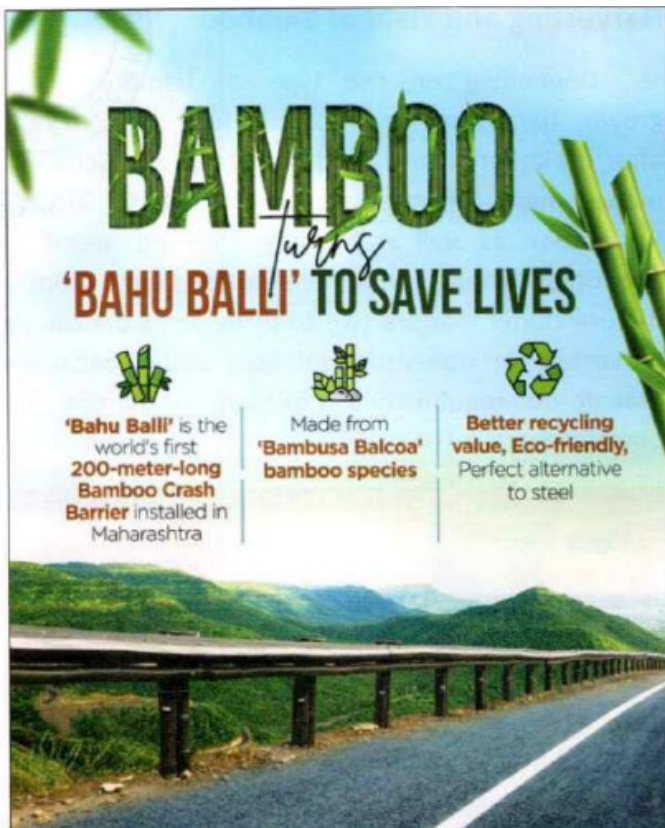
- Enablers which include use of the internet, mobile phones, and social media.
- Digital skills
- Agripreneurial and innovation culture
- Talent development and initiatives like start-ups, incubators, and accelerator programmes
- Digitalisation
- Level of digital literacy among farmers
- Gender disparities in digital access
- Understanding local sensitivities
- Encouraging public-private partnerships
- Promotion of FPOs improving infrastructure
- Subsidising access for small farmers

Way forward

- **India's National AI Strategy:** It seeks to unlock the economic and societal advantages presented by the technology.
- **'Agriculture 4.0:** It means that all facets of farm operations must have digital information, electronic contact must exist with outside parties like suppliers and consumers, and automated data transfer, processing, and analysis procedures must be the norm.
- **Using web-based tools:** It can make managing massive amounts of data easier and improve communication between the farm and outside partners.
- **Agriculture 5.0:** It is envisioned to centre around robotics and various forms of artificial intelligence.
- **FPOS:** They make technology more accessible and inexpensive, which helps all parties involved.

Bamboo Farming: Growing Methods and Reaping Benefits

Bamboo farming has emerged as a new sector of growth and livelihood for not only generational farmers, but also for professionals who are turning towards agriculture for career enhancement. It has the characteristics of both agri and industry. That is why it has caught the imaginations of progressive farmers. But, farmers need specific knowledge to do this farming if quality crops and end products have to be manufactured. This article tries to explore many such minute and specific details that may create an effective preface for venturing into this sector.



Climate Requirement

- **Temperature range:** 7°C and 40°C.
- **Ideal annual rainfall:** It varies from 1200 mm to 4000 mm.
- **Soils:** Well-drained, poor, coarse, grained, and stony.
- **Characteristics:**
 - ◆ Temperature-adaptable, withstanding sporadic frosts with lows of -5°C and summer temperatures as high as 45°C.
 - ◆ Can spread throughout regions with yearly rainfall ranging from 750 to 4,000 mm.
 - ◆ Soil pH range: 5.0 to 6.5
- **Other parameters:**
 - ◆ Rich organic matter
 - ◆ Moderate moisture content
 - ◆ Moderate humidity
 - ◆ Loose, well-aerated, thick soil type
- **Major nutrients required:** Nitrogen, P2O5, K2O, CaO, and SiO2.

Use of bamboo

- **Fabrication:** Use for production of textiles which are cool and breathable.
- **Bamboo as Medicine:**
 - ◆ Used in treatment of cold, flu, and other common illnesses like nausea and nasal congestion.

- ◆ Patients are treated with the edible components of the bamboo plant.
- ◆ These components include bamboo shavings, leaves, sap, etc.
- **Bamboo Utensils:**
 - ◆ Reasonably priced and long-lasting.
 - ◆ Long-standing and traditional method of cooking food.
 - ◆ Dishwasher-safe utensils
- **Musical instruments:** Xylophones, flutes, drums, and so on.

Economic Contribution of Bamboo to India

- **2020:** Bamboo held a 35% market share in the industrial goods area.
- **2021:** Its share climbed with an estimated 57.86 billion dollars at stake.
- **Largest contribution:** At 75% of the total revenue, the Asia-Pacific area (India, China, Vietnam, and Myanmar) made the largest contribution.

Apiculture: Scope and Opportunities

India is one of the largest producers and consumers of honey in the world, with an estimated annual production of 1.2 lakh metric tonnes. The country has a rich tradition and culture of beekeeping dating back to ancient times. Beekeeping has the potential to generate income and employment opportunities for rural households.

Apiculture

- **Meaning:** The science and culture of honeybees and their management.
- **Beekeeping:** The practice of intentional maintenance of honey bee colonies, commonly in hives, by humans.
- **Aim of beekeeping:** To collect honey and beeswax, or for pollinating crops, or to produce bees for sale to other beekeeper.
- **Apiary:** A location where bees are kept.

Beekeeping in India

- **India inhabits four major honey bee species:**
 - ◆ **2 domesticated species**, viz. Apiscerana (Indian or Asian honey bee) and A. mellifera (European honey bee)
 - ◆ **2 wild species**, viz. A. dorsata (rock honey bee) and A. florea (dwarf honey bee).
- **A. cerana:** Cultivated in Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, Telangana, Odisha, and the North Eastern States but the honey obtained constitutes hardly 5-10% of the total honey produced in India.

- **A. mellifera ligustica/ Italian bee:** More in North India because of the rich flora viz., Mustard, Sunflower, Eucalyptus, Safflower, etc. They produce 50 to 60 kg of honey per colony per year.
- **Major production:** About 70-75% of the honey produced in India is from A. mellifera.
- **A. dorsata/ Rock bee:** It contributes to approximately 20% of the total honey produced in India.

National Beekeeping & Honey Mission (NBHM)

- **About:** The Government approved the allocation for Rs. 500 crore for three years (2020-21 to 2022-23).
- **Implementing agency:** National Bee Board (NBB)
- **Objectives:**
 - ◆ Overall promotion and development of scientific beekeeping in the country to achieve the goal of 'Sweet Revolution'
 - ◆ To promote holistic growth of the beekeeping industry for income and employment generation for farm and non- farm households
 - ◆ To enhance agriculture/ horticulture production
 - ◆ To develop infrastructural facilities, including the setting up of Integrated Beekeeping Development Centres (IBDC)s/COE, honey testing labs, bee disease diagnostic labs, custom hiring centres, Api- therapy centres, nucleus stock, bee breeders, etc.
 - ◆ To empower women through beekeeping
 - ◆ To create awareness about scientific beekeeping under Mini Mission-I, post-harvest management of beekeeping, beehive products.
- **Exports:** India is one of the major honey exporting countries in the world and has exported 79,929.17 MT of natural honey to the world for the worth of Rs. 1,622.77 crore during the year 2022-23 (>50% of domestic production).
- **Major markets for Indian honey:** USA, Saudi Arabia, United Arab Emirates, Bangladesh, Canada, etc (Overall export to 83 countries).

Problems

- Beekeepers cannot obtain honey boxes;
- There are no facilities for marketing honey; and
- Insufficient instruction in apiary management.

Prospects of Apiculture

- **Geographical Diversity:** Besides the agricultural fields, several nectariferous plant species, the evergreen tropical and sub-tropical forests provide forage to honey bees. This offers a potential of about 200 million bee colonies as against 3.4 million bee colonies today.
- **Genetic Diversity:** There are only around seven commercially important honeybee species in the world, but five of them are present in India. i.e. Rock bee, Indian hive bee. Hence, apiculture is resilient to climate change and environmental degradation.
- **Agrarian Economy:** Bee pollination as a new agricultural production strategy has immense possibilities in an agrarian country like India. If bees are incorporated into agriculture, the pollination is well managed and crop yields increase significantly.
- **Thrust on Food Processing:** The Government is actively promoting food processing industries in the country to enhance rural income i.e. policy measures such as PM SAMPADA. Honey is a high-value product and hence aligns easily with government strategies.
- **Rising Industrial Demand:** Honey forms a key ingredient in the ayurveda and pharmaceutical sectors in India. It is also thought to support the treatment of several more specific ailments. Hence, the growth of the AYUSH and pharmaceutical sectors is expected to have a positive impact on honey as an industrial raw material in India.
- **Rising Domestic Market:** As a result of changing food habits and an increasing inclination of consumers towards wellness foods and healthy alternatives to artificial sweeteners, the demand for honey is expected to increase in the coming years. The threat of Covid-19 infection has made people consume more because of its anti- microbial and anti-inflammatory properties.

Possible Products from Beekeeping (By- Products of a Honeybee Farm)

- **Honey:** It is a viscous fluid produced from the flower nectar by the bees. It is a whole food containing sugars, antibiotics, enzymes, acids, and minerals, and is used as a high energy source. It is a useful carrier for many ayurvedic and unani medicinal preparations.
- **Royal Jelly:** It is a secretion from the bees and contains proteins, lipids, and carbohydrates, minerals like iron, sulphur, copper, and silicon. It is used as a general tonic and stimulant improving resistance to fatigue, learning capacity and memory, appetite, and general health improvement.
- **Beeswax:** Beeswax is secreted as a liquid but solidifies when exposed to air. It is chiefly used in the candle industry. Other major places where the bees wax is important are for making creams, ointments, capsules, deodorants, varnish, shoe polish, etc.
- **Propolis:** It is a mixture of the beeswax and the resins collected by honeybees from plants. It has an adhesive quality and is also used for preparing ointments that treat cuts, wounds, dermatological, and cosmetic treatment, etc.
- **Bee Venom:** It contains active chemicals like histamine, hydrochloric acid, formic acid, apamine, etc. It is injected into patients suffering from rheumatism. It also helps in curing neuralgia, endo arthritis, necrosis, etc.
- **Pollen:** It is a mixture of flower pollen, nectar, enzymes, honey, wax, and bee secretions. It is loaded with nutrients, amino acids, vitamins, lipids and several active substances. Hence, it is increasingly being recognised as a medicine.

Floriculture and Commercial Potential of Orchids

The floriculture industry is experiencing a transformative phase, driven by an upsurge in consumer demand for exotic and aesthetically pleasing blooms. This article endeavours to unravel the multifaceted world of orchid floriculture in the country, delving into its commercial potential, the factors shaping its growth, and the unique challenges and opportunities that define this blooming business landscape.

Key Factors Contributing to Commercial Success in India

- **Local Adaptation and Cultivation Techniques:** Research and experimentation

in optimising temperature, humidity, and light levels have led to the development of practices that mimic the natural habitats of specific orchid species.

- **Cultural Significance and Traditional Use:** Orchids, deeply rooted in Indian culture, hold significant value in various traditions and festivities.
- **Government Initiatives and Subsidies:** Financial assistance, training programmes, and infrastructure development are key components of these initiatives.
- **Export Opportunities:** Orchid cultivation in India expanded beyond meeting domestic demand, of orchids and orchid products. The international appeal of Indian orchids has opened up avenues for growers to explore global markets.
- **Technology Adoption and Research Collaborations:** Advancements in technology, including greenhouse cultivation and tissue culture techniques, have contributed to the commercial success of orchid cultivation in India.

Challenges and Future Prospects in the Indian Context

- **Infrastructure and Technology Gap:** Many growers, especially in remote areas, lack access to modern greenhouse facilities and advanced cultivation technologies.
- **Pest and Disease Management:** Orchids are susceptible to various pests and diseases that significantly impact crop yield and quality.
- **Environmental Concerns and Sustainability:** The intensive cultivation practices associated with orchid floriculture raise concerns about environmental sustainability. Issues such as water usage, chemical inputs, and energy consumption need careful consideration.
- **Skill Development and Training:** The success of orchid cultivation requires skilled manpower, from experienced growers to technicians proficient in advanced cultivation techniques.
- **Market Saturation and Diversification:** The rapid growth of the orchid industry may lead to market saturation, emphasising the need for diversification.
- **Global Collaboration and Research:** Knowledge exchange, collaborative breeding programmes, and access to international markets enhance the

competitiveness of Indian orchids. strengthening ties with global orchid organisations and research institutions can contribute to the industry's growth on a global scale.

- **Promotion of Sustainable Practices:** With an increasing emphasis on sustainable and eco-friendly practices, the orchid industry in India should proactively adopt and promote environmentally responsible cultivation methods.

Organic Farming Benefits, Present Status and Future Prospects

Organic farming in India has evolved from being a niche practice to a growing movement with significant potential for transforming the agricultural landscape. The benefits of environmental sustainability, healthier produce and soil health make organic farming a viable and attractive option for farmers and consumers alike. While the present status reflects positive growth, addressing challenges and focusing on future prospects, including technology integration, research, policy support and consumer awareness, is instrumental in realising the full potential of organic farming in the country. With concerted efforts from farmers, policy makers and the public, organic farming can contribute to a greener, more sustainable future for Indian agriculture.

Organic Farming

- **About:** It involves sustainable and environment friendly agricultural practices that avoid synthetic pesticides, fertilisers and genetically modified organisms.
- **Principle:** It relies on achieving high crop yields without harming the natural environment, disrupting ecosystems and posing no health hazards to the people who work on farms and use the produce.
- **Eco-friendly methodologies:** Strategic crop rotation, trap crops, the use of bio-pesticides, biological control of insects, mechanical traps etc.

Need and Benefits of Organic Farming

- Promotes biodiversity
- Conserves soil health
- Reduces water pollution by avoiding the use of synthetic pesticides and fertilisers
- Ensures the long-term sustainability of agriculture
- Provides economic sustainability to the farmers by reducing input cost on one

hand and simultaneously creating better market access on the other.

- Reduced dependence on chemical inputs improves the overall health of the farming community.
- Organic produce is free from chemical residues and often contains higher nutritional value, contributing to better overall health of consumers.
- Emphasise natural inputs and sustainable methods, resulting in nutrient-rich crops
- Absence of genetically codified organisms in organic products aligns with consumer preferences for natural and unmodified food products
- Safeguards the well-being of farmers and consumers
- Contributes to India's overall ecological balance, supporting a resilient and sustainable agricultural future
- Opens up international market for organic products, significantly enhancing the country's agricultural export
- Addresses public health concerns related to chemical residues in food, leading to potential healthcare cost savings.
- Presents a holistic solution that harmonises environmental, economic and public health interests.

National Programme for Organic Production (NPOP)

- Launch: 2001
- Significance: It laid the foundation for systematic development of the organic agricultural sector in the country.
- Implementing agency: APEDA under Ministry of Commerce and Industry, Government of India.

National Centre for Organic Farming

- **Establishment:** 2004
- **About:** A nodal organisation for promoting organic farming in the country.
- **Renaming:** National Centre for Organic and Natural Farming (NCONF) in March 2022.
- **Aim:** To promote chemical free sustainable agricultural practices, including organic, natural and regenerative farming methods.
- **Focus:** Capacity building of stakeholders by conducting training programmes, workshops, and disseminating information.

Initiatives

- **National Mission for Sustainable Agriculture (NMSA) (2014-15):** It focuses on increasing water-use efficiency, promoting organic nutrient management & adopting climate-resilient sustainable agricultural practices.
- **Paramparagat Krishi Vikas Yojana (April 2015):** It encourages the adoption of organic farming practices by providing financial assistance to farmers.
 - ◆ Groups of farmers are formed to cultivate organic crops and are supported with financial aid for inputs, seeds, and other essential resources.
 - ◆ Facilitates the transition to organic farming & promotes community participation and cooperation.

Challenges

- **Limited awareness** and education among farmers about organic practices
- **High initial costs** of certification
- **Lack of a well-established market infrastructure** for organic products
- **During the transition period to organic farming**, initially yields may temporarily decrease, which poses financial challenges to the growers.
- **Difficulties in managing pests and diseases** by using natural methods and traditional farming practices
- **Issues related to quality control & certifications** coupled with the imperative to scale up operations
- **Upholding stringent standards** complicate the organic farming landscape.

Way Forward

- **Better dissemination of knowledge:** To enhance the efficiency and profitability of organic farming
- **Integration of technology:** Precision farming techniques, IT-based monitoring systems and data analytics can optimise resource utilisation, provide real-time information to the farmers, and improve crop yield.
- **Investing in research and development:** Developing resilient crop varieties, exploring new organic pest control methods, and enhancing soil health through innovative techniques.

- **Continued policy support from the Government:** Strengthening existing schemes, providing financial incentives and addressing the challenges faced by farmers.
- **Encouraging collaboration and networking among the stakeholders:** Farmers, consumers, NGOs, researchers, farmer producer organisations (FPOs) and industry
- **Other methods:** Knowledge sharing, access to resources, and collective marketing efforts
- **Spreading awareness:** Educating consumers about the benefits of organic produce

Opportunities in Dairy and Fisheries Sector

Over the years, the dairy and fisheries sectors in India have emerged not only as a sustainable supplier of affordable nutrition to the masses, they also positioned themselves as prominent players in the international market as well as contributing significantly to national income and employment. Recently, these sectors have become one of the favourite choices for startups of new-age entrepreneurs. Sustainable growth of these sectors needs to address the problems that emerged due to supply chain interruptions and the effects of climate change.

Operation Flood/ White Revolution

- **Start:** It took place in the 1970s, initiated by the National Dairy Development Board (NDDB) under Dr. Verghese Kurien.
- **Aim:** To increase the availability of milk.
- **Impact:** The per capita milk production increased from 40.6 kg/ year in 1971-72 to 71.5 kg/year in 1996-97 to 154.9 kg/year in 2021-22.
- **Benefits:**
 - ◆ Helped empower farmers by giving them better bargaining power, fair pricing, and access to modern dairy technology.
 - ◆ Growth rate in milk production accelerated after 2005 when the emphasis shifted from exotic breeds to indigenous breeds.
 - ◆ Inspired several small entrepreneurs to scale up their businesses by harnessing the advanced dairy technique, diversifying milk products, and expanding the market through an efficient supply chain and taking advantage of new advancements in research and development taking place in the industry.

Blue revolution: Integrated development and management of fisheries

- Launch: 2015
- Implementing body: Fisheries Development Board (NFDB).
- Impact:
 - ◆ India is now the third-largest fish-producing country, contributing 8% to global fish production and ranks second in aquaculture production.
 - ◆ Fish production in 2021-22 is 16.24 million tonnes, comprising marine fish production of 4.12 Million Tonnes and 12.12 Million Tonnes from Aquaculture).

Pradhan Mantri Matasya Sampada Yojna (PMMSY)

- **Announcement:** 2019
- **Aim:** To bring economic revolution through the blue revolution which includes sustainable and responsible development of the fisheries sector with the highest ever investment worth Rs. 20,050 crores more than 200 billion USD) during 2020-2025.

Fisheries Startup India

- **About:** A new initiative launched by the Indian government to promote and support the development of the fisheries industry in the country.
- **Achievements:**
 - ◆ India houses 50+ startups operating in fisheries and aquaculture domain.
 - ◆ The Department of Fisheries, through its partnership with Startup India would like to identify and support innovations and startups working in the aquaculture and fisheries sector to accelerate the growth of this sector.

Rashtriya Gokul Mission

- **Launch:** 2014
- **Focus:** One genetic improvement of indigenous breeds through selective breeding and the enhancement of bovine productivity:
- **Aim:** To increase milk production sustainably by promoting the use of high-genetic-merit bulls and strengthening artificial insemination services.

National Livelihood Mission

- **About:** It underscores the importance of entrepreneurship development, innovation, and extension services in the livestock sector.

- **Aim:** To increase productivity and create a more resilient livestock industry by promoting employment generation, fostering risk management through livestock insurance, and investing in research and development.

Livestock Health and Disease Control (LHDC)

- **Objective:** To eradicate and control critical diseases through the implementation of preventive vaccination programmes and the strengthening of veterinary infrastructure.

National Animal Disease Control Programme (NADCP)

- **Objective:** To control foot and mouth diseases (FMD) and brucellosis by vaccinating 100 per cent of the buffalo, sheep, goat, and pig population.

Dairy Processing & Infrastructure Development Fund (DIDF)

- **Introduction:** Post the Union Budget 2017-18
- **Management:** National Bank for Agriculture and Rural Development (NABARD)
- **Aim:** Modernisation of milk processing facilities, equipment, and capacity expansion.

Animal Husbandry Infrastructure Development Fund (AHIDF)

- **Establishment:** 2020-21
- **Aim:** To encourage investments from various entities, including individual entrepreneurs, private companies, MSMEs, farmers Producers Organizations (FPOS), and Section 8 companies.
- **Focus:** Enhancing infrastructure for dairy and meat processing, promoting value addition, and developing facilities for animal feed plants.

National Programme for Dairy Development (NPDD)

- **Focus:** Enhancing the quality of milk and increasing the share of organised milk procurement.
- **Aim:** To create market linkages, strengthen capacity building, and boost the overall efficiency of dairy production in specific regions.

Supporting Dairy Cooperatives & Farmer Producer Organizations (SDCFPO)

- **Focus:** Financial support during crises & government's commitment to ensuring stable market access for dairy farmers.

- **Aim:** To mitigate the impact of adverse market conditions and natural calamities by providing soft working capital loans to cooperative federations.

Challenges

- Supply chain interruptions
- Climate change
- Disruptions in transportation
- Insufficient cold storage facilities
- Distribution barriers
- Chain-related challenges like inadequate logistics and insufficient processing facilities

Way Forward

- Addressing the inefficiencies in the supply chain by investing in infrastructure and technology
- Implementing climate-smart practices
- Promoting innovation

Vertical Farming and Hydroponics Future Urban Agriculture

Hydroponics and vertical farming offer efficient and sustainable solutions to urban agriculture challenges. Hydroponics maximises resource use, enables year-round crop production, and increases yields, potentially revolutionising food cultivation, especially leafy vegetables. It reduces waste by conserving water, nutrients, and space, promoting sustainability. The integration of smart technologies and automation enhances agricultural productivity in vertical farming.

Vertical farming (VF)

- **About:** A contemporary practice of cultivating crops in stacked layers within protected indoor environments.
- **Methodology:** It employs soilless multi-level, protected indoor environments departing from conventional soil-based farming and horizontal crop growth on a single level.
- **Benefits:**
 - ◆ It can enhance food production, maintain quality and contribute to sustainable urban farming.
 - ◆ Advantageous in densely populated urban areas where space is limited, allowing for optimal use of available space.
 - ◆ Optimises factors such as light, temperature, humidity, and nutrients.

Nutrient-providing methods in vertical farms

- **Hydroponics:** It involves growing plants on soil-free substances continuously irrigated with nutrients. Plant roots are submerged in a nutrient solution, and the system uses 60-70% less water than traditional agriculture, making it widely utilised in numerous vertical farms worldwide.
- **Aeroponics:** Developed by NASA in the 1990s for space plant growth, aeroponics cultivates plants in a soil-free mist environment with roots hanging down in a closed-air container. This method uses 90% less water than hydroponics.
- **Aquaponics:** It integrates fish production into plant cultivation. The system utilises fish-produced nutrient-rich waste as a feed resource for plants, and plants, in turn, purify and recycle wastewater for fishponds.

Different Hydroponic Systems

- **Deep Water Culture (DWC):** Plant roots are submerged in a nutrient solution. It is a straightforward and low-cost system suitable for beginners. This method involves suspending the plant roots in a solution of nutrient-rich, oxygenated water that promotes nutrient absorption.
- **Nutrient Film Technique (NFT):** NFT involves a constant flow of nutrient solution over the roots, providing them with a steady supply of nutrients and oxygen.
- **Ebb and Flow System:** This method involves cyclic submersion of plants in the nutrient solution, providing nutrients and oxygen to the roots through periodic drainage back into a reservoir.
- **Drip System:** Drip system directly deliver nutrient solutions to plant roots using tubes and drippers. The solution is dripped onto the growing medium, like perlite or coco coir, and can be drained back for potential reuse.
- **Aeroponics:** In aeroponics, plant roots are suspended in the air and misted with a nutrient solution, promoting rapid growth.
- **Wicking System:** Plants in an inert medium use a cotton rope wick to draw nutrient solution from a reservoir to the root zone.
- **Vertical Tower Systems:** These systems allow plants to grow vertically, making the most of limited space.

- **Kratky Method:** A cost-effective hydroponic system that doesn't require electronic devices or electric current. It involves an initial administration of water and nutrients, proving efficient for plant production while minimising water wastage.

Advantages of Hydroponics

- **Hydroponics in conjunction with vertical farming** utilises 99% less land compared to traditional farming due to the concentrated root system.
- **It require less water** compared to conventional farming practices
- **Enables the creation of a controlled microclimate**, allowing year-round indoor cultivation of regional or seasonal crops
- **Protects crops from soil-borne pests and diseases**, and adverse weather conditions, thereby reducing the need for pesticides and fertilisers
- **Flexible to set up locations anywhere**, to reduce transportation and warehouse costs, streamlining the supply chain
- **Facilitates access to fresh produce**, ensuring reliable and sustainable food sources
- **Vertical farming enhances plant productivity** per unit area compared to horizontal hydroponic methods

- **Automated monitoring and control systems** enable growers to optimise growing schedules and provide optimal environmental conditions for crops
- **In urban areas, vertical farming provides both environmental benefits**, such as biodiversity and sustainability, and socio-economic advantages, including leisure and education

Disadvantages

- **High upfront infrastructure costs** pose a significant hurdle to widespread adoption.
- **Shortage of expertise** and the need for a controlled growing system necessitate a highly educated workforce, leading to elevated labour costs
- **It is energy-intensive and requires artificial lighting**, temperature, and humidity requirements, which increases the cost of production
- **The absence of natural pollinators** in controlled conditions can result in poor fruit sets and the production of small, misshapen fruits
- **The range of crops cultivated commercially** is usually confined to leafy vegetables and microgreens
- **Require continuous attention and care**, with components like pumps and nutrient delivery systems needing regular maintenance

14. EDITORIALS

India's major leap into semiconductor manufacturing: Union Cabinet nod to Rs 1.26 lakh crore chip-making units

The Indian government has taken a significant step toward becoming self-reliant in semiconductor production by approving the establishment of three semiconductor fabrication units. The approval, announced on February 29 by the Union Cabinet, involves an investment of Rs 1.26 lakh crore (\$15.2 billion).

Indian Government Announcements

- **Semiconductor Fab in Dholera, Gujarat:**
 - ◆ Established by Tata Electronics and Taiwan's Powerchip Semiconductor Manufacturing Corp.
 - ◆ Projected to produce 50,000 wafers per month, investing Rs 91,000 crore.
 - ◆ Specialises in high-performance computer chips using 28 nm technology for EVs, telecom, and defence.
- **Semiconductor Unit in Morigaon, Assam:**
 - ◆ Set up by Tata Semiconductor Assembly and Test Pvt Ltd (TSAT).
 - ◆ Investment of Rs 27,000 crore to produce 48 million chips per day for automotive and electric vehicle sectors.
- **Semiconductor Unit in Sanand, Gujarat:**
 - ◆ Established by CG Power, Renesas Electronics Corp (Japan), and Stars Microelectronics (Thailand).
 - ◆ Investment of Rs 7,600 crore.
 - ◆ Construction to commence within 100 days.

Significance of the Move

- **Technological Autonomy:**
 - ◆ India's initiative to build domestic semiconductor capabilities enhances technological autonomy.
 - ◆ Reduces reliance on imports, particularly from manufacturing giants like Taiwan.
- **Strategic Importance:**
 - ◆ Semiconductors are crucial for defence, automobiles, and telecommunications sectors.

- ◆ Building domestic capabilities strengthens India's strategic position.

- **Global Competitiveness:**

- ◆ Positions India as a global hub for semiconductor manufacturing.
- ◆ Aligns with global trends in semiconductor demand.

- **Economic Growth:**

- ◆ Expected to bolster India's semiconductor market, projected to reach \$63 billion by 2026.
- ◆ Establishes semiconductor ecosystem and develops advanced packaging technologies locally.

- **Job Creation:**

- ◆ Creation of ~20,000 direct advanced technology jobs and around 60,000 indirect jobs.
- ◆ Catalyses growth in related sectors, contributing to economic development.

Challenges for India

- **Competition from Allies:** India's chip incentive plans face competition from more attractive schemes offered by close allies like the US and EU.
- **Technological Lag:** Focus on older nodes like 28 nm contrasts with cutting-edge technology; for instance, TSMC produces chips with a node size of 3 nm.
- **Talent Shortage:** While India has a large pool of design engineers, skilled talent for fabrication plant operations is limited.
- **Lack of Original Research:** India lacks original research in semiconductor design, crucial for future chip development and innovation.

Steps Taken by India

- **Investment in R&D:** Establishment of a R&D lab at Semiconductor Laboratory (SCL) in Mohali with a Rs 10,000 crore modernization plan, including the Bharat Semiconductor Research Centre, focusing on developing chips catering to India's needs.
- **Chip Incentive Scheme:** Rollout of a Rs

76,000 crore chip incentive scheme in 2021, offering subsidies covering half the capital expenditure costs for semiconductor plants.

- **Production Linked Incentive (PLI) Plan:** Implementation of schemes like PLI for smartphone and laptop manufacturing, providing subsidies to companies based on their sales bills.

Way Ahead for India

- **Government-Private Sector Collaboration:** Continued commitment from the government alongside private sector investments is crucial for developing indigenous capabilities in semiconductor fabrication.
- **Attracting Global Players:** As construction progresses and operational capabilities develop, India is poised to attract more global players, similar to the success seen in its smartphone assembly industry.

Why Thailand slammed India's farm subsidies at the WTO

- Thailand is reported to have replaced its Ambassador to the World Trade Organisation (WTO) after India formally registered a protest over her comments on India's PSH (Public Stockholding) programme.
- The Thai Ambassador had targeted India's rice procurement programme recently & said that India's Public Distribution System (PDS) is not for the people but for "capturing" the export market.

Tensions between India and Thailand

- **Thailand is the second largest rice exporter** in the world after India.
- **Tensions between India and Thailand** rose to such an extent that Indian negotiators at the 13th Ministerial Conference of WTO, refused to participate in deliberations where Thai representative was present.

Thailand's concerns

- **Thailand as a member of 20-nation Cairns Group:** It has many times questioned India's PSH programme at WTO saying that it is "highly subsidised" & it is "distorting" global food prices & "hurting" the food security of other countries.
- **Trade distortion:** A situation where prices and production are higher or lower

than levels that would usually exist in a competitive market. All domestic support measures are considered to distort trade, but they are permitted to a certain limit called the 'de minimis' limit.

- **Provisions of WTO's Agreement on Agriculture (AoA):** The aggregate value of the product-specific support should not exceed 5% of the total value of production of the agricultural product in question.
- **Exceptions:** In the case of developing countries such as India, the de minimis ceiling is 10%.
- **Violations by India:** It has breached the de minimis limit in the case of rice which has angered other exporters like Thailand, as they are finding it difficult to compete with Indian rice.

Issue over India's rice subsidies

- **WTO norms:** The support given should be within the 10% de minimis limit.
- **India's stand:** The value of its rice production in 2019-20 was \$46.07 billion while it gave subsidies worth \$6.31 billion or 13.7% (against 10%). India says that its subsidies are calculated at a fixed and outdated 1986-88 price, which overestimates the subsidy.

India's argument and demand at the WTO

- **Cairns Group is attacking the 'peace clause':** Put in place in 2013 under Bali Agreement to protect developing countries from being challenged for breach of subsidy levels. However, it comes with onerous conditions, including a host of notification requirements, making it difficult to use.
- **India & other developing nations seeking a permanent solution for public stockholding for food grains:** It will give India better flexibility in providing farm support arguing that the subsidy that it provides is far less than what the US and EU give.

Cairns group

- **About:** A group of agricultural exporting nations lobbying for agricultural trade liberalisation.
- **Establishment:** 1986 in Cairns, Australia just before the beginning of the Uruguay Round.
- **Members:** Argentina, Australia, Brazil, Canada, Chile, Colombia, Costa Rica, Guatemala, Indonesia, Malaysia, New Zealand,

Pakistan, Paraguay, Peru, Philippines, South Africa, Thailand, Ukraine, Uruguay, and Vietnam

- **Aim:** To enhance its members' market access in developing countries particularly in India by making them get rid of domestic agriculture subsidies that are provided to local producers.
- **Criticises all import-restricting measures at the WTO:** It seeks a reduction in the tariffs that countries such as India apply on imports of agricultural products.

Mountains of plastic are choking the Himalayan States

The Indian Himalayan Region is a critical source of water in the subcontinent, feeding a number of major rivers of India that include the Indus, Ganges and Brahmaputra river systems. Unscientific plastic disposal is causing soil and water pollution in the Indian Himalayan Region and impacting its biodiversity, which is having an adverse impact on the fresh water sources that communities downstream depend on.

Microplastics

- **About:** Tiny bits of various types of plastic found in the environment formed due to fragmentation and degradation of larger plastic items & direct release of tiny plastic particles, often intentionally added to consumer products like cosmetics and cleaning agents.
- **No universal agreement on the size of microplastics:** The U.S. NOAA (National Oceanic and Atmospheric Administration) and the European Chemical Agency define microplastic as less than 5 mm in length.
- **Types of Microplastics:**
 - ♦ **Primary microplastics:** Tiny particles designed for commercial use, such as cosmetics, as well as microfibers shed from clothing and other textiles, such as fishing nets.
 - ♦ **Secondary microplastics:** Result from the breakdown of larger plastic items, such as water bottles when larger plastics undergo weathering, through exposure to, for example, wave action, wind abrasion, and ultraviolet radiation from sunlight.
- **Environmental Impact:**
 - ♦ **Not biodegradable:** Once in the environment, primary and secondary microplastics accumulate and persist.

- ♦ **Ingested by marine organisms:** Potential harm to aquatic life and bioaccumulation along the food chain.
- ♦ **Carry toxic chemicals and pollutants:** Posing additional risks to organisms and ecosystems.

Reasons for plastic waste crisis in the Indian Himalayan Region

- Rapid and unplanned urbanisation
- Changing production and consumption patterns
- A quantum jump in tourist footfalls

Indian initiatives towards curbing plastic pollution

- **National Green Tribunal:** It issued notices to various bodies on waste dumping in eco-sensitive areas by tourists and commercial establishments.
- **Himalayan Clean up (2018-21):** Conducted by the Integrated Mountain Initiative with Zero Waste Himalayas) and the National Productivity Council of India's waste and brand audit.
- **Himalayan Clean up (2022):** 92.7% of trash was plastic, with 72% of waste being non-recyclable plastic.

Issues in the current legislation

- **Special needs of hill areas are recognised by the SWM** but are not factored in while creating a mandate for both local bodies and producers, importers and brand owners (PIBOs).
- **PWM and EPR have not even recognised** the special needs of the hills.
- **Collective mandate of SWM/PWM/EPR:** It requires waste segregation at source & segregation of not only plastic from other waste but also different types of plastics but it exists on paper.
- **Effect:** The leachate from the mixed waste causes soil and groundwater pollution while fumes from such mixed waste cause air pollution.
- **Waste management issues:** The task of waste management is the duty of the local bodies but a commensurate devolution of power to them is still work in progress.
- **No model by-laws:** Very few local bodies themselves have made by-laws to operationalise the mandate.

- **No clarity regarding the mandate** to ensure collaboration between local bodies and PIBOs.

Plastic Overshoot Day

- **About:** It marks the point in a year when the amount of plastic waste generated exceeds the capacity to properly manage and dispose of it.
- **Importance:** It signifies a tipping point where the world accumulates more plastic waste than can be effectively handled by waste management systems.
- **Given by:** Environment Action, a Swiss-based organisation
- **India's plastic burden:** It has one of the highest mismanaged waste index (MWI), at 98.55%, in the world (after Kenya, Nigeria and Mozambique) which is the gap in waste management capacity and plastic consumption.
- **India's plastic disposal capacity:** India is merely recycling 12% of its plastic waste. ~ 20% of this waste is channelised for co-incineration, plastic-to-fuel and road making, which means we are burning 20% of our plastic waste and still calling it 'recycling' & when 68% of plastic waste is unaccounted for.

Legal mandate for waste management

- Solid Waste Management Rules (SWM) 2016
- Plastic Waste Management (PWM) Rules 2016
- Extended Producer Responsibility (EPR) 2022

States- wise initiatives

- **Himachal Pradesh:** It has a buy back policy for non-recyclable and single-use plastic waste since 2019, but there is still widespread littering of plastic waste.
- **Sikkim:** It banned packaged mineral water use from January 2022, but in the absence of proper infrastructure to handle plastic waste, the State is still grappling with the issue.
- **Mizoram:** The Aizawl Municipal Corporation made by-laws under the PWM in 2019.
- **Tripura:** It enacted municipal by-laws and has a State-level task force to eliminate Single Use Plastic though the results are not visible.

Way forward

- **Need to include traditional institutions** within the definition of local bodies when it comes to the Indian Himalayan Region (prevalent in many States in the northeast).
- **Need for appropriate resource allocation** and support considerate of and reflective of the rich biodiversity, ecological sensitivity and fragility of the Indian Himalayan Region,.
- **Empowering local bodies** and creating the necessary infrastructure for waste management need immediate attention.
- **Segregation of waste and the participation of the people** with the help of sustained public education campaigns.
- **Due consideration to the higher cost of EPR operationalisation** in the mountain region.
- **Plugging data gaps** in terms of the quantum and quality of waste being generated in the Indian Himalayan Region States.
- **Convergence in existing schemes** such as SBM, the Mahatma Gandhi National Rural Employment Guarantee Act and the Finance Commission's grants.
- **Use of Swachh Bharat Kosh Trust** set up to facilitate the channelisation of philanthropic contributions and CSR funds towards this cause.
- **Convergence in Atal Mission for Rejuvenation & Urban Transformation (AMRUT) and Smart Cities Scheme** on the issue of scientific waste management & making cities in the Indian Himalayan Region plastic free.

CAA: issues in the legal challenge to the citizenship law

More than four years after Parliament passed The Citizenship (Amendment) Act, 2019, the Ministry of Home Affairs recently notified the Rules to implement the law. The CAA, which had led to widespread protests in the winter of 2019-20, is also under challenge before the Supreme Court.

Citizenship (Amendment) Act (CAA) 2019

- **About:** Seeks to amend the definition of illegal immigrant for Hindu, Sikh, Parsi, Buddhist, Jains, and Christian immigrants from Pakistan, Afghanistan, and Bangladesh, excluding Muslims.

- **Fast tracks citizenship:** Grants fast-track Indian citizenship in 5 years (reduced from 11 years earlier).

Key Rule Changes

- 'Any document' even great grandfather's good enough to prove country of origin.
- Certificate from local body member enough to prove date of entry
- Central panel, not District Collector, to handle applications.

- **Eligibility:**
 - ◆ Those who sought shelter in India due to persecution on religious grounds.
 - ◆ Cut-off date for citizenship: December 31, 2014.
 - ◆ Excludes areas under the sixth schedule and states with an inner-line permit regime.

Delay in Notification of CAA Rules

- Vociferous opposition in states like Assam and Tripura.
- Fear of altering state demographics in Assam, violating the 1985 Assam Accord.
- Multiple petitions challenging constitutional validity in the Supreme Court.
- Violates Article 14 (Right to Equality)
- Arbitrary in excluding certain persecuted groups like Rohingya of Myanmar, Tibetan Buddhists from China and Tamils from Sri Lanka.
- **Supreme Court's stand:** It has held that the law has to clear two legal hoops to pass the equality test:
 - ◆ Any differentiation between groups of persons must be founded on an "intelligible differentia"
 - ◆ "That differentia must have a rational nexus to the object sought to be achieved by the Act".
- **Govt's stand:** Muslims have been excluded from the group of "persecuted" minorities because Pakistan, Afghanistan, and Bangladesh are Islamic countries where Muslims are in majority.

Citizenship Amendment Rules, 2024

- **Submission of Application:** Eligible refugees must submit an application along

with an affidavit confirming accuracy of statements made, affidavit from an Indian citizen vouching for their character, and a declaration of familiarity with a language listed in the Constitution's eighth schedule.

- **e-Application to District-level Committee:**
 - ◆ Application submitted electronically to empowered committee via district-level committee.
 - ◆ District-level committee verifies documents and administers oath of allegiance.
- **Procedure for Absentee Applicants:** If an applicant fails to appear in person despite chances, district-level committee may consider rejecting the application.
- **Supporting Documents:** Applicants must provide supporting documents including passport from Pakistan, Afghanistan, or Bangladesh, birth certificate, identity documents, land records, or documents proving ancestry.
- **Validity of Documents:** Documents remain valid beyond expiration dates.
- **Verification of Entry Date:**
 - ◆ Applicants required to provide proof of entry into India before December 31, 2014.
 - ◆ Supporting documents include visa stamps, registration certificates, census enumerator slips, government-issued licences, marriage certificates, etc.
- **Digital Certificate:** Upon approval, applicants receive a digital certificate.

Changes in Citizenship Application Process

- **Shift in Authority:**
 - ◆ Previously, citizenship applications were made to the district collector under state government control.
 - ◆ New rules establish empowered and district level committees by the Centre to receive and process applications.
- **Composition of Empowered Committee:** Empowered committee to be headed by a director (census operations).
- **Other members include:**
 - ◆ Deputy secretary or above officer of the Subsidiary Intelligence Bureau, the FRRO,

- ◆ State informatics officer of the National Informatics Centre,
- ◆ Postmaster general of the state.
- **Additional Invitees:**
 - ◆ **Two invitees to the committee:** Representative from the office of principal secretary (home) or additional chief secretary (home) of the concerned state or UT,
 - ◆ **Representative** of the Railways' jurisdictional divisional railway manager.
- **Electronic Submission:** Applications are to be submitted electronically.

- **Regional Stability and Peace:** Effective water diplomacy contributes to regional stability and peace by fostering cooperation, building trust, and mitigating tensions arising from water-related disputes, thereby enhancing security and promoting cross-border cooperation.
- **Inclusive Approaches:** Water diplomacy involves engaging diverse stakeholders, including indigenous communities, civil society organisations, and the private sector, to promote social equity, transparency, and participatory decision-making in water management.
- **Conflict Prevention and Resolution:** Water diplomacy plays a crucial role in preventing and resolving conflicts by employing proactive diplomacy, early warning systems, and peaceful dispute resolution mechanisms, thereby reducing the risk of violence and promoting peaceful coexistence.

Navigating the global waterscape, its challenges

On March 22, 2024, the 31st World Water Day, with the theme, "Leveraging water for peace". Under the 'World Water Assessment Programme', UNESCO led the development of the 2024 edition of the flagship United Nations World Water Development Report, "Water for Prosperity and Peace" as a part of UN Water (an interagency coordination mechanism on water and sanitation of 35 UN entities along with 48 other international partners).

Historical Context of Water Conflicts

- **Significance of Water:** Water has been a crucial asset for major civilizations throughout history, such as those along the Indus, Nile, and Tigris-Euphrates rivers.
- **Conflict Amidst Abundance:** Despite its importance, water also sparked conflicts, as seen in disputes between Mesopotamian cities like Lagash and Umma.
- **Treaty of Mesilim:** Notably, these conflicts led to the world's first peace accord, the Treaty of Mesilim, representing one of humanity's earliest legal agreements.

Need for Water Diplomacy

- **Collaborative Governance:** Water diplomacy advocates for collaborative governance mechanisms involving various stakeholders to address shared water challenges through dialogue, information sharing, and joint decision-making.
- **Equitable Water Allocation:** Water diplomacy promotes equitable water allocation among riparian states, considering the needs, rights, and vulnerabilities of all parties involved, thus ensuring fair distribution of water resources.

Key Strategies to Address Rural Water Needs in India

- **Infrastructure Development:** Invest in the construction and maintenance of water infrastructure such as wells, hand pumps, boreholes, and piped water supply systems to improve access to safe drinking water and sanitation facilities in rural areas.
- **Community Participation:** Engage local communities in planning, implementing, and managing water projects through participatory approaches, empowering them to take ownership of water resources, promote efficient water use practices, and resolve conflicts over water access.
- **Water Conservation and Management:** Promote water conservation and management practices such as rainwater harvesting, groundwater recharge, watershed management, and soil moisture conservation techniques to maximise the efficiency and sustainability of water resources in rural areas.
- **Technological Innovation:** Leverage technological innovations such as solar-powered pumps, drip irrigation systems, and mobile-based applications for real-time monitoring of water quality and availability to enhance water access and management in rural areas.

- **Government Support and Policy Interventions:** Allocate sufficient funding for water infrastructure projects, implement regulatory frameworks for equitable water distribution, enact legislation to protect water resources, and ensure policy coherence across sectors to address the complex interlinkages between water, food security, and rural development.

Significance of Transboundary Water Governance

- **Ecosystem Sustainability:** Transboundary water resources sustain ecosystems and biodiversity across borders, contributing to environmental health and resilience.
- **Livelihood Support:** Shared water bodies provide livelihoods for millions of people through fishing, agriculture, and other economic activities, fostering socio-economic development.
- **Economic Development:** Access to transboundary water resources fuels economic growth by supporting agriculture, industry, and energy production, driving regional prosperity.
- **Conflict Prevention:** Effective governance helps mitigate conflicts over water access and use, fostering peace and stability among riparian states.

Strategies for Effective Transboundary Water Management

- **Diplomatic Engagement:** Strengthen diplomatic efforts and dialogue platforms among riparian states to foster cooperation, trust-building, and conflict resolution.

- **Capacity Building:** Invest in institutional capacity building, technical expertise, and knowledge sharing to enhance the ability of riparian states to jointly manage transboundary water resources.
- **Legal Frameworks:** Develop and implement robust legal frameworks, treaties, and agreements that delineate rights, responsibilities, and mechanisms for dispute resolution, providing a basis for cooperative management.
- **Participatory Approach:** Embrace a participatory approach involving all stakeholders, including governments, local communities, NGOs, and international organisations, to ensure inclusive decision-making and sustainable outcomes.
- **Integrated Water Resources Management:** Adopt an integrated approach to water resources management that considers social, economic, and environmental factors, promoting holistic and sustainable management of transboundary water systems.

On cross-voting in Rajya Sabha elections

- The Rajya Sabha elections in the States of Uttar Pradesh, Himachal Pradesh and Karnataka witnessed cross-voting (voting for a party one does not belong to) by MLAs belonging to different parties. This has once again raised concerns about the sanctity of the election process.

Rajya Sabha elections	
Constitutional provisions	Legal Provisions
<ul style="list-style-type: none"> • Article 80: Representatives of each State to the Rajya Sabha are elected indirectly by the elected members of their Legislative Assembly. • Condition for the polls for Rajya Sabha: Polls will be required only if the number of candidates exceed the number of vacancies. • Norm till 1998: The outcome of Rajya Sabha elections was usually a foregone conclusion. The candidates nominated by various parties, according to their strength in the Assembly, used to be elected unopposed. 	<ul style="list-style-type: none"> • Amendment to the Representation of the People Act, 1951 in 2003: Section 59 was amended to provide that the voting in elections to RS shall be through an open ballot. • Mandate for the MLAs: They are required to show their ballot paper to the authorised agent of their Party. • Disqualification: Not showing the ballot paper to the authorised agent or showing it to anyone else will disqualify the vote. • Barr on independent MLAs: Barred from showing their ballots to anyone.

	<ul style="list-style-type: none">• 52nd constitutional amendment, 1985: Introduction of anti-defection law via Tenth Schedule; Members face disqualification for leaving the party or voting against party instructions.• Election Commission clarified in July 2017: Tenth Schedule not applicable to Rajya Sabha elections & parties cannot issue whip to members for Rajya Sabha elections.
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Supreme Court and 10th Schedule

- **Kuldip Nayar v. Union of India (2006):**
 - ◆ Supreme Court upheld the open ballot for Rajya Sabha elections.
 - ◆ Reasoned transparency can counter corruption.
 - ◆ Elected MLA not disqualified under Tenth Schedule for voting against party candidate.
 - ◆ May face disciplinary action from the party.
- **Ravi S. Naik and Sanjay Bandekar v. Union of India (1994):**
 - ◆ The Supreme Court clarified

voluntarily giving up membership under the Tenth Schedule is not same as resigning from the party to which the member belongs.

- ◆ Member’s conduct inside and outside the house considered for disqualification under Tenth Schedule.

Way forward

- **Further amendments to strengthen the Constitution or laws** against such voting practices since ruling parties’ benefit from such unprincipled tactics.
- **A suo moto Public Interest Litigation** by the court.

15. TERMS IN NEWS

Star Campaigners

- Star Campaigners are individuals chosen by political parties to represent them during election campaigns. They play a crucial role in mobilizing voters, spreading the party's message, and garnering support. Recognized political parties can field a maximum of 40 star campaigners, while unrecognized parties have a limit of 20 campaigners. The list of star campaigners is submitted to the Election Commission within a week from the date of election notification. These campaigners actively participate in rallies, public meetings, and other campaign events, aiming to influence the electorate in specific constituencies.

T+0 Settlement

- India's stock market has moved to a faster settlement system called T+0. Previously, trades settled on T+1 (one business day after the trade), meaning sellers waited a day to receive funds and buyers waited for shares. Now, with T+0, both sides see their transaction completed (funds move and shares transfer) on the same business day the trade is executed. This speeds up access to cash and holdings, potentially boosting market efficiency, but may require some adaptation from brokers and investors as it's a recent change.

Input Tax Credit (ITC)

- Input Tax Credit (ITC) is a credit a business gets for the GST it pays when buying supplies (like materials). This credit is then deducted from the GST they collect when selling their final product. Imagine it as an advance payment - the business pays GST upfront on supplies, but gets it back when they make a sale. This reduces the final GST the business owes, lowering their tax burden and preventing double taxation. However, claiming ITC requires a valid GST registration and proof of the GST paid on purchases.

Solar energy Waste

- Solar energy, while generally clean, generates waste throughout its lifecycle.

Manufacturing produces silicon offcuts, toxic chemicals, and hazardous materials requiring careful handling. After 25-30 years, solar panels themselves become waste, and while some materials can be recycled, older panels might end up in landfills if not properly decommissioned. Even operational facilities generate waste like cleaning materials, damaged wires, and faulty equipment that needs proper management.

Green hydrogen

- Green hydrogen, the champion of sustainable energy, is produced by splitting water (H₂O) into hydrogen and oxygen using renewable electricity like solar or wind power. This electrolysis process creates hydrogen fuel without generating greenhouse gas emissions, unlike traditional methods that rely on fossil fuels. This clean-burning hydrogen gas can then be used to power vehicles, heat buildings, or even generate electricity in fuel cells, all with minimal environmental impact.

Coronal mass ejections (CMEs)

- Coronal mass ejections (CMEs) are giant eruptions of hot, magnetized plasma launched from the Sun's outer atmosphere, the corona. Imagine a massive bubble of superheated, charged particles bursting outwards. These CMEs can travel millions of kilometers and carry a billion tons of material. If a CME slams into Earth's magnetic field, it can cause auroras (northern and southern lights) and disrupt communication systems. In extreme cases, powerful CMEs could even damage power grids.

White Label ATMs

- White Label ATMs are ATMs operated by a company other than a traditional bank. Imagine a company that specializes in ATM management setting up and running ATMs in convenient locations. This company would partner with a licensed bank ("sponsor bank") that provides the cash and handles the financial transactions behind

the scenes. You, the customer, might not even realize you're using a White Label ATM, as your card would still work through your bank's network. The benefit is that these ATMs can be placed in areas where banks wouldn't typically build one, increasing access to cash for people on the go.

DISCOMs

- DISCOMs, short for Distribution Companies, are the final link in the electricity chain in India. They buy electricity in bulk from power generation companies (GENCOs) and then distribute it to homes, businesses, and industries. Think of them as the retailers who deliver electricity to your doorstep. Discoms play a crucial role – if they face financial issues or have inefficiencies, it can lead to power cuts, blackouts, and hinder overall economic activity.

Free Trade Agreement (FTA)

- A Free Trade Agreement (FTA) is a pact between countries or regions to reduce trade barriers like tariffs, quotas, and regulations, promoting goods and services flow. FTAs aim to foster economic growth by creating open, competitive markets. They enable specialization based on comparative advantage, enhancing efficiency and consumer benefits. FTAs also cover intellectual property, investment, and regulatory cooperation, further integrating economies. Despite benefits, concerns arise over job displacement, inequality, and domestic industry challenges. Overall, FTAs serve as strategic tools for international trade and economic cooperation.

Spyware

- Spyware is sneaky software that hides on your device, stealing your private information like passwords, browsing history, and even keystrokes you type. Imagine a secret agent in your computer! These digital spies can be used by criminals to steal your identity or by jealous exes to monitor your activity. Some common names include Pegasus (used in targeted attacks against journalists and activists) and FinFisher (known for targeting government officials). So beware of clicking suspicious links or downloading unknown software, as they might be harboring these unwelcome guests.

Penny stocks

- Penny stocks, typically priced at just a few dollars (or rupees in India), are shares of small, young companies with limited track records. While tempting due to their affordability and potential for high returns if the company takes off, they're risky. Imagine buying shares in a new local restaurant chain hoping it becomes the next big thing, but also facing the possibility it goes bankrupt. Penny stocks are like that - exciting and potentially lucrative, but with a significant chance of losing your entire investment.

Strategic Petroleum Reserve (SPR)

- India maintains underground Strategic Petroleum Reserve (SPR) as a buffer against external disruptions to global oil supplies. These stockpiles, located in caverns across the country (Visakhapatnam, Andhra Pradesh - 1.33 MMT capacity, Mangaluru, Karnataka - 1.5 MMT capacity, Padur, Karnataka - 2.5 MMT capacity), hold imported crude oil that can be tapped into if there's a sudden cut-off from major oil producers or a significant price hike. This ensures continued energy supplies for critical sectors like transportation and power generation, safeguarding the Indian economy from potential shocks and providing some breathing room to find alternative sources.

Light Combat Aircraft (LCA)

- A Light Combat Aircraft (LCA) is a fighter jet designed to be smaller, lighter, and more cost-effective than traditional heavy fighters. This makes them well-suited for air defense, ground attack, and training missions. India's Tejas is a prime example of an LCA. Developed to be affordable and agile, it boasts a single engine, delta wing design, and the capability to carry a variety of weapons. The Tejas program aims to not only provide the Indian Air Force with a modern and reliable LCA but also to serve as a stepping stone for India's development of more advanced indigenous aircraft.

Gold ETFs)

- Gold ETFs) are a type of investment instrument that allows you to invest in gold indirectly, without having to physically buy and store the metal. They are similar

to stock mutual funds, but instead of investing in a basket of companies, Gold ETFs invest in physical gold bullion.

- Gold ETFs are traded on stock exchanges like the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE) in India. The price of a Gold ETF unit fluctuates based on the price of underlying gold. Gold ETFs do not pay dividends unlike stocks,

Free Trade Agreement (FTA)

- A Free Trade Agreement (FTA) is a pact between countries or regions to reduce trade barriers like tariffs, quotas, and regulations, promoting goods and services flow. FTAs aim to foster economic growth by creating open, competitive markets. They enable specialization based on comparative advantage, enhancing efficiency and consumer benefits. FTAs also cover intellectual property, investment, and regulatory cooperation, further integrating economies. Despite benefits, concerns arise over job displacement, inequality, and domestic industry challenges. Overall, FTAs serve as strategic tools for international trade and economic cooperation.

Square Kilometre Array Observatory

- SKAO is a state of the art, mega science international facility to build the world's biggest and most sensitive radio telescope for addressing a wide variety of cutting-edge science goals. Collocated in Australia (SKA-Low) and South Africa (SKA-Mid) with operational headquarters in the UK, it can revolutionise radio astronomy, & ensure growth of many important new state-of-the-art technologies. The parties involved in the project are Australia, Canada, China, India, Italy, New Zealand, South Africa, Sweden, the Netherlands and the UK.

Rejupave Technology

- It is developed by India's oldest and premier road research organization, CSIR-Central Road Research Institute (CSIR-CRRI). This technology helps in construction of high altitude roads in sub-zero temperature conditions. This reduces the production and rolling temperatures of bituminous mix by 30 °C to 400 °C with negligible thermal loss in the bituminous mix during transportation, amidst snowfall.

Money laundering

- Money laundering is the illegal process of turning money earned from crimes like drug trafficking or embezzlement into legitimate-looking money. Criminals do this by placing the dirty money into the financial system in a way that disguises its source, often through a series of transfers or fake businesses. This "cleans" the money, allowing criminals to use it freely without raising suspicion.

Hybrid funds

- Hybrid funds are like investment portfolios with a mix of stocks (equities) and bonds. They aim to balance growth potential from stocks with the stability of bonds, offering a range of risk levels depending on the specific mix. This can be a good option for investors who want some growth but also prioritize lower risk than pure stock funds.

White Goods

- White goods, like refrigerators and washing machines, are major appliances that improve our lives at home. The white goods industry is a key player in the economy, creating jobs in manufacturing, retail, and distribution. It's also a big indicator of consumer spending and economic growth.

IPO

- An IPO, or Initial Public Offering, is when a private company goes public by selling its shares to investors for the first time. This allows the company to raise money to grow, while investors get a chance to own a piece of the company and potentially profit from its future success. It's like the company inviting people to become co-owners and share in the journey.

Critical Minerals

- Critical minerals are metals or nonmetals that are essential to modern technologies, economies, and national security, but lack of availability of these minerals causes disruptions in the supply chain. These minerals are important for clean energy technologies, electronics, defense systems, and other advanced manufacturing. Examples of important minerals include lithium, cobalt, nickel (used in batteries), rare earth elements (used in magnets and electronics), graphite (used in batteries and electronics), and the platinum metal group (used in catalysts for various industries).

MODEL QUESTIONS

1. Recently, which country honored the Prime Minister of India with its highest honor "Order of the Druk Gyalpo"?
(A) Myanmar (B) Thailand
(C) Indonesia (D) Bhutan
2. Who has been recently appointed as the Election Commissioner?
(A) Dr. Sukhbir Sandhu, Praveen Kumar Srivastava
(B) Arun Mishra, Gyanesh Kumar
(C) Rajiv Kumar Utpal Kumar Singh
(D) Gyanesh Kumar, Dr. Sukhbir Sandhu
3. Who has been recently appointed as the second Chairperson of Lokpal of India?
(A) Praveen Kumar Srivastava
(B) Hiralal Samaria
(C) Ashok Manikrao Khanvilkar
(D) Pinaki Chandra Ghosh
4. Who has been recently nominated to Rajya Sabha from the field of social service by the President?
(A) Anna Hazare
(B) Kailash Satyarthi
(C) Sudha Murthy
(D) Aruna Roy
5. Who has been recently appointed as the Chairman of the National Commission for Scheduled Castes (NCSC)?
(A) Kishore Makwana
(B) Harsh Chauhan
(C) Hansraj Gangaram Ahir
(D) Ajay Manikrao Khanvilkar
6. Who has been recently appointed the head of the National Investigation Agency (NIA)?
(A) Manoj Pandey
(B) Sadanand Vasant Date
(C) Praveen Sood
(D) Anil Chauhan
7. Who has been recently appointed as the new President of Pakistan?
(A) Shahbaz Sharif
(B) Maryam Nawaz
(C) Mohammad Shahabuddin
(D) Asif Ali Zardari
8. Who has been recently appointed as the new Prime Minister of Pakistan?
(A) Nawaz Sharif (B) Maryam Nawaz
(C) Shahbaz Sharif (D) Syed Asim Munir
9. Who has recently won the presidential election of Russia?
(A) Alexey Navalny
(B) Gabriel Attal
(C) Vladimir Putin
(D) Volodymyr Zelensky
10. Who has been made the flag bearer of India in Paris Olympics 2024?
(A) Sharat Kamal
(B) PV Sindhu
(C) Chirag Shetty
(D) Lovlina Borgohain
11. Who has recently taken oath as the new Chief Minister of Haryana?
(A) Anil Vij
(B) Naib Singh Saini
(C) Captain Abhimanyu
(D) Bhupendra Singh Hooda
12. Who is the first and the only Chief Minister of the country who has been arrested while in office?
(A) Hemant Soren
(B) Mamata Banerjee
(C) Arvind Kejriwal
(D) Bhagwant Mann
13. Which is the first country in the world to render constitutional right to abortion?
(A) United States (B) United Kingdom
(C) France (D) Italy
14. "Operation Indravati" which was recently seen in news was conducted for the safe return of Indians from which country?
(A) Yemen (B) Haiti
(C) Russia (D) Syria
15. Recently, under the "Sagar Project" a military base has been prepared by India on which island of Mauritius?
(A) Assumption Island
(B) Changi Island
(C) Duqm Island
(D) Agalega Island
16. Which among the following is the country's first elevated urban expressway?
(A) Mumbai-Pune Expressway
(B) Agra-Lucknow Expressway
(C) Purvanchal Expressway
(D) Dwarka Expressway

17. Which among the following states has launched India's first government-owned OTT platform?
(A) Odisha (B) Kerala
(C) Goa (D) Telangana
18. Where has India's first underwater metro been launched?
(A) Kolkata (West Bengal)
(B) Kochi (Kerala)
(C) Visakhapatnam (Andhra Pradesh)
(D) Chennai (Tamil Nadu)
19. Which is the first state in India to establish carbon neutral seed farms (farms with zero carbon emissions) in all its districts?
(A) Sikkim (B) Arunachal Pradesh
(C) Telangana (D) Kerala
20. In which state of India is the "Sela Tunnel", the longest dual carriageway tunnel in the world, located?
(A) Arunachal Pradesh
(B) Himachal Pradesh
(C) Uttarakhand
(D) Sikkim
21. What rank is given to India in the World Happiness Report 2024 released by the Sustainable Development Solutions Network of the United Nations?
(A) 135th (B) 126th
(C) 143rd (D) 105th
22. What rank is given to India in the World Happiness Report 2024 released by the Sustainable Development in the Human Development Index (HDI) report 2022 released by the United Nations Development Programme?
(A) 134th (B) 129th
(C) 125th (D) 135th
23. What is the global position of India on the basis of investments made by Foreign Institutional Investors (FIIs)?
(A) second (B) Third
(C) Fourth (D) Fifth
24. From which state of India will the cruise facility for passengers by sea route to Gulf countries be started for the first time?
(A) Tamil Nadu (B) Maharashtra
(C) Goa (D) Kerala
25. What causes the mumps disease, recently seen in the news?
(A) Bacteria (B) Fungi
(C) Virus (D) Protozoa
26. The "Anasto Cluster", recently seen in news, is related to?
(A) NASA's Sun Mission
(B) New satellite of Jupiter
(C) New galaxy
(D) China's Mars Mission
27. Which space agency is set to launch the Moon Rover "Viper" to search for ice on the South Pole of the Moon?
(A) Roscosmos (B) Jaxa
(C) NASA (D) ISRO
28. Who has recently developed Tiger Conservation Landscape 3.0 (TCL 3.0) for the conservation and continuous monitoring of tigers?
(A) NASA, European Space Agency, Google Earth
(B) ISRO, European Space Agency, Google Earth
(C) ISRO, NASA, Google Earth
(D) Roscosmos, ISRO, European Space Agency
29. Where is the world's first Neutrino Lab (Juno) being established to observe and collect data on particles smaller than the size of an atom?
(A) Japan (B) China
(C) Germany (D) France
30. Recently Iga Świątek has won the Indian Wells title in tennis, she belongs to which country?
(A) Italy (B) Poland
(C) Switzerland (D) France
31. Which team won the Ranji Trophy title recently?
(A) Vidarbha (B) Mumbai
(C) Karnataka (D) Madhya Pradesh
32. Which shooter from Rajasthan recently won the gold medal in the 10 meter air rifle SH-1 category in the Para World Cup 2024 held in New Delhi?
(A) Avni Lekhara (B) Mona Aggarwal
(C) Nehal Singh (D) Rahul Jakhar
33. Where has the world's largest rescue and rehabilitation center for animals been started in India?
(A) Mangalore (Karnataka)
(B) Ghaziabad (Uttar Pradesh)
(C) Cuttack (Odisha)
(D) Jamnagar (Gujarat)
34. Which state has the highest number of leopards in India?
(A) Madhya Pradesh (B) West Bengal
(C) Tamil Nadu (D) Gujarat

35. Where will Asia's largest tulip garden be inaugurated?
 (A) New Delhi (B) Srinagar
 (C) Panchkula (D) Gurugram
36. Recently, Ramgarh Crater of Rajasthan was declared the country's first notified geo-heritage site, in which district is it located?
 (A) Kota (B) Bundi
 (C) Baran (D) Jhalawar
37. Which is the first state in the country to create geriatric wards in district hospitals?
 (A) Rajasthan (B) Kerala
 (C) Maharashtra (D) Gujarat
38. Who is the Chairman of "Rajasthan Institute for Transformation and Innovation" (RITI) formed by the Government of Rajasthan on the lines of NITI Aayog?
 (A) Chief Secretary (B) Governor
 (C) Chief Minister (D) Finance Minister
39. Where will the first squadron of Apache helicopters be deployed in India?
 (A) Bikaner (B) Pathankot
 (C) Jodhpur (D) Jammu
40. Where is the country's largest dumping yard being developed in Rajasthan?
 (A) Kishangarh (B) Balotra
 (C) Neem ka Thana (D) Rajsamand
41. Recently, which poet of Rajasthan was honored with the Sahitya Akademi Award for Rajasthani language for his work "Palakati Preet"?
 (A) Kamal Ranga
 (B) Neelam Sharan Gaur
 (C) Gajesingh Rajpurohit
 (D) Sanjeev
42. Which two cities of Rajasthan have been selected in the Cities 2.0 scheme of the Central Government to make the cities garbage free and for better transportation of waste?
 (A) Jaipur, Jodhpur (B) Ajmer, Jaipur
 (C) Jodhpur, Ajmer (D) Jaipur, Udaipur
43. Which of the following is not included in the 3 major spiritual places of Rajasthan developed under the Swadesh Darshan and Prasad Scheme of the Central Government?
 (A) Mandphiya (Chittorgarh)
 (B) Deshnok (Bikaner)
 (C) Keshoraipatan (Bundi)
 (D) Pushkar (Ajmer)
44. Who among the following is not included among the artists of Rajasthan honored with the Sangeet Natak Akademi Award for the year 2022-23?
 (A) Ghafaruddin Khan
 (B) Vasant Kabra
 (C) Daulat Ram
 (D) Laxman Bhatt "Telang"
45. Where will the state branch of the National Center for Disease Control be established in Rajasthan?
 (A) Jodhpur (B) Jaipur
 (C) Ajmer (D) Kota
46. What is the name of the exercise conducted by the three armies of India recently held in Pokhran (Jaisalmer)?
 (A) Hind Shakti (B) Adamyia Shakti
 (C) Hind Shaurya (D) Bharat Shakti
47. Where is Rajasthan's first Tertiary Cancer Care Center (TCCC) being established?
 (A) Bikaner (B) Jodhpur
 (C) Jaipur (D) Ajmer
48. According to the 2023-24 report of the Center for Science and Environment (CSE) of India, which city of Rajasthan is included among the three most polluted cities of the country?
 (A) Hanumangarh (B) Jaipur
 (C) Jodhpur (D) Bhiwadi
49. Which DISCOM company has stood first in the country in fast track implementation of PM Kusum C Scheme?
 (A) Jodhpur Discom
 (B) Jaipur Discom
 (C) Ajmer Discom
 (D) North Bihar Discom
50. Where was the joint military exercise "Dharma Guardian" between India and Japan organized in Rajasthan?
 (A) Jaisalmer (B) Barmer
 (C) Bikaner (D) Jodhpur

Answer Key (March 2024)

1.	D	11.	B	21.	B	31.	B	41.	C
2.	D	12.	C	22.	A	32.	B	42.	D
3.	C	13.	C	23.	B	33.	D	43.	D
4.	C	14.	B	24.	D	34.	A	44.	A
5.	A	15.	D	25.	C	35.	B	45.	B
6.	B	16.	D	26.	C	36.	C	46.	D
7.	D	17.	B	27.	C	37.	A	47.	A
8.	C	18.	A	28.	A	38.	C	48.	A
9.	C	19.	D	29.	B	39.	C	49.	A
10.	A	20.	A	30.	B	40.	A	50.	C