



DAILY DOSE JANUARY 2022 COMPILATION

1. Solid State Battery:

- It is a battery technology that uses solid electrolyte and solid electrodes
- It has high energy density than Li-ion battery, no risk of explosion.
- Increased stability (can hold 50% more energy than Li-ion).
- They are more safer and stable (In Li-ion, electrolyte is volatile and flammable at high temperatures).

2. Belagavi border dispute:

- Belagavi is now in **Karnataka**.
- Maharashtra stated its objection to Marathi-speaking areas being added to Karnataka.
- Karnataka – argues settlement of boundaries as per State Reorganisation Act as final.
- 1966 – Mahajan Committee – left Belagavi with Karnataka and gave some villages in Karwar, Haiyal and Suparnataluks to Maharashtra.

3. SMILE – Support for Marginalised Individuals for livelihood and Enterprise:

- **Ministry of Social Justice and Empowerment.**
- **Scheme focus on rehabilitation**, provision of medical facilities, basic documentation, education, skill development etc.
- It includes a sub scheme – “Central sector scheme for Comprehensive Rehabilitation of persons engaged in the act of Begging”.

4. Electoral Bonds:

- **Financial instrument for making donations to political parties.**
- Bonds issued in multiples of Rs.1000, Rs.10000, Rs.1 lakh, Rs.10 lakh and Rs.1 crore **without any maximum limit.**

- SBI – authorized to issue and encash the bonds, which are **vaid for 15 days** from the date of issuance.
- These bonds are redeemable in the designated account of a registered political party.
- Bonds are available for purchase for a **period of 10 days** in the months of **January, April, July and October**.

5. National Award for Breed Conservation:

- **Kerala Veterinary and Animal Science University** bagged the award for 2021.
- Received from ICAR – The National Bureau of Animal Genetic Resources.
- Awarded for the conservation and research activities on **TellicherryBreed** – the **only registered native chicken** breed from state.
- This award is for the conservation and improvement of registered Indian breeds of **domestic livestock and Poultry**.

6. INS VIKRANT:

- Vice President visits **INS Vikrant**, stated it will be a great boost to our defence preparedness.
- India's **first indigenous aircraft carrier**, which is a part of Atmanirbhar Bharat.
- It is **likely** to be **commissioned in 2022**.
- At present, **India** has only one aircraft carrier, that is **Russian origin INS Vikramaditya**.

7. DISTRICT GOOD GOVERNANCE INDEX:

- **Jammu and Kashmir to have district level Governance index**. It is modelled on the lines of Good Governance Index 2021.
- With **58 indicators distributed in 10 sectors**, District Good Governance Index of Jammu and Kashmir is one of unique exercise in assessing the status of governance in districts of J and K.
- It **will soon become the first union territory in the country** to have such index.

8. UNDER 19 ASIA CUP:

- **India beat Sri Lanka** and lift the U 19 Asia Cup in Dubai.
- India under the leadership of Yash Dhull son through the **Duckworth Lewis Stern method**.

- **DLS method** - mathematical formulation designed to calculate the target score for the team batting second in a limited overs cricket match interrupted by weather or other circumstances.

9. INDIAN COAST GUARD:

- Director General VS Pathania, took over as the **24th Chief of Indian Coast Guard.**
- **ICG** - armed force that protects India's **maritime interests** and enforces **maritime law**, with jurisdiction over the territorial waters of India, including contiguous zone and exclusive economic zone.
- Established by **Coast Guard Act, 1978.** Working under the **Ministry of Defence.**

10. PM KISAN:

- PM released 10th instalment of financial benefit under **Pradhan Mantri Kisan Samman Nidhi.**
- It was launched in **2019.** Centre transfers an amount of **Rs. 6000 per year, in three equal instalments,** directly into bank accounts of all landholding farmers irrespective of the size of their land holdings.
- **Central Sector Scheme** - implemented by **Ministry of Agriculture and Farmers Welfare.**

11. Medical Termination of Pregnancy Act (Amendment) 2021:

- Allows for termination where the length of pregnancy **doesn't exceed 20 weeks** with opinion of one medical practitioner.
- If length of pregnancy is **more than 20 weeks but doesn't exceed 24 weeks** – Termination only on opinion of 2 registered medical practitioners.
- As per the act, Upper gestation limit **not** to apply in case of **Substantial Foetal Abnormality.**
- Ground of failure of contraceptive has been extended to woman and her partner.
- **Recent** – Delhi high court allowed a woman to terminate **28 weeks** foetus , sinceit suffers from rare **Congenital Heart Disease** (substantial Foetal Abnormality).

12. YUVA Scheme – Delhi Police:

- Connect youth by upgrading their skills.
- Help youth get employed under PM Kaushal Vikas Yojana.
- To divest destructive youth power to constructive work.
- To balance and fill the skill gap.
- To eradicate unemployment and increase livelihood

13. Two New plant species discovered – Western Ghats, Kerala:

- **Named – Fimbristyli Sunilii and Neanotis Prabhuui.**
- **Fimbristyli Sunilii**– a perennial plant, 20-59 cm tall, located at elevations of 1100mts, discovered from Grasslands of Ponmudi Hills, Tiruvananthapuram, **IUCN status – Data deficient.**
- **Neanotis Prabhuui**– Prostrate perennial herb, grows on high altitude grasslands, length upto 70 cm, discovered in **Chempra peak Grassland**, Wayanad.

14. Draft National Air sports Policy:

- **Policy requires service providers and their equipments to be registered and are liable for penalties.**
- Covers activities like Aerobatics, ballooning, Paragliding, Microlighting, drones gliding, Skydiving etc..
- Policy proposes for an apex body – **Air Sports Federation of India (ASFI).**
- ASFI – to be an **autonomous** body under Ministry of Civil Aviation.
- Popular air sports locations can be declared as **“Control Zones”**.
- Schools and colleges will be encouraged to include Air sports curriculum.

15. Genome Sequencing:

- **Sequencing entire genome of an organism.**
- To understand the role of certain mutations increasing the virus's infectivity.
- It is done by isolating the genetic material (DNA/RNA).
- It is about identifying and comparing the sequence in a given sample with a reference sample..
- Any changes in the sequence gives due to mutation.

16. WORLD BRAILLE DAY:

- World Braille Day is celebrated on **January 4** every year.
- It is celebrated to spread the **importance of braille**. In braille, the alphabets and numbers are created using six dots.
- In **2018**, the **United Nations passed resolution** to celebrate January 4 as the World Braille Day. It is the **birth anniversary of Louis Braille**. He invented the Braille language in 1809.

17. KHANIJ BIDESH INDIA:

- **Ministry of Mines** has created a joint venture company called 'Khanij Bidesh India'(KABIL) including participation from Hindustan Copper, National Aluminium Company, and Mineral Exploration Corporation.
- It aims to ensure a **committed supply of raw materials**, particularly for renewable energy and e-mobility sectors.
- It has been created in a bid to **ensure India's mineral security** and to **attain self-reliance** in the area of strategic and critical minerals.

18. INSACOG:

- Indian SARS - CoV - 2 Genomics Consortium is a **multi-lab agency**.
- It was established by the Government of India in **2020** to monitor the **genomic variations of COVID 19**.
- It aims to **ensure the status of variants of concern and variants of interest** and to establish the surge surveillance and sentinel surveillance mechanisms. It helps in **early detection of the virus**.

19. UNIFIED PAYMENT MANAGEMENT SYSTEM:

- **NPCI Bill pay Limited** introduced UPMS with the **aim of enriching and simplifying bill payments in India**.
- It will help the customers to set up standing instructions, for any mode and from any channel on their recurring bill payments.
- **NPCI** - National Payments Corporation of India is a **specialised division of RBI**. It works under the parent jurisdiction of **Ministry of Finance**.

20. CUSat:

- **Kalpana Chawla Centre for Research in Space Science and Technology** - Inaugurated at **Chandigarh University**.
- It would be the **Ground Control Station** for the Chandigarh University's Student Satellite(**CUSat**).
- This **nanosatellite** will be one among the 75 student satellites to be launched into space in **2022**.
- It will **collect data** related to border intrusion detection, agriculture, weather forecasting, natural disaster forecasting, which will be helpful in research and study of various problems in these areas.
- With this launch, **Punjab** will become the **first border state in India** to have its own satellite in space.

21. BRAND INDIA CAMPAIGN:

- **Ministry of Commerce** is planning to launch **Brand India Campaign**. It would serve as an **umbrella campaign to promote goods and services exported by India**.

- It will be run by **India Brand Equity Foundation**. IBEF is an Indian Government export promotion agency, established in **1996**, for the **distribution and sale of Indian products** in global markets.
- It would focus on **Indian exports in specific sectors** like gems and jewellery, textiles, plantation products like tea, coffee and spices, healthcare, education, engineering and pharma, in the initial phase.
- It would focus on **quality, technology, heritage, value, and innovation**.

22. ARTIFICIAL SUN:

- **China** has been experimenting with its artificial sun to facilitate a way for **clean energy in the future**.
- China's artificial sun is dubbed **EAST(Experimental Advanced Superconducting Tokamak)**.
- Recent successful test of China's artificial sun, the **fusion reactor** ran successfully for almost 20 minutes at a stunning 70 million degree Celsius.
- It is **almost 5 times hotter than the real sun** which hits a temperature of 15 million degrees Celsius at its core.

23. SAAR:

- **Smart Cities and Academia Towards Action and Research** - launched as a part of Azadi Ka Amrut Mahotsav.
- **It is a joint initiative of Ministry of Housing and Urban Affairs, National Institute of Urban Affairs and leading Indian academic institutions of the country.**
- It will facilitate linkages between the Institutions and Smart Cities for specific landmark projects that are to be documented under the program.
- The SAAR project includes **75 urban projects distributed across 47 smart cities**.

24. UJALA:

- **Ministry of Power** has successfully completed seven years of distributing and selling LED lights under its flagship programme.
- **Unnat Jyoti by Affordable LEDs for All** was launched in **2015**.
- The programme has evolved to be **world's largest zero subsidy domestic lighting programme** that addresses concerns like high electrification cost and high emissions that result from inefficient lighting.

25. OMISURE:

- It is a **RT-PCR kit** and used to **detect Omicron, a Covid 19 variant**.
- Recently, approved by the **Indian Council of Medical Research**.
- It is **manufactured by Tata Medical and Diagnostics**. The kit is designed and developed by a US based company Thermo Fisher.
- It uses **S Gene Target Failure** to detect Omicron. **S gene** is **spike gene** of covid 19 virus. **S gene drop out** is one of the prominent indicators to establish the presence of Omicron.

26. WORLD DAY OF WAR ORPHANS:

- It is observed annually on **January 6**.
- To **highlight the problems of children who lost their parents during a conflict** making them the most vulnerable and disadvantaged group of society.
- It was **founded** by a **French Organisation SOS Enfants en Detresses** to give the worldwide community an opportunity to address the difficulties faced by orphan children all over the world.

27. Hyderabad - ROCK MUSEUM:

- India's **first open rock museum** has been inaugurated.
- The open rock museum is setup with the aim **to educate and enlighten the masses** about several lesser known facts.
- It **displays** around **35 different types of rocks from different parts of India with ages ranging from 3.3 billion years to around 55 million years of the earth's history**.
- These rocks also represent the deepest part of the earth upto 175 Kms of distance from the surface of the earth.
- The museum was inaugurated at the **CSIR-NGRI** (National Geophysical Research Institute).

28. SOUTH ASIAN CONSULTATION MEETING:

- **2 day South Asian Consultation Meeting on the post 2020 Global Biodiversity Framework was held in New Delhi today**.
- It was attended by the representatives from **Bangladesh, Bhutan, Maldives, Nepal, Sri Lanka, and Pakistan** in addition to representatives from various international convention and organisation.
- **Highlights** - Biodiversity conservation is being mainstreamed in all sectors of economic development, and India calls for innovative financing methods from GEF and CBD.

29. MAHAKALI RIVER BRIDGE:

- Union Cabinet approved the Memorandum of Understanding between **India and Nepal for construction of bridge over Mahakali river** at Dharchula(India) - Dharchula(Nepal).
- Both India and Nepal have been **working together** on different regional forums i.e. **SAARC, BIMSTEC** as well as global fora.

30. GREEN ENERGY CORRIDOR:

- The Cabinet Committee on Economic Affairs approved the scheme on **Green Energy Corridor phase II** for Intra State Transmission System for additional transmission lines.
- It will **facilitate grid integration** and **power evacuation** of **approximately 20GW of Renewable Energy power projects** in **seven states namely, Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh.**
- This scheme will **help in achieving the target of 450GW** installed Renewable Energy capacity by **2030.**

31. Mission Jeevan Raksha:

- **By Railway Protection Force** to save lives from the wheel of running trains at railway station.
- **RPF also played important role in reuniting lost or separated children with their family.**
- RPF has been awarded 9 Jeevan Rakshak Padhak and Gallantry meda from President in recognition of efforts to save lives.

32. Exercise Sea Dragon 22:

- **Multinational US led exercise.**
- Focus on anti-submarine warfare training.
- Countries discuss on traditional maritime challenges in Indo-Pacific region.
- Countries participating – India, US, Australia, Canada, South Korea and Japan.
- Held at Andersen Airforce Base, GUAM (US Air force base)

33. India Skills 2021:

- Competition conducted by the National Skill Development Corporation (NSDC).
- **Held once in 2 years, held in Pragati Maidan, Mumbai, Bengaluru and other locations.**
- Country's biggest skill competition, the winner will participate in World Skills Competition.

- Include more than 50 skill competitions and **Abilympics (Abilympics is skill demonstrations by physically disabled persons).**

34. Uvariopsis Dicaprio:

- Newly identified **tree** species.
- Discovered in tropical Ebo forest of Cameroon and is native to the region.
- **Classified as Critically Endangered.**
- Tree is added to the **Strange and Spectacular list of plant species** because the yellow-green flowers of the tree grows directly on its trunk.
- Named after Titanic actor Leonardo Dicaprio- because of his environmental activities to conserve Ebo forest.

35. NATIONAL WATER AWARDS 2020:

- **3rd edition** of National Water Awards 2020 was announced by the **Union minister of Jal Shakti.**
- **Aim - recognizing and encouraging the exemplary work and the efforts** made by the **States, individuals, districts** etc across the country in attaining the government's vision of **Jal Samridh Bharat.**
- **Best state category - Uttar Pradesh** has secured first position, followed by **Rajasthan and Tamil Nadu.**
- The awards encourage the stakeholders to adopt a holistic approach towards **water resource management.**

36. AVIAN FLU:

- **UK** has reported the **first human case of Avian Flu (H5N1).**
- **Avian Influenza** is also known as avian flu or bird flu. It is a type of influenza caused by **viruses adapted to birds.**
- **H5N1** - most commonly known Highly Pathogenic Avian Influenza strain.

37. PASSPORT SEVA PROGRAMME:

- Agreement between **External Affairs Ministry and Tata Consultancy Service.**
- **Second phase** of this programme provides for rolling out of **microchip-embedded e-passports.**
- It is the **largest e-governance programme of India**, wherein TCS would deploy the latest technologies to ease the services.
- The e-passports comprise of a **microchip with secure biometric data.**

38. START-UP INDIA INNOVATION WEEK:

- The **Department for Promotion of Industry and Internal Trade** is going to organise "Start-up India Innovation Week".
- It is a **virtual innovation celebration**, to be organised with the aim of commemorating the 75th year of India's independence.
- It has been **designed to showcase the spread and depth of entrepreneurship** in India.
- **Start-up India scheme** - launched in **2016** with the **aim** of **promoting** and **supporting** the start-ups in India by **providing bank finances**.

39. NATIONAL CONFERENCE ON e-GOVERNANCE 2021:

- **24th edition** of conference **organised** by the **Department of Administrative Reforms and Public Grievances and Ministry of Electronics and Information Technology in association with the State government of Telengana**.
- **Theme** - "India's Techade: Digital Governance in a Post Pandemic World".
- Adopted **Hyderabad Declaration** for several e-governance collaborations.
- It represented a **platform for constructive exchange of ideas on some of the latest technologies** for promoting e-governance.

40. GURU GOBIND SINGH JAYANTI:

- **Guru Govind Singh** - born at Patna Sahib in **Bihar** in **1699**. He was the **10th and last Sikh gurus** in human form.
- **Prakash Parv** or birth anniversary of Guru Govind Singh was celebrated **this year** on **January 9**. The day falls every year in December or January.
- PM declared that starting this year, **26th December** shall be marked as '**Veer Baal Diwas**'.
- It will be observed on the same day **Sahibzada Zorawar Singh ji and Sahibzada Fateh Singh ji** attained **martyrdom** after being sealed alive in a wall.

41. PRAVASI BHARATIYA DIWAS:

- **Non Resident Indian Day or Pravasi Bharatiya Diwas** is celebrated every year on **9th January** to commemorate the return of Mahatma Gandhi to India from South Africa.
- **Aim** - to strengthen the engagement of the overseas Indian community with the Government of India and reconnect them with their roots.

- It's objective is to provide an open platform for NRIs to express their feelings, outlooks and perceptions about India.

42. GREEN HYDROGEN:

- Recently, Union minister of Chemicals and Fertilizers chaired a high level meeting to make Atmanirbhar Bharat in **Urea and DiAmmonium Phosphate by using Green Hydrogen.**
- **Green Hydrogen** - generated by **renewable energy**. Splitting water using electricity generated from low carbon sources.
- **National Hydrogen Mission** - launched in **2021** - to make India a global hub for Green Hydrogen production and export.

43. ASSAM - NDDB:

- Recently, **Assam government** signed agreement with **National Dairy Development Board** to establish a joint venture.
- The joint venture to be established can process ten lakh litres of milk. It helps to preserve the milk for days, months and even weeks. Also, it kills pathogens.
- **NDDB - Statutory body** - plays vital role in **milk production** in the country. **Operation Flood** was launched under NDDB in 1970 in order to modernize the dairy sector.

44. NORTHEAST FESTIVAL:

- The **NorthEast Festival** is one such programme that is being organized as a **part** of the **Department of Northeastern Region dialogues.**
- **DoNER Dialogues** - a series of events that interact with various stakeholders such as the youth, and entrepreneurs of the North Eastern Region.

45. e-DNA (Environmental DNA):

- Animals shed their DNA through breath, saliva, fur or faeces into the environment.
- **Environmental DNA** is nuclear or mitochondrial DNA that is released to from an organism into the environment.
- It can be detected in cellular or extracellular (dissolved DNA) form.
- **Uses**-help understand the composition of animal communities, detect the spread of non-native species, identify and monitor endangered species, aid in tracking migratory birds etc.,
- **Air borne e-DNA sampling** : it is a biomonitoring method that is rising in popularity among biologists and conservationists.

46. Action plan for introduction of Cheetah in India:

- Launched at 19th meeting of NTCA - National Tiger Conservation Authority.
- Under this MoEFCC (Min.of Environment, Forests and Climate Change) decided to introduce 50 of these big cats in the next 5 years.
- Cheetah – IUCN red list status -Vulnerable.
- Govt. is preparing to translocate the first batch of cheetahs from south Africa and Namibia to **Kuno National park**, Madhya Pradesh.

47. Project PARVARISH:

- Assam mission on malnutrition – launched in 2020.
- Eradicate malnutrition – age group of 6 months to 5 years.
- Main aim – to reduce the Severe Acute Malnutrition in children belonging to BPL.
- The project was recently awarded SKOCH award for its socio-economic approaches.

48. DELTACRON:

- A strain of Covid-19 combining delta and omicron found in Cyprus.
- Omicron like genetic signatures with delta genomes.
- The relative frequency of combined infection is higher among patients hospitalized due o covid-19.
- New variants happen when virus makes copies of itself and errors appears in the covid genes.
- Combined form of virus emerges when a person is infected with 2 strains of the coronavirus, possibly from 2 different sources at the same time.

49. PRECAUTION DOSE:

- The **Government of India** is to provide **third dose of vaccine**. Also known as **precaution dose** or **booster dose**.
- **Eligibility** - health care workers, comorbid patients(people with severe medical conditions), and frontline workers.
- **Recently, India approved two new vaccines** - **Convax** of Serum Institute of India and **Corbevax** of Biological E. They were authorized for "**restricted use in emergency**".
- So far, India has approved **eight vaccines**.

50. BRAHMOS MISSILE - INS VISHAKAPATNAM:

- **BrahMos** - Supersonic Cruise Missile was **successfully test fired** by **DRDO** from the **INS Vishakapatnam** off the western coast.
- This **extended range Brahmos - sea to sea variant**. BrahMos missile is produced by a joint venture of **India and Russia**. It can be launched from ships, submarines, land or from an aircraft. It flies at a **speed of 2.8 Mach** or almost three times the speed of the sound.
- **INS Vishakapatnam** - Indian Navy's newest **indigenously** build **guided missile destroyer**.

51. DARVAZA CRATER:

- It is also called as the **Door to Hell**, 225 feet wide and 99 feet deep crater.
- **Location** - **Darvaza**, a village in **Turkmenistan**.
- Formed due to a **natural gas field collapse**. It is the raging flame, burning for five decades in a large natural gas crater.

52. COLOMBO SECURITY CONCLAVE:

- The **first Colombo Security Conclave Virtual Workshop** on "Developing Regional Cyber Security Capabilities on Defensive operations, Deep/Dark web handling and Digital Forensics".
- Organised by **National Security Council Secretariat in association with National Forensics Science University, Gujarat**.
- **CSC - participated countries - Sri Lanka, Maldives, India, Mauritius, Seychelles and Bangladesh**.
- **CSC - 4 pillars** - Maritime safety and security, Terrorism and Radicalisation, Trafficking and organised crime, Cyber security and protection of critical infrastructure. This **recently held workshop focused on 4th pillar**.

53. RED SANDERS:

- International Union for Conservation of Nature (**IUCN**) - recently categorized the **Red Sanders** again into the **endangered category in its Red List**.
- **Scientific name** - *Pterocarpus santalinus*. It is an **Indian endemic tree species** restricted to **Eastern Ghats**. Found in forests of Andhra Pradesh.
- It has been experiencing a decline in population by 50-80%, for last three generations. They are known for their rich hue and therapeutic properties. Also used to make furniture, wood craft and musical instruments.

54. NATIONAL YOUTH DAY:

- Celebrated every year **January 12**, on the birth anniversary of **Swami Vivekananda**.
- **National Youth Festival** - annual gathering of youth in India, with various activities. Organised by **Ministry of Youth Affairs and Sports**, in association with one of the state governments.
- This year **25th National Youth Festival** was inaugurated by PM in **Puducherry**. The festival will be held on January 12, 13 in **virtual mode**.
- **Aim** - shaping the minds of Indian youth and transforming them into united force for nation building.
- **National Youth Summit** also took place - **four themes** - Environment, Climate, and SDG goals led growth, Technology, entrepreneurship, and innovation, Indigenous and ancient wisdom, National character, Nation building and Home grown.

55. GLOBAL RISKS REPORT 2022:

- Released by **World Economic Forum**.
- **Emerging risks** to global economy – **Cyber security, Pandemic, Climate Change and Space advancements**.
- The global economy is to **shrink** by 2.3% by 2024.
- **WEF** - Non Profit Foundation - established in **1971** - headquartered in **Geneva, Switzerland**.

56. GLOBAL ECONOMIC PROSPECTS REPORT:

- Released by **World Bank**.
- **Key finding** - Global economic growth will decrease sharply to 4.1% in 2022 and 3.2% in 2023, from 5.5% in 2021.
- **India specific** - India's annual growth to be 8.3% in 2021-22, 8.7% in 2022-23, while 6.8% in 2023-24. It also flagged the risks posed by rising inflation and growing inequality.

57. MPATGM:

- **DRDO** successfully flight tested the **Man - Portable Anti - Tank Guided Missile** in its final deliverable configuration.
- It is **indigenously** developed **low weight, fire and forget missile**.
- **Range** - 2.5 km. It has a **miniaturised infrared imaging seeker** and **advanced avionics** for onboard control and guidance.

58. HARVEST FESTIVALS IN STATES:

- **Makar Sankranti** - Odisha, Maharashtra, Goa, Andhra Pradesh, Telengana, Kerala and most of North India.
- **Paush Parva** - West Bengal

- **Pongal** - Tamil Nadu
- **Uttarayan** - Gujarat
- **Lohri** - Punjab and Jammu
- **Bhogali Bihu** – Assam

59. INDIA - UK FREE TRADE AGREEMENT:

- **India - UK** launched the **formal negotiations** for the free trade agreement.
- This agreement **aims** at **creating huge benefits for both countries** and can **boost** the **total trade** by up to Euro 28 billion a year by **2035**.
- It will also facilitate **increasing the wages** and this agreement will expand the cooperation in **technology, tourism, education, startups, climate change** etc.,

60. GANGA SAGAR MELA 2022:

- It is the **biggest fair in Eastern India** and it was inaugurated by West Bengal CM.
- It is an **annual gathering of pilgrims** during **Makar Sankranti** at **West Bengal's Sagar island**.
- **Offers prayers to Kapil Muni temple.**

61. INDIA STATE OF FOREST REPORT 2021:

- **Released** by **Ministry of Environment, Forest and Climate Change**.
- **Prepared by the Forest Survey of India.**
- It provides information on **forest covers**, growing stock and **carbon stock** in India's forests, **forest fire** monitoring, forest cover in tiger reserve areas, above ground estimates of **biomass, climate change hotspots** in Indian forests.
- **Key highlights** - increase in forest cover has been observed in open forest followed by very dense forest. **Areawise Madhya Pradesh has the largest forest cover. Top states showing increase in forest cover** are **Andhra Pradesh, Telengana and Odisha**.

62. BIO RESTORATION - ART WORKS:

- The **cleaning of art works using micro organisms**.
- It includes immersion of portable monuments in solutions with bacterial cells.
- **Grime eating bacteria** - bacteria used in the process of artwork restoration.

- Now, The Archaeological Survey of India is looking for options to employ these bacteria to restore the Taj Mahal as it suffers from discoloration due to pollution.

63. ISRO - NEW CHAIRMAN:

- **New chairman of ISRO - Dr. S. Somnath**, succeeded K. Sivan.
- He was appointed by personnel ministry. **Tenure - 3 years**. Later it will be extended based on public interest.
- The chairman of ISRO is the secretary to the Government of India. He is an **executive of Department of Space** and it reports to the PM directly.
- **ISRO - Indian Space Research Organisation - formed in 1969.**

64. Swachh Vidyalaya Puraskar:

- Launched by Minister of state or Education.
- To recognize, inspire and award the school - exemplary work in the field of water, sanitation and hygiene and also to make further improvements.
- It is open to all categories of schools (govt., govt.-aided, private schools in both rural and urban areas).
- The schools will be assessed through online portal and a mobile app in 6 sub-categories.

65. Roof Top Solar Scheme:

- Aim is to achieve final capacity of **40GW** from rooftop Solar projects by **2022**.
- By **Ministry of New and Renewable Energy**.
- The scheme is to generate solar power through solar panels installed on roof tops.
- Rooftop solar - A photovoltaic system for electricity generation through solar panels, small compared to ground mounted.
- Rooftop systems on residential - capacity of about **5 to 20 KW**; Commercial - **100 KW or more**.

66. Xenotransplantation:

- In medical First - transplantation of pig heart into human is done.
- **Xenotransplantation involves transplantation of nonhuman tissues or organs into human recipients.**
- Heart from a pig that had undergone gene editing is used.
- **Genome Editing or Gene Editing** is a group of technologies that has the ability to change an organism's DNA.

67. White Swan:

- Russian Defence Forces unveiled new Tupolev Tu-160M(**aka White Swan**).
- It is a missile bomber.
- **One of the heaviest supersonic military aircraft.**
- It can fly at an altitude of 600 mts.
- It has been designed to carry nuclear warheads.

68. Kala Kumbh:

- **It is a part of Azadi Ka Amrit Mahotsav.**
- It is artist workshop for painting scrolls, representing the tales of valor of unsung heroes of India's Freedom movement.
- The gigantic scrolls for an integral part of the Republic Day celebration 2022 – marking an unique collaboration between Ministry of Culture and Ministry of Defence.

69. INDIAN ARMY DAY:

- Observed in India every year on **January 15.**
- It was **recognised to pay tributes to the martyred Indian Army Personnel** at the '**Amar Jawan Jyoti**' at New Delhi's India Gate.
- **Military demonstration** organised to highlight the Indian Army's modern achievements and technologies.
- On this day, bravery honour such as **Sena Medal, Division Credentials**, are also presented.

70. RAILWAY BORNE MISSILE:

- Recently tested by the **North Korea.**
- It is **ballistic missile.**
- Railway borne missile - missile **launched from train.**

71. COVID 19 DRUGS:

- The **World Health Organisation has recommended two drugs, Baricitinib** and **Sotrovimab** for the treatment of Covid 19.
- **Baricitinib** - also used to **treat rheumatoid arthritis**, recommended for patients with severe or critical covid 19 in combination with corticosteroids.
- **Sotrovimab** - an **investigational monoclonal antibody** for use in treating conditions caused by coronavirus. It has conditionally recommended for treating mild or moderate infected patients.

72. FOOD CORPORATION OF INDIA:

- **58th foundation day** - FCI released a 5 point reform agenda for FCI. Also called as 5 sutras. It aims **to improve FCI and its progress.**
- **FCI - Statutory body** set up in **1965** under the **Food Corporations Act, 1964.**
- It is under the **Ministry of Consumer Affairs, Food and Public Distribution.**

73. VISION INDIA @ 2047:

- The Government of India is to **finalize the 2047 plan.** It is being framed by a **Sectoral Group of Secretaries.**
- **Aim** - to create an **action plan** under which road map will be created for each sector.
- **Principle** - follows '**whole of country**' approach. It will build expertise within the Government, leverage international capital and involve international expertise.
- **Priority areas** - **new age agriculture, future ready cities, ecosystem for Indian global champions, leverage growing soft power.**

74. TONGA VOLCANO ERUPTION:

- A **massive underwater volcanic eruption** was recorded in the small island country of **Tonga.**
- The volcanic eruption **triggered Tsunami** warning along the Pacific coast.
- **Volcano - Hunga Tonga Hunga Ha'apai. Tonga - South Pacific island country. Capital - Nuku'alofa.**
- This eruption caused significant damage and the ash cloud in Tonga has reportedly contaminated its water supply as caused severe air pollution.

75. PASSEX:

- **Indian Navy with Russian Navy.**
- Exercise held in the **Arabian sea.**
- Indian Navy's indigenously designed and built **guided missile destroyer,INS Kochi** participated.
- This exercise showcased the cohesiveness and interoperability between the two navies and included tactical manoeuvres, cross deck helicopter operations and seamanship activities.

76. CHIPS TO STARTUP PROGRAMME:

- Under **Ministry of Electronics and Information Technology.**
- **Objective** - to transform India into the next semiconductor hub.

- **Aim** - to train number of high-quality and qualified engineers in the area of VLSI and Embedded System Design.
- The programme would be implemented at about 100 academic institutions, R and D organisations across the country. Startups and MSME's can also participate in the programme.

77. GOAT HEADED YOGINI:

- A **10th century sculpture** had been **returned** to the **state of Uttar Pradesh**.
- It was previously removed illegally from a temple in **Banda, UP** in 1980.
- The sculpture of a goat headed yogini idol belonged to a group of stone deities in **sandstone**.
- The statue has been handed over to the **Archaeological Survey of India**.

78. CONSTITUTION LITERACY CAMPAIGN:

- **The Citizen Constitution Literacy Campaign** - launched in **Kollam** district of **Kerala**.
- It is **first of its kind**.
- **Aim** - to educate the residents of the district about the basics of constitution.
- It is **organised** by the **Kerala Institute of Local Administration and District Planning Committee**.

79. INDIA CHINA TRADE 2021:

- The trade between **India and China** was **around 125 billion USD** in 2021.
- The **Indian imports from China were 20% greater than those in 2019**. And **Indian exports to China increased by 56%** between 2019 and 2021.
- **Major exports to China** - cotton, iron ore and raw material based goods.
- **Major imports from China** - electrical machinery, mechanical machinery, medical supplies such as oxygen concentrators, active pharmaceutical ingredients, semiconductor devices, electrical batteries.

80. ROJGAR MISSION:

- Launched by **Chattisgarh government**.
- It is an **employment mission**.

- **Aims** to create **15 lakh job opportunities** in the state in the **next five years**.
- The **mission's implementing committee** is **headed** by the **chief minister**. It will leverage experts from IITs, IIITs, and IIMs.

81. mRNA VACCINE:

- It is a vaccine type that uses a **molecule copy called messenger RNA to produce an immune response**.
- This **mRNA vaccine** may be the **first vaccine** to be introduced in India **specifically designed against the Delta and Omicron variant of COVID-19**.
- The vaccine has been developed by Gennova with cooperation from US-based HDT Biotech Corporation.
- The vaccine can be redesigned to fight the **emerging variants of COVID-19**.

82. DESIGN LINKED INCENTIVE SCHEME:

- By **Ministry of Electronics and Information Technology** to create a vibrant ecosystem for Semiconductor Chip Design in the country.
- **Centre for Development of Advanced Computing** will be the **nodal agency** for implementation of the DLI scheme.
- **3 components** - Chip design infrastructure support, Product design linked incentive and Deployment linked incentive.

83. NATIONAL START-UP AWARDS:

- **2nd edition** of the award.
- Announced by Government of India.
- This award seek to **recognise start-ups** contributing towards economic dynamism by encouraging innovation and injecting competition.
- **Six parameters** - Innovation, Scalability, Economic impact, Social impact, Environmental impact, Inclusiveness and diversity.

84. Open Data Week:

- Launched by Ministry of Housing and Urban Affairs.
- Celebrated between Jan 17 and Jan 21, 2022.
- It encourages promoting innovation in Urban ecosystem.
- Data Day will be celebrated on Jan 21, 2022 - a part of Open DayWeek.
- The week is divided into 2 segments.

- 1st segment – Ministry will upload APIs, data visualization and data blogs on smart city open data portal, 2nd segment – Data day celebrated.

85. Work Employment and Social Outlook Report:

- Released by International Labour Organisation (ILO).
- Report - ILO projected global unemployment of 207 million in 2022 (21 million more than 2019).
- Total hours worked in 2022 will be about 2% below than the pre-pandemic level.
- There will be deficiency of 52 million full-time equivalent jobs in 2022.

86. State of the World – PM address at Davos:

- PM special address at World Economic Forum's Davos Agenda.
- **Highlights:**
- Role played by handling Covid led crisis and vaccination drive.
- The need to reshape and restructure international organization like UN.
- India follows the vision of **"One Earth One Health"**.
- The need for the world to change the life-style which is damaging the environment to deal with climate change.

87. UV-C Disinfection Technology:

- Govt. of India had put Ultra Violet –C Disinfection Technology for testing in Parliament, AC buses and trains.
- It is a huge success, now to be rolled out for public.
- The technology is to be used during Election Commission of India poll meetings.
- Developed by CSIR under Ministry of Science and Technology.
- UV – C Technology– uses wavelength between 100nm and 280nm .
- UV lights UV-A and UV-B are transmitted through the atmosphere.
- UV-C – light is filtered by Ozone layer (used in hospitals to disinfect air)

88. Guru Ravidas Jayanti:

- It is celebrated on **Magh Purnima** (on the new moon day of the Magh month).
- **Ravidas:**

- Social reformer, spiritual man and poet, popular for his work against casteism.
- Contemporary saint to Saint Kabir.
- He contributed largely to **Bhakti Movement**.
- Adi Granth of Sikhs, in addition to Panchvani – two oldest documented sources of the literary works of Guru Ravidas.

89. NDRF RAISING DAY:

- NDRF Raising Day is observed by the **National Disaster Response Force** in India every year on **January 19**.
- It marks the **formation of the disaster response force** in the country back in **2006**.
- **Motto** of NDRF - **Aapada Seva Sadaiv Sarvatra** - which means the sustained disaster response service under all circumstances.
- The **significance** of the day lies in acknowledging the NDRF personnel services.

90. INDIA - CENTRAL ASIA SUMMIT:

- **PM** will host the **first India - Central Asia summit** in a **virtual format**.
- **Participant Countries** - Kyrgyz Republic, Kazakhstan, Tajikistan, Uzbekistan, Turkmenistan.
- This will also be the first kind of engagement of its kind between India and Central Asian countries at the level of leaders.

91. NEW CAPITAL OF INDONESIA:

- The capital of Indonesia is **being shifted from Jakarta to East Kalimantan, and will be called 'Nusantara'**.
- **Nusantara** - It is 2,300 km from Jakarta on the **eastern side of Borneo island**, shared by Indonesia, Malaysia and Brunei. It is an area with immense water resources and habitable terrain.
- Main reason for capital change - increasing pollution, population and growing inequality in Jakarta.

92. 1994 PC1:

- **Asteroid 1994 PC1** is to pass by earth and pass by at a distance of 1.2 million miles.
- It is five times the distance between moon and the earth.
- It is a **stony asteroid** and put under the category of **potentially hazardous asteroid** and also under the **near earth object category**.

- It is also an **unnamed minor planet**. **Minor planets** are those celestial bodies that orbit directly around the sun. **Minor planets are neither a planet nor a comet.**

93. BAMBOO SHOOT PROCESSING AND PRESERVATION:

- **Sponsored by North East Cane and Bamboo Development Council(NECBDC).**
- **Training programme** on Bamboo Shoot Processing and Preservation.
- **Bamboo Shoots** are the **edible shoots** of many bamboo species including Bambusa vulgaris and Phyllostachys edulis. Used as vegetable.
- **NECBDC** - under **Ministry of DoNER, Located in Byrnihat, Assam.**

94. TOI 2180b:

- A group of scientists recently discovered a **new** exo planet. It is a **gas giant exo planet.**
- It is of the **size of Jupiter** and it is 379 light years away from the earth.
- **Gas giant in solar system** - Jupiter, Saturn, Uranus, Neptune. Gas giant planet composed mostly of gases, such as hydrogen and helium. Don't have hard surfaces and instead have swirling gases above a solid core.
- **Exoplanet** - planet outside the Solar System, orbiting other stars. It may vary in sizes, orbiting time. It can be hot or cold.

95. DIGITAL PAYMENT INDEX:

- **Semi - annual index** released by **Reserve Bank of India.**
- According to the index, the **digital payments** in the country have **increased by 40%** than previous reported in March 2021.
- The **base year** for the index is **2018.**
- **Five parameters** - Payment enablers, Consumer centricity, Payment performance, Supply side factors and Demand side factors.

96. KAZIRANGA NATIONAL PARK:

- Recently, conducted it's **water fowl census** in the wetlands of the park. And noted the **bird count has increased** in one year.
- **Location** - Assam. **Home of the world's most one horned rhinos.**
- It was **declared** as a **National park, Tiger reserve and UNESCO world heritage site.**

97. NATIONAL COMMISSION FOR SAFAI KARAMCHARIS:

- The cabinet has approved the **extension of the tenure of NCSK for another three years.**
- It was **established** in **1993**. It gives recommendations to the government regarding specific programmes for welfare of safai karamcharis, study and evaluate the existing welfare programmes, investigate cases of specific grievances.
- **Safai Karamcharis** - person engaged in, or employed for, manually carrying human excreta or any sanitation work.

98. I4F:

- **India - Israel Industrial R&D and Technological Innovation Fund's(I4F)** scope widened at its 8th governing body meeting.
- I4F is a **cooperation** between the **Department of Science and Technology, India** and the **Israel Innovation Authority, Israel.**
- **Aim** - to promote, facilitate and support joint industrial research and development projects.
- **GITA(Global Innovation and Technology Alliance)** is appointed to implement the I4F program in India and **Israel Innovation Authority** is the implementing agency in Israel.

99. DIGITAL GOVERNMENT MISSION:

- Launched by **Ministry of Electronics and Information Technology.**
- This is the **next phase of e-governance.**
- The mission will **deliver government services to the citizens** and use **machine learning and artificial intelligence** to deliver the services.
- It will be aided by the well built platforms Digital India, Aadhar, National Mission on Education using ICT, Digitdhan Abhiyan, BPO scheme and UPI. This mission helps in **bringing all the digital initiatives under one roof.**

100. I-LAB:

- Launched in **Mizoram. Mobile COVID testing facility** for **Northeast.**
- **First of its kind** for COVID testing. It will be rolled out gradually in other states of Northeast as the region has unique climatic and topographical conditions.
- It is dedicated to provide **testing access to rural and remote parts of North Eastern region of India.**

101. BRAHMOS:

- **Supersonic cruise missile** with enhanced capability, successfully test fired from **Integrated Test Range, Chandipur off the coast of Odisha.**
- Conducted by Brahmos Aerospace in close coordination with the teams of **DRDO.**
- It was equipped with advanced indigenous technologies for enhanced efficiency and improved performance.
- **Brahmos** - joint venture between India(DRDO) and Russia(NPOM).

102. NEW CIRCUIT HOUSE AT SOMNATH:

- PM inaugurated the **new circuit house** at Somnath.
- **Somnath temple** - located in **Prabhas Patan, Veraval in Gujarat, India.**
- First among the **twelve jyotirlinga shrines of Shiva** and one of the most sacred pilgrimage sites for the Hindus.
- It was reconstructed several times in the past due to the destruction made by various Muslim invaders.
- The present temple is built in the **Chalukya style of temple architecture.**

103. ELECTRICITY MARKET REPORT:

- **Bi-annual report** released by the **International Energy Agency.**
- Global electricity demand increased by 6% year-on-year in 2021. Global energy intensity decreased by 1.9% and electricity generation from renewables increased by 6%.
- **IEA** - Established in **1974. Autonomous intergovernmental organisation.** It has **30 members.**

104. SAAW – Smart Anti-Airfield Weapon:

- SAAW – first smart weapon fired from an Indian Hawk.
- Long-range precision guided Anti-airfield weapon – precision upto a range of 100Kms.
- Basically it is a bomb, deigned to destroy targets like runways, reinforced structure, aircraft hangers and bunkers .
- It was approved by GOI in 2013.Approved for Indian Navy and Air Force in 2020.

105. Root Zone Moisture(RZM):

- NASA – released the estimates of soilmoiture in root Zone.
- **Root Zone** – the top **39 inches** of soil.
- Accordingly, Konya Plains of Turkey – lowest root zone moisture due to less rainfall.

- RZM of Western India - between 80% and 98%.
Eastern India - between 30% and 70%.
Northern India - less than 10%.
Along the coasts of Western Ghats - more than 95%.
- Root Zone Irrigation only solution to soils with less RZM.

106. Great Green Wall Initiative:

- Initiative for **Sahel** and **Sahara**.
- Recently received 14Bn USD at the **One Planet Summit**.
- This initiative aims to transform live of 100 million Africans by growing 8000 Km long and 15 Km wide mosaic of trees, vegetation, Grasslands , plants.
- This is an African-led initiative, started in 2007 by African Union.
- To combat desertification, land degradation and drought.
- Project aims to restore 100 million hectares of degraded land by 2030.

107. Justice Clock:

- 2 digital services inaugurated for Gujarat High Court.
- A Justice clock and an electronic payment of court fee.
- **Justice Clock – LED display** at an height of 17 feet from the ground, erected at a busy crossroad near Gujarat HC premises.
- It will exhibit vital statistics of Justice delivery system in Gujarat.
- It will display data from National Judicial Data Grid.

108. Ladakh's First Open Synthetic Track and Football Turf:

- Constructed on 130 Kanals in the Spituk belt of the "Cold Desert".
- Track and stadium built under Khelo India Programme.
- Located at an height of 11,000 feet.
- Khelo India Programme – Centre's initiative to revive sport culture at the grassroots level by building infrastructure.

109. PARAKRAM DIWAS:

- The Union government had declared **January 23rd** as Parakram Diwas last year.
- To commemorate the **125th birth anniversary** of **Netaji Subhas Chandra Bose**.

Subhash Chandra Bose Aapda Prabandhan Puraskar:

- This award has been setup by the **central government** to honour the **invaluable contribution rendered by individuals and organisations** in India in the field of **disaster management**.
- This year, it was conferred upon Gujarat Institute of Disaster Management and Sikkim State Disaster Management Authority's Vice Chairman Vinod Sharma.

110. DEEP OCEAN MISSION:

- Implemented by the **Ministry of Earth Sciences**.
- This mission is a **multi ministerial, multi disciplinary programme**.
- Emphasis on development of **deep sea technology** that includes development of **manned submersible** rated for 6000 m water depth.
- Technologies for deep sea mining, exploration of deep sea mineral resources and marine diversity, ocean exploration, deep sea observations and capacity building also focused under this mission.

111. SYED MODI INTERNATIONAL TOURNAMENT:

- **Indian shuttler PV Sindhu won the women's single final of the tournament.**
- It is an **international badminton tournament** that is held **annually** in India.
- Held in **Lucknow at the Babu Banarasi Das Indoor Stadium**. It was **upgraded** to a **BWF Grand Prix Gold tournament in 2011**.
- It was started by the **UP Badminton Association in 1991** in memory of the **commonwealth games champion Syed Modi**.
- It was national level tournament till 2003 and was organised as an international event for the first time in 2004.

112. UMANG:

- **Umang Rangoli Utsav** organised by **Ministry of Culture**.
- This event was organised **to celebrate the National Girl Child day** on January 24.
- Participating teams to make rangoli decorations at **more than 50 special locations** across the country and will make **decorations in rangoli** for about one km length on the roads and **named after the female freedom fighters or the female role models** of the country.

113. PLASTIC PARK:

- The central government recently approved to build a **plastic park** at **Ganjimutt, Mangaluru, Karnataka**.

- It is to be built by the **Karnataka Industrial Areas Development Board**.
- Plastic parks are **industrial zones**. They play a key role in the growth of machinery supplies and plastic manufacturing, plastic recycling and plastic processing companies.

114. Statue of Equality:

- 216 feet tall statue of 11th century reformer and Vaishnavite saint Sri Ramanuja.
- Installed to mark his 1000th birth anniversary.
- It is built of panchaloha(a combination of gold, silver, copper, brass and zinc).
- It is second largest in the world in sitting position of the saint.
- Monument will be surrounded by 108 Divya Desams of Vaishnavite tradition.

115. 4th Asia Ministerial Conference on Tiger Conservation:

- Organized by the Govt. of Malaysia and Global Tiger Forum (GTF).
- An event for reviewing progress towards the **Global Tiger Recovery Programme** and commitments to tiger conservation.
- India - one of the founding members of GTF.
- GTF – intergovernmental platform of Tiger range countries.
- India's National Tiger Conservation Authority(NTCA) has decided to introduce guidelines for reintroduction of Tigers.
- Tiger range countries in GTF – Bangladesh, Bhutan, India, Cambodia, Nepal, Myanmar and Vietnam.

116. Kerala Bird Atlas (KBA):

- First-of-its-kind state-level bird Atlas in India.
- Conducted as a citizen science-driven exercise.
- It has been prepared based on 2 systematic surveys – during Dry season (jan to March) and wet season (july to sep) between 2015 to 2020.
- **Key findings:**
 - Species count is higher during dry season.
 - Species richness and evenness – higher in Northern and central districts than southern districts.
 - Most Endemics – concentrated in Western Ghats while Threatened species – mostly along coasts.
 - Project aims to restore 100 million hectares of degraded land by 2030.

117. Ganoderma:

- 2 new species of Fungi from Genus Ganoderma –found in Kerala.
- They are associated with **coconut stem rot**.
- **coconut stem rot** –infection begins at roots but symptoms include discolouration and rotting of stem and leaves.
- **Later stages** – flowering and nut set decreases and coconut palm dies.

118. Sub-Mission on Agricultural Mechanisation (SWAM):

- Guidelines of SWAM amended – for providing grants for the purchase of Drones.
- Grant upto 100% of the cost of Agriculture drone or Rs.10 lakhs, whichever is less.
- SWAM – launched in 2014-15 to enhance the reach of Farm Mechanisation to marginal and small farmers.
- By Ministry of Agriculture and Farmer's Welfare.

119. AI RESEARCH SUPER CLUSTER:

- **Meta** introduced the **Artificial Intelligence Research Super Cluster**. This would be **world's fastest** by mid 2022.
- It will help in building new and improved AI models and also help in building technologies for next major computing platform called the '**metaverse**', where AI driven applications and products will play a significant role.
- **Metaverse** - a **network of 3D virtual worlds** and is focused on social connection.
- **Supercomputer** has high level of performance as compared to general purpose computer. It's performance is commonly measured in FLOPS(Floating point operations per second), rather than million instructions per second(MIPS).

120. NATIONAL VOTERS DAY:

- It is observed on **January 25 every year since 2011**, to spread awareness about the importance of voting in a democracy.
- This day is being celebrated **to commemorate the foundation day of the Election Commission of India**.
- The day **aims** to encourage especially the new voters to register themselves as voters.
- **2022 theme** - '**Making Elections Inclusive, Accessible and Participative**'.

121. NATIONAL BEEKEEPING AND HONEY MISSION:

- The mission aims for the **overall promotion and development** of scientific Beekeeping in the country to achieve goal of **Sweet Revolution**.
- The mission is being **implemented through National Bee Board**.
- **National Bee Board organized a national conference** on Beekeeping sector in **collaboration** with **NAFED**(National Agricultural Cooperative Marketing Federation of India), **TRIFED**(Tribal Cooperative Marketing Development Federation), and **NDDB**(National Dairy Development Board).

122. PERU - ENVIRONMENTAL EMERGENCY:

- **Peru** - a **South American country rich in biodiversity**, recently declared an **environmental emergency due to oil spill**.
- Around 6000 barrels of oil were spilled into the Pacific Ocean. It occurred due to the explosion of undersea Tonga volcano.
- The oil spill killed huge number of marine wildlife and caused huge impact on the local fishermen and tourism sector.
- It has **threatened** the survival of **Humboldt penguins**. Listed as **Vulnerable species by the IUCN**. They are **endemic** to the coast of Peru and Chile.

123. SPICE EXCHANGE PORTAL:

- The platform is first of its kind in the country, **launched by the Spice Board of India** operating under the **Ministry of Commerce and Industry**.
- It will act as a meeting point between the Indian spice exporters and buyers all over the world. It used AI to connect the buyers and sellers.
- India is the largest producer, consumer and exporter of spices in the world. India is called the '**Spice Bowl of the World**' and has a major share in the world spice market.
- **The Spice Board of India was established under the Spice Board Act, 1986.**

124. WORLD ECONOMIC OUTLOOK:

- Released by **International Monetary Fund**.
- As per the report, **Global economic growth will decrease by half a percentage point less than it was forecasted earlier**. The growth will decrease from 5.9% in 2021 to 4.4% in 2022. It will further reduce to 3.8% in 2023.
- **IMF projects 9% growth for India's economy in 2022-23.**
- Recently, the World Bank also predicted a slowdown in a global growth, keeping it at 4.1% in 2022.

125. PASCHIM LEHAR:

- A **joint maritime exercise** conducted by the **Indian Navy** off the **west coast**.
- **Objective** - to validate operational plans of the western naval command and enhance inter service synergy among the **Indian Navy, IAF, Indian Army and Coast Guard**.
- The **intra theatre exercise** included mobilisation and participation of over 40 ships and submarines of the Indian Navy.

126. BLOCKCHAIN TECHNOLOGY:

- The winners of Rashtriya Bal Puraskar got **digital certificates** recently, that use **block chain driven technology**.
- It has been developed under the **National Blockchain Project, by IIT Kanpur**.
- The **National Blockchain Project** is being **funded by National Security Council Secretariat** for developing e-governance solutions using blockchain technology.
- **Blockchain Technology** - It is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system.

127. GALLANTRY AWARDS:

- President approved 384 gallantry awards and other military decorations for security forces personnel and presented on Republic Day.
- **War time awards** - Param Vir chakra, Mahavir chakra, Vir chakra.
- **Peace time awards** - Ashok chakra, Kirti chakra, Shaurya chakra.
- **Distinguished service medals** - Sena medal, Nausena medal, Vayusena medal.

128. CHIRU 2Q22:

- It is a **naval drill conducted by China, Russia and Iran in Gulf of Oman**.
- The countries conducted **military artillery fire** against the sea target, **tactical maneuvering, and anti – piracy drills** during the exercise.
- **Urumqi** - Chinese missile destroyer, **Varyag** - Russian missile cruiser participated in the drill.

129. PADMA AWARDS:

- **Ministry of Home Affairs** announced the **list of 128 Padma awardees**.
- **Padma awards** - one of the **highest civilian awards** of India.

- Padma awards categories - **Padma Vibhushan, Padma Bhushan, and Padma Shri.**
- Some of the eminent names announced for the awards 2022 - India's **first CDS Bipin Rawat** has been honoured posthumously with **Padma Vibhushan**, Olympic Gold medalist **Neeraj Chopra** has been awarded **Padma Shri**, heads of Microsoft and Google, **Satya Nadella and Sundar Pichai** have been named for **Padma Bhushan**.

130. INDIA - CENTRAL ASIA SUMMIT:

- PM to host **first ever India - Central Asia summit** today in virtual mode.
- **Participating nations** - India, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan.
- Central Asian countries are considered as part of **India's Extended Neighbourhood**.
- **Key focus** - regional security and the Afghanistan issue along with culture, trade and connectivity, development partnership, culture and people-to-people ties.
- **The India-Central Asia summit to be held every 2 years henceforth.**

131. DRONE CERTIFICATION SCHEME:

- **Ministry of Civil Aviation** notified a Drone Certification Scheme for ensuring **minimum safety** and **quality requirements** to **boost indigenous manufacturing**.
- Notified under the **Liberalized Drone Rules, 2021**. This will help in simpler, faster and transparent type-certification of drones.
- A **multi-stakeholder steering committee (MSC)** will oversee the certification scheme, in **association** with the **Quality Council of India (QCI)**.
- **QCI** - set up as an **autonomous body in 1997**.

132. OM:

- The scientists from '**CSIR – Central Drug Research Institute**' have developed an **indigenous RT-PCR kit called 'Om'**.
- It is the first kit developed by any government institution for the Omicron variant. The indigenous '**INDICoV-OmTM**' is among few specific kits **to detect Omicron worldwide**.
- **RT-PCR** is a **laboratory technique**, that combines reverse transcription of RNA into DNA.

133. CORRUPTION PERCEPTION INDEX:

- Released by **Transparency International**.
- Included 180 countries in the ranking and **India ranked 85** among the world countries.
- Transparency International - a **non governmental organization** founded in **1993**. Headquarters - **Berlin, Germany**.

134. India's first Graphene centre:

- To be set up in **Kerala**.
- **Graphene:**
- strongest material in the world, has good electrical conductivity and chemical stability.
- It bring down the cost of organic LEDs.
- **Uses:** used in making composite material, biological engineering, energy storage and filtration. Ideal for making super capacitors. Also used in drug delivery, sensors, paints and solar panels.

135. Digital Sansad App:

- Launched by Lok Sabha Secretariat.
- **To make it easier for people to follow proceeding of parliament.**
- The house will help MPs to access services like checking personal updates, to log in for attendance and give questions for the Question Hour, also submit notices for debates or adjournment motions .
- App users include users from India, and countries like US and Saudi Arabia.

136. New Lizard Species – found in Arunachal Pradesh:

New gecko species is discovered at Talle Valley Wildlife Sanctuary is named as **Problepharus Apatani**.

- Named after Apatani Tribe **of Arunachal Pradesh's Ziro valley**.
- New genus and species of Geckos – nocturnal, found around rock areas.
- These lizards are small, active, with dark brown body with faint stripes.

137. Spot-billed Pelican:

- Pelecanus Philipensis or grey pelican.
- Breeds in Southern Asia from Southern Iran across India East to Indonesia.

- The species is found only in Peninsular India, Sri Lanka and Cambodia.
- Main habitat – shallow lowland freshwaters.
- **IUCN status – Near Threatened.**

138. ADGMIN:

- **ASEAN Digital Ministers** meeting with India - **2nd edition** - held on a **virtual** platform.
- ADGMIN is an **annual meeting of telecom ministers of 10 ASEAN nations and dialogue partner countries** - Australia, Canada, China, EU, India, Japan, Republic of Korea, New Zealand, Russia, UK and US.
- The meeting discussed and deliberated various matters relevant to strengthening regional digital cooperation in the spirit of digital inclusion and integration.
- The meeting approved the **India - ASEAN Digital Work Plan 2022.**

139. ULTRA LONG PERIOD MAGNETAR:

- Recently, astronomers from **Curtin University node of International Centre for Radio Astronomy Research** came across an object called **Ultra long period Magnetar.**
- It was appearing and disappearing over a few hours and located at about **4000 light years away**, in the Galactic backyard and it is incredibly **bright and smaller than sun** and was **emitting highly polarised radio waves.**
- **Magnetar** - type of **neutron star**, having an **extremely powerful magnetic field.**
- **Neutron star** - **collapsed core of massive supergiant star** with total mass of 10 to 25 solar masses. These are the **smallest and densest known class of stellar objects.**

140. SAHARA DESERT - SNOWFALL:

- Recently **Sahara Desert witnessed snowfall, a rare event.**
- It is located in **African continent** and it is the largest hot desert of the world.
- **The Sahara desert covers parts of Algeria, Egypt, Chad, Mali, Libya, Niger, Mauritania, Sudan, Morocco, Western Sahara and Tunisia.**
- **Reasons** - climate crisis and arctic warming could be responsible for this rare event.
- This is **not the first time.** In last 42 years, snowfall occurred for the fifth time.

141. PANDIT JASRAJ CULTURAL FOUNDATION:

- It was launched marking the occasion of **92nd birth anniversary of late Indian classical vocalist, Pandit Jasraj.**
- **Objective** - to protect, preserve, develop and promote the National heritage, Art and Culture of India.
- Pandit Jasraj belonged to **Mewati gharana.** It is a musical apprenticeship tribe of India classical music and **this gharana was founded by Wahid Khan and Ghagge Nazir Khan of Indore.**

142. SWACHHATA START UP CHALLENGE:

- Launched by **AFD**(Agence Franchise de Development) and **DPIIT**(Department of Promotion of Industry and Internal Trade).
- The challenge was launched **to increase innovation in waste management. Both Indian and French startups can participate in the challenge** and it is to be conducted **under the supervision of Ministry of Housing and Urban Affairs.**
- **AFD - French public financial institution** and it implements the policies of the French Government.

143. BEATING RETREAT CEREMONY:

- It marked the **culmination of the Republic Day celebrations 2022.** This year, the ceremony was conducted at a grand scale to celebrate 75 years of independence, which is being celebrated as 'Azadi Ka Amrit Mahotsav'.
- **Earlier, only the Indian Armed Forces took part in the ceremony but from 2016, other police forces have also been invited to perform including the CAPF.**
- The ceremony is a **centuries old military tradition,** dating back to when troops disengaged from the battle at sunset.
- The Beating Retreat Ceremony was conducted for the first time in India during the early 1950s when Queen Elizabeth II and Prince Philip visited post independence India for the first time.

144. US - EU COOPERATION:

- **US and European Union** announced that they are working together on guaranteeing **energy security in Europe and Ukraine.**
- It was **announced amid the standoff** triggered by Russia amassing troops at Ukraine's border.
- **Russia - Ukraine war** - ongoing and protracted conflict, **since 2014.** It is centered around the status of Crimea and parts of Donbas, which is recognised as part of Ukraine, internationally.
- On the other hand, the **EU depends on Russia for a third of its gas supplies.**

145. INTRANASAL VACCINE:

- Recently, **Drugs Controller General of India approved the trials of intranasal booster doses against Covid-19** that is being manufactured by Bharat Biotech, the maker of Covaxin.
- Usually, vaccines are given through different routes, most common being injectable shots. **In the intranasal route, the vaccine is sprayed into the nostrils and inhaled.**
- The effectiveness of an intranasal vaccine was first seen in the 1960's when polio doses replaced its injected predecessor.

146. REEF 2050 PLAN:

- **Australia launched a new plan** to protect the climate-ravaged **Great Barrier Reef**.
- The plan will help in avoid the reef from being placed on UNESCO's "in danger" list.
- **Great Barrier Reef** - world's largest coral reef system. Located in the **Coral Sea**, off the coast of **Queensland in Australia**.
- It supports a wide diversity of life and was designated as UNESCO world heritage site in 1981.

147. GENUS SEPTEMERANTHUS:

- **Parasitic flowering plant** has recently been discovered from the **Nicobar islands**.
- It **grows on the plant species Horsfieldia glabra warb.** It has a modified root structure spread on the stem of the tree and is anchored inside the bark of the host tree.
- The leaves of the plant are heart shaped and the seeds are earthen pot shaped. They **provide food for frugivorous birds**.
- **Septemeranthus** – **Septem means seven** (referring to arrangement of flowers).

148. NeoCoV:

- Virus identified in a species of bat known as Neoromicia.
- First identified in 2011, also known as Aloe Bats.
- It shares 85% similarity with MERS-CoV.
- Aloe bats distributed in the Afro-Malagasy region.

149. Gain-of-Function Research:

- It is a field of research focused on growing generations of microorganism, under conditions that cause mutations in a virus.

- These experiments are named so because they involve manipulating pathogens in a way that they **gain an advantage** in or through a function such as increased transmissibility.
- This research may use **genetic engineering or Serial Passaging**.
- **Serial Passaging – Allowing the pathogen to grow under different circumstances and then observing the changes.**

150. Fly Ash Management and Utilisation Mission:

- NGT(National Green tribunal) order to establish the mission.
- **To coordinate and monitor issues relating to handling and disposal of flyash and associated issues.**
- Mission to be headed jointly by Secretaries of MOEFCC and Ministry of Coal and Power.
- Fly Ash – unwanted unburnt residue of coal combustion in coal thermal power plant.
- Composition of Fly ash – Silicon dioxide, Aluminium Oxide, Ferric Oxide and Calcium Oxide.

151. India Enterprise Architecture (IndEA) 2.0:

- Ministry of Electronics and Information Technology – proposed a new mode “**Federated Digital Identities**” under **IndEA 2.0**.
- It seeks to optimize the number of digital identities that a citizen needs to have.
- Under new mode – a citizen’s multiple digital IDs (Aadhar, PAN etc..) can be interlinked, stored and accessed via unique ID.
- Citizens can use this ID for availing third-party services through authentication and consented e KYC.