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## CURRENT AFFAIRS

# NATIONAL NEWS

### THIRUONAM ON THE LAST DAY UNITES KERALITES AROUND THE WORLD IN ONAM CELEBRATIONS -

- Keralites around the world are celebrating "Thiruvonam", the 10th and most important day of the grand Onam cultural festival.
- Onam is the harvest festival of Kerala, symbolizing themes of prosperity, inclusiveness, and unity.
- Regardless of religious affiliation, people in Kerala come together to honor the memory of Mahabali, the godly and mythical king, marking Onam as a time of unity.
- The festival is marked by various rituals, which include a grand Onasadya feast, vibrant Pookkalam flower decorations, wearing a new dress called Onakodi, and engaging in cultural activities such as the Ujyalattam dance and Pulikalli procession.
- Additionally, the vibrant Vallamkalli boat race and the heartwarming tradition of reuniting families contribute to the charm of the festival.



### INDIA-CANADA RELATIONS STRAINED OVER ALLEGATIONS OF SIKH SEPARATIST INVOLVEMENT -

- Canada's Prime Minister, Justin Trudeau, announced that there was "credible" information linking Indian government agents to the murder of a Sikh separatist leader in British Columbia. The announcement marks a significant worsening of bilateral ties.
- In the 1980s and early 1990s, Punjab, India, experienced a violent Khalistan separatist movement, resulting in the loss of thousands of lives. Today, the most outspoken supporters of this movement are mainly found among Punjabi expatriates living abroad.
- Recently, there was a tragic incident where Hardeep Singh Nijjar was fatally shot outside a Sikh temple in Surrey, British Columbia, Canada. Nijjar had been advocating for the creation of an independent Sikh nation called Khalistan within India's Punjab state.
- He was wanted by Indian authorities and was officially labeled as a "terrorist" in July 2020. Nijjar held a prominent position as the leader of the Khalistan Tiger Force, an organization that India has designated as a terrorist group.
- Canada is home to a significant number of people of Indian origin, totaling around 1.4 million in a country with a total population of 40 million. Among them, about 770,000 identify as Sikhs based on the 2021 census.
- Canada hosts the largest Sikh population outside of India's Punjab state. India has expressed concerns to the Canadian government regarding the activities of Sikh hardliners within the Indian diaspora in Canada. India believes that some of these individuals are involved in efforts to rekindle insurgent movements.



- Past events, such as the 1985 bombing of an Air India aircraft by a Canada-based Khalistani separatist group, have strained relations between India and Canada. These incidents have contributed to India's vigilance regarding Sikh-related activities in Canada.

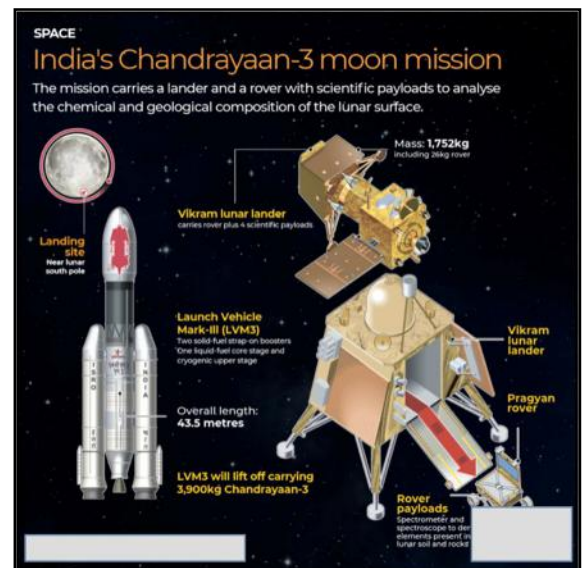
**INVITATION TO U.S. PRESIDENT BIDEN FOR REPUBLIC DAY CELEBRATION -**

- Indian Prime Minister Narendra Modi extended an invitation to U.S. President Joe Biden to be the chief guest at India's Republic Day celebrations on January 26 next year. U.S. Ambassador Eric Garcetti confirmed the invitation, stating that it is under consideration by the U.S. government. President Biden is also scheduled to visit India in 2024 for the Quad Summit, and efforts are being made to align the summit with his visit.
- Prime Minister Modi formally invited President Biden during their bilateral talks at the G-20 summit.
- The invitation specifically pertains to Republic Day on January 26 and did not mention the Quad Summit, which requires coordination among all four Quad countries (India, U.S., Japan, and Australia).
- This marks the third time the Modi government has invited a U.S. President to be the chief guest at the Republic Day parade. In 2015, President Barack Obama was the first American President to attend Republic Day as the chief guest.
- President Donald Trump declined the invitation for January 2019 due to scheduling conflicts in the U.S. Congress.
- External Affairs Minister S. Jaishankar is heading to New York, where he is expected to meet with Quad Ministers on the sidelines of the UN General Assembly meeting.
- A U.S.-India Defence and Foreign Ministers' "2+2" meeting is being scheduled for November in Delhi, setting the stage for President Biden's potential visit in January.
- India aims to host the Quad Summit early in the year due to upcoming elections in both India and the U.S. in 2024, which could affect travel plans.



**CHANDRAYAAN-3 SUCCESSFULLY LANDS ON MOON'S SOUTH POLE -**

- Chandrayaan-3 has made history by becoming the first mission to soft-land on the lunar south pole, a region that has never been explored before. The mission aimed to demonstrate safe and soft lunar landing, rover mobility, and in-situ scientific experiments.
- India now joins the United States, Russia, and China as one of the few countries to successfully land on the Moon.
- Chandrayaan-3's successful landing came after the setback of the Chandrayaan-2 mission's landing failure in 2019.
- The Vikram lander of Chandrayaan-2 had lost control and communication during descent, leading to a crash on the lunar surface.
- Lessons from the Chandrayaan-2 mission were applied to Chandrayaan-3, focusing on a "failure-based" design approach to anticipate and mitigate potential issues. Critical changes included strengthening the lander's legs, increasing fuel reserves, and enhancing landing site flexibility.
- Chandrayaan-3 is expected to operate for at least one lunar



day (14 Earth days) on the lunar surface. The Pragyan rover will move around the landing site within a radius of 500 meters, conducting experiments and sending data and images to the lander.

- The Vikram lander will relay the data and images to the orbiter, which will then transmit them to Earth. Lander and Rover modules are collectively equipped with advanced scientific payloads.
- These instruments are designed to conduct comprehensive investigations into diverse facets of lunar characteristics, encompassing terrain analysis, mineralogical composition, surface chemistry, atmospheric attributes, and crucially, the exploration for water and potential resource reservoirs.
- The propulsion module that carried the lander and rover configuration till 100 km lunar orbit also has a Spectro-polarimetry of Habitable Planet Earth (SHAPE) payload to study the spectral and Polarimetric measurements of Earth from the lunar orbit.

### **KATCHATHEEVU ISLAND -**

- Recently, the Tamil Nadu Chief Minister revived the debate over the Katchatheevu, a longstanding point of contention between India and Sri Lanka, particularly with regard to fishing rights and sovereignty over the uninhabited island.
- Katchatheevu is a 285-acre uninhabited speck in the Palk Strait, between India and Sri Lanka, an island located about 14 nautical miles off Rameswaram, India.
- In 1974, Prime Ministers Indira Gandhi of India and Sirima R.D. Bandaranaike of Sri Lanka signed an agreement that recognized Katchatheevu as part of Sri Lanka's territory, resulting in a change of ownership.
- The agreement also allowed Indian fishermen to fish around the island, dry their nets on it, and permitted Indian pilgrims to visit the Catholic shrine located on the island.
- Fisherfolk from both India and Sri Lanka have historically used Katchatheevu for fishing. Though this feature was acknowledged in the 1974 agreement, the supplemental pact was signed in 1976.
- The 1976 agreement was aimed at defining maritime boundaries and exclusive economic zones for both countries, while also imposing restrictions on fishing vessels and fishermen from either nation, prohibiting fishing in each other's waters without explicit permission from either of the two countries.
- The transfer of Katchatheevu triggered opposition and debates in both Indian Houses of Parliament.
- Leaders of Tamil Nadu have periodically raised the demand for the island's retrieval. The demand evolved over the years, with suggestions of a "lease in perpetuity (a lease deed in which no specified time period)" for the island.



### **CAUVERY WATER SHARING DISPUTE -**

- The Cauvery water dispute has once again taken center stage, as Tamil Nadu appeals to the Supreme Court of India for intervention in ensuring the release of 24,000 cubic feet per second (cusecs) from its reservoir's water by Karnataka.
- Tamil Nadu also urged the Court to direct Karnataka to ensure the release of 36.76 TMC (thousand million cubic feet) stipulated for September 2023 as per the Cauvery Water Disputes Tribunal (CWDT)'s final award of February 2007 that was modified by the SC in 2018.
- The issue arose from Karnataka's refusal to abide by previously agreed-upon water release quantities.
- Tamil Nadu advocates for the release of 10,000 cusecs of water for the stipulated 15-day duration. On the other hand, Karnataka has suggested a reduced water release of 8,000 cusecs for the same 15-day timeframe.

- Karnataka cites poor inflow due to reduced rainfall in Cauvery catchment, including origin point Kodagu. Karnataka highlights a 44% rainfall deficit in Kodagu from June to August. Karnataka rejects Tamil Nadu's distress-sharing formula demand.
- The genesis of the dispute is 150 years old and dates back to the two agreements of arbitration in 1892 and 1924 between the then Madras presidency and Mysore.

#### How is the Cauvery Water Being Shared-

A carefully crafted monthly schedule governs the distribution of water between Karnataka and Tamil Nadu, the two riparian states of the Cauvery basin.

In a "normal" water year, Karnataka is bound to release 177.25 TMC (thousand million cubic feet) of water from June to May to Tamil Nadu.

This annual quota includes 123.14 TMC allocated during the monsoon months from June to September. The ongoing southwest monsoon season often triggers disputes when rainfall falls short of expectations.



#### INDIA'S FIRST-EVER GOLD MEDAL AT THE WORLD ARCHERY CHAMPIONSHIP -

- Recently, the Prime Minister extended congratulations to the Indian women's compound team comprising Jyothi Surekha Vennam, Parneet Kaur, and Aditi Gopichand Swami, for securing India's inaugural Gold medal at the World Archery Championship in Berlin.
- Aditi Gopichand Swami became the youngest-ever senior world champion and the first Indian to win an individual compound gold medal at the World Archery Championships at the age of 17.
- World Archery is the international federation for the Olympic and Paralympic sport of archery. The organization was founded in 1931 and is responsible for regulating and promoting archery around the world.
- World Archery is based in the Olympic capital of Lausanne, Switzerland



# INTERNATIONAL NEWS

## **PM MODI FIRST INDIAN PRIME MINISTER TO VISIT GREECE IN 40 YEARS -**

- Indian Prime Minister Narendra Modi embarked on a landmark visit to Greece, marking a significant diplomatic milestone as he became the first Indian Prime Minister to set foot in the country in 40 years.
- This visit is aimed at fortifying the bilateral relationship between India and Greece, and it comes at the invitation of Greek Prime Minister Kyriakos Mitsotakis.
- As Prime Minister Modi arrived in the Greek capital of Athens, he was warmly greeted by the Indian community residing in Greece. A symbolic gesture of cultural exchange was presented as they gifted him with a traditional Greek headdress, symbolizing the bridging of cultures and the strong ties that the two nations share.



## **CHINA RELEASES A MAP ASSERTING TERRITORIAL CLAIMS -**

- China's government recently unveiled the "2023 edition of the standard map of China," reaffirming its territorial claims over disputed regions.
- The release of the map coincides with China's "National Mapping Awareness Publicity Week," which emphasizes the significance of accurate and consistent mapping.
- The map incorporates China's territorial claims, encompassing Arunachal Pradesh and the Aksai Chin Region. These claims have long been points of contention between China and India.
- The map also features the "Nine-Dash Line," a contentious demarcation that covers the entire South China Sea and underscores Beijing's claims over this strategic maritime region. The map also shows the tenth dash line which underlines Beijing's claims over Taiwan island.



## **43RD ASEAN SUMMIT BEGINS IN JAKARTA -**

- President Joko Widodo and First Lady Iriana extended a warm welcome to the heads of state and government participating in the 43rd summit of the Association of Southeast Asian Nations (ASEAN) in Jakarta.
- The 43rd ASEAN Summit, hosted by Indonesia and occurring from September 5th to 7th, saw esteemed delegates gathering at the Plenary Hall of the Jakarta Convention Center, the summit's main venue.
- Indonesia, as the host of the summit and the 2023 chair of ASEAN, demonstrated its commitment to broadening the summit's horizons by inviting President of Bangladesh Mohammed Shahabuddin, who also serves as Chairman of the Indian Ocean Rim Association (IORA), and Cook Islands PM Mark Brown, Chairman of the Pacific Islands Forum (PIF).
- This global engagement highlights the importance of ASEAN as a regional powerhouse with far-reaching implications.



- This year, Indonesia assumed the chairmanship with the theme "ASEAN Matters: Epicentrum of Growth." This theme underscores Indonesia's determination to preserve ASEAN's relevance in the global arena and equip the bloc to face future challenges while promoting regional stability and peace.
- Indonesia envisions Southeast Asia as a resilient, adaptive, and inclusive region. By encouraging ASEAN countries to strengthen collaboration, Indonesia aims to retain the region's position as the world's center of economic growth.

#### **COUP IN GABON -**

- Gabon, a Central African nation, rich in oil but plagued by poverty and political instability, has witnessed another coup attempt by a group of mutinous soldiers who claimed to have seized power and placed the President of the country under house arrest.
- Coup attempt took place due to allegations of election fraud and corruption against Gabon's President Ali Bongo Ondimba, reflecting the growing discontent within the nation.
- Gabon, a country surrounded by the Atlantic Ocean in the west, is a former French colony, and retains strong ties to France and French language and culture. The capital is Libreville.
- It shares land borders with Cameroon, Equatorial Guinea, and the Republic of Congo. Gabon has a population of 2.3 million (2021) and forests covering 88% of its territory.
- Gabon is widely described as 'Africa's last Eden', the Loango National Park is one of the country's best wildlife-watching spots.
- Gabon has one of the highest urbanisation rates in Africa with more than four in five Gabonese citizens living in cities.
- Gabon is the 4th largest oil producer in Sub-Saharan Africa. Strong economic growth over the past decade was driven mainly by oil and manganese production.
- In 2020, the oil sector accounted for 38.5% of Gross Domestic Product (GDP) and 70.5% of exports despite efforts to diversify the economy.
- Gabon is a member of the Organization of the Petroleum Exporting Countries (OPEC), but its oil wealth is concentrated in the hands of a few — and nearly 40% of Gabonese aged 15 to 24 were out of work in 2020, according to the World Bank.



#### **AFRICAN UNION BECOMES PERMANENT MEMBER OF G20 -**

- African leaders expressed unanimous support for the G20's decision to admit the African Union as a permanent member of the grouping.
- During the 18th G20 meeting in New Delhi, India, Prime Minister Narendra Modi officially announced the induction of the African Union (AU) as the 21st permanent member.
- AU Commission Chair Moussa Faki Mahamat accepted Africa's full membership in the G20. South African President and former AU Chair Cyril Ramaphosa was among the first to support the decision.





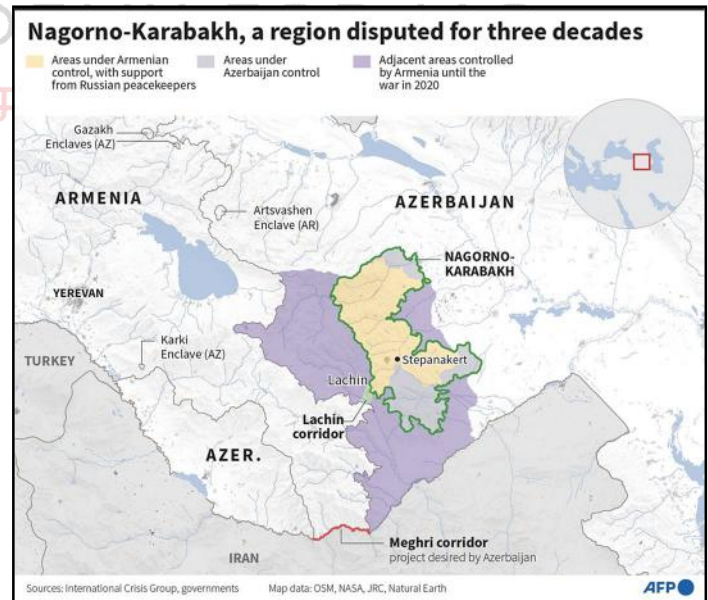
- Prior to this decision, the G20 had only granted observer status to the African Union since its establishment in 1999 in response to global economic crises.
- The African Union (AU) is a continental union of 55 member states in Africa. The AU was officially launched on 9 July 2002 in Durban, South Africa.
- Its main purpose was to replace the Organization of African Unity (OAU), which began on 25 May 1963 in Addis Ababa and was dissolved on 9 July 2002.
- The Assembly of the African Union, a semi-annual meeting of heads of state and government of member states, makes the most important decisions within the AU.  
Chairman- Azali Assoumani  
Chairman of the Commission- Moussa Faki  
Parliamentary Speaker- Fortune Jade Charumbira

**INDIA IS DISCUSSING THE POSSIBILITY OF INVITING LEADERS OF THE QUAD GROUPING TO THE REPUBLIC DAY PARADE ON JANUARY 26, 2024 -**

- January 26 is also observed as Australia Day - the anniversary of the arrival of the First Fleet of 11 convict ships from Great Britain, and the raising of the Union Jack at Sydney Cove by its commander Captain Arthur Phillip, in 1788.
- Quad is the grouping of four democracies – India, Australia, the US, and Japan which aims to ensure and support a “free, open and prosperous” Indo-Pacific region.
- The idea of Quad was first mooted by Japanese Prime Minister Shinzo Abe in 2007. However, it came into being in 2017.

**AZERBAIJAN LAUNCHED AN ANTI-TERRORIST OPERATION IN THE ARMENIA-BACKED BREAKAWAY ENCLAVE OF NAGORNO-KARABAKH -**

- The region has long been at the centre of tensions between Azerbaijan and Armenia, leading to two wars for its control. The last large-scale conflict in Nagorno-Karabakh lasted for six weeks in 2020 before a Russian-brokered truce. The ceasefire saw Armenia cede swathes of territory it had controlled since the 1990s.
- Nagorno-Karabakh is a mountainous and heavily forested region that under international law is recognised as part of Azerbaijan. However, ethnic Armenians who constitute the vast majority of the population there reject Azeri rule (the legal system of Azerbaijan).
- After Azerbaijan’s troops were pushed out of the region following a war in the 1990s, these ethnic Armenians have been in administrative control of Nagorno-Karabakh, with support from Armenia.
- The self-declaration of independence by Nagorno-Karabakh in September 1991 in the backdrop of an imminent collapse of the USSR resulted in a war between Azerbaijan and Nagorno-Karabakh — supported by Armenia. Past events, such as the 1985 bombing of an Air India aircraft by a Canada-based Khalistani separatist group, have strained relations between India and Canada. These incidents have contributed to India’s vigilance regarding Sikh-related activities in Canada.



**AS DIPLOMATIC TENSIONS BETWEEN INDIA AND CANADA ESCALATE, THE INDIAN GOVERNMENT HAS SUSPENDED VISA SERVICES IN CANADA, AFFECTING A RANGE OF TRAVELERS -**

- As diplomatic tensions between India and Canada escalate, the Indian government has suspended visa services in Canada, affecting a range of travelers and sparking questions about the future of diplomatic relations.
- Indian-origin Canadians with valid Overseas Citizen of India (OCI) cards or valid long-term Indian visas are not affected by the visa service suspension.
- OCI cardholders have lifetime entry privileges into India, allowing them to live and work in the country indefinitely.
- Canadians who possess valid Indian visas will not be impacted by the suspension. Their visas remain valid until further notice.



**THREE YEARS OF THE ABRAHAM ACCORDS -**

- The Abraham Accords are a series of agreements to normalize relations between Israel and normalize relations between Israel and several Arab countries, including the UAE, Bahrain, Morocco, and Sudan, mediated by the United States.
- The accords were signed in 2020 and marked a historic breakthrough in the Arab-Israeli conflict.
- The Accords fostered normalisation and peace by bridging cultural, religious, and linguistic differences, connecting people beyond borders.
- The Accords laid the foundation for expanded regional and multinational cooperation, leading to economic opportunities for India.
- Following the Abraham Accords, I2U2 Group was formed, comprising Israel, India, UAE, and the U.S., focusing on critical areas such as water, energy, transportation, space, health, and food security.



# AWARDS & RECOGNITIONS

## WORLD'S TALLEST NATARAJA STATUE INSTALLED AT G20 SUMMIT VENUE -

- The world's tallest Nataraja statue has been installed at Bharat Mandapam, the venue of the G20 summit in Delhi.
- The 28-foot-tall statue weighing 20 tonnes was made in a record time of seven months by sculptor Radhakrishnan Sthapathy and his team at Swamimalai in Thanjavur District of Tamil Nadu.
- The statue was built in Ashtadhatu (8 metals) using the traditional casting method.
- The statue was transported to the New Delhi in four days.



## NATIONAL TEACHERS' AWARD 2023 -

- Recently, the Prime Minister of India interacted with the winners of the National Teachers' Award 2023 on the eve of Teachers' Day.
- The purpose of the National Teachers' Award is to celebrate the unique contribution of some of the finest teachers in the country and to honour those teachers who, through their commitment, have not only improved the quality of education but also enriched the lives of their students.
- The awards are conferred by the President of India on 5th September. The awards consist of a silver medal, a certificate and a cash prize of Rs. 50,000.
- This year, the scope of the award has been expanded from including teachers selected by the Department of School Education & Literacy to now also including teachers selected by Department of Higher Education and Ministry of Skill Development.
- Teachers' Day, celebrated annually on 5th September since 1962, honours the contributions of educators, including teachers, researchers, and professors in India.
- Dr. Sarvepalli Radhakrishnan, the President of India at the time, suggested observing his birthday as Teachers' Day in response to students' requests for celebration.
- He was born into a Telugu family in Tiruttani town of Tamil Nadu, on 5th September, 1888. He studied philosophy at Christian College, Madras, and later became a professor at Madras Presidency College and the University of Mysore.
- He served as the first Vice-President of India from 1952 to 1962 and the second President of India from 1962 to 1967. He was also the Ambassador of India to the Soviet Union from 1949 to 1952. He was the fourth Vice-Chancellor of Banaras Hindu University from 1939 to 1948.
- In 1984, he was posthumously (after death) awarded the Bharat Ratna.



## 12 SCIENTISTS SELECTED FOR THE SHANTI SWARUP BHATNAGAR AWARD FOR 2022 -

- The country's top annual science award, the prestigious Shanti Swarup Bhatnagar Award, was announced after a gap of two years. This year, 12 scientists were selected for the award in seven different scientific categories.

- Director General of CSIR (Council of Scientific and Industrial Research) Dr. N. Kalaiselvi officially announced the awards for the year 2022.
- Shanti Swarup Bhatnagar Award are awarded in seven scientific disciplines, including physics, biology, engineering, mathematics, medicine, chemistry, and earth sciences. They are named after Shanti Swarup Bhatnagar, the first director of CSIR.



#### **One Week One Lab Program**

- Union Minister for Science and Technology Dr Jitendra Singh launched the 'One Week One Lab' program at CSIR-National Institute of Science Communication and Policy Research (NISCP).  
(NISCP).
- The event aims to share unique ideas and technological breakthroughs from various CSIR laboratories with the public and will run till 16 September.

#### **'One Month One Theme' Campaign:**

- Dr. Jitendra Singh mentioned that in the future, CSIR plans to expand its outreach efforts by running a 'One Month One Theme' campaign to inform the public about the contribution of its units.
- Union Minister Dr. Jitendra Singh also released two books titled 'Collection of 80 Articles of Vigyan Pragati Patrika' and 'CSIR@80: A Photo Journey' on the occasion.

#### **GITA PRESS, GORAKHPUR AWARDED GANDHI PEACE PRIZE FOR 2021 -**

- The Gandhi Peace Prize for 2021 will be conferred on Gita Press, Gorakhpur, in recognition of its "outstanding contribution towards social, economic and political transformation through non-violent and other Gandhian methods", the ministry of culture announced.
- The decision to confer the award on Gita Press was taken by a jury headed by Prime Minister Narendra Modi.
- Gandhi Peace Prize is an annual award instituted by Government of India in 1995, on the occasion of 125th birth anniversary of Mahatma Gandhi as a tribute to the ideals espoused by Mahatma Gandhi. The award is open to all persons regardless of nationality, race, language, caste, creed or gender.
- The award carries a cash prize of Rs 1 crore, a citation, a plaque and an exquisite traditional handicraft/handloom item.
- The past awardees include organisations such as ISRO, Ramakrishna Mission, Grameen Bank of Bangladesh, Vivekananda Kendra, Kanyakumari, Akshaya Patra, Bengaluru, Ekal Abhiyan Trust, India and Sulabh International, New Delhi among others.
- The prestigious award has also been awarded to luminaries like Nelson Mandela, former president of South Africa and Julius Nyerere, former president of Tanzania among many other personalities. Some recent awardees include Sultan Qaboos Bin Said Al Said, Oman (2019) and Bangabandhu Sheikh Mujibur Rahman (2020), Bangladesh.
- Gita Press was established in 1923, Gita Press is one of the world's largest publishers, having published 41.7 crore books in 14 languages, including 16.21 crore Shrimad Bhagavad Gita. The institution has never relied on advertisement in its publications, for revenue generation.



## DEFENCE NEWS

### **INDIA BEGINS CONSTRUCTION OF WORLD'S HIGHEST COMBAT AIRFIELD AT NYOMA IN LADAKH -**

- The Border Roads Organization (BRO) is building the world's highest combat airfield at Nyoma in Ladakh.
- Defense Minister Rajnath Singh will lay the foundation stone of this project at Devak Bridge in Jammu on September 12, 2023.
- Nyoma, a major village in southern Ladakh, already hosts an Indian Air Force base and an Advanced Landing Ground (ALG), established in 1962.
- The altitude of Nyoma reaches an impressive 4,180 meters (13,710 ft) above sea level, making it one of the highest altitudes in the region.



#### **Budget Allocation-**

- The Central Government has consistently increased its budget allocation for the development of border infrastructure.
- Last year, around ₹12,340 crore was allocated, underscoring the government's commitment to strengthening India's border infrastructure.
- Lieutenant General Rajiv Chaudhary, who heads the BRO, is optimistic about India's rapid progress in developing border infrastructure.
- India aims to surpass China in this regard on the 3,488 km long Line of Actual Control (LAC) within the next two to three years.

### **INDIA AIR FORCE RECEIVE FIRST C-295 TRANSPORT AIRCRAFT FROM AIRBUS -**

- The Indian Air Force is all set to acquire its first Airbus C-295 aircraft.
- India has formalized the acquisition of 56 Airbus C-295 aircraft to replace the Indian Air Force AVRO fleet.
- Among these, 16 units of the military aircraft will be manufactured in Spain while the rest will be made in India from the manufacturing facility in Vadodara, Gujarat.
- The new aircraft will play a major role in the forces as a tactical military transport aircraft.



### **IAF TO HOLD MULTI-NATIONAL EXERCISE 'TARANG SHAKTI' NEXT YEAR -**

- The Indian Air Force (IAF) is gearing up to host a colossal multilateral military exercise, 'Tarang Shakti', which was originally slated for October but has been rescheduled to the middle of 2024. The decision to push the exercise to next year comes as several participating air forces expressed their inability to join the wargame if held in the current year.
- 'Tarang Shakti' is set to draw the involvement of some prominent air forces, including those of France, the United Kingdom, Australia, the United States, and Japan.
- These nations will contribute their aerial assets such as fighter jets, military transport aircraft, and mid-air refuelers to the exercise.

- Additionally, six other countries have been invited to participate as observers, further emphasizing the exercise's significance on the global stage.
- The upcoming exercise is anticipated to serve as an impressive showcase of international teamwork and military capabilities, with the involvement of around 12 air forces.
- The main goal of 'Tarang Shakti' is to reinforce military coordination and amplify the seamless interaction between the participating countries.
- Remarkably, this exercise is on track to become India's most extensive aerial drill to date, highlighting the nation's escalating role in the sphere of global military collaboration.
- In April, the Indian Air Force dispatched four Rafale jets, two C-17 aircraft, and two IL-78 mid-air refuelers to participate in a nearly three-week-long multinational air exercise at France's Mont-de-Marsan military base.



#### **INDIA'S JET ENGINE DEAL WITH THE U.S. -**

- A landmark agreement to facilitate the transfer of at least 11 critical jet engine technologies is likely to be announced during Prime Minister Narendra Modi's ongoing official State Visit to the United States.
- India and the U.S. have almost finalised details and the White House is set to sign off on the deal.
- GE & HAL – The deal will allow American manufacturing company General Electric (GE) Aerospace to share critical technology with Hindustan Aeronautics Limited (HAL).
- Tejas Mk-II – The deal will felicitate for the joint production of GE-F414 jet engines that will power indigenous Light Combat Aircraft (LCA) Tejas Mk-II.
- India has designed and built a fighter jet but hasn't achieved much success in producing engines to power these aircraft.
- HF-24 Marut – The quest began in the 1960s with the country's first indigenous fighter, HF-24 Marut. The aircraft was envisioned as a supersonic jet, but failed to achieve its potential for want of a suitable engine and was eventually phased out.
- Kaveri programme – A few decades later, India sanctioned the Kaveri programme to develop an indigenous military gas turbine engine for the ambitious LCA project. With Kaveri still a work in progress, India shortlisted American GE-F404 engines for LCA Tejas Mark-1 as an interim measure.
- F414 engines – In 2010, the Aeronautical Development Agency (ADA) selected the more powerful variant, F414 engines, to power Tejas Mark-2. The deal, however, did not materialise due to U.S. domestic legislation and regulatory hindrances and remained on the back burner for over a decade.



#### **SIPRI YEARBOOK 2023 -**

- Recently, Stockholm International Peace Research Institute (SIPRI) Yearbook 2023 revealed that China could potentially have as many Intercontinental Ballistic Missiles (ICBMs) as U.S. or Russia by the end of the decade.

- Russia has the highest number of stored nuclear arsenals followed by US and China while the US has deployed the highest number of nuclear arsenals followed by Russia and France.
- The nine nuclear-armed states, including the United States, Russia, and China, continue to modernize and expand their nuclear arsenals, deploying new nuclear-armed or nuclear-capable weapon systems in 2022. Other nuclear-armed countries are UK, France, India, Pakistan, the North Korea and Israel
- As of January 2023, the total global inventory of warheads is estimated at 12,512, with approximately 9,576 warheads held in military stockpiles for potential use.

Country	Deployed warheads <sup>a</sup>	Stored warheads <sup>b</sup>	Total stockpile <sup>c</sup>		Total inventory <sup>d</sup>	
	2023	2023	2022	2023	2022	2023
United States	1 770	1 938	3 708	3 708	5 428	5 244
Russia	1 674	2 815	4 477	4 489	5 977	5 889
United Kingdom	120	105	225 <sup>e</sup>	225	225	225 <sup>f</sup>
France	280	10	290	290	290	290
China	–	410	350	410	350	410
India	–	164	160	164	160	164
Pakistan	–	170	165	170	165	170
North Korea	–	30	25	30 <sup>g</sup>	25	30 <sup>g</sup>
Israel	–	90	90	90	90	90
<b>Total</b>	<b>3 844</b>	<b>5 732</b>	<b>9 490</b>	<b>9 576</b>	<b>12 710</b>	<b>12 512</b>

- India's nuclear arsenal also expanded, increasing from 160 warheads in 2022 to 164 warheads in 2023 and that of Pakistan from 165 to 170 in the same period.
- India's nuclear deterrent, while primarily focused on Pakistan, is placing growing emphasis on longer-range weapons capable of reaching targets across China.
- India is in the process of upgrading its ballistic missiles, with the development of a submarine-launched intermediate-range ballistic missile and the imminent induction of a new generation ballistic missile called 'Agni Prime.'
- China's nuclear arsenal grew from 350 warheads in January 2022 to 410 warheads in January 2023, according to the SIPRI.

## SCIENCE & TECHNOLOGY

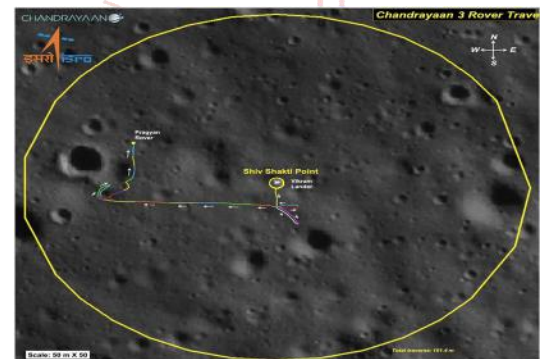
**RECENTLY, THE PROTOTYPE OF THE WORLD'S 1ST BHARAT STAGE-6 (BS6) STAGE-II, ELECTRIFIED FLEX FUEL VEHICLE, DEVELOPED BY TOYOTA KIRLOSKAR MOTOR WAS UNVEILED -**

- This vehicle is capable of running on up to 85% ethanol blended petrol and features an electric powertrain.
- The Ministry of Petroleum & Natural Gas has also highlighted flex-fuel vehicles' potential to substitute petrol with higher ethanol blends beyond 20%.
- Flex-fuel vehicles (FFV) have engines that can run on flexible fuel - a combination of Petrol/Diesel/Electric and ethanol, which can include up to 100% ethanol.
- Electrified Flex Fuel Vehicle integrates both a Flex Fuel engine and an electric powertrain, offering the dual benefit of higher ethanol use and improved fuel efficiency.
- The integration of an electric powertrain reduces reliance on conventional fuels, contributing towards sustainable transportation and India's 'Atmnrirbhar Bharat' initiative as production of ethanol increases.
- Similar to SHEVs, this vehicle can achieve significantly higher fuel efficiency, optimizing the use of ethanol and electricity.
- By promoting the use of FFVs, India can capitalize on its abundant ethanol potential, reducing petrol consumption.
- BS6 Norms- The Bharat Stage (BS) norms are emission standards instituted by the Government of India to regulate the output of air pollutants from motor vehicles.
- The BS regulations are based on the European emission standards and the Central Pollution Control Board implements these standards.



**PRAGYAN ROVER COMPLETES TASKS AND ENTERS SLEEP MODE -**

- Pragyan, part of Chandrayaan-3, has entered sleep mode for the lunar night, scheduled to awaken on September 22, 2023. One lunar day is equivalent to about 14 days on Earth.
- If the rover doesn't awaken, it will remain on the Moon as India's lunar ambassador. The ISRO indicated that the process of putting the rover to sleep is to ensure its survival during the lunar night when temperatures can plummet below  $-200^{\circ}\text{C}$ .
- The lander and rover rely on a solar panel to generate power and charge the battery during the lunar day, while they must endure the harsh lunar night conditions.

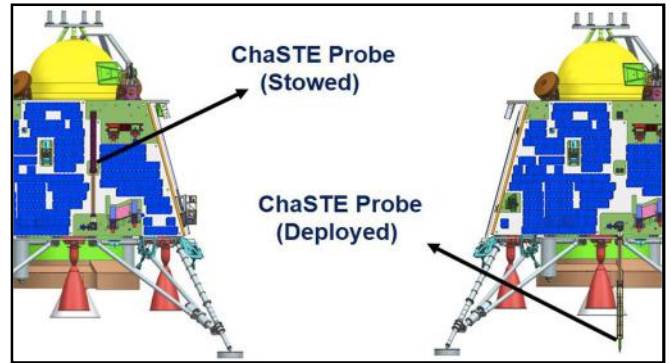


**CHANDRAYAAN-3 PROBE SHOWS  $50^{\circ}\text{C}$  TEMPERATURE DIFFERENCE BETWEEN THE MOON'S SURFACE AND BELOW IT -**

- On August 27, 2023, the Indian Space Research Organization (ISRO) released a graph of the temperature variation between the moon's surface and a point around 8 cm below as measured by an instrument named ChaSTE on board the lander module of the Chandrayaan-3 mission.
- ChaSTE – short for 'Chandra's Surface Thermophysical Experiment'. Developed by: the Space Physics Laboratory of ISRO's Vikram Sarabhai Space Centre (VSSC), with the Physical Research Laboratory (PRL), Ahmedabad.



- It is a temperature probe that can be driven into the moon's surface using a motor to a depth of up to 10 cm. It measured the temperature profile of the lunar topsoil around the south pole to understand its thermal behaviour.
- Its data show that at the moon's surface (where the lander is located, a point between the craters Manzinus C and Simpelius N), the temperature is 40-50 degrees C. But just under 80 mm under, it plunges to around -10 degrees C.



#### INDIA'S FIRST SOLAR CITY INAUGURATED IN MADHYA PRADESH'S SANCHI -

- Madhya Pradesh (MP) Chief Minister Shivraj Singh Chouhan inaugurated Sanchi in Raisen district as India's first solar city.
- The initiative is in line with Prime Minister Narendra Modi's vision of developing a solar city in every state by 2070.
- Sanchi Solar City has two solar plants - a 3 MW solar plant at Nagauri and a 5 MW solar plant at Gulgaon, which cater to the city's power and agricultural needs. Currently, an 8 MW grid-connected solar plant is under construction within Sanchi city.
- Madhya Pradesh Urja Vikas Nigam Limited (MPUVNL) acted as the nodal agency for this solar city project. MPUVNL launched an 'Energy Literacy Campaign' to educate the people of Sanchi about energy-saving practices.
- Sanchi Solar City is expected to reduce annual carbon dioxide emissions by about 13,747 tonnes, which is equivalent to the effect of planting more than 2 lakh adult trees.
- The project is expected to save over Rs 7 crore annually in energy-related expenses for both the government and citizens.
- Electric vehicle charging stations have been set up across the city to promote the adoption of electric vehicles.
- Public establishments have been fitted with rooftop solar systems to harness solar energy. Individual rooftop owners have also installed solar systems on their premises, thereby reducing their dependence on grid electricity.
- India has set a target of generating 40% of its total installed electricity generation capacity from renewable sources by 2030.



#### NASA CAPSULE WITH LARGEST SAMPLE EVER LANDS IN UTAH DESERT -

- The climactic end of a seven-year voyage comes to an end when a NASA capsule landed in the Utah desert, carrying to Earth the largest asteroid samples ever collected. Scientists have high hopes for the sample, saying it will provide a better understanding of the formation of our solar system and how Earth became habitable.
- Four years after its 2016 launch, the Osiris-Rex probe landed on the asteroid Bennu and collected roughly nine ounces (250 grams) of dust from its rocky surface.



- Even that small amount, NASA says, should “help us better understand the types of asteroids that could threaten Earth” and cast light “on the earliest history of our solar system.” NASA Administrator Bill Nelson said, this is going to be the biggest sample we’ve brought back since the Apollo moon rocks” were returned to Earth.
- As the tire-sized capsule touches down in Utah, a team in protective masks and gloves placed it in a net to be airlifted by helicopter to a temporary “clean room” nearby. NASA wants this done as quickly and carefully as possible to avoid any contamination of the sample with desert sands, skewing test results.
- Thereafter, this sample was flown by plane to NASA’s Johnson Space Center in Houston, Texas. There, the box will be opened in another “clean room” — the beginning of a days-long process. NASA plans to announce its first results at a news conference on October 11.
- Most of the sample will be conserved for study by future generations. Roughly one-fourth of it will be immediately used in experiments, and a small amount will be sent to Japan and Canada, partners in the mission. Japan had earlier given NASA a few grains from the asteroid Ryugu, after bringing 0.2 ounces of dust to Earth in 2020 during the Hayabusa-2 mission. Ten years before, it had brought back a microscopic quantity from another asteroid. But the sample from Bennu is much larger, allowing for significantly more testing.

### **INDIA'S CHANDRAYAAN-3 AND RUSSIA'S LUNA 25 MISSION -**

- The race for lunar exploration has taken an intriguing turn as Russia's Luna 25 mission, launched aboard its Soyuz rocket on August 10, 2023, seeks to soft-land close to the lunar South Pole, just days before India's Chandrayaan-3.
- Russia's space agency, Roscosmos asserts that Luna 25's landing would not impact Chandrayaan-3, as their landing regions are distinct. Despite being launched almost a month later than Chandrayaan-3, Luna 25 is set to reach the moon earlier due to its more direct trajectory.



- Payload and Fuel Storage- Luna 25's lift-off mass of 1,750 kg is significantly lighter than Chandrayaan-3's 3,900 kg, facilitating a quicker journey.
- Circuitous Route for Chandrayaan-3- Chandrayaan-3 took a longer route to compensate for its lower fuel reserve, involving maneuvers to gain velocity and slingshotting towards the moon. This elongated its journey to the lunar orbit by 22 days.

### **Differences between Luna 25 and Chandrayaan 3-**

Luna 25 marks Russia's return to lunar exploration after 47 years, aiming to reclaim its reputation in space exploration. Chandrayaan-3 is India's third lunar mission and second attempt at achieving a soft landing on the moon's surface.

**Payload Difference-** Luna 25 is lighter and lacks a rover, focusing on studying soil composition, dust particles, and detecting surface water. Chandrayaan-3 carries a rover capable of moving 500 meters, aims to study lunar soil, and has instruments to detect water-ice in shadowed craters near the lunar South Pole.

**Lifespan-** Luna 25 is designed for a year-long mission, equipped with heating mechanisms and a non-solar power source. In contrast, Chandrayaan-3 is built for a single lunar day due to lack of heating during lunar nights.

### Status of India Russia Space Collaboration-

India's first satellite, Aryabhata, was launched by the Soviet Union in 1975. Only one Indian citizen has ever flown to space- Rakesh Sharma flew to the Salyut 7 space station on a Soyuz rocket in 1984 as part of the USSR's Interkosmos program.

In 2004, the two countries signed a protocol to boost cooperation in space. This included the development of the GLONASS navigation system and the launching of Russian GLONASS satellites by Indian rockets.

Chandrayaan-2 was initially supposed to be a collaboration between India and Russia. However, Russia withdrew from designing the lander-rover for Chandrayaan-2, leading India to develop it independently.

Also, four astronauts who will be part of India's first crewed space mission: Gaganyaan have been trained in Russian facilities.

### FUKUSHIMA WATER ISSUE -

- Japan's plan to release over 1 million tons of water, which is claimed to be treated but potentially radioactive, from the Fukushima nuclear power plant into the sea, has sparked strong opposition and anxiety among neighboring countries, particularly South Korea.
- The Fukushima Daiichi Nuclear power plant suffered a meltdown in 2011 after a massive earthquake and tsunami, releasing large amounts of radioactive materials into the environment.
- No deaths were initially attributed to the incident, although around 18,000 people lost their lives as a result of the earthquake and tsunami.
- Since then, Japan has been storing the cooling water for nuclear fuel and rain and groundwater seeping through the damaged reactor buildings in large tanks on site.
- The water is treated using a filtering system called Advanced Liquid Processing System (ALPS), which removes most of the radioactive elements except for tritium, a hydrogen isotope that is difficult to separate.
- Japan says it has no space to keep storing the water, and thus releasing it into the sea.
- The International Atomic Energy Agency (IAEA) is assisting Japan to release the water, Tritium is radioactive and has a half-life of about 12.5 years.



### What are the Other Major Nuclear Disasters of the World-

- A. Chernobyl Disaster (1986)- One of the most well-known and severe nuclear disasters, the Chernobyl disaster took place in Chernobyl Nuclear Power Plant in Ukraine.
- B. Three Mile Island Accident (1979)- This accident occurred in the United States at the Three Mile Island Nuclear Generating Station in Pennsylvania.
- C. Kyshtym Disaster (1957)- It took place at the Mayak Production Association in the Soviet Union (now Russia).

### INDIA JOINS NASA'S ARTEMIS ACCORDS FOR COLLABORATIVE LUNAR EXPLORATION -

- Prime Minister Narendra Modi signed the Artemis Accords during his state visit to the United States, marking India's commitment to global space cooperation and lunar exploration. The accords, initiated by NASA and the US Department of State, provide a framework for collaboration in civil space exploration and use, with a focus on returning humans to the Moon and expanding space exploration to Mars and beyond.

- Grounded in the United Nations Outer Space Treaty of 1967, the Artemis Accords serve as a non-binding multilateral arrangement between the US government and other world governments participating in the Artemis program. This US-led initiative aims to land humans on the Moon by 2025 and foster future space exploration endeavors.
- As of June 22, 2023, 26 countries and one territory have signed the accords, with representation from Europe, Asia, North America, Oceania, Africa, and South America. By signing the accords, countries demonstrate their commitment to key principles and guidelines for lunar missions.

**The Artemis Accords outline several fundamental principles that participating countries are expected to uphold. These principles include:**

**Peaceful Exploration of Space:** Countries pledge to conduct their space activities in a peaceful manner and avoid any harmful interference or conflict.

**Transparency and Interoperability:** Participants agree to promote transparency by openly sharing scientific data, emergency assistance, and orbital debris tracking information. They also commit to enhancing interoperability among space systems to facilitate safe and efficient cooperation.

**Sustainable Utilization of Space Resources:**

Signatory nations commit to the responsible and sustainable use of space resources, including lunar regolith and water ice, while adhering to international law and relevant domestic regulations.

**Preservation of Historic Sites and Artifacts:** Countries agree to protect and preserve historic lunar sites and artifacts, recognizing their scientific, cultural, and historical value.



# ECONOMY AND FINANCE

## CCI APPROVES MERGER OF TATA SIA AIRLINES INTO AIR INDIA -

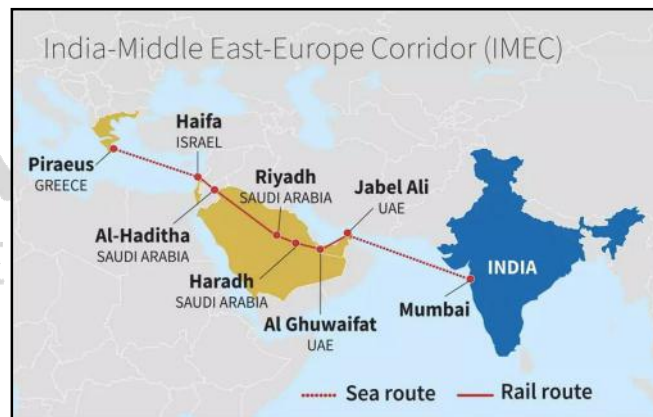
- The Competition Commission of India (CCI) approved the merger of Tata Group airlines Vistara and Air India
- This will make Air India, India's leading domestic and international carrier with a combined fleet of 218 aircraft, making it India's largest international carrier and second largest domestic carrier.
- The deal is part of Tata Sons chairman N Chandrasekaran's effort to simplify the conglomerate's businesses and make them more efficient.



## INDIA-MIDDLE EAST-EUROPE CORRIDOR -

- Recently, the India-Middle East-Europe Economic Corridor (IMEC) Project was signed at the G20 Summit in New Delhi, which holds significant geopolitical and economic implications for India.
- The project forms part of the Partnership for Global Infrastructure and Investment (PGII). PGII is a values-driven, high-impact, and transparent infrastructure partnership to meet the enormous infrastructure needs of low and middle-income countries.

The proposed IMEC will consist of Railroad, Ship-to-Rail networks and Road transport routes extending across two corridors, that is,



The East Corridor – connecting India to the Arabian Gulf,

The Northern Corridor – connecting the Gulf to Europe.

- The IMEC corridor will also include an electricity cable, a hydrogen pipeline and a high-speed data cable.
- Signatories- India, the US, Saudi Arabia, UAE, the European Union, Italy, France, and Germany.

### Ports to be Connected -

- India- Mundra (Gujarat), Kandla (Gujarat), and Jawaharlal Nehru Port Trust (Navi Mumbai).
- Middle East- Fujairah, Jebel Ali, and Abu Dhabi in the UAE as well as Dammam and Ras Al Khair ports in Saudi Arabia.
- Railway line will connect Fujairah port (UAE) to Haifa port (Israel) via: Saudi Arabia (Ghuwaifat and Haradh) and Jordan.
- Israel- Haifa port.
- Europe- Piraeus port in Greece, Messina in South Italy, and Marseille in France.

### Objective-

- It aims to create a comprehensive transportation network, comprising rail, road, and sea routes, connecting India, the Middle East, and Europe.
- It aims to enhance transportation efficiency, reduce costs, increase economic unity, generate employment, and lower Greenhouse Gas (GHG) emissions.

**PRODUCTION LINKED INCENTIVE SCHEME -**

- Recently, a debate has emerged over the effectiveness of India's Production-Linked Incentive (PLI), an Electronics Manufacturing scheme, suggesting it generates import-dependent assembly jobs rather than fostering Self-Sufficiency in manufacturing and economic growth.
- The PLI scheme was conceived to scale up domestic manufacturing capability, accompanied by higher import substitution and employment generation.



**Launched in March 2020, the scheme initially targeted three industries-**

- ❖ Mobile and allied Component Manufacturing
- ❖ Electrical Component Manufacturing and
- ❖ Medical Devices
- Later, it was extended to 14 sectors. In the PLI scheme, Domestic and Foreign companies receive financial rewards for manufacturing in India, based on a percentage of their revenue over up to five years.
- The 14 sectors are mobile manufacturing, manufacturing of medical devices, automobiles and auto components, pharmaceuticals, drugs, specialty steel, telecom & networking products, electronic products, white goods (ACs and LEDs), food products, textile products, solar PV modules, advanced chemistry cell (ACC) battery, and drones and drone components.
- The incentives given, are calculated on the basis of incremental sales.
- In some sectors such as advanced chemistry cell batteries, textile products and the drone industry, the incentive to be given will be calculated on the basis of sales, performance and local value addition done over the period of five years.
- In FY 2017-18, mobile phone imports were USD 3.6 billion, while exports were a mere USD 334 million, resulting in a -USD 3.3 billion trade deficit. By FY 2022-23, imports reduced to USD 1.6 billion, while exports surged to nearly USD 11 billion, yielding a positive net exports of USD 9.8 billion.

**INDIA NEEDS AVERAGE ANNUAL 7.6% GDP GROWTH TO BECOME DEVELOPED BY 2047: RBI -**

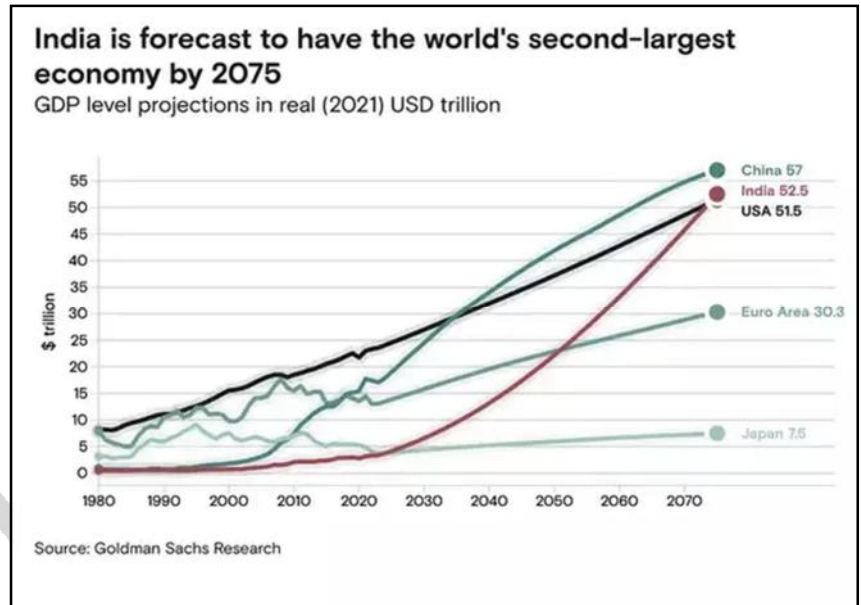
- The Reserve Bank of India, in its monthly bulletin, has outlined the significant growth targets India must achieve over the next 25 years to become a developed economy with high per capita income.
- Currently estimated at \$2,500, India's per capita income needs to surpass \$21,664 by 2047, as per World Bank standards, to be classified as a high-income country. To achieve this ambitious goal, the country must maintain a compounded annual growth rate (CAGR) of 7.6% in real GDP during 2023-24 to 2047-48.
- For India to become a high-income country by 2047-48, its per capita GDP in nominal terms would require a CAGR of 10.6% (9.1%). Notably, India's historical best over a consecutive 25-year period was a CAGR of 8.1% during 1993-94 to 2017-18. Thus, to achieve the targeted 9.1% growth, India must surpass its previous record of economic growth.
- The report suggests that India's industrial sector should increase its share from the current 25.6% to 35% by 2047-48, with manufacturing occupying 25% of total value added. This would necessitate the industrial sector to grow at a nominal CAGR of 13.4%.



- India's comparative advantage in services exports can be leveraged to sustain growth. If the country manages to sustain the growth in exports of goods and services (nominal) at 13.3%, as observed during the high growth phase of 1993-2017, their share in GDP is expected to increase from 22.8% in 2022-23 to 30.5% by 2047-48.

**INDIA TO SURPASS US AND BECOME WORLD'S 2ND LARGEST ECONOMY BY 2075: GOLDMAN SACHS REPORT -**

- Goldman Sachs analysts project India to become the world's second-largest economy by 2075. The report suggests India will surpass the US in terms of GDP, reaching \$52.5 trillion by 2075.
- China is expected to overtake the US to become the largest economy by the 2030s.
- India's burgeoning population and progress in innovation and technology are driving its economic forecast. Higher capital investment and rising worker productivity contribute to India's economic growth.
- Goldman Sachs Research's India economist emphasizes the need to boost the participation of India's labor force.
- India aims to set up manufacturing capacity, continue growing services, and invest in infrastructure. The government's focus on infrastructure creation, including roads and railways, supports this goal.
- India's progress in technology and innovation, particularly in the IT industry, drives economic growth. Revenue in India's technology industry is expected to increase by \$245 billion by the end of 2023.
- Low participation of women in formal employment remains a challenge to India's economic progress. India's economy is driven by domestic demand, with up to 60% of its growth attributed to domestic consumption and investments.



# REPORTS & INDICES

## SWACHH VAYU SURVEKSHAN 2023 AND NCAP -

- Recently, the awards for Swachh Vayu Survekshan (Clean Air Survey) 2023 were announced. The survey was conducted by the Central Pollution Control Board (CPCB).
- Every year, the International Day of Clean Air for Blue Skies is celebrated on 7 September to raise awareness and facilitate actions to improve air quality. It was declared so by the United Nations General Assembly (UNGA) in 2019.
- Theme for 4th International Day of Clean Air for Blue Skies (Swachh Vayu Diwas 2023) - "Together for Clean Air."
- Swachh Vayu Survekshan (SVS) is a new initiative by the Ministry of Environment, Forest and Climate Change (MoEFCC) to rank cities on the basis of air quality and implementation of activities approved under the city action plan (NCAP) in 131 non-attainment cities.

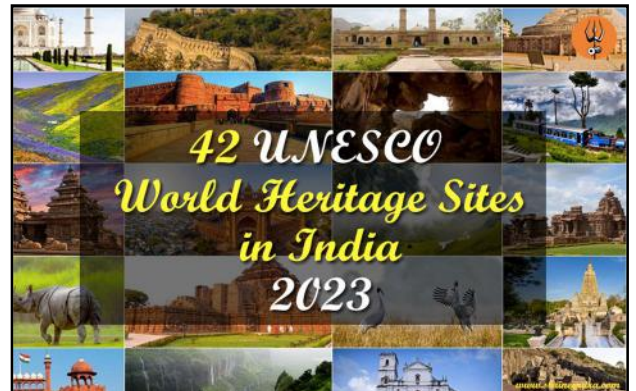
CITY LAGS IN AIR QUALITY		Swachh Vayu Survekshan is an initiative by MoEF&CC to rank cities on the basis of implementation of activities approved under city and air quality action plans in 131 NCAP cities	
Category 1 Cities with population over 10 lakh		CRITERIA	
City	Rank	Category 1 Population over 10 lakh No. of cities	Category 2 Population 3-10 lakh No. of cities
Indore	1	47	44
Agra	2		
Thane	3	40	44
Srinagar	4		
Bhopal	5	40	44
Trichy	6		
Vadodara	7	40	44
Ahmedabad	8		
Delhi	9	40	44
Mumbai	10		

### The cities were assessed on eight major points:

- Control of biomass
  - Municipal solid waste burning
  - Road dust
  - Dust from construction and demolition waste
  - Vehicular emissions
  - Industrial emissions
  - Public awareness
  - Improvement in PM10 concentration
- Top 3 cities under 1st category (million plus population): Indore followed by Agra and Thane. Worst Performers: Madurai (46), Howrah (45) and Jamshedpur (44) Bhopal ranked 5th and Delhi ranked 9th
  - Top 3 cities under 2nd category (3-10 lakhs population): Amravati followed by Moradabad and Guntur. Worst Performers: Jammu (38), Guwahati (37) and Jalandhar (36)
  - Top 3 cities under 3rd category (<3 lakhs population): Parwanoo followed by Kala Amb and Angul. Worst Performer: Kohima (39)

## LIST OF 42 UNESCO WORLD HERITAGE SITES IN INDIA BY SEP 2023 -

- There are 42 UNESCO World Heritage Sites in India. The Sacred Ensembles of the Hoysala, the famed Hoysala temples of Belur, Halebid, and Somananthpura in Karnataka have been added to the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage list.
- This inclusion marks the 42nd UNESCO World Heritage Site in India and comes just a day after Rabindranath Tagore's Santiniketan also received this distinguished recognition.
- The decision to include Santiniketan in the prestigious





list was made during the 45th session of the World Heritage Committee, held in Saudi Arabia, reaffirming its importance on the global stage.

- UNESCO World Heritage Site is a place that is recognized by the United Nations Educational, Scientific and Cultural Organization (UNESCO). This is exemplified by the Convention regarding the Protection of the World Cultural and Natural Heritage, accepted by UNESCO in 1972.

#### **Criteria for UNESCO World Heritage Sites-**

1. Human creative genius.
2. Interchange of values.
3. Testimony to cultural tradition.
4. Significance in human history.
5. Traditional human settlement.
6. Heritage associated with events of universal significance.
7. Natural phenomena or beauty.
8. Major stages of Earth's history.
9. Significant ecological and biological processes.
10. The significant natural habitat for biodiversity.

#### **INDIA'S TIGER POPULATION REACHES 3,925 WITH 6.1% ANNUAL GROWTH RATE, HOLDS 75% OF GLOBAL WILD TIGER POPULATION -**

- In 1973, the Government of India launched Project Tiger, a comprehensive conservation project aimed at protecting the nation's tiger population and preserving biodiversity. Over the past fifty years, Project Tiger has achieved remarkable success, with India currently harboring almost 75% of the world's wild tiger population. On Global Tiger Day, 29th July 2023, Minister of State for Environment, Forest, and Climate Change, Ashwini Kumar, released a comprehensive report revealing India's tiger population estimate of 3,925, with an annual growth rate of 6.1%.



#### **Project Tiger's Success and Evolution-**

Project Tiger was initiated in 1973, initially covering nine tiger reserves spanning 18,278 km<sup>2</sup>. It has now expanded to 53 reserves spread across 75,796 km<sup>2</sup>, effectively covering 2.3% of India's total land area.

The first phase of tiger conservation focused on enacting the Wildlife Protection Act and establishing protected areas, while the second phase in 2005 adopted a landscape-level approach, community involvement, strict law enforcement, and scientific monitoring.

#### **The Growth of India's Tiger Population-**

- In 2022, during the celebration of 50 years of Project Tiger, the Hon'ble Prime Minister declared the minimum tiger population estimate of 3,167 from the camera-trapped area.
- Further analysis of data by the Wildlife Institute of India, considering both camera-trapped and non-camera-trapped tiger presence areas, resulted in an estimated tiger population of 3,925 with an annual growth rate of 6.1% per annum.
- Notably, Central India and the Shivalik Hills and Gangetic Plains saw significant increases in tiger population, particularly in Madhya Pradesh, Uttarakhand, and Maharashtra. However, certain regions, like the Western Ghats, experienced localized declines, requiring targeted conservation efforts.

# ENVIRONMENT

## INDIA, A COUNTRY HEAVILY RELIANT ON MONSOON RAINS, FACED A SIGNIFICANT CHALLENGE IN AUGUST 2023 WITH AN UNPRECEDENTED RAINFALL DEFICIT -

- As a result, the water levels in the nation's crucial reservoirs have experienced a sharp decline, raising concerns about water supply for households, industries, and power generation.
- August is typically a month when India's reservoirs see their water storage levels increase significantly. However, August 2023 was an exception, as it marked the driest August in over 120 years. Instead of the expected 255 mm of rainfall, the country received only about 162 mm, resulting in a 36% rainfall deficiency.
- According to the Central Water Commission (CWC), the live storage in the 150 reservoirs was 113.417 billion cubic meters (BCM) as of 31st August, 2023, which was 63% of their total live storage capacity.
- This was about 23% less than the storage during the same period in 2022 and about 10% less than the average of the last 10 years.
- The water levels in the reservoirs varied across different regions and river basins. The southern region, which had a rainfall deficiency of 60% in August, had the lowest storage level of 49% of its combined capacity.
- The eastern region, which received normal rainfall, had the highest storage level of 82% of its combined capacity.
- Highly Deficient- Pennar basin in Karnataka and Andhra Pradesh, Mahanadi basin in Chhattisgarh and Odisha.
- Deficient- Subarnarekha, Brahmani and Vaitarni basins in Jharkhand, West Bengal and Odisha.
- Kaveri basin in Karnataka and Tamil Nadu, Mahi basin in western India, Krishna basin in Maharashtra, Karnataka and Telangana.
- What Are the Consequences of this Water Scarcity- Agriculture, Power, Environment.



## THE GROUP OF TWENTY (G20) RECENTLY ADOPTED THE G20 NEW DELHI LEADER'S DECLARATION -

- The New Delhi Leader's Declaration was adopted on September 9, 2023. The Countries committed to, accelerating their actions to address environmental crises and challenges, including climate change.
- The New Delhi Leader's Declaration was adopted with consensus on a number of issues.
- These include sustainable development goals (SDG), climate finance, energy transitions, using and restoring natural ecosystems, harnessing and preserving ocean-based economy, plastic pollution, reducing disaster risk, and building resilient infrastructure. (SDG India)
- Paris Agreement- One of the aims of the declaration is "to tackle climate change by strengthening the full



and effective implementation of the Paris Agreement and its temperature goal.

- The inclusion of the principles of CBDR is interesting as some developed G20 countries such as the United States have been averse to the usage.
- The G20 members also cited the findings of the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Synthesis Report.
- It stated that Global greenhouse gas (GHG) emissions are projected to peak between 2020 and at the latest before 2025 in global modeled pathways that limit warming to 1.5°C with no or limited overshoot and in those that limit warming to 2°C and assume immediate action. (Mitigating Climate Change)

#### **INDIA GETS ITS 54TH TIGER RESERVE “VEERANGANA DURGAVATI TIGER RESERVE” IN MP -**

- Madhya Pradesh, which is home to the most number of tigers in the country, has got a new protected area for the big cats named ‘Veerangana Durgavati Tiger Reserve’.
- The Madhya Pradesh Government has unveiled the Veerangana Durgavati Tiger Reserve, becoming the seventh tiger reserve in the state and the 54th in India.
- MP retained the “tiger state” status in the 2022 census with the number of big cats in the state rising to 785 from 526 in 2018. Veerangana Durgavati Tiger Reserve has become the seventh tiger reserve of Madhya Pradesh.
- About 1,414 square kilometres in the tiger reserve has been included in the core area and 925.12 square kilometres in the buffer zone, the official said.
- As per the report ‘Status of Tigers: Co-predators & Prey in India-2022’, released by the National Tiger Conservation Authority and Wildlife Institute of India in July this year, MP (785) has the highest number of tigers in the country, followed by Karnataka (563) and Uttarakhand (560).
- About Veerangana Durgavati Tiger Reserve is spread across Sagar, Damoh and Narsinghpur districts of Madhya Pradesh. It is spread over an area of 2,339 square kilometres.
- It is the seventh tiger reserve in Madhya Pradesh. It will encompass areas within the Nauradehi Wildlife Sanctuary and Durgavati Wildlife Sanctuary.
- A green corridor linking Panna Tiger Reserve (PTR) with Durgavati will be developed for the natural movement of the tiger to the new reserve.



#### **RECENTLY, THE MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE (MOEFCC) REVERSED ITS DECISION TO ESTABLISH INTEGRATED REGIONAL OFFICES BY MERGING KEY ENVIRONMENTAL BODIES -**

- The initial plan, announced during the Covid-19 lockdown, aimed to bring together the Forest Survey of India (FSI), the National Tiger Conservation Authority (NTCA), the Wildlife Crime Control Bureau (WCCB), and the Central Zoo Authority (CZA) under a unified structure.
- This move was intended to streamline operations and create a single point of authority for these organizations.

#### **Criticisms-**

It would undermine the independence and authority of



these bodies, which have different mandates and roles in environmental governance.

It would create administrative confusion and chaos, as these bodies have different reporting structures and jurisdictions.

It would compromise the quality and credibility of their work, as they would be subject to political interference and pressure from the MoEFCC.

It would dilute the focus and expertise of these bodies, which have specialised functions and skills in their respective domains.

#### MIYAWAKI PLANTATION METHOD -

- Prime Minister of India in his recent episode of 'Mann ki Baat', discussed the concept of Miyawaki plantation. He shed light on the Japanese technique of establishing dense urban forests in limited spaces.
- He also mentioned the inspiring story of Raafi Ramnath, a teacher from Kerala, who utilized the Miyawaki method to convert a barren piece of land into a miniature forest named Vidyavanam.
- It was named after Japanese botanist Akira Miyawaki, this method involves planting two to four different types of indigenous trees within every square metre.
- The methodology was developed in the 1970s, with the basic objective to densify green cover within a small parcel of land.
- In this method, the trees become self-sustaining and they grow to their full length within three years.
- The dense green cover of indigenous trees plays a key role in absorbing the dust particles of the area where the garden has been set up. The plants also help in regulating surface temperature.
- Some of the common indigenous plants that are used for these forests include Anjan, Amala, Bel, Arjun and Gunj.
- These forests encourage new biodiversity and an ecosystem which in turn increases the fertility of the soil.



#### Miyawaki Forest Method in Mumbai-

Over the years, the cost-effective Miyawaki Plantation Method has become the go-to solution to restore the green cover in a space-starved city like Mumbai.

The Brihanmumbai Municipal Corporation (BMC) has been implementing the Miyawaki forest approach in various vacant land areas of Mumbai to combat climate change, reduce pollution levels, and enhance the city's green cover.

64 Miyawaki forests have been planted in Mumbai so far.

#### DIRECT-SEEDING METHOD -

- Farmers in leading rice-growing states are adopting the direct-seeding method as a solution to delayed rains and labor shortages.
- Direct Seeded Rice (DSR), also known as the 'broadcasting seed technique,' is a water-saving method of sowing paddy.
- In this method, seeds are directly drilled into the fields, eliminating the need for nursery preparation and transplantation.

- With the use of drum seeders, only two labourers are required to sow seeds on one acre, compared to 25-30 labourers needed in traditional methods.
- By eliminating the need for nursery cultivation, farmers save approximately 30 days in the crop cycle. This allows them to start the rabi season early and avoid untimely rains during the harvesting phase.
- The direct-seeding method reduces water requirements by around 15% as water logging occurs only after a month. This is especially beneficial in areas where rainfall is delayed.
- According to the results from research trials and farmers' field survey, after this technique the yield is one to two quintals per acre higher than puddled transplanted rice.
- Weed growth becomes a challenge as seeds are sown directly into the fields.
- The direct-seeding method has gained traction in various regions, including Punjab, Telangana, and Andhra Pradesh.



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# GOVERNMENT INITIATIVES

## INDIA HAS LIFTED 135 MILLION PEOPLE OUT OF POVERTY; HOWEVER, MALNUTRITION REMAINS AN ONEROUS CHALLENGE -

- The Food and Agriculture Organization (FAO) defines hunger as the habitual (or chronic) consumption of too few calories to provide the minimum dietary energy an individual requires to live a healthy and productive life.
- According to the Multi-dimensional Poverty Index (MDPI) prepared by the NITI Aayog, from 2015-16 to 2019-21, India lifted 135 million people out of poverty.
- When India got freedom in 1947 more than 80 percent of people were in extreme poverty, which today hovers around 15 per cent as per MDPI and about 11 per cent based on income criterion (\$2.15 PPP).



- The UNDP has estimated that India lifted 415 million people out of poverty (MDPI) over the period 2005-06 to 2019-21. India seems to be on track to almost abolish poverty in the next five to 10 years. On hunger, at least in terms of food availability, India has done well.

### Govt. Initiatives to tackle hunger in India-

**Eat Right India Movement-** An outreach activity organized by the Food Safety and Standards Authority of India (FSSAI) for citizens to nudge them towards eating right.

**POSHAN Abhiyan-** Launched by the Ministry of Women and Child Development in 2018, it targets to reduce stunting, undernutrition, anaemia (among young children, women and adolescent girls).

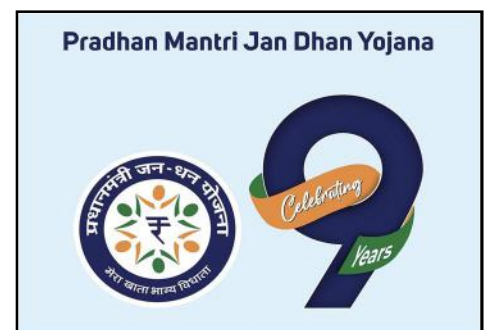
**Pradhan Mantri Matru Vandana Yojana-** A centrally sponsored scheme executed by the Ministry of Women and Child Development, is a maternity benefit programme being implemented in all districts of the country with effect from 1st January, 2017.

**Food Fortification-** Food Fortification or Food Enrichment is the addition of key vitamins and minerals such as iron, iodine, zinc, and Vitamin A & D to staple foods such as rice, milk and salt to improve their nutritional content.

**National Food Security Act, 2013-** It legally entitled up to 75% of the rural population and 50% of the urban population to receive subsidized food grains under the Targeted Public Distribution System.

## THE PRADHAN MANTRI JAN DHAN YOJANA (PMJDY) HAS SUCCESSFULLY COMPLETED NINE YEARS OF IMPLEMENTATION -

- It was launched on August 28, 2014 and stands as one of the largest financial inclusion initiatives globally, led by the Ministry of Finance to provide affordable financial services to vulnerable and economically disadvantaged sections.
- PMJDY creates a platform for universal access to banking facilities with at least one basic banking account for every household, financial literacy, and access to credit, insurance, and pension facilities.
- It aims to expand banking services through branches and Banking Correspondents (BCs). It covers both urban and rural areas and



those who open an account would get indigenous Debit Card (RuPay card). There is no requirement to maintain any minimum balance in PMJDY accounts.

- Accident Insurance Cover of Rs.1 lakh (enhanced to Rs. 2 lakh to new PMJDY accounts opened after 28.8.2018) is available with RuPay card issued to the PMJDY account holders.
- It provides an overdraft facility of Rs. 10,000 to every eligible adult. PMJDY accounts are eligible for Direct Benefit Transfer (DBT), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Atal Pension Yojana (APY).
- More than 50 crore people have been included in the formal banking system through Jan Dhan accounts.
- Approximately 67% of these accounts have been opened in rural and semi-urban areas. Around 34 crore RuPay cards have been issued to these accounts, providing ₹2 lakh accident insurance cover.

#### **CABINET APPROVED THE EXPANSION OF UJJWALA YOJANA -**

- The Cabinet approved the expansion of the Pradhan Mantri Ujjwala Yojana (PMUY) allocating 7,500,000 new LPG connections over a three-year period until the FY26.
- Costing Rs 1,650 crore, this expansion will elevate the total number of PMUY beneficiaries to 103.5 million.
- The government announced this extension after reducing the price of cooking gas by Rs 200 across all markets last month.
- Data indicate that LPG penetration reached 99.9 per cent in 2022.



#### **PM MODI INAUGURATES YASHOBHOOMI CONVENTION CENTRE -**

- Prime Minister Narendra Modi marked a historic moment as he unveiled Phase 1 of the India International Convention and Expo Centre (IICC), aptly named 'Yashobhoomi.'
- This state-of-the-art facility, constructed at a cost of Rs 5,400 crore, promises to redefine the landscape of meetings, incentives, conferences, and exhibitions (MICE) on a global scale.
- Yashobhoomi stands as a testament to India's commitment to world-class event hosting, boasting an expansive project area of over 8.9 lakh square metres and a built-up area exceeding 1.8 lakh square metres.



#### **Key Features of Yashobhoomi Convention Centre-**

1. **Comprehensive Convention Centre-** The convention centre spans more than 73,000 square metres and encompasses 15 convention rooms, including the main auditorium, the grand ballroom, and 13 meeting rooms.
2. **Cutting-Edge Technology-** Yashobhoomi sets a technological benchmark with the largest LED media facade in the country, enhancing visual experiences and communication.
3. **Plenary Hall-** The plenary hall within the convention centre stands out with seating for approximately 6,000 guests, providing a grand setting for significant events.
4. **Innovative Seating-** The auditorium introduces an innovative automated seating system, transforming the flat floor into an auditorium-style tiered seating arrangement, adaptable for various seating configurations.
5. **Grand Ballroom-** The Grand Ballroom, capable of hosting around 2,500 guests, offers a splendid ambience for prestigious gatherings.

6. Connectivity- Yashobhoomi is seamlessly connected to the Delhi Airport Metro Express line, thanks to the inauguration of the 'Yashobhoomi Dwarka Sector 25' metro station.

**RECENTLY, THE LOK SABHA (LS) AND RAJYA SABHA (RS), BOTH PASSED WOMEN'S RESERVATION BILL 2023 (128TH CONSTITUTIONAL AMENDMENT BILL) OR NARI SHAKTI VANDAN ADHINIYAM -**

- Birth: 11th May 788 AD, at Kaladi, Kerala, Samadhi: at Kedar Tirth, He was opposed to Buddhist philosophers.
- Established four Mathas in the four corners of India at Sringeri, Puri, Dwaraka and Badrinath- for propagation of Sanathana Dharma.

**Advocacy of Advaita Vedanta-**

- It articulates a philosophical position of radical nondualism, a revisionary worldview which it derives from the ancient Upanishadic texts.
- According to Advaita Vedantins, the Upanishads reveal a fundamental principle of nonduality termed 'brahman', which is the reality of all things.
- Advaitins understand brahman as transcending individuality and empirical plurality.
- They seek to establish that the essential core of one's self (atman) is brahman.
- The fundamental thrust of Advaita Vedanta is that the atman is pure non-intentional consciousness.
- It is one without a second, nondual, infinite existence, and numerically identical with brahman.





# IMPORTANT DATES

## **INTERNATIONAL DEMOCRACY DAY - 15 SEPTEMBER -**

- International Democracy Day emphasizes the importance of democracy, considering it not only a fundamental human right but also a vital element in promoting good governance and peace.
- The day reminds us of the important role of democracy in shaping societies globally.
- In 2023, the theme of International Democracy Day focuses on "Empowering the Next Generation", highlighting the important contribution of young individuals in promoting democracy.
- Acknowledging and promoting youth participation in democratic processes is a fundamental element for safeguarding the future of democracy.



## **History of International Democracy Day:-**

- It has its origins in the Universal Declaration on Democracy, which was adopted by the Inter-Parliamentary Union (IPU) on September 15, 1997.
- The IPU is an international organization consisting of national parliaments around the world.
- Qatar took a leading role in advocating the establishment of International Democracy Day following the adoption of the Universal Declaration on Democracy.
- On November 8, 2007, the United Nations General Assembly (UNGA) took an important step by unanimously adopting a resolution entitled "Support to the United Nations System of Governments' Efforts to Promote and Consolidate New or Restored Democracies". This resolution formalized the International Day of Democracy.

## **About Democracy**

- It is a term that originates from the Greek words 'demos', which refers to a citizen of a city-state, and 'kratos', which refers to the concept of power or government.
- Democracy is considered a fundamental value within the United Nations. It is built on key principles.

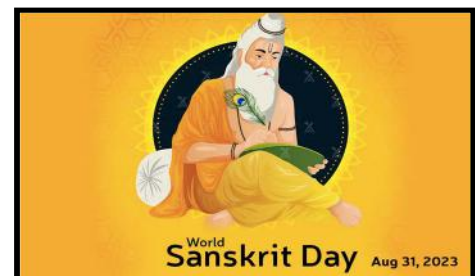
## **HINDI DIWAS 2023 IS CELEBRATED ON 14TH SEPTEMBER -**

- Indians on 14 September celebrate National 'Hindi Diwas'.
- On this day in 1949, the Hindi language was adopted as one of the official languages of the Republic of India.
- Pandit Jawaharlal Nehru, the first prime minister of India, officially declared 14 September as the Hindi Diwas.
- 425 million people speak Hindi as their 1st language and about 120 million people speak Hindi as their 2nd language.



## **IN 2023, THE CELEBRATION OF WORLD SANSKRIT DAY TAKES PLACE ON 31ST AUGUST -**

- The first World Sanskrit Day was celebrated in 1969. World Sanskrit Day or Vishwa Sanskrit Diwas is celebrated on Purnima Tithi (Full moon) of Shravana month every year.
- It serves as a tribute to the birth anniversary of Panini, a distinguished Sanskrit scholar and grammarian. This day is celebrated to show gratitude and respect towards the Sanskrit language.
- It is an Indo-Aryan language and is considered to be one of the



oldest languages and is known as the mother of most languages of India. It is believed to have originated in India around 3500 years ago and is often referred to as Dev Vani (the language of the deities).

**It is divided into two parts which are Vedic and classical-**

- Vedic Sanskrit is the older and more archaic form of Sanskrit, which is attested in the Rig Veda, the Upanishads, and the Puranas. Classical Sanskrit is the later and more standardised form of Sanskrit, which is based on the grammar of Panini and used in literature, philosophy, science, and art.
- Sanskrit is among the 22 official languages included in the Eight Schedule of the Indian Constitution.
- It is also included among 6 Classical languages besides Tamil, Telugu, Kannada, Malayalam, and Odia.
- In 2010, Sanskrit was declared the second official language of Uttarakhand.
- In Mattur village of Karnataka everyone speaks in the Sanskrit language.



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# APPOINTMENTS: PERSON IN NEWS

## **GEETIKA SRIVASTAVA BECOMES THE FIRST WOMAN CHARGE D'AFFAIRES (CDA) IN PAKISTAN -**

- Geetika Srivastava, a 2005 batch IFS officer, was named as the first woman Charge d'Affaires (CDA) at the Indian High Commission in Islamabad, Pakistan.
- Geetika Srivastava is currently Joint Secretary in the Ministry of External Affairs (MEA) and looks after the Indo-Pacific Division. She will replace Dr. M Suresh Kumar.
- Srivastava held the position of Director in the Indian Ocean Region (IOR) Division of the Ministry of External Affairs and served as the Regional Passport Officer in Kolkata, West Bengal.
- Saad Ahmad Waraich has been appointed as the new Charge d'Affaires at the High Commission of Pakistan in New Delhi, Delhi.
- Diplomatic relations between India and Pakistan were downgraded in August 2019, following India's decision to abrogate Article 370 that granted special status to Jammu and Kashmir. As a result, the Indian and Pakistani High Commissions in Islamabad and Delhi are managed by their respective charge d'affaires.



## **THE CENTRAL GOVERNMENT SET UP A PANEL HEADED BY FORMER PRESIDENT RAM NATH KOVIND TO EXPLORE THE FEASIBILITY OF THE 'ONE NATION, ONE ELECTION' (ONOE) PLAN -**

- The Central government set up a panel headed by former President Ram Nath Kovind to explore the feasibility of the 'one nation, one election' (ONOE) plan.
- Despite Logistical and other challenges, the idea of holding Simultaneous Elections/ ONOE to the Lok Sabha (Parliament) and state Assemblies in India has been a topic of discussion.
- The idea is about structuring the Indian election cycle in a manner so that elections to the Lok Sabha and the State Assemblies are synchronised together so that the election to both can be held within a given span of time.
- While this concept had been practiced until 1967, it gradually fell out of sync due to the frequent dissolution of Assemblies and Lok Sabhas before their terms ended.
- Currently, only a few states (Andhra Pradesh, Arunachal Pradesh, Odisha, and Sikkim) hold elections along with the Lok Sabha polls.
- According to the draft report on simultaneous elections by the Law Commission of India (LCI) in August 2018, ONOE will lead to the saving of public money, reducing the strain on the administrative setup and security forces, timely implementation of government policies, and administrative focus on development activities rather than electioneering.
- Article 83(2) and Article 172 of the Indian Constitution stipulate that the tenure of Lok Sabha and State Assemblies respectively, will last for five years unless dissolved earlier and there can be circumstances, as in Article 356, wherein assemblies can be dissolved earlier. Therefore, the ONOE plan raises serious issues of feasibility if the Central or State government collapses mid-tenure.



- The idea of ONOE does not square with the concept of 'federalism' as it is established on the notion that the entire nation is "one" contradicting the content of Article 1 which envisages India as a "Union of States".
- The ECI has highlighted that simultaneous elections would require a substantial budget. A total of approximately Rs 9,284.15 crore would be needed for procuring EVMs and VVPATs, with additional costs for replacing machines every 15 years.
- In South Africa, elections to national as well as provincial legislatures are held simultaneously for five years and municipal elections are held two years later.
- In Sweden elections to the national legislature (Riksdag) and provincial legislature/county council (Landsting) and local bodies/municipal Assemblies (Kommunfullmaktige) are held on a fixed date.
- In Britain, the Fixed-term Parliaments Act, 2011 was passed to provide a sense of stability and predictability to the British Parliament and its tenure. It provided that the first elections would be held on the 7th of May, 2015 and on the first Thursday of May every fifth year thereafter.



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## IMPORTANT MCQ FOR COMPETITIVE EXAMS

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| <p>1. Consider the following statements with reference to Association of Southeast Asian Nations (ASEAN).</p> <p>1. Adherence to the principles of the United Nations Charter is one of the core principles of ASEAN.</p> <p>2. India is not part of the ASEAN Plus Six grouping.</p> <p>3. India has signed a Free Trade Agreement with ASEAN.</p> <p>How many of the above statements is/are correct ?</p> <p>a) Only one<br/>b) Only two<br/>c) All three<br/>d) None</p> <p>2. Which one of the following groups of items is included in India's foreign-exchange reserves ?</p> <p>a) Foreign-currency assets, Special Drawing Rights (SDRs) and loans from foreign countries<br/>b) Foreign-currency assets, gold holdings of the RBI and SDRs<br/>c) Foreign-currency assets, loans from the World Bank and SDRs<br/>d) Foreign-currency assets, gold holdings of the RBI and loans from the World Bank</p> <p>3. Crimean Peninsula is lying between which two water bodies</p> <p>a) Black Sea and the Sea of Azov.<br/>b) Black sea and Sea of Marmara<br/>c) Red sea and Mediterranean Sea<br/>d) Black sea and Mediterranean Sea</p> | <p>4. Which animal has been recently recognized as a 'food animal' by the Food Safety and Standards Authority of India (FSSAI)?</p> <p>a) Mithun<br/>b) Gayal<br/>c) Yak<br/>d) Bison</p> <p>5. Where are Indian naval vessels, a submarine, and a Long-Range Maritime Patrol Aircraft currently located to participate in the 30th edition of SIMBEX?</p> <p>a) Singapore<br/>b) Australia<br/>c) South Korea<br/>d) Malaysia</p> <p>6. Which month is designated as National Nutrition Month in India?</p> <p>a) August<br/>b) October<br/>c) September<br/>d) November</p> <p>7. With reference to Asian Games, consider the following statements:</p> <p>1. It is a multi-disciplinary sports event held once in every four years.</p> <p>2. It is recognised by International Olympic Committee and is second largest multi-sport event after Olympics.</p> <p>Which of the above statements is/are correct ?</p> <p>a) 1 only<br/>b) 2 only<br/>c) Both 1 and 2<br/>d) Neither 1 nor 2</p> | <p>8. The Lachin Corridor has had a significant impact on the Nagorno-Karabakh region. The corridor connects the:</p> <p>a) Turkey and Armenia<br/>b) Armenia and Georgia<br/>c) Azerbaijan and Iran<br/>d) Armenia and Azerbaijan</p> <p>9. With reference to White Label ATMs (WLAs), consider the following statements</p> <p>1. These ATMs are set up, owned and operated by RBI.</p> <p>2. These ATM operators are authorised under the Payment &amp; Settlement Systems Act, 2007 by the RBI.</p> <p>3. They can source cash from any scheduled bank, including Cooperative Banks and Regional Rural Banks.</p> <p>How many of the above statements is/are correct ?</p> <p>a) Only one<br/>b) Only two<br/>c) All three<br/>d) None</p> <p>10. Civil Aviation minister inaugurated new infrastructure at Tezu airport on 24 September 2023. The Tezu district is located at the banks of which river ?</p> <p>a) Dibang<br/>b) Lohit<br/>c) Subanshri<br/>d) Brahmaputra</p> <p>11. Which amendment bill 2023 was tabled in the Parliament by the Union Law Minister, Arjun Ram Mehwal ?</p> <p>a) 125th<br/>b) 128th<br/>c) 132th<br/>d) 120th</p> |
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12. Which among the following Island of the Andaman & Nicobar islands contains the only known examples of mud volcanoes in India, called locally as "jalki" ?
- Baratang Island
  - Barren Island
  - Car Nicobar
  - Havelock Island

13. Consider the following statements, with respect to Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS)

- It provides a legal guarantee for one hundred days of employment in every financial year to adult members of any rural household
- Under the scheme, wage employment is provided to the applicant within 15 days of submitting the application
- Under the scheme, priority is given to women in such a way that at least one-third of the beneficiaries shall be women.

Which of the statements given above is/are correct ?

- 1 only
- 2 & 3 only
- 1 & 2 only
- 1, 2 & 3

14. Consider the following statements, with respect to OSIRIS-REx mission

- It is European Space Agency's first asteroid sample return mission.
- It collected the sample from near-Earth asteroid Ceres.

Which of the statements given above is/are correct ?

- 1 only
- 2 only
- Both 1 and 2

d) Neither 1 nor 2

15. Recently, which of the following three Hoysala temples selected for the UNESCO world heritage list

- Chennakeshava temple in Belur
- Hoysaleswara Temple in Halebidu
- Brihadisvara Temple at Thanjavur

Select the correct answer using the code given below.

- 2 and 3 only
- 1 & 2 only
- 1 & 3 only
- 1, 2 & 3

16. What is the primary focus of the PM Vishwakarma A scheme launched by Prime Minister Narendra Modi?

- Skill development for youth
- Supporting traditional crafts and artisans
- Infrastructure development in rural areas
- Healthcare for the elderly

17. What is the primary objective of the PM KISAN AI-Chatbot (Kisan e-Mitra) launched by Union Minister Kailash Choudhary?

- Providing entertainment to farmers
- Enhancing communication among farmers
- Improving governance through technology for farmers
- Promoting agricultural products

18. Who inaugurated the 'India Energy Summit 2023' ?

- Anurag Thakur
- Smriti Irani
- RK Singh
- Jyotiraditya Scindia

19. Which of the following best describes the PM-WANI Scheme?

a) It is a framework that enables any entity, such as a shopkeeper or a tea stall owner, to set up a public Wi-Fi hotspot and provide internet service to customers.

b) It is an academic development scheme for providing funding to state universities and colleges to improve infrastructure, faculty recruitment, and research facilities.

c) It is a women-centric welfare program that aims to create a conducive environment for the overall development of women, especially in rural and marginalized communities.

d) It is an agricultural development scheme that aims to improve water-use efficiency in the agriculture sector.

20. Consider the following statements, with reference to the Elephant Corridors:

1. It is a strip of land that enables elephant movement between two or more habitats.

2. West Bengal has the most number of the elephant corridors in India.

3. The border road organisation and the Ministry of Environment are jointly responsible for building elephant corridors.

How many of the above statements is/are correct ?

- Only one
- Only two
- All three
- None

21. **With reference to the Mithun (*Bos frontalis*), consider the following statements:**  
 1. It is known as the mountain cattle.  
 2. The Food Safety and Standards Authority of India (FSSAI) has given it the 'food animal' label.  
 3. It is classified as a vulnerable species on the IUCN Red List.  
 How many of the above statements is/are correct ?  
 a) Only one  
 b) Only two  
 c) All three  
 d) None
22. **Who is India's Permanent representative to the United Nations ?**  
 a) Suchitra Kamboj  
 b) Ruchira Kamboj  
 c) Ruchi Kamboj  
 d) Rutrika Kamboj
23. **With which country will the Indian Army participate in the joint military exercise 'Yudh Abhyas 2023' ?**  
 a) USA  
 b) France  
 c) Germany  
 d) Turkiye
24. **Which company has received permission from the US FDA to begin human trials of its brain chip implant ?**  
 a) OpenAI  
 b) Neuralink  
 c) DeepMind  
 d) Colossal Biosciences
25. **In which one of the following groups are all the four countries members of G20 ?**  
 a) Argentina, Mexico, South Africa and Turkey  
 b) Australia, Canada, Malaysia and New Zealand  
 c) Brazil, Iran, Saudi Arabia and Vietnam  
 d) Indonesia, Japan, Singapore and South Korea
26. **Consider the following statements**  
 1. The point of the orbit farthest to Earth is called perigee  
 2. The point nearest from Earth is known as apogee.  
 Choose the correct answer from the codes given below.  
 a) Only 1  
 b) Only 2  
 c) Both 1 and 2  
 d) Neither 1 nor 2
27. **Which of the following countries are part of 'Five Eyes', an intelligence alliance**  
 1. Australia  
 2. Canada  
 3. China  
 4. United Kingdom  
 Select the correct answer using the code given below.  
 a) 1, 2 and 3 only  
 b) 1, 2 and 4 only  
 c) 1 and 2 only  
 d) 1, 2, 3 and 4 only
28. **What name has Prime Minister Narendra Modi suggested for the old Parliament House ?**  
 a) Samvidhan Bhawan  
 b) Samvidhan Sadan  
 c) Rashtra Gaurav Sadan  
 d) Gandhi Bhawan
29. **What has been added as India's 42nd UNESCO World Heritage site, according to recent recognition ?**  
 a) Khajuraho Temples  
 b) Santiniketan  
 c) Hoysala Temples  
 d) Hampi
30. **Which of the following defines depreciation ?**  
 a) Destruction of a plant in a fire accident  
 b) Loss of equipment over time due to wear and tear  
 c) Closure of a plant due to labour trouble  
 d) Closure of a plant due to lockout
31. **Consider the following statements regarding the Montreal Protocol:**  
 1. It aims to reduce ozone-depleting substance production and consumption.  
 2. India is a signatory to the Montreal Protocol.  
 3. It was declared at the end of the Paris Agreement in 2015.  
 How many of the above statements is/are correct ?  
 a) Only one  
 b) Only two  
 c) All three  
 d) None
32. **Which of the following countries has committed to exchanging "K9 Vajra" technology to improve defense cooperation ?**  
 a) Russia and India  
 b) South Korea and India  
 c) India and Japan  
 d) India and Israel
33. **Which of the following statements regarding Census are correct ?**  
 1. The first synchronous census in India was held in 1950.  
 2. The census provides information on size, distribution and socio-economic, demographic and other

- characteristics of the country's population.  
Select the correct answer using the code below.
- a) 1 Only  
b) 2 Only  
c) Both 1 and 2  
d) None of the above
- 34. What significant decision was made by the Constituent Assembly on 14 September 1949 regarding the Hindi language ?**  
a) Hindi would be the national language of India.  
b) Hindi would be the official language of all states.  
c) Hindi would be the official language of the Central Government.  
d) Hindi would be the official language of the Southern states.
- 35. What initiative did Prime Minister Narendra Modi announce at the 18th G20 Summit, which Saudi Arabia is a founding partner of ?**  
a) India-Pacific Economic Partnership (IPEP)  
b) Asia-Africa Growth Corridor (AAGC)  
c) India-Middle East-Europe Economic Corridor (IMEC)  
d) South Asia Subregional Economic Cooperation (SASEC)
- 36. In terms of large dams, how does India rank globally?**  
a) First  
b) Second  
c) Third  
d) Fourth
- 37. With reference to India, the terms 'Halbi, Ho, and Kui' pertain to-**  
a) dance forms of Northwest India  
b) musical instruments  
c) pre-historic cave paintings  
d) tribal languages
- 38. With reference to Central Bank digital currencies, consider the following statements: (2023)**  
1. It is possible to make payments in a digital currency without using the US dollar or SWIFT system.  
2. A digital currency can be distributed with a condition programmed into it such as a timeframe for spending it.  
Which of the statements given above is/are correct ?  
a) 1 only  
b) 2 only  
c) Both 1 and 2  
d) Neither 1 nor 2
- 39. Consider the following statements about G-20: (2023)**  
1. The G-20 group was originally established as a platform for the Finance Ministers and Central Bank Governors to discuss the  
2. International economic and financial issues.  
3. Digital public infrastructure is one of India's G-20 priorities.  
Which of the statements given above is/are correct ?  
a) 1 only  
b) 2 only  
c) Both 1 and 2  
d) Neither 1 nor 2
- 40. Which aircraft manufacturer has started delivery of C295 transport aircraft to the Indian Air Force ?**  
a) Lockheed Martin  
b) Airbus  
c) Dassault Aviation  
d) Boeing
- 41. Where is the world's highest fighter airfield being developed ?**  
a) Srinagar  
b) Baku  
c) Kathmandu  
d) Ladakh
- 42. Who is considered the father of economics ?**  
a) David Ricardo  
b) John Maynard Keynes  
c) Thomas Malthus  
d) Adam Smith
- 43. MQ-9B which was recently seen in the news is related to which of the following:**  
a) Fighter Jet  
b) Unmanned Aerial Vehicle  
c) Aircraft Carrier  
d) Surface-to-air missile
- 44. Consider the following statements, with reference to Nipah virus (NiV):**  
1. NiV is a zoonotic virus (transmitted from animals to humans) and can also be transmitted through contaminated food or directly between people.  
2. It was first recognized in 1999 during an outbreak among pig farmers in Malaysia.  
3. There is no treatment or vaccine available for either people or animals.  
How many of the above statements is/are correct ?  
a) Only one  
b) Only two  
c) All three  
d) None
- 45. Consider the following statements:**  
**Statement-I-** India accounts for 3.2% of global export of goods.



- Statement-II-** Many local companies and some foreign companies operating in India have taken advantage of India's 'Production-linked Incentive' scheme. Which one of the following is correct in respect of the above statements ?
- a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I  
b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I  
c) Statement-I is correct but Statement II is incorrect  
d) Statement-I is incorrect but Statement II is correct
46. **NASA's MOXIE Successfully Generated Oxygen on which planet ?**  
a) Mars  
b) Jupiter  
c) Moon  
d) Venus
47. **'India - Middle East - Europe Economic Corridor' was formed along the sidelines of which summit ?**  
a) G-20  
b) ASEAN  
c) BIMSTEC  
d) SAARC
48. **When was ASEAN founded ?**  
a) 7 June 1945  
b) 7 June 1967  
c) 7 June 1976  
d) 7 June 1988
49. **Consider the following statements, with reference to Global Biofuels Alliance (GBA):**  
1. It is an India led initiative by the G20 grouping.  
2. India, Britain and the US are the founding members of the alliance.  
3. All the members of G20 are members of this alliance.  
How many of the statements given above are correct ?  
a) Only one  
b) Only two  
c) All three  
d) None
50. **Consider the following statements:**  
1. The G21 grouping includes G20 countries and the African Union.  
2. All the countries in the African Continent are members to the African Union.  
Which of the above statements is/are incorrect ?  
a) 1 only  
b) 2 only  
c) Both 1 and 2  
d) Neither 1 nor 2
51. **Consider the following statements regarding Morocco:**  
1. It is a mountainous country of western North Africa that lies directly across the Strait of Gibraltar.  
2. It is the only African country with coastal exposure to both the Atlantic Ocean and the Mediterranean Sea.  
Which of the above statements is/are incorrect ?  
a) 1 only  
b) 2 only  
c) Both 1 and 2  
d) Neither 1 nor 2
52. **To which country has India handed over the presidency of G20 during the New Delhi G20 summit ?**  
a) Indonesia  
b) USA  
c) Japan  
d) Brazil
53. **'Christ the Redeemer' statue is a landmark monument located in which country ?**  
a) Australia  
b) Brazil  
c) Argentina  
d) Russia
54. **What is the theme of India's G20 presidency in 2023?**  
a) "Make in India, Buy in India"  
b) "Vasudhaiva Kutumbakam" or "One Earth, One Family, One Future"  
c) "Global Economic Prosperity"  
d) "Green Revolution for Sustainable Development"
55. **G4, group is often in news, which of the following nations are members of it ?**  
1. Brazil  
2. Germany  
3. India  
4. Japan  
Select the correct answer using code given below :  
a) 2 and 3 only  
b) 1, 2 and 4 only  
c) 1, 3 and 4 only  
d) 1, 2, 3 and 4
56. **Consider the following statements regarding Offshore Wind Energy in India:**  
1. As far as wind power is concerned India stands in 5th position across the globe after China, Brazil, the US, and Germany  
2. Offshore wind farms must be at least 200 nautical miles from the shore and 50 feet deep in the ocean.  
3. Offshore wind turbine installation and operation are

- governed by national and international laws, primarily UNCLOS (United Nations Convention on the Law of the Sea).  
How many of the above statements are correct ?  
a) Only one  
b) Only two  
c) All three  
d) None
57. **Consider the following with respect to India- USA Relations:**  
GSOMIA- Provides India real-time access to American geospatial intelligence  
LEMOA- Facilitates military logistics sharing  
COMCASA- Allows secure communications using U.S. proprietary equipment.  
BECA- Ensures the protection of shared classified information and promotes interoperability  
How many of the above pairs are correctly matched ?  
a) Only one  
b) Only two  
c) All three  
d) None
58. **The Vikramshila Gangetic Dolphin Sanctuary is in which state ?**  
a) Madhya Pradesh  
b) Bihar  
c) Himachal Pradesh  
d) Punjab
59. **Who receives the 8th Dr M S Swaminathan award ?**  
a) R S Paroda  
b) Shanti Swarup  
c) V Praveen Rao  
d) P V Satyanarayana
60. **Which country has unveiled the world's first portable hospital, Arogya Maitri Cube ?**  
a) India  
b) China  
c) United States  
d) Japan
61. **With reference to the Indian economy, consider the following statements:**  
1. If the inflation is too high, the Reserve Bank of India (RBI) is likely to buy government securities.  
2. If the rupee is rapidly depreciating, RBI is likely to sell dollars in the market.  
3. If interest rates in the USA or European Union were to fall, that is likely to induce RBI to buy dollars.  
4. A series of rate hikes by the Reserve Bank of India (RBI) aimed at curbing inflation is expected to initially moderate economic growth before affecting inflation rates.  
Which of the statements given above are correct ?  
a) 1, 2 and 4 only  
b) 2, 3 and 4 only  
c) 1 and 3 only  
d) 1, 2 and 3
62. **Kokborok language, recently seen in news, is spoken in which state ?**  
a) Tripura  
b) Mizoram  
c) Arunachal Pradesh  
d) Sikkim
63. **Recently, Government formed the committee to know the viability of simultaneous Lok Sabha and Assembly elections in the country, The committee is headed by whom?**  
a) Prahalad Joshi  
b) Amitabh Kant  
c) Ram Nath Kovind  
d) Dinesh Goswami
64. **Luhansk and Donetsk, which were seen in the news, were areas located in which country ?**  
a) Switzerland  
b) Ukraine  
c) Serbia  
d) Maldives
65. **Which country's central bank Governors topped the 'Global Finance Central Banker Report Cards 2023' ?**  
a) India  
b) Sri Lanka  
c) USA  
d) UK
66. **In the August, the number of UPI transactions performed which milestone ?**  
a) 5 billion  
b) 10 billion  
c) 15 billion  
d) 20 billion
67. **Which one of the following countries has its own Satellite Navigation System?**  
a) Australia  
b) Canada  
c) Israel  
d) Japan
68. **The 'Fortaleza Declaration', is related to the affairs of:**  
a) ASEAN  
b) BRICS  
c) OECD  
d) WTO
69. **Consider the following pairs:**  
1. Pioneer 1- USA  
2. Chandrayaan-1- India  
3. Luna 1- Russia

- How many of the above pairs are correctly matched ?  
a) Only one  
b) Only two  
c) All three  
d) None
- 70. Which country will host the first-ever global AI summit in October 2023 ?**  
a) Japan  
b) United States  
c) China  
d) India
- 71. Burkina Faso, which was seen in the news for a Military Coup, is in which region ?**  
a) South-Asia  
b) South-America  
c) Africa  
d) Oceania
- 72. Revenue of the state governments are raised from the following sources, except**  
a) entertainment tax  
b) expenditure tax  
c) agricultural income tax  
d) land revenue
- 73. Consider the following statements regarding Super Blue Moon:**  
1. Super Blue Moon is the convergence of three lunar occurrences - a full Moon, a Super Moon, and a blue Moon.  
2. Super moon happens when the moon is passing through or is close to its perigee, and is also a full moon.  
Which of the above statements is/are correct ?  
a) 1 only  
b) 2 only  
c) Both 1 and 2  
d) Neither 1 nor 2
- 74. Recently, Johannesburg Declaration was news, it is related to:**  
a) Expansion of BRICS membership  
b) Raising the collective voice of developing nations at World trade organisation forum  
c) Providing agriculture subsidies to Africans nations  
d) Strengthening the bilateral relation between India and South Africa
- 75. Consider the following animals**  
1. Hedgehog  
2. Marmot  
3. Pangolin  
To reduce the chance of being captured by predators, which of the above organisms rolls up/roll up and protects/protects its/their vulnerable parts ?  
a) 1 and 2  
b) 2 only  
c) 3 only  
d) 1 and 3
- 76. Cabinet declared which day as 'National Space Day' in India?**  
a) August 20  
b) August 23  
c) August 25  
d) August 27
- 77. Which medal did Neeraj Chopra win in the Zurich Diamond Championship 2023 ?**  
a) Gold  
b) Silver  
c) Bronze  
d) No medal
- 78. In which of these states is the Desert National Park located ?**  
a) Rajasthan  
b) Himachal Pradesh  
c) Haryana  
d) Gujarat
- 79. Consider the following countries:**  
1. Azerbaijan  
2. Kyrgyzstan  
3. Tajikistan  
4. Uzbekistan  
5. Turkmenistan  
Which of the above has borders with Afghanistan ?  
a) 1, 2 and 5 only  
b) 1, 2, 3 and 4 only  
c) 3, 4 and 5 only  
d) 1, 2, 3, 4 and 5
- 80. Consider the following statements:**  
1. The Constitution of India classifies the ministers into four ranks viz. Cabinet Minister, Minister of State with Independent Charge, Minister of State, and Deputy Minister.  
2. The total number of ministers in the Union Government, including the Prime Minister, shall not exceed 15 percent of the total number of members in the Lok Sabha.  
Which of the statements given above is/are correct ?  
a) 1 only  
b) 2 only  
c) Both 1 and 2  
d) Neither 1 nor 2
- 81. Consider the following statements with reference to Ethanol Blended Petrol (EBP) Programme:**  
1. Under this programme, Oil Marketing Companies (OMCs) procure and blend up to 15% ethanol in petrol.  
2. It has been extended to all States and UTs.

3. The price of Ethanol is administered by the Cabinet Committee on Economic Affairs. Which of the statements given above is/are correct ?  
a) 1 only  
b) 2 and 3 only  
c) 1 and 3 only  
d) 1, 2 and 3
82. The African Union has suspended which country until 'the effective restoration of constitutional order' ?  
a) Egypt  
b) Niger  
c) Kenya  
d) South Africa
83. India's first indigenous e-Tractor Prima ET11 is developed by which institution ?  
a) L&T  
b) DRDO
84. According to the Brand Finance Food and Drink Report 2023, which dairy brand has been ranked as the world's strongest?  
a) Mengniu (China)  
b) Fonterra (New Zealand)  
c) Arla Foods (Denmark)  
d) Amul (India)

**ANSWER KEY**

1-b	2-b	3-a	4-a	5-a	6-c	7-c	8-d	9-b	10-b	11-b	12-a	13-d	14-d	15-b
16-b	17-c	18-c	19-a	20-b	21-c	22-b	23-a	24-b	25-a	26-d	27-b	28-b	29-c	30-b
31-b	32-b	33-c	34-c	35-c	36-c	37-d	38-c	39-c	40-d	41-d	42-d	43-b	44-c	45-d
46-a	47-a	48-b	49-a	50-b	51-d	52-d	53-b	54-b	55-d	56-b	57-b	58-b	59-d	60-a
61-b	62-a	63-c	64-b	65-a	66-b	67-d	68-b	69-c	70-d	71-c	72-c	73-c	74-a	75-d
76-b	77-b	78-a	79-c	80-b	81-c	82-b	83-c	84-d						

