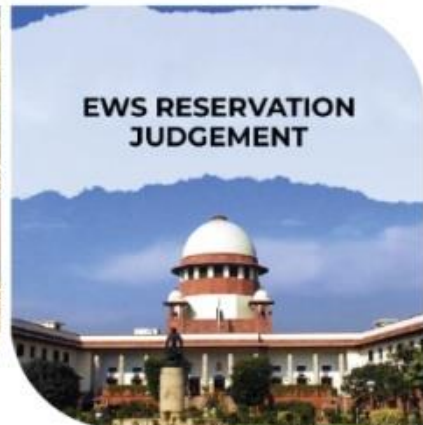


CURRENT AFFAIRS MAGAZINE

NOVEMBER 2022

- Assam Meghalaya Border Dispute
- India's G20 Presidency
- GM Mustard
- India's Push For Millets
- EWS Reservation Judgement



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1. Our choking cities: How we can improve air and water quality in urban spaces

- **Air pollution:** More than 1,10,000 infants are likely to have been killed by air pollution in India in 2019. Long-term exposure to outdoor and household air pollution was estimated to be responsible for about 1.67 million annual deaths amongst the adult population in the country.
- **Water pollution:** The Central Pollution Control Board reckons that more than 50 per cent of 351 river stretches (on 323 rivers) are polluted. About 72% of urban sewage is untreated in India's urban freshwater bodies.

Best practices for improvement:

- 1) **Deployment of clean technologies:** electric mobility must be taken forward aggressively. For instance, electric buses can be significantly cheaper than diesel/CNG options so they needed to be procured more.
- 2) **Infrastructure upgrades** for non-motorized modes of conveyance: It needs a safer infrastructure for cycling and walking. India should develop pedestrian and bicycle masterplans to ensure that walking and cycling in urban spaces become safe and pleasant is essential.
- 3) **A plan to reduce travel demand:** This can be done by a) Improving online delivery of public services, b) Mixed land-use planning to reduce trip lengths, c) Encourage policy and support to work from home or shop online options and d) Commercial and residential areas should be co-located
- 4) **Increase green cover across urban areas:** For instance, Ahmedabad's municipal corporation using the Miyawaki technique has more than urban forests. Chandigarh has about 1,800 parks. Close to 46% of the city was classified as a green area in 2019.
- 5) **Involve more Civil society:** In Chennai an NGO has been able to grow 25 Miyawaki forests, raising over 65,000 trees. Such plantations are now being replicated in other cities including Tuticorin, Vellore and Kanchipuram. This can be done in other Indian cities as well.
- 6) **Implement globally successful airshed management systems:** London's air pollution revolution has initiated an Ultra Low Emission zone in Central London. It has a hefty daily fee on cars that emit more than 75g/km of pollution.
- 7) **Protect water and riverine pollution:** India needs to adopt a systems-based approach along with a push for protecting "blue infra" areas — places that act as natural sponges for absorbing surface runoff, allowing groundwater to be recharged.
- 8) **At the household level,** India needs to encourage rainwater harvesting, urban roof terrace greening, urban roof water retention tanks and green corridor around residential buildings.

At the city level and beyond, policymakers should push for "sponge cities" and incorporate disaster planning. For example, Mangalore's City Corporation (MCC) has wastewater treatment plants with end-user linkages. The MCC offered to supply treated water to such industrial end-users in the city's special economic zone if the latter agreed to fund about 70% of the operations and maintenance cost of the pumps and the sewage treatment plant

2. The persistent decline in poverty in India:

The recent release of NFHS-5 data for 2019-21 enables a detailed analysis of progress in reducing absolute poverty and related determinants such as nutrition

- The NFHS survey is an attempt to provide estimates of a **multidimensional poverty index (MPI)**. Its calculation is based on poverty estimations based on **10 different indicators**

- The deprivation index for each indication is the percentage of people who are deprived as per that indicator.

Facts about poverty from 2005 to 2011 (P-1) and 2011 to 2021 (P-2)

- **Multidimensional poverty fell** at a compounded annual average rate of 4.8% per year in P-1 and more than doubled to 10.3% per year in P-2.
- The **Demographic and Health Surveys (DHS) nutrition index** improved at a 2.5 percent rate between 2005 and 2011, and at a more than five times faster rate between 2020 and 2011.
- A similar improvement can be found in nutrition deprivation, which has decreased by 11.6 percent CAGR since 2015.
- **Contrasting findings:** On the other hand, the recently released Global Hunger Index (GHI) depicted a worsening of hunger in India between 2014 and 2021, contradicting the large improvement documented in the NFHS data.
- It ranked India 107th out of 123 countries, down from 101st in 2021, and placed it in the “serious” category, trailing all South Asian countries except war-torn Afghanistan.

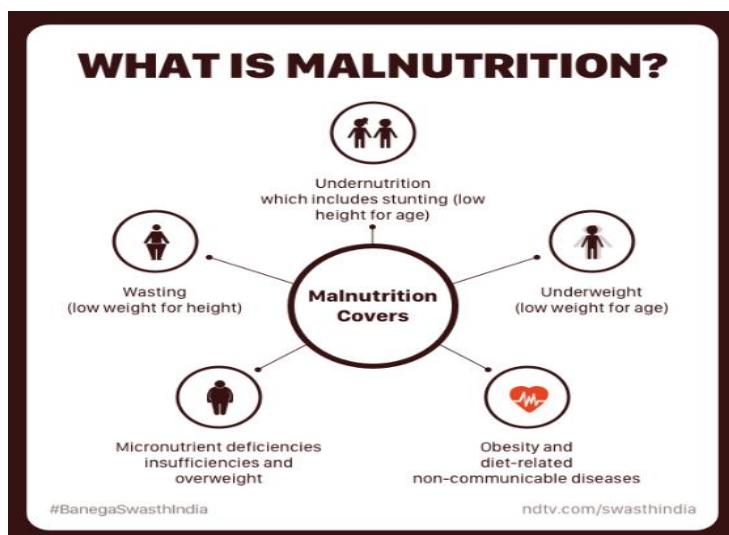
A major factor behind the inclusive nature of growth during P-2 is the focus of government policies on each of the individual indicators indicative of a dignified standard of living. Such as,

- a) **Slow-moving variables** such as housing, access to cooking fuel, sanitation, etc, have witnessed a remarkable increase,
- b) Close to one-third of Indians were deprived of **electricity** till as recently as 2014. It was only after Saubhagya Yojana India managed to electrify every village, and eventually households,
- c) **Jan Dhan Yojana** which made financial inclusion a reality in India, especially for women,
- d) Modern cooking fuel is provided through the **Ujjwala Yojana**,
- e) **Jal Jeevan Mission** has increased the rural piped water coverage from 17% in 2019 to above 54% at present.

3. Fixing India’s malnutrition problem

The **Global Hunger Index 2022** has ranked 107 out of 121 countries.

- The GHI is an important indicator of nutrition, particularly among children. It looks at stunting, wasting and mortality among children, and calorific deficiency across the population.
What are the issues with government interventions to tackle malnutrition?
- **Funding**– Government of India implements the Saksham Anganwadi and POSHAN 2.0 scheme to tackle the problem of malnutrition. However, the budget is less than 1% (more than the actual spend in FY 2020-21)-an increase of less than 1% over two years.
- An Accountability Initiative budget brief reports that **per capita costs** of the Supplementary Nutrition Programme POSHAN 2.0 has not increased since 2017 and remains grossly underfunded. It is catering to only 41% of the funds required.
- **Manpower constraints**– The budget brief also mentions that over 50% Child Development Project Officer posts were vacant in Jharkhand, Assam, Uttar Pradesh, and Rajasthan.



- **Monitoring-** Social audits that are meant to allow for community oversight of the quality of services provided in schools are not carried out routinely.
- **Cash transfer**– It seems to be a favoured solution for several social sector interventions in India today. Evidence suggests primarily that cash transfers improve household food security. But, they do not necessarily translate into improved child nutrition outcomes.
- The **effect of cash transfers is also limited** in a context where food prices are volatile and inflation depletes the value of cash. There are social factors such as ‘son preference’, which continues to be prevalent in India. They can influence household-level decisions when responding to the nutrition needs of sons and daughters.

Way Forward

- **Utilization of funds:** Not only are key nutrition schemes underfunded, but it is also the case that the funds available are not being spent effectively.
- **Economic conditions:** Malnutrition persists due to depressed economic conditions in large parts of the country, the poor state of agriculture in India, persistent levels of unsafe sanitation practices, etc. Economic conditions need to be improved along with modern agricultural practices.
- **Food rations through PDS** and special supplements for the target group of pregnant and lactating mothers, and infants and young children, are essential.
- **Getting schemes right:** It requires greater involvement of local government and local community groups in the design and delivery of tailored nutrition interventions.
- A comprehensive programme targeting adolescent girls is required if the intergenerational nature of malnutrition is to be tackled.
- **Child nutrition:** The need of the hour is to make addressing child malnutrition the top priority of the government machinery, and all year around

4. Assam Meghalaya Border Dispute

What is the Assam Meghalaya Border Dispute Agreement

- About the dispute: Assam and Meghalaya have a longstanding dispute in 12 stretches of their 884-km shared border.
- Major Point of Contention: A major point of contention between Assam and Meghalaya is the district of Langpih in West Garo Hills bordering the Kamrup district of Assam.
- Langpih was part of the Kamrup district during the British colonial period but post-Independence, it became part of the Garo Hills and Meghalaya.
- Assam considers it to be part of the Mikir Hills in Assam.
- Meghalaya has questioned Blocks I and II of the Mikir Hills -now Karbi Anglong region - being part of Assam.
- Meghalaya says these were parts of erstwhile United Khasi and Jaintia Hills districts.

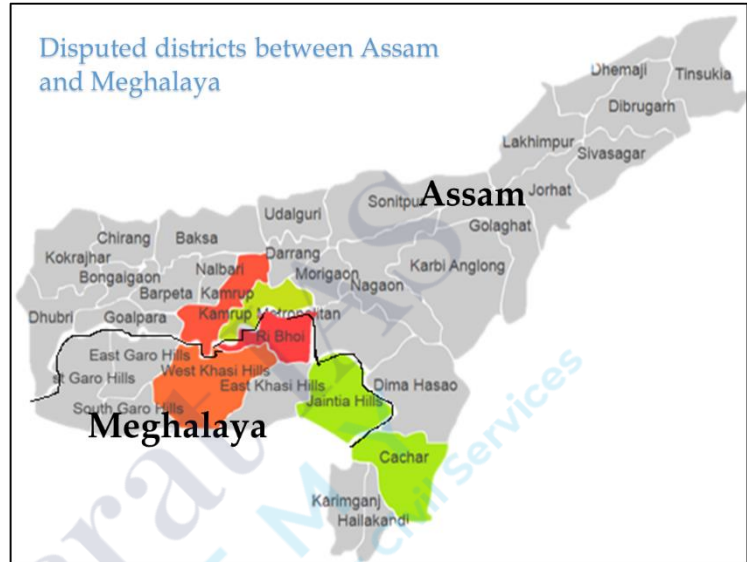
History:

- During British rule, undivided Assam included present-day **Nagaland, Arunachal Pradesh, Meghalaya and Mizoram.**
- **Gopinath Bordoloi committee:** Some of these disputes stem from recommendations made by a 1951 committee headed by then Assam chief minister Gopinath Bordoloi.
- It recommended that **Blocks I and II of Jaintia Hills (Meghalaya)** be transferred to the Mikir Hill (Karbi Anglong) district of Assam, besides some areas from Meghalaya’s Garo Hills to Goalpara district of Assam.
- Meghalaya was **carved out in 1972**, its boundaries demarcated as per the **Assam Reorganisation (Meghalaya) Act of 1969**, but has held a **different interpretation of the border since.**

- **The 1969 Act is based on these recommendations which Meghalaya rejects claiming these areas originally belong to the Khasi–Jaintia Hills.**
- In 2011, the Meghalaya government had identified **12 areas of difference with Assam**, spread over approximately 2,700 sq km.

Resolution in 1st phase:

- The two states had signed a pact recently resolving the dispute in six out of 12 areas.
- Both states formed committees to address the issue and the committees, each headed by a cabinet minister, were given “five principles” for approaching the issue which includes
 - historical facts of a disputed sector, ethnicity, administrative convenience, willingness of people, contiguity of land preferably with natural boundaries such as rivers, streams, and rocks
- Six sites are Tarabari, Gijang, Hahim, Baklapara, Khanapara-Pilingkata and Ratacherra.
- These disputed areas are part of Cachar, Kamrup Metro and Kamrup Rural on Assam's side and West Khasi Hills, Ri Bhoi district and East Jaintia Hills on Meghalaya's side.
- Boundary disputes between the states can be settled by using **satellite mapping** of the actual border locations.
- Reviving the **Inter-state council** can be an option for resolution of an Inter-state dispute.
- Under Article 263 of the Constitution, the Inter-state council is expected to inquire and advise on disputes, discuss subjects common to all states and make recommendations for better policy coordination.
- Similarly, **Zonal councils** need to be revived to discuss the matters of common concern to states in each zone— matters relating to social and economic planning, border disputes, inter-state transport, etc.
- India is the epitome of unity in diversity. However, in order to strengthen this unity furthermore, both the centre and state governments, need to imbibe the ethos of **cooperative federalism**.



5. El Niño-La Niña Weather Patterns:

A new study projects that climate change will significantly impact El Niño-La Niña weather patterns approximately by 2030.

Findings of the study:

- Study published in Nature journal – It has projected that climate change will impact El Niño-La Niña weather patterns approximately by 2030, a decade before what was earlier predicted.
- WMO prediction – In 2022, the World Meteorological Organisation (WMO) predicted the first “Triple dip” La Niña of the century. This is only the third time since 1950 that a triple dip La Nina has been observed.

What is El Niño?

- El Niño is a loose translation of “little boy” or “Christ child” in Spanish.
- El Niño is the warming of sea waters in Central-east Equatorial Pacific that occurs every few years (Warm phase off the coast of Peru).
- During El Niño, surface temperatures in the equatorial Pacific rise
- This weakens the trade winds — east-west winds that blow near the Equator.
- Due to El Niño, easterly trade winds that blow from the Americas towards Asia change direction to turn into westerlies. It thus brings warm water from the western Pacific towards America.

Effects of El Niño Phenomenon

- El Niño causes dry, warm winter in Northern U.S. and Canada and increased flooding risk on the U.S. gulf coast and southeastern U.S.
- It brings drought to Indonesia and Australia.
- In India, an El Niño event is strongly linked to suppressed rainfall in the monsoon season.
- Marine resource - Under El Niño, upwelling (deeper waters rise towards the surface) of deeper waters is reduced, thus reducing phytoplankton off the coast, affecting fishes.

What is La Niña?

- La Niña or “Little girl” is the opposite of El Niño.
- La Niña sees cooler than average sea surface temperatures in the equatorial Pacific region.
- It is the “Cool phase”.
- Trade winds are stronger than usual, pushing warmer water towards Asia.

Effects of La Niña Phenomenon

- Pacific cold waters close to the Americas push jet streams (narrow bands of strong winds in the upper atmosphere) northwards.
- La Niña leads to drier conditions in Southern U.S.
- La Niña has been associated with heavy floods in Australia.
- In the Indian context, La Niña is associated with good rainfall during the monsoon season.



Normal Situation



El Niño Situation

6. Same-Sex Marriage:

The Supreme Court recently issued a notice to the Centre on a plea to grant legal recognition to same-sex marriages and alliances between members of LGBTIQ+ community under the Special Marriage Act. The petition raised the absence of a legal framework which allowed members of the LGBTQ+ community to marry any person of their choice.

- As of 2022, marriage between same-sex couples is legally performed and recognized in more than 30 countries.
- The most recent country legalising it is Mexico.

Relevant Cases:

- **NALSA v. Union of India:** Here, Supreme Court categorically held that Indian Constitution protects non-binary individuals and that the protections envisaged under Articles 14, 15, 16, 19 and 21 cannot be restricted to the biological sex of male or female.
- **Marriage as a Fundamental Right (Shafin Jahan v. Asokan K.M. and others 2018):** While referring to Article 16 of Universal Declaration of Human Rights and the Puttaswamy case, the SC held that the right to marry a person of one's choice is integral to Article 21 of the Constitution.
- **Navtej Singh Johar judgment, 2018:** Decriminalised homosexuality and held that the Section 377 of the Indian Penal Code was unconstitutional.
- **Puttaswamy judgment, 2017:** Affirmed the Right to Privacy as a fundamental right

The Special Marriage Act of 1954

All marriages in India can be registered under the respective personal law Hindu Marriage Act, 1955, Muslim Marriage Act, 1954, or under the Special Marriage Act, 1954.

The Special Marriage Act, 1954 is an Act of the Parliament of India with provision for civil marriage for people of India and all Indian nationals in foreign countries, irrespective of religion or faith followed by either party.

The couples have to serve a notice with the relevant documents to the Marriage Officer 30 days before the intended date of the marriage.

This Act is applicable to the entire territory of India and extends to intending spouses who are both Indian nationals living abroad.

Various petitions:

- **First petition** - The petition argued that the SMA was "ultra vires" (beyond the powers) the Constitution as it discriminates between same-sex couples and opposite-sex couples.
- It stated that the Act denied same-sex couples both legal rights as well as the social recognition and status that came from marriage.
- **Second petition** – It argued that the recognition of same-sex marriage was only a continuation of the Navtej Singh Johar judgment of 2018 and the Puttaswamy judgment of 2017. The petition only sought to make the 1954 Act gender-neutral.

<u>Arguments in favour of legalising Same-Sex Marriage</u>	<u>Arguments against legalising Same-Sex Marriage</u>
<p>The Special Marriage Act of 1954: It provides a civil form of marriage for couples who cannot marry under their personal law.</p> <p>Fundamental Right: Right to marry a person of one's choice is a fundamental right. LGBTQ+ community have the same human, fundamental and constitutional rights as other citizens.</p> <p>Right to equality: The petitioners have argued that barring them from marriage violates their right to equality.</p> <p>Global practice: same sex marriages are legal in at least 30 countries, including the United States, Australia, Canada and France.</p>	<p>Against Biological relation: Marriage in India can be recognised only if it is between a biological man and a biological woman</p> <p>Judicial interference: interference by a court in the marital statute based on personal laws will create havoc in society and will run against the intent of Parliament in framing the laws.</p> <p>Fundamental rights are not absolute: It cannot override other constitutional principles.</p> <p>Section 4 of the Special Marriage Act: It although permits any two persons to solemnize a marriage, the subsequent conditions in sub Section (c) therein restrict its application only to males and females.</p> <p>Counter to global challenges: Recently, Singapore scrapped criminal penalties for gay sex, but stopped short of allowing marriage.</p>

The LGBTQ community needs an anti-discrimination law that empowers them to build productive lives and relationships irrespective of gender identity or sexual orientation and place the onus to change on state and society and not the individual.

7. Still a nightmare for domestic violence survivors

Domestic violence is a punishable offence under Protection of Women from Domestic Violence Act 2005 (PWDVA). It is a violation of human rights.

- National Family Health Survey-5 (2019-21) reveals that despite almost a third of women being subject to domestic violence, only 14% of women have ever sought help.
- More rural than urban women reporting experiences of domestic violence.

Protection of Women from Domestic Violence Act 2005 (PWDVA):

Issues related with Domestic Violence faced by Women:

- **Unable to access the law:** provisions are unevenly implemented, unavailable and out of reach for most Indian women.
- **Hope:** The research in Maharashtra, West Bengal and Tamil Nadu reveals that Women were hopeful that things would change, that they could change their husband's behaviour.
- **Burden:** Women believed that they would become 'a problem' or a source of 'tension' for their families, and bringing them shame and dishonour, irrespective of the survivor's level of education, caste, or class.

- **For migrant women, transpeople or those with several sisters**, or ill, older or deceased parents, it was felt even more acutely that the perpetrator's violence was their individual responsibility to manage.
- **Societal pressure:** Parents, in a majority of cases, insisted on their daughter preserving the family environment which they should do by adjusting to their husband's and his family's needs better.
- **Victim blaming:** NFHS-5 data reports that women are more likely than men to justify a scenario in which it is acceptable for a husband to beat or hit his wife.
- **Institutional deficit:** With few safe houses across India, Many women have nowhere else to go.
- **Access to legal justice** through the courts was a material possibility only for women with independent wealth and connections or those supported by specialist non-governmental organisations.

Role of police:

- Police were more likely to send women back to violent households: To reconcile with the perpetrator
- Use violence against perpetrators as a deterrent instead of filing an official complaint or connecting women to protection officers and other service providers.
- Several States are yet to implement Protection officers: where they are in post, they are under-resourced, under-skilled and overworked, making their remit impossible

Governments Efforts

- Criminal Law (Amendment) Act, of 2018 was enacted to prescribe even more stringent penal provisions including the death penalty for the rape of a girl below the age of 12 years.
- The Government has set up the Nirbhaya Fund for projects for the safety and security of women, for which the Ministry of Women and Child Development is the nodal authority for appraising/ recommending the proposals/schemes to be funded under the Nirbhaya Fund.
- In order to coordinate various initiatives for women's safety, MHA has set up a Women Safety Division.

Way forward:

- The intervention should begin by focusing on gender equality in education since the quality of education received by women has not equipped them to question the patriarchy.
- the government should understand and recognise domestic violence of any form as a crime and not just a 'family issue'.
- Trauma-informed institutional response, revamping of the support systems based on impact assessments and increasing the number of one-stop centres with adequate professionals are some of the other measures needed
- There is a need for sustained and intensified campaigns and the strengthening of institutions with wider representation.
- Creating and publicising a directory of services which can be accessed by survivors and their relatives or friends with information and mobile numbers during a crisis.
- PWDVA should not be a gender specific act: need to include men and LGBTQ under this.

8. it's time to discuss depopulation:

Recently, when the world population touched 8 billion, several headlines focused on how India was the largest contributor to the last billion and is set to surpass China as the world's most populous nation by 2023.

- But missing in this conversation is the real threat of depopulation that parts of India face and the country's complete lack of preparedness to deal with it.
- Demographers, policy experts, and politicians in countries such as Japan, South Korea, and Europe, which are experiencing falling fertility and nearing the inflection point of population declines, are beginning to talk about what the future holds and whether reversal is possible.

IMPORTANT PROVISIONS

Section 2(f)

Defines domestic relationship as a relationship between two persons who live or have, at any point of time, lived together in a shared household, when they are related by consanguinity, marriage, or through a relationship in the nature of marriage, adoption or are family members living together as a joint family

Section 2(s)

Defines shared household as a household where the person aggrieved lives or at any stage has lived in a domestic relationship either singly or along with the respondent and includes such a household whether owned or tenanted...irrespective of whether the respondent or the aggrieved person has any right, title or interest in the shared household

Section 3

Defines domestic violence as any act which "harms or injures or endangers the health, safety, life, limb or well-being, whether mental or physical, of the aggrieved person or tends to do so and includes causing physical abuse, sexual abuse, verbal and emotional abuse and economic abuse"

Section 11

Requires central/state govt to give publicity to the law and create awareness among law enforcement and judicial officers

Section 17

Right to reside in a shared household

Section 18

A magistrate can issue a protection order which prohibits a respondent from committing domestic violence and other acts. Often called a stop violence order

Section 19

Residence orders restricting the respondent from removing the woman from a shared household can be issued

Section 20

A magistrate can offer monetary reliefs like compensation for loss of earnings or reimbursement of medical expenses owing to domestic violence

Section 21

A magistrate can issue temporary custody orders in favour of the woman

Section 22

A magistrate can issue additional compensation orders

Section 26

Freedom to move any court, including a magistrate/family/criminal court for relief

India's fertility rate:

- It is now well-established that fertility in India is falling along expected lines due to rising incomes and greater female access to health and education.
- India's total fertility rate is now below the replacement rate of fertility.
- Even in States with relatively high fertility, many cities have been at the replacement rate or below the replacement rate for over a decade, if not more; the National Family Health Survey (NFHS) estimated India's urban fertility rate in 2019-21 to be 1.6, which places it next to the U.K.

Real threats of depopulation:

- **Declining Workforce and dependent population:** In the next four years, both Tamil Nadu and Kerala will see the first absolute declines in their working-age populations in their histories.
 - With falling mortality (barring the pandemic), the total population of these States will continue to grow for the next few decades, which means that fewer working-age people must support more elderly people than ever before.
- **Low in-migration :**Tamil Nadu and Kerala had negative net migration rates, which means they sent out more migrants than they received, as of 2011
 - This will make access to working-age persons more difficult along with fertility decline.
- **Skewed sex ratio:** A skewed sex ratio remains a danger. As the latest round of the NFHS showed, families with at least one son are less likely to want more children than families with just one daughter.
- **North-South differences:** The stark differences between northern and southern States in terms of basic literacy as well as enrolment in higher education, including in technical fields, will mean that workers from the southern States are not automatically replaceable.
- **Sharp anti-Muslim tone:** The sharp anti-Muslim tone in the conversation has remained even though fertility between Hindus and Muslims is converging.

Way forward:

- Conversations around fertility reductions in the southern States are often framed around the price that these States are having to pay in relation to others in terms of the share of federal tax receipts or political representation.
- With decades of focus on lowering fertility, the conversation in India is stuck in a rut.
- The southern states must break away from this outmoded, data-free rhetoric and join the global conversation on depopulation.

1. Is poverty a just criteria for reservation?

(The recent upholding of 103rd CAA has been challenged on the following grounds:

- **Caste is still relevant:** in our country, discrimination is primarily based on caste. A person may be rich today and may become [poor] tomorrow and vice versa. But once you are born into a caste, it doesn't change even after your death. Economic criteria are very volatile.
- **Strengthening caste:** It is unfair because it twists the idea of social justice by bequeathing further privilege to communities who are historically situated to benefit from the caste system
- Reservation is aimed at "**remedying the structural disadvantages**" faced by marginalised groups. The Janhit Abhiyan judgment is at stark odds with this line of argument and instead regards reservation as a poverty alleviation scheme.
- **Antithetical to equality:** Reservations permitted for SC, ST and OBCs are intrinsic to the guarantee of equality. The benefits accorded to them are not a "free pass" but a "compensatory mechanism".
- **Disregard for merit:** the merit mantra was very effective in stalling the dereservation policies (Policies aimed at freeing education and employment opportunities from a handful of castes to everyone). But the bill for EWS had no parliamentary debates regarding the merit criteria.
- **Arbitrary criteria:** in India more than 30cr people are belonging to BPL in which a major share is from SC/ST/OBC. A household that earns more than Rs 75/day is considered Above poverty line while an upper caste household earning Rs 2222/day is considered economically weak. To equate unequals is to perpetuate inequality.
- It will open doors to **creating more exclusions** and distinctions within our society and may lead to damaging the very identity and the soul of the Constitution.

2. The Amendments to the IT Rules 2021

Recently, The **Ministry of Electronics and IT (MeitY)** has notified amendments to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 (IT Rules, 2021).

- There was a need to ensure that the interests and **constitutional rights of netizens** are not being contravened by big tech platforms, There was also a need to strengthen the **grievance redressal framework in the Rules.**

Major amendments

- The grounds in rule 3(1)(b)(ii) have been rationalised by removing the words '**defamatory**' and '**libellous**'. Whether any content is defamatory or libellous will be determined through **judicial review**.
- Currently, intermediaries are only required to inform users about not uploading certain categories of harmful/unlawful content.
 - These amendments impose a **legal obligation on intermediaries to take reasonable efforts** to prevent users from uploading such content. The new provision will ensure that the intermediary's obligation is not a mere formality.
- **Grievance Appellate Committee(s)** will be established to allow users to appeal against the inaction of, or decisions taken by intermediaries on user complaints. However, users will always have the right to approach courts for any remedy.
- The amendment requires intermediaries to **respect the rights** guaranteed to users under art **14, 19, 21** including a reasonable expectation of due diligence, privacy and transparency.
- While the IT Rules of 2021 mandated that social media intermediaries would be responsible for informing users not "to host, display, upload, modify, publish, transmit, store, update or share any information" not permitted

under the law, the amended rules only say that intermediaries should take “**all reasonable measures**” to inform users of these rules.

- The companies will be required to acknowledge complaints from **users within 24 hours and resolve them within 15 days or 72 hours** in case of an information takedown request.

Concerns:

- The Rules may be **going beyond the powers delegated** under the Act in certain cases. Such as where they provide for the regulation of significant social media intermediaries and online publishers and require certain intermediaries to identify the first originator of the information.
- **Restrictive:** Can act as an effective tool to curb government criticism and dissent.
- Grounds for restricting online content are overbroad and may affect freedom of speech.
- **Absence of procedural safeguards:** There are no procedural safeguards for requests by law enforcement agencies for information under the possession of intermediaries.
- Requiring messaging services to enable the identification of the first originator of information on its platform may adversely affect the privacy of individuals.

3. Can convicted legislators be disqualified from Assembly?

Disqualification of MPs and MLAs:

- The **Representation of the People Act, of 1951** specifies the qualifications and the disqualifications of Members of Parliament and state legislatures.
- **Section 8** of the Representation of the People Act (RPA), 1951, contains provisions aimed at decriminalizing electoral politics.
- Section 8 (3) of the Representation of the People Act, 1951: MP/MLA convicted of any offence and sentenced to imprisonment for not less than two years shall be disqualified from the date of conviction.
- Even if a person is on bail after the conviction and his appeal is pending for disposal, he is disqualified from contesting an election.

Categories:

- **First Category:** It contains offences that entail disqualification for a period of six years upon any conviction. Major IPC offences are included under this head, for example:
 - making speeches that cause enmity between groups (Sec.153A) and doing so in a place of worship (Sec.505)
 - bribery and personation during elections and other electoral offences,
 - offences relating to rape and
 - Cruelty to women by husband and later’s relatives.
- If the punishment is a fine, the six-year period will run from the date of conviction.
- If there is a prison sentence, the disqualification will begin on the date of conviction and will continue up to the completion of six years after the date of release from jail.
- **Category 2:** All other criminal provisions fall in the 2nd category under which at least 2 years in prison is needed for disqualification.

Is there legal protection for legislators against disqualification?

- Under **Section 8(4) of the RPA**, legislators could avoid immediate disqualification until 2013.
- Section 8(4) allowed convicted MPs, MLAs, and MLCs to continue in their posts, provided they appealed against their conviction/sentence in higher courts within 3 months of the date of judgment by the trial court.
- In other words, the mere filing of an appeal against conviction will operate as a stay against disqualification.
- But in **Lily Thomas vs. Union of India**, the Supreme Court in July 2013 struck down section 8(4) of the RPA, 1951 and declared it ultra vires, and held that the disqualification takes place from the date of conviction.

Can the disqualification be removed?

- Yes, the **Supreme Court** has the power to stay not only the sentence but also the conviction of a person. In some rare cases, conviction has been stayed to enable the appellant to contest an election.
- But the Supreme Court has made it clear that such a stay should be very rare and for special reasons.
- **The RPA itself** provides a remedy through the Election Commission.
- Under Sec. 11 of the Act, the EC may record reasons and either remove or reduce the period of, a person's disqualification.
- The EC exercised this power for Sikkim Chief Minister P.S. Tamang, who served a one-year sentence for corruption, and reduced his disqualification so as to contest a byelection and remain in office.

4. Uniform Civil Code

The Uniform Civil Code (UCC) calls for the formulation of one law for India, which would be applicable to all religious communities in matters such as marriage, divorce, inheritance, adoption.

- It dates back to colonial India when the British government submitted its report in 1835 stressing the need for uniformity in the codification of Indian law relating to crimes, evidence, and contracts, specifically recommending that personal laws of Hindus and Muslims be kept outside such codification.
- **Article 44:** The "State shall endeavour to provide for its citizens a uniform civil code (UCC) throughout the territory of India."

Significance and need of UCC

Uniform Principles: Common Code would enable uniform principles to be applied in respect of aspects such as marriage, divorce, succession etc.

Promotion of secularism: It would help **end gender discrimination** on religious grounds and **strengthen the secular fabric of the nation.**

Protection of Vulnerable & Women's Rights: Women have been denied via personal laws in the name of socio-cultural-religious traditions. Eg: Polygamy

Reduced Discord: if and when the whole population will start following the same laws, chances are there that it would bring more peace in the living and reduce riots.

Ending unjust customs and traditions: For example, Law against Manual scavenging. It might have been a custom in the past but in a mature democracy like India, this custom cannot be justified.

Remove vote bank politics: Opting the UCC will remove the religious nexus of the Political system in which voters are divided on the basis of religion, caste etc.

Eases Administration: UCC would make it easy to

Challenges

Violation of fundamental rights: Religious bodies oppose uniform civil code on the ground that it would be interference into religious affairs which would violate fundamental rights guaranteed under article 25 of the constitution.

Reduces diversity: It would reduce the diversity of the nation by painting everyone in one colour. Tribals have their unique customs and traditions as per their culture. Replacing their customs and traditions with a unified law may lead to the identity crisis of the tribals. This may further lead to social tension.

Communal politics: It would be a tyranny to the minority and when implemented could bring a lot of unrest in the country.

Threat to Multiculturalism: Indian society has a unique identity in the form of its being multiculturalism, and unified law might do away with these unique characteristics of this nation.

Lacking Political Will: The UCC is a sensitive issue, there is hard to get political consensus on this part. In the multiparty system and democratic setup the

administer the huge population base of India.

majority decision matters.

Global practice of UCC: Almost all Muslim nations like Morocco, Pakistan etc. have been following the UCC.

National integration: A common civil code will help the cause of national integration by removing disparate loyalties to laws that have conflicting ideologies

Way forward:

- The government and society will have to work hard to build trust, but more importantly, make common cause with social reformers rather than religious conservatives.
- Rather than an omnibus approach, the government could bring separate aspects such as marriage, adoption, succession and maintenance into a UCC in stages.

5. The age of minimalism in India-Pakistan ties

India-Pakistan relations have entered an age of minimalism.

There is very little bilateral contact today, even fewer expectations of a bilateral breakthrough.

New normal:

- **Cold peace'** exists on the Line of Control, inside Kashmir and in the verbal exchanges between the two sides.
- There is no political will for any better relationship, **grand gestures or grand outreach**. The bilateral contract is tactical, business-like and unemotional.
- The interlocutors on either side appear to have adopted a clinical approach to dealing with the other side. They discuss and deal with only those issues that need urgent attention. The second feature is more focused on **conflict management, with little focus on conflict resolution**. Engagement is only for **tactical purposes**. A **larger political context** is missing.
- The most important aspect of this minimalist approach is Delhi's ability to shed its traditional hesitations about directly dealing with the **Pakistani army establishment**. The Pakistan army has taken this approach of direct engagement with the military establishment in Pakistan more seriously.

What are the reasons behind this new state of relationship?

- Present relationship is the history of **missed opportunities**, failed attempts at conflict resolution, political inability to resolve conflicts due to the dual power centre in Pakistan, and the lack of **political will** on either side. These disappointments have led to a recognition in New Delhi that making comprehensive peace with Pakistan is very difficult.
- **Second**, there is a recognition on both sides that there is no easy way to resolve their complicated conflicts and that, going forward. **Bilateral conflict resolution** may get harder due to **rising populism** fueled by online hate.
- **Third**, India also realizes that the traditional logic in India that it should first settle its conflicts with Pakistan and then move on to addressing the bigger challenges is not paying any dividend.
- **Four**, there is also a certain confidence in New Delhi today that it does not need to talk to Pakistan to ensure peace inside Kashmir. This growing confidence in New Delhi about its capability to defend Kashmir against Pakistan aggression and belief in **deterrence by punishment** will further moderate India desire for conflict resolution
- **Finally**, both sides today are preoccupied with other **geopolitical challenges** like Pakistan with the Taliban-led Afghanistan, and India with an aggressive China on its borders.

Way forward:

The Current strategy of minimalist engagement with the Pakistani deep state is unlikely to be able to tackle the larger substantive political questions. The process may run into challenges over time or its tactical utility might eventually be exhausted

6. India's G20 Presidency and Food Security

G20 Presidency will come to India from December 1, 2022, offering a unique opportunity to India in addressing various food security challenges faced by the world today.

Opportunity for India in G20 Summit 2023:

- The food security situation has worsened with growing conflicts, and spiralling climate crises marked by droughts, floods, cyclones, and economic downturns in the past few years.
 - In this context, India's presidency of the G20 offers a historical opportunity for the country to share its successful journey in moving from a food-deficit nation to a food-surplus nation.
 - In 2021, through the Matera Declaration, G20 ministers recognised that poverty alleviation, food security, and sustainable food systems are key to ending hunger.
 - It reflects the Indian concern for the welfare of small & medium farmers, promoting local food cultures and recognising Agri-diversity.
- **India's Performance in Ensuring Food Security**

UN Food Systems Summit(held by the G20): Five identified action tracks:

- Safe and nutritious food: Ensure access to safe and nutritious food for all
- Sustainable consumption: Shift to sustainable consumption patterns
- Production: Boost nature-positive production

The 1991-2015 period saw the diversification of agriculture with greater focus being given to the horticulture, dairy, animal husbandry, and fisheries sectors.

One of India's greatest contributions to equity in food is the National Food Security Act, 2013, which anchors the targeted public distribution system, the mid-day meal scheme, and the Integrated Child Development Services.

In the past three years, while responding to the pandemic, India has set a global example in alleviating hunger by bringing in the Pradhan Mantri Garib Kalyan Ann Yojana.

Way Forward:

- Mechanism of purchases of cereals from farmers: Government was able to provide a swift and resilient response to the COVID-19 pandemic, avoid supply chain disruption and economic shock.
- Sustainable Development Goals by 2030: There is an opportunity to fast-track the processes and commitments that were started through the pioneering UN Food Systems Summit for global food systems transformation.
- War in Ukraine: Led to vulnerability in foodgrain production and supply or in the availability with regards to exports
- It will raise the growing demand for India's wheat and rice.
- South-south cooperation: We need to expand south-south cooperation to share experiences on food and agriculture production and make expanded efforts to share India's experiences for countries in Africa and Asia.

7. Considering Consent : On POCSO Act and the Age Of Consent

Recently, the Dharwad Bench of the Karnataka High Court, while dismissing a case filed under the Protection of Children from Sexual Offences Act, 2012, said the Law Commission of India would have to rethink the age criteria, to take into consideration the ground realities.

The aspect of consent by a girl of 16 years, but who is below 18 years, would have to be considered, it said, if it is indeed an offense under the Indian Penal Code and/or the POCSO Act.

POCSO act:

Under the POCSO Act, 2012, and under several provisions of the IPC, whoever commits a penetrative sexual assault on a **child - anyone below 18 years of age** - can be "imprisoned

- for a term which is not less than seven years but which may extend to imprisonment for life, and shall also be liable to [a] fine."
- **Even if the girl is 16 years old, she is considered a "child"** under the POCSO Act and hence her consent does not matter, and any sexual intercourse is treated as rape, thus opening it up to stringent punishment.
- There have been several instances in the past few years when the courts have quashed **criminal proceedings** of rape and kidnapping, after being convinced that the law was being misused to suit one or the other party.
- Often, the offender had been booked under Section 366 of the IPC, Section 6 of the POCSO Act, and Section 9 of the Prohibition of Child Marriage Act, 2006.

Related Concerns:

- **Misuse of the Law:** There have been several instances in the past few years when the courts have quashed criminal proceedings of rape and kidnapping, after being convinced that the law was being misused to suit one or the other party.
- Even if the girl is 16 years old, she is considered a "child" under the POCSO Act and hence her consent does not matter, and any sexual intercourse is treated as rape, thus opening it up to stringent punishment.
- **Criminal Justice System:** A number of young couples in consensual and non-exploitative relationships have found themselves embroiled in the criminal justice system.
- **Blanket Criminalisation:** Consensual sexual acts involving older adolescents erodes their dignity, best interests, liberty, privacy, evolving autonomy, and development potential.
- **Burden on Courts:** It also impacts the delivery of justice as these cases constitute a large burden on courts.
- They divert attention from investigation and prosecution of actual cases of child sexual abuse and exploitation.

Need of the hour

- The high rate of acquittals shows that the law is not in sync with social realities of adolescent relationships.
- Merely **creating awareness** among children will not solve the issues arising out of consensual relationships between teenagers.

- There is a **need for law reform** to revise the age of consent and prevent the criminalisation of older adolescents engaging in consensual and non-exploitative acts.

8. Economically weaker class (EWS) Reservation Judgment

A majority of a five-judge bench of the Supreme Court in **Janhit Abhiyan v Union of India** has **upheld the validity** of the **103rd Amendment** of the Constitution

- The **10% EWS quota** was introduced under the 103rd Constitution (Amendment) Act, 2019 by amending Articles 15 and 16.
- It inserted **Article 15 (6) and Article 16 (6)**.
- It is for economic reservation in **jobs and admissions in educational institutes** for Economically Weaker Sections (EWS).
- It was enacted to promote the welfare of the poor **not covered by the 50% reservation** policy for Scheduled Castes (SCs), Scheduled Tribes (STs) and Socially and Educationally Backward Classes (SEBC).
- It enables both the **Centre and the States** to provide reservations to the EWS of society.

In favour of the 103rd Amendment Act

Three Judges agreed that the amendment does not violate the basic structure of the Constitution,

The new reservation is in furtherance of the Preamble's goal of achieving justice — social, economic and political.

The preamble and Article 46 of the Constitution support the legality of EWS reservations.

Article 46 states that the government and its institutions must promote the educational and economic interests of Scheduled Castes, Scheduled Tribes and other weaker sections.

Treating EWS as a separate class would be a reasonable classification, and treating unequally equally would violate the principle of equality under the Constitution.

Against 103rd Amendment Act

Two judges dissented and observed that, while reservation on economic criteria is per se not violative of the Constitution, excluding SC/ST/OBC from the purview of EWS is violative of basic structure.

They struck down Articles 15(6) and 16(6) for being discriminatory and violative of the equality code

Permitting a breach of 50% would result in compartmentalization, and the rule of the right to equality will become the right to reservations.

An economic quota is justified for accessing public goods including **subsidies (Article 15)**, it can't be extended to reservation (Article 16), which seeks representation of the community.

EWS Reservation Challenge to 103rd Constitution Amendment Act:

- **Violation of Basic structure:** EWS reservation violated the basic structure of the Constitution as it reserved seats solely on the basis of economic backwardness rather than social and educational backwardness.
- **Social upliftment:** Reservations are a means to compensate for past injustices and not a tool for economic upliftment.
- **Discriminatory:** EWS reservation was discriminatory since it excluded members of the Scheduled Castes, Scheduled Tribes and socially and educationally backward classes.
- **Breaches quota ceiling:** Reservation breached the Supreme Court's ruling in the Indra Sawhney Case of 1992, which ruled that quotas could not exceed 50% of the total seats available

Significance of EWS Reservation Judgement:

- Use of **economic backwardness criterion:** Economic criterion was provided for this new category of affirmative action.
- **Better Targeting:** Individuals rather than group became the basis of backwardness.

- **Shift in affirmative action** from being a tool for enabling community-based representation to tackle individual deprivation.
- **Revisit reservation policy:** An assenting judge said that 75 years after independence, it was time to revisit the system of reservation in the larger interest of society. It will gradually remove the stigma associated with reservation because reservation has historically been related to caste and most often the upper caste looks down upon those who come through the reservation.

Issues:

- **Unavailability of Data:** The Union or state governments have no such data to prove that 'upper' caste individuals, who have less than Rs 8 lakh annual income, are not adequately represented in government jobs and higher educational institutions. There is a strong possibility that they are actually over-represented in these places.
- **Arbitrary Criteria:** The criteria used by the government to decide the eligibility for this reservation is vague and is not based on any data or study.
- Even the SC questioned the government whether they have checked the GDP per capita for every State while deciding the monetary limit for giving the EWS reservation.

Way forward:

- **Open to all communities:** The Government should consider both opening up the EWS quota to all communities and keeping the income criterion much lower than the ceiling.
- **Justices Gogoi and Nariman: "matrix" to justify reservations:** List of differently-weighted categories, ranging from income, family situation, disability, education level, etc, in addition to birth in a particular caste.
- **Potential beneficiaries:** The Government needs to establish a group of potential beneficiaries suffering from backwardness in the present scenario.
- **Constitutional amendment:** It might have survived the 'basic structure' test, the hardest test for governments will be the manner in which they give effect to the amendment.

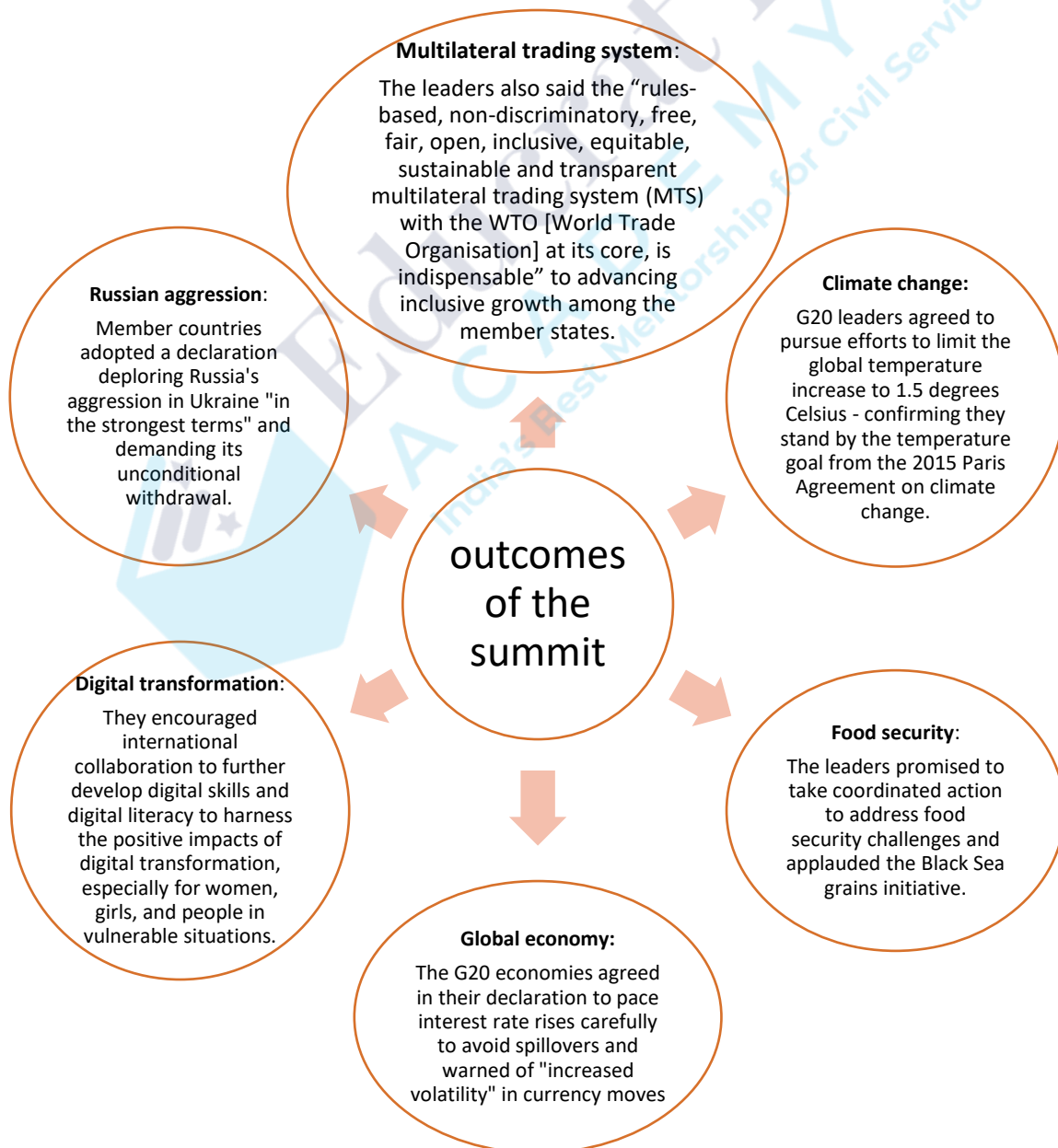
9. G-20 Summit 2022: Bali



- Recently, the 17th annual summit of G-20 was hosted by the Indonesian G20 presidency in Bali under the theme 'Recover Together, Recover Stronger'.
- Now, India has assumed the charge of the G20 presidency and the 18th summit will be held in India in 2023.

Key five takeaways from the Bali summit:

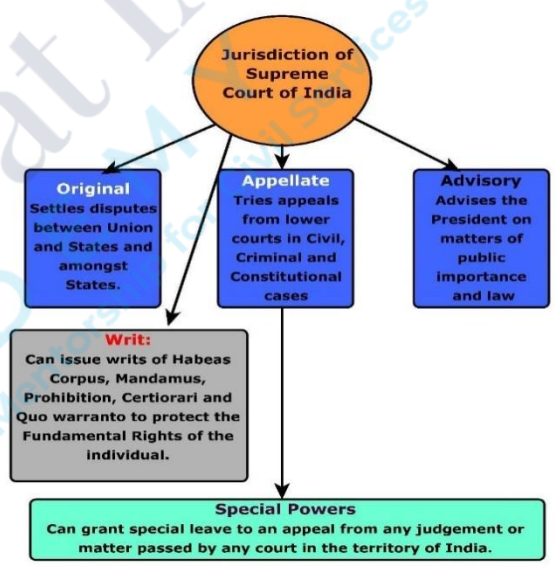
- **The joint statement includes India's message to Russia:** "Today's era must not be of war" this is a message, which is the result of India's constructive, cooperative and consensus-building approach, which helped bridge the gap between Russia and the Western countries.
- **India got the presidency of the G20:** This is the first time the country will be holding an international summit of this scale.
The Indian Prime Minister stated that India's presidency will be inclusive, ambitious, decisive and action-oriented, as represented by India's G20 chairmanship theme "One Earth, One Family, One Future."
- **Meeting of the world's two most powerful economies – US and China:** At a time when the ties between their countries have been strained, their meeting is seen as an incremental step towards rebuilding the fractured relationship.
- **The divide between Russia and the West is evident:** Especially after news of the "Russian-built" missile landing in Poland – a NATO member country.
- **Meeting of Indian PM and Chinese President:** This was their first public meeting since the India-China border standoff began in 2020.



- **Art 141:** the law declared by the Supreme Court, its pronouncements on the constitutional validity of enacted law, including constitutional amendments, is binding on all other courts and authorities in the country.
- **Guidelines:** There is no law in India to guide our judges; we only have guidelines.

Hurdles in the judicial system

- **Overburdened and delay in justice:** The constitutional courts, that is, the Supreme Court and the high courts are overburdened with the caseload. This results in enormous delays in justice and sometimes, litigation continues for decades.
- **Costly affair:** Litigation is a costly affair and in several instances, the common people are forced to forgo their rights and claims as they are unable to afford the legal proceedings.
- **Lack of infrastructure:** The judiciary lacks the infrastructure to properly deal with the huge caseload. The judicial complexes are overcrowded and several Courts have a shortage of digital infrastructure.
- **Several British-era laws:** They have become obsolete and need to be amended and modified or repealed.
- **Frequent adjournments:** The caseload before the subordinate courts is also huge and resultantly frequent adjournments are granted by the courts which results in delays.
- **Under trials:** The undertrial prisoners languish in jails for years while their cases are pending.
- **Ratio of judges to people is very low:** There are about 21 judges in India for 1 million people. The ratio of judges to people is very low and the need to improve this ratio was highlighted by the Law Commission in the 245th Report.



. ENSURE THE INTEGRITY AND INDEPE



1. Establish and enforce a code of conduct for judges and for criminal proceedings.



2. Review the composition of the Judicial Service Commission to minimise the influence of sitting judges and protect the independence of the judiciary from political influence.



3. Ensure that the proceedings of the Judicial Service Commission are more transparent, including making available minutes of meetings and decisions.



4. Enforce the qualification and experience requirements for judges as stipulated in legislation.



departments, and ease of access to information for those seeking the services of the Judiciary.



7. Establish training and continuing legal education for judges and lawyers on legal developments, judicial processes, judicial ethics, gender sensitivity and protection of human rights to ensure uniform qualifications for the judiciary in compliance with international standards.

Judicial reforms in India

- **Virtual court system:** The regular court proceedings in our Indian courts in such unprecedented times are either being adjourned or have been carried out virtually via videoconferencing.
- **eCourts portal:** It is a one-stop solution for all stakeholders like the litigants, advocates, government agencies, police, and common citizens.

- **E-filing:** E-filing, also known as electronic filing, is a facility that provides filing of cases through the internet.
- **National Judicial Data Grid (NJDG):** The statistics of cases pending at the national, state, district and individual court level are now made accessible to the general public, researchers, academicians and the society at large.
- **e-Sewa Kendra:** The e-Sewa Kendra is set up as a one-stop centre for accessing all the facilities provided under the eCourts Project.
- **Interoperable Criminal Justice System (ICJS):** It is an initiative of the e-Committee to transfer data and information between the different pillars of the criminal justice system, like courts, police, jails, juvenile homes and forensic science laboratories seamlessly, from one platform.

11. Undermining Federalism, Eroding States' Autonomy

One of the main mandates of NITI Aayog is to foster cooperative federalism through structured support initiatives and mechanisms with the States continuously, recognising that strong States make a strong nation. It is alleged that NITI Aayog has not taken any major steps since its constitution to promote cooperative federalism.

- **Federalism:** It is a system of government where the powers are divided equally between the Centre and its various parts, including provinces and states
- **Basic structure of constitution:** Federalism is one of the pillars of the Basic Structure of the Constitution.
- **R. Bommai vs Union of India case:** States are not mere appendages of the Union and the latter should ensure that the powers of the States are not trampled with.

Issues:

Breaking the 'award and package' tradition:

- It has been a well-established tradition to treat all the recommendations of the Finance Commissions relating to transfers to States as an award and a package.
- This tradition was broken for the first time while dealing with the recommendations of the Fifteenth Finance Commission.
- **Eg:** The recommendation relating to grants for nutrition amounting to ₹7,735 crores was not accepted.

Treating off-Budget borrowings as government borrowings:

- The decision to treat off-Budget borrowings from 2021-22 onwards serviced from the State budgets as States' borrowings and adjusting them against borrowing limits under Fiscal Responsibility and Budget Management (FRBM) in 2022-23 and following years is against all norms.
- This is the first time that the Government of India is proposing to treat off-Budget borrowings as government borrowings retrospectively from 2021-22.
- It is unjustified as borrowings by corporations against State guarantees are mostly used for capital investment. The Centre has also been raising off-Budget borrowings but mainly for meeting revenue expenditure. Such borrowings were not reflected in the Budget of the central government.
- Given this, treating off-Budget borrowings of State corporations as States' borrowings retrospectively is unjustified.

The use of cesses and surcharges:

The government has been resorting to the levy of cesses and surcharges, as these are not shareable with the States under the Constitution.

- The share of cesses and surcharges in the gross tax revenue of the Centre increased from 13.5% in 2014-15 to 20% in the Budget estimates for 2022-23.
- Though the States' share in the Central taxes is 41%, as recommended by the Fifteenth Finance Commission, they only get a 29.6% share because of higher cesses and surcharges.

The burden of Centrally sponsored schemes:

- Committee after a committee appointed by the Government of India has emphasised the need to curtail the number of Centrally Sponsored Schemes (CSS) and restrict them to a few areas of national importance.
- But, what the Government of India has done is to group them under certain broad umbrella heads.
- In addition, in 2015, the Centre increased the States' share in a number of CSS, thereby burdening States. Most of the CSS is operated in the subjects included in the State list. Thus, States have lost their autonomy.

Farm bill issue:

- The Centre has enacted three farm laws though agriculture is a subject listed in the State List under the Constitution.
- These farm laws have been enacted under Entry 33 of the Concurrent List relating to trade and commerce in, and the production, supply and distribution of foodstuffs including edible oils and oils.
- Though these Acts have been repealed, their enactment is against the spirit of the Constitution, and States were not even consulted while introducing these Bills.

Conclusion:

- The one thing that the COVID-19 pandemic has taught us is that individual efforts are not enough to tackle national exigencies, and there is a constant need to strengthen and renew the cooperative spirit of Indian federalism.
- The centre and state should work together in accordance with their constitutional mandates, with greater autonomy for states. After all, a stronger nation results from these stronger states.

12. Securing the EC

A PIL has been filed in the Supreme Court regarding the autonomy and neutrality of the Election Commission of India (ECI).

- The Election Commission of India is an autonomous constitutional authority, under art 324, responsible for administering Union and State election processes in India.
- The body administers elections to: Lok Sabha, Rajya Sabha, State Legislative Assemblies in India, Offices of the President and Vice President in the country.
- The President appoints Chief Election Commissioner and Election Commissioners.
- Tenure: They have a fixed tenure of six years, or up to the age of 65 years, whichever is earlier.
- Status: They enjoy the same status and receive salary and perks as available to Judges of the Supreme Court of India.
- The Chief Election Commissioner can be removed from office only through a process of removal similar to that of a Supreme Court judge by Parliament.
- All three members have equal voting rights and all decisions in the commission are taken by the majority.

Problems associated with appointment:

Versions of Federalism	
Dual Federalism Views the constitution as giving a limited list of powers to the national government, leaving the rest to sovereign states	Cooperative Federalism Federalism as a cooperative system of intergovernmental relations in delivering goods and services to the people
Marble Cake Federalism "As the colors are mixed in a marble cake, so functions are mixed in the American federal system"	Competitive Federalism Views the levels of government as being in competition to provide packages of services and taxes

- Appointments- At present, the CEC and ECs are appointed by the president on the advice of the Cabinet unilaterally.
- The issue is related to the likelihood of bias in the appointments, possibility of biased conduct by CEC and ECs in the future and scope for personal whimsy in appointments of EC
- The Court has questioned the practice of appointing CECs close to the age of 65 so that they have only a brief tenure.
- Uncertainty over the elevation of an Election Commissioner to the post of CEC. It makes them vulnerable to government pressure.
- Government can control an independent-minded CEC through the majority voting power of the two Election Commissioners.
- Appointment done at lightning speed: the current CEC was appointed within 24 hours leading to questions about vested interests.

(B R Ambedkar's statement about appointment: "The tenure can't be made a fixed and secure tenure if there is no provision in the Constitution to prevent a fool or a naive or a person who is likely to be under the thumb of the executive".)

Other issues:

- Only the Chief Election Commissioner (CEC), and not the other two commissioners, is protected from being removed except through impeachment. The idea of "primus inter pares" is compromised here.
- EC only has the registering authority under Section 29A of the Representation of the People Act, 1951. It does not have the power to de-register parties even for the gravest of violations.
- Expenditure is not charged on CFI making them dependent.
- No qualification is prescribed for EC leaving it to the whims of the government.

Way Forward:

Appointment - In its 255th report, the Law Commission recommended a collegium, consisting of the PM, the Leader of the Opposition and the CJI, to select election commissioners.

The EC must also be empowered to de-register parties for electoral misconduct.

The protection offered to the chief election commissioner must now be extended to other commissioners (added in 1993 and collectively represent the EC) as well.

13. The President's caution on overcrowding of prisons is a wake-up call to the executive and judiciary

The President mentioned that India is "forced to make new prisons because prisons are overcrowded. This raises questions about India's move towards progress as a society.

- Prison Statistics India is a report published by the Ministry of Home Affairs. According to its 2021 edition:
- Between 2016-2021, the number of convicts in jails decreased by 9.5% whereas the number of undertrial inmates increased by 45.8%,
- With three out of four prisoners being undertrials, the problem of overcrowding of prisons is essentially an undertrial issue

- As much as 76% of inmates are undertrials, which is the highest in 25 years
- Dominant share were men (95%), illiterates (25%), Muslims, Sikhs and Dalits were more than Hindus. Class and caste reflected in prisons too.

Causes:

- Overburdened judiciary is a major reason for the delay in justice.
- Police and prison officials often fail to fulfill their roles, leading to long delays in trials.
- Most of the undertrials come from disadvantaged social groups. Lack of resources constricts their ability to seek out lawyers.
- The understaffed judiciary compounds the problem. Section 167 of the Code of Criminal Procedures mandates that judges can extend a detainee's custody for a period of 15 days at a time. For that to happen, the detainees have to be produced regularly before the courts. This rarely happens; proceedings don't take place in time and the undertrials are shuttled from court to court.

An undertrial is a person who is currently on trial or who is imprisoned on remand whilst awaiting trial or A person who is on a trial in a court of law.

The 78th Report of Law Commission also includes a person who is in judicial custody on remand during investigation in the definition of an 'undertrial'.

Reforms:

- Undertrial prisoners should be lodged in separate institutions away from convicted prisoners.
- Institutions meant for lodging undertrial prisoners should be as close to the courts as possible. All undertrial prisoners should be effectively produced before the presiding magistrates on the dates of the hearing.
- Police functions should be separated into investigation and law and order duties and sufficient strength be provided to complete investigations on time and avoid delays.
- There should be an immediate increase in the number of judges and magistrates in some reasonable proportion to the general population.
- Jails are meant for lodging convicts and not housing undertrials.

14. The Climate Change Generation

At COP27, India released its Long-Term Low Emissions and Development Strategies (LT-LEDS).

Education can be used as a tool of innovation for the climate change generation

What Long-Term Low Emissions and Development Strategies (LT-LEDS) by India depict?

- Priorities for carbon-intensive sectors like electricity and industry and transport
- Emphasizes the role of a Lifestyle for Environment (LiFE) as a mass movement towards sustainable consumption and production.
- From behavioral shifts of individuals to the re-shaping of markets,

Issues faced by education sector and children:

- **School closures during the pandemic** have led to a learning deficit that's getting reflected in reduced test scores.
- **Impact:** One year of school closures could reduce GDP levels(OECD). It can hinder economic mobility for a generation of Indians
- **Climate impacts are disrupting children's learning and well-being globally: Extreme heat** reduces students' learning levels and causes physiological harm, Schools are temporarily shut down
- **Children's health** is affected due to persistently poor air quality in cities like Delhi.
- **Permanently displacing families**, often leading to children (and disproportionately girls) dropping out of schools and being trafficked etc

- **Lived experiences** of climate-induced disasters and anxiety about the future:
- **Digital platforms and news cycles:** They don't linger long enough to build a widespread understanding of breakthroughs like the significant reductions in the costs of renewable energy.

What steps need to be taken?

- **At a national level:** A strong enabling framework for a climate-resilient education system could cover matters from curricula to nutrition to school building codes in a climate-changed world.
- **consultative exercise** with educators, students, experts from the humanities and sciences, and relevant ministries and departments for an integrated curriculum.
- **Design and implementation in states and districts** should be shaped by existing local needs and anticipated climate risks.
- **Infrastructure investments** so school buildings can double up as emergency shelters in cyclone-prone areas.
- **Students' mental health needs** should be served through an empathic expansion and an emphasis on social and emotional learning.
- **Curricula can be infused** with scientific and technical know-how alongside indigenous and local knowledge.

Best practices:

- Range from the buffer zone of Kanha National Park where Baiga and Gond students are learning about the potential of integrating biodiversity conservation with regenerative agriculture.
- **By-lanes of Bengaluru** where youth are taking civic and climate actions from waste management to lake restorations to make their city more liveable.

GS III

1. Wind sector in India needs an overhaul

India has the **fourth-highest** installed wind energy capacity in the world.

- The Indian government set a target for 175 gigawatts (GW) of renewable energy capacity by 2022. The goal included achieving **60 GW of onshore and 5 GW of offshore capacity** for wind energy.
- India's total installed capacity was **41.67 GW** as on September 30, 2022.

Challenges for India's Wind Energy Sector:

- **Issues with the Bidding process:** Current bidding is based on tariffs derived from the site plant load factor (PLF). PLF: Plant load factor (PLF) is the ratio of average power generated by the plant to the maximum power that could have been generated in a given time.
- **Target meeting:** India may fail to achieve 2022 goals despite having 37.5 GW of onshore wind power installed in end of 2019 due to cost, mitigating payment risk, transmission capacity, and land use.
- **Geographical concentration:** Gujarat and Tamil Nadu are the highest PLF states and to realise better tariffs, most projects are being planned in these states only (60 per cent in Gujarat and 30 per cent in TN). This has put pressure on land availability and power evacuation infrastructure in these states, leading to delays in project commissions.
- **The creation of infrastructure** for power evacuation leads to a choking situation, as seen in Gujarat. This is creating execution challenges at the state level.
- **Investors' unwillingness:** In spite of the availability of land and infrastructure in other states, investors do not prefer Madhya Pradesh, Rajasthan and Maharashtra as the proposed projects cannot compete with projects in Gujarat and Tamil Nadu due to PLF and economic constraints.
- **Adverse procurement model:** The procurement model was changed from state procurement based on feed-in tariff (FiT) to central procurement through an e-reverse auction in 2017.

- A feed-in tariff is an energy policy focused on supporting the development and dissemination of renewable power generation.
- A reverse auction is a type of auction in which the traditional roles of buyer and seller are reversed.
- Thus, there is one buyer and many potential sellers. It eliminated small and retail investors from participating in procurement.

Steps have been taken to promote the installation of wind capacity in the country:

- **Technical support** including wind resource assessment and identification of potential sites through the National Institute of Wind Energy, Chennai.
- In order to facilitate the inter-state sale of wind power, the inter-state transmission charges and losses have been waived off for wind and solar projects to be commissioned by March 2022.
- **National Wind-Solar Hybrid Policy (2018):** To provide a framework for the promotion of large grid-connected wind-solar PV hybrid systems.
- **National Offshore Wind Energy Policy (2015):** To develop offshore wind energy in the Indian Exclusive Economic Zone (EEZ) along the Indian coastline.
- To accelerate growth in the wind energy sector, **FIT is required in various states**, based on their resources and PLF. Currently, the PLF in India varies in the range of 35 per cent to 43 per cent across sites in seven windy states.
- These **bids should be transparent** and closed without reverse auction.
- Additionally, NIWE can **map wind resource** potential and declare the PLF and wind zone at each state site.

2. Status Check before COP27

Rise in Emissions	Inadequate Response
<ul style="list-style-type: none"> • Between 2010 and 2019, global emissions increased by more than 1% on average. This is significantly slower than the previous decade's growth rate of about 2.6 percent, but it is insufficient to meet climate targets. • Furthermore, even if emissions growth is halted or reduced, this does not solve the problem. This is because global warming is caused by accumulated emissions in the atmosphere rather than current emissions. • Carbon dioxide, the main greenhouse gas, remains in the atmosphere for about 100 years, so any immediate reduction in emissions would have an effect only after several decades. • As a result, global average temperatures have risen faster in the last decade than at any other time in history. This trend is only expected to accelerate in the coming years. 	<ul style="list-style-type: none"> • The response in terms of emission reductions has been insufficient. The rich and industrialized countries, which were the primary polluters and thus were primarily responsible for reducing emissions, failed to meet their collective targets. • Developing countries such as China and India, which were not major emitters until recently, have seen their emissions rise dramatically. • The European Union has done relatively better on climate goals as a bloc, with the United Kingdom, which is currently experiencing an economic downturn, halving its emissions from 1990 levels, according to UN data. • The United States, which was the world's leading emitter until it was surpassed by China in the mid-2000s, has been a major laggard, reducing emissions by only about 7% from 1990 levels. • During this time, China's emissions have nearly quadrupled, while India's have nearly tripled. <p>Global emissions are now more than 50% higher than they were in 1990</p>

The 2022 United Nations Climate Change Conference, also known as the Conference of the Parties to the UN Framework Convention on Climate Change, or COP27, will be the 27th United Nations Climate Change conference, taking place from November 6 to 18, 2022 in **Sharm El Sheikh, Egypt**.

- Since the **first UN climate agreement in 1992**, the conference has been held annually. Governments use it to agree on actions to limit global temperature rises caused by climate change.

World Headed to 2.8-degree warming

- The overall climate goal is to limit global temperature rise to no more than 2 degrees Celsius above pre-industrial levels. It should ideally be kept within 1.5 degrees Celsius.
- According to the most recent estimates, if climate action is not immediately increased, the world will warm by about 2.8 degrees Celsius by the end of the century.
- Even if the 2-degree target is met, emissions must be reduced to around 41 billion tonnes by 2030 and 20 billion tonnes by 2050.
- The energy and economic crisis brought on by the Ukraine war threatens to undo even minor gains. The use of fossil fuels has increased.
- To deal with the uncertainty in the energy markets, countries have begun to secure an increasing amount of traditional fossil fuels.

Major initiatives announced in the COP 27 meeting:

International Climate Change University:

- The President of Sri Lanka Ranil Wickremesinghe has proposed to set up an international climate change university in Sri Lanka, with an ancillary institution in the Maldives.
- **UAE-Egypt Deal:** The United Arab Emirates (UAE) and Egypt have struck a deal on the sidelines of the summit to develop one of the world's largest wind farms.
- Once completed, the 10 GW onshore wind project in Egypt will produce approximately 47,790 GWh of clean energy annually. This would offset nearly 9% (23.8 million tonnes) of Egypt's current carbon dioxide emissions.
- **Climate compensation on agenda for first time:** Countries have agreed to discuss providing financial support to address Loss and Damage caused by climate change
- **Loss and damage finance** is a mechanism to support areas and communities that have already been severely affected by the climatic impact.
- Developing countries have long demanded that their developed counterparts set up a finance facility to fund the losses and damages arising from climate change for which they are least responsible.
- At COP26 in 2021 in Glasgow, high-income nations blocked a proposal for a loss and damage financing body instead of supporting a three-year dialogue for funding discussions.
- The inclusion of the Loss and Damage agenda item in the COP27 marks the first ever time that it will be discussed formally in climate negotiations.

Greenwashing: Greenwashing refers to a range of activities that companies or even countries indulge in to present misleading or dubious claims about their climate action.

- Also known as "green sheen," greenwashing is an attempt to capitalize on the growing demand for environmentally sound products.

Issue with carbon trade

Greenwashing is the process of providing misleading information to make people believe a company is doing more to protect the environment than it really is.

NEARLY 60%
OF SUSTAINABILITY CLAIMS
BY FASHION BRANDS ARE
GREENWASHING

greenwashing:

- takes attention away from real environmental threats
- can be used to disguise bad or destructive actions
- can mislead people to think they're part of the problem
- helps brands to increase sales by deception
- takes advantage of people's goodwill

- Carbon market - Countries or firms that reduce emissions beyond their mandate are granted carbon credits, which can then be bought for money by entities that need it to achieve their targets.
- There was a carbon market under the Kyoto Protocol, and a new one is being created under the Paris Agreement as well.
- The carbon markets have been flagged for lack of integrity and double counting.
- Many developed countries question the integrity of the credits, claiming that they did not accurately represent reductions in emissions.

3. GM Mustard

The Supreme Court stayed the commercial release of Genetically Modified (GM) mustard crop. It has asked the Central Government to seek public opinion before releasing the variety for cultivation purpose.

GM Mustard DMH-11

- Mustard is one of India's most important winter crops sown between mid-October and late November. It a **self-pollinating** crop difficult to hybridise naturally as it cross-pollinate.
- It is **largest edible oil** yielding crop of India.
- DMH (Dhara Mustard Hybrid)-11 is genetically modified variety of mustard developed by Centre for Genetic Manipulation of Crop Plants at Delhi University.
- It was Government sponsored project.
- But researchers at Delhi University have created hybridised mustard DMH-11 using **"barnase / barstar"** technology for genetic modification.
- It is Herbicide Tolerant (HT) crop.

What is a GM crop?
A crop which has a gene artificially inserted into it from another species, even unrelated, to give it some desired properties. GM crops are mostly either pest-resistant or herbicide-tolerant

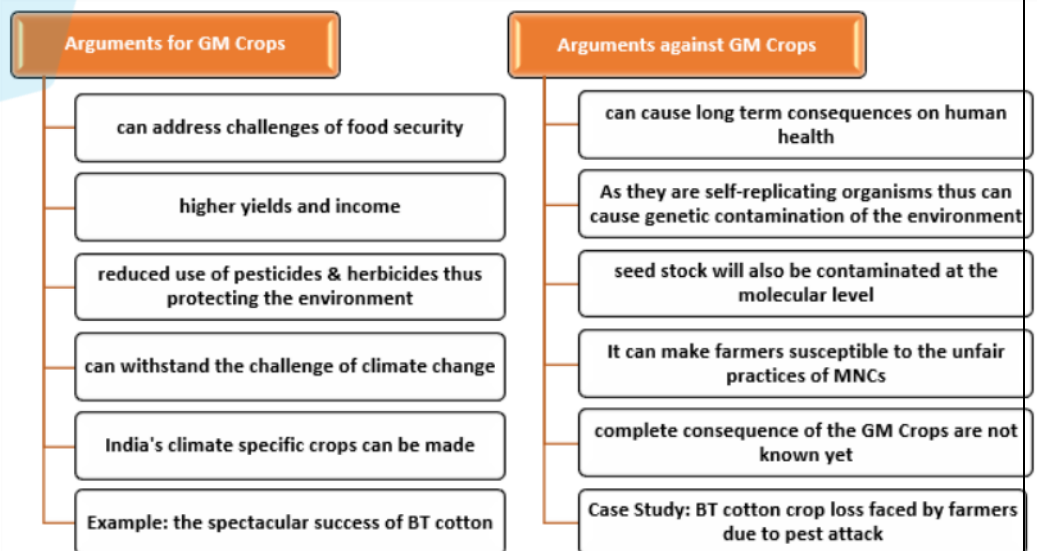
When did India get its first GM crop?
The first GM crop variety approved for commercialisation was Bt cotton. Bollgard-I, which provided immunity against the pink bollworm and developed by Monsanto, was given the go ahead in 2002. Monsanto released Bollgard-II in 2006. India has become the world's largest producer of cotton partly due to Bt cotton, which accounts for over 90% of the total cotton acreage in the country

Are there other GM crops in India?
No, the government has not approved commercial cultivation of other GM crops, though efforts have been made for brinjal and mustard

Arguments in Favour GM Mustard

- DMH-11 yields about 30% more than a traditional reference mustard variety.
- Help in boosting edible mustard oil production thus, reduce huge import bill for edible oil.
- Help to boost government-led scientific researches in Agriculture.

Related topic:



- The **Cartagena Protocol on Biosafety to the Convention on Biological Diversity** is an international agreement on biosafety as a supplement to the Convention on Biological Diversity effective since 2003.
- The Biosafety Protocol seeks to protect biological diversity from the potential risks posed by genetically modified organisms resulting from modern biotechnology.

4. Charging The Payments Ecosystem

RBI has recently released a discussion paper on price regulation in payment system.

Present regime follows the **zero merchant discount rate (MDR)**. Thus at present we do not pay for UPI transactions, due to government subsidies.

But market players, including NPCI, are demanding some sort of price regulation of UPI.

This paper analyses this issue thoroughly and gives some suggestions.

Arguments **in favour** of charging for digital transactions:

- Zero charges lacks commercial compensation to the merchants and service providers.
- This discourages new players from entering the market.
- Due lack of viable profit, no fresh investment.
- Technological innovations, which are necessary to keep security high, do not come.

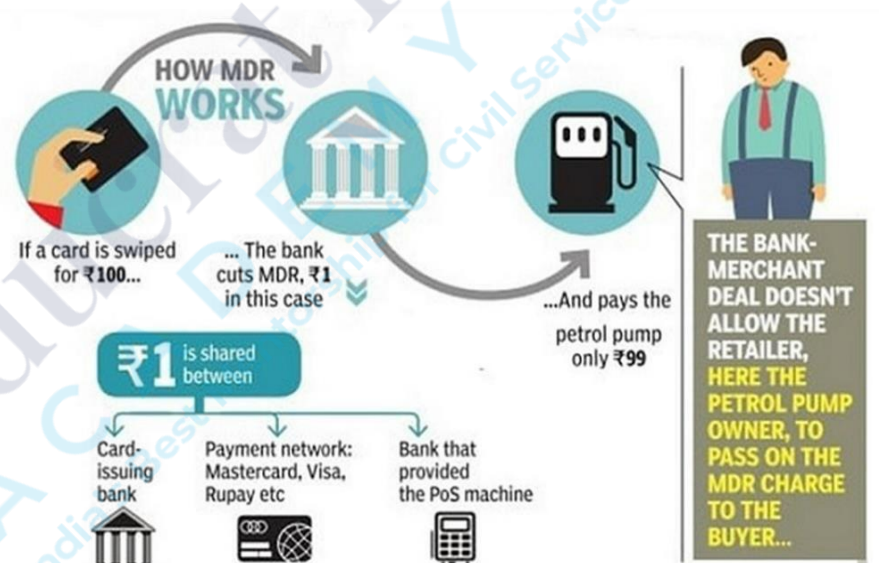
Arguments **against** of charging for digital transactions:

- If the cost of digital transactions is high, consumers opt for cash payments.
- Goal of financial inclusion may get compromised

MDR: It's basically a fee that a merchant is charged by their issuing bank for accepting payments from their customers via credit and debit cards.

What is UPI?

- Unified Payments Interface (UPI) is a payment system that allows users to link more than one bank account in a single smartphone app and make fund transfers without having to provide IFSC code or account number.
- This is a real-time payment system where funds are credited instantly on a real-time basis. It is developed by the National Payment Corporation of India (NPCI).



5. 'No Consensus' is derailing counter-terror diplomacy

India hosted the special session of the United Nations Security Council's Counter-Terrorism Committee (UNSC-CTC) recently aiming to give its counter-terror diplomacy a greater push.

GWOT – **Global War on Terrorism** is an ongoing international counterterrorism military campaign started by US following the 9/11 attack.

- **GWOT itself was built on an unequal campaign** - when India had asked for similar help to deal with the IC-814 hijacking (December 1999) less than two years before the 9/11 attacks, its pleas fell on deaf ears in the U.S., the United Kingdom, the United Arab Emirates (UAE), and of course, Pakistan, all of whom were hit by the same terrorists in later years.

- **Safeguarding Pakistan-based terrorists:** Even after GWOT was launched, Pakistan's role as the U.S.'s ally and China's "iron friend" ensured that the UNSC designations of those who threatened India the most, including

UNSC-CTC

This will be the **first such meeting** of the UNSC-CTC in India since its establishment in 2001.

The Permanent Representative of India to the UN serves as the Chair of the CTC for 2022.

Theme: It will discuss the overarching theme of '**Countering the use of new and emerging technologies for terrorist purposes**' and discuss terror-financing (through crypto-currency) and use of drones in the new-age terrorism.

New conclave: India will also be hosting shortly the third edition of the "**No Money For Terror**" (NMFT) conference that will look at tackling future modes of terror financing.

India also will chair a special briefing on the "Global Counter Terrorism Architecture", in December 2022 looking at the challenges ahead while taking over the UNSC Presidency for the last time before its two-year term in the Council ends.

Masood Azhar and Hafiz Saeed, never mentioned their role in attacks in India.

- **Lack of global cooperation:** The maximum India received in terms of global cooperation was actually from economic strictures that the Financial Action Task Force (FATF)'s grey list placed on Pakistan.
- **Weak response to Taliban issue:** and its persecution of women and minorities in the country, demonstrate rising fatigue levels in dealing with "another country's problems".

Challenges due to emerging technologies:

Terror financing uses **bitcoins and cryptocurrency**, and **terror communications** use **social media, the dark web, and even gaming centres**.

In a future that is already here, the **use of artificial intelligence (AI) systems** and **robotic soldiers** makes it even easier to **perpetrate mass attacks while maintaining anonymity**.

After the COVID-19 pandemic, **worries have grown about the use of biowarfare, and Gain-of-Function (GoF) research** to mutate viruses and vectors which could be released into targeted populations.

Drones are already being used to **deliver funds, drugs, weapons, ammunition, and even improvised explosive devices**.

Comprehensive Convention on International Terrorism (CCIT):

- The growing global polarisation over the Russia-Ukraine war is not only shifting the focus from terrorism but is also blurring the lines on what constitutes terrorism.
- For example, if drone attacks by Yemeni Houthis on the UAE and Saudi Arabia's oil

HITTING HURDLES



Comprehensive Convention on International Terrorism is a draft proposed by India in 1996, that has yet to be adopted by the UN General assembly

Twitter: **Terror striking every day now -Turkey, Somalia, Afghanistan, Kenya & Bangladesh. Mere condemnation & commiseration @un won't do. Need CCIT**
— Syed Akbaruddin, India's ambassador to UN, on Twitter

What does it call for?

- ❗ **Universal definition of terrorism:** No good terrorist or bad terrorist
- ❗ **Ban** on all groups regardless of country of operation, cut off access to fund and safe havens
- ❗ **Prosecution** of all groups, including cross-border groups
- ❗ **Amending** domestic laws to make cross-border terror an extraditable offence

Why has CCIT been blocked?

- ❗ **US+allies:** Concerns over definitions of terrorism, including acts by US soldiers in international interventions without UN mandate
- ❗ **Latin American countries:** Concerns over international humanitarian laws and HR being ignored
- ❗ **OIC:** Concerns that convention will be used to target Pakistan, and restrict rights of self-determination groups in Palestine, Kashmir etc

infrastructure were condemned as terrorist attacks, why was the line drawn for drone attacks on Russian ships in a port used for loading grain, or a bridge bombing that put so many civilian lives at risk?

- Pakistan, Iran, and North Korea are the most obvious examples of countries where the establishment has supported terrorist groups carrying out cross-border strikes, drone attacks, and cyber warfare.

Present Need:

- Unless there is ***global consensus on regulating the use of these emergent technologies*** by all responsible states, it will be hard to distinguish their use from those by designated terror entities, or state-sponsored terrorism

6. India's Economic Growth Story

After sluggish growth for about four decades after Independence, India's growth picked up in the early 1990s, following the reform of 1991-93.

From 2005 to 2008, it was acclaimed globally for being on top of most charts.

Growth status of India:

- India is primarily a **domestic demand-driven economy**, with consumption and investments contributing 70% to the country's economic activity.
- With the economic scenario improving on recovering from the COVID-19 pandemic shock, several investments and developments have been made across various sectors of the economy.
- In 2021-22, its **GDP growth was 8.7%**, which was among the highest in the world.

Other challenges:

- **High inflation:** Inflationary environments increase the costs of doing business, impact profitability and margins, and reduce purchasing power.
- **Rising current account deficit:** While a rebounding domestic economy is resulting in higher imports, moderating global demand is causing exports to slow. The US dollar's unrelenting rise and global inflation are further causing India's import bills to rise.
- **Declining forex:** The RBI had to intervene to contain volatility and ensure an orderly movement of the rupee. The RBI's intervention is leading to a drawdown in foreign exchange reserves. Consequently, the import cover from reserves has reduced to nine months from a high of 19 months at the start of 2021 (although, it remains above the benchmark of three months).

Other perspectives on Indian economy

- **The latest GDP numbers suggest:** Consumers, after a long lull, have started to step out confidently and spend private consumption spending went up 25.9% in Q1.
- **On the production side:** the contact-intensive services sector also witnessed a strong rebound of 17.7%, thanks to improving consumer confidence.
- **Healthy agriculture sector:** The only sector that consistently performed well throughout the pandemic, remained buoyant.
- **Industrial growth:** Industrial growth boosted from accelerating growth in construction and electricity, gas, water supply and other utility services sectors.
- **Manufacturing is not doing well:** A sector that has not yet taken off sustainably is manufacturing, which witnessed modest growth of 4.5% in Q1. Higher input costs, supply disruptions, and labor shortages due to reverse migration have weighed on the sector's growth.

The economy's growth drivers are improving

- **Exports:** Exports, the first growth driver are slowing down and are likely to moderate along with the probable global economic slowdown.
- **Government spending:** Government spending, the second driver, is already at an elevated level, thanks to the pandemic, and the government will likely focus on its prudence in utilizing limited resources. The good news is the share of capital expenses is going up even as the government is reducing revenue expenses.
- **Capital expenditure:** According to experts, prospects for capex investments the third growth driver by companies are brighter. Sustained demand growth may be the most-awaited cue for a sustained push for investment.
- **Consumer demand:** Consumer Demand, the fourth, and perhaps the most important, growth driver has improved significantly in recent quarters. However, spending has not grown sustainable despite improving consumer confidence. For instance, retail sales are growing but the pace is patchy.

Governments Initiatives

- Many of the government's flagship programmes, including Make in India, Start-up India, Digital India, the Smart City Mission and the Atal Mission for Rejuvenation and Urban Transformation, are aimed at creating immense opportunities in India.
- The **Union Budget of 2022-23** had four priorities: **PM GatiShakti, Inclusive Development, Productivity Enhancement and Investment, and Financing of Investment.**
- In July 2022, the **Reserve Bank of India (RBI)** approved **international trade settlements in Indian rupees (INR)** in order to **promote the growth of global trade** with emphasis **on exports** from India and to support the increasing interest of the global trading community.

7. Road to net-zero status:

A year after announcing its intention to achieve a net-zero emission status by 2070, India told the world how it was going to reach there.

Short-term climate- action plans (NDCs)-

- Also called **Nationally Determined Contributions (NDCs)**
- Have to be submitted **every five years**, with specific actions being taken over 5- or 10-year periods.
- The **NDCs** are meant to be achieved till **2030**.
- For **developed countries**, **NDCs** must include **specific emission reduction targets for the year 2030**.
- Every subsequent **NDC**— the next one is due in **2025** — must be a **progression from the existing NDC**.
- In its **NDC**, India has promised **three main targets for 2030-**
 1. a **45 per cent reduction** in emission intensity (emission per unit of GDP) from 2005 levels,
 2. a **50 percent share of renewables in electricity generation**,
 3. creation of **5 to 3 billion tonnes of additional carbon sink** through forests.

Long Term Low Emissions Development Strategies (LT-LEDS)-

- There is **no particular time frame** for which these **long-term strategies** have to be prepared.
- Most of the **developed countries** set the target year for **Net-Zero status 2050**. **China** has set **2060** as its target year, while **India** set it as **2070**.
- **India's strategy To reach the net-zero destination-**
- India is planning large-scale interventions in **five sectors— energy and electricity, transport, urban design, industries, and forestry**.
- The **long-term strategy document** lists **key focus areas** and **specific interventions** that India is already taking or has planned to initiate, in each of these priority sectors.
- In the **energy sector**, for example, **decarbonisation** would come mainly through expanding the share of **renewable energy**, **rationalising the utilisation of fossil fuels**, and **focusing on demand-side management**.
- **Low carbon development in the transport sector** would be driven mainly by **the electrification of both public and private vehicles**, **phased transition to cleaner fuels**, and **introduction of intelligent traffic systems**.

- The context Under the 2015 Paris Agreement, countries have to prepare and submit two kinds of climate action plans— one for the short term, and another for the long- term.

Issues:

- There are **no mid-term goals** or indicative pathways. This makes accountability difficult
- **Agriculture missing:** One of the sectors India has not mentioned in its long-term strategy is agriculture, which is mainly responsible for methane emissions. Methane is the second most common greenhouse gas in the atmosphere after carbon dioxide.
- **Lack of R&D:** India will be heavily reliant on carbon capture, and storage technologies (CCS) and negative emissions technologies to achieve this goal, and in particular, to offset emissions from challenging and hard-to-abate sectors. Thus there is a need to focus on R&D which is still nascent in India.

Way forward:

- The net-zero status can be achieved only when the emissions are offset either by the absorption of greenhouse gases by forests or the physical removal of these gases through futuristic technologies.
- Emissions can be reduced significantly but not brought down to zero.

8. Behind the smokescreen around private climate finance

The UNFCCC Standing Committee on Finance (SCF) released a report before COP27, on the progress made by developed countries towards achieving the goal of mobilizing \$100 billion per year.

Climate Finance:

- It refers to local, national, or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change.
- The UNFCCC, Kyoto Protocol, and the Paris Agreement call for financial assistance from Parties with more financial resources (Developed Countries) to those that are less endowed and more vulnerable (Developing Countries).

Claims:

- **The SCF report relied mainly on the Organisation for Economic Co-operation and Development and Oxfam reports.** The OECD report claims that developed countries have mobilised \$83.3 billion in climate finance in 2020. The latest Oxfam report challenges this figure. It claims that the actual value of climate assistance is only around \$21–\$24.5 billion.
- In 2016, developed countries issued a **“Roadmap to \$100 billion”** with forward-looking projections of climate finance in 2020. The road map indicated that public finance would reach \$67 billion. Remaining \$33 billion would be provided by private finance.
- The OECD 2020 data shows that the mobilisation of private climate finance has underperformed against the expectations of developed countries. It is \$13.1 billion in 2020 against \$33 billion in the road map.

A challenge for low-income countries:

- **Need for public funds:** Developing countries have for a long time insisted that a significant portion of climate finance should come from public funds as private finance will not address their needs and priorities especially related to adaptation.
- **Profitability of climate finance:** Climate finance already remains skewed towards mitigation and flows towards bankable projects with clear revenue streams. Adaptation is unlikely to offer commercially profitable opportunities for private financiers.
- **Pushing of targets:** Following the dismal failure to meet the \$100 billion goal, developed countries pushed the target year for achieving it to 2025 from 2020.

- **Difficulty in mobilizing private climate finance:** Vulnerable, debt-ridden, and low-income countries with poor credit ratings needing adaptation finance the most, find it challenging to access private finance.
- Although many developed countries and multilateral development banks have emphasized the importance of private finance mobilized in their climate finance strategies, including by de-risking and creating enabling environments, “these efforts have not yielded results at the scale required to tap into the significant potential for investments by the private sector and deliver on developed countries climate ambition”.

Climate Finance Delivery Plan (CFDP) progress report:

- The share of activities with low mobilization potential **rising from 30% in 2021 to 50% in 2025.**
- This implies that the composition of public climate finance portfolios will progressively change towards a larger share of activities with low to no private finance mobilization potential; this includes finance for adaptation, and capacity building, as grants, for least developed and small island developing countries.
- Thus, in these scenarios, financing the urgent adaptation needs of developing countries is pushed further into the future.

Way forward:

- Addressing the urgent climate finance needs of developing countries cannot be left to the mercy of false promises of trillions of U.S. dollars in mobilized private climate finance.
- Many activities needing financing may have little or perhaps even no direct mobilization potential.
- The SCF report has rightly concluded that the mobilization of private finance as a means of achieving the \$100 billion goal, should not come at the expense of, or involve a trade-off in addressing the needs of developing countries.
- Grant-based and concessional international public climate finance will continue to play a key role in addressing the needs and priorities of developing countries, especially in the face of growing challenges due to extreme weather, and food and energy crises.

9. Loss and Damage Funding for Climate Damages

At the recently concluded COP27 summit, delegates from the United Nations agreed to create a 'Loss and Damages' fund which will compensate the most vulnerable countries for their losses due to climate-related disasters.

- 'Loss and Damage' refers to impacts of climate change that cannot be avoided either by mitigation (cutting greenhouse gas emissions) or adaptation (modifying practices to buffer against climate change impacts).
- They also include not only economic damage to property but also loss of livelihoods, and the destruction of biodiversity and sites that have cultural importance.
- This broadens the scope for affected nations to claim compensation.

Evolution:

Why compensation (rich world financing poor) has been considered?

- **Historical responsibilities** of the developed world: Between 1751-2017, 47% of the CO2 emissions came from the US and the EU-28.
- **Emissions affecting others disproportionately:** For example, a farmer in rural Africa may say that his country has not contributed to emissions in the past, but his agricultural yields are dropping as a result of industrialisation in the US or Russia.
- **Emissions have helped a few countries:** For example, Canada would see a rise in GDP of 0.3% (about \$9 billion a year) as warmer climates spur agriculture and labour productivity.
- **Calamity is fast-approaching:** According to the UNEP's Emissions Gap Report 2022, the world must cut emissions by 45% by 2050 to avoid global catastrophe.

- However, there was little evidence of a concerted global effort to keep emissions low enough to keep global warming within the 1.5°C limits at the COP27 summit.

What are the Concerns regarding the Establishment of the Fund?

- **No clear plan:** As far as future COP negotiations are concerned, it only commits to creating a fund and leaves it up to discussion how it will be set up and, most importantly, who will contribute to it.
- While there have been nominal commitments by certain countries to donate to such a fund, the estimated L&D is already over USD 500 billion.
- **Burden on developing countries:** During negotiations in COP27, the European Union pressed hard for China, the Arab states and “large, developing countries” (probably even India) to contribute on the grounds that they were large emitters.
- **Vague idea:** There is no agreement yet on what counts as “loss and damage” caused by climate change - which could include infrastructure damage, property damage, and cultural assets whose value is hard to quantify.
- **Skewed efforts:** Climate funding so far has focused mostly on cutting carbon dioxide emissions in an effort to curb global warming, while about a third of it has gone toward projects to help communities adapt to future impacts.

Way forward:

- While the gain is incremental, countries ought not to lose momentum and must work harder to ensure that COPs remain credible catalysts and are not mere occasions for some hollow victories.
- Further, there is a need to sustain a political commitment to raising new finance, besides, ensuring that finance is better targeted at reducing emissions and vulnerability. Learning and improving from recent experiences, particularly as the Green Climate Fund gets to work.

Since the **United Nations Framework Convention on Climate Change** was formed in the early 1990s, loss and damage due to climate change have been debated.

The **Least Developed Countries** Group has **long aimed to establish accountability and compensation for loss and destruction.**

Warsaw International Mechanism on Loss and Damages (WIM) was founded in 2013 without funding after extensive pressure from developing countries.

However, during the **2021 COP26 climate summit in Glasgow**, a 3-year task force was established to consider a funding arrangement for loss and damage.

10. Digital Personal Data Protection Bill 2022:

The Union Government has released a revised personal data protection bill, now called the Digital Personal Data Protection Bill, 2022

Key takeaways:

Rights of Individuals:

- **Access to Information:** The bill ensures that individuals should be able to “access basic information” in languages specified in the eighth schedule of the Indian Constitution.
- **Right to Consent:** Individuals need to give consent before their data is processed and “every individual should know what items of personal data a Data Fiduciary wants to collect and the purpose of such collection and further processing”.

Individuals also have the right to withdraw consent from a Data Fiduciary.

- **Right to Erase:**Data principals will have the right to demand the erasure and correction of data collected by the data fiduciary.
- **Right to Nominate:**Data principals will also have the right to nominate an individual who will exercise these rights in the event of their death or incapacity.
- **Data Protection Board:**The Bill also proposes to set up a Data Protection Board to ensure compliance with the Bill. In case of an unsatisfactory response from the Data Fiduciary, the consumers can file a complaint to the Data Protection Board.
- **Cross-border Data Transfer:** The bill allows for cross-border storage and transfer of data to “certain notified countries and territories” provided they have a suitable data security landscape, and the Government can access data of Indians from there.

Financial Penalties:

- **For Data Fiduciary:**The bill proposes to impose significant penalties on businesses that undergo data breaches or fail to notify users when breaches happen. The penalties will be imposed ranging from Rs. 50 crores to Rs. 500 crores.
- **For Data Principal:**If a user submits false documents while signing up for an online service, or files frivolous grievance complaints, the user could be fined up to Rs 10,000.
- **Personal data:** The new Bill will only deal with safeguards around personal data and is learnt to have excluded non-personal data from its ambit. Non-personal data essentially means any data which cannot reveal the identity of an individual.

Exemptions:

- The government can exempt certain businesses from adhering to provisions of the bill on the basis of the number of users and the volume of personal data processed by the entity. This has been done keeping in mind startups of the country who had complained that the Personal Data Protection Bill, 2019 was too “compliance intensive”.
- National security-related exemptions, similar to the previous 2019 version, have been kept intact. The Centre has been empowered to exempt its agencies from adhering to provisions of the Bill in the interest of sovereignty and integrity of India, security of the state, friendly relations with foreign states, maintenance of public order or preventing incitement to any cognisable offence.

Concerns:

- State agencies are granted broad-vague exemptions. This may not meet the ‘necessity’ and ‘proportionality’ tests outlined in the landmark right to privacy judgement (KS Puttaswamy case) of 2017.
- The independence of a proposed regulator – the Data Protection Board, has been reduced. Unlike the Data Protection Authority, which is envisioned as a statutory body under the 2019 Bill, the appointment of the chairperson and members of the Board is entirely up to the discretion of the central government.
- Relaxing data localisation requirements will make it difficult to detect and investigate non-compliance and breaches.

KEY TERMS IN DATA PROTECTION

DATA PRINCIPAL: The person to whom the data in consideration belong¶

DATA PROCESSOR: A person, state, company or any other entity which processes data on behalf of someone else¶

DATA FIDUCIARY: A person, state, company or any other judicial entity which control the various aspects related to data storage and defines how it can be processed¶

PERSONAL DATA: Any data set that may contain information that can reveal personal traits of a human

being, and can be used to single out the person¶

NON-PERSONAL DATA: Data sets which do not contain any personal information and instead have information detailing the larger trends such as the income group of a town, the average age, the male-to-female-population ratio, etc¶

DATA PROTECTION AUTHORITY: A regulatory body for the Act which can have adjudicating powers and pass executive instructions in cases of conflict between two parties under the Data Protection Act

	2022 Bill	2019 Bill	Conclusion
Personal data	Completely inapplicable to data processed manually	Only excluded data processed manually specifically by small entities	The new Bill provides a lower degree of protection
Data localisation	Relaxes data localisation rules and permits data to flow to certain global destinations, based on their data security landscape	Mandated enterprises to keep a copy of sensitive personal data within India and prohibited the transfer of critical personal data from the country	The new Bill made the changes to address the concerns expressed by IT firms
Regulation of social media and non-personal data	Drops provisions to regulate non-personal data (information that does not reveal the identity of an individual) and social media	Included	
The right to post-mortem privacy	Included	No such provision	It would allow the data principal (users) to nominate another individual in case of death or incapacity
Territorial application of the law	Excludes data processing by Indian data fiduciaries that collect and process personal data outside India, of data principals who are not located in India	Included	Impact statutory protections available for clients of Indian start-ups operating overseas, thus impacting their competitiveness
Penalty	The focus is more on financial penalties	Criminal conviction	

11. New Frontiers in the Space:

Space Sector in India:

- Over the past 50 years, India's space program has impressively advanced under the direction of the Indian Space Research Organization (ISRO).
- India is one of the top 5 space faring countries in the world in terms of technological prowess.
- India is renowned around the world for producing affordable satellites and launch vehicles.
- India's space industry only makes up between 2 and 3 percent of the global space economy, despite having the most successful space program in the world.
- US \$440 billion is the estimated value of the worldwide space economy.
- The Indian government has started reforms in the space industry to encourage, assist, govern, and give permission to start-ups and private businesses to engage in space operations in order to boost India's market share internationally.



Vikram-S Rocket:

- It was a suborbital launch vehicle with only one stage.

Opportunities for India's Space Sector

Low Cost: The Indian space sector has the potential of launching space vehicles at a much lower cost. This was seen in Mars Orbiter Mission which was 10 times cheaper than western missions.

Good Record and Trust: India has so far launched 342 foreign satellites for 34

Challenges For India's Space Sector

Lower Spending: The funds allocated to the space sector are very less in comparison to other countries. The US spent 10 times and China 6 times more than India in the space sector in 2019-20.

Absence of a Clear Legislative Framework: The draft Space Activities bill was

countries using its Polar Satellite Launch Vehicle platform. This has developed a trust in Indian space potential in other countries.

Presence of Budding Entrepreneurs: As per industry estimates, there are more than 40 start-ups working in India on space and satellite projects. It can complement the efforts of the government.

Rising Demand in the Future: Technology innovations in the future will increase the need for higher bandwidth capacity, throughput speeds, improved radar, and thermal imaging. This can be readily met by strengthening the space sector.

Unrealised Potential: As per Satellite Industry Association Report (2020), the global space economy in 2019 was valued at US\$ 366 billion. However, the Indian space economy is valued at US\$ 7 billion, which is around 2 percent, signifying how much the sector can truly achieve.

introduced way back in 2017 but hasn't been passed yet.

Lack of robust Dispute Settlement

Mechanism: This discourages private investment in the space sector. The void was seen in Antrix – Devas cancelled satellite deal. The Government of India owes nearly \$1.2 billion to Devas Multimedia as per an order of a tribunal of the International Chamber of Commerce.

Brain Drain: India produces the best brains in the world but is unable to retain them. People emigrate from the country for better opportunities and careers that might hamper the development of the space sector.

Managing big constellations of

satellites: Although India has a good potential to launch satellites, managing a huge number of satellites in space could be a challenging task in the future. This should be done keeping in mind the **possibilities of a future space war.**

- Three customer payloads were transported by it in a sub-orbital flight. A 2.5 kg satellite created by children in India, the US, and Indonesia for Space Kidz India is one of the three payloads.
- In contrast, the PSLV from India can launch up to 1,750 kg into such an orbit, while the recently developed Vikram class small satellite launch vehicle is designed to launch smaller commercial satellites and can launch up to 300 kg into sun-synchronous orbit.

12. India's push for millets

At India's led initiative for the UN's International Year of Millets 2023, India has called "Covid, conflict, and climate" the world's main food security challenges, and placed the cultivation and popularisation of millets in the context of the wider imperative of "de-risking the global economy".

- Millets were among the first crops to be domesticated. There is evidence for the consumption of millets by the Indus valley people (3,000 BC), and several varieties that are now grown around the world were first cultivated in India

<p>Benefits of Millets:</p> <ul style="list-style-type: none"> • Nutritional Security: cheap and more nutritious. For E.g. Ragi has the highest calcium content and high iron content and can fight the high prevalence of anaemia. • Climate Resilient: they are known as hardy and drought-resistant crops. They require much less water than rice and 	<p>Challenges:</p> <ul style="list-style-type: none"> • Preference for Wheat as staple food: Wheat because of gluten makes softer food and is more liked. • Government policies: National Food Security Act promotes wheat and rice • Lack of awareness about the benefit of Millet. • MSP challenges: The government
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wheat and are mainly grown in rainfed areas.

- **Economic Security:** low investment for inputs
- **Against Health Issues:** Millets are **gluten-free** and have a **low glycemic index** (glucose level) and therefore can help in tackling lifestyle problems and health challenges such as obesity and diabetes.
- Millets have **antiaging and antioxidant**
- Millets are considered to be **“powerhouses of nutrition”**. In 2018, the Agriculture Ministry declared millets as **“Nutri Cereals”**

declares a Minimum Support Price (MSP) for jawar, bajra, and ragi only.

- **Low Consumption:** In the latest available NSSO household consumption expenditure survey (which is more than a decade old), **less than 10 per cent of rural and urban households** reported consumption of millets.
- **Other challenges:** lack of input subsidies and price incentives, and changing consumer preferences.

- India, Nigeria and China are the largest producers of millets in the world, accounting for more than 55% of the global production.
- For many years, India was a major producer of millets. However, in recent years, millet production has increased dramatically in Africa.
- In India, pearl millet is the fourth-most widely cultivated food crop after rice, wheat and maize.

Odisha’s Kutia Kondh tribe start growing millets again, after many years.

- The reasons behind millets losing its significance were many.
- Tribals, especially from the younger generation, felt that they were looked down upon for consuming millets, which is perceived as the poor man’s food.
- Moreover, it was not easy to harvest the crop. The de-husking of millet involved strenuous labour.
- Since there was no market available for the crop, people did not produce more than what they required for their own consumption.

Government Efforts to Promote Millets Production

- Millets are being promoted through technology dissemination, quality seeds through millet seed hubs, awareness generation, minimum support price and inclusion in PDS.
- The Union Agriculture Ministry, in April 2018, declared millets as “Nutri-Cereals”, considering their “high nutritive value” and also “anti-diabetic properties”.
- 2018 was observed as the ‘National Year of Millets’ and The UN General Assembly adopted an India-sponsored resolution to mark 2023 as the “International Year of Millets”.
- The Government of India’s Millet Mission comes under the National Food Security Mission (NFSM), launched in October 2007

13. Development of Great Nicobar: Strategic imperative and ecological concerns

The Union Ministry of Environment, Forest and Climate Change gave environmental clearance for the ambitious Rs 72,000 crore development project on the strategically important Great Nicobar Island. It represents a classic case of Development VS Environment.

- The idea of developing Great Nicobar was first proposed in the 1970s, and its significance for national security and the consolidation of the Indian Ocean Region has been emphasised time and again.
- In recent years, increasing Chinese assertiveness in the Bay of Bengal and the Indo-Pacific has added urgency to this requirement.

- The Andaman and Nicobar (A&N) Islands are a cluster of about 836 islands in the eastern Bay of Bengal, the two groups of which are separated by the 150-km wide Ten Degree Channel – Andaman Islands in the north and the Nicobar Islands to the south.
- Great Nicobar, the southernmost of the A&N Islands, has an area of 910 sq km. Indira Point, the southern tip of Great Nicobar Island is India’s southernmost point and is less than 150 km from the northernmost island of the Indonesian archipelago.

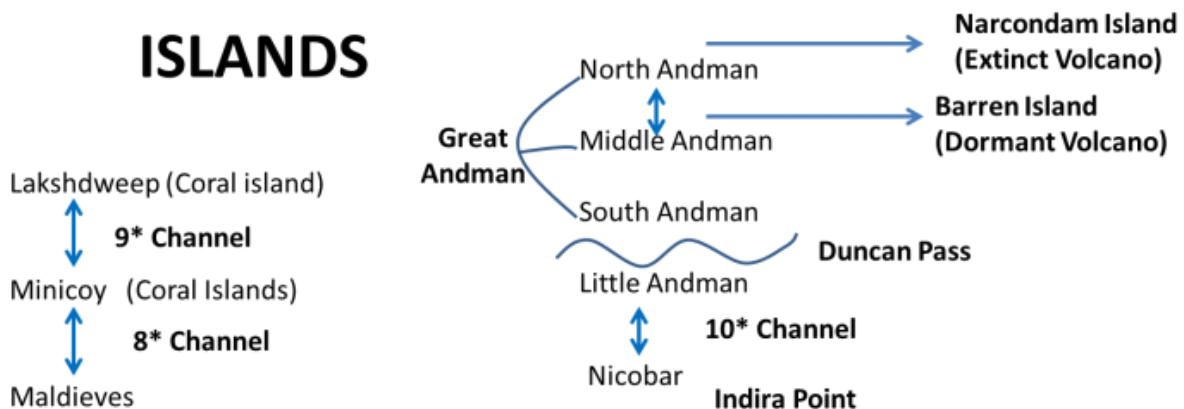
The proposed projects:

- A greenfield city
- An International Container Transshipment Terminal (ICTT)
- A greenfield international airport
- A power plant
- A township for the personnel who will implement the project

Economic Reasons:	Strategic Reasons:
<p>Great Nicobar is equidistant from Colombo to the southwest and Port Klang and Singapore to the southeast, and positioned close to the East-West international shipping corridor, through which a very large part of the world’s shipping trade passes.</p> <p>The proposed ICTT can potentially become a hub for cargo ships traveling on this route.</p> <p>As per the NITI Aayog report, the proposed port will allow Great Nicobar to participate in the regional and global maritime economy by becoming a major player in cargo transshipment.</p>	<p>Increasing Chinese assertion in the Bay of Bengal and the Indo-Pacific has added great urgency to this imperative in recent years.</p> <p>Increasing the presence of the Indian Armed Forces, as the port will be controlled by the Indian Navy, while the airport will have dual military-civilian control.</p> <p>The government’s greater goal is to leverage the locational advantage of the island for economic and strategic reasons.</p>

Concerns:

- An ecologically important and fragile region: The loss of tree cover will not only affect the flora and fauna on the island, but it will also lead to increased runoff and sediment deposits in the ocean, impacting the coral reefs.
- Environmentalists have also flagged the loss of mangroves on the island as a result of the development project.



- Security spiral situation: the attempt by India can cause increase assertiveness of China in Indo Pacific region.

Measures:

- The Zoological Survey of India is currently in the process of assessing how much of the reef will have to be relocated for the project. India has successfully translocated a coral reef from the Gulf of Mannar to the Gulf of Kutch earlier.
- A conservation plan for the leatherback turtle is also being put in place.
- As per the government, the project site is outside the eco-sensitive zones of Campbell Bay and Galathea National Park.
- The development area is only a small percentage of the area of the island and its forest cover, and 15% of the development area itself will be green cover and open spaces.

GS IV

1. Crafting code for Ethical Governance:

Gopalkrishna Gandhi, The former West Bengal Governor outlines his vision for an India@100 that places ethics at the core of its governance.

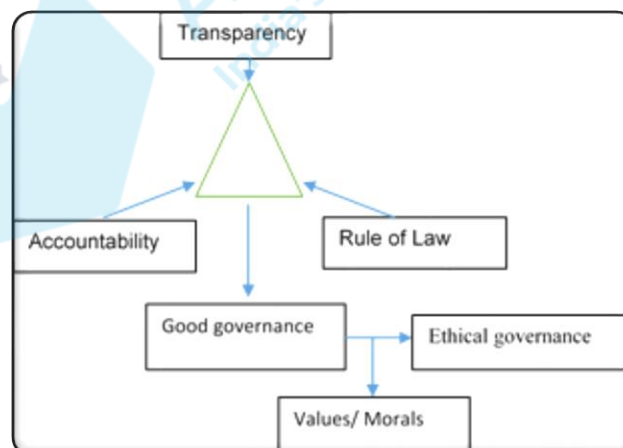
What exactly is Ethical Governance?

Ethical governance is a type of governance in which **strong moral principles and behaviour are included into the governance process.**

- A bureaucrat, for example, is **required to serve individuals who come to her office**, but she cannot be punished for failing to deliver a drink of water to an elderly couple who may be exhausted after waiting in line for too long. **These are the values of public duty and altruism that will motivate her.**

- Similarly, an official should **allow beneficiaries, notably women and senior persons, to receive Public Distribution System (PDS) rations** even if Aadhaar identification fails due to a biometric data discrepancy. It is critical to note that refusing such services may result in **harassment of time and health of those seeking their rights who may come from vulnerable section.**

- Ethical governance is **essential for fostering trust and mutual collaboration between citizens and public workers.**



What are the **Basic Elements of Ethical Governance?**

Ethical governance is governance based on a set of "good" ideals. **Probity, honesty, compassion, empathy, responsibility, social justice, and other such qualities are all required to uphold ethical issues.**

What are the **Basic Elements of Ethical Governance?**

Ethical governance is governance based on a set of "good" ideals. **Probity, honesty, compassion, empathy, responsibility, social justice, and other such qualities are all required to uphold ethical issues.**

• Probity	Ensures that the administration's sole aim is to serve the public interest, eliminating any possibility of impropriety.
• Responsibility	Provides internal accountability for every act of omission or commission in the form of conscience-based judgement.
• Corruption elimination	Not only a moral obligation, but also an economic need for a country to compete on a worldwide scale.
• The rule of law	The rule of law balances arbitrariness in government, lowering the likelihood of abuse of discretion.

What are the Ethical Issues Facing Indian Governance?

- **A Violation of Authority or Rank Position:** When officials act outside of their position, obligations, and rights, the state or specific citizens suffer.
- **Negligence arises** when a public official either fails to perform or negligently performs his professional responsibilities, causing harm to the state or community.
- **Bribery:** Corruption and bribery are socially accepted and help to keep the wheels of trade turning.
- **Patronage:** After-retirement appointments of senior executives to regulatory organisations and other significant positions are largely made on a case-by-case basis, with no fixed guidelines.
- **Administrative secrecy:** Administrative secrecy protects private interests while serving the public interest. As a result, one of the most crucial qualities of ethical governance is transparency.
- **Nepotism:** The quality of public services may degrade if relatives or friends are appointed to public jobs without regard for the merit principle.
- **Ignorance of people's sentiments or convenience,** as well as an obsession with the binding and inflexible authority of departmental decisions, precedents, arrangements, or forms, no matter how poorly or unfairly they work in particular circumstances.

Suggestions:

- **Efficient Laws:** Efficient laws will necessitate civil employees justifying their official judgements.
- **New Management Methodologies:** Encouraging all public officials and civil workers to constructively respond to instances of corruption and unethical behaviour.
- **Strengthening the Whistleblower Protection Regime:** A whistleblower protection statute is in place to protect valid "public interest disclosures" of official wrongdoing. • Ethics audits are carried out to identify threats to the integrity of the most vital procedures.

The second ARC recommendation is as follows: Its broad recommendations include partial state sponsorship for elections, enforcing anti-defection legislation, and establishing an ethics code for ministers, legislators, the judiciary, and civil officials.

Places in News

- 1) **Morbi:** Morbi in Gujrat is famous for its ceramic industry. The district is dotted by several hundred ceramic-producing factories, mainly medium and small-scale units. Around 70 per cent of India's ceramics are produced in Morbi.
- 2) **Terai Elephant Reserve:** Centre has approved setting up Terai Elephant Reserve (TER) at Dudhwa-Pilibhit in Uttar Pradesh.
 - Tamil Nadu and Assam have the highest number of elephant reserves with five each.
 - Other recently created elephant reserves in news:
 - Lemru , Chhattisgarh
 - Agasthymalai, Tamil Nadu.
- 3) **Ranthambore National Park:** it is located in Rajasthan at the junction of the Aravali and Vindhya hill ranges.
 - It is the natural habitat to the significant number of Royal Bengal tigers.
 - Apart from tigers, the major wild animals include Leopard, Nilgai, Wild boar, Sambar, Hyena, Sloth bear and Chital.
 - Ranthambore National Park was established initially as Sawai Madhopur Game Sanctuary in 1955 by the Government of India.
- 4) **Hall of Dancers'** at Ta Prohm temple in Cambodia: located inside the Angkor Heritage Park
- 5) **Polavaram project:**It is an under-construction multi-purpose irrigation project on the Godavari River in Andhra Pradesh.
 - The project has been accorded National project status by the Central Government of India and its backwater spreads into parts of Chhattisgarh and Odisha States.
 - It gives a major boost to the tourism sector in Godavari Districts as the reservoir covers the famous Papikonda National Park,
- 6) **African Great Lakes:** Series of lakes constituting the part of the Rift Valley lakes in and around the East African Rift.
 - They include Lake Victoria, the second largest fresh water lake in the world, and Lake Tanganyika, the world's second largest in volume as well as the second deepest. Lake Nyasa also borders it.
- 7) **Kurdistan:** is made up of five different regions: southeastern Turkey, northeastern Syria, northern Iraq, northwestern Iran and southwestern Armenia.
 - In the early 20th century, the Kurds began working toward the creation of homeland known as Kurdistan. In 1920, the Treaty of Sèvres — one of a series of treaties that the Central Powers signed after their defeat in World War I — outlined the dissolution of the Ottoman Empire and called for an autonomous Kurdistan.
 - Three years later, after the end of the war, Western allies dropped demands for an independent Kurdish state and the Kurdish region was divided among several countries.



At an estimated 25 million to 35 million population, Kurds are the world's largest stateless ethnic group.

The majority among the Kurdish people today are Sunni Muslim, but there are adherents of other faiths too, including Sufism and other mystical practices.

Kurds have long had a reputation for being fearless fighters, and they have served as mercenaries in many armies over the centuries.

The Kurds have never achieved nation-state status, except in Iraq, where they have a regional government called Iraqi Kurdistan.

8. Pangong lake: Ladakh

- Pangong Tso literally translates into a “conclave lake”. Pangong means conclave in Ladakhi and Tso means lake in Tibetan language.
- It is formed from Tethys geosyncline.
- The Karakoram Mountain range, which crosses Tajikistan, Afghanistan, Pakistan, China and India, with heights of over 6,000 meters including K2, the world's second highest peak, ends at the north bank of Pangong Tso.

- Its southern bank too has high broken mountains sloping towards Spangur Lake in the south.
- The lake's water, while crystal clear, is brackish, making it undrinkable.
- The Line of Actual Control (LAC) – the line that separates Indian and Chinese troops since 1962 – generally runs along the land except for the width of Pangong Tso. Here, it runs through water.

9. Nahargarh Wildlife Sanctuary: Rajasthan.

- The sanctuary has been named Nahar, because it falls under Nahar Village (Nahad village).
- It is home to 285 species of birds, Asiatic lions, Bengal tigers, sloth bear, hyenas, panthers, deer, crocodiles etc. Nahargarh Biological Park (NBP) is famous for the lion safaris.
- It has now become a convenient breeding centre of lions.
- Nahargarh Fort was made by Maharaja Sawai Jai Singh II as a defence mechanism for the Jaipur city.

10. Great Nicobar: the southernmost of the A&N Islands, has an area of 910 sq km. Indira Point, the southern tip of Great Nicobar Island is India's southernmost point and is less than 150 km from the northernmost island of the Indonesian archipelago.

- The Great Nicobar Island has tropical wet evergreen forests, mountain ranges reaching almost 650 m above sea level and coastal plains.
- It is rich in biodiversity with some endangered species of mammals, birds, reptiles and amphibians. The leatherback sea turtle is the island's flagship species.
- Great Nicobar is home to two national parks (Campbell Bay and Galathea), a biosphere reserve and the Shompen and Nicobarese tribal peoples.
- Strategic location of the Island: Great Nicobar is equidistant from Colombo to the southwest and Port Klang and Singapore to the southeast, and is near the East-West international shipping

corridor, which handles a significant portion of the world's shipping trade.

11. North field:

- The North Field is part of the world's biggest gas field that Qatar shares with Iran which calls its share South Pars.
- North Field is at the center of Qatar's expansion of its liquefied natural gas production by more than 60% to 126 million tonnes a year by 2027.
- China is the first country to seal a deal for North Field East.
- China has reached a \$60 billion agreement with Qatar to secure Liquefied Natural Gas(LNG) flows. The deal is for 27 years, making it China's longest LNG supply agreement till date.
- The deal also marks the longest gas supply agreement in the history of the LNG industry.

12. **Qatar:** The country, on a thumb-shaped peninsula that juts out into the Persian Gulf, has seen its international profile rise as Doha used its massive offshore natural gas fields to make its nation one of the world's richest per-capita.
- It founded the satellite news network Al Jazeera, which brought an Arab perspective to mass media that helped fuel the 2011 Arab Spring protests.
 - Qatar will be on the world stage like it has never been before as the small, energy-rich nation hosts the 2022 FIFA World Cup later this month.



13. **Kherson:** Kherson is a city in the south of Ukraine.

- It is strategically located at the mouth of the Dneiper River's exit into the Black Sea.
- It is home of a major ship-building industry.

14. **Mumbai-Pune Expressway Missing Link project:** India's highest cable-stayed road bridge is being constructed in Maharashtra as a part of the Mumbai-Pune Expressway Missing Link project

15. **Shiveluch Volcano:** Shiveluch is one of the largest and most active volcanoes in Kamchatka, having erupted at least 60 times in the past 10,000 years.
- It has two main parts: Old Shiveluch and Young Shiveluch
 - Young Shiveluch lies within an ancient caldera – a large crater-like basin that likely formed when the older part underwent a catastrophic eruption at least 10,000 years ago.

16. **Gulf Cooperation Council:** it is a political and



economic alliance of six countries in the Arabian Peninsula: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

- Established in 1981, the GCC promotes economic, security, cultural and social cooperation between the six states and holds a summit every year to discuss cooperation and regional affairs. All current member states are monarchies.

Prelims Booster

1.11.22

1) Two-finger test: The two-finger test, carried out by a medical practitioner, involves the examination of her vagina to check if she is habituated to sexual intercourse. The practice is unscientific and does not provide any definite information

- In May 2013, the apex court had held that the two-finger test violates a woman's right to privacy and asked the government to provide better medical procedures to confirm sexual assault.
- In 2014, the Union health ministry released a document titled 'GUIDELINES & PROTOCOLS Medico-legal care for survivors/victims of sexual violence': 'two-finger test', must not be conducted for establishing rape/sexual violence.

2) Sedition: The Supreme Court of India recently asked the government not to register any fresh FIRs under Section 124A of the Indian Penal Code (IPC), which criminalises sedition.

- Sedition' –Whoever, by words (or by signs or visible representation) attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards the Government shall be punished with life imprisonment.
- In Kedar Nath Singh's Case, the Constitution bench of the Supreme Court made it clear that allegedly seditious speech and expression may be punished only if the speech is an 'incitement' to 'violence', or 'public disorder'.

3) Black Sea Grain Initiative: The Black Sea Grain Initiative is a deal between Russia, Turkey and Ukraine to export grain and fertilizer from the Ukrainian ports in the Black sea.

- The initiative specifically allows for food exports from 3 key Ukrainian ports in the Black Sea – Odesa, Chornomorsk and Yuzhny. The UN brokered this initiative among the 3 countries.

- Russia suspended its participation to the Black Sea grain initiative. Ukraine is one of the largest grain exporters in the world.

4) Aceclofenac: Indian Veterinary Research Institute (IVRI) has demanded a ban on using aceclofenac in cattle after a new study showed that the drug metabolises into diclofenac in water buffaloes.

- Aceclofenac is the prodrug of the non-steroidal anti-inflammatory drug (NSAID) diclofenac.
- Aceclofenac turns into diclofenac soon after it enters the livestock.
- Vulture Action Plan 2020-2025 also mentions the aceclofenac as 'toxic', along with other drugs like nimesulide and ketoprofen.
- Water buffaloes are treated with aceclofenac as painkiller
- Aceclofenac has other safe alternatives available like meloxicam and tolfenamic acid.

5) Diclofenac: Diclofenac is an anti-inflammatory drug.

- It was banned for veterinary use by the Government of India in 2006.
- It was found to be the main cause of a dramatic decline (99 per cent) of the vulture population across Asia.
- The drug caused accidental poisoning in raptors after they fed on carcasses of cattle injected with it.

3.11.22

1) Ballistic Missile Defence (BMD) interceptor AD-1 missile: Defence Research & Development Organisation (DRDO) has recently conducted a successful maiden flight-test of Phase-II Ballistic Missile Defence (BMD) interceptor AD-1 missile from APJ Abdul Kalam Island off the coast of Odisha.

- The AD-1 is a long-range interceptor missile designed for both low exo-atmospheric and endo-atmospheric interception of long-range ballistic missiles as well as aircraft.
- It is propelled by a two-stage solid motor and equipped with indigenously-developed advanced control system, navigation and guidance algorithm to precisely guide the vehicle to the target that move at very high speeds.

- The fully functional ballistic missile defence system contained high-power radars and could potentially protect large areas from the adversary missile or other air attacks.

2) Rhinoceros: According to a study, the horns of rhinoceroses may have become smaller over time from the impact of hunting.

- The study found that the rate of decline in horn length was highest in the critically endangered Sumatran rhino and lowest in the white rhino of Africa, the most commonly found species in the wild and in captivity.

3) The Greater One-horned Rhinoceros: “Indian rhino” is the largest of the rhino species.

- It is identified by a single black horn and a grey-brown hide with skin folds.
- It is one of the five species of Rhinos. The other 4 are:
 - White rhino: It is native to northern and southern Africa
 - Black rhino: It is native to eastern and southern Africa
 - Javan rhino: It is also known as Sunda rhino or lesser one-horned rhino
 - Sumatran rhino: Critically Endangered species of rhino
 - IUCN Red List: Vulnerable, CITES: Appendix I, Wildlife Protection Act, 1972: Schedule I
 - This species of rhino is commonly found in Nepal, Bhutan, Pakistan and in Assam, India.

4) Panamaram Heronry: it is the largest breeding ground of different species of herons in the Malabar region of Kerala. The heronry, formed on a sandbank on the Panamaram River, is a breeding ground for nine species of waterbirds. The site is also the only location in State where the cattle egret breeds.

5) Pahari Tribe: The National Commission for Scheduled Tribes (NCST) has now cleared the way for the inclusion of the ‘Pahari ethnic

group’ in the Scheduled Tribes (ST) list of the Union Territory of Jammu and Kashmir.

- The commission also called for the inclusion of the “Paddari tribe”, “Koli” and “Gadda Brahman” communities to be included in the ST list of J&K.
- Currently, Jammu and Kashmir has 12 communities that have been notified as STs.

4.11.22

1) Process of Inclusion in the ST List: The process to include tribes in the ST list begins with the recommendation from the respective State governments, which are then sent to the Tribal Affairs Ministry, which reviews and sends them to the Registrar General of India for approval.

- This is followed by the NCST approval before the list is sent to the Cabinet for a final decision.
- The final decision rests with the President’s office issuing a notification specifying the changes under powers vested in it from Articles 342.
- The inclusion of any community in the Scheduled Tribes come into effect only after the President assents to a Bill that amends the Constitution (Scheduled Tribes) Order, 1950, as is appropriate, after it is passed by both the Lok Sabha and Rajya Sabha.

2) Cordy gold nanoparticles (Cor-AuNPs): These nanoparticles, derived from the synthesis of the extracts of Cordyceps militaris and gold salts, could make drug delivery in the human body faster and surer. Cordyceps militaris is a high value parasitic fungus, lab-grown at the Department of Biotechnology’s Technology Incubation Centre (TIC) in Bodoland University.

- Gold salts are ionic chemical compounds of gold generally used in medicine.
- Wild Cordyceps mushroom is found in the eastern Himalayan belt.
- Penetration in the cells is more when the drug particles are smaller.
- Cordyceps militaris, called super mushroom because of its tremendous medicinal properties, adds bioactive components to the

synthesis of gold nanoparticles for better penetration.

3) RISAT-2 satellite: ISRO's radar-imaging satellite Risat-2 has finally landed on Earth after completing its 'job' for over 13 years and lands near Jakarta.

- It was launched in 2009 by a PSLV C-12 rocket following the 2008 Mumbai terror attacks.
- It was India's first "eye in the sky" to keep surveillance on the country's borders as part of anti-infiltration and anti-terrorist operations. It was also used to track enemy ships at sea.
- The main sensor of RISAT-2, which was able to observe in all weather conditions day and night, was Israel Aerospace Industries' X-band Synthetic Aperture Radar.
- It carried 30 kg of fuel for an initial designed life of four years.

4) NAGALAND TO CELEBRATE AVIAN DIVERSITY, UNDERTAKE CENSUS: Nagaland is undertaking the first avian documentation exercise to go beyond Amur falcons, the migratory raptor that put the State on the world birding map.

- The four-day TokhüEmong Bird Count (TEBC) has been timed with the post-harvest TokhüEmong festival of the Lothas, the Naga community that dominates Wokha district
- Wokha district is the most preferred stopover for Amur falcons traveling from east Asia to southern Africa. TEBC is Nagaland's first bird documentation event

5) Grievance Redressal Index: it is published by Department of Administrative Reforms and Public Grievances (DARPG). The Unique Identification Authority of India (UIDAI) tops Grievance Redressal Index third month in a row.

- UIDAI has launched its new AI/ML based Chatbot, Aadhaar Mitra to further enhance residents' experience. The new Chatbot comes with enhanced features like – check Aadhaar enrollment/update status, tracking of Aadhaar PVC card status etc.
- UIDAI is gradually rolling out advanced and futuristic Open-Source CRM solution.

1) UIDAI: It is a statutory authority established under the provisions of Aadhaar act 2016 by the Govt. of India under the Ministry of Electronics & Information Technology.

- Its aim to provide for good governance, efficient, transparent and targeted delivery of subsidies, benefits and services. The UIDAI is mandated to assign a 12-digit unique identification (UID) number (Aadhaar) to all the residents of India.
- The UIDAI was initially set up by the Government of India in January 2009, as an attached office under the aegis of the Planning Commission

2) Performance Grading Index (PGI) for 2020-21: The Ministry of Education has recently released it.

- It is a unique index for evidence-based comprehensive analysis of school education systems across States and UTs. The prime objective of PGI is to promote evidence-based policy-making and highlight course correction to ensure quality education for all.
- As per the index, a total of seven States and Union Territories namely Kerala, Punjab, Chandigarh, Maharashtra, Gujarat, Rajasthan, and Andhra Pradesh have attained Level -2 grading in 2020-21. Gujarat, Rajasthan, and Andhra Pradesh are the new entrants with the highest achieved level. Union Territory Ladakh has made significant improvements in PGI from Level 8 to Level 4 in 2020-21.
- No state, however, has been able to attain the highest level of L1 so far.

3) The Malabar Exercise: Malabar is a multilateral naval exercise that began in 1992 as a bilateral exercise between the navy fleets of India and the United States.

- Since 2007, MALABAR has been held alternatively off Indian Coast and in the Western Pacific. The exercise has been held every year since 2002 (there was a gap after the 1992, 1995, and 1996 editions due to India's nuclear testing). It was expanded into a trilateral format with the inclusion of Japan in 2015.
- Currently, the Malabar exercise is among the navies of India, Japan, the US and Australia.

5.11.22

4) Pirarucu: Due to the conservation efforts Pirarucu, also known as arapaima has returned to the lakes of the Medio Jurua in Brazil.

- It is found primarily in floodplain lakes across the Amazon basin, including the region of Medio Jurua.
- It is one of the few fish species in the world that surfaces to breathe. It does that with a big splash, flashing its red tail out of the water.
- The giant fish not so long ago nearly vanished from Jurua, due to unregulated fishing.

5) Child Welfare Police Officers (CWPO): The Ministry of Home Affairs has recently asked the States/Union Territories to appoint a Child Welfare Police Officer (CWPO) in every police station to exclusively deal with children, either as victims or perpetrators.

- According to the Juvenile Justice (Care and Protection of Children) Act, 2015, there should be at least one officer, not below the rank of an Assistant Sub-Inspector, as CWPO in every station.
- NCPCR had requested that a Special Juvenile Police Unit in each district and city, which is headed by an officer not below the rank of a Deputy Superintendent of Police. The unit would comprise CWPOs and two social workers having experience of working in the field of child welfare, of whom one shall be a woman, to coordinate all functions of police in relation to children.

7.11.22

1) Indian Black Honeybee: A new species of endemic honeybee has been discovered in the Western Ghats called Apiskarinjodian. It is after a gap of more than 200 years that a new species of honeybee has been spotted in the Western Ghats.

- The last honeybee described from India was *Apis indica* in 1798 by Fabricius. However, it was not considered a valid species till now. The research team restored the status of *Apis indica* based on a new measure for species discrimination in honeybees termed 'Radio-Medial Index (RMI)'.

- Apiskarinjodian has evolved from *Apiscerana* morphotypes that got acclimatised to the hot and humid environment of the Western Ghats.
- The distribution of Apiskarinjodian ranges covering the States of Goa, Karnataka, Kerala and Tamil Nadu.

2) Snow Leopard Population Assessment of India (SPAI): first ever snow leopard recorded in the Baltal-Zojila in Jammu and Kashmir. Snow leopard surveys have often focused in neighbouring areas of Ladakh, Himachal Pradesh and Uttarakhand

- Conducted by: Department of Wildlife Protection + NGOs under the SPAI project funded by MoEFCC. It has evolved from international effort to develop a global protocol for PAWS under the aegis of GSELP to help the snow leopard double its population.
- Under SPAI, a two-step process is undertaken to estimate the snow leopard population.
- First step— An occupation-based assessment of snow leopard distribution, which involves identifying the area where the study will be conducted ;Second step— Population sampling for regional density estimation by carrying out a thorough review of already sampled areas.

3) Global Snow Leopard and Ecosystem Protection Program (GSLEP): it is a high-level inter-governmental alliance of all the 12 snow leopard range countries namely, India, Nepal, Bhutan, China, Mongolia, Russia, Pakistan, Afghanistan, Kyrgyzstan, Kazakhstan, Tajikistan, and Uzbekistan.

- The snow leopard inhabits five states of Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, and Arunachal Pradesh. it contributes to about 5% of the global range.
- Snow leopards are categorized as 'Vulnerable' by IUCN and in the Schedule I of the Indian Wildlife (Protection) Act 1972. They are listed in Appendix I of the Convention on International Trade in Endangered Species (CITES) and the Convention on Migratory Species (CMS).

4) Andaman and Nicobar Tribes: In a first-of-its-kind bid to showcase the heritage of tribal communities, especially those of Particularly Vulnerable Tribal Groups (PVTGs), the Anthropological Survey of India (AnSI) has

recreated the huts of several communities at its different regional centres.

- Andaman and Nicobar Islands which have originally been the abode of six aboriginal tribes i.e., the Andamanese, Onges, Jarawas, Sentinelese, Nicobarese and Shompens.
- Except Nicobarese, the rest of the 05 tribes are Particularly Vulnerable Tribal Groups.

5) Malaria: caused by the Plasmodium parasite which can be spread to humans through the bites of infected mosquitoes. There are many different types of plasmodium parasite, but only 5 types cause malaria in humans. The plasmodium parasite is spread by female Anopheles mosquitoes, which are known as "night-biting" mosquitoes because they most commonly bite between dusk and dawn. Vaccine: The RTS,S/AS01 (Mosquirix)

8.11.22

1) Law Commission: Law Commission of India is a non-statutory body and is constituted by a notification of the Government of India.

- The Charter Act 1833 provided for the establishment of a Law Commission for consolidation and codification of Indian Laws. In 1835, Lord Macaulay became Chairman of the First Law Commission.
- The tenure of Law Commission is for three years. It has no fixed composition, no defined eligibility criteria for its chair and members, and no set functions.

2) Guru Nanak Jayanti: also known as Guru Nanak's Prakash Utsav and Guru Nanak Dev Ji Gurburab, celebrates the birth of the first Sikh guru, Guru Nanak.

- it is celebrated on the full moon day of Kartik month, also known as Kartik Purnima.
- His written compositions were included in the Adi Granth compiled by the fifth Sikh Guru Arjan Dev. It is known as Guru Granth Sahib after the additions made by the 10th guru Guru Gobind Singh
- He founded three pillars of Sikhism namely Naam Japna, Kirat Karni, and Vand Chakna.
- He consciously went on long journeys (called uddasian).

3) Protection of Children from Sexual Offences: It is defined as "An Act to protect children, less than 18 years of age, from offences of sexual assault, sexual harassment, and pornography and provide for the establishment of Special Courts for the trial of such offences and matters connected therewith or incidental thereto."

- It was passed in 2012 under the Ministry of Women and child development.
- The act mandates that investigation in the cases is to be completed in two months (from the date of registration of FIR) and trial in six months.
- The act was amended in 2019 to increase the minimum punishment from seven years to ten years. It further adds that if a person commits penetrative sexual assault on a child below the age of 16 years, he will be punishable with imprisonment between 20 years to life, with a fine.

4) Air Quality Index (AQI): Launched in 2014 with outline 'One Number – One Color -One Description' for the common man to judge the air quality within his vicinity.

- The measurement of air quality is based on eight pollutants, namely: Particulate Matter (PM10), Particulate Matter (PM2.5), Nitrogen Dioxide (NO2), Sulphur Dioxide (SO2), Carbon Monoxide (CO), Ozone (O3), Ammonia (NH3), and Lead (Pb).
- AQI has six categories of air quality. These are: Good, Satisfactory, Moderately Polluted, Poor, Very Poor and Severe.
- It has been developed by the CPCB in consultation with IIT-Kanpur and an expert group comprising medical and air-quality professionals.

5) 104th Amendment Act, 2020: Extended the deadline for the reservation of seats for SCs and STs in the Lok Sabha and states assemblies from Seventy years to Eighty. Removed the reserved seats for the Anglo-Indian community in the Lok Sabha and state assemblies.

9.11.22

1) Vikram-S: It is India's First Privately developed Rocket. Vikram-S has been developed with the Support

of ISRO and IN-SPACe Agencies and Hyderabad-based Skyroot Aerospace.

- The mission named 'Prarambh' (the beginning), since it is the first mission for Skyroot.
- With this maiden mission, Skyroot is set to become the first private space company in India to launch a rocket into space.
- The launch mission will be a suborbital spaceflight, and will carry three customer payloads to the intended orbit. The Vikram series, named after the founder of India's space programme Dr Vikram Sarabhai, are all-carbon-fibre structures that can launch up to 800 kg of payloads to the Low Earth Orbit.

2) Mother Tongue Survey of India (MTSI): The Ministry of Home Affairs (MHA) has completed MTSI with field videography of the country's 576 languages.

- It is a project that "surveys the mother tongues, which are returned consistently across two and more Census decades". It documents the linguistic features of the selected languages.
- As per an analysis of 2011 linguistic census data in 2018, more than 19,500 languages or dialects are spoken in India as mother tongues which is grouped into 121 mother tongues.
- According to the 2011 linguistic census, Hindi is the most widely spoken mother tongue, with 52.8 crore people or 43.6 per cent of the population declaring it as the mother tongue.
- The next is Bengali, mother tongue for 9.7 crore individuals, and accounting for 8 per cent of the population.

3) Garuda-VII Air Exercise: It is a bilateral exercise between Indian Air Force (IAF) and French Air and Space Force (FAF).

- Ex Garuda-VII is also the first occasion for the light combat aircraft (LCA) Tejas and the light combat helicopter (LCH) Prachand to participate in any international exercise.

4) Pseudohelice Annamalai: Researchers of Annamalai University have discovered a new species of estuarine crab in the mangroves of Parangipettai near the Vellar River estuary in the Cuddalore district in Tamil Nadu.

- This is the first-ever record of this genus, Pseudohelice, collected from high intertidal areas
- So far, only two species — Pseudohelice subquadrate and Pseudohelice Latreille.
- It is distinguished by dark purple to dark grey coloring, with irregular light brown, yellowish brown, or white patches on the posterior carapace with light brown chelipeds.
- The new species is small and has a maximum width of up to 20 mm.

5) National Population Register (NPR): is a register of usual residents of the country.

- It includes both Indian citizens as well as a foreign citizen.
- According to the Citizenship (Registration of Citizens and issue of National Identity Cards) Rules, 2003, a usual resident is a person who has resided in a local area for the past 6 months or more or a person who intends to reside in that area for the next 6 months or more.
- It is being prepared at the local (Village/sub-Town), sub-District, District, State and National level under provisions of the Citizenship Act 1955 and the Citizenship (Registration of Citizens and issue of National Identity Cards) Rules, 2003. The 1st NPR was prepared in 2010 and updation of this data was done during 2015 by conducting door to door survey.

10.11.22

1) Pashmina Shawls: Traders of Pashmina shawls are complaining that "obsolete testing methods" have resulted in many of their export consignments being flagged by Customs authorities for presence of Shahtoosh guard hair.

- Pashmina is obtained from a breed of mountain goats (*Capra hircus*) found on the Changthang Plateau in Tibet and parts of Ladakh.
- A traditional producer of pashmina wool in the Ladakh region are a people known as the Changpa (nomadic people inhabit the Changthang plateau of Tibet).
- China accounts for 70% of the world's cashmere production (followed by Mongolia (20%)

- India contributes only about 1% of the world's Pashmina. The original 'Kashmir Pashmina' fabric and its products were given GI tag

2) Shahtoosh: It is the fine undercoat fibre obtained from the Tibetan Antelope, known locally as 'Chiru', a species living mainly in the northern parts of the Changthang Plateau in Tibet.

- Unfortunately, due to commercial poaching of the animal, their population declined dramatically.
- Chiru: 'Near Threatened' in IUCN Red List, Schedule I of Wildlife Protection Act, 1972.
- To enhance its protection, its prime habitats have been declared as Wildlife Sanctuaries viz. Karakorma Wildlife Sanctuary and Changthang Cold Desert Wildlife Sanctuary.

3) Infrastructure Resilience Accelerator Fund (IRAF): The Coalition for Disaster Resilient Infrastructure (CDRI) recently announced setting up

- It is a multi-donor trust fund, established with the support of the United Nations Development Programme (UNDP) and United Nations Office for Disaster Risk Reduction (UNDRR).
- Around \$50 million in financial commitments have already been announced for IRAF over an initial duration of five years.
- IRAF will play a crucial role in equipping the Coalition to deliver improved infrastructure governance, inclusive infrastructure services, diversified knowledge, and financing for resilient infrastructure globally.
- One of the first initiatives to be supported by the IRAF is the Infrastructure for the Resilient Island States (IRIS).

4) Coalition for Disaster Resilient Infrastructure (CDRI): CDRI was launched by the Prime Minister of India, Narendra Modi at the UN Climate Action Summit in New York in 2019.

- It is a partnership of national governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector, and knowledge institutions.
- It aims to promote the resilience of new and existing infrastructure systems to climate and

disaster risks in support of sustainable development.

5) Groundwater Extraction: According to the Dynamic Ground Water Resource Assessment Report for the entire country for the year 2022, groundwater extraction in India saw an 18-year decline. The assessment was carried out jointly by Central Ground Water Board (CGWB), States and Union Territories. Out of the total 7,089 assessment units in the country, 1,006 units have been categorised as "over-exploited" in the report.

11.11.22

1) Kempe Gowda: Nadaprabhu Kempegowda, a 16th century chieftain of the Vijayanagara empire, is credited as the founder of Bengaluru.

- A 108-foot tall bronze statue of Kempegowda, also called the "Statue of Prosperity" is being unveiled in Bangalore.
- He is also known to have developed around 1,000 lakes in the city to cater to drinking and agricultural needs.
- He was from the dominant agricultural Vokkaliga community in south Karnataka.
- One of his social reforms was to prohibit the custom of amputating the last two fingers of the left hand of the unmarried women during "Bandi Devaru", an important custom of Morasu Vokkaligas.

2) The sword of Shivaji: The Maharashtra government announced that it is working to bring back the sword of Chhatrapati Shivaji Maharaj from London to India.

- The jagdambawas given to Edward, the Prince of Wales (the later King Edward VII), by Shivaji IV in 1875-76.
- The "Bhavani" sword, now in Satara, was also used by Chhatrapati Shivaji Maharaj, who had at least three swords. But this sword is different from the one in London, which is called "Jagdamba."

3) Walong Mela: Indian Army recently organised Walong Mela in continuation of Diamond Jubilee celebrations of Battle of Walong.

- It aims to commemorate the unsurpassable bravery & sacrifice of the Indian Army while

defending the Indian Territory against the Chinese aggression of 1962.

- Walong is one of India's easternmost villages in Arunachal Pradesh.
- In the 1962 India-China War, the Indian Army defended against China in all sectors except one — Arunachal Pradesh's Walong.
- The Battle of Walong was the only counterattack India could manage in the war.

4) Compulsorily Convertible Preference Shares (CCPS): they are a key element of startup financing.

- It gives the assurance of a fixed rate of return plus the opportunity for capital appreciation.
- These shares carry certain terms—if an early investor has CCPS, he can have more rights than other investors who come in later at a higher valuation.
- It also helps investors maintain their stake and have a say even if their stake gets diluted later. However, these shares get converted to ordinary equity shares after 10-15 years.
- That is more than sufficient time for most startups to give their investors an exit.

5) Mahua: The flowers of Mahua tree (*Madhuca longifolia*) are fermented to produce an alcoholic drink also called Mahua.

- Tribal men and women of West Bengal, Odisha, Chhattisgarh, Jharkhand, Bihar, in parts of northern and central India, in Maharashtra, Gujarat, Telangana, Tamil Nadu and Kerala etc produce this. Mahua is considered holy amongst the tribes of India.
- It is called the 'Tree of Life'. Not just the flower, each and every part of the tree is used for something or the other.

12.11.22

1) Himalayan Gray Langur: also called Chamba Sacred Langur is a colobine, meaning leaf-eating monkey. It is endemic to the Jammu and Kashmir and Himachal regions of western Himalayas, where the ecosystem is vulnerable. It is also reported from Pakistan and Nepal.

- It is considered an endangered species in IUCN red list. In the Wildlife Protection Act, 1972, it is under Schedule II.

- Two protected habitats of the species namely Machiara National Park and Dachigam National Park. Machiara National park is in Pak-Occupied Kashmir

2) Currency Monitoring List: The US Department of Treasury recently removed India along with Italy, Mexico, Thailand and Vietnam from its Currency Monitoring List of major trading partners

- The Trade Facilitation and Trade Enforcement Act of 2015 of US requires its Treasury Department to report to the Congress in every six months if any country is manipulating its currencies to gain trade advantages over the US.
- There are three criteria the US Treasury looks at in placing a country on the watch list:
- Significant trade surplus with the US (at least \$20 billion in 12 months), A large current account surplus (at least 2 per cent of GDP over a 12-month period), "Persistent", one-sided intervention. The countries that meet two out of the three criteria are placed on the list.
- India had been on the list for the last two years.
- China, Japan, Korea, Germany, Malaysia, Singapore, and Taiwan are the seven economies that are a part of the current monitoring list.

3) Rule of Law Index 2022: It was released by an international civil society organisation, World Justice Project (WJP). According to the report, the rule of law has declined globally for the fifth consecutive year.

- India has been ranked 77 out of 140 countries with a score of 50 on the 'rule of law index'.
- The top-ranked country :Denmark, followed by Norway (2), Finland (3)
- The bottom ranked countries are Venezuela (140), Cambodia (139), Afghanistan (138)
- The index is prepared by examining these four principles through eight factors- constraints on government powers, absence of corruption, open government, fundamental rights, order and security, regulatory enforcement, civil justice, and criminal justice.

4) Afzal Khan: he was a general in the Bijapur Adil Shahi empire who was tasked with carrying out a military

campaign against Maratha warrior-king Chhatrapati Shivaji Maharaj.

- Shivaji called a council of war at the fort of Pratapgarh, where most of his advisers urged him to make peace. However, Shivaji was not eager to back down and he set up a meeting with Khan. During the meeting, an embrace between the two turned into an attack in which Shivaji emerged victorious. Khan's remains were buried at the fort and a tomb was constructed on Shivaji's orders.

5) Beypore Uru: An uru is a wooden dhow, mainly made of Malabar teak, probably the biggest handicraft in the world. Beypore urus are purely made of wood, without using any modern techniques, and traditional methods are used to launch this ship into the water.

- Beypore is a town located on the banks of the Chaliyar River.
- The Khalasis are the traditional artisans responsible for the manufacture of the Uru.
- Arab traders were especially enamoured of them, and were among the first major patrons of these vessels. It takes at least four years to build an Uru.

14.11.22

1) Eklavya Model Residential Schools (EMRS): The scheme of EMRSs was introduced in the year 1997-98 to ensure tribal students get access to quality education in the remote tribal areas.

- The schools would focus to provide quality upper primary, secondary and senior secondary level education to ST Students in these areas.
- In 2018, it was revamped. EMRSs will be setup in every block with more than 50% ST population and at least 20,000 tribal persons.
- There will be an Autonomous Society under the Ministry of Tribal Affairs similar to Navodaya Vidyalaya Samiti to run the EMRSs.

2) Operation Barkhane: it is an ongoing anti-insurgent operation started on August 1, 2014 which is led by the French military against Islamist groups in Africa's Sahel region.

- The operation is led in cooperation with five countries, all former French colonies, that span

the Sahel: Burkina Faso, Chad, Mali, Mauritania and Niger.

- These countries are collectively referred to as the "G5 Sahel". The operation is named after a crescent-shaped dune in the Sahara desert.
- The French military initially intervened in Mali in early 2013 as part of Operation Serval which successfully regained the northern half of the country from Islamist groups.
- Operation Barkhane was intended to act as a follow up.

3) Sir CP Ramaswamy Iyer: he was the Diwan of the erstwhile Travancore princely state from 1936 to 1947.

- His dream of an independent state and idea of 'American model for Travancore' made him unpopular. Communists were opposed to his move and the struggle against the Travancore Kingdom led to the merger of socialist parties, creating a new radical communist party.
- His policies led to a massive uprising, the Punnapra-Vayalar revolt, which was suppressed by the Travancore army and navy.
- The rage and discontent culminated in an assassination attempt on Sir CP, and he soon agreed to Travancore state's entry to the Indian Union.

4) 'Friend-Shoring' Plan: it would involve supply chains only in countries that shared core values, assuring not just free trade but trade that is secure

- US will pursue the 'friendshoring' approach of deepening economic integration with trusted trading partners like India to diversify away from countries that present geopolitical and security risks to supply chains.
- Friendshoring is part of a "deglobalisation" process, which could see further supply shocks and higher prices in the short term and lower growth in the long run.

5) IUU Fishing in Indian Ocean Region: IUU fishing depletes fish stocks, destroys marine habitats, puts fishermen at disadvantage and impacts coastal communities, especially in developing countries.

- As per the United Nations Convention on the Law of the Sea (UNCLOS), coastal nations are

responsible for addressing IUU fishing issues within their respective EEZ.

- There are two main regulations globally on IUU fishing: the Cape Town Agreement and the Agreement on Ports State Measures. India is not a signatory of either agreement.
- Agreement on Fisheries Subsidies (AFS) at WTO ministerial meeting (2022): prohibited subsidies from being provided for IUU fishing and overfished stocks.

15.11.22

1) Permacrisis: The Collins Dictionary's word of the year for 2022 is "permacrisis"

- It is a term that describes the extended period of instability and insecurity.
- It became a commonly used word in Britain, reflecting the instability caused by Brexit, COVID-19 pandemic, extreme weather conditions, war in Ukraine, political instability in the UK and the cost of living crisis.
- It is similar to Marx's idea that human history will lead to a final crisis, only it precludes any idea of further progress. Instead of leading to something better, it denotes a static and permanently difficult situation.

2) PUSHKAR CAMEL FAIR: Pushkar is a town in the Ajmer district in the Indian state of Rajasthan. It is located on the western side of Aravalli mountains. Pushkar is located on the shore of Pushkar Lake.

- The Pushkar Fair is also called the Pushkar Camel Fair or locally as Kartik Mela.
- It is an annual multi-day livestock and cultural fair that takes place on the banks of the Pushkar Lake. It is one of India's largest camel, horse and cattle fairs with people trading their livestock.
- It is also believed that Pushkar is the only place in the entire world to have a temple dedicated to Hindu God Brahma, who is also known as the 'Creator of World'.

3) Solar Energy Corporation of India (SECI): It is the only Central Public Sector Undertaking (PSU) dedicated to the solar energy sector, under Ministry of New and Renewable Energy.

- A not-for-profit company established in 2011 under the Companies Act 1956,
- Functions: Responsible for implementation of a number of government schemes, the major ones being the Viability Gap Funding Schemes for large-scale grid-connected projects under NSM, solar park scheme and grid-connected solar rooftop scheme

4) Methane Alert and Response System (MARS): launched at the COP27 to the United Nations Framework Convention on Climate Change in Sharm El-Sheikh, Egypt.

- It is a part of global efforts to slow climate change by tackling global warming gas.
- The data-to-action platform was set up as part of the UNEP International Methane Emissions Observatory (IMEO) strategy to get policy-relevant data into the right hands for emissions mitigation.
- The system will be the first publicly available global system to connect methane detection to notification processes transparently.
- It will use state-of-the-art satellite data to identify significant emission events, notify relevant stakeholders, and support and track mitigation progress.

5) India's first multimodal logistics park: in Chennai, Tamil Nadu.

- MMLP is officially defined as a freight-handling facility with a minimum area of 100 acres, with various modes of transport access, mechanized warehouses, specialized storage solutions such as cold storage, and inter-modal transfer container terminals
- India's logistics cost as a percentage of GDP is very high at 16 per cent, while in developed countries such as the US and Europe, it is around 8 per cent. The government wants to bring down the logistics cost to 10 per cent of GDP.
- To set up the country's first MMLP, the Centre and Tamil Nadu government have come together to form a special purpose vehicle (SPV),

16.11.22

1) United Nations (UN) World Population Prospects 2022: The world population touched eight billion and India was the largest contributor having added 177 million people of the last billion people.

- However, the global population is growing at its slowest rate since 1950, having fallen under 1 per cent in 2020. The world's population could grow to around 5 billion in 2030.
- India is projected to overtake China as the world's most populous country in 2023.
- UNFPA has noted that India has its largest ever adolescent and youth population. According to UNFPA projections, India will continue to have one of the youngest populations in the world till 2030 and is currently experiencing a demographic window of opportunity, a "youth bulge" that will last till 2025.

2) United Nations Population Fund's (UNFPA): formerly known as United Nations Fund for Population Activities works as a sexual and reproductive health agency of UN. It is the leading organisation for implementation of 1994 Programme of Action of International conference on population and development.

- The UN Economic and Social Council (ECOSOC) establishes its mandate. It was established as a trust fund in 1967 under UNDP. Report: State of World Population Report.
- Mission: deliver a world where every pregnancy is wanted, every childbirth is safe and every young person's potential is fulfilled.
- UNFPA is not supported by the UN budget, instead, it is entirely supported by voluntary contributions of donor governments, organizations, the private sector, individuals etc.

3) Artemis 1: launched by NASA, Artemis I is the first in a series of increasingly complex missions that will enable human exploration to the Moon and Mars. It is an uncrewed mission.

- It will test the agency's Space Launch System (SLS) rocket and Orion crew capsule.
- It is a lunar Orbiter mission with a return-to-Earth target
- The CubeSats it will carry are equipped with instruments meant for specific investigations and experiments, including searching for water

in all forms and for hydrogen that can be utilised as a source of energy.

- Biology experiments will be carried out, and the impact of deep space atmosphere on humans will be investigated through the effect on dummy 'passengers' on board Orion.

4) Yudh Abhyas: Exercise Yudh Abhyas is conducted annually between India and US with the aim of exchanging best practices, Tactics, Techniques and Procedures between the Armies of the two nations. The joint exercise will also focus on Humanitarian Assistance and Disaster Relief (HADR) operations. It is being held in Uttarakhand.

5) Birsa Munda: On the occasion of tribal leader Birsa Munda's birth anniversary, the Centre held the second Janjatiya Gaurav Divas on November 15 to celebrate the contributions of tribal communities to Indian culture.

- 1886 to 1890: Birsa Munda was majorly in Chaibasa (Jharkhand), which was close to the centre of the Sardari agitation, influencing his anti-missionary and anti-government programmes. He encouraged the tribals to refuse following colonial laws and drive out foreigners using weapons and guerrilla warfare (Ulgulan movement)
- He also aided societal reform by confronting religious superstition, earning him the titles 'Bhagwan' (God) and 'Dharati Aba' (Father of the Earth) from his followers.

17.11.22

1) East Asia Summit: EAS is the Indo-Pacific's premier forum for strategic dialogue. It is the only leader-led forum at which all key Indo-Pacific partners meet to discuss political, security and economic challenges facing the region. Australia participated, as a founding member, in the inaugural EAS held in Kuala Lumpur on 14 December 2005.

- The EAS has 18 members - the ten ASEAN countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam) along with Australia, China, India, Japan, New Zealand, the Republic of Korea, Russia and the United States.
- ASEAN leads the forum, and the chair position rotates between ASEAN Member States

annually. In 2021 EAS members represented 53.1 per cent of the world's population and accounted for 59.5 per cent of global GDP.

2) Patan Patola scarf: The ancient art of double ikat or Patola woven in pure silk dates back to the 11th century. The Patola fabrics bear an equal intensity of colours and design on both sides.

- This peculiar quality has its origins in an intricate and difficult technique of dyeing or knot dyeing, known as 'bandhani', on the warp and weft separately before weaving.
- One of the major practitioners of the dwindling art form is the Salvi family from Gujarat.
- Patola is woven on primitive hand-operated harness looms made out of rosewood and bamboo strips. The loom lies on a slant.

3) MOSCOW TALKS: The Moscow format — one of the several dialogue platforms on Afghanistan — which began before the Taliban takeover of Kabul, consists of Russia, China, Pakistan, Iran, Kazakhstan, Tajikistan, Kyrgyzstan, Uzbekistan, Turkmenistan and India.

- The participants discussed issues related to Afghanistan. These include 1) the current humanitarian situation and the ongoing efforts of various stakeholders to provide assistance, 2) intra-Afghan talks, 3) the formation of an inclusive and representative government and 4) efforts to counter threats of terrorism and ensure regional security.

4) Carbon Border Adjustment Tax: It is a duty on imports based on the amount of carbon emissions resulting from the production of the product in question. As a price on carbon, it discourages emissions. As a trade-related measure, it affects production and exports.

- The European Union has proposed Carbon Border Adjustment Mechanism — to tax products such as cement and steel, that are extremely carbon intensive, with effect from 2026.
- BASIC, a group constituting Brazil, India, South Africa and China, and therefore large economies that are significantly dependent on coal, has reiterated their right to use fossil fuel

in the interim during their countries' eventual transformation to clean energy sources.

5) Nostro Account: it is an account held by a bank in another bank. It allows the customers to deposit money in the bank's account in another bank. It is often used if a bank has no branches in a foreign country. Nostro is a Latin word that means "ours".

- A Nostro account is a Vostro account for the bank that opens the account. The Vostro account accepts the payments on behalf of the account holder's bank.
- Nostro and Vostro accounts are held in a foreign denomination. Vostro accounts enable domestic banks to provide international banking services to their clients who have global banking needs.

18.11.22

1) Boreal Forest: The boreal forest (or "taiga") is the world's largest land biome. It principally spans 8 countries: Canada, China, Finland, Japan, Norway, Russia, Sweden and the United States.

- Boreal forests are defined as forests growing in high-latitude environments where freezing temperatures occur for 6 to 8 months and in which trees are capable of reaching a minimum height of 5 m and a canopy cover of 10%.
- It is typically comprised of coniferous tree species such as pine, spruce and fir.
- It is second only to the Amazon in terms of its vital role in ensuring the future of the planet. It holds twice as much carbon as all tropical forests combined.
- Drunken trees: They are tilted sideways due to melting permafrost.

2) Narco Test: In a narcoanalysis test, a drug called sodium pentothal is injected into the body of the accused, which transports them to a hypnotic or sedated state, in which their imagination is neutralised. In this hypnotic state, the accused is understood as being incapable of lying, and is expected to divulge information that is true.

- Sodium pentothal or sodium thiopental is a fast-acting, short duration anaesthetic, which is used

in larger doses to sedate patients during surgery.

- It belongs to the barbiturate class of drugs that act on the central nervous system as depressants. Because the drug is believed to weaken the subject's resolve to lie, it is sometimes referred to as a "truth serum", and is said to have been used by intelligence operatives during World War II.

3) Battle of Rezang La: Rezang La is a mountain pass on the Line of Actual Control in Ladakh.

- It is located between village of Chushul and the Spanggur Lake that stretches across both Indian and Chinese territories. It had also been the site of a heroic battle in November 1962.
- Troops from the 13 Kumaon Regiment defeated several waves of the Chinese People's Liberation Army in 1962
- Rezang La is vital for the defence of the crucially important Chushul. Any invader reaching there would have had a free run to Leh.

4) Bali Yatra of Odisha: Bali Jatra (also known as Bali Yatra and Boita Bandana) literally means A Voyage to Bali. This festival is held in Odisha, in the city of Cuttack at Gadagadia Ghata of the Mahanadi river. It is similar to the 'Masakan Ke Tukad' festival in Bali.

- The festival is celebrated every year from the day of Kartika Purnima according to the Odia Calendar, which comes around the end of October and November.
- It is celebrated to mark the day when ancient Sadhabas (Odia mariners) would set sail to distant lands of Bali, as well as Java, Sumatra and Sri Lanka for trade and cultural expansion.
- It commemorates the 2,000-year-old maritime and cultural links.
- The connection between Kalinga and Bali: Roulette ware, temples as socio-culture centres, 14th CE inscription in Bali is in Odia language, presence of Brahmana-Bouddha-Kalinga in Bali.

5) Hwasong-17: The Hwasong-17 is nuclear-armed North Korea's biggest missile yet.

- It is the largest road-mobile, liquid-fuelled ICBM in the world.

- Unlike North Korea's earlier ICBMs, the Hwasong-17 is launched directly from a transporter, erector, launcher (TEL) vehicle with 11 axles.

19.11.22

1) POSCO Act analysis: The analysis, titled 'A Decade of POSCO', was carried out by the Justice, Access and Lowering Delays in India (JALDI) Initiative in collaboration with the DE JURE program at the World Bank.

- The analysis has found that 43.44% of trials under POSCO end in acquittals while only 14.03% end in convictions. In 96% of the cases filed under the POSCO Act, 2012, the accused was a person known to the child victim.
- Delhi has the highest number of POSCO trials, Uttar Pradesh has the highest pendency, Chandigarh and West Bengal are the only states where the average time taken for convictions is within one year.

2) Uda Devi: born in Lucknow, she was part of the royal guard of Begum Hazrat Mahal of Awadh.

- Uda Devi is remembered for mobilising people, specially Dalit women, to take up arms against the British. In 1857, she formed an all-women battalion, today called the Dalit Veeranganas, to take part in armed uprisings against the British.
- Devi belonged to the Pasi community, which was labelled a 'criminal caste' by the British administration under the Criminal Tributes Act, 1871. (Pasis are traditionally pig-herders and toddy tappers and were listed as the second-largest Dalit group in Uttar Pradesh after the 2001 census.)

3) Melocannabaccifera: It is a tropical bamboo species known for its association with the occurrence of 'bamboo death,' 'rat floods' and famines in northeast India.

- During its gregarious flowering ('Mautam', the cyclical, mass bamboo flowering that occurs once in 48 years) the bamboo produces large fruits which draw animal visitors/predators. These predators like pests, rats etc multiply rapidly, a phenomenon dubbed as 'rat flood'

during this period. Once the fruits are gone, they start devouring standing crops, causing famines that have claimed thousands of human lives.

- Called 'Muli' in northeast India, it is the largest fruit-producing bamboo and is native to the northeast India-Myanmar region.
- Earlier, it was presumed that 'high protein in fruits/seeds' was attracting the rats. However, a JNTBGR study in 2016 found that the fruit actually contains very little protein. The predation is mainly due to the high content of sugars.

4) Network Readiness Index 2022: India climbs up six slots and now placed at 61st rank.

- The report has been prepared by the Portulans Institute, an independent non-profit, institute based in Washington DC.
- In its latest version of 2022, the NRI Report maps the network-based readiness landscape of 131 economies based on their performances in four different pillars: Technology, People, Governance, and Impact covering a total of 58 variables.

5) Ivory trade: For the first time since joining the Convention on International Trade in Endangered Species of Flora and Fauna (CITES) in 1976, India did not vote against a proposal seeking to re-open the ivory trade.

- The ivory trade was globally banned in 1989 when all African elephant populations were put in CITES Appendix I. No trade is allowed in species listed in CITES Appendix I while trade is strictly regulated in those under Appendix II.

21.11.22

1) Great Knot: A great knot from Russia, belonging to the endangered *Calidris tenuirostris* (Horsfield, 1821), has found its way to Kerala's coast, flying over 9,000 km for a winter sojourn.

- The Great Knot is an international migratory wading bird that travels vast distances between the northern hemisphere breeding grounds and southern hemisphere summer feeding ground. It is a medium-sized shorebird with a straight,

slender bill of medium length and a heavily streaked head and neck.

- They breed in eastern Siberia, and when on migration they occur throughout coastal regions of eastern and South East Asia. In Australia, Great Knots inhabit intertidal mudflats and sandflats in sheltered coasts, including bays harbours and estuaries.
- Recently many juvenile great knots have been tagged with MOSKVA rings in the Kamchatka peninsula in eastern Russia.

2) Type 1 Diabetes: it is a chronic medical condition in which the pancreas produces little to no insulin. It was formerly known as insulin-dependent or juvenile diabetes. While it generally appears in children, teens, and young adults, it is known to occur at any age. It is rarer than type 2

- Tzield is a monoclonal antibody injection that is capable of preventing the body's immune system from mistakenly attacking cells in the pancreas that make insulin.
- People with type 1 diabetes usually require multiple injections of insulin every day for the rest of their lives. Tzield's ability to delay the clinical diagnosis of type 1 diabetes will reduce the financial burden of the ailment for months to years.

3) Stampede Liquidation: it is the process by which multiple market participants want to withdraw their deposits at once, or willing to sell a specific asset in panic leading to a severe correction in the price.

- Panicked investors and traders try to withdraw all at once and create a considerable disruption in the already fragile financial system. The term was coined by American economist Irving Fisher. It generally occurs post-economic booms.

4) Transfer Rules of IAS Officers: Rules for the transfer of IAS officers are made by only the Central Government. However, the Central Government before the formation of rules consults with the State Government.

- It is only the Central Government which can transfer the officers from one cadre to another.
- It has to be noted an IAS officer is not permitted to get transfer to his home state.

- Inter cadre transfer shall continue to be permitted for members of All India Service officers on marriage to another member of an All India Service or on grounds of extreme hardship in the rarest of cases.

5) Gandhi Mandela Award: The Tibetan spiritual leader – Dalai Lama (14th), was recently conferred the Gandhi Mandela Award 2022.

- The Gandhi Mandela Foundation – a government of India registered Trust, NGO, has constituted an international prize – the Gandhi Mandela Award, on the 150th birth anniversary (2019) of the Father of the Nation, MK Gandhi.
- The award is given to personalities who have carried forward the legacies of Gandhi and Mandela by making significant contributions in the fields of Peace, Social Welfare, Culture, Environment, Education, Healthcare, Sports and Innovation.

22.11.22

1) firefighting: or fireproofing approach in foreign policy is a reaction or a response to any initiative or incident in international politics. Firefighting attaches itself to reactive responses to crises that arise from the Lack of preparedness, Lack of capacity, and Lack of national will and cohesion between different instruments of statecraft.

2) RH-200 (Rohini): ISRO will attempt the 200th consecutively successful launch of the Rohini RH-200 sounding rocket from Thumba.

- RH-200 is a two-stage rocket capable of climbing to a height of 70 km bearing scientific payloads. The first and second stages of RH-200 are powered by solid motors. The '200' in the name denotes the diameter of the rocket in mm.
- Since inception of RH200 rocket, both solid stages are processed using polyvinyl chloride (PVC) based propellant. In 2020 a new propellant based on hydroxyl-terminated Polybutadiene (HTPB) was successfully flown.
- Rohini is a series of sounding rockets developed by the ISRO for meteorological and atmospheric study. These sounding rockets are capable of

carrying payloads of 2 to 200 kilograms between altitudes of 100 to 500 kms.

3) Olive ridley turtles: they are the smallest and most abundant of all sea turtles found in the world.

- They are carnivores and found in warm waters of the Pacific, Atlantic and Indian oceans.
- The Odisha's Gahirmatha Marine Sanctuary is known as the world's largest rookery (colony of breeding animals) of sea turtles.
- They are best known for their unique mass nesting called Arribada, where thousands of females come together on the same beach to lay eggs.
- Wildlife Protection Act, 1972: Scheduled 1, IUCN Red List: Vulnerable, CITES: Appendix I

4) Great Nicobar tribes: The Mongoloid Shompen Tribe, about 200 in number, live in the forests. Another Mongoloid Tribe, Nicobarese, about 300 in number, used to live in settlements.

- There are 6 aboriginal tribes in Andaman & Nicobar islands.
- On the basis of features, they can be divided into Negrito and Mongoloid. Great Andamanes, Onge, Jarawa and Sentinelese are negrito while Nicobarese and Shompen are mongoloid.

(Related news: Nicobari Hodi craft is the 1st application for Andaman and Nicobar's GI tag
Nicobari Hodi is a traditional craft canoe made using locally available trees for transporting people and goods and for racing purposes.)

5) 5 Bacteria types claimed 6.8 Lakh lives in India in 2019: Lancet:

- coli: It is commonly found in the lower intestine of warm-blooded organisms. Most types of E. coli are harmless. But a few strains, can cause severe stomach cramps.
- Streptococcus pneumoniae is the most common cause of middle ear infections, sepsis (blood infection) in children and pneumonia in immunocompromised individuals
- Klebsiella can cause different types of healthcare-associated infections, including pneumonia, bloodstream infections, wound or surgical site infections, and meningitis

- aureus is the leading cause of skin and soft tissue infections such as abscesses (boils), furuncles, and cellulitis
- Acinetobacter baumannii can cause infections in the blood, urinary tract, and lungs (pneumonia), or in wounds in other parts of the body

23.11.22

1) Gutti Koya Tribals: The Koya population is concentrated in Telangana, Andhra Pradesh, Chhattisgarh and Odisha. It is the largest adivasi tribe of Telangana and listed as Scheduled Tribe

- Koyas speak the Koya language, which is a Dravidian language.
- Festival: Medaram Jatara is also known as Sammakka Saralamma Jatara. It is the second-largest fair of India, after the Kumbh Mela.
- Koyas perform a robust colourful dance called Permakokata (Bison horn dance) during festivals and marriage ceremonies.
- Issue over Podu land: it is a form of shifting cultivation, as practiced by various tribal groups

2) Arittapatti and Meenakshipuram Villages: The Tamil Nadu government recently issued a notification declaring themi (Madurai district) the first biodiversity heritage site in the State.

- Arittapatti, known for its ecological and historical significance, houses around 250 species of birds, including three important raptors — Laggar Falcon, Shaheen Falcon, Bonelli's Eagle (*Aquila fasciata*) along with wildlife such as the Indian Pangolin and Slender Loris.
- The area is surrounded by a chain of seven hillocks or inselbergs, that serve as a watershed, charging "72 lakes, 200 natural springs and three check-dams".
- The Anaikondan tank, built during the reign of the Pandiyan kings in the 16th century, is one of them. The site also features various megalithic structures, Tamil Brahmi inscriptions, Jain Beds and 2200-year-old rock-cut temples adding to its historical value.

3) Ronnagrams and Quettametres: International scientists gathered in France voted on Friday for new metric prefixes to express the world's largest and

smallest measurements, prompted by an ever-growing amount of data.

- Prefixes for Largest numbers: Ronna (10 to the power 27 zeros) and Quetta (10 to the power 30 zeros)
- Prefixes for smallest numbers: Ronto (10 to the negative 27th power) and Qucto (10 to the negative 30th power)
- The International System of Units (SI) is the agreed global standard for the metric system.

4) Project Unnati: started by Rural Development Ministry

- It is a skilling project intended to upgrade the skill base of the MGNREGA beneficiaries, so that they can move from the current partial employment to full-time employment.
- This project is meant for providing training for one adult member (of age 18-45 years old) of a household who has completed 100 days of work under Mahatma Gandhi NREGA
- The household from which candidates are selected for the training, continue to enjoy 100 days of work under Mahatma Gandhi NREGA.
- The candidates undergoing training are paid a stipend for a maximum period of 100 days
- Full expenditures towards a stipend, against wage loss compensation, are entirely borne by the Central Government.

5) Ethnoveterinary Medicine (EVM): Ethnoveterinary medicine (EVM) involves the use of traditional/herbal preparations in treating diseases of cattle. Antimicrobial resistance (AMR) has been recognised as a 'silent pandemic' and is a global public health threat today. It is a One Health issue. It accelerates due to the misuse and overuse of antimicrobials in human health, animal health, food-animal production, aquaculture and crop production

24.11.22

1) Conrad Sangma panel: The ministerial panel formed under the Goods and Services Tax (GST) regime for casinos, racetracks, and online gaming is likely to recommend a uniform 28 percent tax rate for the three categories.

- Currently, online gaming platforms pay 18% GST on the platform fee alone, rather than the total value including prize money. According to a KPMG report, the online gaming sector is expected to grow to Rs 29,000 crore by 2024-25, up from Rs 13,600 crore in 2020-21.

2) Nyingma Sect: Recently, the Nyingma sect has identified a boy from Spiti in Himachal Pradesh as the reincarnation of the late Taklung Setrunga Rinpoche, a scholar known for his knowledge of Tibetan Tantric school.

- It is the oldest amongst the four schools and the second largest after Gelugpa sect.
- Nyingma in Tibetan means “ancient” and has roots going back to the 8th century
- It is also known as the Red Hat sect because its Lamas wear red robes and hats.
- Its teachings are mainly based on those of Padmasambhava, called Guru Rinpoche and Shantarakshita who were brought to Tibet.
- Buddhist teachings are classified into nine yanas with ‘Dzogchen’ being most important.
- Dzogchen (Great Perfection) philosophy revolves around pure awareness which can be achieved through meditation and learned from a Dzogchen master.
- The Nyingma School is also associated with Termas (hidden treasures).

3) Jallikattu: A tradition over 2,000 years old, Jallikattu is a competitive sport as well as an event to honour bull owners who rear them for mating. It is a violent sport in which contestants try to tame a bull for a prize; if they fail, the bull owner wins the prize.

- It is popular in Madurai, Tiruchirappalli, Theni, Pudukkottai and Dindigul districts of Tamil Nadu known as the Jallikattu belt.
- Jallikattu is considered a traditional way for the peasant community to preserve their pure-breed native bulls.
- In 2014, the Supreme Court banned the bull-taming sport, while the state government has legalised these events. Currently a petition is pending in supreme court.

4) Kuki-Chins: they are a Christian community from Bangladesh’s Chittagong Hill Tracts, which shares close ethnic ties with people in Mizoram.

- The Kuki people are an ethnic group native to the Mizo Hills (formerly Lushai) in India. They constitute one of several hill tribes within India, Bangladesh and Myanmar. The Chin people of Myanmar and the Mizo people of Mizoram are related tribes of the Kukis.
- More than 270 members of the Kuki-Chin community from Bangladesh who entered Mizoram are being referred to as “officially displaced persons” in State government records, as India does not have a law on refugees.

5) MAARG Portal: Mentorship, Advisory, Assistance, Resilience and Growth, is a one stop platform to facilitate mentorship for startups across diverse sectors, functions, stages, geographies, and backgrounds. It is the National Mentorship Platform by Start-up India to help and guide new start-ups grow and flourish.

- MAARG Portal is being operationalized by the Department for Promotion of Industry and Internal Trade (DPIIT), under the Ministry of Commerce and Industry.

25.11.22

1) Kutia Kondh tribe: The Kutia Kondhs are a particularly vulnerable tribal groups in Kalahandi district, Odisha. These tribals worship nature. The women of this tribe, called the 'the people of the spirit world,' ink themselves with beautiful geometric facial tattoos.

- The Kondhs who live in hill top and valleys are known as Kutia Kondha. Whereas those who live in high land and near the streams are called DongriaKondha and those who are residing in plain area are known as Desia Kondh.
- Shifting cultivation or slash-and-burn agriculture (also called dongarchaas or poduchaas) is the primary source of food for the tribal communities in the area.

2) Nuclear-powered icebreakers: Russia has unveiled two nuclear-powered icebreakers for the Western Arctic-Yakutia and Rossiya. Previous icebreakers are Arktika, Sibir, Chukotka

- According to Russia such icebreakers were of strategic importance for the country. b) They are needed for the study and development of the Arctic, and c) They will help in ensuring safe, sustainable navigation in the Arctic region.

3) Red Crowned Roofed Turtle (Batagurkachuga): India's proposal for induction of fresh water turtle Batagurkachuga in Appendix I earned wide support at CoP 19 of CITES in Panama.

- It is a freshwater turtle species, and found in deep flowing rivers with terrestrial nesting sites. It is native to India, Bangladesh and Nepal. Found in Ganga and Brahmaputra basin.
- Currently in India, the National Chambal River Gharial Sanctuary is the only area with substantial population of the species.
- IUCN: Critically Endangered, WPA: Schedule I, CITES: Appendix I (earlier Appendix II)
- In comparison to their female counterparts, the males are shorter and reach only half their length.

4) Measles and Rubella: they are contagious viral disease that is spread by contact with an infected person through coughing and sneezing. Measles is caused by Rubeola virus and Rubella is caused by Rubella virus.

- Measles can cause serious complications, including blindness, encephalitis, severe diarrhoea, ear infection and pneumonia
- Measles and Rubella have similar symptoms. However, rubella is a milder viral infection than measles. Rubella infection in pregnant women may cause foetal death or congenital defects known as congenital rubella syndrome
- Both of them can be entirely prevent with a two-dose of MMR (Measles, Mumps, and Rubella) vaccine.

5) Ecosystem engineers: they are organisms that directly or indirectly modulate the availability of resources to other species, by causing physical state changes in biotic or abiotic materials. Examples:

- African forest elephants (Critically Endangered) reduce above-ground carbon through grazing and disturbance.

- Rhinoceros (Near Threatened) affect the carbon cycle through soil compaction and disturbance (bioturbation). In grassland ecosystems, these factors are likely key controls on fires.
- Pangolins' (Critically Endangered) diet consists of social insects such as termites and ants, the populations of which they regulate. Notably, termites are vital decomposers, but that process also results in an estimated 1-3% of natural global annual emissions

26.11.22

1) Amarjeet Sinha committee: It will suggest (within 3 months) what changes in focus and governance structures are required to make MGNREGA more effective.

- It will look at changes in the cost of providing work, the reasons and recommend ways to bring in a greater focus on poorer areas and whether it should focus more on community-based assets or individual works.

2) Cess and surcharge: A cess is a tax on tax in basic terms. It must only be applied to the purpose for which it is levied. While, the revenue coming from cess is first credited to the Consolidated Fund, and the government may then, after due appropriation from Parliament, utilise it for the specified purpose.

- Surcharge' is an additional charge or tax levied on an existing tax. It applies to those persons whose income is more than Rs. 50 lakhs
- Unlike a cess, which is meant to raise revenue for a temporary need, surcharge is usually permanent in nature
- Surcharge only applies to the tax due, not the whole income. This collection also goes to the Consolidated Fund of India and can be used for any purpose.
- Both a cess and a surcharge are levied by the central government. Both are collected and deposited in India's Consolidated Fund. None of these can be shared by state governments.

3) Insider trading: It is the malpractice of selling or buying securities (equity/bonds) by the insiders of a company using unpublished price-sensitive information (UPSI) that can affect the stock price that has not been disclosed yet.

- The SEBI defines an 'insider' as someone who has access to price-sensitive information about a particular company's shares or securities and who has been associated with the company during the 6 months preceding the insider trade.

4) Mycobacterium leprae: Leprosy, also known as Hansen's Disease is a chronic, progressive bacterial infection caused by Mycobacterium Leprae, which is an acid-fast rod-shaped bacillus. Infection can lead to damage to the nerves, respiratory tract, skin and eyes.

- Though not very contagious, leprosy is spread by extensive contact between people and is cured with multidrug therapy.
- India achieved the goal set by the National Health Policy, 2002 of elimination of leprosy as a public health problem, defined as less than 1 case per 10,000 population in 2005.
- Research appears to show a link between contact with armadillos and increased risk of Hansen's Disease in people. Armadillos are mammals with their back, head, legs and tail covered in bony plates.

5) Kudankulam Nuclear Power Plant: Recently, the Russian state-owned Nuclear Energy corporation Rosatom has offered a more Advanced Fuel Option to India's largest nuclear power station at Kudankulam, Tamil Nadu.

- It will allow its reactors to run for an extended two-year cycle without stopping to load fresh fuel.
- The TVS-2M FAs contain gadolinium-oxide which is mixed with U-235 enrichments.
- The core does not contain BARs (Burnable Absorbers Rods).
- (Kalpakkam) Madras Atomic Power Station is another nuclear power plant in Tamil Nadu.

28.11.22

1) Fujiwhara Effect: Meteorologists were mesmerized by Typhoon Hinnamnor as it provided a textbook example of a phenomenon known as the Fujiwhara Effect.

- it is any interaction between tropical storms formed around the same time in the same

ocean region with their centres or eyes at a distance of less than 1,400 km, with intensity that could vary between a depression and a super typhoon

- The interaction could lead to changes in the track and intensity of either or both storms systems. In rare cases, the two systems could merge to form a bigger storm.

2) Open Offer: An open offer is a secondary market offering, similar to a rights issue

- According to the SEBI (Substantial Acquisition of Shares and Takeovers) Rules, an open offer is an offer made by the acquirer to the shareholders of the target company inviting them to tender their shares in the target company at a particular price.
- The primary purpose of an open offer is to provide an exit option to the shareholders of the target company on account of the change in control or substantial acquisition of shares, occurring in the target company.
- An open offer is triggered if an acquirer holds more than 25 per cent of the public shareholding in the company.

3) Bluebugging: It is a form of hacking that lets attackers access a device through its discoverable Bluetooth connection. Bluebugging attacks work by exploiting Bluetooth-enabled devices.

- Once a device or phone is bluebugged, a hacker can listen to the calls, read and send messages and steal and modify contacts.

4) Gram-straining: it is a common technique used to differentiate two large groups of bacteria based on their different cell wall constituents. Gram-negative bacteria stain red when this process is used. Gram-positive bacteria stain blue.

- Gram-negative bacteria are enclosed in a protective capsule which prevents white blood cells (which fight infection) from ingesting the bacteria. Under the capsule, they have an outer membrane that protects them against certain antibiotics, such as penicillin.
- When disrupted, this membrane releases toxic substances called endotoxins. Endotoxins

contribute to the severity of symptoms during infections with gram-negative bacteria.

- Acinetobacter baumannii, a gram-negative bacteria known to cause infection in the blood, urinary tract and lungs

5) Black Corals: Antipatharians, also known as black corals or thorn corals, are an order of soft deep-water corals. Antipatharians are a cosmopolitan order, existing at nearly every location and depth, with the sole exception of brackish waters.

- However, they are most frequently found on continental slopes. It can be found growing both in shallow waters and down to depths of over 8,000 metres, and some individual corals can live for over 4,000 years.
- Black corals are filter feeders and eat tiny zooplankton that are abundant in deep waters.
- They are not listed in the IUCN Red List.

29.11.22

1) Red Planet Day: Red Planet Day commemorates the launch of the Mariner 4 spacecraft which is a robotic interplanetary probe, launched by NASA on November 28, 1964. It was the fourth of a series of spacecraft designed to fly past planets, and it became the first to fly past Mars.

- The gravitational pull of the Red Planet is roughly one-third that of Earth
- It's red because of rusty iron in the ground. It has two small moons, Phobos and Deimos.

2) SARAS 3 Telescope: SARAS is a niche high-risk high-gain experimental effort of RRI (Raman Research Institute). It was deployed over Dandiganahalli Lake and Sharavathi backwaters, located in Karnataka, in early 2020.

- SARAS aims to design, build and deploy in India a precision radio telescope to detect extremely faint radio wave signals from the depths of time, from our "Cosmic Dawn" when the first stars and galaxies formed in the early Universe.
- SARAS 3 had improved the understanding of astrophysics of Cosmic Dawn by telling astronomers that less than 3% of the gaseous matter within early galaxies was converted into

stars, and that the earliest galaxies that were bright in radio emission were also strong in X-rays, which heated the cosmic gas in and around the early galaxies.

3) National Judicial Appointments Commission (NJAC): The National Judicial Appointments Commission (NJAC) was a constitutional body proposed to replace the present Collegium system of appointing judges.

- It consists of six people: Chief Justice of India, Two most senior judges of the Supreme Court, Law Minister, Two 'eminent persons' nominated for a three-year term by a committee consisting of the Chief Justice, the Prime Minister, and the Leader of the Opposition in the Lok Sabha, and are not eligible for re-nomination.
- The NJAC was established by amending the Constitution [Constitution (Ninety-Ninth Amendment) Act, 2014] passed by the Lok Sabha on August 13, 2014 and by the Rajya Sabha on August 14, 2014. The Supreme Court rejected the National Judicial Appointments Commission (NJAC) Act and the 99th Constitutional Amendment.

4) Jeypore Ground Gecko: The proposal to include the gecko in Appendix II was made by India at the recently-concluded 19th Conference of Parties (COP19) to CITES in Panama City

- IUCN status: 'endangered'. This reptile is endemic to India.
- The wild reptile species is found in the Eastern Ghats and is known to be present in four locations including southern Odisha and northern Andhra Pradesh.

5) Dhamma Dipa International Buddhist University: In Tripura, DDIBU is expected to become the first Buddhist-run university in India to offer Buddhist education along with courses in other disciplines of modern education as well. It will be the first Buddhist University in India to be headed by Buddhist monastics and run and monitored by Buddhists.

- The word, Dhammadipa, describes both a core principle and a guiding force, which seeks the light of Dharma, its international scope and measure.

- Although the BahujanaHitaya Education Trust will run the proposed Buddhist university, the state government will have a “control” over it.

30.11.22

1) Wet Leasing of Aircraft: In efforts to boost international air traffic, the civil aviation ministry has allowed Indian airlines to take wide-body planes on wet lease for up to one year.

- it means renting the plane along with operating crew and engineers, while dry leasing refers to taking only the aircraft on rent.
- The technical term for wet leasing is ACMI which stands for aircraft, crew, maintenance and insurance. These are the aspects of the operation that the wet lease airline takes care of, while the airline client will still be responsible for paying for direct operating costs such catering and fuel.
- Wet lease isn't encouraged by DGCA as the crew is often not approved by Indian authorities.
- Also, it is generally a short-term arrangement, as it is more expensive than a dry lease.

2) Great Barrier Reef: A UN panel recommended that Australia's Great Barrier Reef be designated as a world heritage site “in danger”.

- It is the world's largest coral reef system, located in the Coral Sea, off the coast of Queensland, Australia, and this world's largest single structure built by living creatures is visible from space. It was designated a World Heritage Site in 1981.
- The reef is under threat from frequent bleaching events, including the first this year amid a La Nina phenomena, which normally brings colder temperatures.

3) Binturong: it is a medium-sized mammal, also known as a bearcat, of the Viverridae family, which includes civets, linsangs and genets. Its nine subspecies are the sole occupants of the genus Arctictis.

- Its range extends from rainforests of Nepal, India, Bhutan and Indonesian islands
- The animal uses its tail—which is almost as long as its body—like a fifth limb as it climbs through the forest. This tail is prehensile, which means it's capable of gripping things.
- The binturong is one of only two carnivores that has a prehensile tail. The other is kinkajou.
- They are classified as a vulnerable species by IUCN.

4) iNCOVACC: World's first Intranasal Vaccine, has recently received approval for Covid booster doses from Drugs Controller General of India (DCGI). Developed by Bharat Biotech

- The approval is under Restricted Use in Emergency Situation for ages 18 and above in India, for heterologous booster doses.
- iNCOVACC is a recombinant replication deficient adenovirus vectored vaccine with a pre-fusion stabilised SARS-CoV-2 spike protein. It is the world's first intranasal vaccine to receive both primary series and heterologous booster approval.

5) WHO will now call monkeypox – ‘mpox’: assigning names to new and existing diseases is the responsibility of the International Classification of Diseases (ICD) and the WHO Family of International Health Related Classifications through a consultative process which includes WHO Member States.

- It is a viral zoonotic disease and is identified as a pox-like disease among monkeys hence it is named Monkeypox. It is endemic to Nigeria.
- It is caused by monkeypox virus, a member of the Orthopoxvirus genus in the family Poxviridae. There is no specific treatment or vaccine available
- The most likely reservoir for the virus in the bush, are rodents and not monkeys.

PIB

PIB 1st Nov

1. CANSO(the Civil Air Navigation Services

Organisation): Goa is hosting the three day Civil Air Navigation Services Organisation (CANSO) Conference 2022. It is the global voice of the air traffic management (ATM) industry and is shaping our future skies. Its members support over 90% of the world's air traffic and include air navigation service providers, airspace users and operators, manufacturers and aviation industry suppliers. The organization looks on global Air Traffic Management performance by connecting the industry to share knowledge, expertise and innovation.

2.Airports Authority of India: Airports Authority of India (AAI) is responsible for the provision of Air Navigation Services over the Indian continental airspace and adjoining oceanic airspace, delegated to India by ICAO. AAI also functions as the major airport operator in India, responsible for management of 133 Airports which include 24 International Airports, 78 Domestic Airports, 10 Custom Airports and 21 Civil Enclaves. AAI's vision is to be World's leading Airport Developer, Operator and Air Navigation Service Provider with a mission to enhance air connectivity across the nation and be an environment conscious sustainable organization using the state of the art and indigenous technology for cost effective, modern, safe airport operations and air navigation services.

3. Integrated Teacher Education Programme: ITEP, is one of the major mandates of the National Education Policy 2020 related to Teacher Education. Admission for the same will be carried out by the National Testing Agency (NTA) through the National Common Entrance Test (NCET). National Council for Teacher Education (NCTE) under Ministry of Education has devised the curriculum for this course as per NEP 2020 in such a way that it enables a student-teacher to get a degree in education as well as a specialized discipline. The 4 Year ITEP will be available for all students who choose teaching as a profession after secondary, by choice. This integrated course will benefit students since they will save one year by finishing it in four years rather than the customary five years required by the present B.Ed. plan.

4.India-Australia Economic Cooperation and Trade Agreement ("IndAus ECTA"): Growing India-Australia economic and commercial relations contribute to the

stability and strength of a rapidly diversifying and deepening relationship between the two countries. The IndAus ECTA, encompassing trade in goods and services, is a balanced and equitable trade agreement, which will further cement the already deep, close and strategic relations between the two countries and will significantly enhance the bilateral trade in goods and services, create new employment opportunities, raise living standards and improve the general welfare of the peoples of the two countries.

5.Innovations for Defence Excellence (iDEX): It is the framework launched by the Government with the aim to foster innovation and technology development in Defence and Aerospace Sector by engaging Industries including MSMEs, startups, individual innovators, R&D institutes and academia. The objective of the scheme is to provide financial support to nearly 300 Startups/ MSMEs/individual innovators and about 20 Partner incubators through Defence Innovation Organisation (DIO).

PIB 2nd Nov

1. National Technical Textile Mission: Ministry of Textiles clears 20 Strategic Projects in the areas of Specialty Fibres, Agro-textile, Protech, Sportech and Geotech segment under the Flagship Programme National Technical Textiles Mission (NTTM). It was approved in 2020 by the Cabinet Committee on Economic Affairs (CCEA) with the aim to position the country as a global leader in technical textiles and increase the use of technical textiles in the domestic market. It aims at taking the domestic market size from USD 40 billion to USD 50 billion by 2024. A Mission Directorate is operational in the Ministry of Textiles. It will be implemented for four years starting from 2020-2021.

2.E-Bank Guarantee:To further improve efficiency and transparency of internal processes and take forward the adoption of digital technology, NHA has started accepting Electronic Bank Guarantees (E-BGs) and has also digitalized all its existing Bank Guarantees. NHA is utilizing the E-BG services of National e-Governance Services Limited (NeSL), which facilitates reduction in physical paper movement and elimination of physical storage needs Bank Guarantee (BG) is a commercial instrument used as a legal contract in which a bank acts as a guarantor and undertakes an obligation to pay the beneficiary a certain amount of money specified in the guarantee if the debtor from the original contract does

not fulfill his contractual obligations. The physical form of the BG presents challenges like time consuming verification process and possibility of frauds.

3. BHAVISHYA Portal: It is an online Pension Sanction and Payment Tracking System. It also captures personal information, service data and contact details like mobile number and email etc. The retiring employees will be kept informed of the progress of pension sanction process through SMS/E-mail. The Government will initiate efforts for universalization of the Integrated Pensioners' Portal as Bhavishya 9.0 version, with the aim of enhancing "Ease of Living" for the Central Government Pensioners by incorporating various stand-alone Portals of Pensions department and 17 Pension Disbursing Banks' portals so as to provide multiple services from a single window with a single login. State Bank of India is the first pension disbursing Bank to integrate its Pension Seva Portal with BHAVISHYA.

4. B-52 Bomber: B-52, also called Stratofortress, U.S. long-range heavy bomber, designed by the Boeing Company in 1948, first flown in 1952, and first delivered for military service in 1955. The United States is planning to deploy up to six nuclear-capable B-52 bombers to an air base in northern Australia, amid heightened tensions with China. B52 Bomber is designed and built by Boeing. The Boeing B-52 Stratofortress is an American long-range, subsonic, jet-powered strategic bomber. It has a 56-metre wingspan, it can carry nuclear and conventional weaponry and has a combat range of more than 14,000 kilometres. The B-52 Stratofortress fleet, which joined the US military during the Cold War and is anticipated to continue in service until 2050, is a critical component of the US defence strategy.

PIB 3rd Nov

1. CRISPR gene editing: The CRISPR gene-editing technology that received the Nobel Prize in 2020 has witnessed a new height. Indian scientists have demonstrated for the first time that the associated Cas9 enzyme, which acts as molecular scissors to cut DNA at a location specified by a guide RNA, can bind to and cut the target DNA at very low temperatures. CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) are short DNA sequences found in the genome of prokaryotic organisms such as bacteria, which are reminders of previous bacteriophage (viruses) attacks that the bacteria successfully defended against.

Cas9 enzyme (part of bacteria's defence mechanism) uses these flags to precisely target and cut any foreign DNA, thus protecting the bacteria from future attacks by similar bacteriophages.

2. Ganga Utsav-2022: NMCG, Ministry of Jal Shakti, will be taking Ganga Utsav- The River Festival 2022 to newer heights through active and inspirational participation of multiple stakeholders. One of the main objectives of Ganga Utsav 2022 is to celebrate our rivers and spread awareness on the significance of river rejuvenation across river basins in India. The aim is to hold similar events at more than 75 locations in states to celebrate the rivers of India. Various activities of Ganga Utsav will take place at central, state, and district levels on both physical and virtual platforms. Arth Ganga will be focus area as it aims to establish people-river connect.

3. Swachh Survekshan Grameen: Union Minister of Jal Shakti launched the toolkit for Swachh Survekshan Grameen (SSG) 2023 and the web portal for the 'Twinpit to Retrofit Abhiyan'.

An important initiative under Swachh Bharat Mission is the Swachh Survekshan Grameen (SSG). Department of Drinking Water and Sanitation has been conducting SSG since 2018 onwards to rank the States and Districts on the basis of their performance attained on key quantitative and qualitative Swachh Bharat Mission (Grameen) (SBM(G)) parameters and engaging rural community in improvement of their sanitation status through an intensive and holistic IEC campaign. SSG is not just a ranking exercise but also a vehicle for creating Jan Andolan and ensuring prompt action for achievement of SBM(G) 2.0 programme elements.

4. Urban Mobility India: Ministry of Housing and Urban Affairs in collaboration with Govt. of Kerala jointly organised 15th Urban Mobility India (UMI) Conference & Expo 2022 in Kochi.

As part of the National Urban Transport Policy 2006 (NUTP) enunciations, the Ministry has taken the initiative to organize annual international Conference-cum-Exhibition on Urban Mobility India popularly known as UMI.

The primary objective of the conference is to disseminate information to the cities, whose officials attend the conference to help them keep up-to-date with latest and best urban transport practices globally. The conference provides an opportunity to interact with other professionals, technology and service providers.

PIB 4th Nov

1. National Mission on Natural Farming Web Portal:

Agriculture launched a portal on National Mission on Natural Farming (NMNF) for the benefit of the farming community.

The NMNF portal was launched in the first steering committee meeting of the National Natural Farming Mission.

The portal contains all the information about the mission, implementation outline, resources, implementation progress, farmer registration, blog etc., which will be useful for the farmers. Also, this website will help in promoting natural farming in the country. Natural farming is being implemented in 1.48 lakh hectares on the banks of river Ganga in four states.

2. Naval Ship Aconit: French Navy Ship Aconit, one of the five La Fayette Class frigates of the French Navy was on a goodwill visit to Mumbai. The ship's crew had professional and social interactions with personnel of Indian Navy. The visit culminated with an exercise at sea with a warship of the IN's Western Fleet. The frigate had earlier visited Visakhapatnam in 2015.. With peace and stability in the region being of common interest, the two navies are committed to working together towards that goal.

3. Seminar on Illegal, Unreported and Unregulated fishing(IUU) :A Seminar on IUU Fishing, under the aegis of Indian Ocean Rim Association (IORA), was conducted by the Indian Navy at Goa.

As the third largest ocean, the Indian Ocean Region (IOR) is a lifeline for nearly 35% of global population. IUU fishing activities was accordingly identified as an area of greater collaboration by the IORA Working Group on Maritime Safety and Security (WGMSS), established in September 2018. The WGMSS is presently chaired by Sri Lanka, and is advancing the IORA Action Plan 2017-21, adopted by IORA Member States.

The Seminar was conducted by the Indian Navy on behalf of the Ministry of Defence, under the guidance of the Ministry of External Affairs and duly supported by the Department of Fisheries, functioning under the Ministry of Fisheries, Animal Husbandry & Dairying.

4. Performance Grading Index 2020-21:

The Department of School Education and Literacy, Ministry of Education released the Performance Grading Index (PGI) for States/UTs for 2020-21, a unique index for evidence based comprehensive analysis of school education system across State/UTs.

The Indian Education System is one of the largest in the world with about 14.9 lakh schools, 95 lakh teachers, and nearly 26.5 crore students from varied socio-economic backgrounds.

So far, DoSE&L has released PGI report for the year 2017-18, 2018-19 and 2019-20. The present report is for the year 2020-21. The PGI structure comprises of 1000 points into 2 categories viz., Outcomes, Governance Management (GM) and ranked from label 1-10.

No state, however, has been able to attain the highest level of L1 so far.

5. Joint Military Training(JMT) 2022:The 11th edition of the annual JMT between the Indian Air Force (IAF) and the Royal Singapore Air Force (RSAF) commenced at Air Force Station, Kalaikunda. The two Air Forces have resumed this training after a gap of two years.

The RSAF is participating in JMT-2022 with F-16 aircraft, while the IAF would field the Su-30 MKI, Jaguar, MiG-29 and LCA Tejas aircraft.

PIB 5th Nov

1. National Anti Doping Authority:National Anti-Doping Agency (NADA) was set up as a registered society under the Societies Registration Act of 1860 on 24th November, 2005 with a mandate for Dope free sports in India.

The primary objectives are to implement anti-doping rules as per WADA (World Anti-Doping Agency) code, regulate dope control programme, to promote education and research and creating awareness about doping and its ill effects. NADA encourages everyone to report potential anti-doping rule violations. Everything shared with NADA remains strictly confidential.

2. International Film Festivals of India: Founded in 1952, IFFI is one of the most significant film festivals in Asia. Held annually, in the tourist state of Goa.

The festival pursues these aims by providing a common platform for the cinemas of the world, enabling them to project the excellence of film art.

The festival is conducted by the government. It is held every year by the Ministry of Information and Broadcasting, in collaboration with the Entertainment Society of Goa, Government of Goa. Goa was declared the permanent venue for IFFI in 2014.

3. IIPDF Scheme (India Infrastructure Project Development Fund Scheme): As a Central Sector Scheme, IIPDF Scheme will aid development of quality PPP projects by providing necessary funding support to the project sponsoring authorities, both in the Central and State Governments, for creating a shelf of bankable viable PPP projects for achieving the vision of modern infrastructure for the country. Funding under IIPDF Scheme is in addition to the already operational Scheme for Financial Support to PPPs in Infrastructure (VGF Scheme).

The scheme is notified by the Department of Economic Affairs (DEA), Ministry of Finance, Government of India.

4. Atal Innovation Mission: Atal Innovation Mission (AIM) is the Government of India's flagship initiative to promote a culture of innovation and entrepreneurship in the country.

It was set up in 2016 under NITI Aayog.

AIM has taken a holistic approach to ensure the creation of a problem-solving innovative mindset in schools and creating an ecosystem of entrepreneurship in universities, research institutions, and private and MSME sectors. AIM is also currently having its programs reviewed by third-party agencies for ensuring continuous improvements.

Objectives of AIM:

1. to develop new programs and policies for fostering innovation in different sectors of the economy,
2. provide platform and collaboration opportunities for different stakeholders,
3. create awareness and create an umbrella structure to oversee the innovation ecosystem of the country.

5. Niveshak Didi camp: India Post Payments Banks (IPPB) conducted India's first floating literacy camp 'Niveshak Didi' in Srinagar's Dal Lake. IPPB, in collaboration with Investor Education and Protection Fund Authority (IEPFA) under the aegis of Ministry of Corporate Affairs (MCA), launched the initiative called 'Niveshak Didi' to promote Financial Literacy for furthering women empowerment. It is based on the ideology of "By the women, for the women" concept.

PIB 7th Nov

1. Lunar eclipse: Lunar Eclipse occurs on a full moon day when the earth comes in between the Sun and the Moon and when all the three objects are aligned. . A lunar eclipse can occur only when the Moon is full. A lunar eclipse usually lasts for a few hours. At least two partial lunar eclipses happen every year, but total lunar eclipses are rare. It is safe to look at a lunar eclipse.

A total lunar eclipse will occur when the whole moon comes under the umbral shadow of the Earth and the moon appears red and the partial lunar eclipse occurs when only when a part of the moon comes under shadow of the Earth.

2. Air Quality Early Warning System(AQEWS):The system has been developed by Indian Institute of Tropical Meteorology, Pune, under MoES. The AQEW system uses data of stubble burning incidents from the past 15 years to predict the date and place of the next burning.

It can also forecast the level of pollutants like particulate matter (PM) 2.5, PM10, and dust, other than stubble burning.

Presently the system monitors and forecasts two types of pollutants – PM2.5 and CO (Carbon Monoxide).

3. National Bioenergy Programme: The Ministry of New and Renewable Energy (MNRE), has continued the National Bioenergy Programme for the period from FY 2021-22 to 2025-26. The Programme has been recommended for implementation in two Phases.

The National Bioenergy Programme will comprise of the following sub-schemes:

- Waste to Energy Programme: Programme on Energy from Urban, Industrial and Agricultural Wastes /Residues to support setting up of large Biogas plant.

- Biomass Programme: Scheme to Support Manufacturing of Briquettes & Pellets and Promotion of Biomass (non-bagasse)
- Biogas Programme: to support setting up of family and medium size Biogas in rural areas.

4. National Geoscience Award: The Ministry of Mines invites nominations for the National Geoscience Awards-2022 for contributions in the field of fundamental/applied geosciences, mining, and allied areas. The awards, instituted in 1966 and given annually, are an initiative of the Ministry of Mines to encourage geoscientists for striving toward excellence.

NGA is the highest award in the field of earth sciences. The award is given for work done in the past 10 years.

5. Submersible Platform for Acoustic Characterization & Evaluation (SPACE) facility: DRDO launched Hull Module of Submersible Platform for Acoustic Characterization & Evaluation (SPACE) facility at Kochi. It is a state-of-the-art testing and evaluation facility for sonar systems developed for use by the Indian navy onboard various platforms, including ships, submarines and helicopters.

This will allow quick deployment and easy recovery of scientific packages such as sensors and transducers. The uniqueness of this facility lies in the specially designed submersible platform, which can be lowered up to depths of 100 meters using a series of synchronously operated winches.

PIB 8th Nov

1. Indian National Centre for Ocean Information Services (INCOIS): It is an autonomous organization under the Ministry of Earth Sciences (MoES).

It is located in Hyderabad & was established in 1999. It is a unit of the Earth System Science Organization (ESSO), New Delhi.

The ESSO operates as an executive arm of the Ministry of Earth Sciences (MoES) for its policies and programmes.

It is mandated to provide the best possible ocean information and advisory services to society, industry,

government agencies and the scientific community through sustained ocean observations and constant improvement through systematic and focused research.

2. Samudrayaan Mission: It is India's first unique manned ocean mission that aims to send men into the deep sea in a submersible vehicle for deep-ocean exploration and mining of rare minerals. Ministry of Earth Sciences is the Nodal Agency.

It will send three persons in a manned submersible vehicle MATSYA 6000 to a depth of 6000 metres into the sea for deep underwater studies.

Submarines go only about 200 metres.

It is a part of the Rs 6000-crores Deep Ocean Mission.

3. Shri Guru Nanak Dev: This year marked the 553rd birth anniversary of Guru Nanak Dev Ji. Guru Nanak Dev (1469-1539) was born in a village, Talwandi Rai Bhoi, near Lahore (it was renamed later as Nankana Sahib).

Guru Nanak Dev initiated inter-faith dialogue way back in the 16th century and had conversations with most of the religious denominations of his times. His written compositions were included in the Adi Granth compiled by Guru Arjan, the fifth Sikh guru. This came to be known as Guru Granth Sahib after the additions made by the 10th guru Guru Gobind Singh.

4. Mangrove Alliance for Climate (MAC): Mangrove Alliance for Climate (MAC) event was held on the sidelines of the ongoing COP 27 at Sharm El-Sheikh, Egypt.

MAC initiative brings the world together to advance the global cause of Mangroves.

Mangroves are one of the most productive ecosystems of the world. This tidal forest serves as a nursery ground for several organisms, protects the coastal erosion, sequestering the carbon and providing livelihood. Mangroves are distributed in the tropical and sub-tropical region of the world and are found in 123 countries.

Mangroves are among the most carbon-rich forests in the tropics. They account for 3% of carbon sequestered by the world's tropical forests.

5. National Institute of Ocean Technology (NIOT): It was established in 1993. NIOT is an autonomous society

under the Ministry of Earth Sciences, Government of India.

It is managed by a Governing Council and the Director is the head of the Institute.

Mandate: to develop reliable indigenous technologies to solve the various engineering problems associated with harvesting of non-living and living resources in the Indian Exclusive Economic Zone (EEZ), which is about two-thirds of the land area of India.

Headquarter: Chennai, Tamil Nadu.

PIB 9th Nov

1. Atal New India Challenge (ANIC): ANIC is a flagship program of Atal Innovation Mission, NITI Aayog.

The program aims to seek, select, support and nurture technology-based innovations that solve sectoral challenges of national importance and societal relevance. One of the primary goals of the ANIC program is to support innovations in areas critical to India's development and growth – Education, Health, Water and Sanitation, Agriculture, Food Processing, Housing, Energy, Mobility, Space Application etc.

2. SVAMITVA Scheme: SVAMITVA (Survey of Villages and Mapping with Improved Technology in Village Areas) was launched by Prime Minister on 24th April 2020 as a Central Sector Scheme to promote a socio-economically empowered and self-reliant rural India.

The Scheme has the potential to transform rural India using modern technical tools of mapping and surveying. It paves the way for using the property as a financial asset by villagers for availing loans and other financial benefits. The Scheme will cover around 6.62 Lakh villages of the entire country during 2021-2025.

3. Transport4All Challenge: The Transport4All Challenge is an initiative of the Ministry of Housing and Urban Affairs, Government of India, that aims at enhancing the mobility experience of citizens. The Challenge focuses on digital innovation and invites cities, citizens, and innovators to join hands to develop contextual digital solutions to improve formal as well as informal public transport to better serve the mobility needs of all.

The Transport4All through Digital Innovation Challenge comprises three stages:

- Stage I PROBLEM IDENTIFICATION

- Stage II SOLUTION GENERATION

- Stage III PILOT TESTING

4. Citizen Perception Survey 2022: As part of the Ease of Living Index, a Citizen Perception Survey is being conducted (which carries 30% of the marks under the Ease of Living Index). This is a very important component of the assessment exercise as it will help in directly capturing of citizen feedback with respect to their city liveability. These views would highlight how citizens feel about different aspects of their cities including public transport, education facilities, healthcare services, water availability, cost of living, employment opportunities, among others.

The Citizen Perception Survey was first conducted in 2020. This year, the Survey will be carried out across 264 cities with an aim to capture and reflect opinions of from more than 21 lakh citizens across the length and breadth of the country.

5. Sovereign Green Bonds Framework: Union Minister for Finance & Corporate Affairs Smt. Nirmala Sitharaman approves the final Sovereign Green Bonds framework of India. This approval will further strengthen India's commitment towards its Nationally Determined Contribution (NDCs) targets, adopted under the Paris Agreement, and help in attracting global and domestic investments in eligible green projects. The Framework comes close on the footsteps of India's commitments under "Panchamrit" as elucidated at COP26 at Glasgow in November, 2021.

PIB 10th Nov

1. DigiLocker: DigiLocker is a flagship initiative of MeitY under 'Digital India' programme.

This is government's effort to create an electronic version of documents, which can be easily verified and stored in printable format.

The users can store their documents such as insurance, medical reports, PAN card, passport, marriage certificate, school certificate and other documents in the digital format.

Apart from e-documents, DigiLocker can store a Uniform Resource Identifier (URI) link of e-documents issued by various issuer departments.

2. Veerangana Sewa Kendra:The Indian Army launched a single window facility named the “Veerangana Sewa Kendra” (VSK) for welfare and grievances redressal of veer naris. The project was inaugurated by President Army Wives Welfare Association (AWWA).Veerangana Sewa Kendra (VSK) will be available as a service to the Indian Army Veterans. The system caters for registering grievances with tracking, monitoring and regular feedback to the applicants.Stakeholders can monitor the status of grievances through a Customer Relationship Management (CRM) software and the applicant will receive regular status updates through SMS and email.The VSK is one of its kind initiative by the Indian Army towards extending genuine care and support to its widows and veer naris.

3. The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC):

BIMSTEC is an international organization involving a group of countries in South Asia and South East Asia.

Membership: It comprises seven countries lying in the littoral and adjacent areas of the Bay of Bengal — Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand.

Its primary objective is to improve connectivity between the members through multi-modal transport corridors.

In general, there are ‘14 priority sectors’ which cover almost all areas of cooperation such as energy, handling of refugees, anti-narcotic measures.

4. India-Belarus Inter-Governmental commission:The 11th Session of the India-Belarus Inter-Governmental Commission on Trade, Economic, Scientific, Technological and Cultural Cooperation was held.India and Belarus reiterated their strong desire to further broaden their cooperation with emphasis on key sectors such as pharmaceuticals, financial services, science and technology, heavy industries, culture, tourism, and education.

The two sides agreed to promote cooperation among various states in India and regions in Belarus, especially in focus areas. India and Belarus are strategic partners since 1991.

5. National Fisheries Development Board: NFDB Hyderabad was one of the organisation to be awarded with “India Agribusiness Awards 2022” for the best Agribusiness Award under Fisheries Sector. NFDB was established in 2006 as an autonomous organization

under the administrative control of the Department of Fisheries, Ministry of Fisheries, Animal Husbandry & Dairying, Government of India to enhance fish production and productivity in the country and to coordinate fishery development in an integrated and holistic manner.

PIB 11th Nov

1. Shri Nadaprabhu Kempe Gowda:PM unveils 108-foot-long bronze statue of Sri Nadaprabhu Kempegowda in Bengaluru. He was an Indian ruler under the Vijayanagara Empire. The city of Bengaluru, capital of Karnataka, was founded by Kempe Gowda in 1537. He is also noted for his societal reforms and contribution to building temples and water reservoirs in Bengaluru.He was a patron of art and learning. He is a political icon for the dominant agricultural Vokkaliga community in south Karnataka. Bengaluru’s airport is known as the Kempegowda International Airport.

2. Food Safety and Standards Authority of India (FSSAI):

FSSAI is an autonomous statutory body established under the Food Safety and Standards Act, 2006 (FSS Act). Ministry of Health & Family Welfare is the administrative Ministry of FSSAI.It is headquartered in Delhi. Functions of FSSAI: ● Framing of regulations to lay down the standards and guidelines of food safety. ● Granting FSSAI food safety license and certification for food businesses. ● Laying down procedure and guidelines for laboratories in food businesses. ● To provide suggestions to the government in framing the policies. ● To collect data regarding contaminants in food products etc.

3. 16th Asian Conference on Diarrhoeal Disease and Nutrition (ASCODD):

Union Minister of State for Health & Family Welfare addressed the 16th Asian Conference on Diarrhoeal Disease and Nutrition (ASCODD). Delegates from India and other South East Asian countries, African countries, US, European countries joined the conference virtually. The theme of the ASCODD was “Prevention and control of cholera, typhoid and other enteric diseases in low and middleincome countries through community participation: beyond the SARS-CoV-2 pandemic”.The conference program focuses on the latest issues in enteric infections, nutrition, policy, and Practice including roadmap to end Cholera by 2030.

4. The Agricultural and Processed Food Products

Export Development Authority (APEDA):It was established by the Government of India under the

Agricultural and Processed Food Products Export Development Authority Act, 1985. It functions under the Ministry of Commerce and Industry. The Authority has its headquarters in New Delhi. In 2020, APEDA has signed an Memorandum of Understanding (MoU) with Small Farmers Agribusiness Consortium (SFAC) to bring in better synergy in agricultural activities. APEDA has been entrusted with the responsibility to monitor import of sugar.

5. National Intellectual Property Awareness Mission

(NIPAM): The pan-India mission aims to provide awareness on intellectual property and its rights to 1 million students. It aims to inculcate the spirit of creativity and innovation to students of higher education (classes 8 to 12) and ignite and inspire the students of college/Universities to innovate and protect their creations. The program is being implemented by the Intellectual Property Office, the Office of Controller General of Patents, Designs and Trade Marks (CGPDTM), Ministry of Commerce and Industry

PIB 12th Nov

1. Indian Renewable Energy Development

Agency (IREDA): IREDA is a Public Limited Government Company established as a Non-Banking Financial Institution in 1987. IREDA's corporate and registered office housed in New Delhi. The Agency, a Mini Ratna (Category- I) Government of India Enterprise is under the administrative control of Ministry of New and Renewable Energy (MNRE). It is engaged in promoting, developing and extending financial assistance for setting up projects relating to new and renewable sources of energy and energy efficiency/conservation with the motto: "ENERGY FOR EVER".

2. 3rd Ministerial Conference on Countering Financing of Terrorism:

Ministry of Home Affairs, is organising the 3rd Ministerial 'No Money for Terror' Conference in New Delhi. The hosting of this conference shows the importance being given by the Modi Government to the issue of international terrorism as well as its zero tolerance policy against this menace and having discussions on this issue in the international community. It also intends to include discussions on technical, legal, regulatory and cooperation aspects of all facets of terrorism financing.

3. Paper Import Monitoring System (PIMS): The Directorate General of Foreign Trade (DGFT), has introduced Paper Import Monitoring System (PIMS) by amending the import policy of major paper products

from 'Free' to 'Free subject to compulsory registration under PIMS'. The PIMS shall be applicable on import by a Domestic Territory Area unit on a wide range of paper products such as newsprint, handmade paper, coated paper, uncoated paper, tissue paper, toilet paper, cartons, etc. However, paper products like currency paper, bank bond and Cheque paper, security printing paper, etc. have been excluded from mandatory registration. PIMS shall also be required at the point of import by a Unit in Special Economic Zone.

4. The International Rice Research Institute (IRRI): It is an international agricultural research and training organization known for its work in developing rice varieties that contributed to the Green Revolution in the 1960s. Aim: The Institute, established in 1960 aims to reduce poverty and hunger, improve the health of rice farmers and consumers, and ensure environmental sustainability of rice farming. IRRI has successfully collaborated with Indian Council for Agricultural Research (ICAR) to introduce drought- tolerant, flood-tolerant and salt-tolerant varieties of rice in India.

5. Pradhan Mantri Fasal Bima Yojana: It replaced National Agricultural Insurance Scheme (NAIS) and Modified National Agricultural Insurance Scheme (MNAIS). It was launched in 2016. Coverage: All food & oilseed crops and annual commercial/horticultural crops for which past yield data is available. Premium: The prescribed premium is 2% to be paid by farmers for all Kharif crops and 1.5% for all rabi crops. In the case of annual commercial and horticultural crops, the premium is 5%. Objectives: To provide insurance coverage and financial support to the farmers in the event of failure. To stabilise the income of farmers. To adopt innovative and modern agricultural practices.

PIB 14th Nov

1. Exercise Sea Vigil-22: The third edition of the 'Pan-India' Coastal Defence Exercise 'Sea Vigil-22' commences. This National Level Coastal Defence Exercise was conceptualised in 2018.

The exercise will be undertaken along the entire 7516 km coastline and Exclusive Economic Zone of India and will involve all the Coastal States and Union territories along with fishing and coastal communities. The exercise is being conducted by the Indian Navy in coordination with the Coast Guard and other ministries entrusted with the task of maritime activities.

The exercise is a build up towards the major Theatre Level Readiness Operational Exercise (TROPEX), which the Indian Navy conducts every two years. Sea Vigil and TROPEX together will cover the entire spectrum Maritime Security challenges.

2. In Our LiFetime” Campaign: National Museum of Natural History (NMNH), under the Ministry of Environment Forest and Climate Change and United Nations Development Programme (UNDP), jointly launched “In Our LiFetime” campaign to encourage youth between the ages of 18 to 23 years to become message bearers of sustainable lifestyles. This campaign envisions to recognize youth from around the world taking climate action initiatives that resonate with the concept of LiFE. This was launched in a side event at the India Pavilion at COP 27, Sharm El-Sheikh.

3. Indo-Finland Bilateral Cooperation: India and Finland agreed to carry mutual cooperation between the two countries to a new level in a number of areas of bilateral as well as global interests. Two nations decided to enhance cooperation in areas such as Digital Partnership in Future ICT, Future Mobile Technologies and Digital Education. India is keen to develop research collaborations with Finnish R&D institutions and technology collaboration with Finnish Industry especially focusing on the application of Quantum Computing.

Both sides are working out detailed plan for establishment of the Indo-Finnish Virtual Network Centre on Quantum Computing.

4. UTSONMOBILE App: The Ministry of Railways has officially rolled out All-India Unreserved Mobile Ticketing facility (UTS on Mobile) with a view to promote three C’s- Cashless transactions, Contact less ticketing and Customer convenience and experience. Now, the facility of booking unreserved tickets, including season tickets and also platform tickets is available through the ‘UTSONMOBILE’ app. The ‘UTS on Mobile’ application ‘in house’ has been developed by Centre for Railway Information Systems (CRIS).

5. Mangrove Alliance For Climate: During the COP27 climate summit in Sharm El Sheikh, Egypt, the UAE and Indonesia announced the "Mangrove Alliance for Climate." It includes UAE, Indonesia, India, Sri Lanka, Australia, Japan, and Spain. It seeks to educate and spread awareness worldwide on the role of mangroves in curbing global warming and its potential as a solution for climate change. However, the intergovernmental

alliance works on a voluntary basis which means that there are no real checks and balances to hold members accountable. Instead, the parties will decide their own commitments and deadlines regarding planting and restoring mangroves.

PIB 15th Nov

1. Janjatiya Gaurav Divas: November 15 is celebrated to recognize the efforts of the tribals in the preservation of cultural heritage and promotion of Indian values of national pride, valour, and hospitality.

They held several tribal movements across different regions of India against the British colonial rule.

15th November also marks the birth anniversary of Birsa Munda who is revered as God by tribal communities across India. The Bhagwan Birsa Munda Tribal Freedom Fighter Museum has been built in association with the State Government of Jharkhand at the Old Central Jail location in Ranchi, where the legendary Birsa Munda had sacrificed his life.

2. India International Trade Fair: It is organised by India Trade Promotion Organisation (ITPO) which is a nodal agency under aegis of Ministry of Commerce and Industry for promoting country’s external trade. It is Mini-Ratna Category-1 Central Public Sector Enterprise (CPSE) with 100% shareholding of Government.

The fair is aimed providing platform for all kind of businesses to showcase their excellence & wide spectrum of services to trade, industry & common men.

In this fair, exhibition of various types of products such as automobile, jute products, garments, household utensils, processed foods, beauty products, electronic products etc. are being organized.

3. LeadIT Summit: India and Sweden hosted the LeadIT Summit 2022 on the side-lines of COP27. The Leadership Group for Industry Transition (LeadIT) gathers countries and companies that are committed to action to achieve the Paris Agreement. It was launched by the governments of Sweden and India at the UN Climate Action Summit in September 2019 and is supported by the World Economic Forum. LeadIT members subscribe to the notion that energy-intensive industry can and must progress on low-carbon pathways, aiming to achieve net-zero carbon emissions.

4. Exercise YUDH ABHYAS 22: The 18th edition of Indo-US joint training exercise “YUDH ABHYAS 22” is scheduled to be conducted in Uttarakhand this month. Exercise Yudh Abhyas is conducted annually between India and USA with the aim of exchanging best practices, Tactics, Techniques and Procedures between the Armies of the two nations. The previous edition of the exercise was conducted at Joint Base Elmendorf Richardson, Alaska (USA) in October 2021.

The joint exercise will also focus on Humanitarian Assistance and Disaster Relief (HADR) operations.

5. Green Mobility Initiative by IAF: In order to achieve reduction in carbon foot print and in keeping with the Gol's initiative on introduction of green mobility, IAF has inducted a fleet of Tata Nexon Electric Vehicles. Indian Air Force is planning to enhance the usage of electric vehicles in a progressive manner.

To create a standardised inventory of vehicles, IAF has already joined hands with Indian Army in the ongoing procurement of Electric Buses and Electric Cars. These proactive measures reaffirms IAF's commitment to the National objective of transformation towards environment friendly mobility.

PIB 16th Nov

1. International Financial Services Centres Authority (IFSCA): The IFSCA and the Reserve Bank of India (RBI) have entered into a Memorandum of Understanding (MoU) for collaboration in the field of regulation and supervision of regulated entities in their respective jurisdictions.

The authority regulate financial products such as securities, deposits or contracts of insurance, financial services, and financial institutions which have been previously approved by any appropriate regulator such as RBI and SEBI etc.

It will also regulate any other financial institutions, which may be notified by the central government. The IFSCA will consist of nine members, appointed by the central government.

2. Target Olympic Podium (TOP) Scheme: It was formulated in 2014 under overall ambit of National Sports Development Fund (NSDF) with the aim to identify, groom and prepare potential medal prospects for the Olympic and Paralympic Games. It is under the ambit of Ministry of Youth Affairs and Sports.

It includes foreign training, international competition, equipment, and coaching camp besides a monthly stipend of Rs. 50,000/- for each athlete.

It was particularly launched for India's Olympic medal dream, at the 2016 (Rio) and 2020 (Tokyo) Olympics.

3. Digital Shakti 4.0: The National Commission for Women (NCW) launched the fourth phase of Digital Shakti Campaign, a pan-India project on digitally empowering and skilling women and girls in the cyberspace. In line with its commitment to create safe spaces for women and girls online, Digital Shakti 4.0 is focused on making women digitally skilled and aware to stand up against any illegal/inappropriate activity online. NCW launched it in collaboration with CyberPeace Foundation and Meta.

Digital Shakti started in June 2018 to help women across the nation to raise the awareness level on the digital front.

4. Bharat Gaurav Scheme: Launched in November 2021, under the scheme, trains now have a third segment for tourism. Till now, the Railways had passenger segments and goods segments.

These trains are not regular trains that will run as per a timetable. The train will cover several historical destinations on the route while giving the passengers

It was announced under the theme-based tourist circuit trains. These trains will be run by both private players and IRCTC, in theme-based circuits.

5. Vikram-suborbital (VKS) rocket: ISRO is all set to make history when it launches first-ever private Rocket, setting a new milestone in the 75 years journey of independent India. Entity/ StartUp, Skyroot Aerospace Pvt Ltd (SAPL) has developed the VKS rocket, which is a single stage spin stabilised solid propellant rocket with mass of approx. 550 kilograms. The rocket goes to the max altitude of 101 kilometres and splashes into the sea and the overall duration of launch is 300 seconds only.

Skyroot was the first StartUp to sign a MoU with ISRO for launching its rockets. It will also be the maiden mission of Skyroot Aerospace, named “Prarambh”. It will carry a total of three payloads in space, including one from the foreign customers.

PIB 17th Nov

1. No Money For Terror Conference: Ministry of Home Affairs, Government of India is organising the 3rd Ministerial 'No Money for Terror' Conference in New Delhi. It aims to progress the discussions on combating terrorist financing held by the international community in the previous two Conferences in Paris (2018) and Melbourne (2019).

Focused Areas: Global trends in terrorism and terrorist financing, use of formal and informal channels of funds for terrorism, emerging technologies and terrorist financing and requisite international co-operation to address related challenges.

2. National Infrastructure and Investment Fund (NIIF): NIIF is India's first-ever sovereign wealth fund (SWF) that was set up by the Indian Government in the year 2015.

NIIF funds were found to primarily invest in the infra-related projects across the country by building the capital from both domestic and international investors.

It has been incorporated as a company under the Companies Act, 2013 and is acting as the investment manager to Alternative Investment Funds.

3. 8th India- Norway Maritime Meeting: The maritime trade with Norway is dating back since 1600. India-Norway Joint Working Group on Maritime meetings are being held on a regular basis. The 7th JWG on Maritime was held in Oslo in November, 2019. During the 7th Meeting issues regarding cooperation in Shipbuilding, enhancing skills of seafarers and environment friendly ships were discussed.

In 8th JWG Maritime Meeting held recently discussion was held on use of alternative fuels like green ammonia and hydrogen for futuristic shipping. Norwegian Green Shipping Programme has been successful and the experience and expertise was shared in the meeting.

4. Indian Chemicals Council: 4th edition of Indian Chemicals Council (ICC) Sustainability Conclave was held.

The two-day event promotes sustainability in the management of the entire life cycle of chemicals. It is being organized jointly with United Nations Environment Program (UNEP) and International Council of Chemical Associations (ICCA) with due support of Ministry of Chemicals and Fertilizers and Ministry of Environment, Forest & Climate Change.

5. Financial Action Task Force: FATF is an inter-governmental body established in 1989 during the G7 Summit in Paris. The objectives of the FATF are to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system. It is headquartered in Paris. It consists of thirty-seven member jurisdictions.

India is one of the members.

FATF has two lists:

- Grey List: Countries that are considered safe haven for supporting terror funding and money laundering are put in the FATF grey list.
- Black List: Countries known as Non-Cooperative Countries or Territories (NCCTs) are put in the blacklist. These countries support terror funding and money laundering activities.

PIB 18th Nov

1. New Space India Limited: NSIL is a Central Public Sector Enterprise of the Government of India. It was established in 2019 under the administrative control of the Department of Space. Headquarter: Bengaluru NSIL is the commercial arm of ISRO with the primary responsibility of enabling Indian industries to take up high technology space related activities and is also responsible for promotion and commercial exploitation of the products and services emanating from the space industry.

2. Sangeet Natak Akademi: It is India's national academy for music, dance and drama. It was created by a resolution of the (then) Ministry of Education in 1952 with Dr P.V. Rajamannar as its first Chairman. It is presently an Autonomous Body of the Ministry of Culture and is fully funded by the Government for implementation of its schemes and programmes. The Akademi establishes and looks after institutions and projects of national importance in the field of the performing arts.

3. The Digital Personal Data Protection Bill 2022: Ministry of Electronics and Information Technology has formulated the draft bill. The purpose of the draft Bill is to provide for the processing of digital personal data in a manner that recognises the rights and duties of the citizen (Digital Nagrik) on one hand and the obligations

to use collected data lawfully of the Data Fiduciary on the other hand. The Bill will establish the comprehensive legal framework governing digital personal data protection in India.

4. Leadership in Family Planning (EXCELL) Awards-2022:

In a significant development and recognition to the country's efforts in improving access to modern family planning methods, India is the only country to have received the Leadership in Family Planning (EXCELL) Awards 2022 in the 'country category' at the International Conference on Family Planning held in Pattaya city, Thailand. India has made outstanding progress not only in improving access but also adoption of modern contraceptive methods enabling couples to make informed choices about family planning. These are reflected in the National Family Health Survey (NFHS) – 5 data.

5. National Education Society for Tribal Students (NESTS):

A MoU has been signed between NESTS, an autonomous organization established under Ministry of Tribal Affairs and 1M1B Foundation (1 Million For 1 Billion is a USA based Not for Profit Company accredited to United Nations Organization). NESTS in partnership with the implementing agency, 1M1B aims to engage students of EMRSs in nation-building by enabling teachers and students to understand the world of possibilities offered by emerging technologies and become creators using Augmented reality (AR) and Virtual Reality (VR) to build India's Metaverse.

PIB 19th Nov

1. Kameng Hydro Power Project: Prime Minister Shri Narendra Modi dedicated the 600 MW Kameng Hydro Power Station to the nation today, the biggest Hydro Power Project implemented by NEEPCO Ltd., a Mini Ratna Power PSU under Ministry of Power. Commissioning of the sixth hydro power plant in the North East will be a major step towards fulfilling Nationally Determined Contribution (NDC) of India pledged under Paris Agreement 2015. The project will form part of projected hydro capacity addition of 30000 MW by 2030. The project will make Arunachal Pradesh a power surplus state with huge benefits to the National Grid in terms of grid stability and integration.

2. Swachh Vidyalaya Puraskar: The Department of School Education and Literacy launched Swachh Vidyalaya Puraskar in 2016-17 to ensure long term sustainability and behavioural change. The Puraskar honours the schools who have taken exemplary work in

the field of water, sanitation and hygiene. Under this Award, schools are rated on six broad parameters of (a) Water (b) Toilets (c) Handwashing with Soap (d) Operation and Maintenance (e) Behaviour Change and Capacity building and (f) COVID-19 (Preparedness and Response). The Puraskar is given at District, State and National level.

3. Rani Laxmi Bai: She was born on 19th November 1828 in Varanasi, Uttar Pradesh. Lakshmibai's childhood name was 'Manikarnika' and was affectionately addressed as 'Manu'. Rani Lakshmibai was one of the brave warriors of India's struggle for Independence. In 1853, when the Maharaja of Jhansi died, Lord Dalhousie refused to acknowledge the child and applied the Doctrine of Lapse, and annexed the state. Rani Lakshmibai fought bravely against the British so as to save her empire from annexation. She died fighting on the battlefield on 17th June 1858. When the Indian National Army started its first female unit (in 1943), it was named after the valiant queen of Jhansi.

4. Donyi Polo Airport: The Prime Minister, Shri Narendra Modi inaugurated Donyi Polo Airport in Arunachal Pradesh. Donyi Polo Airport will be the fourth operational airport for Arunachal Pradesh, taking the total airport count in the North-East region to 16. The number of flights connecting Northeast India has doubled. Be it tourism or trade, telecom or textiles or port and airport connectivity, North East gets top priority.

5. Kashi-Tamil Sangamam: The month-long Kashi Tamil Sangamam, which begins in Varanasi, will celebrate the many aspects of the historical and civilisational connection between India's North and South. The broader objective is to bring the two knowledge and cultural traditions closer, create an understanding of our shared heritage and deepen the people-to-people bond between the regions. It also connects the traders dealing in silk saris and textiles from Banaras and Kanchipuram, and architectural, culinary, and other kinds of connections. It has been organised under the overall framework and spirit of "Ek Bharat, Shreshtha Bharat." The idea is to create a bridge between ancient India and the current generation.

PIB 20th Nov

PIB 21st Nov

1. 75 Creative Minds of Tomorrow: The initiative is the brainchild of Union Minister for Information and Broadcasting and Youth Affairs and Sports.

The initiative aims to identify, encourage and nurture young creative talent in filmmaking, from the entire length and breadth of the country.

The segment is an annual platform at the International Film Festival of India held in Goa.

The initiative is in its second year, having been launched in 2021.

2. Global Partnership on Artificial Intelligence (GPAI): India today assumed the Chair of the GPAI, an international initiative to support responsible and human-centric development and use of Artificial Intelligence (AI).

GPAI is a congregation of 25 member countries, including the US, the UK, EU, Australia, Canada, France, Germany, Italy, Japan, Mexico, New Zealand, Republic of Korea, and Singapore. India had in 2020 joined the group as a founding member. It is a first-of-its-type initiative for evolving better understanding of challenges and opportunities around AI. It works in collaboration with partners and international organisations, leading experts from industry, civil society, governments, and academia to collaborate to promote responsible evolution of AI and guide the responsible development and use of AI, grounded in human rights, inclusion, diversity, innovation, and economic growth.

3. Confederation of Indian Industries: CII is a non-government, not-for-profit, industry-led and industry-managed organization.

It works to create and sustain an environment conducive to the development of India, partnering industry, Government and civil society, through advisory and consultative processes.

Founded in 1895, it is headquartered in New Delhi.

4. 25th National Conference on e-Governance (NCeG): The Department of Administrative Reforms & Public Grievances (DARPG) and Ministry of Electronics & Information Technology (MeitY), Government of India, in association with the State Government of Jammu & Kashmir will organize the 25th National Conference on e-Governance (NCeG) in Katra, Jammu & Kashmir.

The theme of this Conference is “Bringing Citizens, Industry and Government closer”.

The National Awards for e-Governance (NAeG) will be presented under 5 categories of the NAeG Scheme - 2022 to 18 e-Governance initiatives at Central, State and District levels, Academic & Research Institutions and Public Sector Undertaking. This includes 9 Gold and 9 Silver Awards.

5. World Fisheries Day: It is celebrated on 21st November every year to demonstrate solidarity with all fisher folk, fish farmers and concerned stakeholders throughout the world. It started in 1997 where “World Forum of Fish Harvesters & Fish Workers” met at New Delhi leading to formation of “World Fisheries Forum” with representatives from 18 countries and signed a declaration advocating for a global mandate of sustainable fishing practices and policies.

The event aims to draw attention to overfishing, habitat destruction and other serious threats to the sustainability of our marine and freshwater resources.

PIB 22nd Nov

1. Climate Change Performance Index (CCPI): India has been ranked amongst top 5 countries in the world, and the best among the G20 countries, based on its performance. India jumps 2 spots higher, and is now ranked 8th as per CCPI, 2023 published by German Watch, New Climate Institute and Climate Action Network International based in Germany.

The latest report of CCPI, released at COP 27 shows Denmark, Sweden, Chile and Morocco as the only four small countries that were ranked above India. The first, second and third ranks were not awarded to any country. In effect therefore, India’s rank is the best amongst all large economies.

Published annually since 2005, the Index is an independent monitoring tool for tracking the climate protection performance of 59 countries and the EU.

2. Indo-Pacific Regional Dialogue: The IPRD is an apex level international annual conference of Indian Navy, and is principal manifestation of Navy’s engagement at the strategic-level. The National Maritime Foundation (NMF) is Navy’s knowledge partner and chief organizer of each edition of the event. The IPRD seeks to foster exchange of ideas and promote deliberations on regionally relevant maritime issues.

It is comprehensive and inclusive construct for regional cooperation that is focused on seven interconnected spokes or pillars: Maritime Security, Maritime Ecology, Maritime Resources, Disaster Risk-reduction and Management, Trade-Connectivity and Maritime Transport, Capacity-building and Resource sharing, and Science, Technology and Academic Cooperation.

3. India-Australia Economic Cooperation and Trade

Agreement (Ind-Aus ECTA): Duties on 100 percent tariff lines to be eliminated by Australia under the landmark India-Australia Economic Cooperation and Trade Agreement. The Agreement would also open new opportunities for the service sector in India and would immensely benefit students by offering them an opportunity to work in Australia.

IndAus ECTA which was signed on 2 April 2022, is now ready for ratification for its early implementation. Australia is an important strategic partner of India and both the democracies are part of the four nation QUAD, Trilateral Supply Chain Initiative and the Indo-Pacific Economic Forum (IPEF).

4. Supernova: These are highly energetic explosions in the Universe releasing an enormous amount of energy. Long-term monitoring of these explosions helps us understand the nature of the exploding star as well as the explosion properties. It can also help calculate the number of massive stars. It is the explosion of a star. It is the largest explosion that takes place in space. Supernovas are often seen in other galaxies but are rare in our own Milky Way galaxy because dust blocks our view.

5. Rozgar Melas: As part of the Prime Minister's commitment to accord highest priority towards employment generation, 2nd edition of Rozgar Melas were organized at 45 locations across the country. The central government has set a target of providing 10 lakh jobs in government services, under which job fairs are being organized at the national level under the leadership of Prime Minister Narendra Modi. The State Governments are also being encouraged to do the work of filling up the vacant posts.

PIB 23rd Nov

1. Mission Amrit Sarovar: It was launched on 24th April, 2022 with the resolve to build 75 Amrit Sarovars in every district of the country during the 75th year of independence as a part of Azadi ka Amrit Mahotsav, to overcome the water crisis in rural areas of the country.

Mission Amrit Sarovar is a mission based on a 'Whole of Government' approach, in which The Ministry of Rural Development along with the Ministry of Jal Shakti, Ministry of Panchayati Raj and Ministry of Environment, Forest and Climate Change, Government of India are working together with technical collaboration of Bhaskaracharya National Institute of Space Applications and Geo-Informatics (BISAG-N).

2. Jal Jeevan Survekshan 2023: This is started by the Department of Drinking Water and Sanitation as part of Jal Jeevan Mission (JJM), to encourage healthy competition among States/ UTs. The purpose of Jal Jeevan Survekshan 2023, is to incentivize States/ Districts functionaries to strive for better performances and improved water service delivery in rural areas. The districts are categorized under five heads based on the proportion of household with functional tap connection. The category for household coverage is Aspirants - 0 to less than 25%, Performers - 25 to less than 50%, Achievers - 50 to less than 75%, High Achievers - 75 to less than 100%, then Front Runners - 100%.

The States/ UTs will be felicitated monthly, quarterly and annually based on their performance.

3. Antimicrobial Resistance: AMR is the resistance acquired by any microorganism (bacteria, viruses, fungi, parasite, etc.) against antimicrobial drugs that are used to treat infections. It occurs when a microorganism changes over time and no longer responds to medicines making infections harder to treat and increasing the risk of disease spread, severe illness and death.

The World Health Organisation (WHO) has identified AMR as one of the top ten threats to global health.

Microorganisms that develop antimicrobial resistance are sometimes referred to as "superbugs".

4. Agni-III Missile: India carried out a successful training launch of an Intermediate Range Ballistic Missile, Agni-3 from APJ Abdul Kalam Island, Odisha. It is an Indian intermediate-range ballistic missile inducted into service in 2011 as the successor of the Agni-II. It has a range of 3,000 to 5,000 kilometres and can reach targets deep inside neighbouring countries including China.

Agni missiles are long range, nuclear weapons capable surface to surface ballistic missile.

5. MAARG portal(Mentorship, Advisory, Assistance, Resilience and Growth):It is a one stop platform to facilitate mentorship for startups across diverse sectors, functions, stages, geographies, and backgrounds. It is the National Mentorship Platform by Startup India. The objectives of the MAARG portal are –

- To provide sector focused guidance, handholding, and support to startups throughout their lifecycle
- To establish a formalized and structured platform that facilitates intelligent matchmaking between the mentors and their respective mentees
- To facilitate efficient and expert mentorship for startups and build an outcome-oriented mechanism

PIB 24th Nov

1. Bharatmala Pariyojana: The project is an umbrella program for the highways sector envisaged by the Ministry of Road Transport and Highways.

Under Phase-I of Bharatmala Pariyojana, implementation of 34,800 km of national highways in 5 years (from 2017 to 2022) has been approved.

Phase-II envisages around 48,000 km of road network across India by 2024. The objective is to optimise the efficiency of freight and passenger movement across the country by bridging critical infrastructure gaps through effective interventions.

2. Shree Lachit Borphukan: This year marks the 400th birth anniversary of Assam's legendary war hero Lachit Borphukan.

He was known for his leadership in the Battle of Saraighat, 1671 in which an attempt by Mughal forces to capture Assam was thwarted.

The battle of Saraighat was fought on the banks of the Brahmaputra in Guwahati in 1671.

It is considered as one of the greatest naval battles on a river which resulted in the victory of Ahoms over the Mughals.

He was the inspiration behind strengthening India's naval force and revitalising inland water transport and creating infrastructure associated with it due to his great naval strategies.

The Lachit Borphukan gold medal is awarded to the best cadet from the National Defence Academy.

3. CoP 19 of CITES: The Conference of the Parties (CoP 19) to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is being held at Panama City.

At CoP 19, India's proposal for the transfer of Red-Crowned Roofed Turtle (Batagur kachuga) from Appendix II to Appendix I of CITES have been adopted by the CoP.

The commendable result achieved by India in operations such as those initiated by the Wildlife Crime Control Bureau namely Operation Turtshield, which resulted in nabbing many criminals involved in poaching and illegal trade of fresh water turtles was appreciated.

4. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): It is an international agreement to which States and regional economic integration organizations adhere voluntarily. CITES was drafted as a result of a resolution adopted in 1963 at a meeting of members of IUCN.

Aim: Ensure that international trade in specimens of wild animals and plants does not threaten their survival. The CITES Secretariat is administered by UNEP and is located at Geneva, Switzerland. The CoP to CITES, is the supreme decision-making body of the Convention and comprises all its Parties. Although CITES is legally binding on the Parties, it does not take the place of national laws.

5. Leith' Softshell Turtle: India's proposal for transferring Leith's Softshell Turtle (*Nilssonina leithi*) from Appendix II to Appendix I of the CITES has been adopted by the CoP to CITES.

Leith's Softshell Turtle is a large fresh water soft-shelled turtle which is endemic to peninsular India and it inhabits rivers and reservoirs. It has been poached and illegally consumed within India. It has also been illegally traded abroad for meat and for its calipee.

Classification: Critically Endangered by IUCN and Schedule IV of WPA, 1972

PIB 25th Nov

1. Hanle Dark Sky Reserve: In a unique and first-of-its-kind initiative, the Department of Science & Technology

(DST), Govt of India, has undertaken to set up India's first-ever "Night Sky Sanctuary" in Ladakh. The proposed Dark Sky Reserve will be located at Hanle in Ladakh as a part of Changthang Wildlife Sanctuary. It will boost Astro tourism in India and will be one of the world's highest-located sites for optical, infra-red, and gamma-ray telescopes.

2. Dr Verghese Kurein: National Milk Day is celebrated to commemorate the birth Anniversary of Dr. Verghese Kurien (Milk Man of India). NMD 2022 commemorates the 101st birth anniversary of Dr. Kurien. The day celebrates the importance of milk in a person's life.

He is known as the 'Father of White Revolution in India'. He is famous for his 'Operation Flood', which is known as the world's largest agricultural program. He also played a key role in the establishment and success of Amul Brand. Because of his efforts only, India became the largest producer of milk in 1998, surpassing the U.S.

3. INS Shivalik and Kamorta: Indian Naval Ships Shivalik and Kamorta participated in multiple activities with the Republic of Korean Navy that included official and social interactions, cross-deck visits and sports fixtures. Both nations discussed avenues to further strengthen maritime cooperation between Indian Navy and the RoK Navy. Shivalik and Kamorta undertook a Maritime Partnership Exercise with RoK Navy Ship No Jeok Bong. The exercise signified the close bonds of friendship and further enhanced interoperability between both the navies.

4. India-GCC FTA Agreement: Both sides agreed to expedite conclusion of the requisite legal and technical requirements for formal resumption of the FTA negotiations. Both sides emphasized that the FTA will create new jobs, raise living standards, and provide wider social and economic opportunities in India and all the GCC countries. They agreed to significantly expand and diversify the trade basket in line with the enormous potential that exists on account of the complementary business and economic ecosystems of India and the GCC.

GCC is currently India's largest trading partner bloc with bilateral trade in FY 2021-22. GCC countries contribute almost 35% of India's oil imports and 70% of gas imports.

5. Gulf Cooperation Council: The Cooperation Council for the Arab States of the Gulf, also known as GCC is a

regional, intergovernmental, political, and economic union comprising Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. The council's main headquarters is located in Riyadh, Saudi Arabia. The Charter of the GCC was signed on 25 May 1981, formally establishing the institution. The structure of the GCC consists of the Supreme Council (the highest authority), the Ministerial Council and the Secretariat General.

PIB 26th Nov

1. e-Gram SWARAJ Portal: e-Panchayat Mission Mode Project of Ministry of Panchayati Raj has won the GOLD AWARD under the category "Excellence in Government Process Re-engineering for Digital Transformation" of the National Awards for e-Governance. It is a work-based comprehensive application that encompasses all aspects of Panchayat functioning viz. planning, budgeting, accounting, monitoring, asset management etc. on a single digital platform including online payments. Ministry has also integrated e-Gram SWARAJ with Public Financial Management System for Gram Panchayats to make real time payments. MoPR has also devised an online application— Audit Online.

2. Ni-kshay Mitras initiative: The initiative ensures three-pronged support includes: Nutritional, Additional diagnostic, and Vocational support to TB patients.

The programme was brought in to fill the critical "community" elements into India's fight towards the Pradhan Mantri TB Mukta Bharat Abhiyaan aimed at eliminating TB by 2025.

Ni-kshay Mitra (Donor) for this programme includes co-operative societies, corporates, elected representatives, individuals, institutions, non-governmental organisations, political parties and partners who can support by adopting the health facilities (for individual donor), blocks/urban wards/districts/States for accelerating the response against TB to complement the government efforts.

3. Ikshak, the Survey Vessel: Ikshak', the third of the four Survey Vessels (Large) (SVL) Project for Indian Navy was launched. SVL ships will replace the existing Sandhayak Class survey ships with new generation hydrographic equipment to collect oceanographic data.

With a capability to carry four Survey Motor Boats and an integral helicopter, the primary role of the ships would be to undertake full scale coastal and deep-water

hydrographic surveys of Ports and navigational channels. The ships would also be deployed for collecting oceanographic and geophysical data for defence as well as civil applications. In their secondary role, the ships are capable of providing limited defence, besides serving as Hospital ships during emergencies.

4. Earth Observation Satellite-6: The third generation Indian satellite for monitoring the oceans, formally named as EOS-6 was launched today by the ISRO in partnership with Ministry of Earth Sciences. The ocean observing mission is a follow up to OceanSat-1 and OceanSat-2 launched in 1999 and 2009, respectively.

Designed as PSLV-C54, also accommodated other small satellites along with Oceansat-3. It will provide crucial data on distribution of ocean algae. The OCM-3 with high signal-to-noise ratio is expected to provide improved accuracy having wide range of operational and research applications including fishery resource management, and climate studies.

5. AUSTRALIA HIND 22: The bilateral training exercise "AUSTRALIA HIND 22" between contingents of the Indian Army and the Australian Army is scheduled to take place at Mahajan Field Firing Ranges (Rajasthan). This is the first exercise in the series of AUSTRALIA HIND with participation of all arms and services contingent from both armies. The Indian Army is represented by troops from the DOGRA Regiment. Exercise "AUSTRALIA HIND" will be a yearly event that will be conducted alternatively in India and Australia.

PIB 28th Nov

1. SARAS 3 Radio Telescope: Shaped Antenna measurement of the background Radio Spectrum 3 (SARAS) telescope -- indigenously designed and built at Raman Research Institute -- was deployed over Dandiganahalli Lake and Sharavati backwaters, located in Northern Karnataka, in early 2020. India's SARAS radio telescope provides astronomers clues to the nature of Universe's first stars and galaxies.

SARAS aims to design, build and deploy in India a precision radio telescope to detect extremely faint radio wave signals from the depths of time, from our "Cosmic Dawn" when the first stars and galaxies formed in the early Universe.

2. SHAKTI Policy: The scheme aims to ensure the availability of coal to all the Thermal Power Plants in India, in a way that is transparent and objective. At the

same time, it aims to transfer the benefits of linkage coal to the end consumers. The scheme is beneficial for the public sector banks which have huge loans unpaid at the end of the power companies. The scheme also aims to reduce the dependence on imported coal and promote domestic industries.

3. Re-Hab Project: Khadi & Village Industries Commission (KVIC) is running this project called Re-Hab in 7 states of the country, namely in Karnataka, Maharashtra, West Bengal, Assam and Orissa, where attacks of the elephants is more common, and under this project fencing of bee boxes is installed in such areas from where elephants move towards the human settlements and farmers' agriculture. Fencing of Bee-boxes on the routes of movement of elephants blocks the path of wild elephants. In this way, through honey-bees, elephants can be prevented from attacking humans and destroying farmers' crops.

4. Exercise HARIMAU SHAKTI: India - Malaysia joint military Exercise "Harimau Shakti -2022" commenced at Pulau, Kluang, Malaysia. The exercise is an annual training event between the Indian and Malaysian Army which is being conducted since 2012. The joint exercise schedule includes the establishment of a joint command post, joint surveillance centre, sharing expertise in employment of aerial assets, technical demonstrations, casualty management & casualty evacuation apart from planning logistics at the Battalion level.

5. Khajuraho Temples: Khajuraho Temples (in Madhya Pradesh) are among the most beautiful medieval monuments in the country.

Built between 950-1050 AD by the Chandela Dynasty. The monuments include Hindu and Jain temples. The temple site is situated within Vindhya Mountain range.

These Temples got the status of UNESCO's World Heritage Sites in 1986. The temples are famous for their Nagara-style architectural symbolism. Reported for the first time by Abu Rihan al Biruni in AD 1022 and Ibn Battuta in AD 1335.

PIB 29th Nov

1. State Finance Commission: The State Finance Commission (SFC) is a Constitutional body, formed under the 73rd and 74th Constitutional Amendment Act, 1992. It reviews a state's panchayats' financial situation and provides recommendations to the

governor. According to Article 243-I of the Indian Constitution, the Governor of a State shall establish a Finance Commission. It was also given jurisdiction over city councils or municipalities under Article 243-Y.

The functions of a State Finance Commission are identical to those of the Central Finance Commission. It distributes state resources to Panchayati Raj institutions at all three levels in the form of taxes, duties, and levies to be collected by the state and local governments.

2. International Jaguar Day: The Day was created to raise awareness about the increasing threats facing the jaguar and the critical conservation efforts ensuring its survival. Observed annually on November 29, International Jaguar Day celebrates the Americas' largest wild cat as an umbrella species for biodiversity conservation and an icon for sustainable development and the centuries-old cultural heritage of Central and South America. This is the third largest Cat Predator of the World and an important species of Amazon Rainforest.

Jaguars (*Panthera onca*) are often mistaken for leopards, but can be differentiated due to the spots within the rosettes on their coats. While many cats avoid water, jaguars are great swimmers, and have even been known to swim the Panama Canal.

3. Exercise Samanvay 2022: Indian Air Force is conducting the Annual Joint Humanitarian Assistance and Disaster Relief (HADR) Exercise 'Samanvay 2022' at Air Force Station Agra. Along with the involvement of various stakeholders from the country, the exercise will see participation by representatives from the ASEAN countries as well.

The exercise also aims to provide a unique platform for the exchange of domain knowledge, experience, and best practices with the participating ASEAN member countries. India has emerged as a regional power and net security provider in the Indo-Pacific as its capacity to provide humanitarian assistance and disaster relief to its citizens as well as regional partners has grown in recent years.

4. Indian Ocean Naval Symposium: The IONS is a voluntary and inclusive initiative that brings together navies of Indian Ocean Region (IOR) littoral states to increase maritime co-operation and enhance regional security.

It also serves to develop an effective response mechanism and humanitarian assistance and disaster relief (HADR) against natural disasters.

IONS includes 25 member nations that touch or lie within the IOR, and 8 observer nations. It consists of a series of gatherings held every two years amongst Indian Ocean littoral republics. The symposium was first held in 2008 with India as the host. The eight observing countries in the IONS are Germany, China, the Netherlands, Spain, Russia, Italy, Japan, and Madagascar.

PIB 30th Nov

1. Manthan Platform: The Manthan platform won the Best Tech Initiative of the Year at the Dun & Bradstreet Business Excellence Awards 2022. The development of the platform was conceptualized and implemented by the Office of the Principal Scientific Adviser (PSA) to the Government of India.

Manthan is aimed at promoting collaboration between industry and the scientific research and development ecosystem. Manthan empowers multiple stakeholders to collaborate for co-creating solutions aligned with the United Nations' SDGs and our national scientific missions.

2. Vayu Conference: A Conference titled 'Vayu – The vital life force' is being organized in Bhubaneswar, Odisha. This Conference is focused on varied air quality issues ranging from scientific discussions on climate change and pollution control to enriching our understanding on air quality from ancient scriptures and texts. The aim of the Vayu conference is to build upon the multidimensional efforts taken by Governments to achieve our air quality targets as set in National Clean Air Program by uniting all the important stakeholders.

To celebrate the achievements of our cities in their efforts to achieve clean air targets, 'National Clean Air City' award based on Swachh Vayu Sarvekshan will be given to best performing nine cities for meeting air quality targets.

3. Index of Eight Core Industries: Index of Eight Core Industries (ICI) refers to a production volume index that measures the collective and individual production performances of eight selected core industries. These industries are Natural Gas, Coal, Refinery Products, Crude Oil, Cement, Electricity, Steel, and Fertilizers. The

compilation and releasing of the index are done by the Office of the Economic Adviser (OEA), Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry. These industries comprise a total of 40.27% of the total weight of the overall items that are included in the Index of Industrial Production (IIP).

4. Horticulture Cluster Development Programme: It is a central sector programme aimed at growing and developing identified horticulture clusters to make them globally competitive.

Horticulture cluster is a regional/geographical concentration of targeted horticulture crops.

It will be implemented by the National Horticulture Board (NHB) of the Ministry of Agriculture and Farmers' Welfare.

These clusters will be implemented through Cluster Development Agencies (CDAs) which are appointed on

MCQ

1) Consider the following statements with respect to Earth Surface Mineral Dust Source Investigation (EMIT)

1. It is a mission to map the surface composition of minerals in the Earth's dust-producing regions.
2. It was launched by the Indian Space Research Organisation (ISRO).

Which of the above statements are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Ans: a) EMIT is a mission to map the mineral composition of arid dust source regions via imaging spectroscopy in the visible and short-wave infrared range.

- It is originally designed to examine how dust impacts climate and will advance the understanding of dust's effects throughout the Earth system.
- It was selected from the Earth Venture Instrument-4 solicitation under the Earth Science Division of NASA Science Mission Directorate.
- It was developed by NASA's Jet Propulsion Laboratory and launched through SpaceX

the recommendations of the respective State/UT Government. The objective is to promote the export of horticultural produce.

5. Sangai Festival: The Festival is an annual cultural extravaganza in Manipur. It helps promote Manipur as a world class tourism destination. It is named after the State animal, Sangai, the brow-antlered deer found only in Manipur. It started in the year 2010 and has grown over the years into a big platform for Manipur to showcase its rich tradition and culture to the world.

The State's classical dance form, 'Ras Leela' will form an important part. Manipur's famous martial arts- Thang Ta (a combination Spear & Sword skills), Yubi-Lakpi (a game played with greased coconut like rugby), Mukna Kangjei (a game that combines hockey and wrestling), and Sagol Kangjei- Modern Polo (believed to have evolved in Manipur) will all form part of the festival.

Dragon resupply spacecraft from NASA's Kennedy Space Centre.

- The instrument observes Earth from outside the International Space Station.

2) Consider the following statements with respect to HARIT Aaykar

1. It is launched by the Income Tax Department.
2. It aims to increase greenery and create micro forests.

Which of the above statement(s) is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Ans: c) The Income Tax Department has launched the initiative on the occasion of National Unity Day to increase greenery and create micro forests.

- HARIT is the abbreviation of Hariyali Achievement Resolution by Income Tax.
- Under this initiative, the Department resolves to increase the green cover by planting trees and creating micro-forests in and around Income Tax Department's buildings and other public areas.

3. With reference to the Warehousing and Electronic Negotiable Warehouse Receipt (e-NWR), consider the following statements:

1. It was launched in 2017 allowing the transfer of ownership of a commodity stored in a warehouse without having to deliver it physically.
2. An e-NWR is available only in electronic form.

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

Ans: c) The negotiable warehouse receipt (NWR) system was launched in 2011 allowing the transfer of ownership of a commodity stored in a warehouse without having to deliver it physically.

- These receipts are issued in negotiable form, making them eligible as collateral.
- The Warehousing Development and Regulatory Authority (WDRA) regulates the entire operation under NWR.
- An e-NWR is available only in electronic form, has a time validity, can be auctioned or transferred fully or in part.

4. With reference to the Global Climate Observing System (GCOS), consider the following statements:

1. It is a co-sponsored programme which regularly assesses the status of global climate observations and produces guidance for its improvement.
2. It an initiative of World Bank.

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

Ans: a) The Global Climate Observing System (GCOS) is a co-sponsored programme which regularly assesses the status of global climate observations and produces guidance for its improvement.

- It is co-sponsored by the
- World Meteorological Organization (WMO),
- Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO),
- United Nations Environment Programme (UN Environment), and
- International Science Council (ISC).

- GCOS expert panels maintain definitions of Essential Climate Variables (ECVs) which are required to systematically observe Earth's changing climate.

5) Consider the following statements with reference to Kashmiri Saffron

- 1) It is the only saffron in the world grown at an altitude of 1,600 m to 1,800 m AMSL (above mean sea level).
- 2) In 2020, Union Government has issued a certificate of Geographical Indication (GI) registration for Saffron grown in the Kashmir Valley.

Identify the correct statements:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) none of the above

Ans: c) The unique characteristics of Kashmir saffron are its longer and thicker stigmas, natural deep-red colour, high aroma, bitter flavour, chemical-free processing, and high quantity of crocin (colouring strength), safranal (flavour) and picrocrocin (bitterness).

- It is the only saffron in the world grown at an altitude of 1,600 m to 1,800 m AMSL (above mean sea level). Pampore region, in India, commonly known as Saffron bowl of Kashmir.

6. Identify the correct pairs:

- 1) Pakhro tiger safari : Himachal Pradesh
- 2) Panamaram heronry: Kerela
- 3) Koundinya Elephant Project sanctuary: Tamil nadu

- a) 1 only
- b) 2 only
- c) 1 and 3 only
- d) 1, 2 and 3

Ans: b) The Forest Survey Institute (FSI) has accused the Uttarakhand Forest Department of "defending wrongdoings" by questioning its assessment of illegal tree felling in the Corbett Tiger Reserve for its Pakhro tiger safari project.

- The Panamaram heronry is the largest breeding ground of herons in Kerala's Malabar region.
- A wild elephant was electrocuted in the fields at Nagireddipalle, abutting the Koundinya Elephant Project sanctuary in Andhra Pradesh, due to the erecting of snares with live power cables meant for wild boars.

7. Identify the correct statements with respect to Glyphosate

- 1) Glyphosate is a widely used herbicide that can kill certain weeds and grasses.
 - 2) In India, glyphosate use was approved only for tea crop and non-crop areas for control of weeds.
- a) 1 only
 - b) 2 only
 - c) both 1 and 2
 - d) none of the above

Ans: c) Glyphosate is a widely used herbicide that can kill certain weeds and grasses.

- Glyphosate works by blocking an enzyme essential for plant growth.
- In India, glyphosate use was approved only for tea crop and non-crop areas for control of weeds. But glyphosate consumption is higher in states that do not have tea crops.

8. Identify the correct statements with respect to lab-grown diamonds

- 1) Lab-made diamonds are developed from a carbon seed placed in a microwave chamber and superheated into a glowing plasma ball.
 - 2) The process creates particles that crystallize into diamonds in years.
 - 3) India particularly specialises and leads in the chemical vapour decomposition (CVD) technology that is certified as the purest type of diamonds.
- a) 1 only
 - b) 2 only
 - c) 1 and 3 only
 - d) 2 and 3 only

Ans: c) Lab-made diamonds are developed from a carbon seed placed in a microwave chamber and superheated into a glowing plasma ball.

- The process creates particles that crystallize into diamonds in weeks.
- The only difference between lab-grown diamond and natural diamond is that instead of digging the earth, it is created in a lab under a machine.
- There are two types of lab-grown diamonds – CVD and HPHT
- India particularly specialises and leads in the chemical vapour decomposition (CVD)

technology that is certified as the purest type of diamonds.

- Surat: Diamond capital: Nine out of 10 diamonds in the world are estimated to be polished in Surat. The government had brought in is that it has permitted 100 per cent foreign direct investment (FDI) in the sector under the automatic route.

9. Identify the correct statement regarding Solar Dynamics Observatory

- 1) ESA launched Solar Dynamics Observatory (SDO) in 2010.
 - 2) SDO is the first satellite in the ESA's Living with a Star program, which studies space weather.
- a) 1 only
 - b) 2 only
 - c) both
 - d) none

Ans: d) NASA launched Solar Dynamics Observatory (SDO) in 2010.

- SDO is the first satellite in the NASA's Living with a Star program, which studies space weather.
- SDO studies how solar activity happens and how that impacts the Earth's magnetosphere.
- SDO takes observations of the Sun's interior, surface and atmosphere.
- SDO carries three instruments:
- Helioseismic and Magnetic Imager (HMI) (HMI studies changes in the Sun's magnetic field)
- Atmospheric Imaging Assembly (AIA): observes the solar corona in eight wavelengths of ultraviolet light
- Extreme Ultraviolet Variability Experiment (EVE): determines every 10 seconds how much energy the Sun emits at extreme ultraviolet wavelengths.

10. What is Peripheralization?

- a) It describes the production of peripheries through social relations and their spatial implications.
- b) The pollutants that are concentrated through bioaccumulation
- c) Industries that are not receiving adequate support from the government.
- d) none of the above

Ans: a) A "periphery" means being situated on the fringes of a city, region or nation. In the social sense,

“peripheralization” describes the production of peripheries through social relations and their spatial implications. It has been observed that new settlements in Delhi (2010, displacement due to Commonwealth games and others) suffer from a new standard of peripheralization. These include: – poor access to basic services like water, healthcare, etc; inadequate housing provisions; located outside the ambit of ‘planned colonies’.

11. Which of the following statements are correct regarding economically weaker sections (EWS) quota

- 1) It was brought into the constitution by 102nd amendment.
 - 2) it amends Article 15 enabling the state to take special measures (not limited to reservations) in favour of EWS generally with an explicit sub-article on admissions to educational institutions with maximum 10% reservations.
 - 3) The amendment to Article 16 allows 10% reservations (and not special measures) for EWS in public employment
 - 4) The amendment leaves the definition of ‘economically weaker sections’ to be determined by the centre on the basis of ‘family income’ and other economic indicators.
- a) 1 and 2 only b) 2 and 3 only c) 3 and 4 only d) 1 and 4 only

Explanation: B) The 103rd Constitution Amendment Act introducing special measures and reservations for ‘economically weaker sections’ (EWS)

It amends art 15 and 16.

The amendment leaves the definition of ‘economically weaker sections’ to be determined by the state on the basis of ‘family income’ and other economic indicators.

Also critical to this amendment is the exclusion of SC/STs, OBCs and other beneficiary groups under Articles 15(4), 15(5) and 16(4) as beneficiaries of the 10% EWS reservation.

12. Which of the following statement is correct regarding the Special Operation Medal?

- 1) The medal was constituted in 2018 with the objective to recognize those operations, which have high degree of planning, high significance

for the security of the country/State/UT and have significant impact on the security of larger sections of the society.

2) All recommendations for the award is sent to the Ministry of Defence within three months of the special operation.

3) In a year, normally 3 Special Operations are considered for the award and in extra ordinary circumstances; the award may be given up to 5 Special Operations to encourage State/UT Police.

- a) 1 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) all of the above

Explanation B) The medal was constituted in 2018 with the objective to recognize those operations, which have high degree of planning, high significance for the security of the country/State/UT and have significant impact on the security of larger sections of the society. The award shall be conferred for Special Operation in the areas such as counter terrorism, border action, arms control, prevention of narcotics smuggling and rescue operations.

All recommendations for the award is sent to the MHA within three months of the special operation. It is announced on 31st of October every year.

13. Where is India's largest maze garden located?

- a) Himachal Pradesh
- b) Uttarakhand
- c) Karnataka
- d) Gujarat

Explanation: D) Recently, The Prime Minister, Shri Narendra Modi dedicated Maze Garden and Miyawaki Forest in Ekta Nagar, Gujarat. It has been designed in the shape of a ‘Shriyantra’, which is believed to bring positive energy to the place.

Through the Miyawaki method, a forest can be developed in just two to three years while it takes at least 20 to 30 years through the traditional method. The growth of plants is ten times faster using this method and as a result, the forest developed is thirty times denser.

14.) Consider the following statements with respect to Sardar Vallabhbhai Patel.

1) National Unity Day or Rashtriya Ekta Diwas is celebrated on October 31, every year since 2014 to mark the birth anniversary of the Iron Man of India, Sardar Vallabhbhai Patel.

2) he was appointed as the first Deputy Prime Minister and Home Minister of India from 1947 to 1950.

3) Patel led the Satyagraha movement in Madhya Pradesh in 1923 against the British law of banning the hoisting of the Indian Flag.

4) He was the third candidate for the post of President after Mahatma Gandhi at the Lahore session of the Indian National Congress in 1929.

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) all of the above

Explanation A) Sardar Vallabhbhai Patel was appointed as the first Deputy Prime Minister and Home Minister of India from 1947 to 1950. Patel led the Satyagraha movement in Nagpur in 1923 against the British law of banning the hoisting of the Indian Flag. He was the second candidate for the post of President after Mahatma Gandhi at the Lahore session of the Indian National Congress in 1929.

Ahmedabad's airport has also been named Sardar Vallabhbhai Patel International Airport.

15) Identify the correct statements with reference to kali syahi

- 1) it dates back to the reign of the Kachhwaha rulers
- 2) the ink was made of artificial ingredients using a traditional procedure handed down from generations
- 3) The ink has medicinal properties, as some of its ingredients were used in the traditional Ayurvedic system for the treatment and healing of wounds.

- a) 1 only
- b) 2 only
- c) 1 and 3 only
- d) 2 and 3 only

Ans: c) The ink was made of natural ingredients using a traditional procedure handed down from generations. "The black ink is prepared on a no-moon night with the chanting of mantras. It is made of kaajal (homemade mascara), gondh (edible gum) and other locally sourced herbal ingredients."

- The ink has medicinal properties, as some of its ingredients were used in the traditional Ayurvedic system for the treatment and healing of wounds.

16) Identify the correct statements with respect to Biosphere reserves

- 1) Biosphere Reserve (BR) is an international designation by UNESCO for representative parts of natural and cultural landscapes extending over large area of terrestrial or coastal/marine ecosystems or a combination thereof.
- 2) Biosphere reserves are nominated by national governments and remain under the sovereign jurisdiction of the states where they are located.

- a) 1 only
- b) 2 only
- c) both
- d) none

Ans: c) The World Network of Biosphere Reserves (WNBR) was formed in 1971, as a backbone for biodiversity conservation, ecosystem restoration, and living in harmony with nature.

- The first one in south asia was the Hurulu Biosphere Reserve, in Sri Lanka.

- In India, the first biosphere reserve was designated by UNESCO in 2000, namely, the blue mountains of the Nilgiris stretching over Tamil Nadu, Karnataka and Kerala.

17) The recent incidents of ground shaking and swelling at Mauna Loa indicating that the largest active volcano in the world could erupt. where is it located?

- a) Indonesia
- b) Hawaii
- c) Ecuador
- d) Japan

Ans: b) Mauna Loa is one of five volcanoes that together make up the Big Island of Hawaii, which is the southernmost island in the Hawaiian archipelago.

- It's not the tallest (that title goes to Mauna Kea) but it's the largest and makes up about half of the island's land mass.
- It sits immediately north of Kilauea volcano, which is currently erupting from its summit crater.

18. Consider the following statements with respect to India Infrastructure Project Development Fund (IIPDF)

It aims to provide financial support for Public Private Partnership (PPP) project and its development activities.

It will be administered by the Department of Economic Affairs, Ministry of Finance.

Which of the above statement(s) is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Ans: c) India Infrastructure Project Development Fund (IIPDF) provide financial support for quality project development activities to the States and the Centre.

- It would assist up to 75% of the project development expenses and the assistance from IIPDF would be in the form of interest free loan.
- Its objective is to fund potential Public Private Partnership (PPP) project's project development expenses.

- It has been created with initial budgetary outlay by the Ministry of Finance, Government of India.

19. Consider the following factors for causing air pollution in Delhi

- North-westerly
- Fall in temperature
- Demolition and construction activities
- Use of diesel Vehicles
- Stubble Burning

Which of the above statement(s) is/are correct?

- a. 2, 4 and 5 only
- b. 1, 2 and 5 only
- c. 2 and 4 only
- d. 1, 2, 3, 4 and 5

Ans: b) Refer to class notes

20) What do you understand by the term Pathetic fallacy:

- a) articulates the relationship between 'truth' as rendered by science, which is objective and factual, and 'truth' as expressed in art, which is subject to the particular experience of the human subject.
- b) an excited state of the feelings that renders a person temporarily irrational
- c) used to describe public discussions without any outcome
- d) describes the negative impacts of affirmative action

Ans: a) The concept was useful in articulating the relationship between 'truth' as rendered by science, which is objective and factual, and 'truth' as expressed in art, which is subject to the particular experience of the human subject

- It is 'pathetic' because it is used to evoke 'pathos' or deep feeling. And it is a 'fallacy' because inanimate objects are not, in actuality, 'capable of feeling'. The use of pathetic fallacy as a rhetorical device is common in all

forms of literature. Eg: flowers 'dancing happily' in the breeze or 'angry waves'

21) Which body is associated with the Matera Declaration

- a) G7
- B) G20
- C) BRICS
- D) SCO

Ans: b) In 2021, through the Matera Declaration, G20 ministers recognised that poverty alleviation, food security, and sustainable food systems are key to ending hunger. "The Matera Declaration reflects the Indian concern for the welfare of small & medium farmers, promoting local food cultures and recognising agri-diversity.

22) Consider the following statements with respect to World Heritage Glaciers:

1. Glaciers are moving ice that develop as snow and provide water resources for domestic use, agriculture and hydropower.
2. The Khumbu Glacier in Sagarmatha National Park (Nepal) is part of the world's highest glacier system.

Which of the above statement(s) is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Ans: c) Recently the third of the glaciers on the UNESCO World Heritage list are under threat.

- World Heritage glaciers cover almost 10% of the Earth's glacierized area and play a crucial role in sustaining life on Earth.
- The Khumbu Glacier, not far from the Mount Everest base camp in Sagarmatha National Park (Nepal), is part of the world's highest glacier system.

- The World Heritage glaciers include those in the Dolomites of Italy and on Tanzania's Mount Kilimanjaro, as well as the world's highest glaciers (near Mt. Everest) and the longest glacier (located in Alaska).

23) Consider the following statements with respect to types of voting system for Non-Resident Indians (NRIs):

1. Electronically Transmitted Postal Ballot System (ETPBS) enables the NRI to cast their vote from outside their originally voting constituency.
2. In India proxy voting is available to all senior citizens above 80 years and army personnel.
3. Absentee voting gives voting rights to non-resident Indians, but a physical presence at the voting booth is still required.

Which of the above statement(s) is/are correct?

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. 1, 2 and 3

Ans: c) The Electronically Transmitted Postal Ballot System (ETPBS) : It enables the NRI to cast their vote on an electronically received postal ballot from their preferred location, which is outside their originally assigned voting constituency.

- Proxy voting enables voters to appoint proxies to vote on their behalf.
- Absentee voting -India does not provide general absentee voting. In November 2010, the Representation of the People (Amendment) Bill 2010 was gazetted to give voting rights to non-resident Indians but a physical presence at the voting booth is still required.

24) Consider the following statements with respect to CRISPR Technology

1. It is endogenously found in bacteria and acts as a defence system against invading virus.

2. CRISPR/Cas9 technology can be used to optimize the shape and size of the crops according to consumer preferences.

3. The 2020 Nobel Prize in Chemistry was awarded to recognize the discovery of CRISPR-Cas9 gene scissors.

Which of the above statement(s) is/are correct?

- a. 1 and 2 only
- b. 3 only
- c. 2 and 3 only
- d. 1, 2 and 3

Ans: d) The CRISPR system is endogenously found in a wide range of bacteria and serves as a defence mechanism against invading viruses.

- It functions as an immune memory which stores the unique viral DNA sequence in-between sections of regularly interspaced palindromic repeated segments.
- The CRISPR-associated proteins (Cas) portion of the system, its encoding genes located in close proximity to CRISPR genes, serves to snip the DNA of invading viruses.
- The relationship between these two components of the system determines the efficacy and potency of the underlying DNA editing.

25) The preparatory process for the G20 Summit is conducted through the established Sherpa and Finance tracks. identify the correct statements.

- 1) The Finance Track focuses on non-economic and financial issues, such as development, anti-corruption and food security, while addressing internal aspects such as procedural rules of the G20 process.
 - 2) The Sherpas Track focuses on economic and financial issues
- a) 1 only
 - b) 2 only
 - c) both
 - d) none

Ans: d) The preparatory process for the G20 Summit is conducted through the established Sherpa and Finance tracks that prepare and follow up on the issues and commitments adopted at the Summits.

- The Sherpas' Track focuses on non-economic and financial issues, such as development, anti-corruption and food security, while addressing internal aspects such as procedural rules of the G20 process.
- The Finance Track focuses on economic and financial issues

26) What is the Submersible Platform for Acoustic Characterization & Evaluation (SPACE)?

- a) Indigenously developed submarine by HAL.
- b) testing facility for sonar systems developed for use by the Indian navy
- c) a new mining technology for rare earth minerals
- d) partnership between India and USA for exploring polymetallic nodules

Ans: b) It is a state-of-the-art testing and evaluation facility for sonar systems developed for use by the Indian navy onboard various platforms, including ships, submarines and helicopters.

- The SPACE facility is based on the concept design and requirements projected by NPOL and has been constructed by M/s L&T Shipbuilding, Chennai.

· The uniqueness of this facility lies in the specially designed submersible platform, which can be lowered up to depths of 100 meters using a series of synchronously operated winches.

27) Consider the following statements with respect to The National Bio Energy Program:

1. The program is the initiative of the Ministry of New and Renewable Energy.
2. The program will include three sub-schemes, Biogas Program, Waste to Energy Program and Biomass Program.

Which of the above statement(s) is/are correct?

- a. 1 only

- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Ans: c) It is an initiative of the Ministry of New and Renewable Energy.

- The program will aid the use of huge surplus biomass, cattle dung, and industrial and urban bio waste available in the country for energy recovery.
- The National Bioenergy Program will comprises of the following sub-schemes:
 - Waste to Energy Program – It is a program on energy from Urban, Industrial and Agricultural Wastes /Residues to support setting up of large Biogas, Bio CNG and Power plants (excluding MSW to Power projects).
 - Biomass Program – It is a scheme to support manufacturing of briquettes & pellets and promotion of biomass (non-bagasse) based cogeneration in industries.

28) The regions bordering Gilgit-Baltistan are:

1. Xinjiang Autonomous Region
2. Afghanistan
3. Union Territory of Jammu and Kashmir.
4. Union Territory of Ladakh

Select the correct answer code:

- a) 1, 2, 3
- b) 1, 2, 4
- c) 1, 3, 4
- d) 1, 2, 3, 4

Ans: d) Refer to class notes

29) Consider the following statements

1. The majority of the provisions in the Constitution need to be amended by a special majority of the

Parliament and ratification by at least half of the state legislatures.

2. Amendment of certain provisions of the Constitution by a simple majority is not deemed as constitutional amendment under Article 368.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: b) Amendment of certain provisions of the Constitution by a simple majority of Parliament, that is, a majority of the members of each House present and voting (similar to the ordinary legislative process). Notably, these amendments are not deemed to be amendments of the Constitution for the purposes of Article 368.

- The majority of the provisions in the Constitution need to be amended by a special majority of the Parliament, that is, a majority (that is, more than 50 per cent) of the total membership of each House and a majority of two-thirds of the members of each House present and voting.

30) With reference to Suborbital spaceflight, consider the following statements:

1. A suborbital spaceflight refers to a height of around 10000km from the Earth's surface.
2. Suborbital flights are known to be important for conducting tests of space missions, before final commercial missions take place.

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

Ans: B)

- A suborbital spaceflight refers to a height of around 100km from the Earth's surface, and is done at a lower altitude than an orbital flight, which reaches at least a low-Earth orbit — between around 200km to 2,000km from Earth.

- Suborbital flights are known to be important for conducting tests of space missions, before final commercial missions take place.

31. With reference to the Early warning systems, consider the following statements:

1. Early warning systems have been recognized as an effective tool to reduce vulnerabilities and improve preparedness and response to hazards, according to the United Nations Development Programme.

2. The Sendai Framework for Disaster Risk Reduction (2015–2030), an international document adopted by United Nations (UN) member states in 2015, requires countries to set out an early warning system with a multi-hazard approach by 2030.

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

Ans: C) The National Geophysical Research Institute (NGRI) of the Council of Scientific and Industrial Research has begun field studies to install early warning system against floods, rockslides, and avalanches in Himalayan States.

- The scientists in the institute have identified a few locations in the higher reaches of Uttarakhand for “densification” of seismometers and river gauges to take the total number to 100 from 60.
- The objective is to closely monitor the river flows in specific areas along the catchment to detect any sudden rise in water levels or flooding threshold that can lead to a hazard.
- Scientists have decided to take cognisance of the vibrations or “noise” recorded by the seismometers,

which need not be due to earthquakes but can also be because of vehicular traffic, animal movement, rain, river flows and so on.

- Currently, scientists are able to detect and assess a sudden flow 30-40 km away since the seismic wave is faster than the flow, and hence, the advance warning comes at least half an hour before. The NGRI has started utilising Machine Learning to detect these observations faster than the normal approach

32. With reference to the Selection of ‘Conference of the Parties’ to the United Nations Framework Convention on Climate Change (UNFCCC) Host, consider the following statements:

1. The countries in the region propose a candidate, and a host is usually decided at least two years in advance.
2. After the 2012 COP in Delhi, the event has not yet returned to Asia.

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

Ans: A) The United Nations Climate Change Conference 2022 — COP27 — opened recently in Sharm el-Sheikh with the aim of ensuring full implementation of the Paris Agreement adopted in 2015.

- The venue for the COP meeting rotates among the five UN-identified regions:
- Africa, Asia-Pacific, Eastern Europe, Latin America and Caribbean, and Western Europe and Others. The countries in the region propose a candidate, and a host is usually decided at least two years in advance.
- If no country agrees to be the host, Bonn, where the UNFCCC secretariat is headquartered, steps in as host. The rotation cycle has not been followed very strictly.

33. Lithium Triangle is a region rich in lithium reserves around the borders of

1. Venezuela
2. Bolivia

3. Brazil
4. Chile
5. Argentina

Select the correct answer code:

- (a) 1, 2 and 4 only
- (b) 2, 3 and 5 only
- (c) 2, 4 and 5 only
- (d) 1, 3 and 4 only

Explanation: C



(Refer the figure given in above)

34. Identify the correct statement with regard to Indian Skimmer:

- 1) More widespread in summer, the Indian skimmer is found in the coastal estuaries of western and eastern India.
 - 2) A thick, orange-yellow bill with a slightly longer lower mandible (jaw) is one of the most striking features of the Indian skimmer (*Rynchops albicollis*).
- a) 1 only
 - b) 2 only
 - c) both
 - d) none

Explanation: B) More widespread in winter, the Indian skimmer is found in the coastal estuaries of western and eastern India.

About 20% of the total population of fewer than 2,500 birds nest along river Chambal.

Indian skimmer is seen in huge flocks during winter in Coringa wildlife sanctuary (Kakinada).

IUCN: Endangered

In 2020, Bombay Natural History Society (BNHS) have initiated a 'Guardians of the Skimmer' programme, which is a community-based conservation initiative.

35. Select the correct statement with respect to megalith

- 1) A megalith is a large stone that has been used to construct a structure or monument, either alone or together with other stones.
 - 2) The construction of these structures took place mainly in the Mesolithic period and continued into the Chalcolithic period and the Bronze Age.
 - 3) Anthropomorphic sites are those marked by a representation of human form above the megalithic burials.
- a) 1 and 2 only
 - b) 2 and 3 only
 - c) 1, 2, 3
 - d) 1 and 3 only

Explanation D) Anthropomorphic sites are those marked by a representation of human form above the megalithic burials.

The most prominent one is the 'pillared dolmen' of the megalithic era, found at Mallayagaripall. The structure locally referred to as 'PandavaGullu' or 'Pandavula Banda' in memory of the Pandavas, is estimated to be 2,500 years old.

There is another endangered megalith monument in Kallur, which resembles a bull's horn. It is called locally as 'Devara Yeddhu'. Another megalithic burial site in Venkatapuram is the 'stone circle', where the tomb is surrounded by round stones arranged in a circle. The construction of these structures took place mainly in the Neolithic period and continued into the Chalcolithic period and the Bronze Age.

36. What is the term CE20 related to

- a) Climate financing initiative launched in G20 meet
- b) Cryogenic engine indigenously developed for LVM3.
- c) New engine developed for e vehicles
- d) Bacteria responsible for malaria

Explanation: B) According to ISRO, CE20 cryogenic engine is indigenously developed for LVM3.

This will enhance the LVM3 payload capability up to 450 kg with additional propellant loading.

37. Consider the following statements:

The Constitution of India does not define the criteria for recognition of Scheduled Tribes.

The Constitution of India empowers the Parliament of India to specify the Scheduled Tribes (STs) in various states and union territories.

Which of the given above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2

d) Neither 1 nor 2

Explanation: A) The Constitution does not define the criteria for recognition of Scheduled Tribes.

However, Article 366(25) of the Constitution only provides process to define Scheduled Tribes:

“Scheduled Tribes means such tribes or tribal communities or parts of or groups within such tribes or tribal communities as are deemed under Article 342 to be Scheduled Tribes for the purposes of this Constitution.”

Article 342(1): The President may with respect to any State or Union Territory, and where it is a State, after consultation with the Governor, by a public notification, specify the tribes or tribal communities or part of or groups within tribes or tribal communities as Scheduled Tribe in relation to that State or Union Territory.

38. Which of the following are in Nilgiri Biosphere Reserve?

- a) Neyyar, Peppara and Shendurney Wildlife Sanctuaries; and Kalakad Mundanthurai Tiger Reserve
- b) Mudumalai, Sathyamangalam and Wayanad Wildlife Sanctuaries; and Silent Valley National Park
- c) Mudumalai, Sathyamangalam and Wayanad Wildlife Sanctuaries; and Silent Valley National Park
- d) Kawal and Sri Venkateswara Wildlife Sanctuaries; and Nagarjunasagar-Srisailem Tiger Reserve

Explanation: B) The Nilgiri Biosphere Reserve is an International Biosphere Reserve in the Western Ghats and Nilgiri Hills ranges of South India

It includes the Aralam, Mudumalai, Mukurthi, Nagarhole, Bandipur and Silent Valley national parks, as well as the Wayanad, Karimpuzha, and Sathyamangalam wildlife sanctuaries.

It falls under the biogeographic region of the Malabar rain forest.

39. Bhaderwah is the birthplace of India's Purple Revolution. Where is it located?

- 1) Himachal Pradesh
- 2) Jammu and Kashmir
- 3) Arunachal Pradesh
- 4) Uttarakhand

Explanation: B) Bhaderwah, which is also known as 'Chhota Kashmir', has a mild cold climate during summers that is ideal for Lavender. Bhaderwah is the birthplace of India's Purple Revolution.

40. Identify the correct statements with respect to No Money for Terror' Conference

- 1) It is organised by Union Ministry of Defence
- 2) It attempts to set the pace for other high level official and political deliberations, focused on countering terrorist financing

- a) 1 only
- b) 2 only
- c) both
- d) none.

Explanation: B) It is organized by Union Ministry of Home Affairs.

It aims to progress the discussions on combating terrorist financing held by the international community in the previous two Conferences in Paris (2018) and Melbourne (2019).

It also intends to include discussions on technical, legal, regulatory and cooperation aspects of all facets of terrorism financing.

It attempts to also set the pace for other high level official and political deliberations, focused on countering terrorist financing.

41. Identify the correct statement with respect to LOFTID mission:

- 1) launched by JAXA.
- 2) Bring massive objects back from Earth's orbit, like items from the International Space Station.
- 3) Help land humans on Moon.

- a) 1 only
- b) 2 and 3 only
- c) 2 only
- d) 1, 2, 3

Explanation: C) NASA completed the technology demonstration of its Low-Earth Orbit Flight Test of an Inflatable Decelerator (LOFTID) mission.

The cone-shaped structure will have an inflatable structure that is capable of holding its shape against drag forces. It will also have a protective flexible thermal protection system that will protect it from the heat generated during re-entry.

When a spacecraft or anything else enters a planet's atmosphere, drag acts upon the body and slows it down, converting kinetic energy into heat.

Uses: Bring massive objects back from Earth's orbit, like items from the International Space Station.

Used for bringing back rocket assets after they are launched

Help land humans on Mars

42. Consider the following pairs:

1. Warli paintings: Maharashtra
2. Madhubani painting: Bihar
3. Cherial paintings: Kerala

Which of the above given pairs is/are correctly matched?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Explanation: A) Warli paintings: Warli painting is a type of tribal art that is predominantly done by tribal people from Maharashtra's North Sahyadri Range. This tribal art originated in Maharashtra and is still practised today.

Madhubani painting: It is a well-known form of art famous in the state of Bihar in India. This exceptional art form has five different styles (Bharni, Kachni, Tantrik, Godna, Kohbar) with distinct features.

The Cherial paintings represent a distinct local invention, based mainly on local traditions. The Nakashis are the artists of Telangana and the scrolls constitute a key element of the social and cultural setting of Telangana. These paintings were mostly confined to Cherial village, and hence called Cherial scrolls.

43. With reference to India's Five-Year Plans, which of the following statements is/are correct?

1. From the Second Five-Year Plan, there was a determined thrust towards substitution of basic and capital goods industries.
2. The Fourth Five-Year Plan adopted the objective of correcting the earlier trend of increased concentration of wealth and economic power.
3. In the Fifth Five-Year Plan, for the first time, the financial sector was included as an integral part of the Plan.

Select the correct answer using the code given below.

- a) 1 and 2 only
- b) 2 only
- c) 3 only
- d) 1, 2 and 3

Explanation B) 2nd FYP was influenced by the Nehru-Mahalanobis plan leaning towards heavy industries. So, there was no substitution (rather emphasis) of capital goods and basic industries. S1 is incorrect.

The Fifth Plan, instead, gave top priority to cutting down inflation and poverty alleviation.

44. With reference to the 75 Creative Minds of Tomorrow, consider the following statements:

1. It is an initiative of NITI Aayog.
2. The initiative aims to identify, encourage and nurture young creative talent in filmmaking, from the entire length and breadth of the country.

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

Explanation : B) The 75 Creative Minds of Tomorrow initiative is the brainchild of Union Minister for Information and Broadcasting and Youth Affairs and Sports, Anurag Singh Thakur.

The initiative aims to identify, encourage and nurture young creative talent in filmmaking, from the entire length and breadth of the country.

The segment is an annual platform at the International Film Festival of India held in Goa, to identify, encourage and nurture young creative talents from across various aspects of filmmaking.

45. The 'Indian Biological Data Bank' is located in:

- a) Faridabad
- b) Surat
- c) Chennai
- d) Kochi

Explanation A) The 'Indian Biological Data Bank' has recently come up at the Regional Centre for Biotechnology in Faridabad.

The government has for the first time set up a digitised repository where Indian researchers will store biological data from publicly funded research, reducing their dependency on American and European data banks. The digitised data will be stored on a four-petabyte supercomputer called 'Brahm'

46. Consider the following statements:

1. 36% of India's districts are classified as "overexploited" or "critical" by the Central Ground Water Authority(CGWA).
2. CGWA was formed under the Environment (Protection) Act.
3. India has the largest area under groundwater irrigation in the world.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 2 only

d) 1 and 3 only

Explanation: B) Out of the 5723 assessment units assessed jointly by State Ground Water Departments and CGWB in the country, 4078 are safe (71%), 550 are semi critical (10%), 226 are critical (4%) and 839 are over exploited (15%).

Central Ground Water Authority (CGWA) constituted under Section 3(3) of 'The Environment (Protection) Act, (1986)' regulates extraction of ground water through guidelines which are updated regularly.

47. With reference to Ibrahim Adil Shah II, which one of the following statements is not correct?

- a) He belonged to the Sunni Islam sect but was broadminded in his religious views and practices.
- b) He issued a coin, the Nun-i-Nauras.
- c) He laid the foundation for a new capital, Navraspur, near Bijapur.
- d) He was killed at a truce negotiation meeting with Chhatrapati Shivaji Maharaj.

Explanation: D) Among the Bijapur Sultans of the Adil Shahi dynasty (1490–1686), Ibrahim Adil Shah II (r. 1571–1627) stands out as a poet, musician and painter, besides being a talented ruler and patron of art. Ibrahim belonged to the Sunni Islam sect but was broadminded in his religious views and practices. He was devoted to Prophet Muhammad, Hindu deities Saraswati and Ganapati, and Sufi saint Sayyid Muhammad Gisu Daraz (1321–1422) of Gulbarga. Ibrahim was well aware of the Indian aesthetic concept of the Rasa (essence), In 1599, he laid the foundation for a new capital, Navraspur, near Bijapur. He also issued a coin, the Nun-i-Nauras. Ibrahim penned 59 songs and 17 couplets—in Kitab-i-Nauras (Nauras Nama)—in Deccani, which later developed into Afzal Khan (general) was killed at a truce negotiation meeting with Shivaji, and his army was defeated at the Battle of Pratapgad.

48. Consider the following statements

- 1. Aadhar metadata can not be stored for more than three months
- 2. State can not enter into any contract with private corporations for sharing of Aadhar data
- 3. Aadhar is mandatory for obtaining insurance products
- 4. Aadhar is mandatory for getting benefits funded out of the consolidated fund of India

Which of the above given statements is/are correct?

- a) 1 and 4 only
- b) 2 and 4 only
- c) 3 only
- d) 1, 2 and 3 only

Explanation :B)

Aadhaar authentication data can't be retained beyond 6 months, said Supreme Court

49. Identify the correct statements with respect to exercise Prasthan

- 1. An offshore security exercise, 'Prasthan' was conducted in the Krishna Godavari Basin Offshore Development Area (ODA) under the aegis of Headquarters, Eastern Naval Command.
- 2. Contingencies such as terrorist intrusion, bomb explosion, casualty evacuation, search and rescue, man overboard, major fire, oil spill and mass evacuation were exercised.

- a) 1 only
- b) 2 only
- c) both
- d) none

Explanation: C) An offshore security exercise, 'Prasthan' was conducted in the Krishna Godavari Basin Offshore Development Area (ODA) on 11-12 October 2022, under the aegis of Headquarters, Eastern Naval Command.

- Conducted every six months, this exercise is an important element of ensuring offshore security and aims to integrate the efforts of all maritime stakeholders involved in offshore defence.
- Led by the Navy, the exercise saw participation from the various oil operators, like ONGC, RIL, Vedanta, and other stakeholders in the domain of maritime security including AP Marine Police, AP fisheries department and the Coast Guard.
- The two-day exercise resulted in refining standard operating procedures (SOPs) and response actions to several contingencies in the Offshore Defence Area off Kakinada

50. Identify the correct statement with respect to gram Nyayalayas

- 1. GN came by Gram Nyayalayas Act 2008 on the recommendation of the 114th Report of the Law Commission.
- 2. Establishment of GNs at the Panchayat level to try civil claims and disputes only
- 3. It shall be guided by the principle of natural justice (and not bound by rules of evidence provided in the Indian Evidence Act, 1872)

- a) 1 and 2 only
- b) 2 and 3 only

c) 1 and 3 only

d) 1, 2, 3

Explanation: C) GN came by Gram Nyayalayas Act 2008 on the recommendation of the 114th Report of the Law Commission.

- Establishment of GNs at the Panchayat level to try criminal, and civil claims and disputes.
- GNs will be headed by 'Nyayadhikari' (will be appointed by the state government in consultation with the high court).

It shall be guided by the principle of natural justice (and not bound by rules of evidence provided in the Indian Evidence Act, 1872)

51. Consider the following statement with respect to National Anti-Profiteering Authority (NAPA)

1. The National Anti-profiteering Authority (NAA) is a statutory body set up under Competition Act 2002 to check unfair profiteering activities by registered suppliers.

2. All GST anti-profiteering complaints would be dealt with NAA directly.

a) 1 only

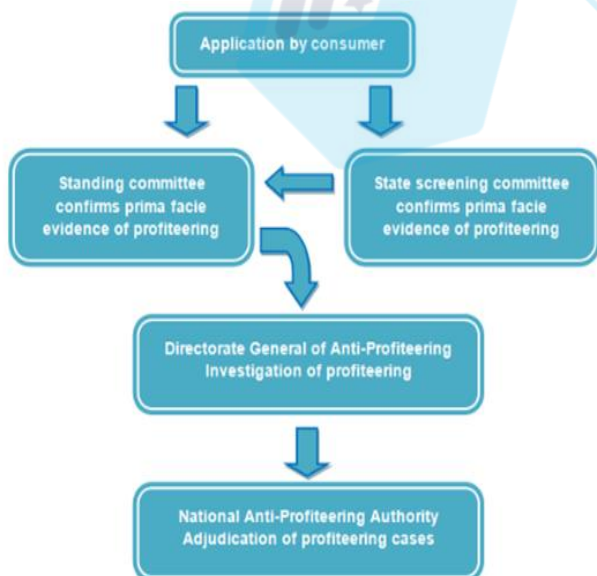
b) 2 only

c) both

d) none

Explanation: D) The National Anti-profiteering Authority (NAA) is a statutory body set up in November 2017 under the Goods and Services Tax (GST) law to check unfair profiteering activities by registered suppliers.

- The Authority's core function is to ensure that the benefits of a reduction in GST rates on goods and services and of the input tax credit are passed on to consumers by way of a reduction in prices. It can take suo moto action even without a complaint from a citizen.



52. Which one of the following has initiated the "Transport4All Challenge"?

a) NITI Aayog

b) Ministry of Housing and Urban Affairs

c) National Highways Authority of India

d) Ministry of Tourism

Explanation: B) MoHUA has initiated the "Transport4All Challenge", to enhance the mobility experience of all citizens and focus on digital innovations.

53. Consider the following statements about DigiLocker:

1. It is a cloud-based platform that provides software and services to create relevant customer experiences.

2. It was launched in 2015 under the Ministry of Electronics and Information Technology.

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

Explanation: C) DigiLocker is a secure cloud-based document storage and exchange platform launched in 2015 under the Ministry of Electronics and Information Technology.

- DigiLocker can be used now as a health locker for storing and accessing health records such as vaccination records, doctor prescriptions, lab reports, hospital discharge summaries, etc.

54. Consider the following statements about Gram Nyayalayas:

1. The Gram Nyayalayas are presided over by a Judicial Magistrate of First Class.

2. A Gram Nyayalaya have jurisdiction over an area specified by a notification by the Supreme Court of India.

3. Both the Central and the State Government can add or remove items in the Schedule of the Gram Nyayalayas Act, 2008.

Which of the given above statements is/are not correct?

a) 1 and 2 only

b) 3 only

c) 2 and 3 only

d) 1, 2 and 3

Explanation: A) The Gram Nyayalayas are presided over by a Nyayadhikari, who will have the same power, enjoy same salary and benefits of a Judicial Magistrate of First Class. Such Nyayadhikari are to be appointed by the State Government in consultation with the respective High Court.

- A Gram Nyayalaya have jurisdiction over an area specified by a notification by the State

Government in consultation with the respective High Court.

- Both the Central and the State Government can add or remove items in the Schedule.
- It tries both Civil and Criminal cases.

55. Which of the following facts regarding the Liquefied natural gas (LNG) is/are correct?

1. It is odorless
2. It is colorless
3. It is toxic
4. It is corrosive

Select the correct answer using the code below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 3 and 4 only

Explanation: A) LNG is odorless, colorless, non-toxic and non-corrosive.

• LNG is methane, or methane mixed with ethane, cleansed of impurities and cooled to approximately -160°C. This turns the gas into a liquid, which takes up 600 times less space. It is turned back into a gas and used, like any other natural gas, for heating, cooking and power.

56. Consider the following pairs:

1. Pithora Painting: Rajasthan
2. Mata Ni Pachedi: Punjab
3. Patan Patola: Gujarat

Which of the pairs given above is/are correctly matched?

- a) 1 only
- b) 2 and 3 only
- c) 3 only
- d) 1 and 3 only

Explanation: C) About Patan Patola: The ancient art of double ikat or Patola weaving in pure silk dates back to the 11th century, and the Salvi family of North Gujarat is one of the last practitioners of the declining art form.

• This unique fabric derives from a sophisticated and difficult technique of dyeing or knot dyeing on the warp and weft separately before weaving, known as 'bandhani.'

• Mata Ni Pachedi: It is handmade textile of Gujarat for offering in the temple shrines

• Pithora Painting: From Chhota Udaipur (Gujarat), it depicts cave paintings that tribes used to make. It is a ritualistic painting done on the walls by the Rathwa, Bhils and Bhilala tribes.

57. The World Population Prospects 2022 is prepared by

- a) WEF
- b) UNDP

- c) UNICEF
- d) None of the above

Explanation: D) The 2022 Revision of World Population Prospects (WPP) is the 27th edition of official United Nations (UN) population estimates.

• It is prepared by the Population Division of the Department of Economic and Social Affairs of the UN Secretariat and presents population estimates from 1950 to the present.

58. Consider the following statements about National Pharmaceutical Pricing Authority:

1. It is neither a Statutory nor a Constitutional Body.
2. It is responsible for implementing and enforcing the provisions of the Drugs Price Control Order (DPCO).

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

Explanation: C) The National Pharmaceutical Pricing Authority was set up as an attached office of the Department of Chemicals and Petrochemicals on August 29, 1997.

• The National Pharmaceutical Pricing Authority (NPPA) is responsible for implementing and enforcing the provisions of the Drugs Price Control Order (DPCO). It is also responsible for monitoring the availability of drugs, identifying shortages, managing the drug pricing, and dealing with legal matters.

59. Consider the following statements regarding Imported Inflation.

1. When the general price level rises in a country because of the rise in prices of imported commodities, inflation is termed as imported.
2. The weakening of the domestic currency may lead to imported inflation in the country.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: C) When the general price level rises in a country due to the rise in prices of imported commodities, inflation is termed imported. Inflation may also rise due to depreciation of the domestic currency, which pushes up the landed rupee cost of imported items.

60. Consider the following statements:

1. Measles is an acute viral respiratory illness.
2. There's no specific treatment for a measles infection once it occurs.

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

Explanation: C) Measles/Rubella is a highly contagious viral infection (caused by morbillivirus) and is associated with high mortality in children less than 2 years of age.

There's no treatment to get rid of an established measles infection, but over-the-counter fever reducers or vitamin A may help with symptoms.

61. Mission Innovation (MI) is an initiative of

- a) UNDP
- b) WEF
- c) WWF
- d) None of the above

Explanation: D) Mission Innovation (MI) is a global initiative of 23 countries and the European Commission (on behalf of the European Union) catalysing a decade of action and investment in research, development and demonstration to make clean energy affordable, attractive and accessible for all. This will accelerate progress towards the Paris Agreement goals and pathways to net zero.

Department of Biotechnology (DBT) under Ministry of Science & Technology is nodal agency coordinating and steering activities of Mission Innovation (MI) in India. It was announced by the leaders of 20 countries that have a shared desire to accelerate global clean energy innovation during COP 21 in Paris.

62. Koronivia Joint Work of UNFCCC is set up to deal with which sector:

- a) agriculture
- b) waste disposal
- c) refugee issues
- d) disaster management

Explanation: A) India recently communicated strong objections to discussions under a special UN Framework Convention on Climate Change effort known as the Koronivia Joint Work on Agriculture, which has sought to expand efforts to reduce emissions of greenhouse gases to the agriculture sector. It was established at the 23rd Conference of the Parties (COP) in Fiji in 2017 as a new process to advance discussions on agriculture in the United Nations Framework Convention on Climate Change (UNFCCC).

63. Identify the correct statements with respect to dark net:

1. Dark Net (or Darknet), also known as the dark web, refers to the deep hidden internet platform that is used for narcotics sale, exchange of pornographic content and other illegal activities by using the secret alleys of the onion router (ToR) to stay away from the surveillance of law enforcement agencies.

2. Dark web and deep web are same.

- a) 1 only
- b) 2 only
- c) both
- d) none

Explanation: A) Dark Net (or Darknet), also known as the dark web, refers to the deep hidden internet platform that is used for narcotics sale, exchange of pornographic content and other illegal activities by using the secret alleys of the onion router (ToR) to stay away from the surveillance of law enforcement agencies.

Darknet is the part of the Internet below the private deep web that uses custom software and hidden networks superimposed on the architecture of the Internet.

Owing to its end-to-end encryption, darknet is considered very tough to crack when it comes to investigating criminal activities being rendered over it.

Dark Net (or Darknet), also known as the dark web, refers to the deep hidden internet platform that is used for narcotics sale, exchange of pornographic content and other illegal activities by using the secret alleys of the onion router (ToR) to stay away from the surveillance of law enforcement agencies.

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64. With reference to SVAMITVA scheme, consider the following statements:

- 1. It is a Central Sector Scheme.
- 2. The scheme is piloted by the Ministry of Rural Development.
- 3. Under the scheme, residential land in villages will be measured using drones to create a non-disputable record.

Which of the given above statements is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Explanation: C) Launched on Panchayati Raj Diwas (April 24th, 2020).

The scheme seeks to map residential land ownership in the rural sector using modern technology like the use of drones. The scheme aims to revolutionise property record maintenance in India.

The scheme is piloted by the Panchayati Raj ministry. Under the scheme, residential land in villages will be measured using drones to create a non-disputable record.

Property card for every property in the village will be prepared by states using accurate measurements delivered by drone-mapping. These cards will be given to property owners and will be recognised by the land revenue records department.

65. Consider the following statements:

1. All photons travel at the speed of light.
2. Photons have zero mass and rest energy.

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

Explanation: C) According to the photon theory of light, photons: behave like a particle and a wave, simultaneously move at a constant velocity, ("the speed of light"), in empty space have zero mass and rest energy, carry energy and momentum can be destroyed/created when radiation is absorbed/emitted. can have particle-like interactions (i.e. collisions) with electrons and other particles, such as in the Compton effect in which particles of light collide with atoms, causing the release of electrons.

66. Which of the following statements is/are correct?

Viruses can infect

1. bacteria
2. fungi
3. plants

Select the correct answer using the code given below.

- a) 1 and 2 only

b) 3 only

c) 1 and 3 only

d) 1, 2 and 3

Explanation: D) Viruses are known to infect almost any kind of host that has living cells. Animals, plants, fungi, and bacteria are all subject to viral infection.

A bacteriophage is a virus that infects and replicates within a bacterium. Mycoviruses are viruses that infect fungi. A host of other Viruses affect plants.

67. Identify the correct statement with respect to National Suicides Prevention Strategy in India:

1. It is the first of its kind in the country, with time-bound action plans and multi-sectoral collaborations to achieve reduction in suicide mortality by 50% by 2030.
2. In the past three years, the suicide rate has increased from 10.2 to 11.3 per 1,00,000 population.

- a) 1 only
- b) 2 only
- c) both
- d) none

Explanation: B) It is the first of its kind in the country, with time-bound action plans and multi-sectoral collaborations to achieve reduction in suicide mortality by 10% by 2030.

The strategy broadly seeks to establish effective surveillance mechanisms for suicide within the next three years, establish psychiatric outpatient departments through the District Mental Health Programme in all districts within the next five years, integrate a mental well-being curriculum in all educational institutions within the next eight years. It envisages developing guidelines for responsible media reporting of suicides.

While the strategy is in line with the WHO's South East-Asia Region Strategy for suicide prevention, it says it will remain true to India's cultural and social milieu. In India, more than one lakh lives are lost every year to suicide, and it is the top killer in the 15-29 years category. In the past three years, the suicide rate has increased from 10.2 to 11.3 per 1,00,000 population. The most common reasons for suicide include family problems and illnesses, which account for 34% and 18% of all suicide-related deaths.

68. Called 'Muli' in northeast India, it is the largest fruit-producing bamboo and is native to the northeast India-Myanmar region. It is

- a) Ginkgo biloba
- b) Melocanna baccifera

c) *Ficus elastica*

d) *Juglans regia*

Explanation: B.

Called 'Muli' in northeast India, *Melocannabaccifera* is the largest fruit-producing bamboo and is native to the northeast India-Myanmar region.

69. Consider the following statements with reference to Great Nicobar Biosphere Reserve:

1. It lies between the west coast of Sri Lanka and the southeastern tip of India.

2. It incorporates two National parks of India.

3. It is home to indigenous Shompen people.

Which of the given above statements is/are correct?

a) 1 and 2 only

b) 2 and 3 only

c) 1 and 3 only

d) 1, 2 and 3

Explanation: B) Gulf of Mannar lies between the west coast of Sri Lanka and the southeastern tip of India, in the Coromandel Coast region.

The Great Nicobar Biosphere Reserve was declared in January 2013. It incorporates two National parks of India, which were gazetted in 1992: the larger Campbell Bay National Park on the northern part of the island, and Galathea National Park in the southern interior.

The Great Nicobar Biosphere Reserve also incorporates territories and traditional lands of the indigenous Nicobarese and Shompen peoples.

70. Consider the following statements regarding Gulf of Mannar Biosphere Reserve (GOMBR).

1. Gulf of Mannar Biosphere Reserve is the first marine Biosphere in India.

2. It extends from Rameswaram to Tuticorin.

3. It is internationally recognised under the UNESCO-MAB programme.

Which of the above statements is/are correct?

a) 1 and 2 only

b) 1 and 3 only

c) 2 and 3 only

d) 1, 2 and 3

Explanation: D. The Gulf of Mannar Biosphere Reserve (GOMBR) area is extending from Rameswaram to Tuticorin. It comprises of 21 Islands and this is the first Indian marine national park which is internationally recognised under the UNESCO-MAB programme. The IUCN commission on national parks and WWF identified the reserve as an area of particular concern because of

its richest biodiversity and multiple use of the area. The GOMBR is the first marine Biosphere in India.

71. Fordow Fuel Enrichment Plant (FFEP) is located in:

a) Iran

b) Iraq

c) Saudi Arabia

d) Oman

Explanation: A) Fordow Fuel Enrichment Plant (FFEP) is Iran's second pilot enrichment plant.

The first is the Pilot Fuel Enrichment Plant at Natanz.

It is located buried in a mountain near the city of Qom.

Under the terms of the 2015 agreement with world powers, Iran is only permitted to enrich uranium to 3.67% purity.

Iran has recently begun producing uranium enriched to 60 percent at the Fordo underground facility.

72. Identify the correct statements with regard to PM's Economic Advisory Council (PMEAC):

1. Economic Advisory Council to the Prime Minister (PMEAC) is a constitutional, non-permanent and independent body constituted to give economic advice to the Government of India, specifically the Prime Minister.

2. There is no fixed definition on the exact number of members and staff of the PMEAC.

3. The Council was set up with a view to provide a sounding board for inculcating awareness in government on the different point of view on key political issues.

a) 1 and 2 only

b) 2 only

c) 2 and 3 only

d) All of the above

Explanation: B Economic Advisory Council to the Prime Minister (PMEAC) is a non-constitutional, non-permanent and independent body constituted to give economic advice to the Government of India, specifically the Prime Minister.

The Council was set up with a view to provide a sounding board for inculcating awareness in government on the different point of view on key economic issues.

It is common for the Council to be reconstituted time and again with different organizational structures headed by various economists who are of recognized international eminence.

The PMEAC is chaired by a Chairperson and consists of eminent economists as members.

After the latest reconstitution, it now has a Chairperson, Member Secretary and two part-time members.

There is no fixed definition on the exact number of members and staff of the PMEAC.

For administrative, logistic, planning and budgeting purposes, the NITI Aayog replaced erstwhile Planning Commission to serves as the Nodal Agency for the PMEAC.

73. Consider the following statements about Central Depositories Services India Ltd:

1. It is a financial entity set up to hold securities in the form of tangible or non-physical certificates.
2. It is currently the largest depository in India in terms of number of demat accounts opened.

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

Explanation: C) CDSL is currently the largest depository in India in terms of number of demat accounts opened. On February 28, 2022, CDSL became the first depository in India to open 60-million active demat accounts. Founded in 1999, CDSL is a government-registered share depository, alongside its other state-owned counterpart National Securities Depository Ltd (NSDL).

74. With reference to Appointment and Tenure of Election Commissioners, consider the following statements:

1. Presently, Election Commissioners are appointed by the President of India, on the aid and advice of the Appointments Committee of the Cabinet (ACC).
2. The Chief Election Commissioner (CEC) can be removed from office only through a process of removal similar to that of a Supreme Court judge by Parliament.

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

Explanation: B) Presently, Election Commissioners are appointed by the President of India, on the aid and advice of the Council of Ministers.

The CEC of India can be removed from their office in a manner similar to the removal of a judge of the SC of India, while other ECs can be removed by the President of India on the recommendation of the CEC.

75. Consider the following statements about Black-Naped Pheasant-Pigeon:

1. It is a large bird that usually lives around hilly areas and lower mountain areas.
2. It is listed as Critically Endangered on the IUCN Red List.

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

Explanation: C) Before the recent rediscovery, Black-Naped Pheasant-Pigeon was first and last seen in 1882. It is a large, terrestrial pigeon having black and orange feathers and red eyes.

The species is endemic to Fergusson Island in Papua New Guinea.

In July 2021, though the species' population is undetermined, was listed as a critically endangered species by the International Union for Conservation of Nature (IUCN), with an estimated population of 50 to 249 birds.

76. What are the recent predictions according to Organisation for Economic Cooperation and Development (OECD):

- 1) Global growth has seen falling from 1% in 2022 to 2.2% in 2023.
- 2) China, which is not an OECD member, was one of the few major economies expected to see growth pick up next year after a wave of COVID lockdowns.

- a) 1 only
- b) 2 only
- c) both
- d) none

Explanation: C) Global growth has seen falling from 1% in 2022 to 2.2% in 2023.

The OECD said the global slowdown was hitting economies unevenly, with Europe bearing the brunt as Russia's war in Ukraine hits business activity and drives up energy prices. China is one of the many non-member economies with which the OECD has working relationships in addition to its member countries.

77. Identify the correct statement with respect to Agni-3

- 1) It has a range of 5500 km and has the capability of carrying warhead weighing as much as 1.5 tonnes.

2) Due to its high range of circular error probable (CEP), Agni-3 missile is known as world's most accurate strategic ballistic missile of its range class.

3) The accuracy of the nuclear warhead also provides an opportunity of deploying larger number of nuclear force using less fusion material.

a) 1 and 2 only

b) 2 and 3 only

c) 1,2,3

d) 1 and 2 only

Explanation: B) India recently test fired intermediate-range ballistic missile Agni-3 from APJ Abdul Kalam Island, Odisha.

It has a range of 3,500 km and has the capability of carrying warhead weighing as much as 1.5 tonnes.

Due to its high range of circular error probable (CEP), Agni-3 missile is known as world's most accurate strategic ballistic missile of its range class.

The accuracy of the nuclear warhead also provides an opportunity of deploying larger number of nuclear force using less fusion material.

The low weight of the payload has increased the target range of the missile to 3,500 kilometre.

78. With reference to the Indo-Pacific Regional Dialogue, consider the following statements:

1. NITI Aayog knowledge partner and chief organizer of each edition of the event.

2. The theme of IPRD-2022 is the 'Operationalising the Indo-Pacific Oceans Initiative'.

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

Explanation: B) IPRD is an apex level international annual conference of the Indian Navy.

The idea of an annual IPRD was first conceptualised and conducted in 2018, as the apex level conference of the Indian Navy.

The National Maritime Foundation is Navy's knowledge partner and chief organizer of each edition of the event.

The theme of IPRD-2022 is the 'Operationalising the Indo-Pacific Oceans Initiative'.

Objective: To provide a platform to focus attention on the Indo-Pacific, as a maritime geographical-entity, while deliberating aspects of great relevance to regional geopolitics.

79. Consider the following statements about Central Information Commission (CIC)

1. It is a statutory body, set up under the Right to Information Act in 2005.

2. The Commission consists of a Chief Information Commissioner and not more than ten Information Commissioners.

3. The Commission can order an inquiry into any matter if there are reasonable grounds

Which of the statements given above is/are correct?

a) 1 and 2 only

b) 2 and 3 only

c) 1 and 3 only

d) 1, 2 and 3

Explanation: D) Central Information Commission (CIC):Established by the Central Government in 2005, under the provisions of the Right to Information Act (2005).

Members: The Commission consists of a Chief Information Commissioner and not more than ten Information Commissioners.

Appointment: They are appointed by the President on the recommendation of a committee consisting of the Prime Minister as Chairperson, the leader of the single largest Opposition party in the Lok Sabha and a Union Cabinet Minister nominated by the Prime Minister.

Tenure: The Chief Information Commissioner and an Information Commissioner shall hold office for such term as prescribed by the Central Government or until they attain the age of 65 years, whichever is earlier.

They are not eligible for reappointment.

The Commission can order an inquiry into any matter if there are reasonable grounds (suo-moto power).While inquiring, the Commission has the powers of a civil court in respect of summoning, requiring documents etc.

80. Consider the following statements:

1. The Constitution of India does not define the criteria for recognition of Scheduled Tribes.

2. The Constitution of India empowers the Parliament of India to specify the Scheduled Tribes (STs) in various states and union territories.

Which of the given above statements is/are correct?

a) 1 only

b) 2 only

c) Both 1 and 2

d) Neither 1 nor 2

Explanation: A) The Constitution does not define the criteria for recognition of Scheduled Tribes. However, Article 366(25) of the Constitution only provides process to define Scheduled Tribes: "Scheduled Tribes means such tribes or tribal communities or parts of or groups within such tribes or tribal communities as are deemed under Article 342 to be Scheduled Tribes for the purposes of this Constitution."

Article 342(1): The President may with respect to any State or Union Territory, and where it is a State, after consultation with the Governor, by a public notification, specify the tribes or tribal communities or part of or groups within tribes or tribal communities as Scheduled Tribe in relation to that State or Union Territory.

81. Consider the following statements about Shisham (Dalbergia sissoo):

1. It is a deciduous tree
2. It is native to the Indian subcontinent only

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

Explanation: A) CITES at CoP 19 has eased rules for the export of Shisham (Dalbergia sissoo) on the initiative of India. Currently, Shisham is in Appendix II (thus regulated), but now Shisham up to a certain weight can now be traded. This will allow Shisham handicrafts to be exported from India. Shisham is a deciduous tree native to the Indian subcontinent and Iran.

82. With reference to Tenzing Norgay National Adventure Awards 2021, consider the following statements:

1. It is constituted by The Ministry of Youth Affairs and Sports.
2. It is given in only two categories namely, Land Adventure, Water Adventure.

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

Explanation: A) The Ministry of Youth Affairs and Sports recently announced the National Adventure Awards called "Tenzing Norgay National Adventure Award" (TNNA) for the year 2021.

Tenzing Norgay National Adventure Awards are given every year.

The award will be given in four categories namely, Land Adventure, Water Adventure, Air Adventure and Life Time Achievement.

83. 'Red Line Campaign' recently mentioned in news aims to

- a) Encourage the birth and education of girl children.
- b) Discouraging unnecessary prescription and over-the-counter sale of antibiotics causing drug resistance
- c) Promoting sanitation programs in the rural areas
- d) Create more job opportunities and skill enhancement in 25 sectors of the country.

Explanation: C) The Union health ministry's Anti-Microbial Resistance awareness campaign urges people not to use medicines marked with a red vertical line, including antibiotics, without a doctor's prescription. These medicines are called the 'Medicines with the Red Line'.

To check the irrational use of antibiotics, the 'red line' will help the users to differentiate them from other drugs.

84. With reference to Right to Information Act, 2005, consider the following statements:

1. It sets out the rules and procedures regarding citizen's right to information.
2. It replaced the former Freedom of Information Act, 2002.
3. It was enacted in order to consolidate the fundamental right in the Indian constitution 'freedom of speech'.

Which of the statements given above is/are correct?

- a) 1 and 3 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

Explanation: D) It sets out the rules and procedures regarding citizens' right to information.

- It replaced the former Freedom of Information Act, 2002.
- This act was enacted in order to consolidate the fundamental right in the Indian constitution 'freedom of speech'. Since RTI is implicit in the Right to Freedom of Speech and Expression under Article 19 of the Indian Constitution, it is an implied fundamental right

85. Consider the following pairs:

Species	IUCN status
Black Rhino	Critically Endangered
Javan Rhino	Endangered

White Rhino Near Threatened

Which of the pairs given above is/are correctly matched?

- a) 1 and 2 only
- b) 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Explanation: C) Black Rhino: Critically Endangered

- Javan Rhino: Critically endangered
- White Rhino : Near Threatened

86. With reference to the National Cadet Corps (NCC)

Raising Day, consider the following statements:

1. National Cadet Corps (NCC) is a Tri-Services Organization, comprising the Army, Navy and Air Force, engaged in grooming the youth into disciplined and patriotic citizens.

2. It came into existence in 1990.

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

Explanation: A) National Cadet Corps (NCC) is a Tri-Services Organization, comprising the Army, Navy and Air Force, engaged in grooming the youth into disciplined and patriotic citizens.

- It is a voluntary organization which recruits cadets from high schools, colleges and universities all over India.
- The Cadets are given basic military training in small arms and parades. They are given preference in military service over normal candidates during selections.
- It came into existence in 1948 under the National Cadet Corps Act, 1948.
- Related Ministries: Defence Ministry deals with NCC at the National level. Education Ministry deals with NCC in all States.

87. With reference to the 'Ikshak', consider the following statements:

1. Recently, Indian Navy launched 'Ikshak', the third of the four survey vessels (Large) project at Kattupalli in Tamil Nadu

2. It is being built by Cochin Shipyard.

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

Explanation: A) The ship, named 'Ikshak' which means 'Guide', is being built by Garden Reach Shipbuilders and Engineers (GRSE) and Larson and Toubro (L&T).

2. It is being built by Cochin Shipyard.

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

Explanation: A) The ship, named 'Ikshak' which means 'Guide', is being built by Garden Reach Shipbuilders and Engineers (GRSE) and Larson and Toubro (L&T).

· Recently, Indian Navy launched 'Ikshak', the third of the four survey vessels (Large) project at Kattupalli in Tamil Nadu

· The first of class ship 'Sandhayak' was launched on December 5, 2021 at GRSE, Kolkata. SVL ships will replace the existing Sandhayak Class survey ships with new generation hydrographic equipment to collect oceanographic data

88. Consider the following statements.

1. In the last 2 decades, the overall growth in the dairy sector has been low compared to Cereals.

2. Operation Flood was the world's largest dairy development program that transformed India's Dairy sector.

3. The cooperative model, steered by Verghese Kurien, is associated with the Indian Dairy sector.

Which of the above statements is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Explanation: B) The overall growth in the dairy sector for the last 20 years has been between 4-5 per cent per annum, and lately, it has accelerated to even 6 per cent. In comparison, cereals have been growing at about 1.6 per cent per annum over the same period.

· It is well known that "Operation Flood" (OF) that started in the 1970s transformed this sector. The institutional innovation of a cooperative model, steered by Verghese Kurien, changed the structure of this sector.

· Recently, Indian Navy launched 'Ikshak', the third of the four survey vessels (Large) project at Kattupalli in Tamil Nadu

· The first of class ship 'Sandhayak' was launched on December 5, 2021 at GRSE, Kolkata. SVL ships will replace the existing Sandhayak Class survey ships with new generation hydrographic equipment to collect oceanographic data

89. Identify the correct statements with regard to Prime Minister's National Relief Fund (PMNRF)

- 1) Prime Minister's National Relief Fund (PMNRF) was established with public contributions and budgetary support.
- 2) The fund is recognized as a Trust under the Income Tax Act and the same is managed by Prime Minister or multiple delegates for national causes.

- a) 1 only
- b) 2 only
- c) 1 and 2
- d) None of the above

Explanation B) PMNRF was established entirely with public contributions and does not get any budgetary support. The corpus of the fund is invested in various forms with scheduled commercial banks and other agencies. Disbursements are made with the approval of the Prime Minister.

PMNRF has not been constituted by the Parliament. The fund is recognized as a Trust under the Income Tax Act and the same is managed by Prime Minister or multiple delegates for national causes.

PMNRF accepts voluntary contributions from Individuals, Organizations, Trusts, Companies and Institutions etc.

All contributions towards PMNRF are exempt from Income Tax under section 80(G).

- The resources of the PMNRF are utilized to render immediate relief to families of those killed in natural calamities like floods, cyclones and earthquakes, etc.

90. Wangala dance is a festival of which tribal community

- a) Garo
- b) Khasi
- c) Toda
- d) santhal

Explanation: A) Wangala Festival of Meghalaya is a most popular festival among the Garos of Meghalaya, India. Wangala Festival is a harvest festival held in honour of Saljong, the Sun-god of fertility

Also known as a 100 drums festival, it was performed on the banks of Umiam Lake in Meghalaya

91. Identify the correct statement with reference to 'Mission on Paediatric Rare Genetic Disorders (PraGeD)

- 1) it is a PAN-India initiative funded by ministry of Health
- 2) The Centre for DNA Fingerprinting and Diagnostics (CDFD), Hyderabad has initiated an inter-disciplinary approach to decode the genetic mutations that causes Pediatric Rare Genetic Disorders (PRaGeD).

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) None of the above

Explanation B) It is a PAN-India initiative funded by the Department of Biotechnology (DBT), Ministry of Science and technology, Government of India.

The centre will be collaborating with paediatrics departments of medical colleges besides, DBT's own diagnostic centres set up under the Unique Methods of Management of Inherited Disorders (UMMID) programme and others across India to analyse samples from children with rare genetic disorders and their parents.

Scientists at the CDFD will perform high-throughput Whole Exome Sequencing (WES)/ Whole Genome Sequencing (WGS), analysis of sequence data, functional validation of the novel genes/variants, a database of phenotype-genotype to determine which gene/mutation(s) cause rare disease condition

92. Where is Zojila pass located?

- a) Kashmir valley
- b) Uttarakhand
- c) Himachal Pradesh
- d) Arunachal Pradesh

Explanation A) Zojila is a pass connecting the Kashmir Valley with the cold Indus valley desert in Ladakh region through the 434-km strategic Srinagar-Leh National Highway.

It is often closed during winter. The Beacon Force unit of the Border Roads Organisation (BRO) is responsible for its clearing and maintenance during Winter. Zojila Day was commemorated at Zojila War Memorial near Drass on November 1. It aims to celebrate the gallant action by Indian troops in 'Operation Bison' in 1948 which was launched on the icy heights of Zojila pass, the gateway to Ladakh.

93. Identify the correct statement with respect to Ethanol Blending Programme (EBP)

- 1) The EBP programme was launched by the Ministry of New and Renewable Energy in 2003, to promote the use of alternative and environment friendly fuels.
- 2) Under this programme, starting with 5% blending, the government later increased the target of 10% ethanol blending by 2022.

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) None

Explanation: B) The EBP programme was launched by the Ministry of Petroleum and Natural Gas in 2003, to promote the use of alternative and environment friendly fuels.

Under this programme, starting with 5% blending, the government later increased the target of 10% ethanol blending by 2022.

India's goal is to grow this ratio to 20% by 2030, but when the NITI Aayog released the ethanol roadmap in 2021, that deadline was advanced to 2025.

The Cabinet Committee on Economic Affairs, CCEA yesterday approved mechanism for ethanol procurement by public sector oil marketing companies under Ethanol Blended Petrol programme

94. Consider the following statements with respect to Pesticide Action Network (PAN)

- 1) It helps farmers to reduce dependence on toxic chemicals.
- 2) It works under the Ministry of Agriculture & Farmers' Welfare.

Which of the above statement(s) is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Explanation: A) Pesticide Action Network (PAN) India is founded as an independent national non-profit organization in India in 2013.

It is expertise to eliminate the human and environmental hazards caused by pesticides.

The organization is focusing to bring changes in the way chemical pesticides are used harming life and environment.

It aims to help farmers to reduce dependence on toxic chemicals.

95. Consider the following statements:

- 1) In the performance of its functions, Election Commission of India (ECI) is insulated from executive interference.
- 2) The decisions of the ECI can be challenged only in the Supreme Court of India by appropriate petitions.

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

Explanation: A) The Election Commission is insulated from executive interference.

The decisions of the Commission can be challenged in the High Court and the Supreme Court of India by appropriate petitions.

96. Consider the following with reference to the impeachment of a high court judge.

1. The procedure for the impeachment of a judge of a high court is the same as that for a judge of the Supreme Court.
2. Only the Chief Justice of India can pass the final order for the removal of a high court judge post impeachment.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Explanation: A) The Judges Enquiry Act (1968) regulates the procedure relating to the removal of a judge of a high court by the process of impeachment.

A removal motion signed by 100 members (in the case of Lok Sabha) or 50 members (in the case of Rajya Sabha) is to be given to the Speaker/Chairman.

The Speaker/Chairman may admit the motion or refuse to admit it. If it is admitted, then the Speaker/Chairman is to constitute a three-member committee to investigate into the charges. The procedure is same for a SC judge.

After the motion is passed by each House of Parliament by special majority, an address is presented to the president for removal of the judge. Finally, the president passes an order.

97. Consider the following statements regarding Polar Satellite Launch Vehicle (PSLV) and Geosynchronous Satellite Launch Vehicle (GSLV).

1. PSLV was developed to launch low-Earth Orbit satellites into polar and sun synchronous orbits.
 2. GSLV was developed to launch the heavier INSAT class of geosynchronous satellites into orbit.
- GSLV is designed mainly to deliver remote sensing satellites, whereas PSLV has been designed for launching communication satellites.

Which of the above statements is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Explanation A) PSLV is the third generation launch vehicle of India and the first Indian launch vehicle which is equipped with liquid stages. GSLV, on the other hand, is the fourth generation launch vehicle and is a three-stage vehicle with four liquid strap-ons.

- PSLV was developed to launch low-Earth Orbit satellites into polar and sun synchronous orbits. On the other hand, GSLV was developed to

launch the heavier INSAT class of geosynchronous satellites into orbit. In its third and final stage, GSLV uses the indigenously developed cryogenic upper stage.

- PSLV is designed mainly to deliver the earth observation or remote sensing satellites, whereas, GSLV has been designed for launching communication satellites.
- GSLV delivers satellites into a higher elliptical orbit, Geosynchronous Transfer Orbit (GTO) and Geosynchronous Earth Orbit (GEO).

98. With reference to the Bluebugging, consider the following statements:

1. It is a form of hacking that lets attackers access a device through its discoverable Bluetooth connection.
2. Once a device or phone is bluebugged, a hacker can listen to the calls, read and send messages and steal and modify contacts.

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

Explanation: C) Bluebugging attacks work by exploiting Bluetooth-enabled devices.

The device's Bluetooth must be in discoverable mode, which is the default setting on most devices. The hacker then tries to pair with the device via Bluetooth.

Once a connection is established, hackers can use brute force attacks to bypass authentication. They can install malware in the compromised device to gain unauthorised access to it. Bluebugging can happen whenever a Bluetooth enabled device is within a 10-metre radius of the hacker.

99. The proposed Dhamma Dipa International Buddhist University (DDIBU) is located in:

- A. Tripura
- B. Sikkim
- C. Nagaland
- D. Arunachal Pradesh

Explanation A) The Dhamma Dipa International Buddhist University (DDIBU) in Tripura is expected to become the first Buddhist-run University in India to offer Buddhist education along with courses in other disciplines of modern education as well.

- It will be the first Buddhist University in India to be headed by Buddhist monastics and run and monitored by Buddhists.
- The word, Dhammadipa, describes both a core principle and a guiding force, which seeks the light of Dharma, its international scope and measure.

100. With reference to the Indian Renewable Energy Development Agency Limited, consider the following statements:

1. It is under the administrative control of Ministry of Finance.
2. It has been notified as a “Public Financial Institution” under the Companies Act, 1956.

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

Explanation B) IREDA is a Mini Ratna (Category – I) Government of India Enterprise under the administrative control of Ministry of New and Renewable Energy (MNRE).

It is engaged in promoting, developing and extending financial assistance for setting up projects relating to new and renewable sources of energy. IREDA has been notified as a “Public Financial Institution” under the Companies Act, 1956 and registered as Non-Banking Financial Company (NBFC) with Reserve Bank of India (RBI).

101. Which of the following can lead to Demand-Pull Inflation?

1. A growing economy
2. Increase in Forex reserves
3. Deficit financing by the government
4. Depreciation of rupee

Select the correct answer code:

- (a) 1, 2 and 3 only
- (b) 2, 3 and 4 only
- (c) 1, 3 and 4 only
- (d) 1, 2, 3 and 4

Explanation D) Demand-Pull Inflation is caused due to an increase in aggregate demand in the economy. Causes of Demand-Pull Inflation: A growing economy or increase in the supply of money – When consumers feel confident, they spend more and take on more debt.

This leads to a steady increase in demand, which means higher prices.

Asset inflation or Increase in Forex reserves.

Government spending or Deficit financing by the government – When the government spends more freely, prices go up- Due to fiscal stimulus, Increased borrowing, Depreciation of rupee, Low unemployment rate.

102. With reference to Coal production in India, consider the following statements:

1. Currently, India has the fifth largest coal reserves in the world.
2. India is the second largest producer of coal in the world, after China.
3. India is the second largest coal importer in the world.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Explanation: D) The total coal production in the country stands at 448 million tonnes (MT) as of October 2022 which is 18 % higher than the production of the corresponding period of last year.

Coal in India was first mined in 1774 by East India Company in Raniganj Coalfield along the Western bank of Damodar River. Today, India has the fifth largest coal reserves in the world. India is the second largest producer of coal in the world, after China. However, India is the second largest coal importer in the world and it imports mainly from Indonesia, Australia, South Africa and the United States. India lacks coking coal.

103. Which of the following statements is/are correct regarding National Innovation Foundation-India (NIF)?

1. NIF is an autonomous body of the Department of Science and Technology under the Central Government
2. NIF is an initiative to strengthen the highly advanced scientific research in India’s premier scientific institutions in collaboration with highly advanced foreign scientific institutions.

Select the correct answer using the code given below.

- (a) 1 only

- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Explanation A) National Innovation Foundation – India (NIF) is an autonomous body under the Department of Science and Technology (India), Government of India. It was set up in February 2000 at Ahmedabad, Gujarat, India to provide institutional support for scouting, spawning, sustaining and scaling up the grassroots innovations across the country.

NIF conducts a biennial national competition for grassroots green technologies (not highly advanced) developed by farmers, mechanics, artisans and others through their own genius without any recourse to professional help. NIF validates these innovations with the help of experts, and, ascertains the novelty in these innovations by doing prior art search. If the innovation is deemed novel, NIF files a patent on behalf of the innovator. NIF also funds value addition initiatives in these innovations to upscale them and make them more useful for a larger segment of people.

104. 'Y 12705 (Mormugao) recently seen in news is a

- A. missile defence system
- B. intermediate Range Ballistic Missile
- C. Bomb diffusal robot
- D. stealth guided missile destroyer Ship

Explanation D) Y 12705 (Mormugao), the second ship of Project 15B stealth guided missile destroyers being built at Mazagon Dock Shipbuilders Limited (MDL), was delivered to the Indian Navy recently.

Four Guided missile Destroyers of Project 15B (P 15B) are under construction at M/s Mazagaon Dock Shipbuilders Limited, Mumbai. These ships are equipped with BrahMos supersonic cruise missiles and long-range Surface-to-Air Missiles (SAM). The ship has several indigenous weapons systems like medium range Surface-to-Air Missile (SAMs), indigenous torpedo tube launchers, anti-submarine indigenous rocket launchers and 76-mm super rapid gun mount.

105. With reference to tilting trains, consider the following statements:

1. It enables trains to maneuver curves at increased speed.
2. At present, India does not have any trains based on this technology.

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

Explanation C) It is a technology that enables trains to maneuver curves at increased speed, that too on regular tracks, just like a motorcycle on a winding road. Vande Bharat trains, manufactured in India, will be equipped with the technology by 2025 that will improve their speed.