



VAJIRAM & RAVI

(Institute for Civil Services Examination)

JULY 2021

the RECITALS

Explore Current Affairs Through Q&A



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Articles**

U.S. Exit From Afghanistan



**Prelims
Q & A**

Start Up India



**Bridging
Gaps**

Strike In Defence Services

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The Recitals

Explore Current Affairs Through Q&A

(July 2021)

VAJIRAM & RAVI

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U.S. Exit From Afghanistan

Context

- The US and its allies exited Bagram airbase thereby **effectively completing its military campaign in Afghanistan**. This base was the centre of the war against militants for some 20 years.
- Earlier, US President had indicated that all its **force will be gone by 11 September**. The 11 September deadline is the anniversary of the attacks on America in 2001.

Why Did U.S. Invade Afghanistan?

- After the September 11, 2001 terrorist attacks on USA, the then President George Bush declared war on Afghanistan.
- Afghanistan was then **ruled by Taliban** which **refused to hand over al-Qaeda leaders**, including Osama bin Laden, to USA. These al-Qaeda leaders were responsible for 9/11 attack.
- Taliban regime was quickly dislodged and a transitional government was established in Afghanistan. At that time, **U.S. rejected an offer from the Taliban to surrender** and vowed to defeat the insurgents in every corner of Afghanistan.
- However, by analysing the present scenario, it can be said that it **neither ended the war nor stabilised the country**.

Why US Has Pulled Back Now?

- US started to believe that this **war was unwinnable**. USA got embroiled in an endless war for 20 years. Even after 20 years, peace and stability seemed elusive.
- Also, it was a costly affair for USA. The 20-year war has claimed over 70,000 civilian lives and has cost the country **more than \$2 trillion**.

Negotiations Before Exit

- USA wanted a **face-saving exit**. In order to do that, since 2015, successive governments had been trying to negotiate with Taliban.
- During earlier part of negotiations, efforts were made to forge a consensus between Afghanistan and Taliban. The **first-ever meeting** between the Taliban and the Afghan government was hosted by Pakistan under the overall supervision of USA.
- Since these talks yielded no tangible results, USA decided to directly negotiate with the Taliban which resulted into **February 2020 Agreement** (also known as **US-Taliban Peace Deal**).
- This deal dealt with **four aspects of the conflict** — *foreign troops, violence, intra-Afghan peace talks, and the use of Afghan soil by terrorist groups*.
- The Taliban promised to **reduce violence, join intra-Afghan peace talks, and cut all ties with foreign terrorist groups**, while the U.S. pledged to withdraw all its troops by May 1, 2021. However, this date was pushed to September 11 by the new US President.

The Future of Afghanistan After US Exit

- The American withdrawal has **turned the balance of power in favour of the Taliban**. Taliban seems to have been making rapid territorial advances and experts believe that the Afghanistan might fall in the hands of Taliban once again.

- There could be three scenarios from here:
 - *Political settlement* - Taliban and the government agree to some power-sharing mechanism and jointly shape the future of Afghanistan
 - *An all-out civil war* - The government holds on to its positions in key cities and the Taliban expand its reach in the countryside
 - The Taliban taking over the country

What Is Pakistan's Stake in Afghanistan?

- Pakistan was **one of the three countries that had recognised** Taliban regime in the 1990s. Later, under US pressure, it cut formal ties with the Taliban and joined America's war on terror.
- However, it kept on **supporting Taliban** by *providing shelter to Taliban's top leaders*. Even now, the resurgent Taliban is getting help from Pakistan. Pakistan is keeping its *supply lines open* as well as *providing tactical and logistical support* to the outfit.
- **Pakistan wants to check India's influence in Afghanistan** and bring the Taliban to Kabul. Return of Taliban to power would provide more strategic space to Pakistan.
- However, even Pakistan does not want violent military takeover of Afghanistan by Taliban as it would **lack international acceptability**. Also, in such situation, Pakistan could face **influx of refugees from Afghanistan** and a **strengthening of anti-Pakistan terror groups**, such as the Tehrik-i-Taliban.

What Is India's Stake

- India has to **protect its investments**, which run into billions of rupees, in Afghanistan. Over the past two decades, India was able to ensure its presence in Afghanistan through **developmental assistance to tune of around \$3 billion**.
- India also wants to prevent a **future Taliban regime from being a pawn of Pakistan**. India will have to ensure that the Pakistan-backed *anti-India terrorist groups do not get support from Taliban*. It will worsen the security situation in Kashmir.
- India's strategic interests are also at stake. Afghanistan is very important for India's **Connect Central Asia policy**.

What Should India Do

A. It Should Start Talks with Taliban

- **In the past, India chose not to engage the Taliban**. Many analysts believe that India paid a heavy price by doing this. The security situation in J&K had worsened during that time due to support to anti-Indian forces by Taliban.
- Also, **during Kandhar Hijack incident**, India was helpless as there was no link with the then Taliban government so as to start negotiation.
- Hence, these experts believe that in **order to safeguard its civilian assets** as well as to **stay relevant in the unfolding 'great game'** in and around Afghanistan, India must begin open talks with the Taliban.
- China, Russia, Iran and Pakistan have already started talks with Taliban and these countries might emerge as the shapers of Afghanistan's destiny. If India fails to follow the suit, it will be detrimental to Indian interests.
- There were reports that **India made contacts with the Taliban in Doha**. New Delhi has not denied reports of its outreach to the Taliban.

B. It Should Wait and Watch

- There are other set of views which are telling India to wait and watch. India **does not share a physical border with Afghanistan and can afford to wait.**
- In the meantime, India should look for alternate means such as:
 - A **joint peacekeeping force** in Afghanistan from the SAARC region **under the UN aegis.**
 - **Using SCO as a platform to tame Taliban** - SCO through its platforms such as *Regional Anti-Terrorist Structure* and *Afghanistan Contact Group* (created in 2005, revived again in 2017) can play an important role in reconciliation and peace with both the Taliban and civilian government in Kabul.

Rise of Turkey In Afghanistan

- As a NATO member involved in Afghanistan war, Turkey has been running the Kabul airport security for a while. However, as US is departing, Turkey is in **negotiations with US** on taking charge of the Kabul airport. This reflects Turkey's desire to strengthen its presence in Afghanistan.
- Ankara and Kabul have recently celebrated the **centennial of the establishment of diplomatic relations.**
- Although Turkey joined the NATO military mission in Afghanistan, it avoided any combat role. It has contributed to the **training of the Afghan military and police forces.**
- It has also undertaken much independent humanitarian and developmental work. **Turkey's "Heart of Asia" conference** or the **Istanbul Process** has been a major diplomatic vehicle for attempted Afghan reconciliation in the last few years.
- Turkey's good relations with both Afghanistan and Pakistan have also given space for Ankara.

Why Should India be Worried with the Rise of Turkey in the Region?

- Turkey's growing role in Afghanistan opens a more difficult phase in relations between Delhi and Ankara.
- Turkey has a **deep bilateral military-security cooperation** with Pakistan. Turkey and Pakistan remained close partners in a number of **regional and international forums** like the *Organisation of Islamic Cooperation*.
- Turkey has become the most **active international supporter of Pakistan on the Kashmir** question.
- Turkey offered strong **political support for Dhaka on the Rohingya refugee crisis.** As Bangladesh emerges as an attractive economy, Ankara is now stepping up its commercial cooperation with Dhaka.

What Should be the Approach of India to Deal with Turkey?

- Delhi needs to vigorously challenge Turkey's positions where it must, seize the opportunities opened by regional resentments against Turkey's adventurism.
- At the same time, it should prepare itself for a more intensive bilateral engagement with Ankara.

Bill Prohibiting Strikes In Defence Services

Context

- The government has introduced a bill in Lok Sabha which seeks to **prohibit any agitation and strike** by anyone **engaged in essential defence services**.
- The bill has been named as “**Essential Defence Services Bill 2021**”.

Key Highlights

- The bill has **defined the Essential Defence Services**. Any service in any establishment or undertaking dealing with production of goods or equipment as well as services required for any purpose connected with defence has been defined as Essential Defence Services.
- As per the new law, any person who commences or instigates strike can be dismissed from service. It also gives power to the Centre to **prohibit lock-outs and lay-offs**.
- Participation in such strikes is also made an offence punishable with **imprisonment for a term up to one year or with a fine up to Rs 10,000 or both**.
- The police officers can also **arrest such offenders without warrant**.

Why Govt. Took Such Step

- The government in June 2021 approved a long-pending **proposal to restructure** nearly 200-year-old **Ordnance Factory Board (OFB)** to improve its accountability, efficiency and competitiveness.
- Major federations of the OFB decided to go on **indefinite strike from July 26** in protest against the government's **decision to corporatise the Board**.

Corporatisation of OFB

- In June 2021, the government announced corporatisation of the OFB, under which the 41 factories ammunition and other equipment to the armed forces will **become part of seven government owned corporate entities**.
- These units will be fully (100%) government-owned entities under the Companies Act, 2013 like other public sector undertakings.
- Earlier, the OFB was directly under the **Department of Defence Production** of Ministry of Defence and worked as an arm of the government.

- Dating back to 1775, headquartered at Kolkata, OFB is a very old organisation comprising of 41 ordnance factories, 13 ordnance research and development (R&D) centres, and 9 ordnance institutes of learning spread all over the country at 24 different locations.
- It is key supplier of a wide variety of products to the armed forces, which include armaments, ammunition, equipment, clothing, and also troop comfort items.

Why Government Corporatized the OFB?

A. Various Committee Reports

- Various committees and their reports have observed that the OFB have regularly performed below its potential. It has also been found to be draining the Defence Budget with overpricing of material produced.
- The corporatisation was suggested first-time in **2000 by Nair Committee**. This was followed by **Kelkar Committee** recommendation in 2005 and **Raman Puri Committee** in 2015.

B. Performance Evaluation by Comptroller and Auditor General (CAG)

CAG in its 2019 report highlighted the following facts:

- Expenses not directly attributed to creating a product or service is high and stands at a staggering 33% of the overall allotted budget for the year.
- The Ordnance factories achieved production targets for only 49% of the items.

C. Monopoly

OFB has a monopoly over several products required by the armed forces. This has resulted into **minimal innovation** and **technology development** and hardly any incentive to improve quality and cost-efficiency.

D. Limited Autonomy

- The biggest problem with the OFB has been attributed to its limited autonomy as it is an **attached office of MoD**.
- Post Corporatisation, OFB will be allowed to forge partnerships with the private sector as per the MoD's approved policy and will continue to receive orders from the country's security forces.

E. Atmanirbhar Bharat

- India was the **second-largest arms importer** in the world over the past five years, which is not a very good tag to carry, if it has to meet the challenges of two front war.
- If the import figures from 1950 to 2017 are analysed, India has **imported \$119.89 billion worth of arms**; by far the largest globally.
- **Optimum use of idle or under-utilised capacities** of the factories, post corporatisation, which will help to generate **surplus production** over and above the requirement of armed forces, which can be exported to generate better revenues.

F. Global Image

- Unfortunately, due to the poor quality and lack of accountability, there have been frequent accidents which have resulted in injuries and death of soldiers.
- In fact, **certain countries have refused to accept** any Ordnance Factory manufactured ammunition and equipment which are offered against the Defence Lines of Credit.

Why This Move Is Facing Stiff Resistance?

1. Not Sustainable

- Breaking up the OFB into individual factories will not be a sustainable exercise due to the existing work division structures and **interdependence of units** for weapons and ammunition manufacturing.
- For an artillery gun, steel is made in Metal and Steel Factory Ishapore, Autofrettage (pre-stressing) of barrel in Kanpur, trails in Muradnagar, recuperator and buffer in Gun Carriage Factory (GCF), Jabalpur, some components in different factories and integration also in GCF Jabalpur.
- Therefore, making each factory an independent unit will kill the factories. Loss will be to national security.

2. Fear Among OFB Employees

One of the biggest concerns of OFB employees is that 'Corporatisation' is the first step towards 'Privatisation' and is likely to result in layoffs and job cuts.

3. Commercial Viability Questionable

- Many analysts feel that the corporatisation of OFB will not be commercially viable.

- This is due to the fact that there are **no fixed demands** by the armed forces. Also, there are issues of long gaps between orders, uneconomical order quantity, and life cycle support required for 30-40 years after the introduction of equipment.

Few Suggestions To Be Followed Post-Corporatisation

- Permit the lateral entry of professionals with proficiency to head the OFs;
- Ensure in-house R&D; Form joint ventures (JV) with private industry;
- Weed out inefficient workers;
- Close down OFs which focus on manufacture of low technology items or those that are easily available in open market;
- Disinvest and monetise to raise capital for modernisation.

Conclusion

Considering the strategic environment and needs of the country at a time when Sino-Pakistan nexus poses a potential two front engagement scenario, the reforms in the defence sector are an inescapable necessity. One such area was **corporatisation of OFB**.

This move will transform ordnance factories into a **modernised, state of the art facility with flexible and better decision making** in its functioning. It will also make them more competitive and self-reliant in production of arms and ammunition and convert it to a profit earning organisation.

Startup India

Startups, in India as in many other parts of the world, have received increased attention in recent years. The Indian startup ecosystem has evolved dynamically over the last two decades. Some startups were founded in the 2000s, but the ecosystem was still immature as only a few investors were active and the number of support organisations such as incubators and accelerators was limited.

Startups do not exist in a vacuum but are part of a broader business environment. Thus, the **Startup India program** was launched in 2016 to tap the entrepreneurial potential of the people of India. A vision that enabled the talent of India to dream of ideas, put them in action, and convert them into game changing ventures. The stated objective of the program was to build a strong ecosystem for nurturing innovation and startups in the country that would drive sustainable economic growth and generate large scale employment opportunities.

In order to imbibe all these objectives under one umbrella policy framework for the entire nation, while addressing all the aspects of the startup ecosystem, a Startup India Action Plan was announced. The Action Plan comprised of 19 action items spanning across three key areas of 'simplification and handholding', 'funding support and incentives', and 'industry-academia partnerships and incubation'

Initiatives Under Startup India

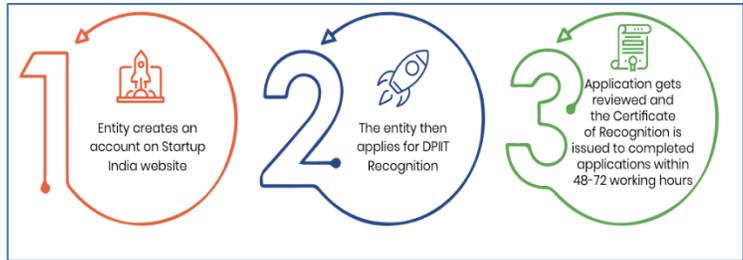
A. Regulatory Reforms

- Since the inception of Startup India, a number of policy reforms have been undertaken through various agencies and departments, for enabling small businesses or startups across the country.

- Till now, 47 regulatory reforms have been undertaken for the benefit of the startup ecosystem through the support of RBI, SEBI, Ministry of Commerce of Industry, Ministry of Electronics and Information Technology, Ministry of Corporate Affairs, and Ministry of Finance.

B. Startup India Recognition

- The launch of the recognition initiative under Startup India provided stakeholders a 100% online platform. On this platform, all the applications are received, reviewed, the certificates of recognition are issued to eligible and complete applications within 48-72 working hours.



- The DPIIT recognition process provided a boost to the overall ecosystem and enabled startups to access various support initiatives under Startup India.

C. Self-certification

- An important area that startups consider risky is the statutory aspect of running a business, as failure to meet all legal requirements can land a startup in trouble. Established startups are not just focused on managing their growth but also spend a considerable amount of time on keeping pace with the rapidly changing regulatory landscape of the Indian law.
- Startup India has laid down several measures to ease compliance with most complex laws for startups, to ensure the associated risks are prevented or mitigated. Under the initiative, startups have been allowed to self-certify their compliance against 6 labour laws and 3 environmental laws. Overall, 169 DPIIT recognized Startups have availed the benefits of self-certification.

D. Easing Public Procurement

- With an aim to involve startups in public procurement, Startup India has spearheaded several key amendments to enhance the growth of startups by opening doors to **new avenues for startups in public tenders**. The requirement of prior turnover and prior experience has been relaxed to encourage startups to participate in tenders. Further, startups have been exempted from the requirement of money deposit.
- Additionally, Startups can now register and participate in all public orders on Central Public Procurement Portal and get exemptions on prior experience and prior turnover.



- Government e-Marketplace (**GeM**) **Startup Runway** has been launched for startups to sell products and services to Government.
- GeM has also relaxed the requirement of approved Trademark certificate for DPIIT recognized Startups. Now, an application for trademark is sufficient.

E. Intellectual Property Rights (IPR) support

- Trademarks, patents, and design registrations are an important intangible asset for any startup, as these enhance valuation and competitiveness of their products and the brand.
- Under the program, Startups are eligible for **80% rebate in patent filing fees and 50% rebate in trademark filing fees**. Additionally, Startups are also provided the facility of quick examination of patent applications to reduce time taken in granting patents.
- 510 patent facilitators and 392 trademark facilitators have been empanelled, as of March 2021, under the scheme to provide free-of-charge services to Startups.
- Due to these measures, filing of patent applications has seen a growth of 70%, over the past four years.

F. Tax Incentives

- Startup India took upon itself to resolve, one of the key barriers to startups - taxes, by not only simplifying the processes involved, but also exempting startups from taxes under certain eligibility
- The Finance Act, 2020 provided tax exemption up to 100% of profits to a startup for a period of 3 consecutive assessment years out of 10 years beginning from the year in which it is incorporated.

G. Fast Track Exits For Startups

- A complex and tedious winding-up process was yet another restriction for startup enthusiasts as it was considered that “shutting down a company is far more difficult than starting a company.
- The costs involved in closure were few of the main reasons why several firms had continued to remain dormant without legally shutting operations. They would be required to bear costs for maintenance and compliance with annual filings, failing which would entail penal consequences by the relevant authorities.
- To address these issues, Ministry of Corporate Affairs has notified Startups as “**Fast track firms**” enabling them to wind up operations within 90 days compared to 180 days for other companies.
- Moreover, the Insolvency and Bankruptcy Code, 2016 provides for insolvency resolution of corporate persons, partnership firms and individual in a time bound manner. The Code has improved business climate in the country by making it easier for enterprises to exit in case of difficulties.

H. Fund of Funds (FFS) for Startups

- Due to lack of collateral, uncertain cash flows and unconventional business models, startups are unable to raise financing through traditional sources such as banks and NBFCs.
- The Fund of Funds (FFS) for startups was established to provide funding support for development and growth of innovation driven enterprises. FFS is managed by Small Industries Development Bank of India (SIDBI).
- The Fund has been structured as a Fund of Funds, which means that it does not invest directly in startups but rather participates in the capital of SEBI-registered Category-1 and Category-2 Alternate Investment Funds (AIFs).

- FFS provides a total corpus of Rs 10,000 Crores to be built over the 14th and 15th Finance Commission. As of December 2020, SIDBI had committed Rs 4,326 crores to 60 AIFs, which have raised a total corpus of Rs 31,598 crores.

I. Startup India Seed Fund Scheme (SISFS)

- Easy availability of capital is essential for entrepreneurs at the *early stages* of growth of an enterprise. The capital required at this stage often presents a make or break situation for startups with good business ideas
- SISFS was launched in January, 2021 to provide financial assistance to startups for *proof of concept, prototype development, product trials, market entry, and commercialization*.
- It provides a corpus of Rs 945 crore divided over the next 4 years for providing seed funding to eligible startups through eligible incubators across India. The scheme is expected to support about 3600 startups.

J. Startup India Yatra

- The Startup India Yatra initiative was launched with an aim to reach Tier 2 and Tier 3 cities of India to search for entrepreneurial talent and help develop the startup ecosystem.
- Efforts are made to engage with startup ecosystem through extensive outreach via social media, print and digital platforms. Day long bootcamps are conducted which include awareness workshops, idea validation and pitching sessions.
- Startup Yatra has been conducted across 23 States in 236 districts. A total of 1,424 incubation offers have been given to the startups as a result of this initiative.

K. Startup India Showcase

- Startup India Showcase is an online discovery platform for the most promising startups of the country chosen through various DPIIT and Startup India programs exhibited in a form of virtual profiles.
- These innovations have been handpicked by experts and have gone through multiple rounds of screening and evaluation. They span across various cutting edge sectors such as Fintech, Enterprise Tech, Social Impact, HealthTech, EdTech, among others.

L. States' Startup Rankings

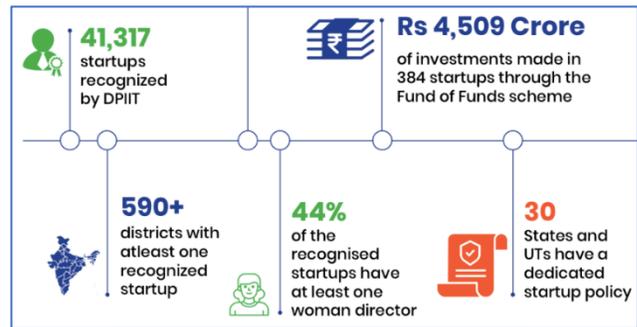
- The core functioning of an enabling ecosystem in a State/ UT is a function of the effective implementation of the framework and policies put in place.
- The States' Startup Rankings was conceptualised by DPIIT in 2017, as an exercise to rank States and UTs on the basis of policy measures being taken by them to promote their startup ecosystems.
- The ranking exercise is aligned with the objective of the Startup India initiative that seeks to have a 'Startup in each block and each zila in the country'.

M. National Startup Awards (NSA)

- DPIIT has conceived the National Startup Awards to recognize and reward outstanding startups and ecosystem enablers. Awards are given to startups that are building innovative products or solutions and scalable enterprises, with high potential of employment generation or wealth creation, demonstrating measurable social impact.
- The results of the first edition of NSA were declared in October 2020. Further, a holistic framework has been devised for handholding 192 finalists of NSA 2020, to provide support and opportunities in their growth journey.

Impact of the Program

- Five years since the launch of the initiative, India is witnessing a new chapter in the history of entrepreneurship, with it being counted amongst the largest startup ecosystems in the world **with 30+ unicorns, over 41,000 recognised startups, creating around 4.7 lakh jobs.**
- Before Startup India was launched, just four states had their startup policies in place and now, 30 states and UTs have a startup policy. The startup movement has reached about 80% of country's districts and has **spread across 590 districts.**
- All states and UTs have at least one startup. 12 states & UTs (Maharashtra, Karnataka, Delhi, Uttar Pradesh, Haryana, Gujarat, Telangana, Tamil Nadu, Kerala, Rajasthan, West Bengal, Madhya Pradesh) have over 1,000 recognised startups each.
- 45% of the recognised startups are from Tier-2 and Tier-3 cities and 44% of the recognised startup have at least one woman director.
- Recognised startups span across 54 industrial sectors, with maximum number of startups registered under IT services and Healthcare & Lifesciences followed by education sector.



Increase In Global Interest

- The program has helped the Indian startup ecosystem to connect with global startup ecosystems through various engagement models. This has been done through international Government to Government partnerships, participation in international forums and hosting of global events.
- India has developed such international bridges with Israel, Portugal, Singapore, Sweden, Dutch, Finland, Korea, Japan, Russia, UK, among others. This has given a significant boost to the startup and cross border investor sentiment.
- Startup-friendly policies and tax relief measures from the government have played a key role in increasing the foreign investments in the form of foreign venture capital and private equity funds.

Conclusion

- While the pandemic caused socio-economic turbulence across the world, the resilience and innovations spurred by Indian startup community contributed immensely for supporting the economy and unlocking the potential of the youth.
- Post pandemic, the focus for India seems to be on strengthening the digital infrastructure within key sectors such as healthcare and education, alongside ensuring employment generation in manufacturing and infrastructure. The Indian startup ecosystem can help to develop solutions that allow businesses in these key sectors to achieve the goals of national importance.
- Interestingly, India is well placed with adequate undeployed capital within angel investors, venture capitalists, private equities and Indian family offices. This presents Indian entrepreneurs with an attractive opportunity to be both innovative and creative in their ideas in order to re-shape the building blocks of the economy.

VAJIRAM & RAVI

- Bal Gangadhar Tilak was an Indian social reformer and freedom activist. He was one of the prime architects of modern India and one of the strongest advocates of Swaraj or Self Rule for India.
- The British Government termed him as the "**Father of Indian Unrest**" and his followers gave him the title of '**Lokmanya**', which means, one who is respected by the people.

Political Career

- Tilak joined the Indian National Congress in 1890 and soon started vocalizing his strong opposition to the **moderate views** of the party on self-rule. He maintained that simple constitutional agitation was not enough against the British.
- Following the partition of Bengal in 1905, by Lord Curzon, Tilak wholeheartedly supported the Swadeshi movement and boycott of British goods.
- Due to this fundamental difference in outlook, Tilak and his supporters came to be known as the extremist wing of Indian National Congress Party.

Tilak's Works

- Towards his nationalistic goals, Tilak published two newspapers – **Mahratta** (in English) and **Kesari** (in Marathi). He also wrote the **Gita Rahasya** during imprisonment in Mandalay Jail, Burma.
- Both the newspapers stressed on making the Indians aware of the glorious past and encouraged the masses to be self-reliant. In other words, the newspaper actively propagated the cause of national freedom.

All India Home Rule League

- After completing his imprisonment, Tilak returned to India in 1915 with a different and less aggressive outlook. Deciding to reunite with his fellow nationalists, Tilak founded the **All India Home Rule League** in 1916 with Annie Besant. The stated goal of the Home Rule League was to achieve self-government in India.
- Tilak founded the first home rule league at Belgaum in April 1916 and Annie Besant founded the second league at Adyar Madras in September 1916.
- Tilak's league worked in areas like Maharashtra (excluding Bombay city), Karnataka, Central provinces and Berar, and Annie Besant's league worked in the rest of India.

Social Reforms

- He was one of the most popular influencers of his time, a great orator and strong leader who inspired millions to his cause.
- Throughout his life, he advocated the cause of women education and women empowerment. He educated all of his daughters and did not marry them till they were over 16.
- Tilak proposed grand celebrations on '**Ganesh Chaturthi**' and '**Shivaji Jayanti**'. He believed that these celebrations could bring a sense of unity and inspire nationalist sentiment among Indians.

Note: Hitavada was an English newspaper founded by Gopal Krishna Gokhale.

3. Kesariya Stupa is located in:

- | | |
|------------------|-----------------------|
| a) Uttar Pradesh | b) Bihar |
| c) Nepal | d) None of the above. |

Answer: B

Explanation:

- The world famous Buddhist stupa at Kesariya was recently heavily waterlogged, after rainfall in catchment areas of the Gandak river.
- Kesariya Stupa is located in the East Champaran district of Bihar, near Patna. The local people call this stupa "**Devala**", meaning "*House of God*".
- Discovered in 1998 through excavation by the Archaeological Survey of India (ASI), it has a circumference of almost 400 feet and a height of about 104 feet. It is said to be the tallest and the largest Buddhist stupa in the world.
- The original Kesariya stupa probably dates to the time of **Ashoka (250 BCE)**, as the remains of a capital of a Pillar of Ashoka were discovered there.
- In ancient times, Kesariya was under the rule of the Mauryas and the Licchavis. The discovery of **gold coins** bearing the seal of the famous emperor **Kanishka** of the Kushan dynasty further establishes the ancient heritage of Kesariya
- The current stupa dates to the **Gupta Dynasty** between 200 AD and 750 AD and may have been associated with the 4th century ruler Raja Chakravarti.
- Two great foreign travelers, **Fahien and Hsuan Tsang**, had visited this place and have written informative accounts about it.

**4. Consider the following statements:**

1. Rudreswara temple was built under Vijayanagar empire.
2. Dholavira is the first site of ancient Indus Valley Civilisation in India to get the tag of a World Heritage site.

Which of the statements given above is/are *incorrect*?

- | | |
|-----------------|--------------------|
| a) 1 only | b) 2 only |
| c) Both 1 and 2 | d) Neither 1 nor 2 |

Answer: A

Explanation:

Recently, Rudreshwara temple in Telangana; and Dholavira, the archaeological site of a Harappan-era city were included in UNESCO's World Heritage List. After this, India has 40 sites on the list that include 32 Cultural properties, 7 Natural properties, and 1 mixed site.

Ramappa Temple

- Rudreshwara Temple is located in the village of Palampet, about 200 km north of Telangana's capital Hyderabad. It is also known as the Ramappa temple, after the sculptor who executed the work in the temple for 40 years.

- It was constructed in 1213 AD during the reign of Kakatiya Empire by **Recharla Rudra**, a General of Kakatiya king Ganapati Deva.
- The presiding deity of the temple is Ramalingeswara Swamy.
- The temple's sculptures of high artistic quality illustrate regional dance customs and Kakatiyan culture.
- The Kakatiya dynasty was a South Indian dynasty that ruled most of eastern Deccan region comprising present day Telangana and Andhra Pradesh, and parts of eastern Karnataka and southern Odisha between 12th and 14th centuries. Their capital was Orugallu, now known as Warangal.

Dholavira

- Dholavira is the first site of the ancient Indus Valley Civilisation (IVC) in India to get the tag of a World Heritage site. After Mohen-jo-Daro, Ganweriwala and Harappa in Pakistan and Rakhigarhi in Haryana of India, Dholavira is the fifth largest metropolis of IVC.
- UNESCO has termed Dholavira as one of the most remarkable and well-preserved urban settlements in South Asia dating from the **3rd to mid-2nd millennium BCE**.
- Discovered in 1968, it is located on a hillock near present-day Dholavira village in Kutch district, from which it gets its name.
- Its uniqueness lies in some of its characteristics, which include a water management system, multi-layered defensive mechanisms, extensive use of stone in construction and special burial structures.

Rise and Fall of Dholavira

- Dholavira was a commercial and manufacturing hub for about 1,500 years before its decline and eventual ruin in 1500 BC.
- Remains of a copper smelter indicate Harappans, who lived in Dholavira, knew **metallurgy**. It is believed that traders of Dholavira used to source copper ore from present-day Rajasthan and **Oman and UAE** and exported finished products.
- It was also a hub of manufacturing **jewellery** made of shells and semi-precious stones, like agate. Such beads peculiar to the Harappan workmanship have been found in the royal graves of Mesopotamia, indicating Dholavira used to **trade with Mesopotamians**.
- Its decline also coincided with the **collapse of Mesopotamia**, indicating the integration of economies. Harappans, who were maritime people, lost a huge market, affecting the local mining, manufacturing, marketing and export businesses once Mesopotamia fell.
- From 2000 BC, Dholavira entered a phase of **severe aridity** due to climate change and drying up of rivers. Due to a drought-like situation, people started migrating toward the Ganges valley or towards south Gujarat and further beyond in Maharashtra.
- In those times, the Great Rann of Kutch, which surrounds the Khadir island on which Dholavira is located, used to be navigable, but the sea retreated gradually and the Rann became a mudflat.

World Heritage Site

- A World Heritage Site is a location with an outstanding universal value. It signifies exceptional **cultural** and/or **natural** significance of common importance for present and future generations of all humanity.
- This is embodied in an international treaty called the Convention concerning the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in 1972.

- Until 2004, World Heritage sites were selected on the basis of six cultural and four natural criteria. Later, with the adoption of the revised Operational Guidelines for the Implementation of the World Heritage Convention, only one set of ten criteria exists.
- To be included, sites must meet at least one of the **ten selection criteria**. Some of these are:
 - The site should represent a masterpiece of human creative genius.
 - It should represent an important interchange of human values over a period of time or within a cultural area of the world.
 - It should be an evidence of unique cultural tradition or an outstanding example of traditional human settlement.
 - It should contain areas of exceptional natural beauty and aesthetic importance.
 - It should represent significant on-going ecological and biological processes in the evolution and development of marine ecosystems and communities of plants and animals.

Social Issues

5. Consider the following statements about Mid-Day Meal (MDM) Scheme:

1. MDM is covered under the National Food Security Act.
2. MDM has a provision of food security allowance in case the meal is not provided.
3. Madrasas are also covered under the MDM scheme.

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 |

Answer: D

Explanation

- A new study highlighting the intergenerational benefits of midday meal (MDM) scheme was recently published in the journal Nature Communications. The study was co-authored by economists and nutrition experts at the **International Food Policy Research Institute**. It is a *first-of-its-kind* inter-generational analysis of the impacts of a mass feeding programme.
- The researchers noted the contrast - *India has the highest number of undernourished children and the world's largest school feeding programme*, the MDM scheme. However, long-term benefits of the scheme on nutrition were unknown.
- Thus, the study used nationally representative data on mothers and their children from 1993 to 2016 to assess whether mid-day meals support intergenerational improvements in a child's linear growth.
- The Report has used seven population level datasets including multiple rounds of National Sample Surveys of Consumer Expenditure (NSS-CES), National Family Household Surveys (NFHS), and India Human Development Surveys (IHDS).

Findings Of The Study

- The study found that investments made in school meals in previous decades were associated with improvements in future **child linear growth**.
- Girls, who had access to free lunches provided at schools, had children with a **higher height-to-age ratio** than those who did not. It found that the MDM scheme was associated with 13-32% of India's improvement in height-for-age scores between 2006 and 2016.
- The links between midday meals and lower stunting (low height for age) in the next generation were stronger in lower socio-economic sections.
- The study noted that findings from previous evaluations of MDM scheme have shown a positive association with *beneficiaries' school attendance, learning achievement, hunger and protein-energy malnutrition*.
- This may contribute to later fertility decisions and access to health care, reducing the risk of undernutrition in the next generation.

Impact of Covid

- These findings come at a time when the midday meal scheme has effectively been put on hold for the last one and a half years, as schools have been closed since March 2020.

- Although dry food grains or cash transfers have been provided to families, experts have warned that this would not have the same impact as hot cooked meals on the school premises.
- The findings of the study increase concerns that the interruptions to schooling and to the midday meal scheme could have long term impacts, hurting the nutritional health of the next generation as well.

Way Ahead

The key takeaway from the study is to expand and improve school meals now, so that inter-generational benefits of the scheme do not get delayed.

Midday Meal Scheme

- It was launched in 1995 and is covered by the National Food Security Act, 2013.
- Under the scheme, every child within the **age group of 6-14 years** studying in **classes I to VIII** who enroll and attend the school, will be provided hot cooked meal for a minimum of **200 days**.
- The cooked meal should provide **450 calories and 12 g of protein** to every child at primary level and **700 calories and 20 g of protein** at upper primary level.
- The **scheme covers** Government schools, Government - aided schools, Special Training centres (STC) and Madarasas and Maktabas supported under the Sarva Shiksha Abhiyan.
- If the meal is not provided in the school on any school day, the State Government should pay **food security allowance** by 15th of the next month.
- It is a **centrally sponsored scheme**, hence cost is shared between centre and states. (Centre's share 60%)

Objective of MDM

- The objective is to enhance the enrollment, retention and attendance of children in schools.
- It also aims to address hunger and malnutrition and improve nutritional levels among school going children.

6. e-Medha portal comes under the:

- a) Ministry of Health and Family Welfare.
- b) Ministry of Women and Child Development.
- c) Ministry of Ayush
- d) None of the above.

Answer: C

Explanation:

The Ministry of Ayush recently launched five portals under the Ayush sector -

i) **Ayurveda Dataset on Clinical Trial Registry of India (CTRI)**

- CTRI is a primary register of clinical trials under WHO's International Clinical Trials Registry Platform.
- Creation of Ayurveda Data Set in CTRI would facilitate the usage of Ayurveda terminologies to record clinical study based on Ayurveda interventions.
- This will help to increase worldwide visibility for Ayurveda based clinical trials and strengthen Ayurvedic Research.

ii) **CCRAS-Research Management Information System**

- This portal will be a one stop solution for Research and Development in Ayurveda based studies. It is a collaborative effort of ICMR and Central Council for Research in Ayurvedic Sciences (CCRAS).

- Free of cost research guidance by experienced scientists, clinicians of Ayurveda can be availed through this portal. Research tools, reference material are also available on the portal.

iii) **E-Medha (electronic Medical Heritage Accession)**

It is an online public access catalogue for more than 12000 Indian medical heritage books through National Informatics Centre's e-granthalaya platform which is a Digital Platform developed by NIC for Government Libraries for Automation of In-house activities as well as member services and Networking for resource sharing.

iv) **AMAR (Ayush Manuscripts Advanced Repository)**

This portal has digitized information on rare and hard to find manuscripts and catalogues of Ayurveda, Yoga, Unani, Siddha, Sowa Rigpa.

v) **SHAI (Showcase of Ayurveda Historical Imprints)**

- This portal showcases inscriptions, archeo-botanical Information, sculptures, philological sources and advanced archeo genetic studies.
- It will be of tremendous use in understanding of Indian knowledge system with a focus on indigenous health care practices. It will also be of immense help in showcasing historical veracity (accuracy) of Ayurveda.

School Innovation Ambassador Training Program

- The School Innovation Ambassador Training Program (SIATP) was recently launched to strengthen the mentoring capacity of 50,000 school teachers.
- The program is a collaborative effort by the **Ministry of Education's Innovation Cell, Ministry of Tribal Affairs, CBSE and AICTE.**
- The design of the program is based on Innovation Cell's "Innovation Ambassador Training Program for Higher Educational Institution's faculty members".

Details of SIATP

- The innovative programme aims at training school teachers on innovation, entrepreneurship, IPR, design thinking, product development, idea generation, among others. The training will be delivered in online mode only.
- Students of Eklavya Model Residential Schools (EMRS) will greatly benefit from this program as EMRS have been integrated into the SIATP.
- The Ministry of Tribal Affairs had recently launched the **Adi-Prashikshan portal** which is also a repository of training inputs. It will be of great benefit if the SIATP training module also gets connected to this portal.

Eklavya Model Residential Schools

- EMRSs are set up with a capacity of 480 students per school to provide quality middle and high level education to tribal students.
- Establishment of EMRS is demand driven based on the proposals received from states. The funding of such schools is from the state governments.

Innovation Cell

It is an initiative of the Ministry of Education to foster the culture of Innovation in all Higher Education Institutions (HEIs) across the country. It was established at AICTE premises in 2018.

7. Narcotic Drugs and Psychotropic Substances (NDPS) Act is applicable to which of the following substances?

- | | |
|--------------|-----------|
| 1. Cannabis. | 2. Heroin |
| 3. Bhang | 4. Opium |

Which of the statements given above is/are correct?

- | | |
|--------------------|--------------------|
| a) 1,2, and 3 only | b) 1, 2 and 4 only |
| c) 4 only | d) 1, 2, 3 and 4 |

Answer: B

Explanation:

- The Ministry of Home Affairs (MHA) has recently shared details of India's efforts to combat illicit trafficking of narcotic, drugs and psychotropic substances.
- These initiatives have led to a gradual increase in the registration of drug trafficking related cases in the country.

Narcotic Drugs and Psychotropic Substances

- A narcotic drug is an addictive drug that reduces pain, induces sleep and may alter mood or behaviour.
- A psychotropic drug is a chemical substance that changes brain function and results in changes in perception, mood, consciousness or behaviour.
- Some categories of narcotic and psychoactive drugs, which have therapeutic value, are prescribed by physicians and other healthcare practitioners.
- These substances are also used illegally (without medical prescription) to improve performance or change one's consciousness.
- The menace of drug addiction has spread fast among the youth of India. India is sandwiched between two largest Opium producing regions of the world that is the Golden triangle on one side and the Golden crescent on other.

- | |
|---|
| <ul style="list-style-type: none">• The Golden Triangle area comprises Thailand, Myanmar and Laos• The Golden Crescent area includes Pakistan, Afghanistan and Iran. |
|---|

Magnitude of Substance Use in India

A report released by All India Institute Of Medical Science (AIIMS) in 2019 brings out the following facts:

- Around 5 crore Indians reported to have used cannabis and opioids at the time of the survey (conducted in the year 2018).
- It has been estimated that there are about 8.5 lakh people who inject drugs.
- Of the total cases estimated by the report, more than half of them are contributed by states like Punjab, Assam, Delhi, Haryana, Manipur, Mizoram, Sikkim and Uttar Pradesh.
- About 60 lakh people are estimated to need help for their opioid use problems.

India's Initiatives To Control Drug Trafficking

- India has signed 26 bilateral pacts, 15 MoU and two agreements on security cooperation with different countries to combat drug trafficking

- The Narcotics Control Bureau (NCB) coordinates with various international organisations for **sharing information and intelligence** to combat transnational drug trafficking. These include ASEAN, BRICS, BIMSTEC, UNODC, INCB, Colombo Plan and SAARC Drug Offences. Monitoring Desk.
- The **Narco Coordination Centre (NCORD)** mechanism was set up in 2016, by the MHA, for coordination among various Central and State agencies, for effective drug law enforcement. NCORD was later restructured in 2019, into a four-tier mechanism up to district level, for better coordination.

Efforts Related To Drug Seizures

- A **Joint Coordination Committee** with the NCB Director General as its chairman was set up in 2019, to monitor the investigation into cases involving large seizures.
- Moreover, the Directorate of Revenue Intelligence, the Border Security Force, Sashastra Seema Bal, Indian Coast Guard, Railway Protection Force and the National Investigation Agency have also been empowered under the NDPS Act for making drug seizures.
- For digitisation of pan-India drug seizure data, the MHA had launched an e-portal called **SIMS** (Seizure Information Management System) in 2019, for all the drug law enforcement agencies under the mandate of NDPS Act.

Narcotic Drugs and Psychotropic Substances (NDPS) Act

- The NDPS Act, enacted in 1985, is the primary law for dealing with drugs and their trafficking in the country. The NDPS Act has since been *amended thrice in 1988, 2001, and 2014*.
- It was passed to **meet India's global treaty obligations** under the Single Convention on Narcotic Drugs, Convention on Psychotropic Substances and United Nations' Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.
- The Act prohibits production, manufacture, sale, purchase, transportation & consumption of many narcotic drugs or psychotropic substances, including **cannabis, heroin, opium** etc. The law, however, does not apply to bhang.
- Anyone who violates the NDPS Act, faces punishment based on the quantity of the banned substance. The classification of the quantity varies from substance to substance.
- The maximum punishment that can be given under this Act is **death penalty**. However, death penalty can only be given to **repeat offenders**, on the discretion of a judge.
- The Act makes a distinction between **individual drug consumers and drug traffickers**. It allows courts to release an addict for treatment if found guilty of consumption of drugs.

Narcotics Control Bureau

- As per NDPS Act, the central government can form an authority to exercise its powers for preventing and dealing with abuse of illicit trafficking of narcotic drugs.
- The government subsequently constituted Narcotics Control Bureau in 1986, under **Ministry of Home Affairs**.
- The agency is tasked with coordinating with state governments and other authorities, under NDPS Act, Customs Act, Drugs and Cosmetics Act and any other law, for the enforcement of provisions of the NDPS Act.

8. Which of the following diseases are neurological disorders?

1. Epilepsy

2. Tetanus

3. Alzheimer's disease

4. Parkinson's disease

5. Meningitis

Choose the correct option using the codes below:

a) 2 only

b) 1, 3, and 4 only

c) 1, 3, 4 and 5 only

d) 1, 2, 3, 4 and 5

Answer: D

Explanation:

- A study on neurological burden in India by the **India State-Level Disease Burden Initiative**, was recently published in the Lancet Global Health. India State-Level Disease Burden Initiative is a **joint initiative** of Indian Council of Medical Research (ICMR) along with other public health institutions.
- The research was the first comprehensive analysis of the country's neurological disease burden. It was funded by **Bill & Melinda Gates Foundation, ICMR, and Union Ministry of Health and Family Welfare**.
- For the study, disease burden was estimated by calculating the disability-adjusted life year (**DALY**) which represents the number of years lost due to ill-health, disability or early death.

Neurological Disorders

Neurological disorders fall under three categories:

- i) Non-communicable neurological disorders include stroke, headache disorders, epilepsy, cerebral palsy, Alzheimer's disease and other dementias, Parkinson's disease, multiple sclerosis, motor neuron diseases, etc.
- ii) Communicable neurological disorders include encephalitis, meningitis, and tetanus.
- iii) Injury-related neurological disorders like traumatic brain injuries and spinal cord injuries.

Findings From The Study

- Neurological disorders contribute 10% of the total disease burden in India.
- The total neurological disorders burden due to non-communicable disorders is 82.8%; 11.2% is due to communicable disorders and 6% is injury-related disorders.
- Stroke (37.9%), headache disorders (17.5%), and epilepsy (11.3%) are the leading contributors to neurological disorders burden in India, with stroke having caused 699,000 deaths in India in 2019, which was 7.4% of the total deaths in the country.
- Stroke also caused 68% of deaths due to neurological disorders, followed by Alzheimer's and other dementias (12%), and encephalitis (5%).
- High blood pressure, air pollution, dietary risks, high fasting plasma glucose, and high body-mass index are the leading contributors of neurological disorders.
- In India, the rate of non-communicable neurological disorders and neurological injuries (of the total disease burden) has more than doubled -- from 4% to 8.2% -- between 1990 and 2019, while the burden of infectious neurological disorders has fallen. The country's ageing population is the chief factor behind the rise in non-communicable neurological diseases.
- While non-communicable neurological disorders were the highest contributor in all other age groups, communicable diseases contributed to the majority of total neurological disorders burden in children younger than 5 years,

Way Ahead

- At the moment, much of the disease burden is related to modifiable risk factors which can be corrected at the individual level.
- Simple lifestyle modifications like a healthy diet, blood pressure control, diabetes prevention, and management, staying physically active, reducing stress etc. will help to address the burden.
- Early treatment can save irreversible damage as time is crucial. Neurons (nerve cells) once lost do not replenish and regain function again.
- Substantial state-level variation in the burden of neurological disorders highlight the need for state-specific health system responses to address the gaps in neurology services related to awareness, early identification, treatment, and rehabilitation.

9. SMILE Scheme is associated with:

- | | |
|------------------------|-----------------------|
| a) Geriatric Health. | b) Women empowerment. |
| c) Welfare of beggars. | d) None of the above. |

Answer: C

Explanation:

- Ministry of Social Justice and Empowerment (**MoSJE**) recently released a scheme called SMILE (Support for Marginalized Individuals for Livelihood and Enterprise) for extensive work on the welfare of beggars. It is a new Scheme after the merger of existing Schemes for Beggars and Transgenders.
- It includes a sub-scheme - **Central Sector Scheme for Comprehensive Rehabilitation of Persons** engaged in the act of Begging. Under it, MoSJE has also initiated pilot projects in ten cities.
- A total of Rs 182 crore has been allocated under the scheme over a period of five years
- The scheme would be implemented with the support of State/UT Governments/Local Urban Bodies, Voluntary Organizations, Community Based Organizations (CBOs) and others.
- The focus of the scheme is extensively on rehabilitation in shelter homes, provision of medical facilities, counselling, basic documentation, education, skill development, economic linkages etc. It is estimated that an approximate 60,000 poorest persons would be benefited under this scheme for leading a life of dignity.

Beggars In India

- As per Census 2011, there are 4,13,670 beggars in India, with the highest 81,000 beggars in West Bengal. Uttar Pradesh and Andhra Pradesh come at second and third positions.
- The Union Territories have the least number of beggars. Amongst the UTs, New Delhi and Chandigarh have the largest numbers of beggars.
- Among the northeastern states, Assam topped the chart with 22,116 beggars, while Mizoram ranked low with 53 beggars.
- Recently, the Supreme Court has agreed to examine a plea for decriminalising begging which has been made an offence in various states under Prevention of Begging Act

SWAYAM Credit Transfer

- From 2021-22 academic session, students of 149 universities would be allowed to earn upto 40% of their required credits from over 800 online courses available on the Swayam platform. The 149 universities include central universities like Jamia Millia Islamia, state universities like National Law University, Delhi and over 75 private and deemed universities.
- The remaining 60% of the credits will have to be earned from the parent university (in which the student is registered).
- The academic bank of credit (ABC) would also become functional from the upcoming academic session.

Academic Bank of Credit (ABC)

- **Credits** are one of the methods used to determine and document that students have met academic requirements. Credits are awarded upon completing and passing a course.
- Academic Bank of Credit is a virtual store-house which will keep records of academic credits secured by students for courses being pursued by them.

SWAYAM

- **SWAYAM** (Study Webs of Active–Learning for Young Aspiring Minds) is a Massive open online course (MOOC) platform, developed by the Ministry of Education. The platform offers free access to everyone and hosts courses from **class 9 till post-graduation**.
- The courses are divided into seven categories. Each category is further divided into small course modules, from which a student can choose and register and learn online.
- The National Testing Agency conducts exams for courses offered on Swayam, twice a year at the end of each semester.
- **Purpose or Significance**
 - Swayam is designed to achieve the three fundamental principles of Education Policy: **Access, Equity** and **Quality**.
 - **MOOC** is aimed at unlimited participation and open access via the web.
 - It seeks to reduce the digital divide for students who have not been able to join the mainstream of the knowledge economy.

Impact Of The Current Move

- Under the current move, the credits earned will be calculated as a part of the degree programme being pursued by the student. Once the student fulfils the total credits required, he or she will be granted the degree.
- So far a student used to get the experience of only one university. The current change would give the much-needed flexibility to students as planned in the National Education Policy 2020.
- It will help to boost the skill set of students and truly democratise education.

10. Consider the following statements about NIPUN Bharat:

1. It is launched under the Samagra Shiksha scheme.
2. It aims to attain literacy and numeracy by the end of Grade 5.

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

Answer: A**Explanation:**

- The **Ministry of Education** recently launched the National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN) Bharat Mission under the Samagra Shiksha scheme.
- NIPUN Bharat will be implemented by the Department of School Education and Literacy.
- Samagra Shiksha is a centrally sponsored scheme for school education extending from pre-school to class 12, with broader goal of improving school effectiveness. It was launched after subsuming three existing schemes: Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE). A five-tier implementation mechanism will be set up at the National- State- District- Block- School level in all States and UTs, under the aegis of Samagra Shiksha Abhiyan.

Details of NIPUN Bharat

- The Mission aims to ensure that every child in the country necessarily attains foundational literacy and numeracy (**FLN**) **by the end of Grade 3, by 2026-27**. It aims to cover learning needs of children in age group of **3 to 9 years**.
- This is aligned with the aim of National Education Policy 2020, of attaining universal FLN in children which replaced the 34 year old National Policy on Education (NPE), 1986.
- It envisages making the experience of learning at the foundational stage Holistic, Integrated, Inclusive, Enjoyable, and Engaging.
- The success of Mission will primarily depend on teachers, so, there will be a special emphasis on *capacity building of teachers*. A special package under **NISHTHA** is being developed by NCERT and around 25 lakh teachers teaching at pre-primary to primary grade will be trained this year on FLN.
- **NISHTHA** is a national teacher's training program. It is a capacity building programme that aims to build capabilities among all the teachers and school principals at the elementary stage.

Expected Outcomes

- Foundational skills enable to keep children in class thereby **reducing the dropouts** and **improve transition rate** from primary to upper primary and secondary stages.
- Activity based learning and a conducive learning environment will **improve the quality of education**.
- Intensive capacity building of teachers will make them empowered and provide greater autonomy for choosing **the pedagogy (methods of teaching)**.
- **Holistic development** of child by focusing on different domains of development like physical and motor development, socio-emotional development, literacy and numeracy development, cognitive development, life skills etc. which are interrelated and interdependent.
- Children to achieve a steeper **learning trajectory** which may have positive impacts on later life outcomes and employment.
- Since almost every child attends early grades, therefore, focus at that stage will also benefit the socio-economic disadvantageous group thus ensuring access to **equitable and inclusive quality education**.

11. Acute Encephalitis Syndrome (AES) is caused by:

- a) Bacteria
- b) Virus
- c) Fungi
- d) All of the above.

Answer: D

Explanation:

Jal Jeevan Mission has expanded tap water supply rapidly to cover more than 10 million homes in 61 JE-AES affected priority districts.

JE-AES

- Japanese Encephalitis – Acute Encephalitis Syndrome (JE-AES) is a serious health hazard.

- AES is a syndrome and not a disease. It is a group of clinically similar neurological symptoms, which includes Japanese encephalitis (JE). It is caused by different types of **viruses, bacteria, parasites, fungi and spirochetes.**

- Japanese encephalitis (JE) virus is the most common cause of AES in India. It mostly affects children and young adults which can lead to morbidity and mortality. It particularly affects **malnourished children of poor economic backgrounds.**

- As many as 61 high priority districts in five States are identified for strengthening prevention and control measures. The five most vulnerable states include **Assam, Bihar, Tamil Nadu, Uttar Pradesh and West Bengal.**

- A 2010 report by erstwhile Planning Commission had stated **five broad measures to tackle encephalitis: vaccination, vector control, sanitation facilities, safe drinking water, and adequate nutrition.**

- The absence of clean drinking water aggravates encephalitis syndrome because unsafe water is a cause of malnutrition. Thus, Jal Jeevan Mission is a key programme in reducing the burden of disease in these districts.

Jal Jeevan Mission
<ul style="list-style-type: none"> • Jal Jeevan Mission, is a central government initiative under the Ministry of Jal Shakti. • The mission’s goal is to provide all households in rural India, safe and adequate water through household tap connections by 2024. • It envisages supply of 55 litres of water per person per day to every rural household through Functional Household Tap Connections. • Based on a community approach to water, the mission includes information, education and communication as key components. • Fund sharing pattern between Centre and states is 90:10 for Himalayan and North-Eastern States, 50:50 for other states, and 100% for Union Territories

Impact of Jal Jeevan Mission

- Jal Jeevan Mission has significantly strengthened the preventive measures to reduce spread of JE-AES by providing clean tap water supply to economically poor households in the affected districts.
- When the Jal Jeevan Mission began in 2019, only 8.02 lakh (2.67%) households in 61 JE-AES affected districts across the five States had tap water supply. Now, 1.05 Crore (35%) households have assured tap water supply in JE-AES affected districts. This 32% increase in JE-AES priority districts is about 12% higher than the national average increase of 23.43% in tap water supply across the country during the same period.

- AI for All is a **4-hour, self-paced, micro-learning programme** which is applicable to a student, a stay-at-home parent, a professional in any field or even a senior citizen.
- To ensure inclusive access, it is available in **11 different vernacular languages** for anyone with digital access. The content is also compatible with various talkback applications to make it accessible for visually impaired people.

National Digital Education Architecture (NDEAR)

- NDEAR has been launched to promote a **digital first approach**.
- The digital architecture will not only support teaching and learning activities but will also support educational planning, governance and administrative activities of the Centre and the States/ Union Territories.

National Educational Technology Forum (NETF)

- NETF is a forum to discuss and strategize the use of technology, to enhance learning, assessment, planning, administration across all levels of education.
- NETF will consist of members of the education ministry, state governments, institutes, as well as technology experts and IT sector veterans.
- It will provide independent evidence-based advice to central and state government agencies on technology-based interventions. A special focus will be on improving technology access at the grass-root education level.
- NETF will meet on a regular basis (every 3-6 months) to review the progress in technology-led learning and also make suggestions to educational institutions, based on market research.
- Initially, NETF will be funded by the government but at a later stage, private funding and support from industry bodies like NASSCOM would be invited.

13. Which of the following services are covered under Integrated Child Development Services (ICDS)?

- | | |
|-----------------------------------|----------------------------|
| 1. Supplementary Nutrition | 2. Immunization |
| 3. Non-formal education | 4. Health Education |

Which of the statements given above is/are correct?

- | | |
|------------------------|---------------------------|
| a) 1 only | b) 1, 2 and 4 only |
| c) 2 and 4 only | d) 1, 2, 3 and 4 |

Answer: D

Explanation:

- As per ICDS-RRS (Rapid Reporting System), **over 9.3 lakh severely acute malnourished (SAM) children** between six months and six years have been identified in the country till November, 2020. Over 40% of such children were found in **Uttar Pradesh alone**.
- In another survey, in the first six months of 2021, more than 55% of beneficiaries of Supplementary Nutrition under Integrated Child Development Scheme (ICDS) did not receive it even once in Jharkhand.
- Supplementary Nutrition includes Take Home Ration (THR), Hot Cooked Meal and Morning snacks and holds importance for many vulnerable households as it impacts the nutritional outcome of the children.

Under Poshan Abhiyan, Rs 5,312 crore has been released to states and union territories till 2020-21. However, out of this only 56% of the funds (Rs 2,985 crore) have been utilised up to March, 2021.

ICDS

- Launched in **1975**, ICDS Scheme is one of the world's largest programmes for early childhood care and development. It is a **centrally sponsored scheme** implemented by state governments and union territories.
- **Beneficiaries-** Children in the age group of **0-6 years**, pregnant women and lactating mothers.

Objectives of ICDS

- Improve the nutritional and health status of children in the age-group 0-6 years;
- Lay the foundation for proper psychological, physical and social development of the child;
- Reduce the incidence of mortality, morbidity, malnutrition and school dropout.
- Enhance the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition and health education.

Services under ICDS

- The ICDS Scheme offers a package of **six services**: Supplementary Nutrition; Pre-school non-formal education; Nutrition & health education; Immunization; Health check-up; and Referral services.
- The reason for providing a package of services is based primarily on the consideration that the overall impact will be much larger if the different services develop in an integrated manner.

Poshan Abhiyan

- Launched in 2018, Poshan Abhiyaan (or National Nutrition Mission) is the government's flagship program to improve nutritional outcomes for children, pregnant women and lactating mothers, with specific targets to be achieved by 2022. It is implemented under the **Ministry of Women and Child Development**.
- The Mission aims to reduce incidence of stunting (low height for age), underweight, and low birth weight, each by 2% per year; and anaemia among young children, adolescents and women each by 3% per year until 2022.
- Although the target to reduce stunting is at least 2% per year, the Mission would try to achieve a reduction in stunting from 38.4% (National Family Health Survey-4 in 21015-16) to 25% by 2022.

14. Consider the following statements about Food and Agriculture Organization (FAO):

1. FAO is a specialized agency of the United Nations.
2. FAO is headquartered in Geneva.

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 |

Answer: A

Explanation

The Food and Agriculture Organisation and World Food Program recently released a report titled **Hunger Hotspots**. The report gives early warnings on acute food insecurity for the period of August to November 2021.

Key Findings Of The Report

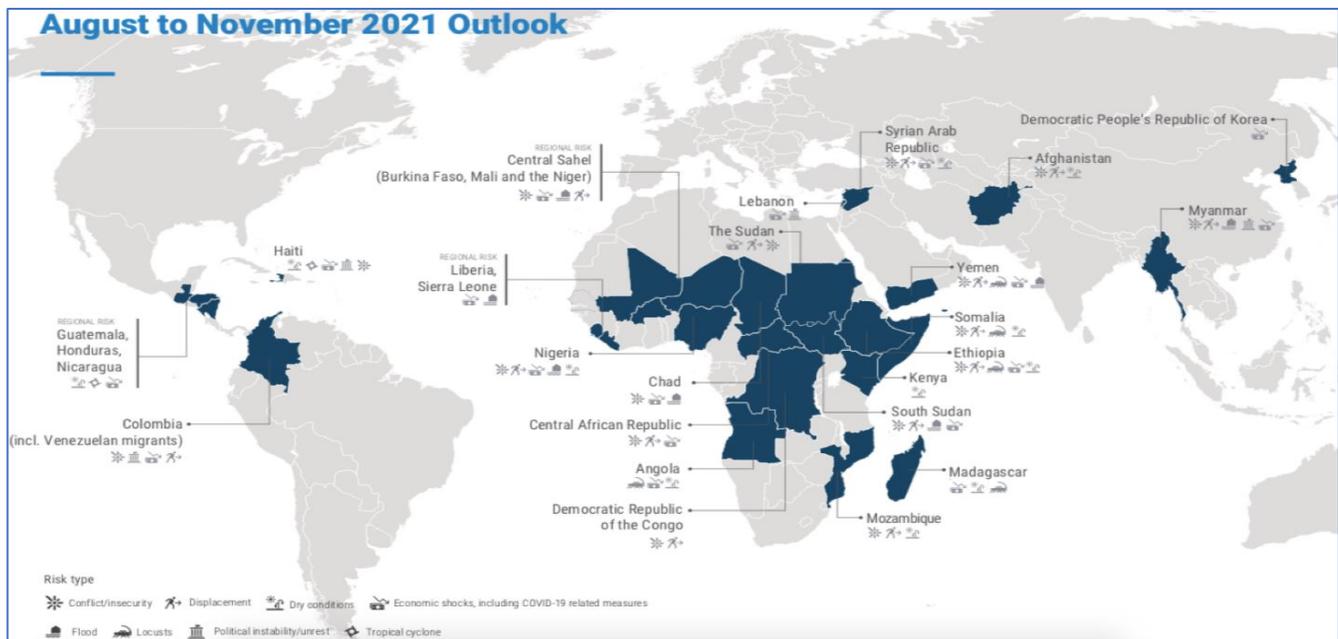
- In 2020, 155 million people were estimated to be in acute food insecurity across 55 countries/territories. This is an increase of more than 20 million from 2019, and the trend is expected to worsen this year.
- Acute hunger is increasing not only in scale but also in severity. Overall, over 41 million people worldwide are now at risk of falling into famine or famine-like conditions, unless they receive immediate life and livelihood-saving assistance.
- The report highlights that **conflict, climate extremes and economic shocks** (related to impact of COVID-19), are likely to remain primary drivers of acute food insecurity for the August-November period this year.
- **Transboundary threats** also play a part in some regions - in particular, desert locust infestations in the Horn of Africa and African migratory locust swarms in Southern Africa.
- Higher international **food prices** also reduce vulnerable households' access to food, as they transmit onto domestic food prices.

Food and Agriculture Organization (FAO)

- Founded in 1945, FAO is a **specialized agency** of the United Nations, that leads international efforts to defeat hunger, and improve nutrition and food security.
- **Headquartered in Rome**, it maintains regional and field offices around the world, operating in over 130 countries.
- It helps governments and development agencies coordinate their activities to improve and develop agriculture, forestry, fisheries, and land and water resources.
- It also conducts research, provides technical assistance to projects, operates educational and training programs, and collects data on agricultural output, production and development.

Hunger Hotspots

- The report identifies 23 hotspots which over the next four months are expected to face an acute level of food insecurity.
- **Ethiopia and Madagascar** are the world's new "highest alert" hunger hotspots. These two highest alerts are in addition to **South Sudan, Yemen, and northern Nigeria**, which remain among the acute food insecurity hotspots of greatest global concern.



- Ethiopia faces a devastating food emergency linked to ongoing **conflict in the Tigray region**. The number of people facing starvation and death is expected to rise to 4,01,000. This is the highest number in one country since the 2011 famine in Somalia.
- In southern Madagascar, which has been hit by the worst drought in the past 40 years, pests affecting staple crops, and rising food prices — 14,000 people are expected to be pushed into acute food insecurity. This number is expected to double by the end of the year with 28,000 people needing urgent help.

Way Ahead

- The report warns that humanitarian action is urgently needed to prevent hunger, famine and death in all 23 hotspots.
- The vast majority of those on the verge of acute food insecurity are farmers. So far, support for agriculture as key means of preventing widespread famine is largely overlooked by donors. Alongside food assistance, adequate support must be provided to help farmers to resume food production themselves.
- Authorities must also work to reduce barriers to access food. This means, paperwork should be approved in time, to move food quickly and checkpoints should not block trucks carrying food.

World Food Programme (WFP)

- The World Food Programme (WFP) is the food-assistance branch of the United Nations and the world's largest humanitarian organization addressing hunger and promoting food security.
- WFP was **established in 1961** after the 1960 FAO Conference when the US Food for Peace Programmes proposed establishing a multilateral food aid programme.
- From its **headquarter in Rome**, the WFP works to help people who cannot produce or obtain enough food for themselves and their families.
- Further, food-for-work programmes help promote environmental and economic stability and agricultural production.
- It was awarded the Nobel Peace Prize in 2020 for its efforts to combat hunger

United Information System for Education Plus (UDISE+)

- The Ministry of Education recently released a report on United Information System for Education Plus (UDISE+) 2019-20 for school education in India.
- UDISE initiated in 2012-13 is one of the largest Management Information Systems on school education covering more than 1.5 million schools, more than 9.6 million teachers and more than 264 million children. The purpose was to measure the education parameters from classes 1 to 12 in government and private schools across India.
- UDISE+ is an updated and improved version of UDISE. The entire system is **now online** and has been collecting data in real-time since 2018-19.
- UDISE+ collects information on school profile, physical infrastructure, teachers, enrolments, examination results, etc. through an online Data Collection Form (DCF).

Key Findings

- **Gross Enrolment Ratio** at all levels of school education has improved in 2019-20 compared to 2018-19.

- The GER is at 98% for students of Classes 1-8. For secondary and senior secondary students, GER stood at 78% and 51% respectively.
- In 2019-20, total students in school education from pre-primary to higher secondary have crossed 26.45 crore. This is higher by 42.3 lakh compared to 2018-19.
- In 2019-20, the **enrolment of girls** from primary to higher secondary is more than 12.08 crore. This is an increase by 14.08 lakh compared to 2018-19.
- Between 2012-13 and 2019-20, the GER for girls at both secondary and higher secondary level has increased more than that of the boys.
- Enrolment of Divyang students has increased by 6.52% over 2018-19
- Moreover, the **Pupil Teacher Ratio** (PTR) has improved at all levels of school education. In 2019-20, 96.87 lakh teachers were engaged in school education. This is higher by about 2.57 lakh compared to 2018-19.
- Between 2012-13 and 2019-20, the **Gender Parity Index** (GPI) at both Secondary and Higher Secondary levels have improved. GPI is a socio-economic index designed to measure the relative access to education of males and females.
- Improvement of GPI has been most pronounced at the higher secondary level, which has gone up to 1.04 in 2019-20 from 0.97 in 2012-13.

Facilities In Schools

- More than **80% of schools** in India in 2019-20 had functional electricity. This is an improvement by more than 6% over the previous year 2018-19.
- More than **84% schools** in India had a library/reading room/ reading corner in 2019-20, an improvement of nearly 4% compared to the previous year.
- More than **90% of schools** in India had hand wash facility in 2019-20. This is a major improvement, as this percentage was only 36.3% in 2012-13.
- Only **39 % schools** in the country have computers while about 22 % had an internet connection in 2019-20.

Contrast in States

- In States such as Chhattisgarh (83%) and Jharkhand (73%), installation of computer facilities in most government schools paid off, while in others such as Tamil Nadu (77%), Gujarat (74%) and Maharashtra (71%), private schools had higher levels of computer availability than in government schools.
- However, in States such as Assam (13%), Madhya Pradesh (13%), Bihar (14%), West Bengal (14%), Tripura (15%) and Uttar Pradesh (18%), less than one in five schools had working computers. The situation is worse in government schools, with less than 5% of U.P.'s government schools having the facility.
- 90% of schools, both government and private, had access to working computers in many Union Territories, as well as in the State of Kerala
- Connectivity divide: Only three States — Kerala (88%), Delhi (86%) and Gujarat (71%) — have Internet facilities in more than half their schools.

WASH Report

- The **World Health Organization (WHO) and UNICEF** recently released the Joint Monitoring Programme (JMP) report on WASH services.

- The report presents estimates on household access to safely managed drinking **W**ater, **S**anitation and **H**ygien**e** services (WASH) over the past five years, and assesses progress toward achieving the sixth Sustainable Development Goal (SDG).
- **SDG 6** aims to ensure availability and sustainable management of water and sanitation for all by 2030.
- For the first time, the report also presents emerging national data on menstrual health.

Key Findings

- In 2020, around 1 in 4 people lacked safely managed drinking water in their homes and nearly half the world's population lacked safely managed sanitation.
- However, the report notes some progress towards achieving universal access to basic WASH services. Between 2016 and 2020, global population with safely managed drinking water at home increased from 70 % to 74 %.
- During the same period, safely managed sanitation services grew from 47 % to 54 % and hand washing facilities with soap and water increased from 67 % to 71 %.
- Eight out of 10 people without basic water services lived in rural areas. Meanwhile, safely managed sanitation services reached 62 per cent of the world's urban population, but only 44 percent of its rural population.
- India was responsible for the largest drop in open defecation since 2015, in terms of absolute numbers whereas Sub-Saharan Africa is experiencing the slowest rate of progress in the world.
- In 2006, the third round of the National Family Health Survey (NFHS) found open defecation to be practised by less than 10 per cent of the population in four states and the Union Territory of Delhi, but by more than half the population in 11 states. By 2016, when the fourth round of the NFHS was conducted, open defecation had decreased in all states, with the largest drops seen in Himachal Pradesh and Haryana.
- Emerging data on menstrual health show that, in many countries, a significant proportion of women and girls are unable to meet menstrual health needs, in particular among vulnerable groups, such as the poor and those with disabilities.

Future Trends

As per the report, if current trends persist, billions of children and families will be left without critical, life-saving WASH services, and by 2030:

- Only 81 % of the world's population will have access to safe drinking water at home, leaving 1.6 billion without;
- Only 67 % will have safe sanitation services, leaving 2.8 billion without;
- And only 78 % will have basic hand washing facilities, leaving 1.9 billion without.

Way Ahead

- Accelerating WASH coverage will require prioritization at the highest levels of decision making by international agencies, governments, civil society and the private sector.
- For this to happen, WASH must be a regular fixture on the agenda at high-level political meetings to ensure member states keep track of progress.
- This is important in the context of the forthcoming mid-term review of the Water Action Decade in 2023 – the first UN conference on water and sanitation in almost 50 years.

India Inequality Report 2021

- Oxfam India recently released a report titled “India Inequality Report 2021: India’s Unequal Healthcare Story”.
- The findings are primarily based on secondary analysis from rounds 3 and 4 of the National Family Health Survey and various rounds of National Sample Survey.

General Findings

- As per the report, the general category is better off than the SCs and STs; Hindus are better off than Muslims; the rich are better off than the poor; men are better off than women; and the urban population is better off than the rural population” on most health determinants, interventions and indicators.
- India’s **low spending on public healthcare systems** and focus on supporting private healthcare has led to serious inequalities in access to healthcare. Over 50 % of people from SC and ST communities faced difficulties in accessing non-Covid medical facilities, compared to 18.2 % of people in the general category.
- Currently, India ranks 155 out of 167 countries on bed availability and has **50 beds and 86 doctors per 1,00,000** of its population. Rural India, which makes for 70 % of the population has barely 40 % of the beds.
- The average medical expenditure per hospitalisation case has tripled between 2004 and 2017, making it difficult for poorer and rural households. The **out-of-pocket health expenditure of 64.2 %** in India is higher than the world average of 18.2 %.

Oxfam

- Founded in 1942 and led by Oxfam International, Oxfam is a confederation of 20 independent charitable organisations focusing on the alleviation of global poverty.
- Oxfam's programmes address the structural causes of poverty and related injustice and work primarily through local accountable organizations, seeking to enhance their effectiveness.
- In the year 2000, Oxfam adopted the rights-based approach as the framework for all the work of the Confederation and its partners.

Key Inequalities

1. **Institutional Deliveries:** The share of institutional deliveries in India has increased from 38.7% in 2005-06 to 78.9% in 2015-16, but inequalities persist with ST households 15% below the general category, Muslims 12% behind Hindus and a 35% gap between the poorest and richest 20% of the population.
2. **Immunisation:** Immunisation in ST households at 55.8% is still 6.2% below the national average, and Muslims have the lowest rate across all socio-religious groups at 55.4%. Further, the rate of immunisation of girls, rural children, and low-wealth group children continues to be below that of the male child, urban children, and high-wealth group children respectively.
3. **Infant Mortality Rate:** IMR at national level is 29 deaths/1000 live birth. While there is overall improvement in infant mortality rate (IMR), SCs, STs and OBCs have higher IMR as compared to the general category. IMR for Adivasis is 44.4 which is 40% more than the general category and 10% more than the national average.
4. **Life Expectancy:** Life expectancy based on wealth is 65.1 years for the bottom 20% of the households, while it is 72.7 years for the top 20%. Similarly, on an average, an upper caste woman lives 15 years longer than a Dalit woman.
5. **Sanitation**
 - 65.7% households have access to improved, non-shared sanitation facilities in the general category, while SC households are 28.5% behind them and ST are 39.8% behind them.
 - While 93.4% of households in the top 20% have access to improved sanitation, only 6% have access in the bottom 20 % — a difference of 87.4%.

6. Female Literacy

- The report shows that women's literacy has improved across social groups over the years. However, the literacy rate for women in general category is 18.6 % higher than SC women, and 27.9 % higher than ST women.
- Female literacy rate is highest amongst Sikhs and Christians at over 80 per cent, followed by Hindus at 68.3 per cent, and Muslims at 64.3 percent.

Recommendations

- The **right to health should be enacted as a fundamental right** that makes it necessary for government to ensure equal access to timely, acceptable, and affordable healthcare of appropriate quality
- Health spending should be **increased to 2.5 % of GDP** to ensure a more equitable health system in the country. The centre should extend financial support to states with low per capita health expenditure to reduce inter-state inequality in health.
- The coverage of insurance schemes should be widened to cover out-patient care.
- Direct all states to notify the Patients' Rights Charter and set up operational mechanisms to make these rights functional and enforceable by law.

15. Consider the following statements about Juvenile Justice (Amendment) Bill, 2021:

1. **Child adoption orders can only be issued by the civil court.**
2. **Offences against children can only be tried in children's court.**

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 |

Answer: B

Explanation:

- The Juvenile Justice (Care and Protection of Children) Amendment Bill 2021 was recently passed in the Parliament. The Bill amends the Juvenile Justice (Care and Protection of Children) Act, 2015.
- The Juvenile Justice (JJ) Act, 2015 contains provisions for children **in conflict with law** and children **in need of care and protection**.
- The Act fulfils India's commitment as a signatory to the United Nations Convention on the rights of the child and other related international instruments.

Background

- The amendment bill was initiated based on a report filed by the National Commission for Protection of Child Rights (NCPDR) in 2018-19 in which the over 7,000 Child Care Institutions (or children's homes) were surveyed.
- It was found that 1.5 % do not conform to rules and regulations of the JJ Act and 29 % of them had major shortcomings in their management.
- It also found that not a single Child Care Institution in the country was found to be 100 percent compliant to the provisions of the JJ Act. Since the survey, the Centre has shut down 500 illegal child welfare institutions that had not been registered under the JJ Act.

- National Crime Records Bureau (NCRB) 2018 report highlights that 51% of all trafficking victims were children, of which more than 80% were girls for forced labour, all kinds of domestic work and trafficking of women for sexual exploitation.

Key Provisions of Bill

A. Adoption Provision

- As per the JJ Act, adoption process was under the courts, but there were huge backlogs, and each adoption case could take years to be passed.
- The Bill provides that instead of the court, the **District Magistrate (including Additional District Magistrate)** will issue such adoption orders, both for intra-country and inter-country adoptions.
- DMs and ADMs have been empowered to monitor the functioning of various agencies under the JJ Act in every district. This includes the Child Welfare Committees, the Juvenile Justice Boards, the District Child Protection Units and the Special Juvenile Protection Units.

Procedure for Adoption:

- If someone has information about a child in need of care, then they must contact one of the agencies: Childline 1098, or the district Child Welfare Committee (CWC), District Child Protection Officer (DCPO). Following this, the CWC will assess the child and place him or her in the immediate care of a Specialised Adoption Agency.
- Prospective parents should register themselves with the Child Adoption Resource Information and Guidance System (CARINGS) of CARA. The parents take in the child for pre-adoption foster care and the SSA files the petition in the court.
- Then the court issues the adoption order.
- Post-adoption follow-up reports are conducted for a period of two years.

B. Offence Classification

- Presently there are three categories of offence defined under the Act, while considering cases of children in conflict with law:
 - i) Heinous offences (minimum punishment of seven years of imprisonment);
 - ii) Serious offences (three to seven years of imprisonment); and
 - iii) Petty offences (below three years of imprisonment).
- However, it was observed that some of the offences do not strictly fall under any of these categories.
- The Bill adds that serious offences will also include offences for which maximum punishment is imprisonment of more than seven years, and minimum punishment is not prescribed or is less than seven years.
- Moreover, as per the bill, offences punishable with imprisonment between 3-7 years shall be non-cognizable and non-bailable. Under the Act, such offences were cognizable (where arrest is allowed without warrant).

C. Designated Courts

- Under the Act, an offence against children punishable with imprisonment of a term more than seven years, are tried in the *children's court*. Other offences punishable with imprisonment less than seven years are tried by a *Judicial Magistrate*.
- As per the Bill, all the offences will be tried in children's court.

D. Child Welfare Committees

- The Act provides that states constitute one or more CWCs for each district for dealing with children in need of care and protection. It provides certain criteria for the appointment of members to CWC.
- The Bill specifies that a person will not be eligible to be a member of the CWC if he/she:

- Has any record of violation of human rights or child rights
- Has been convicted of an offence involving moral corruption, and such conviction has not been reversed;
- Has been removed or dismissed from service of the central government, or any state government, or an undertaking owned by the government; or
- Is part of the management of a child care institution in a district.

Evaluation

- The Bill puts a great deal of responsibility of children's welfare on DMs, ignoring the fact that the DMs are over-burdened authorities, with the charge of entire district.
- Centralizing all powers with respect to children rehabilitation in one authority (DMs) may lead to delays, and may have a negative impact on child welfare.
- The Centre should consider providing them with suitable assistance to ensure that this important issue does not get side-tracked in their day-to-day work.
- Specific training in child protection rules should also be given, as district magistrates usually are not trained or equipped to deal with these specific laws

Answer: D

Explanation:

- The Reserve Bank of India (RBI) recently announced the details of the scheme under which **retail investors** will be allowed to open **Retail Direct Gilt accounts (RDG)** directly with the RBI. The scheme is a **one-stop solution to facilitate investment in government securities (G-secs)** by individual investors.
- Under RDG schemes, accounts can be opened through a dedicated online portal, which will provide registered users access to Primary issuance of G-Secs and to NDS-OM (secondary market). No fee will be charged for opening and maintaining the account with RBI.
- The NDS is an electronic trading platform operated by RBI to facilitate the issuing and exchange of G-Sec and other types of money market instruments. The goal was to reduce inefficiencies stemming from telephone orders and manual paperwork, while increasing transparency for all market participants.
- The facility was announced by the RBI in February, 2021, but RBI is yet to launch the scheme. The date of commencement of the scheme will be announced at a later date.

G-secs

- G-secs are tradable debt securities issued by RBI on behalf of the central government and can have a tenure ranging from a few days to 40 years.
- Such securities are **short term (called treasury bills)** with original maturities of less than one year, or **long term (called government bonds or dated securities)** with original maturity of one year or more.
- Since they are issued by the government, they carry almost no risk of default (risk of losing money), and hence, are called gilts or gilt-edged instruments. But they are not completely risk-free, since they are subject to fluctuations in interest rates.
- Like bank fixed deposits, G-secs are not tax-free. Bank fixed deposits, on the other hand, are guaranteed only to the extent of Rs 5 lakh by the Deposit Insurance and Credit Guarantee Corporation (DICGC).

Mechanism of Investment in G-secs

- Until now, **direct access to G-secs** was limited to institutional players such as banks, primary dealers, insurance companies, mutual funds, foreign portfolio investors and high net worth individuals. These entities trade in lot sizes of Rs 5 crore or more. So, there is no liquidity in the secondary market for small investors who would want to trade in smaller lot sizes.
- Institutional members such as commercial banks, primary dealers also used the **NDS-OM** (Negotiated Dealing System-Order Matching) trading platform to trade in the G-Sec market.
- Currently, retail investors are allowed to submit bids in **auctions** of G-secs. After this, stock exchanges act as aggregators and facilitators of these retail bids. Stock exchanges were allowed to aggregate the demand for gilts and place it to the RBI in the NDS-OM (Negotiated Dealing System-Order Matching).

Current Change

- The RBI has now decided to move beyond the aggregator model and give retail investors direct online access to the G-Secs market.
- According to the notification, retail investors will have to open and maintain an RDG account with RBI to access its G-Sec platform.
- The same account will allow them to directly participate in the primary G-secs auctions and will also be valid for secondary market trading at Negotiated Dealing System- Order Matching (NDS-OM).

Eligibility

- To open an RDG Account, a retail investor should have a savings bank account, PAN (Permanent Account Number) and KYC (Know Your Customer) documents.
- The RDG account can be opened individually or jointly with another retail investor who meets the eligibility criteria.
- Only those non-resident retail investors eligible to invest in G-Secs will be allowed to open the RDG Account.

Significance

- Improved Ease of Access: It will make the process of G-sec trading smoother for small investors therefore it will raise retail participation in G-secs and will improve ease of access.
- Facilitate Government Borrowings: This measure together **with relaxation in mandatory Hold To Maturity** (securities that are purchased to be owned until maturity) provisions will facilitate smooth completion of the government borrowing programme in 2021-22.
- Financialise Domestic Savings: Allowing direct retail participation in the G-Sec market will promote financialisation of a vast pool of domestic savings and could be a game-changer in India's investment market.

Tax on G-secs

- G-Secs attract tax on interest income. They also attract tax on capital gains in case they are traded in the market before the maturity date of G-secs.
- They don't attract capital gains tax if the G-secs are held till the maturity date.

Other Measures Taken to Increase Retail Investment in Government Securities:

Introduction of non-competitive bidding in primary auctions which means the bidder would be able to participate in the auctions of dated government securities without having to quote the yield or price in the bid

PLI Underperformance

The production-linked incentive (PLI) scheme approved last year for various sectors is struggling across most sectors.

PLI Scheme

- The PLI scheme aims to **boost domestic manufacturing and reduce imports** by providing incentives on incremental sales from products manufactured in the country. The incentives will be available over a **five-year period**.
- Along with inviting foreign companies in India, the scheme aims to encourage local companies to set up, or expand, existing manufacturing units.
- It was launched in April 2020, for large scale Electronics Manufacturing sector, but later towards the end of 2020 was introduced for 10 other sectors. This scheme was introduced in line with India's Atmanirbhar Bharat campaign.
- 10 sectors include food processing, telecom, electronics, textiles, speciality steel, automobiles and auto components, solar photovoltaic modules and white goods such as air conditioners and LEDs were also expanded under the PLI scheme
- In the Union Budget 2021-22, Finance Minister Nirmala Sitharaman mentioned the inclusion of thirteen more sectors under the PLI Scheme for a period of five years and Rs. 1.97 lakh crores have been allocated for this scheme from Financial Year 2022.

- An average of 5% of production is given as incentive. This means that PLI schemes will lead to an increase in production worth USD 520 billion in India in the next five years.
- The incentive amount varies across sectors and savings generated from PLI in one sector can be utilized to fund other sectors, maximizing returns.
- Difference between the earlier schemes and those of the current government: The earlier industrial incentives used to be open ended input-based subsidies, now they have been made targeted and performance based through a competitive process.
- The PLI schemes are implemented by the concerned ministries/departments.

Expected Impact of PLI scheme

- The PLI scheme will make Indian manufacturers globally competitive, attract investment and enhance exports.
- Growth in production and exports of industrial goods will give the Indian industry exposure to foreign competition and ideas, which will help in improving its capabilities to innovate further.
- Promotion of the manufacturing sector and creation of a productive manufacturing ecosystem will lead to an integration with global supply chains.
- It will also help in establishing backward linkages with the MSME sector in the country.
- It will lead to overall growth in the economy and create huge employment opportunities.

Issues With PLI Scheme

- Low Interest In PLI Schemes: The reasons for low interest is that most companies (especially automobile sector) either do not meet the qualification norms for the PLI scheme, or feel that the return on investment is low compared to the incentives announced.
- Similarly, for the textile sector, the government is now considering adding more products in the list of eligible products to attract applicants.
- In the medical devices sector, one of the challenges is that, at the moment, there are not many domestic manufacturers in the country. Moreover, domestic manufacturers do not want to invest, as low tariffs (import duties) make it more convenient to rely on importing these devices.
- Companies in the speciality steel sector are not very keen on applying as they feel that the period of 5 years is too less to set up new units and start production from them or even expand old units. The sector is extremely capital intensive and at least 10 years would be needed to get return on investments.

Sectors Showing Good Signs

- Among the sectors that have received the maximum number of applications under the scheme are food, mobile and specified electronic component manufacturing, IT hardware, as well as telecom equipment manufacturing.
- There is also a high degree of interest in the PLI scheme for Pharmaceuticals. The PLI scheme for critical bulk drugs too, has received a good number of applications.

Monetary Transmission In India

The Reserve Bank of India (RBI) recently released a report titled '**Monetary transmission in India**'. The report gives details of loans under the **Internal** and **External benchmark-based lending mechanisms**, with differing impact on interest rate transmission.

Internal Benchmark Lending Rate (IBLR)

- Earlier, banks used to follow the internal benchmark based lending rate for lending. The Internal Benchmark Lending Rates are a set of reference lending rates which are calculated after considering factors like the bank's current financial overview, deposits and non performing assets (NPAs) etc. Under it, different mechanisms like the Benchmark Prime Lending Rate (BPLR), Base rate and Marginal Cost of Lending Rate (**MCLR**), were followed to calculate the reference rates for lending.
- **BPLR** was used as a benchmark rate by banks for lending till 2010. It was **calculated by** taking into consideration cost of funds; operational expenses; and a minimum margin to cover regulatory requirements and profit margin. RBI noticed that banks kept BPLR at an artificially high level, and were misusing it by lending money at rates lower than BPLR to privileged customers.
- Later, in 2010, RBI changed the reference rate for IBLR from BPLR to **Base rate**. Base rate was the minimum interest rate at which commercial banks could lend to customers. Base rate was calculated on **three parameters**— cost of fund, unallocated cost of resources and return on net worth. Hence, the rate depended on individual banks and they changed it whenever their cost of funds and other parameters changed.
- In April 2016, RBI made **MCLR** as the benchmark rate for lending. It was the minimum rate at which the banks could lend. MCLR is **based on four components**—marginal cost of funds, negative carry on account of cash reserve ratio, operating costs and tenor premium. MCLR is linked to the actual deposit rates. Hence, when deposit rates rise, it indicates the banks are likely to increase MCLR and lending rates will increase.

External Benchmark Based Lending Rate (EBLR)

- Under IBLR, borrowers complained that lenders were quick to increase interest rates on loans when the RBI increased policy rates. However, when the RBI would lower policy rates, lenders would decrease rates at a much slower pace for existing customers.
- In order to fix this issue of poor monetary transmission and increase transparency, RBI introduced external benchmark-based lending rates (EBLR), in October 2019. Being an external system, this meant any policy rate cut decision could reach borrowers faster.
- EBLR offered banks the options to choose from **4 external benchmarking mechanisms**:
 - i) RBI repo rate;
 - ii) 91-day Treasury bill yield;
 - iii) 182-day Treasury bill yield; or
 - iv) Any other benchmark market interest rate developed by the Financial Benchmarks India Pvt. Ltd (FBIL).
- The RBI had made it mandatory for banks to link **all new floating rate personal or retail loans** (housing, auto etc.) and floating rate loans to MSMEs to an external benchmark from October, 2019. Banks are, however, free to extend the same rate to other loans including fixed rate loans.
- To ensure complete transparency and standardization, banks are mandated to adopt a uniform external benchmark rate within a loan category. However, the interest rate must be reset as per the external benchmark at least once every three months.

Highlights Of The Report

- The share of outstanding loans linked to external benchmarks like the repo rate rose significantly in the last two years, from as low as 2.4 % during September 2019 to 28.5 % during March 2021.
- Most banks (38 of the 58 banks) which introduced external benchmark linked loans (out of a total of 71 banks that responded to a survey) have adopted the repo rate as the external benchmark.

Revamped Distribution Sector Scheme

- The Union Cabinet recently approved a Reforms-Linked, Result-Based Scheme for Distribution’ (RLRBSD)
- The scheme seeks to improve the **operational efficiencies and financial sustainability** of all DISCOMs excluding private sector DISCOMs. It will do so by providing **result-linked financial assistance to DISCOMs** for strengthening supply infrastructure.
- North-Eastern State of Sikkim and States/Union Territories of Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, Andaman & Nicobar Islands, and Lakshadweep will be treated as Special Category States.

DISCOMS

- The Indian power sector value chain can be broadly segmented into generation, transmission, and distribution sectors.
- The distribution sector consists of Power Distribution Companies (DISCOMS) responsible for the supply and distribution of energy to the consumers (industry, commercial, agriculture, domestic etc.).
- Power distribution companies collect payments from consumers against their energy supplies (purchased from generators) to provide necessary cash flows to the generation and transmission sectors to operate. However, this sector is the weakest link in terms of financial and operational sustainability.

Objectives

- Reduction of Aggregate Technical & Commercial (AT&C) losses to pan-India levels of **12-15% by 2024-25**.
- Reduction of Average Cost of Supply - Average Realisable Revenue (ACS-ARR) gap to **zero by 2024-25**.
- Develop institutional capabilities for modern DISCOMs.
- Improvement in the quality, reliability, and affordability of power supply to consumers.

Details Of The Scheme

- The scheme would be available till the year 2025-26 and the implementation of the scheme would be based on the action plan worked out for each state rather than a "one-size-fits-all" approach.
- **Power Finance Corporation (PFC)** and **Rural Electrification Corporation (REC)** have been nominated as nodal agencies for implementation of the scheme.
- It will have an outlay of Rs 3,03,758 crore with an estimated support of Rs 97,631 crore from the Central Government.
- The new scheme will subsume programmes such as Integrated Power Development Scheme (IPDS), the Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), and Pradhan Mantri Sahaj Bijli Har Ghar Yojana.
- The scheme provides for **annual appraisal (assessment) of the DISCOM performance** against predefined performance. This will cover AT&C losses, ACS-ARR gaps, infrastructure upgrade performance, consumer services, hours of supply and corporate governance.
- DISCOMs have to **score a minimum of 60 per cent marks** and clear a minimum level with respect to certain parameters, to be eligible for funding under the scheme in that year.

Components Of The Scheme

A. Focus on Farmers

- The scheme has a major focus on improving electricity supply for the farmers and for providing daytime electricity to them through **solarization of agricultural feeders**.
- Works of **separation of 10,000 agriculture feeders** would be taken up, which would give farmers the access to dedicated agriculture feeders providing them reliable and quality power.

- The new scheme converges with the Pradhan Mantri Kisan Urja Suraksha Evam Utthan Mahabhiyan (**PM-KUSUM**) Scheme, which aims to solarize all feeders, and provide options for additional income to farmers.

B. Metering Improvements

- A key feature is to enable consumer empowerment through **prepaid smart metering** implemented in Public-Private-Partnership (PPP) mode. Smart meters would allow consumers to monitor their electricity consumption on a routine basis instead of monthly basis.
- Overall, the scheme will cover around 25 crore consumers with prepaid smart meters. Around 10 crore prepaid smart meters will be installed by December 2023 in the first phase.

C. Use of Artificial Intelligence

- Funds under the scheme would also be used for development of applications related to the use of AI in the distribution sector. This would promote the development of startups in the distribution sector across the country.
- AI would be used to analyze data generated through devices including system meters, prepaid smart meters to prepare system generated energy accounting reports every month.
- This would enable DISCOMs to take informed decisions on loss reduction, demand forecasting, Time of Day (ToD) tariff, Renewable Energy (RE) Integration and for other predictive analysis.

D. Modernization of Urban Distribution Systems

- At the moment, only 57 towns in the country have supervisory control and data acquisition (**SCADA**) systems. The plan is to have SCADA systems in all the **urban** areas and a **Distribution Management System (DMS)** in 100 urban centres.
- A **Distribution Management System (DMS)** is a collection of applications designed to monitor & control the entire distribution network efficiently and reliably.
- SCADA is a system of software and hardware elements that allows industrial organizations to:
 - Control industrial processes locally or at remote locations.
 - Monitor, gather, and process real-time data.
 - Directly interact with various devices.
 - Record events into a file.

AT&C losses

- Transmission & Distribution losses do not capture losses on account of non-realisation of payments. Hence, the concept of Aggregate Technical & Commercial losses provides a realistic picture of the loss situation in the context it is measured.
- AT&C Loss is the actual measure of overall efficiency of the distribution business as it is a **combination of energy loss** (Technical loss + Theft + inefficiency in billing) and **commercial loss** (Default in payment + inefficiency in collection).

Related Schemes

- Pradhan Mantri Sahaj Bijli Har Ghar Yojana (Saubhagya): To ensure electrification of all willing households in the country in rural as well as urban areas.
- Integrated Power Development Scheme (IPDS): The scheme provides for (a) strengthening of sub-transmission and distribution networks in urban areas; (b) metering of distribution transformers/feeders/consumers in urban areas; and (c) IT enablement of distribution sector and strengthening of distribution network.

- Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY): The rural electrification scheme provides for (a) separation of agriculture and non-agriculture feeders; (b) strengthening and augmentation of sub-transmission and distribution infrastructure in rural areas including metering at distribution transformers, feeders and consumers end.
- GARV (Grameen Vidyutikaran) App: To monitor transparency in implementation of the electrification schemes, Grameen Vidyut Abhiyanta (GVAs) have been appointed by the government to report progress through the GARV app.
- Ujwal Discom Assurance Yojana (UDAY): For operational and financial turnaround of Discoms.

RLRBSD Against the Context of UDAY

Under UDAY, discoms were required to reduce AT&C losses from 20.7% during 2015-16 to 15% by 2018-19.	During 2019-20, their AT&C losses were 18.9% against the 15% target for 2018-19.
Discoms were to reduce the ACS-ARR gap from Rs 0.59 per unit during 2015-16 to 'zero' by 2018-19.	The ACS-ARR gap during 2019-20, stood at Rs 0.42 per unit against target of 'zero' for 2018-19.
Government gave Discoms a financial restructuring package (FRP). The FRP was nothing but a condoning of discoms' staggering debt of about Rs 4 lakh crore.	RLRBSD aims of achieving those targets by 2025 which should have been achieved by 2018-19 under UDAY

Secured Logistics Document Exchange

The Centre recently launched the Secured Logistics Document Exchange (SLDE) platform along with a Calculator for Green House Gas Emissions.

SLDE

- The SLDE platform is a solution to replace the present manual process of generation, exchange and compliance of logistics documents with a digitized, secure and seamless document exchange system.
- It will enable generation, storage and interchange of logistics-related documents digitally using Aadhaar and blockchain-based security protocols.
- It will also provide a complete audit trail of document transfer, faster execution of transactions, easy verification of authenticity of documents, lowered risk of fraud, etc.
- The proof of concept of the platform has been developed and executed with several banks and stakeholders including freight forwarders, exporters, importers and vessel operators.

GHG Calculator

- The GHG Calculator is an efficient, user-friendly tool that is intended to facilitate appropriate modal (mode of transport) choice.
- It provides for calculating and comparing GHG emissions across different modes.
- It also allows commodity-wise comparison of GHG emissions and total cost of transportation, including their environmental cost, between movement by road and rail.

Benefits

- The initiatives will help to improve logistics efficiency and promote multi-modality and sustainability in a big way. They will also help to reduce logistics cost and the overall carbon footprint.
- This will help to significantly improve the ease of doing business in the country. In World Bank's Ease-Of-Doing Business Report, 2020 India was ranked 63 out of 190 countries.

19. Geographical Indication (GI) certified Bhalia variety of wheat is grown in:

- a) Uttar Pradesh
- b) Bihar
- c) Gujarat
- d) None of the above.

Answer: C

Explanation:

- The first shipment of Geographical Indication (GI) certified Bhalia variety of wheat was exported to **Kenya and Sri Lanka from Gujarat.**
- Bhalia variety of wheat has **high protein content and is sweet in taste.** It received GI certification in 2011.
- The crop is grown mostly across the Bhal region of Gujarat which includes Ahmadabad, Anand, Kheda, Bhavanagar, Surendranagar, Bharuch districts. Its unique characteristic is that it is **grown in rainfed conditions without irrigation.**
- This initiative is expected to boost wheat exports from India. In 2020-21, the wheat exports from India witnessed a significant growth of 808 % to Rs 4034 crore from Rs 444 crore reported in the previous fiscal.
- India exported a substantial quantity of grain to seven new countries - **Yemen, Indonesia, Bhutan, Philippines, Iran, Cambodia and Myanmar** during 2020-21. In the previous financial years, only small quantities of wheat were exported to these countries.

Geographical Indication

- The World Intellectual Property Organisation defines a GI as a sign that can be used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- GIs are typically used for agricultural products, foodstuffs, handicrafts, industrial products, wines and spirit drinks. Some examples of GI are, Darjeeling tea, Kullu shawl, Mysore agarbathi, Swiss watches etc.
- Internationally, GIs are covered as an element of intellectual property rights under the Paris Convention for the Protection of Industrial Property. They are also covered under the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement.
- Getting a GI tag can provide a better market for the products and also helps to prevent misuse of the product names.
- A GI registration is given to an area, not a trader, but once a product gets the registration, traders dealing in the product can apply for selling it with the GI logo. Authorised traders are given a unique GI number.

Strategic Petroleum Reserves

- Under **Phase II of Strategic Petroleum Reserve (SPR) programme**, the government has approved the setting up of two additional commercial-cum-strategic facilities to store crude oil.

- The 6.5 million metric tonnes-capacity storage facility is proposed to be set up at **Chandikhol** (with 4MMT capacity) in Odisha and **Padur** (2.5 MMT capacity) in Karnataka, in public-private-partnership mode.
- Petroleum reserves are made to ensure energy security and is important for India because the country imports a major portion of its oil requirements. In fact, crude oil is the largest portion of India's imports and majorly determines the country's current account.
- Under the first phase of the Strategic Petroleum Reserves (SPR) programme, the Centre has set up petroleum storage facilities with a total capacity of 5.33 MMT at 3 locations - **Vishakhapatnam, Mangaluru and Padur**.
- The petroleum reserves established under Phase-I are strategic in nature and the crude oil stored in these reserves will be used during oil shortage events, as and when declared by the government.
- However, India's oil reserve is comparatively smaller than many advanced and emerging economies, which gives the country less scope to take advantage of the situation.

Matsya Setu App

- Recently, the **Ministry of Fisheries, Animal Husbandry and Dairying** has launched the Online Course Mobile App - Matsya Setu.
- The app was developed by the ICAR-Central Institute of Freshwater Aquaculture (**ICAR-CIFA**), with the funding support of the National Fisheries Development Board (**NFDB**).
- The online course app aims to share the latest freshwater aquaculture technologies to the aqua farmers of the country. On the app, renowned aquaculture experts explain the basic concepts and practical demonstrations on breeding, seed production and grow-out culture of commercially important fishes like carp, catfish, scampi, murrel, ornamental fish, pearl farming etc.
- Learning advanced technologies will influence the adoption of scientific methods in fish farming that will enhance productivity and boost incomes of farmers.

20. Which of the following industries are covered in the Index of Eight Core Industries (ICI)?

- | | |
|----------------|-----------|
| 1. Coal | 2. Health |
| 3. Fertilisers | 4. Media |
| 5. Steel | |

Choose the correct option using the codes below:

- | | |
|--------------------|---------------------|
| a) 2, 3 and 4 only | b) 1, 3, and 5 only |
| c) 1, 2 and 5 only | d) 1, 3, 4 and 5 |

Answer: B

Explanation:

- The Office of Economic Adviser, Department for Promotion of Industry and Internal Trade (DPIIT) recently released the Index of Eight Core Industries (ICI) for the month of June, 2021.
- The combined Index of Eight Core Industries stood at 126.6 in June 2021, which increased by 8.9 per cent, as compared to the Index of June 2020, mainly due to a low base effect.

- Traders can also take advantage of the **Udyam registration portal**. The Udyam portal is a free, paperless online and instant registration portal. MSMEs which self-certify their existence by registering on the portal are eligible for a wide variety of benefits ranging from interest rate subsidy on bank loans, to exemption under direct tax laws, concession in electricity bills among others. Presently, only 25 lakh have been under the ambit of MSME Ministry through the UDYAM registration process.
- In order to support Covid-hit MSMEs further, the government announced a three-month extension of its Rs 3 lakh crore Emergency Credit Line Guarantee Scheme (ECLGS) to September 30, 2021 or till guarantees for an amount of Rs 3 lakh crore are issued under the fourth revision of the scheme dubbed ECLGS 4.0.

Concerns

- According to experts, the inclusion of 2.5 crore traders as MSMEs would dilute the sector which is already vast and is struggling for survival.
- There is already no data to classify the MSMEs as manufacturers, service providers, exporters, ancillaries, among other categories.
- By including a vast number of traders, it would make it more difficult to assess and monitor those involved in various sectors and prepare targeted schemes for employers and employees.
- Moreover, under PSL, banks would prefer traders over the manufacturers as their business is less risky. This would have a negative impact on the overall MSME sector.

22. Authorised Economic Operator programme was started by:

- a) World Intellectual Property Organization.
- b) World Bank.
- c) World Customs Organization.
- d) None of the above.

Answer: C

Explanation:

- The Central Board of Indirect Taxes & Customs (CBIC) recently inaugurated the **online filing** of Authorised Economic Operators (AEO) T2 and T3 applications.
- The new version of the web application is also designed to ensure continuous real-time and digital monitoring of **physically filed** AEO T2 and AEO T3 applications for timely intervention.

Authorised Economic Operator (AEO)

- AEO is a **voluntary programme** under the World Customs Organization (WCO) SAFE Framework of Standards.
- Under AEO, a business engaged in international trade is approved by Customs as compliant with supply chain security standards and granted AEO status and certain benefits.
- This segmentation approach enables Customs resources to focus on less or non-compliant or risky businesses for control.
- Thus, the aim of the AEO programme is to secure global trade by enhancing international supply chain security and to facilitate the movement of goods.
- In India, AEO certification was implemented in 2011 and there are three tiers of AEO certification, AEO T1, AEO T2 and AEO T3 in the increasing degree of benefits accorded and compliance requirements.

Benefits Under AEO

- Incentivize business entities through defined benefits that translate into savings in time and cost, which helps to promote ease of doing business.
- Benefits of AEO status include expedited clearance times, fewer examinations, improved security and communication between supply chain partners.
- Facility of **Direct Port Delivery (DPD)** of import containers and/ or Direct Port Entry (DPE) of export containers. It also helps in fast tracking of refunds and adjudications
- Enhanced border clearance privileges in **Mutual Recognition Agreement (MRA)** partner countries. MRA is an international agreement by which two or more countries agree to recognize one another's conformity assessment results (for example certifications or test results).
- Customs advice/assistance if trade faces unexpected issues with Customs in MRA partner countries.
- Secure supply chain from point of export to import.

World Customs Organization (WCO)

- The World Customs Organization (WCO) is an **independent intergovernmental body** headquartered in **Brussels, Belgium**.
- It was established in 1952, with the objective of enhancing the effectiveness and efficiency of Customs administrations.
- It is internationally acknowledged as the global centre of customs expertise and plays a leading role in the discussion, development, promotion and implementation of modern customs systems and procedures.
- It develops international standards, enables cooperation and builds capacity to facilitate legitimate trade.
- India had become the vice-chair (regional head) of Asia Pacific region of WCO for a period of two years till June, 2020
- It represents 183 Customs administrations across the globe that collectively process approximately 98% of world trade.

SAFE Framework

- In 2005 the WCO Council adopted the SAFE Framework of Standards to Secure and Facilitate Global Trade (SAFE Framework).
- The framework intends to act as a deterrent to international terrorism, to secure revenue collections and to promote trade facilitation worldwide.

Global Survey on Digital and Sustainable Trade Facilitation

- The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) recently released the results of the latest Global Survey on Digital and Sustainable Trade Facilitation.
- The survey is conducted every two years by UNESCAP and includes an assessment of 58 trade facilitation measures covered by the World Trade Organization's Trade Facilitation Agreement.
- These 58 measures include publications of existing import-export rules on the internet, risk management, advance ruling on tariff classification, pre-arrival processing, independent appeal mechanism, expedited shipments, automated customs system, among others.
- A higher score for a country helps businesses in their investment decisions.

Key Findings

- According to the Survey, India's score has improved from **78.49% in 2019 to 90.2% in 2021**.
- After evaluation of 143 economies, the 2021 Survey highlighted India's significant improvement in the scores on all 5 key indicators:
 - i) Transparency: 100% in 2021 (from 93.33% in 2019);
 - ii) Formalities: 95.83% in 2021 (from 87.5% in 2019);
 - iii) Institutional Arrangement and Cooperation: 88.89% in 2021 (from 66.67% in 2019);
 - iv) Paperless Trade: 96.3% in 2021 (from 81.48% in 2019); and
 - v) Cross-Border Paperless Trade: 66.67% in 2021 (from 55.56% in 2019).
- The Survey notes that India is the best performing country when compared to South and South West Asia region (63.12%) and Asia Pacific region (65.85%).
- The overall score of India has also been found to be greater than many OECD countries including France, UK, Canada, Norway, Finland etc. and the overall score is greater than the average score of the European Union.

Factors for Improvement

- India has improved its ranking in trade facilitation due to various reforms undertaken by the Central Board of Indirect Taxes and Customs (CBIC).
- CBIC has taken various measures under the umbrella of 'Turant' Customs to develop a faceless, paperless and contactless Customs.
- The CBIC has also created a **dedicated single window** to facilitate quick resolution of issues faced by importers.

UNESCAP

- The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) is one of the five regional commissions under the jurisdiction of the **United Nations Economic and Social Council**.
- The Commission was first established by the Economic and Social Council in 1947 as the United Nations Economic Commission for Asia and the Far East (ECAFE) to assist in post-war economic reconstruction. It got its current name in 1974.
- It serves as the United Nations' regional hub for promoting cooperation among countries to achieve inclusive and sustainable development.
- It is composed of 53 Member States and nine Associate members. India is also a member.

Food Systems And Youth Engagement

- The Committee on World Food Security (CFS) recently released a report titled 'Promoting youth engagement and employment in agriculture and food systems'.
- The food system is a web of activities involving the production, processing, transport, and consumption.

Committee on World Food Security (CFS)

- CFS was established in 1974, as an international and intergovernmental platform for all stakeholders to ensure food security and nutrition for all. The committee reports to the UN General Assembly.
- CFS has a permanent Secretariat located in the Food and Agriculture Organization (FAO) headquarters in Rome, Italy.

Data on Youth

- Youth aged between 15 and 24 years accounted for 16 per cent of the world's population in 2019.

- Young people were concentrated in Asia, Central and Southern Asia with 361 million youth and Eastern & South-Eastern Asia with 307 million youth, followed by sub-Saharan Africa (211 million youth).
- According to the International Labour Organization (ILO), 440 million youth from the African continent would enter the labour market between 2015 and 2030.

Key Findings

- Unemployment rates for youth are three times higher than for adults in all regions of the world, and a vast majority of unemployed youth are young women. Globally, employment among the youth fell 8.7% in 2020 compared with 3.7% for adults.
- Making agriculture-food systems more appealing to the youth can secure the future of global food security and nutrition.
- Particularly in the Global South, agri-food systems are already the largest employer of young people. Yet, they often do not provide decent and meaningful work or adequate livelihood opportunities, nor maintain a balance between the needs and rights of different generations.

Food systems are a complex web of activities involving production, processing, handling, preparation, storage, distribution, marketing, access, purchase, consumption, food loss and waste, as well as the outputs of these activities, including social, economic and environmental outcomes.

- Thus, actions should be focused in developing countries as almost 88 percent of the world's 1.2 billion youth live, particularly in Africa, where over 70 percent of youth subsist on \$2 per day or less.

Indian Scenario:

- The youth (18-29 years) constitute 22% of India's population. India is also going through the stage of demographic dividend.
- According to the Ministry of Statistics and Programme Implementation, the median age of Indian population is around 28 years in 2021 and will become 31 years by 2031.
- Hardly 5% of the youth are engaged in agriculture though over 60% of the rural people derive their livelihood fully or partly from farming and its related activities.

Clearly, the modern youth are disenchanted with agriculture and are shunning it as a profession.

- MAYA Roadmap, 2018: This was formulated on "Motivating and Attracting Youth in Agriculture" (MAYA).
- ARYA (Attracting and Retaining Youth in Agriculture): Indian Council of Agricultural Research (ICAR) has initiated this programme.

Way Ahead

- It is important to improve youth-focused social protection programmes, labour laws and regulations, and young people's access to resources (land, forests, fisheries etc), finance, markets, digital technologies, knowledge and information.
- Youth-led start-up initiatives must also be supported through a supportive policy environment.
- Policies and initiatives to protect and strengthen youth engagement and employment in agri-food systems need to be rooted in rights, equity, action and recognition.
- The redistribution of resources, knowledge and opportunities for youth innovation and engagement can contribute to creating jobs for the youth, as well as directly support transitions to sustainable agri-food systems.

Polity And Governance

Union' or 'Central' Government Debate

- In Tamil Nadu, a controversy erupted over the new DMK government referring to the government of Prime Minister as the 'union government' (ondriya arasu) instead of 'central government'(madhiya arasu).
- More than 70 years after Independence, there is no authorised Tamil translation of the Constitution of India.

'Central' v/s 'Union' Government

- In common parlance, the terms “union government” and “central government” are used interchangeably in India.
- Indian Constitution **Part I- Article 1** states that India, that is Bharat, shall be a **Union of States**, thereby implying the indestructible nature of its unity with no provision for secession under the Constitution.
- The question in the 'union or centre' debate is about the nature of the Indian state. In the Government of India Act, 1935, provinces had more power and the Viceroy had only the minimum. But the Indian constitution changed this equation, and the federal government was made more powerful.
- The Constituent Assembly **did not use the term 'Centre' or 'Central government'** in all of its 395 Articles in 22 Parts and eight Schedules in the original Constitution.
- While submitting the **draft Constitution in 1948**, Dr B R Ambedkar, chairman of the drafting committee, had said that the committee had used the word 'Union' because
 - (a) the Indian federation was not the result of an agreement by the units, and
 - (b) the component units had no freedom to secede from the federation.
- Even though we have **no reference to the 'Central government' in the Constitution**, the **General Clauses Act, 1897** gives a definition for it. The *'Central government' for all practical purposes is the President* after the commencement of the Constitution. Therefore, the real question is whether such definition for 'Central government' is constitutional as the Constitution itself does not approve of centralising power
- According to constitution expert Subash Kashyap, from the point of the usage of the words, 'centre' indicates a point in the middle of a circle, whereas 'Union' is the whole circle.

Why Are Such Issues Arising

- 'Centre' is a hangover from the Colonial Legacy because the bureaucracy is used to using the word 'Central Laws,' 'Central legislature,' etc, and so everyone else, including the media, started using the word.
- India is not a classical federal model, and there are sufficient provisions to inform of its quasi-federal nature and characteristics. The Union is empowered, in certain circumstances, to supersede the authority of a state or to exercise powers otherwise vested with the states.
- The **seventh schedule (Article-246)** of the Constitution contains the Union List with 97 items, State List with 66 items and Concurrent List with 47 items. The successive Union governments have **exploited the centralizing tendencies of the Constitution** not only concerning the Concurrent List but also in the State List, e.g., agriculture and education.

The **GST Bill 2017, the New Education Policy 2020 and the Farm Bills 2020** have exposed the depth of isolation of states and the absence of broader national consensus over such critical issues concerning the entire nation.

- Instances of this are the Union government's **unresponsiveness to Tamil Nadu's appeal against NEET (National Eligibility cum Entrance Test)**, Punjab's challenge to the farm bills, and the genuine demand from several states to settle the GST dues on compassionate grounds.

Way forward

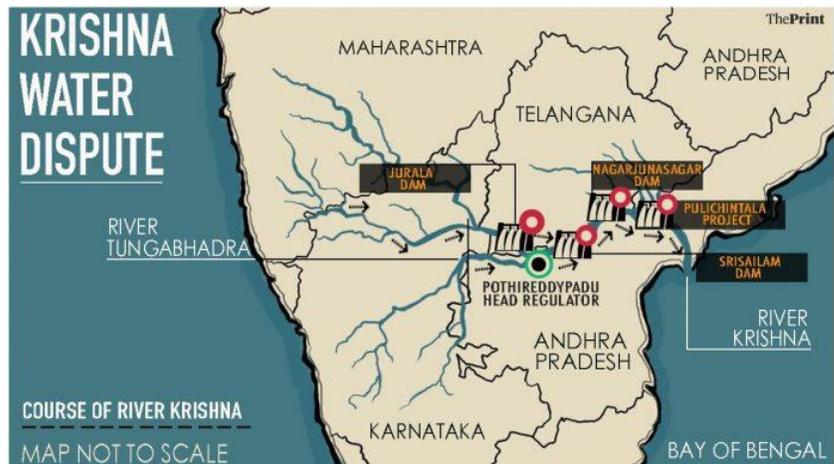
- The members of Constituent Assembly were very cautious of not using the word 'Centre' or 'Central government' in the Constitution as they intended to keep away the tendency of centralisation of powers in one unit.
- The '**Union government**' or the '**Government of India**' has a **unifying effect** as the message sought to be given is that the government is of all.
- Even though the federal nature of the Constitution is its basic feature and cannot be altered, what remains to be seen is **whether the actors wielding power intend to protect the federal feature** of our Constitution.
- The only satisfactory and lasting solution of the vexed problem is to be found **not in the statute-book but in the conscience of men in power.**

Krishna Water Dispute Between Telangana And Andhra Pradesh (AP)

For the past few weeks, Telangana and AP have been indulging in a bitter war of words over **sharing of Krishna waters** and alleged illegal construction of irrigation projects on both the sides.

History Of Krishna River Water Dispute

- The 1400 km-long Krishna River **originates from Maharashtra, flows through Karnataka, Telangana and Andhra Pradesh** before it empties into the Bay of Bengal.
- In 1969, first Krishna Water Dispute Tribunal (KWDT) was set up under the Inter-State River Water Dispute Act, 1956. It presented its report in 1973 which was published in 1976.
- In 1976, Maharashtra, Karnataka and erstwhile combined Andhra Pradesh had entered into an agreement for river water sharing as per the award of the first Krishna Water Dispute Tribunal or KWDT under two schemes.
 - Among the total quantum of 2060 thousand million cubic feet (TMC) of water available approximately, the tribunal divided it between three states at 75 % dependability (560 TMC for Maharashtra, 700 TMC for Karnataka and 800 TMC for Andhra Pradesh.)
 - It also ordered that Andhra Pradesh could utilise surplus waters of the river, without claiming permanent rights over it.
- In the combined Andhra Pradesh regime, several projects including Nagarjuna Sagar (1955), Srisailem (completed in 1980), Priyadarshini Jurala project (1995) and Pulichintala (2013) were built across the river, meant to serve different purposes.



- As new grievances arose between the states, the second KWDT was instituted in 2004. It delivered its report in 2010, which made allocations of the Krishna water at 65 % dependability and for surplus flows as follows: 81 TMC for Maharashtra, 177 TMC for Karnataka, and 190 TMC for Andhra Pradesh.
- The present dispute between Telangana and Andhra Pradesh is on **drawal of Krishna water from Srisailem reservoir** which has Nagarkurnool district of Telangana on the left side and Kurnool district of Andhra Pradesh on the right side. Initially built for hydro-electric power generation only, the Srisailem project was **later converted into a multipurpose project** catering to the irrigation needs of both the states.
- After the bifurcation, Telangana asked the Centre to constitute a new tribunal and that the allocation of Krishna waters be reworked among four states. An Apex council was formed under the **Andhra Pradesh Reorganisation Act, 2014**, to supervise the functioning of the Godavari and Krishna River Management Boards, and to resolve any dispute over sharing of river waters between Andhra Pradesh and Telangana.
- The tribunal, however, **did not revisit its award, but reallocated waters between two Telugu states**. Of the 811 TMC of Krishna water allocated to the combined state, Andhra Pradesh and Telangana were sharing **512 TMC and 299 TMC respectively**.
- This was challenged by Telangana in the Supreme Court in 2015 and had been pending since then. However, following an assurance from the Centre to constitute a new tribunal to decide the quota between the two states, Telangana recently withdrew the petition.

Current Issue

- The Telangana Ministers have been raising concerns against AP government for 'illegally' taking up **Royalaseema lift irrigation project (RLIP) on the Krishna river** and going ahead with the project works in spite of the orders from National Green Tribunal to stop the works.
- AP government maintains that it is not using even a single drop of water more than what was allocated to it by the Krishna water dispute tribunals.
- Andhra Pradesh government alleged that Telangana is drawing Krishna water from the Srisailem, Nagarjuna Sagar (NSP) and Pulichintala projects for hydel power generation **without obtaining clearances** from the Krishna River Management Board (KRMB). The KRMB, in its recent orders, had asked Telangana to stop power generation. The tension has emerged over defiance of orders of KRMB by Telangana Government.
- The water releases are regulated by a committee comprising the Engineers-in-Chief of the two States and member-secretary of the KRMB. The quantum depends on inflows into the reservoirs, available storages and pro rata entitlements.
- The Andhra Pradesh government is insisting that **the established protocol bars Telangana from drawing water for power generation** without the irrigation demands being met first.

Punjab Suba Movement(Morcha)

The Shiromani Gurdwara Parbandhak Committee (SGPC) has decided to organise an event to mark the anniversary of **first entry of police force inside the Golden Temple**, on July 4, 1955, since the Mughal rule ended in 1857.

What Was The Punjab Suba Movement?

- Punjabi Suba movement was started in Punjab soon after the Independence. Shiromani Akali Dal was spearheading the **movement for a Punjabi speaking state**.

- Those in favour of the demand used to raise the slogan **Punjabi Suba Amar Rahe** and those opposing demand were raising slogans in favour of '**Maha-Punjab**'. It was on April 6, 1955 that Amritsar DC banned the slogans of 'Punjabi Suba' and 'Maha-Punjab' fearing law and order problem.
- SAD took it as an attack on freedom of speech and expression. SAD passed a resolution to start **peaceful non-violent protest** from May 10, 1955 if the ban on Punjabi Suba slogans was not revoked.
- The non-violent movement reached its peak in July and a large number of volunteers reached Akal Takht. It shifted the focus of the Punjab government on Golden Temple. Police presence around Golden Temple was increased.
- It was on July 4, 1955 that the Deputy Inspector General of Police led the **police with shoes inside the Golden Temple premises**. The community kitchen was captured and langar was stopped. Police also raided the office of SGPC and SAD, which were part of Golden Temple premises.
- The demand for creation of Punjabi Suba automatically gave basis to the demand for having a separate state of Haryana
- With the passage of the Punjab Reorganization Act 1966, Haryana was separated from Punjab in 1966 to become the 17th state of India. The erstwhile state of East Punjab was now divided into two states i.e. Haryana and Punjab. Some territory was also transferred to Himachal Pradesh, then a Union territory. Chandigarh became a Union territory to serve as the provisional capital of both the Punjab and Haryana.

Will A National Judiciary Work

The Government is finalizing a draft bill to set up all-India judicial service.

Brief History of All-India Judicial Services

- Originally, the Constitution of India didn't have any provision for the All-India Judicial Services (AIJS), but later **Article 235** was introduced which said that the lower judiciary was subordinate to the High Court.
- In 1958, **the Law Commission** first mooted the idea to formulate an AIJS. The Chief Justices Conferences held in 1961, 1963 and 1965 encouraged the creation of an AIJS but the idea was opposed by some High Courts as it **took away their powers of recruitment of lower judiciary**. The state governments are responsible for the recruitment of the lower judiciary which is either done by the High Courts or the State Public Service Commissions.
- With All-India Judicial Services, the recruitment of the District Court judges would become centralized as the candidates would be selected after clearing the all-India examination and then allotment would be done for each State.
- The **42nd Constitutional amendment** in 1976 amended **Article 312 (1)** empowering **Parliament to make laws for the creation of one or more All-India Services**, including an AIJS, common to the Union and the States. However, Clause 3 of Article 312 places a restriction that such a service shall not include a post inferior to that of a district judge.
- Under Article 312, Rajya Sabha is required to pass a resolution supported by not less than two-thirds of its members present and voting. Thereafter, Parliament has to enact a law creating the AIJS. This means no constitutional amendment will be required for establishment of AIJS.
- The vision document titled **Strategy for New India @ 75, released by the NITI Aayog**, proposed creation of an AIJS akin to the other central services like the IAS and the IPS.

Need for All-India Judicial Services

- **Huge Vacancy Of Judges:** At present, there are **more than 5000 posts which are vacant** in lower judiciary across India.
- **Delay in Recruitment:** There are almost **3 crore cases pending** in the lower judiciary and the primary reason for that is the delay in conducting exams by the States.
- **Insufficient Finances With State Governments:** State judicial services do not attract the 'best talent' as the state governments fail to provide high salaries, rewards and compensation.
- **Shortage of Quality Judicial Officers:** There has been a continuous decline in the quality of delivery of justice which in turn affects the higher judiciary.
- **Subjectivity in Process and Discretion of a Narrow Body :** The process of selection of a judge is a responsible job, it should not be left at the discretion of a small collegium no matter how judicious it is. Currently, the judicial appointments suffer subjectivity, corruption and nepotism on the part of the collegium. Hence, there is an urgent need to establish an impartial system of recruitment so as to reflect the social reality and diversity of the country.

Arguments Against AIJS

- **Weakens Separation Of Power:** According to **Article 235**, the High Courts have the control over the state judiciary. If the responsibility of recruitment of state judiciary is shifted from High Courts to Union government through AIJS, then the **independence of the judiciary** would be undermined.
- **Attack on Federalism - Dichotomy Between Articles 233 and 312:** As per Article 233, recruitment to subordinate judiciary is the prerogative of the State. Due to this, many states and high courts have opposed the idea on the ground that it would go against federalism and the basic structure doctrine.
- **Problem of Local Language:** The District Court and Sessions Court Judges communicate in the State language and it would be difficult for AIJS officers to adapt themselves with the local language and the dialects which in turn would affect the delivery of justice.
- **Problem of Local Laws:** AIJS fails to take into account the issue of local laws and customs which varies widely across the country. Thus, the training expenses of the selected judges would increase.
- **Affects Only The Tip Of Iceberg:** AIJS does not address the problem of low pay and the lack of inadequate judicial infrastructure including the courts and the training centres for officers in the states. AIJS does not propose any changes for ensuring better representation of district court judges in the High Courts despite the fact that less than one-third of the seats in the High Courts are occupied by the district court judges.

Arguments In Favour of All-India Judicial Services

- **Accountability and Transparency:** AIJS will make the judiciary more professional, accountable and equitable.
- **Recruitment of Best Talent:** AIJS will ensure that the method of recruitment is transparent and efficient, so that the best talent in the legal profession is attracted. Also the possibility of promotion of the district court judges to the High Courts at an early stage would increase as they currently join the High Courts much later than the judges from the Bar.
- **Checks Pendency Of Cases:** Streamlined and objective recruitment process would ensure regular stream of good quality judicial officers for vacant posts, which would reduce pendency of cases.
- **Overall Efficiency:** A well-organized system of recruitment of the judicial officers will attract the young talent from the law schools and young, well-informed judicial officers at the level of additional district judge will

- The service is free for those who are eligible for free legal Aid as mentioned under Section 12 of the Legal Services Authority Act, 1987. For all others a nominal fee is charged
- It can be noted that this initiative is in line with SDG-16, which seeks to "Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels".
- As of 2020, the programme is taken up in 260 districts (including 115 Aspirational districts) and 29860 CSCs across 29 States & Union Territories.

Why A Cooperation Ministry

The government announced the formation of a separate **Union Ministry of Cooperation**, a subject that till date was looked after by the *Ministry of Agriculture*.

Objectives of New Ministry

- The Ministry of Cooperation will provide a **separate administrative legal and policy framework** for strengthening the cooperative movement in the country.
- It will help deepen **co-operatives as a true people-based movement** reaching upto the grassroots.
- The Ministry will work to **streamline processes for 'Ease of doing business'** for co-operatives and enable development of Multi-State Co-operatives (MSCS).

Need for a New Ministry

- It was necessary to **restore the importance of the cooperative structure** in the country. Various studies have shown the cooperative structure has managed to flourish and leave its mark only in a handful of states like Maharashtra, Gujarat, Karnataka etc.
- Cooperative institutions get capital from the Centre, but most of the funds coming to a few states such as Maharashtra, Gujarat, etc while other states failed to keep up. Over the years, the cooperative sector has **witnessed drying out of funding** and thus under the new Ministry, the cooperative movement would get the required **financial and legal power** needed to penetrate into other states also.

What Is Cooperative Movement

- By definition, cooperatives are organisations formed at the grassroots level by people to harness the power of collective bargaining towards a common goal.
- Cooperative Credit Societies Act, 1904 gave cooperative a definite structure and shape. In 1919, cooperation became a provincial subject and the provinces were authorised to make their own cooperative laws under the Montague-Chelmsford Reforms. The categorization carried on to the Government of India Act, 1935.
- There are many types of cooperatives such as Consumer Cooperative Society, Producer Cooperative Society, Credit Cooperative Society, Housing Cooperative Society and Marketing Cooperative Society. The United Nations General Assembly had declared the year 2012 as the International Year of Cooperatives.
- In agriculture, cooperative dairies, sugar mills, spinning mills etc are formed with the pooled resources of farmers who wish to process their produce. The country has 1,94,195 cooperative dairy societies and 330 cooperative sugar mill operations. Cooperative sugar mills account for 35% of the sugar produced in the country.
- In banking and finance, cooperative institutions are spread across rural and urban areas. Village-level **Primary Agricultural Credit Societies (PACs)** formed by farmer associations are the best example of grassroots-level credit flow. These societies anticipate the credit demand of a village and make the demand to the district

central cooperative banks (DCCBs). State cooperative banks sit at the apex of the rural cooperative lending structure.

Finances Controlled By These Institutions

- NABARD's annual report of 2019-20 counts 95,238 PACSs, 363 DCCBs and 33 state cooperative banks in the country.
- The DCCBs, whose main role is disbursement of short-term loans to the farming sector (crop loan), **distributed Rs 3,00,034 crore in loans**. The state cooperative banks, which mainly finance agri-processing industries disbursed Rs 1,48,625 crore in loans.

Constitutional Provisions Related To Cooperatives

- The Constitution (97th Amendment) Act, 2011 added a new Part IXB right after Part IXA (Municipals) regarding the cooperatives working in India.
- The word "cooperatives" was added after "unions and associations" in Article 19(1)(c) under Part III of the Constitution. This enables all the citizens to form cooperatives by giving it the status of fundamental right.
- A new Article 43B was added in the Directive Principles of State Policy (Part IV) regarding the "promotion of cooperative societies".

Laws Governing Cooperative Societies

- A majority of the cooperative societies are governed by laws in their respective States, with a **Cooperation Commissioner** and the **Registrar of Societies** as their governing office.
- The Government of India announced a National Policy on Co-operatives in 2002.
- In 2002, the Centre passed a **Multi State Cooperative Societies Act** that allowed for registration of societies with operations in more than one state. These are mostly banks, dairies and sugar mills whose area of operation spreads across states.
- The Central Registrar of Societies is their controlling authority, but on the ground the State Registrar takes actions on his behalf.

97th Amendment Act

Supreme Court struck down a part of the **97th Amendment Act** and **Part IX B** of the Constitution which governs cooperative societies in the country. It gave a major boost for federalism as the 97th Amendment shrank the exclusive authority of States over its co-operative societies.

What Is 97th Constitution Amendment?

- The Union government, in its Statement of Objects and Reasons for the amendment, referred to the "**weaknesses**" in **safeguarding the interests of members of cooperatives** and the fulfilment of the objectives of these institutions.
- It referred to **delayed elections**, nomination of office-bearers for long durations, reduced accountability in management and inadequate professionalism in many societies. It spoke of the **need to initiate fundamental reforms to revitalise these institutions** and ensure "their autonomy, democratic functioning and professional management".
- Recognising that 'cooperative societies' came under **Entry 32 of the State List** in the Seventh Schedule, **the Amendment proposed to create a framework for the functioning of cooperative societies**. State laws on cooperatives should conform to this framework.

- It introduced **Part IXB in the Constitution** so that the concept of cooperative societies gains constitutional recognition. The idea was to **empower Parliament to frame laws for cooperative societies** that function across States (*multi-State cooperative societies*) and State legislatures to make laws for all other cooperative societies falling under their jurisdiction.
- The Amendment set out basic rules such as a **maximum of 21 directors** in a society, a **fixed term of five years** for elected members, a **six-month cap** on the time limit for which a society's board of directors can be kept under supersession or suspension, and **reservation of one seat for the Scheduled Castes or the Scheduled Tribes**, and two seats for women on the board of every cooperative society.

Legal Infirmary In 97th Amendment

On a legal challenge to the validity of the 97th Amendment, the **Gujarat High Court struck down Part IXB** partially.

- It is declared that Part IXB of the Constitution is operative only insofar as it concerns multi-State cooperative societies (MSCS) both within the various States and in the Union Territories. However it declared the Part inoperative only in respect of cooperative societies that came under the States.
- The judgment makes a distinction between cooperative societies operating in one State and multi-State cooperative societies and holds that while a ratification by half the State legislatures would have been necessary insofar as it applies to cooperative societies in one State. This was because the Amendment impinged on a subject over which only the State legislatures had law-making powers. In the absence of such ratification, the Part was declared unconstitutional.
- It also ruled that the Part violated the basic structure of the Constitution in that it was in breach of federal principles.
- It did not strike down the portions of Part IXB of the Amendment concerning 'MSCS' due to lack of ratification requirement. When it comes to MSCS with objects not confined to one State, the legislative power would be that of the Union of India which is contained in Entry 44 List I (Union List).

Centre's View

- The Centre's defence was that the **Amendment did not alter entry in the State List** on 'cooperative societies'. In fact, it specified that the State legislatures would enact the relevant laws based on a common framework.
- There was **no need for ratification by the Assemblies, as no subject was shifted from the State List to the Central or Concurrent List.**

Supreme Court's View

- The Supreme Court rejected the Centre's argument as the Amendment had the **effect of limiting and circumscribing the scope and extent to which States could frame laws** on cooperative societies. This impacted on their legislative power and would therefore amount to a change that would require ratification by the Assemblies.
- The top court had said if the Centre wanted to achieve uniformity (the reason for Amendment, as quoted by Centre) then the only way available was to take the recourse under Article 252 of the Constitution which deals with the power of Parliament to legislate for two or more states by consent.
- The court took the example of the 73rd and 74th Amendments which were similar in impact on the legislative power of the States, had been passed by the special procedure involving ratification by State legislatures

Union government has been acquiring incrementally greater control of cooperative societies over the years.

Cooperative banks have been brought under the purview of the Reserve Bank of India. Union Government recently established the Union Ministry for Cooperation. It is best that the Government takes this judgment in

the right spirit and stays away from further meddling in the cooperative sector, notwithstanding the creation of the new Ministry.

Conjugal Rights

Supreme Court is expected to begin hearing a fresh challenge to the **provision allowing restitution of conjugal rights** under Hindu personal laws. Restitution means compensation to loss or injury.

Provision Under Challenge

Section 9 of the Hindu Marriage Act, 1955, which deals with **restitution of conjugal rights**, reads: “When either the husband or the wife has, without reasonable excuse, withdrawn from the society of the other, the aggrieved party may apply, by petition to the district court, for restitution of conjugal rights and the court, on being satisfied of the truth of the statements made in such petition and that there is no legal ground why the application should not be granted, may decree restitution of conjugal rights accordingly.”

What are Conjugal Rights?

- Conjugal rights are **rights created by marriage**, i.e. right of the husband or the wife to the society of the other spouse. The law recognises these rights **both in personal laws** dealing with marriage, divorce etc, and in **criminal law** requiring payment of maintenance and alimony to a spouse.
- **Section 9** of the Hindu Marriage Act recognises **one aspect of conjugal rights** i.e. the right to consortium and protects it by allowing a spouse to move court to enforce the right.
- The concept of restitution of conjugal rights is codified in Hindu personal law now, but has colonial origins and has genesis in ecclesiastical law. Similar provisions exist in **Muslim personal law as well as the Divorce Act, 1869**, which governs Christian family law.
- Incidentally, in 1970, the **United Kingdom repealed the law on restitution of conjugal rights**.

Filing a Case under Section 9

- If a **spouse refuses cohabitation**, the other spouse can move the family court seeking a decree for cohabitation. If the order of the court is not complied with, the court can attach property. However, the decision can be appealed before a High Court and the Supreme Court.
- Normally, when a spouse files for divorce unilaterally, the other spouse files for restitution of conjugal rights if he or she is not in agreement with the divorce. The provision is seen to be an **intervention through legislation to strike a conciliatory note between sparring spouses**.
- **Three important requisites** to be fulfilled for Section 9
 - Spouses must not be staying together.
 - Withdrawal of a party from the other must have no reasonable ground for such withdrawal.
 - The aggrieved party must apply for restitution of conjugal rights.

Why Has The Law Being Challenged?

- The law is being challenged now on the main grounds that it **violative of the fundamental right to privacy**. The plea by two law students argues that a court-mandated restitution of conjugal rights amounted to a **“coercive act” on the part of the state**, which **violates one’s sexual and decisional autonomy**, and right to privacy and dignity.
- In the recent judgement of Joseph Shine v Union of India 2019, the SC has put great emphasis on the right to privacy and bodily autonomy of married women, stating that marriage does not take away their sexual

freedom nor choice. If everybody is entitled to their bodily autonomy, choice, and right to privacy, how can a court mandate two adults to cohabit if one of them does not wish to do so

- Although the provision of restitution of conjugal rights has been upheld by the Supreme Court earlier, the nine-judge Bench's landmark **verdict in the privacy case** set the stage for potential challenges to several laws such as criminalisation of homosexuality, marital rape, restitution of conjugal rights, the two-finger test in rape investigations.
- Although the **law is ex-facie** ('on the face if it') **gender-neutral** since it allows both wife and husband to seek restitution of conjugal rights, the provision **disproportionately affects women**. Women are often called back to marital homes under the provision, and given that **marital rape is not a crime**, leaves them susceptible to such coerced cohabitation.
- It will also be argued whether the state can have such a compelling interest in protecting the institution of marriage that it allows a **legislation to enforce cohabitation of spouses**.

Misuse of the Provision

- Misuse of this provision as a shield against divorce proceedings and alimony payments.
- Often an aggrieved spouse files for divorce from their place of residence and their spouse retaliates by filing for a decree of restitution in their place of residence.

Court's Observations

- In 1984, the Supreme Court had upheld Section 9 of the Hindu Marriage Act in the case of **Saroj Rani v Sudarshan Kumar Chadha**, holding that the provision "*serves a social purpose as an aid to the prevention of break-up of marriage*".
- In 1983, Andhra Pradesh High Court had for the first time struck down the provision in the case of **T Sareetha v T Venkatasubbaiah** and declared it null and void. The court also held that in "*a matter so intimately concerned the wife or the husband the parties are better left alone without state interference*". The court had also recognised that compelling "**sexual cohabitation**" would be of "**grave consequences for women**".
- However, In the case of **Harvinder Kaur v Harmander Singh Chaudhry**, the Delhi High Court upheld the provision. Delhi HC added that "**it is in the interests of the State that family life should be maintained**, and that homes should not be broken up by the dissolution of the marriage of parents. Even in the absence of children, it is in the interest of the State that if possible the marriage tie should remain stable and be maintained".
- The Supreme Court upheld the Delhi High Court view and overruled the Andhra Pradesh High Court verdict.

Creamy Layer Among OBCs

A proposal to revise the income criteria for defining the "creamy layer" among OBCs has been pending for years, and MPs have raised the issue during the ongoing Monsoon Session of Parliament.

What Is The Creamy Layer

- It is a concept that sets a **threshold within which OBC reservation benefits are applicable**. While there is a **27% quota for OBCs in government jobs and higher educational institutions**, those falling within the "creamy layer" cannot get the benefits of this quota.
- Based on the recommendation of the **Second Backward Classes Commission (Mandal Commission)**, the government on August 13, 1990 had notified 27% reservation for Socially and Educationally Backward Classes (SEBCs) in vacancies in civil posts and services that are to be filled on direct recruitment.

- After this was challenged, the Supreme Court on November 16, 1992 (**Indira Sawhney case**) upheld 27% reservation for OBCs, **subject to exclusion of the creamy layer**.

Timeline: Concept of Creamy Layer In Appointments (OBC) and In Promotions(SC/ST)

Judgements & Legislative Actions	Significance
<p>Indra Sawhney judgment (1992)</p> <ul style="list-style-type: none"> • Gave preference to the poorer sections among the OBCs while granting the 27% quota. • Applied creamy layer criterion on OBC only. 	<ul style="list-style-type: none"> • Advanced sections among the OBCs were excluded from the list of beneficiaries of reservation. • It rejected ‘Creamy layer criterion’ for SCs & STs as they are part of presidential list under Article 341/342 and there is no question of showing their backwardness again. • The reservation of seats shall only confine to initial appointments and not to promotions, and the total reservations shall not exceed 50%.
<ul style="list-style-type: none"> • 77th Constitutional Amendment Act, 1995 • Government through this amendment introduced Article 16(4A), empowering the state to make provisions for reservation in promotion to SCs/STs employees if the state feels they are not adequately represented. 	<ul style="list-style-type: none"> • Discrimination within service: For example, there are about 12,000 cases lying with the SC/ST Commission, complaining about discrimination in service. • Difference between OBCs and SCs: OBCs don’t face the kind and extent of discrimination faced by SCs.
<p>M. Nagaraj vs. Union of India (2006) known as ‘Reservation in Promotion Case’.</p> <ul style="list-style-type: none"> • Validated parliament’s decision to extend reservations for SCs/STs to include promotions but with three conditions. • State has to provide quantifiable data as proof for the backwardness of the class. • State has to collect quantifiable data showing inadequacy of representation of that class in public employment. • State has to show how reservations in promotions would further administrative efficiency. 	<ul style="list-style-type: none"> • The Court proclaimed that the State is not bound to make reservation for SC/ST in the matter of promotions. • It reversed its earlier stance in Mandal case, in which it had excluded the creamy layer concept on SCs/STs in appointment. It now applied this concept on reservation in promotions for SC/STs. • Reservation in promotions may affect the merit-based culture of the organization.

<p>Jarnail Singh v. Lachhmi Narain Gupta (2018)</p> <p>The government need not collect quantifiable data to demonstrate backwardness of public employees belonging to SC/STs to provide reservations for them in promotion as it is contrary to the nine-Judge Bench in Indra Sawhney case making this provision invalid.</p>	<ul style="list-style-type: none"> • Application of the creamy layer principle to Promotions for SC/STs, following the Nagaraj verdict. • It had resulted in thousands of employees being denied their due promotions thus Prioritizing most marginalized
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How Is It Determined

- Following the order in Indra Sawhney, an expert committee was constituted for fixing the criteria for determining the creamy layer. On September 8, 1993, the Department of Personnel and Training (DoPT) **listed out various categories of people of certain rank/status/income whose children cannot avail benefit of OBC reservation**
- For those not in government, the **current threshold is an income of Rs 8 lakh per year**. For children of government employees, the threshold is based on their parents’ rank and not income. For instance, an individual is **considered to fall within the creamy layer if**
 - Either of his or her parents is in a constitutional post;
 - If either parent has been directly recruited in Group-A; or if both parents are in Group-B services.
 - If the parents enters Group-A through promotion before the age of 40, their children will be in the creamy layer.
 - Children of a Colonel or higher-ranked officer in the Army, and children of officers of similar ranks in the Navy and Air Force, too, come under the creamy layer.
- **Income from salaries or agriculture land is not clubbed** while determining the creamy layer.

Revision of Creamy layer

- Other than the income limit, the current definition of creamy layer remains the same as the DoPT had spelt out on September 8, 1993. No other orders for definition of creamy layer have been issued.
- The income limit has been revised over the years. While the DoPT had stipulated that it would be **revised every three years**, the first revision since, 1993 (Rs 1 lakh per year) happened only on 2004 (Rs 2.50 lakh), followed by revisions in 2008 (Rs 4.50 lakh), 2013 (Rs 6 lakh) and, 2017 (Rs 8 lakh). It is now more than three years since the last revision.
- Parliament Committee on Welfare of OBCs noted that the provision of revision of income limit after three years is **not being followed by the Government and the revisions are being made at larger intervals**.
- Currently there is **poor representation of OBCs in central government jobs** and that several OBC-reserved posts were being filled by general category candidates with the noting on files that “none found suitable”.

MGNREGA Work Demand Remains Muted

- Latest data shows that around 35.1 million households have sought work under MGNREGA this June, or **21.48 % lower than the number that had sought work in the same month of 2020**, which was an extraordinary year for the scheme.

- The continuing slump in demand in June 2021, when Covid cases had subsided to a large extent, could be because of **migrants returning to their original workplaces** and states gradually lifting their Covid restrictions.
- Nonetheless, despite a drop in work demand under MGNREGA, at the current rate around **60-65 million households will get work under the scheme** this year as against 75.6 million that worked in the scheme in the last financial year.

What Is MGNREGA

- MGNREGA is an Indian legislation enacted on August 25, 2005.
- The MGNREGA provides a **legal guarantee for one hundred days of employment** in every financial year to **adult members of any rural household** willing to do unskilled manual work at the **statutory minimum wage**.
- **The Ministry of Rural Development (MRD)** is monitoring the entire implementation of this scheme in association with state governments.
- This act was introduced with an aim of **improving the purchasing power** of the rural people, primarily **semi or un-skilled work to people** living below poverty line in rural India.

Key Facts About MNREGA

- **Individual beneficiary oriented works** can be taken up on the cards of Scheduled Castes and Scheduled Tribes, small or marginal farmers or beneficiaries of land reforms or beneficiaries under the Indira Awaas Yojana of the Government of India.
- **Within 15 days of submitting the application** or from the day work is demanded, wage employment will be provided to the applicant.
- **Right to get unemployment allowance** in case employment is not provided within fifteen days of submitting the application or from the date when work is sought.
- **Social Audit of MGNREGA** works is mandatory, which lends to accountability and transparency.
- **It is the Gram Sabha and the Gram Panchayat** which approves the shelf of works under MGNREGA and fix their priority.

Major Challenges In Successful Implementation of MGNREGA:

- **No Guaranteed Employment:** Even though the scheme aims at providing 100 days of guaranteed employment, below 50 days of employment was actually provided on an average at an all-India level
- **Insufficient Budget Allocation:** Almost every year, more than 80 % of funds get exhausted within the first six months.
- **Wage Related Issues**
- **Low Wage Rate:** Currently, MGNREGA wage rates of 17 states are less than the corresponding state minimum wages.
- **Regular Payment Delays due to administrative and banking loopholes:** A study by Azim Premji University has found that 78 % of payments were not made on time, and as many as 45 % payments did not include compensation for delayed payment.
- **Workers Penalised For Administrative Lapses:** The ministry withholds wage payments for workers of states that do not meet administrative requirements within the stipulated time period.
- **Non-payment of unemployment allowance:** There are a huge number of unemployment allowances despite being shown in the Management Information System (MIS) currently, thereby dishonouring its database.

- **Genuine Job Cards Being Deleted To Meet 100% DBT Targets:** Genuine job cards are being randomly deleted as there is a huge administrative pressure to meet 100 % Direct Benefit Transfer (DBT) implementation targets in MGNREGA.

Conclusion

MGNREGA has served as a lifeline for the poor, with 1 out of every 3 rural household having worked in the programme. However there is a need to create mass level awareness about the program and recruitment of competent and sensitive human resources should be the part of implementation process to ensure the realization of desired goals of MGNREGA policy.

Dispute Between Karnataka And Tamil Nadu Over Mekedatu Dam Project

Karnataka Chief Minister reiterated that there is no compromise on implementing the proposed Mekedatu balancing reservoir, in the Cauvery basin of Karnataka.

Background of The Issue

- The dispute between Karnataka and Tamil Nadu over the **sharing of Cauvery waters** is decades old. For many years, both the states have been maintaining differences over the sharing of water.
- Karnataka intends to build a reservoir across river Cauvery near Mekedatu in Kanakapura taluk. It was first proposed along with **Shivanasamudra hydro power project at Shimsa in 2003** with an intention to use the **water for a hydro power station and supply drinking water to Bengaluru city.**
- Tamil Nadu has passed a resolution urging the Union government not to accord permission to Karnataka for Mekedatu dam in the Cauvery basin. Its argument was that the project would affect the flow of Cauvery water to Tamil Nadu.

What Do The Cauvery Water Disputes Tribunal and The Supreme Court Say?

- The Cauvery Water Disputes Tribunal, in its final order in February 2007, made allocations to all the riparian States — **Karnataka, Kerala and Tamil Nadu**, apart from the Union Territory of Puducherry. It also stipulated “tentative monthly deliveries during a normal year” to be made available by Karnataka to Tamil Nadu.
- Aggrieved over the final order for different reasons, the States had appealed to the Supreme Court. In February 2018, the court, in its judgment, **revised the water allocation and increased the share of Karnataka** by 14.75 thousand million cubic feet (tmc ft) at the cost of Tamil Nadu. The enhanced quantum comprised 4.75 tmc ft for meeting drinking water and domestic **requirements of Bengaluru and surrounding areas.**
- Encouraged by the Supreme Court verdict, Karnataka, which sees the order as an endorsement of its stand, has set out to **pursue the Mekedatu project.**

Arguments by Tamil Nadu Against The Project

- Tamil Nadu feels that Karnataka, through the project, will **impound and divert flows from “uncontrolled catchments”** to it.
- As the upper riparian State has **adequate infrastructure even now to address the water needs of Bengaluru**, there is no need for the Mekedatu project, according to Tamil Nadu.
- **The Mekedatu project also does not find mention in the Tribunal’s final order** or the Supreme Court judgment.

- **Deductions in salary:** The Act states that at the time of the appointment of the CIC and ICs (at the central and state level), if they are receiving pension or any other retirement benefits for previous government service, their salaries will be reduced by an amount equal to the pension. The Bill removes these provisions.

Development of Infrastructure Facilities for Judiciary

- The Union Cabinet has approved continuation of the Centrally Sponsored Scheme (CSS) for Development of Infrastructure Facilities for Judiciary for further five years from 2021 to 2026 at a total cost of Rs.9000 crore.
- The Cabinet also approved the decision to support the **Gram Nyayalayas** by providing recurring and non-recurring grants for a period of 5 years with a total outlay of Rs 50 crores.
- **The Gram Nyayalayas Act, 2008** that came into force from 2009 was enacted for establishment of Gram Nyayalayas for speedy, affordable and easy access to the justice system in **the rural areas of India**.

Major Activities of the Scheme:

- A Centrally Sponsored Scheme (CSS) for Development of Infrastructure Facilities for Judiciary has been in **operation since 1993-94**.
- Though the primary responsibility of **infrastructure development for the subordinate judiciary** rests with the State Governments, the Central Government through this CSS augments the resources of the State Governments for construction of court buildings and residential quarters for Judicial Officers (JO) in all the States / UTs.
- **An online monitoring system** has been set up by the Department of Justice enabling data collection on progress, completion of court halls and residential units under construction as well as better asset management.
- **The Gram Nyayalaya Portal** helps online monitoring of working of the Gram Nyayalayas by the implementing states.

Benefits From The Scheme

- The CSS Scheme will increase the **availability of well-equipped Court Halls and Residential Accommodations for Judges** / Judicial Officers of District and Subordinate Courts all over the country.
- The courts are also being provided with better amenities enabling win-win situation for both the judiciary and the lawyers and also to ease of living of common man.
- **Setting up of digital computer rooms** will also improve digital capabilities and give impetus to the digitization initiation being pursued as a part of India's Digital India vision.

Section 66A of IT Act

- Six years after it struck down Section 66A of the Information Technology Act, 2000, the Supreme Court termed its **continued use by law enforcement agencies** of various states as “a shocking state of affairs” and sought a response from the Centre.
- In 2015, the apex court struck down the law in the landmark case **Shreya Singhal v. Union of India**, calling it **“open-ended and unconstitutionally vague”**, and thus expanded the contours of free speech to the Internet.

What Did Section 66A Do

- Introduced by the government in 2008, the amendment to the IT Act, 2000, gave the government power to arrest and imprison an individual for allegedly **“offensive and menacing” online posts**.

- Section 66A empowered police to make arrests over what policemen, in terms of their subjective discretion, could construe as “offensive” or “menacing” or for the purposes of causing annoyance, inconvenience, etc.
- It prescribed the punishment for sending messages through a computer or any other communication device like a mobile phone or a tablet, and a conviction could fetch a **maximum of three years in jail**.

Criticisms

- Section 66A came with extremely wide parameters, which allowed **whimsical interpretations by law enforcement agencies**.
- The problem was with the vagueness about what is “**offensive**”. The word having a very wide connotation, was open to distinctive, varied interpretations.
- It was seen as subjective, and what might have been innocuous for one person, could lead to a complaint from someone else and, consequently, an arrest under Section 66A if the police prima facie accepted the latter person’s view.
- Most of the terms used in the section had **not been specifically defined under the Act**, and the law was a **potential tool to gag legitimate free speech online**, and to curtail freedom of speech and expression guaranteed under the Constitution.

Supreme Court’s Scrutiny

- On March 24, 2015, a SC bench ruled in **Shreya Singhal v. Union of India** declared Section 66A unconstitutional for “**being violative of Article 19(1)(a)** and not saved under Article 19(2).

Article 19(1)(a) gives people the right to speech and expression whereas **19(2)** accords the state the power to impose “reasonable restrictions” on the exercise of this right.

- The decision was considered a landmark judicial pushback against state encroachment on the freedom of speech and expression.
- The bench also read down **Section 79** which is now at the centre of the ongoing “intermediary liability” battle between the Centre and micro-blogging platform Twitter– defining key **rules for the relationship between governments and commercial internet platforms**.

Section 79 says that any intermediary shall not be held legally or otherwise liable for any third party information, data, or communication link made available or hosted on its platform.

Gaon Bura

- The Assam Cabinet announced that Gaon Buras (village headman), village-level functionaries of the district administration, will henceforth be called ‘**Gaon Pradhans**’.
- While it is yet to be notified, the move has been criticised by several in Assam as an **imposition on the culture and language of the state**.

The Institution of Gaon Bura

- Gaon Bura in Assam dates back to the **colonial era**, when the British appointed the **oldest person in the village as the head**, who would oversee matters relating to land and revenue in a particular area.
- The position would usually go to the oldest, most **knowledgeable man who had good personal ties with everyone in a village**, or a cluster of small villages.
- **In Arunachal Pradesh**, too, the Gaon Buras (and Buris) are the most important village-level functionaries.

- **Post-independence**, the government continued with the institution and made the Gaon Bura a **formal part of the Assam Revenue and Disaster Management department**, increasing his responsibilities, and eventually introducing a small honorarium for the role.
- While the **buranjis**, (Ahom-era chronicles) do not have the word Gaon Bura, the concept existed in some form even in the pre-colonial period too.

Current Role

- While it was earlier a **hereditary position**, today it is a sought-after position that undergoes a **competitive recruitment interview** held by the district administration.
- A Gaon Bura is paid a monthly honorarium of Rs 9,000. One needs to be a Class X pass, and as per the new Cabinet decision, a **minimum of 30 years of age** (upper limit 65) to apply for the post.
- **A number of duties** are bestowed on the Gaon Bura, beginning with maintaining a population register of the village, maintaining land records, helping mauzadar in revenue collection etc.
- Another significant duty of the Gaon Bura is that he/she is the one who can issue a **'Gaon Bura certificate'**, a certificate that **determines your permanent residency** in a particular village".
- During the updation of the National Register of Citizens (NRC), the Gaon Bura certificate became crucial for women (who had no other documents) to establish linkages with their husbands and parents.

Legislators Indulging In Vandalism Cannot Claim Immunity

- The Supreme Court held that legislators who indulge in vandalism and general mayhem **cannot claim parliamentary privilege and immunity from criminal prosecution**.
- The ruling came while dismissing appeals by Kerala government and ruling Left Democratic Front (LDF) to **withdraw a criminal case against their leaders who destroyed public property and disrupted a Budget speech** on the State Assembly floor in 2015.

SC Ruling

- **Parliamentary privileges** and immunities are **not 'gateways' for legislators to claim exemption from the law** of the land, especially criminal law.
- Vandalism on the Assembly floor **could not be equated with the right to protest** by Opposition legislators. Destruction of public property could not be equated with the exercise of freedom of speech.
- Legislators **should act within the parameters of the public trust** imposed on them to do their duty. They had taken office swearing true allegiance to the Constitution.
- They had to **uphold the sovereignty and integrity of India** and had to perform the duty imposed on them by the people who elected them.

Secrecy Of Vote

- The Supreme Court held that in any election, be it to Parliament or State legislature, the maintenance of secrecy of voting is "a must".
- The court, in its judgment, confirmed the guilt and sentencing of eight men **accused of using violence to snatch the voters slips and to cast bogus voting** in an election in Bihar in 1989.

Highlights Of The Judgement

- Secrecy is a part of the fundamental right of freedom of expression. The confidentiality of choice strengthened democracy.
- In direct elections to the Lok Sabha or State legislature, the maintenance of secrecy is a must and is insisted upon all over the world in democracies where direct elections are involved to ensure that a **voter casts his vote without any fear or being victimised if his vote is disclosed.**
- Any attempt at booth-capturing or bogus voting were crimes against democracy and should be dealt with iron hands. Nobody can be permitted to dilute the right to free and fair election.
- An election is a mechanism which ultimately represents the will of the people. The essence of the electoral system should be to **ensure freedom of voters to exercise their free choice.**

The Secret Ballot

- The secret ballot was **introduced with the first elections in 1951** along with **paper ballots.**
- In 1961, under **Rule 59A of the Conduct of Elections Rules**, it was decided that paper ballots from different booths would be “mixed” in large drums at counting centres before counting began. It was therefore **impossible to ascertain the provenance of any single vote.**
- But with the **introduction of EVMs from 2008**, this kind of physical mixing was no longer possible and **booth-level data was available for the first time.**
- The Election Commission of India has been aware of this problem; it has been developing the technology to restore the secrecy of the ballot.

International Affairs

Communist Party Of China Celebrates 100th Anniversary

- **On July 1, 2021** China celebrated **100 years of Communism**. This day marked the centenary of the founding its ruling Communist Party.
- The celebrations were held at **Tiananmen Square**, which was **once a symbol of resistance against the Communist rule in China**.

Historical Background:

- Inspired by the Bolshevik Revolution, a group of Chinese revolutionaries founded the **Chinese Communist Party (CCP) in 1921**.
- They met at what is now known as the '**First Meeting Hall**' in **Shanghai**. The precise time or the date of the meeting however remains unclear.
- Years later, Mao Zedong chose **July 1 for commemoration** of this meeting.
- China, in 1921, was witnessing a civil war. There was **Chiang Kai-shek's Nationalist party** on one side and the **CCP led by Mao on the other**.
- During early phase of struggle, CCP had to retreat in the hinterlands of China. On the other hand, Chiang's Nationalist Party was facing the heat from Imperial Japan.
- In **1945 when Japan retreated**, CCP emerged powerful compared to a weaker Nationalist Party under Chiang's leadership. Finally in 1949, CCP captured Beijing and Chiang Kai-shek and his **Nationalist Party retreated to Taiwan**.
- The rift between Beijing and Taipei (Taiwan) widened with the passage of time.

Three Jewels (or Magic Weapons) of the Communist Movement

- **The Party**
- **The People's Liberation Army (PLA)** - It was involved in fighting its way to power, consolidation and later expanding it.
- **The United Front Work Department (UFWD)** – It is engaged in political influence-type activities that portrayed the CPC as a benign, progressive and democratic force. The work of the United Front was to first unite with various social groups, and then to convert them and transform them.

How China is Re-Positioning Itself?

- As China's global influence grows in tandem with its economy, it is trying to re-position itself through image makeover. For this, UFWD has been pressed into service. since 2015, the UFWD is focussing to enhance the Communist Party's discourse power abroad.
- Beyond the general effort to foster a benign and positive image in international public opinion through "feel-good" stories, China, through UFWD is **creating a common cultural narrative in Eurasia**.
- The **Belt and Road Initiative (BRI)** and its ideological twin, the **Community of Shared Future for Mankind**, are more than just foreign policy doctrine. They represent the Party's attempt to define **China's leading role in Eurasia** with a view to diminishing the salience of other civilisations.
- Now China is **attempting to build influence through Buddhism** as a cultural resource in order to create common cultural narrative in Eurasia. Efforts are underway to include Buddhism in BRI.

- This is relevant for India which has a significant Buddhist population in states bordering China, as well as for the three neighbouring countries (Myanmar, Bhutan and Nepal) which are either Buddhist or have a historical and cultural connect with Buddhism

Challenges Faced By China in Modern Times

- Backlash from West over its actions in Hongkong, Xinjiang and the South China Sea.
- It is also facing dissent from Taiwan.
- Worsening demographic outlook is threatening its economic growth.
- Global pressure over a lack of transparency in its early handling of COVID-19 outbreak

25. Consider the following statements regarding Malaria:

- 1. Malaria is a bacterial disease transmitted through the bite of a female mosquito.**
- 2. Countries that have achieved at least three consecutive years of zero indigenous cases can apply for malaria-free status.**
- 3. Malaria free status is given by the UNESCO.**

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 |

Answer: A (Malaria free status is given by WHO)

Explanation

- China has been officially certified 'malaria-free' by the World Health Organization (WHO). It became the **second country in the Asia Pacific region** to get the tag, after **Sri Lanka in 2016**.
- China has now maintained zero indigenous malaria cases for four consecutive years. It became the 40th territory to achieve this feat.
- The last countries to gain the status were **El Salvador (2021)**, Algeria and Argentina (2019), and Paraguay and Uzbekistan (2018).
- Countries in the Asia Pacific region **have almost halved** the number of malaria deaths and cases and have made significant **gains towards eliminating the disease by 2030**.

Criteria for Getting Malaria-Free Status

- Countries that have achieved **at least three consecutive years of zero indigenous cases** can apply for WHO certification of their malaria-free status.
- They must present rigorous evidence -- and demonstrate the capacity to prevent transmission re-emerging.

26. Recently, the white flag campaign was witnessed in Malaysia. In this campaign, the white flag is used to

- a) Convey solidarity with the ongoing movement against corruption**
- b) Convey distress about the financial crunch**
- c) Express dissatisfaction with the Malaysian Government**
- d) None of the above**

Answer: B

Explanation

- In Malaysia, residents of low-income families have started **waving white flags** as part of the so-called “White Flag Campaign”.
- They are doing this to **convey distress about the financial crunch** they have had to deal with amid the lockdowns due to Covid-19.
- Families that are **facing hunger or need any other kind of assistance** are encouraged to wave a white flag or put a piece of white cloth outside their homes. By spotting the white flag, neighbours and good samaritans can reach them with necessary help.
- **Black flag movement** has also gained traction in Malaysia recently. This movement has been launched in order to **express dissatisfaction with the Malaysian government**.
- This movement is specifically demanding that **PM Muhyiddin Yassin resign**. There is widespread dissatisfaction with the government’s management of the pandemic.

European Union’s Green Pass List

- The **European Union COVID Digital Green Pass** was launched on July 1. However, it **does not recognise Covishield** - the AstraZeneca vaccine manufactured by the Serum Institute of India.
- the EU pass recognises only the Vaxzevria version of the Oxford-AstraZeneca vaccine, manufactured in the U.K. and other places in Europe.

What is Green Pass?

- The EU COVID Digital Green Pass is a certificate that will **enable a person to travel within and to the EU region covering 27 member-states**.
- The certificate will act as proof of the fact that the person concerned has been vaccinated or has recovered from COVID-19 or has a negative certificate on a COVID-19 test done 24 hours prior to travelling.
- If a member-country of the EU stops a person carrying the Green Pass, then the government will have to justify its action by proving that the *person has a virus variant that can prove to be a risk to the greater public*.
- The aim of the EU Digital Covid Certificate is to **facilitate free movement inside the member nations. It is not a pre-condition to travel**.

Controversy Around Covishield Vaccine

- Travellers to EU countries are being allowed entry into EU region only if they have taken vaccines cleared by the **European Medicines Agency (EMA)**.
- **EMA has not cleared the Covishield injections** as it did not have an **application for market authorisation from Covishield**.
- The only COVID-19 vaccine from AstraZeneca for which marketing authorisation was submitted to and evaluated by EMA, is Vaxzevria.
- Despite being an analogous product, using the same technology of Vaxzevria, Covishield is currently not approved. This is because **vaccines are biological products**.

- Even tiny differences in the manufacturing conditions **can result in differences in the final product**. Therefore, EU law requires the manufacturing sites and production process to be assessed and approved as part of the authorisation process.

Why India is Worried?

- Many people have been administered with Covishield in India. As a result, these citizens would face difficulties in entering the EU countries. It should be noted that EU has yet **not opened travelling from India** as it is a country with a **specific virus variant** (delta variant).
- Also, India is worried that a patchwork of approvals across countries and regions is laying the **groundwork for a global vaccine bifurcation**. It will lead to a situation where the **shots one gets would determine which countries he/she can enter and work in**.

Current Status

- A total of 15 countries in the EU have confirmed that they will allow travellers from India who have taken the Covishield shots to enter their territory.
- In the meantime, the Serum Institute of India has submitted the paperwork for approval. It is being expected that in coming days EU would grant the approval.
- India had also requested the EU countries to allow Indian travellers who produce a **vaccination certificate issued by the Indian government's CoWIN portal** to be exempted from travel restrictions.

Sri-Lanka Marks CPC Centenary with Commemorative Coins

- Sri Lanka has issued a **commemorative coin** marking the **centenary of the Chinese Communist Party**.
- It has minted **two coins in gold and silver**, in connection with the **Party's 100th anniversary**, and **65 years of Sri Lanka-China relations**.

China and Sri Lanka: Economic Relationship

- **China is the largest investor by far with nearly US\$15 billion** in funding and investment in 2016 alone. China's interest in Sri Lanka is largely attributable to its **strategic location on the route of China's Belt and Road Initiative**.
- Beijing sanctioned an **additional \$1 billion in loan** and about **\$1.5 billion in a currency swap** to help Colombo combat its economic crisis since the pandemic hit the island nation. **Sri Lanka already owes China over \$5 billion from past loans**.
- In October 2020, China announced a **USD 90 million grant to Sri Lanka**. This financial assistance would be used for medical care, education and water supplies in Sri Lanka's rural areas.
- In December 2020, Sri Lanka announced the first large-scale Chinese investment in manufacturing in the country, a **\$300-million tyre factory near a strategic deep-sea port** (Hambantota port).
- Some of the important infrastructure projects developed by China in the island state include Hambantota port, Colombo Expressway, Coal Power Project, Mattala Airport etc.

Israel's Nation State Law

- Israel's Supreme Court has **upheld the law** that defined the country as the **nation state of the Jewish people**.

- The apex court of Israel rejected claims by opponents that it discriminates against minorities. It said that the **law did not negate Israel's democratic character** outlined in other laws.

Background:

- In July 2018, Israel passed a “nation-state” law declaring that **only Jews have the right of self-determination in the country**.
- The **law defined the country as the nation state of the Jewish people**. It made **Hebrew the country's national language**.
- Arabic, previously considered an official language, was granted only special status.

Criticism:

- Arab citizens account for some **17.5 percent** of Israel's more than eight million population. They have long complained of discrimination. It is being feared that this law will further promote discrimination as well as racism.
- Many analysts have termed this law as a **"racist" attempt to create "an apartheid state" discriminating against Israeli Arabs**.
- The law lacked references to equality as specified in the country's 1948 declaration of independence. It would force the **courts to consider the country's Jewish nature and lead to a more "narrow interpretation of Arabs' rights"**.
- The law would further complicate a two-state solution to the Israel-Palestinian conflict.

Nepal's New Prime Minister

- Nepal's new Prime Minister **Sher Bahadur Deuba** won a vote of confidence in the reinstated lower House of Parliament.
- He secured 165 votes in **the 275-member House of Representatives (HoR)**.

Background

- Ex PM Oli commanded the **support of nearly two-thirds of MPs** in the HoR in the general elections in 2017. At that time, he had the backing of Maoist leader Pushpa Kamal Dahal Prachanda.
- Under an agreement between these two leaders, Oli was expected to remain the PM for the first two-and-a-half years followed by Prachand during the second half of the term.
- It was on this ground that the two leaders even merged their political parties in the first place, the CPN-UML and the Communist Party of Nepal–Maoist Centre in May 2018 and the new party **Nepal Communist Party (NCP) was thus formed**.
- Subsequently, the rivalry between Prime Minister Oli and Prachand intensified when the latter was not allowed to become the Prime Minister during the second half of the tenure.
- Later, in December 2020, President at the recommendation of PM Oli had dissolved the Nepalese Parliament. However, later, the Supreme Court had reinstated the dissolved Parliament.
- Again, Oli was appointed as the PM and he was supposed to prove majority in the HoR. The lower house was again dissolved for the second time in May 2021 by President Bidya Devi Bhandari.
- Later, **SC overturned the dissolution** of the HoR and said that **Deuba must be appointed PM**.

27. Recently, the European Union has brought Fit For 55 legislation. It is related to

- a) Slashing the region's emission of greenhouse gases
- b) Slashing the retirement age of government employees
- c) Scrapping the vehicles that are 55 years old
- d) None of the above

Answer: A

Explanation

Recently, the European Union introduced a new legislation named **Fit for 55**. The legislation will focus on **slashing the region's emission of greenhouse gases by 55% by 2030** and to **net zero by 2050**.

Key Highlights:

- The proposals range from the de facto **phasing out of gasoline and diesel cars by 2035 to new national limits on gases from heating buildings**.
- It also introduces a policy called the **Carbon Border Adjustment Mechanism (CBAM)**.
- CBAM will require **foreign producers to pay for the carbon emitted while manufacturing their products**.
- Adding the price of carbon is meant to discourage consumers from buying carbon-intensive products and encourage producers to invest in cleaner technologies.
- For domestic manufacturers, EU has had a **carbon emission trading system since 2005**, with a current market price of **50 euros per tonne of carbon**.
- With Fit for 55, the EU will bring more sectors into this trading scheme and tighten its allocation of permits.

Impact on India:

- India is Europe's third-largest trading partner. India's goods trade with the EU was \$74 billion in 2020. Also, India does not have its own carbon tax or cap.
- So, CBAM should be a cause for concern for it. A recent UNCTAD study predicts that **India will lose \$1-1.7 billion in exports of energy-intensive products** such as steel and aluminium.

US, Afghanistan, Pakistan, Uzbekistan to Form Quad Group

- The **US, Afghanistan, Pakistan and Uzbekistan** have agreed in principle to establish a new **quadrilateral diplomatic platform** to focus on **enhancing regional connectivity**.
- Afghanistan's strategic location has a competitive advantage for the country. It is located at the **heart of the historic Silk Road**.

What was US' Interest?

- It should be noted that **Pakistan-Afghanistan-Uzbekistan railway project** was agreed to in February 2021. US wants to leverage this railway project to **expand its economic influence** into post-withdrawal Afghanistan and the Central Asian Republics.
- The formation of the new quad group holds significance against the backdrop of China's desire to extend its Belt Road Initiative to Afghanistan.

Pakistan-Afghanistan-Uzbekistan (PAKAFUZ) Railway Project

- It is a flagship project under the Pakistan's Vision Central Asia policy. It aims to link **Tashkent through Kabul and Pakistan's northern city of Peshawar**.
- This project will **open Pakistani seaports to Uzbekistan**. Hence, it will help Uzbekistan to move away from Russia's orbit.

Implication of this project on India

- Many analysts believe that PAKAFUZ project will make **International North-South Transport Corridor (INSTC) redundant** with respect to its Central Asian outreach efforts.
- It is believed that the PAKAFUZ will function as the northern branch of CPEC (described as N-CPEC+). Hence, this project has got the support from China as well.
- Afghanistan's decision to participate in PAKAFUZ will affect its interest in joining INSTC. Not only will it affect **India's "Connect Central Asia" policy**, but it might also result in India being **less able to balance Chinese influence in Central Asia**.
- **Pakistan**, with this project, will be **able to increase its strategic presence** in Afghanistan as well as in Central Asian Region.
- Now that US has decided to form a Quad Group (US-Afghanistan-Pakistan-Uzbekistan group), the economic **focus of USA is bound to shift from India to Pakistan**.

Taiwan Opens Representative Office In Lithuania

- Taiwan has announced its decision to open a **representative office in Lithuania**. This office will work to improve economic and trade links.
- The office will be **referred to as Taiwan**, rather than **Chinese Taipei** as it is known in other nations, in order to avoid offending Beijing.
- China **claims the island as its own** but lacks diplomatic recognition. As far as India is concerned, it **supports One-China policy** and considers **Taiwan a part of China**.

World's First Clean Commercial Nuclear Reactor

- China has unveiled plans for a **first-of-its-kind**, experimental nuclear **reactor that does not need water for cooling**.
- It is a molten-salt nuclear reactor, which **runs on liquid thorium** rather than uranium.
- It is expected to be safer than traditional reactors because the molten salt cools and solidifies quickly when exposed to the air, insulating the thorium.
- Hence, any potential leak would spill much less radiation into the surrounding environment compared with leaks from traditional reactors.
- Since this type of reactor doesn't require water, it will be able to operate in desert regions.
- The new reactor is a part of China's drive to become **carbon-neutral by 2060**.

US Secretary of State Visits India

- U.S. Secretary of State visited India. This was his first visit to India after assuming charge as U.S. Secretary of State.
- This visit was seen as an opportunity to continue the high-level bilateral dialogue and bolster the India-US global strategic partnership.

Key Highlights:

- Discussions covered issues of mutual interests including recovery from the *COVID-19 pandemic, the Indo-Pacific region, Afghanistan and cooperation in the UN.*
- **On COVID 19** - India appreciated the decision of USA to **keep the raw material supply chain open** for vaccine production in India. USA, on the other hand, announced to send an **additional \$25 million to support vaccination efforts across India**. During the second wave in India, US govt contributed more than \$200 million to India.
- **On Afghanistan** – Both sides reiterated that the peace negotiations should be the only way to acquire power. This requires the Taliban and the Afghan govt to come to table.
- **On Indo Pacific** – Both sides expressed satisfaction that they are collaboration under the Quad framework in order to ensure free, open, secure, and prosperous Indo Pacific.
- **On Climate Change** – Both sides expressed their willingness to work together under the **Agenda 2030 partnership** which was launched by PM Modi and President Biden in April 2021.
- **Sending Message to China** – During the visit, US Secretary of State met some of the key representatives of the Tibetan resistance movement.

India-US Climate and Clean Energy Agenda 2030 Partnership

- Signed during the **Leaders' Summit on Climate** in April 2021, the Partnership represents **one of the core venues for India-US collaboration**.
- The Partnership will proceed along two main tracks: **the Strategic Clean Energy Partnership** and the **Climate Action and Finance Mobilization Dialogue**, which will build on and subsume a range of existing processes.
- It will aim to **mobilize finance and speed clean energy deployment**; demonstrate and scale innovative clean technologies needed to decarbonize sectors including industry, transportation, power, and buildings; and build capacity to measure, manage, and adapt to the risks of climate-related impacts.
- Both India and the United States have set ambitious 2030 targets for climate action and clean energy.
- In its new nationally determined contribution, the United States has set an economy-wide target of reducing its **net greenhouse gas emissions by 50-52 percent below 2005 levels in 2030**. As part of its climate mitigation efforts, **India has set a target of installing 450 GW of renewable energy by 2030**.

Election in Pakistan Occupied Kashmir

- Elections were held in Pakistan Occupied Kashmir (PoK) recently. The PoK Assembly has **53 seats**, including four that were added in 2019.

- Pakistan Tehreek-e-Insaf party (Imran Khan's Party) has won a majority of seats in elections for the legislative assembly.

Existing System of PoK

- Through Karachi Agreement 1949, **Pakistan quietly divided PoK into two** – Azad Kashmir (AJK) and Gilgit Baltistan.
- The coordination of all affairs of Gilgit Baltistan was kept with Pakistan. Gilgit-Baltistan's status was **elevated to that of a full-fledged province** of Pakistan in September 2021.
- A **parliamentary system was set up in the Azad Kashmir** and the Azad Kashmir government was handed over 12 subjects, like defence, foreign policy. However, actual power resides with the PM of Pakistan, who chairs the **upper house called the Kashmir Council in Islamabad**.
- The Council **decided on everything** from publication of newspapers to the appointment of the auditor general, leaving the legislative assembly with basic day to day running of the state. It does levy taxes, but **tax officials are appointed by Islamabad**.

Indo-Nepal Rail Connectivity

- Recently, successful trial of **movement of train** between **Jaynagar (India) and Kurtha** (Nepal) was undertaken. Jaynagar – Kurtha section is a part of the Jaynagar-Bijalpura-Bardibas railway project of Indian Railways.
- The 34.50 km-long rail section is the **first section of the rail line** links between the two countries. It has been set up by IRCON under **India – Nepal friendship rail project** with finance granted by the Indian government.
- This is the **first Broad Gauge passenger rail service**. Prior to this, a **narrow gauge service** was running by Nepal between Jaynagar and Janakpur till the year 2014.

Nepal-India Deal for Lower Arun Hydropower Project

- Nepal has signed a pact with India to develop the **679 MW Lower Arun Hydro Electric Project** in eastern Nepal.
- This will be the **second mega venture** of India in Nepal. The first one is Arun-3 project.
- The pact was signed with India's state-owned **Satluj Jal Vidyut Nigam (SJVN)**.
- The project **will not have any reservoir or dam**. It will be a tailrace development of Arun-3 hydro project, which will mean **water re-enters the river** for the Lower Arun project.
- India is also building **900 MW Arun-3 project** in the Arun river which is located in **Sankhuwasabha district**. PMs of India and Nepal had jointly laid the foundation stone for the Arun-3 Hydropower Project in 2018.
- Arun river is the largest **trans-Himalayan River** that passes through Nepal. River drains into Sapta Kosi river system.

Visit of External Affairs Minister to Russia

- External Affairs Minister of India paid an official visit to the Russian Federation.
- Both sides decided to hold the **first 2+2 ministerial meeting** later this year before the annual summit between PM Modi and Russian President Putin.

2+2 Ministerial Dialogue Between India and Russia

- Establishment of a new 2+2 dialogue at the foreign and defence minister level between India and Russia is a significant step. So far, India has this **mechanism with only three countries**, US, Japan, and Australia.
- Russia will be the **first non-Quad member country** with which New Delhi will now have this mechanism.

MoU on Coking Coal Between India and Russia

- Recently, the cabinet has approved the MoU between India and Russia on **cooperation regarding coking Coal**, which is used for Steel making.
- The MoU shall benefit **the entire steel sector by reducing their input cost**. This may lead to reduction in cost of steel in the country and promote equity and inclusiveness.

India to Use Excess Water Under Indus Treaty

India is working on exercising its rights to stop excess water flowing to Pakistan under the Indus Waters Treaty of 1960. The excess water will be used to irrigate its own land.

What is the Plan?

- India is working on a plan to **divert the waters of Ujh** - one of the main tributaries of the Ravi River that flows into Pakistan.
- The **Ujh multi-purpose project** is to have a **186MW capacity** for electricity generation. It will also provide water to irrigate 16,743 hectares and 20 cusecs for drinking.
- India has right to stop the water required to irrigate two lakh hectares of land. India is searching for the potential where it can use this water.

Significance:

- India’s plan to utilise its share of water under the treaty assumes strategic importance against the backdrop of China developing the controversial China-Pakistan Economic Corridor in the region.
- It will provide better control to India over river water flow which in turn can act as a **force multiplier during times of aggression**.

Important Hydropower Projects of India

- | | | |
|---------|-------------|-----------|
| • 850MW | • 800MW | • 1,000MW |
| Ratle | Bursar | Pakal Dul |
| • 624MW | • 330MW | • 540MW |
| Kiru | Kishanganga | Kwar |

About Indus Water Treaty (IWT)

- The Treaty is a water-distribution treaty between India and Pakistan, **brokered by the World Bank**.
- According to this treaty, three rivers: Ravi, Sutlej and Beas were given to India and the other three: Sindh, Jhelum and Chenab were given to Pakistan.
- India is under obligation to let the waters of the western rivers flow, except for certain consumptive use, with **Pakistan getting 80% of the entire water** of the six-river Indus system. IWT reserved for **India just remaining 19.48% of the total waters**.
- India can construct storage facilities on western rivers of up to 3.6-million-acre feet, which it has not done so far. The IWT **permits run of the river projects** and require India to provide Pakistan with prior notification, including design information, of any new project.
- Under the treaty, in case the parties fail to resolve water disputes through bilateral means, the aggrieved party has the option to **invoke the jurisdiction of ICA or the neutral expert under the auspices of the World Bank**.

Summits And Organizations

ILO Global Estimates on International Migrant Workers

ILO has published its new report titled as *ILO Global Estimates on International Migrant Workers: Results and Methodology*.

Key Highlights

- As per report, the number of international migrant workers globally has risen to 169 million which is a rise of 3% since 2017. The **majority** of migrant workers – 99 million – **are men**, while 70 million are women.
- The share of **youth migrant workers** (aged 15-24) has also increased, by almost 2 per cent, since 2017. Their number reached 16.8 million in 2019.
- In 2019, **international migrant workers constituted nearly five per cent of the global labour force**, making them an integral part of the world economy.
- More than two-thirds of international migrant workers are concentrated in high-income countries. This highlights the fact that **high-income countries continue to absorb the majority of migrant workers**.
- **Services sector is the main employer** of migrant workers. According to the report, 66.2 per cent of migrant workers are in services, 26.7 per cent in industry and 7.1 per cent in agriculture.
- Substantial **gender differences exist between the sectors**: There is a **higher representation of women migrant workers in services**, which may be partly explained by a growing labour demand for care workers, including in health and domestic work.
- Men migrant workers are more present in industry.

Challenges Faced by These Workers: As Highlighted by The Report

- Many migrant workers are often in temporary, informal or unprotected jobs, which expose them to a greater risk of insecurity, layoffs and worsening working conditions.
- The COVID-19 crisis has intensified these vulnerabilities, particularly for women migrant workers, as they are over-represented in low-paid and low-skilled jobs.
- These women have limited access to social protection and fewer options for support services.

[Also refer the topic *“India Completes Term as Chair of ILO's Governing Body”* from June 2021 edition of CA magazine]

28. Consider the following statements regarding G-20:

1. G-20, is a group of finance ministers and central bank governors from 20 individual countries.
2. Russia is no longer a member of G-20.

Which of the above statements is/are Correct?

- | | |
|-----------------|--------------------|
| a) 1 Only | b) 2 Only |
| c) Both 1 and 2 | d) Neither 1 nor 2 |

Answer: D

Explanation

Third G20 Finance Ministers and Central Bank Governors Meeting

- Indian Finance Minister participated virtually in the Third G20 Finance Ministers and Central Bank Governors. The meeting was held under the **Italian Presidency**.
- Three catalysts of resilient economic recovery from the pandemic were identified. These were - **Digitalization, Climate Action and Sustainable Infrastructure**.

G20 Environment and Energy Ministers Meeting

- Energy and environment ministers from the G20 nations held meeting at Naples in Italy.
- It focused on **three themes - promoting circular economies**, particularly in the textile and fashion sectors; **biodiversity and protection of oceans**; and to **promote sustainable development** by realigning the financial system.
- The G20 meeting was an important event ahead of global climate talks (COP 26) to be held in **Glasgow in November**.
- During the meeting, **China and India declined to sign the two contested points**. One of these was **phasing out coal power**, which most countries wanted to achieve by 2025.
- The other concerned the **wording surrounding a 1.5-2 degree Celsius limit** on global temperature increases that was set by the 2015 Paris Agreement. Some countries wanted to cap temperatures at 1.5 degrees within a decade. India and China wanted to stick with the Paris agreement.

G20 Culture Ministers' Meeting

- The **first G20 Culture Ministers' Meeting** was held in Rome under Italian Presidency.
- Participating members agreed that investing in **cultural initiatives can be a driver of sustainable economic growth**.
- In this context, it was agreed to make **culture-related negotiations a permanent part** of the G20, starting with next year's presidency of Indonesia.
- Member states also agreed to **develop national entities to protect cultural sites** within their borders and to cooperate to protect vulnerable sites.

About G-20

- G-20, is a group of finance ministers and central bank governors from **19 individual countries and European Union**.
- G-20 is a forum, not a legislative body, its agreements and decisions have no legal impact, but they do influence countries' policies and global cooperation.
- Established in 1999, G20 was elevated from a forum of Finance Ministers and Central Bank Governors **to that of Heads of State/Government** in 2008 **to effectively respond to the global financial crisis of 2008**.
- **Members include** - Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, **Russia**, Saudi Arabia, South Africa, Turkey, United Kingdom, United States and the European Union.

29. Consider the following statements regarding the COVAX program:

1. This program is led by WHO, World Bank and many other organisations.
2. The aim of this program is to ensure equitable distribution of COVID-19 vaccines globally.

About SCO

- SCO is a **permanent intergovernmental international organisation**, created in **June 2001** in Shanghai by Kazakhstan, China, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan. It was **preceded by the Shanghai Five mechanism**.
- The SCO Charter was signed in June 2002, and entered into force in September 2003.
- **India and Pakistan** became the **member of SCO in 2017** (in Astana). Currently, there are 8 members of the organization.
- The **Heads of State Council (HSC)** is the supreme decision-making body in the SCO. It meets once a year and adopts decisions and guidelines on all important matters of the organisation.
- The **SCO Heads of Government Council (HGC)** meets once a year to discuss the organisation's multilateral cooperation strategy and priority areas, to resolve current important economic and other cooperation issues, and also to approve the organisation's annual budget.
- **The SCO's official languages are Russian and Chinese.**
- The organisation has **two permanent bodies** — the **SCO Secretariat based in Beijing** and the **Executive Committee of the Regional Anti-Terrorist Structure (RATS) based in Tashkent**.

31. Consider the following statements regarding Asia-Pacific Economic Cooperation (APEC):

1. **APEC is a regional economic forum established in 1989 to leverage the growing interdependence of the Asia-Pacific.**
2. **The APEC Secretariat is based in Singapore.**
3. **India is not a member of APEC.**

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 |

Answer: D

Explanation**Special APEC Meeting on Pandemic**

- Recently, the members of Asia-Pacific Economic Cooperation (APEC) met **virtually for a special meeting**. The formal gathering of APEC is scheduled in November 2021.
- This meeting was **hosted by its current Chair New Zealand**. This was the first time such an additional meeting has been held.
- The meeting highlighted growing concern around Covid-19 and sought collective actions to navigate the pandemic and its economic impacts.

About APEC

- The Asia-Pacific Economic Cooperation (APEC) is a **regional economic forum established in 1989** to leverage the growing interdependence of the Asia-Pacific.
- It aims to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.

- APEC has **21 members** and its **Secretariat is based in Singapore**.

India and APEC

- India is not a member of APEC. It had requested membership in APEC, and received initial support from the United States, Japan, Australia and Papua New Guinea.
- India was **invited to be an observer** for the first time in **November 2011**.

11th Mekong-Ganga Cooperation Meeting

- Recently, the 11th Mekong-Ganga Cooperation (MGC) foreign ministers' meeting was held. It was **co-chaired by the Foreign Ministers of Cambodia and India**.
- During the meeting India expressed its views that it is **seeking a multi-dimensional engagement** with the Mekong region considering its great importance.
- India also called for a **collective and collaborative response** to effectively deal with coronavirus pandemic.
- The MGC initiative **comprises six countries** — *India, Cambodia, Myanmar, Thailand, Laos and Vietnam*. It was **launched in 2000** to **boost cooperation in a range of areas including connectivity, tourism and culture**.
- The 20th anniversary of MGC was to be celebrated in 2020. However, it was postponed due to the ongoing COVID-19 pandemic.

India as President of UNSC for Month of August

- India will take over the Presidency of the UN Security Council on August 1. During its Presidency, India will be organising **high-level signature events in three major areas** - *maritime security, peacekeeping and counterterrorism*.
- India's **two-year tenure as a non-permanent member** of the Security Council began on January 1, 2021.
- The August presidency will be **India's first Presidency during its 2021-22 tenure** as a non-permanent member of the Security Council.
- India will again preside over the Council in **December next year**, the last month of its two-year tenure.

UN Adopts First Resolution on Vision

- The UN General Assembly has approved its **first-ever resolution on vision** to ensure access to eye care for everyone in their countries.
- **Resolution** named "Vision for Everyone" - would help at least 1.1 billion people with vision impairment who currently lack eye services by 2030.
- It encourages countries to institute a **whole of government approach to eye care**.
- It calls on international financial institutions and donors to provide **targeted financing**, especially for developing countries.
- The resolution stresses that access to eye care is essential to achieve **UN goals for 2030** to end poverty and hunger, ensure healthy lives and quality education, and reduce inequality.

Defence And Security

Draft Anti-Trafficking Bill

- **Trafficking in Persons (Prevention, Care and Rehabilitation) Bill, 2021** has been sent to the cabinet for approval before being tabled in Parliament. The bill aims to **prevent and counter trafficking in persons, especially women and children**.
- The draft bill has been released by the **Ministry of Women and Child Development**. A previous draft of the bill was passed in the Lok Sabha in 2018 but was never introduced in the Rajya Sabha.

Key Provisions:

- **Law Applicable to** - All citizens of India (within and outside the country), a foreign national or a stateless person who has residence in India. Law would cover every offence of trafficking, even with cross-border implications.
- **Widened Scope of the victims** – It includes transgenders, besides women and children. Also, it does away with the provision that a victim necessarily needs to be transported from one place to another to be defined as a victim.
- **Defined Exploitation** - Exploitation has been defined to include the exploitation of the prostitution of others or other forms of sexual exploitation.
- Other forms of exploitations include pornography, any act of physical exploitation, forced labour or services, slavery or practices similar to slavery, servitude or forced removal of organs, illegal clinical drug trials or illegal bio-medical research.
- **Extensive List of Offenders** – The offenders will also include defence personnel and government servants, doctors and paramedical staff or anyone in a position of authority.
- **Agency responsible for investigation** – National Investigating Agency (NIA) will be the main investigative agency, and therefore will look at cross-border offenses.
- **Punishment** - A minimum of seven years which can go up to an imprisonment of 10 years and a fine of Rs 5 lakh. In the case of the trafficking of more than one child, the penalty is life imprisonment. In certain cases, even the death penalty can be sought.
- **Seizure of Property similar to Money Laundering Act** - Property bought via such income as well as used for trafficking can now be forfeited.
- **Institutions for effective implementation** - The central government will notify and set up a **National Anti Trafficking Committee**, while state governments will set up these committees at state and district levels to ensure effective implementation.

Analysis

- The bill addresses the concerns regarding the **Cross-border trafficking** which has been a major problem.
- It is expected that the provisions related to the **attachment of property would be a greater deterrent than a possible jail sentence**.
- Making NIA as a nodal agency responsible for investigating the crime of trafficking shows that the govt is serious about cracking down on such crimes.

- However, many experts believe that the **draft bill also lends to confusion**. There are laws already in place on forced labour and sexual exploitation, which creates lot of overlapping. The law does not clarify which law is to apply.

Existing trafficking laws

- Trafficking is primarily an **offence under the Indian Penal Code, 1860**. It defines trafficking to include recruiting, transporting, or harboring persons by force or other means, for exploitation.
- **The Immoral Traffic (Prevention) Act, 1986** covers trafficking for commercial sexual exploitation.
- **The Bonded Labour System (Abolition) Act, 1976** deals with punishment for employment of bonded labour.

Trafficking in Persons Report

Context:

- Trafficking in Persons report 2021 has been released recently by the US State Department.
- As per report, the **pandemic** resulted in an **increase in vulnerability to human trafficking** and interrupted existing anti-traffic efforts.

India Specific Observation:

- The report said that India **did not meet the minimum standards** to eliminate trafficking. Although it mentioned that the government is making significant efforts.
- As far as bonded labour is concern, the steps taken are inadequate.
- Report has **retained India in the Tier 2 category** (those countries who do not fully comply with minimum standards but are making significant efforts).
- The report lauded the government for
 - allocating funding for the strengthening of existing and establishment of new **Anti-Human Trafficking Units** around the country,
 - establishing **“women help desks”** in police stations across the country.
 - **increased patrolling** of transportation hubs by railway and transit police
 - courts expanding the use of **video testimony** for trafficking victims during the pandemic
 - notable efforts to include issuing standard operating procedures (SOPs) for **victim identification** of bonded labour and granting the **maximum amount of compensation**
- The report also criticised the govt for
 - the **poor success rate in convictions** in human trafficking cases. The acquittal rate for traffickers in India **remained high at 73 percent**.
 - **filing trafficking cases under the Juvenile Justice Act** and other sections of the IPC which were unevenly enforced, and some of their prescribed penalties were not sufficiently stringent.
 - **lengthy or non-existent repatriation processes** as some foreign trafficking victims remained in state-run shelters for years
 - **inadequate efforts to audit** government-run or -funded shelters
 - Many victims waited years to receive central-government mandated compensation

Section 43D(5) of the Unlawful Activities Prevention Act (UAPA)

- Jesuit priest Stan Swamy had moved the Bombay High Court **challenging Section 43D(5) of the Unlawful Activities Prevention Act (UAPA)**, just two days before his death.
- He was arrested under an anti-terror law in the **Elgar Parishad case**.

What Does the Section 43D(5) Say?

- This provision deals with the granting of bail to the terror accused. The provision makes **grant of bail virtually impossible** under UAPA.
- The test for denying bail under the UAPA is that the **court must be satisfied that a “prima facie” case exists against the accused**.

What is the stand of Supreme Court on this Provision?

- In the case of **Zahoor Ahmed Shah Watali**, the Supreme Court in 2019 confirmed that courts **must accept the state’s case** without examining its merits while granting bail.
- In other words, it directed courts not to analyse evidence or circumstances but look at the **totality of the case presented by the state** while deciding on bail petition.
- In **Union of India v K A Najeeb**, January 2021, SC upheld the grant of bail under UAPA when the accused had undergone incarceration for a significant period. However, it recognised that **bail under UAPA was an exception**.
- SC was of the view that the **legislative policy against grant of bail** would not hold ground if there is no likelihood of trial being completed within a reasonable time and the period of incarceration already undergone has exceeded a substantial part of the prescribed sentence.
- In this case, SC tried to ensure that provisions like Section 43D(5) of UAPA is not used as the **sole metric for the denial of bail**. It incorporated the **constitutional right to speedy trial as a ground for granting bail**.

What is Elgaar Parishad case?

- It is one of the two ongoing investigations related to the **Koregaon Bhima violence witnessed on January 1, 2018**.
- It was alleged that banned Naxalite groups had organized the Elgaar Parishad, an evening programme organised in Pune on December 31, 2017, on the eve of the 200th anniversary of the Battle of Bhima Koregaon.
- Police claims that **speeches made at Elgaar Parishad were at least partly responsible** for instigating violence the next day.

Criticism Of UAPA

- The **UAPA, enacted in 1967**, was strengthened by amendment in 2008 and 2012.
- The provisions of UAPA have an **extremely wide ambit**, which makes it possible to use them against not just criminals and terrorists, but even authors, academics, and human rights activist.
- The definition of unlawful activities includes terms which are vague and broad. For instance, questioning the territorial integrity of India and activities to cause **“disaffection against India”** are an unlawful activity.
- In June 2021, the Delhi High Court granted bail to three student-activists Devangana Kalita, Natasha Narwal, and Asif Iqbal Tanha. While granting bail, it questioned if the **alleged offences qualified as “terrorist offences”** to be booked under UAPA in the first place.

- There is **no definition of membership** (when should a person be called a member of banned organisation?) in the UAPA, making it susceptible to misuse.
- SC in 2011 had ruled that **mere membership** of a banned organization **will not make a person a criminal**. However, under UAPA, if one is found to be a member of banned organisations, he/she **could be imprisoned for life**.
- Some of the provisions such as **extended detention periods, no anticipatory bail, no bail if case seems prima facie true** etc. have been termed as draconian.
- It contains **no sunset clause** and **provisions for mandatory periodic review**, which makes UAPA a permanent statute.

Draft Drone Rules, 2021

- Ministry of Civil Aviation has released **The Drone Rules, 2021** for public consultation.
- The new rule is built on a premise of *trust, self-certification, and non-intrusive monitoring*. It will replace the **Unmanned Aircraft System (UAS) Rules 2021** (released in March 2021). The existing UAS Rules 2021, were considered restrictive, as it required a variety of mandatory approvals for operating drones in the country
- The **objective** of the rules is to enable more types of drone operational scenarios, increase the ease of compliance for the drone industry, and ensure safety and security.

Key Highlights:

1. Approvals Abolished

- Many approvals in the UAS Rules 2021 are **proposed to be abolished in the latest draft**.
- These include approvals such as unique authorisation number, unique prototype identification number, authorisation of R&D organisation, student remote pilot licence, remote pilot instructor authorisation, drone port authorisation etc.
- The **number of forms required to operate** drones have been **reduced from 25 to 6**.
- **Licence fee** has been delinked from drone size and made affordable for all.

2. Creation of Digital Sky Platform

- The latest draft rules focused on the creation of '**Digital Sky platform**'. The Digital Sky Platform is the national unmanned traffic management platform in India.
- This platform will a **single-window online system** where **most permissions** to own and operate drones will **be self-generated**.
- This initiative will provide a secure and a scalable platform that **supports drone technology frameworks**, such as **NPNT (no permission, no take-off)**.
- It is designed to enable **flight permission digitally** and managing unmanned aircraft operations and traffic efficiently.

3. Zones Demarcated

- The draft rule states that an interactive **airspace map** with **green, yellow, and red zones** will be displayed on the digital sky platform.
- As per the new rules, in **green zones**, no flight permission will be required for operations up to 400 feet and up to 200 feet in the area between 8-12 km from an airport perimeter.

- To fly in the **yellow zone**, a drone pilot will require permission from the air traffic control authority. **Yellow zone has been reduced** from 45 km to 12 km from nearby airport perimeter.

4. Coverage of Drones

- Coverage of drones under the draft rule has been increased from **300 kg to 500 kg** and **will cover drone taxis**.

5. Licensing and Airworthiness

- **No pilot licence** will be required for **micro drones** used for non-commercial use, nano drones and for R&D organizations operating such drones.
- The system will work on a **unique identification number (UIN)** that can be **obtained from the digital sky platform** after submitting requisite details.
- Issuance of Certificate of Airworthiness has been delegated to Quality Council of India and certification entities authorised by it.

Classification of Drones

Based on existing rules, drones have been divided into five categories based on their weight (existing rules)-

Nano: Less than or equal to 250 grams.

Micro: From 250 grams to 2kg.

Small: From 2 kg to 25kg.

Medium: From 25kg to 150kg.

6. Drone Corridor

- The draft rule proposes the **development of drone corridors** for cargo deliveries. It also talks about setting up of a **drone promotion council** to facilitate a business-friendly regulatory regime.
- Till now, many tasks were undertaken by light helicopters (e.g: pipeline survey, aerial photography, payload delivery). These tasks may well slip into the hands of drone entrepreneurs.

7. Training

- All drone training and testing will be carried out by a DGCA-authorized drone school.
- DGCA will prescribe training requirements, oversee drone schools and provide pilot licences online.

8. Safety Features

- The draft rules also have safety features such real-time tracking beacon, and geo-fencing.
- These are expected to be **notified in future** and a six-month lead time will be provided for compliance.

9. Miscellaneous provisions

- There will no longer be a ban on the use of drones by foreign-owned companies registered in India. Import of drones and drone components will be regulated by the Directorate General of Foreign Trade (DGFT).
- Maximum penalty under new rules has been reduced to Rs 1 lakh. This shall, however, not apply to penalties in respect of violation of other laws.

Impact

- The new rules will make it significantly easier for people and companies to own and operate drones, by streamlining the certification process for manufacturers, importers and users.
- Drones are facilitating the next big technology revolution around the globe with reduced costs, resources and time taken for operations. The new rules will help the country to take advantage of these benefits offered by drones which include speed, safety, economy and reliability.
- It will go a long way to facilitate investments in drone technology in India, and give a boost to the future of technology in the country.

Social Media Intermediary

Recently, the government reached an understanding that **Apple's iMessage** would **not be considered a 'social media intermediary'**. It will also mean that the **rule related to identification of the first originator of the message** (under new IT Rule) **shall not be applicable** to the company.

What was the issue?

- On May 26, the Intermediary Guidelines and Digital Media Ethics Code — commonly called the IT Rules came into force.
- Following this, the Ministry of Electronics and Information Technology (MeitY) had written to Apple India **seeking details on compliance with the new rules**, specifically with respect to the its proprietary messaging service iMessage.
- The letter, however, was later withdrawn as government believed that **Apple's iMessage was not "primarily or solely" an instant messaging service** provider for enabling interaction between two or more users.

Who are social media intermediaries?

- The new IT rule defined social media intermediary as any platform which **'primarily or solely'** allows and enables online interaction 'between two or more users', while also permitting these users to 'create, upload, share, disseminate, modify or access information using its services'.
- It has created a category **of significant social media intermediaries**—platforms with more than 5 million users. As per rule, **all significant social media intermediaries would need to comply with the IT Rules.**

Why iMessage has been Left Out?

- iMessage has **25 million users** in India. Still, it was not classified as a social media intermediary.
- This is because the government reached a conclusion that it is **not a standalone messaging app that can be downloaded on any device.**
- Hence, it is not being considered as **being "primarily or solely" an entity separate from Apple.** Unlike WhatsApp, anyone cannot download iMessage on their phone as it is restricted to users who have an Apple device.

32. Project 75 India (P75I) is related to

- | | |
|--|---|
| a) Make a New India by 75th Independence Day | b) Celebration of 75th Independence Day |
| c) The construction of National Highways | d) Submarine building plan of Navy |

Answer: D

Explanation

The Defence Ministry issued a tender for building **six conventional submarines under Project-75 India.** It is a formal tender to **domestically build these submarines.**

Few Facts:

- It will be the **first project** to be implemented under the **strategic partnership** model.
- This model **allows domestic firms to collaborate with foreign players** to produce high-end military platforms in India.

- Domestic firms - Mazagon Dockyards Limited and Larsen and Toubro – will have to select one partner each from the five global original equipment manufacturers including firms from France, Germany, Russia, South Korea and Spain.

Benefits:

- It will promote India as a **manufacturing hub for defence equipment**.
- It will also establish an **industrial and R&D eco-system** capable of meeting the future requirements of the Armed Forces besides giving a boost to exports. It will be a major boost for the Indian Navy and Make in India.

About the Project:

- The P75I project is part of a **30-year submarine building plan ending in 2030**. As part of this plan, **India is to build 24 submarines** — 18 conventional submarines and six nuclear-powered submarines (SSNs).
- The project was approved in 2007.
- India currently has 15 conventional submarines and **two nuclear submarines** - INS Arihant and INS Chakra leased from Russia.

Sedition law

Journalist Sashi Kumar has approached the Supreme Court challenging the **constitutional validity of the offence of sedition**. **Section 124A** of the Indian Penal Code (IPC) deals with **the offence of sedition**.

Section 124A of IPC

It states that “Whoever, by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into **hatred or contempt, or excites or attempts to excite disaffection towards, the government** established by law in shall be punished with imprisonment for life, to which fine may be added, or with imprisonment which may extend to three years, to which fine may be added, or with fine.”

Punishment For Sedition Under 214A

- Sedition is a non-bailable offence. Punishment under the law varies from imprisonment up to three years to life term and fine.
- A person charged under this law can not apply for government job. They have to live without their passport.

Utility of 124A

- In combating anti-national, secessionist and terrorist elements
- Protecting the elected government from attempts to overthrow the government with violence and illegal means.
- If contempt of court invites penal action, contempt of government should also attract punishment.

Criticism of 124A

- **Mahatma Gandhi** called section 124A “the **prince** among the political sections of the IPC designed to suppress the liberty of citizen”. Nehru termed the provision as obnoxious and highly objectionable.
- The British, who introduced sedition to oppress Indians, have themselves abolished the law in their country. However, India is still using this.
- The terms used under Section 124A like 'disaffection' are **vague and subject to different interpretation**.

Use of Sedition Law: Statistics and Examples

- The NCRB data shows a **steep rise in the cases of sedition**, with a 160% rise from 2016 to 2019, simultaneously accompanied by an abysmally low conviction rate (3.3% in 2019).
- In 2019, more than 3000 persons **protesting against the Citizenship Amendment Act** were charged with seditious provisions.
- Off late, sedition cases have been slapped against journalist Siddique Kappan, activist Disha Ravi, Lakshadweep filmmaker Aisha Sulthana, journalist Vinod Dua etc.

Supreme Court Stand on the Issue

- Supreme court in June 2021 said that **every citizen has a right to criticise** the govt's policies so long as it does not incite people to violence or creates public disorder.
- SC simply reiterated its stand taken in **Kedar Nath Singh's case** while quashing a sedition charge against journalist Vinod Dua.
- The **constitutionality of sedition was challenged** in the Supreme Court in **Kedar Nath Vs State of Bihar** (1962). The Court **upheld the law** on the basis that this power was required by the state to protect itself.
- However, it had added that a person could be prosecuted for sedition only if his acts caused incitement to violence or cause disturbance of public peace.
- In the **Balwant Singh vs State of Punjab** (1995) case, SC held that **merely shouting slogans**, in this case Khalistan Zindabad, **does not amount to sedition**.

Assam-Mizoram Dispute

- Recently, violence erupted at the borders of the northeastern states of Assam and Mizoram due to a sudden **escalation of a border dispute**.
- Five Assam Police personnel were killed and many persons were injured in this violence.

Border Dispute: Background

- Mizoram borders **Assam's Barak Valley** and the boundary between the two states runs 165 km today.
- The current dispute has a history dating back to the time when **Mizoram was a district of Assam** and known as **Lushai Hills**.
- Boundary demarcations in 1875 and 1933 are at the heart of the dispute.
- The 1875 demarcation, **differentiated Lushai Hills from the plains of Cachar in Assam's Barak Valley**. This was done in consultation with Mizo chiefs of that time.
- It became the basis for the **Inner Line Reserve Forest demarcation** in the Gazette two years later.
- The 1933 demarcation marks a **boundary between Lushai Hills and Manipur**, beginning at the tri-junction of Lushai Hills, Cachar district and Manipur.



What was the Issue?

- Mizo leaders rejected the 1933 demarcation as they contend that it was done **without the consent and approval of the competent authorities** and the people of the Lushai Hills.

- As a result, 1933 demarcation had **excluded some of the Lushai inhabited areas** such as Cachar Zion, Tlangnuam, Lala Bazar and Banga Bazar.
- Mizo leaders contend that this demarcation has pushed them further south depriving them of gentle slope and flat lands. Hence, they **believe only in 1875 demarcation**.
- As a result, Assam sees its claimed boundary as transgressed while Mizoram cites unilateral moves by Assam inside Mizoram territory.

After Independence

- The history of these clashes dates back to 1972, when Mizoram was carved out of Assam as a Union Territory resulting in a border dispute.
- The two states signed an agreement that **status quo should be maintained at no-man's land set up in the boundaries**. The duty post in this region is manned by the CRPF.

Other Border Disputes in the Region

- Assam has border disputes with Arunachal Pradesh, Meghalaya, Nagaland and Mizoram.
- **Assam and Nagaland** share has a 500-km boundary. Violent conflicts have taken place in several phases since 1965.
- With **Arunachal Pradesh**, Assam shares an around 800-km boundary. Here, the first clashes were reported in 1992. These issues are now being heard in the Supreme Court.
- With **Meghalaya**, Assam shares a boundary of 884 km. The Meghalaya government claims it has 12 areas of disputes with Assam.
- The **Committee of Four Joint Secretaries** has been set up in mid-2020 by Ministry of Home Affairs to resolve inter-state border disputes.

Analysis:

- During the Colonial era, **commercial interests of British dictated map-making** and state-building. This resulted in many inter-state border tensions especially in the northeast.
- However, after the independence, successive governments have **failed to address these faultlines** when boundaries were redrawn and new states created. As a result, sensitivities of local communities regarding land got ignored.
- The problem became more complex when **inter-state migrants were demonized** by branding them as outsiders. This resulted in **creation of separate identities** which further created obstacles in **creating a fluid boundary**.
- The Northeastern states share a collective destiny and only by being sensitive to, and accommodative of, each other's interests can the entire region prosper.

33. Consider the following statements regarding bilateral exercises conducted by armed forces:

1. Exercise INDRA 2021 was conducted between armed forces of India and France.
2. Exercise Cutlass Express 2021 was conducted between India and Egypt.

Which of the above statements is/are Correct?

- | | |
|-----------------|--------------------|
| a) 1 Only | b) 2 Only |
| c) Both 1 and 2 | d) Neither 1 nor 2 |

Answer: D

Explanation

INDRA 2021

- Conducted between **India and Russia**; This year's edition will be **12th edition**
- Focused on counter-terror operations mandated under the UN's framework

Cutlass Express 2021

- It is an **annual maritime exercise** conducted to promote national and regional maritime security in East Africa and the Western Indian Ocean.
- This year the exercise is being conducted along the **East Coast of Africa**.
- The 2021 edition of the exercise involves the participation of 12 Eastern African countries, US, UK, India and various international organisations, like International Maritime Organisation, United Nations Office on Drugs and Crime, Interpol, European Union Naval Force, Critical Maritime Routes Indian Ocean and EUCAP Somalia.
- **The Indian Navy is participating in the exercise in a trainer role.**

Project Bold

- BOLD stands for **Bamboo Oasis on Lands in Drought**
- **Aim** - developing green cover in the Indian deserts of Rajasthan
- **Launched by** - Khadi and Village Industries Commission (KVIC) in collaboration with the Border Security Force (BSF)
- The project will provide livelihood and will reduce desertification.

India, UK Conduct Naval Exercise

- In a two-day bilateral Passage Exercise (PASSEX) in the Bay of Bengal, the Indian Navy and the British Navy conducted exercise.
- This was the first time, the **United Kingdom's Carrier Strike Group (CSG) 2021**, led by HMS Queen Elizabeth was involved in such maritime interactions with the Indian Navy. The **fifth generation** HMS Queen Elizabeth carrier is the **largest surface vessel ever constructed in the UK**.
- The arrival of the CSG follows the **UK's first International Liaison Officer** joining the Indian Navy's Information Fusion Centre-Indian Ocean Region in Gurugram.

Innovations for Defence Excellence (iDEX)

- Ministry of Defence has approved a central sector scheme - **Innovations for Defence Excellence (iDEX)** for the next 5 years from 2021-22 to 2025-26.
- Centre has provided Rs. 498.80 crore as a budgetary support for this scheme.
- The scheme aims at creating an **ecosystem to foster innovation and technology development** in defence and aerospace by engaging industries, including MSMEs, start-ups, individual innovators, R&D institutes and academia.

- The **ARMEX-21** was conducted in the **mountain ranges of the Himalayan** region to promote the **adventure activity** in the country and the **Indian Army**.
- The expedition was flagged off at **Karakoram Pass** in **Ladakh** on March 10, 2021 and **culminated at Malari** in **Uttarakhand** on July 06, 2021, covering 1,660 kms in 119 days.

Note: Mount Aragats is an isolated four-peaked volcano massif in Armenia.

37. Consider the following statements:

1. **For the first time a new oscillation, called Moon - wobble, is being observed by scientists.**
2. **The moon's orbital plane around the Earth is at an approximate 23-degree incline to the Earth's orbital plane around the sun.**

Which of the statements given above is/are not correct?

- | | |
|-----------------|--------------------|
| a) 1 only | b) 2 only |
| c) Both 1 and 2 | d) Neither 1 nor 2 |

Answer: C

Explanation

- Sometimes, the moon seems to move in mysterious ways that may be circles and ovals.
- But there is also **something else, a so-called wobble**, animating those **rotations and revolutions**. According to a recent study, the phenomenon is expected to lead **to more flooding** on Earth in the middle of the next decade.
- The wobble is a **regular oscillation** that humans have known about for centuries, **first documented way back in 1728**, and it is one of many factors that can either exacerbate rising sea levels or counteract them, alongside other variables like weather and geography.
- The moon also **revolves around the Earth about once a month**, and that orbit is a little bit tilted. To be more precise, the moon's orbital plane around the Earth is at an **approximate 5-degree incline to the Earth's** orbital plane around the sun.
- Because of that, the path of the moon's orbit seems to fluctuate over time, completing a **full cycle — sometimes referred to as a nodal cycle — every 18.6 years**.

38. RSYLTPGD246-253N, 260 L452Q, F490S terms often seen in news are related to

- a) **A COVID-19 Variant**
- b) **Newly Found Exoplanet**
- c) **Recently discovered Fauna Species**
- d) **Recently discovered Black Holes**

Answer: A

Explanation

Lambda: A Covid-19 Variant

- Even as the **Delta variant of the SARS-CoV-2 coronavirus** continues to drive the rise in infections around the world, **another variant, Lambda**, is increasingly being seen by scientists and health experts as a new emerging threat.
- On June 14, the **World Health Organization designated the Lambda variant**, previously known by its **formal scientific name C.37**, as the seventh and newest “**variant of interest**”, meaning it was something to watch out for.
 - The designation as a “**variant of interest**” means that the **genetic changes** involved are predicted or known to affect transmissibility, disease severity, or immune escape.
 - It is also an **acknowledgement** of the fact that the variant has caused **significant community transmission** in multiple countries and population groups.
- The Lambda variant, which has now been detected in more than 25 countries, is feared to be **more transmissible than the original virus**, although it is not yet established because of the lack of enough studies on it.
- It has been the **dominant variant in Peru and other countries of South America**. The Lambda variant has **not yet been found in the Indian population** but has recently been detected in the **UK and other European countries**.
- The Lambda variant is not a new emergence. It has been around at **least since last year, possibly as early as August 2020**. In Peru, where it is believed to have originated, it accounts for almost 80% of the infections.
- In laboratory experiments, they found that **three mutations in Lambda's spike protein**, known as **RSYLTPGD246-253N, 260 L452Q and F490S**, help it resist neutralization by vaccine-induced antibodies.

NHP –Bhuvan portal

- The **Secretary, Department of Space & Chairman, ISRO**, Dr K. Sivan launched the **NHP –Bhuvan portal of NRSC**.
- The **National Hydrology Project or NHP-Bhuvan Portal** is a **repository of information** on the initiatives undertaken by NRSC under NHP with a facility to download the reports and knowledge products being developed by NRSC.
- National Hydrology Project (NHP) is a Central Sector scheme. It was launched by the Department of Water Resources, River Development, and Ganga Rejuvenation, Ministry of Jal Shakti with the financial aid of the World Bank. NRSC is the implementing Agency.
- Objective: To improve the extent and accessibility of water resources information and strengthen institutional capacity to enable improved water resources planning and management across India.
- **National Remote Sensing Centre (NRSC)**, Indian Space Research Organization (ISRO), Hyderabad as one of the Implementing Agencies under the **National Hydrology Project (NHP)**, is carrying out hydrological studies using satellite data and geospatial techniques.

Collisions Between Neutron Star And Black Hole

- For the first time, **in January 2020**, the network of detectors made the discovery of gravitational waves from a pair of NS-BH mergers. This is a **hybrid collision**.

- Until now, the **LIGO-Virgo collaboration (LVC)** of gravitational waves detectors has only been able to observe collisions between pairs of black holes or neutron stars.
- The technique used here to detect the **signal is called matched filtering**. This was also used for the **first discovery of gravitational waves**. It was developed at **IUCAA in the 1990s** by Sanjeev Dhurandhar and others.
- There is a lot of **interesting science** that can be learnt from this. These observations also help to **understand the formation** and relative abundance of such binaries.
- Neutron stars are the **densest objects in the Universe**, so these findings can also help us understand the **behaviour of matter at extreme densities**. Neutron stars are also the **most precise ‘clocks’ in the Universe**, if they emit extremely periodic pulses. The discovery of pulsars going around Black Holes could help scientists probe effects under **extreme gravity**.
- For instance, **a neutron star has a surface and black hole does not**. A **neutron star is about 1.4-2 times** the mass of the sun while the other black hole is much more massive. Widely unequal mergers have very interesting effects that can be detected.

Red star	Fusion reaction stops when its Hydrogen gets exhausted. Pressure of the core diminishes and core starts shrinking. Fusion takes place as some Hydrogen remains in the outer shell making the star unstable. The star Expands and turns Red.
Dwarf star	When mass of star < 1.44 times the mass of Sun (Chandra Shekhar limit)
Supernova	When mass of star > 1.44 times that of Sun, there remains enough Helium in the core for fusion reaction. The outer envelope explodes causing Supernova Explosion
Neutron Star	When mass of the star is between 1.44 to 3 times that of Sun
Black hole	When mass of the star is bigger than 3 times that of Sun

NEOWISE Asteroid-Hunting Space Telescope

- For two more years, **NASA’s Near-Earth Object Wide-field Infrared Survey Explorer (NEOWISE)** will continue its **hunt for asteroids and comets** – including objects that could pose a hazard to Earth.
- This mission extension means **NASA’s prolific near-Earth object (NEO)** hunting space telescope will continue operations until June 2023.
- **Originally launched** as the **Wide-field Infrared Survey Explorer (WISE)** mission in December 2009, the space telescope surveyed the entire sky in infrared wavelengths, detecting asteroids, dim stars, and some of the faintest galaxies visible in deep space. **WISE completed** its primary mission when it **depleted its cryogenic coolant** and it was put into hibernation in February 2011.
- **Observations resumed** in December 2013 when the space telescope was repurposed by NASA’s Planetary Science Division as **“NEOWISE”** to identify asteroids and comets throughout the solar system, with special attention to those that pass close to Earth’s orbit.
- The recently discovered comet called C/2020 F3, also known as NEOWISE after the NASA telescope that discovered it, will make its closest approach to the Earth on July 22
- On the day, the comet, which takes 6,800 years to complete one lap around its orbit, will be at a distance of 64 million miles or 103 million kilometers while crossing Earth’s outside orbit.

Ryugu's First Sample Arrived

- Asteroid Ryugu's first sample had recently arrived at **NASA's Johnson Space Center**.
- In **December 2020**, the **Japan Aerospace Exploration Agency JAXA** had the samples gathered from the asteroid through their **spacecraft Hayabusa2**. The recent sample **acquired by NASA was the first to leave Japan for additional examination**.

Hayabusa2 Spacecraft

- A Japanese spacecraft, **Hayabusa2**, reached Earth in **December 2020** after a yearlong journey from a distant asteroid, **Ryugu**, with **soil samples and data** that could provide clues to the origins of the solar system.
- Hayabusa2 is an **asteroid sample-return mission** operated by the **Japanese space agency, JAXA**. It carried multiple science payloads that investigated the asteroid surface to inform about the **environmental and geological context** of the samples collected.
- **Asteroid 162173 Ryugu** is a **primitive carbonaceous near-Earth asteroid**, located about 300 million kilometers (180 million miles) from Earth.
- Ryugu is an asteroid charting between the **spatial boundaries of Mars and Earth**.
- Astronomy experts tagged Ryugu with a **primitive C-type classification**. This asteroid class is usually full of various types of minerals and rocks. C-type asteroids are normally discovered with a black appearance, with large carbon quantities.
- Ryugu is **dubbed as a fossil of the solar system**, as it is believed to contain remnants of organic matter and even water that dates back 4.6 billion years ago, contemporaneous with the origin of our solar system.
- The key interest of the study conducted by JAXA and NASA was to **find evidence that will correlate the composition of Ryugu and Earth**.
- The findings that will be extracted from this study will gradually help experts in answering **how the solar system formed, how the water originated on Earth, and how evolution produced life**.
- **Carbonaceous asteroids** are expected to preserve the most pristine materials in the Solar System, a **mixture of minerals, ice, and organic compounds** that interact with each other.
- Studying it is expected to provide **additional knowledge on the origin and evolution of the inner planets** and, in particular, the **origin of water and organic compounds** on Earth, all relevant to the origin of life on Earth.

Discrete Auroras On Mars

- The **UAE's Hope spacecraft**, which is orbiting Mars since February this year, has captured images of **glowing atmospheric lights** in the **Red Planet's night sky**, known as **discrete auroras**.
- Unlike auroras on Earth, which are seen only near the north and south poles, discrete auroras on Mars are **seen all around the planet at night time**.
- Unlike **Earth**, which has a **strong magnetic field**, the **Martian magnetic** field has largely died out. This is because the **molten iron** at the interior of the planet, which produces magnetism, has cooled.
- However, the **Martian crust**, which hardened billions of years ago when the **magnetic field still existed**, **retains some magnetism**. So, in contrast with Earth, which acts like **one single bar magnet**, magnetism on **Mars is unevenly distributed**, with fields strewn across the planet and differing in direction and strength.
- Studying **Martian auroras** is important for scientists, for it can offer clues as to why the Red Planet lost its magnetic field and thick atmosphere— among the essential requirements for sustaining life.

- The **Hope Probe, the Arab world's first mission to Mars**, took off from **Earth** in July last year, and has been orbiting the **Red Planet** since February.
- The primary objective of the mission is to study **Martian weather dynamics**.

Matsya Setu

- The **Ministry of Fisheries, Animal Husbandry and Dairying** launched a mobile app '**Matsya Setu**' to **disseminate the latest freshwater aquaculture technologies** to the country's aqua farmers.
- The app has been developed by the **ICAR-Central Institute of Freshwater Aquaculture (ICAR-CIFA)**, Bhubaneswar, with the funding support of the **National Fisheries Development Board (NFDB)**, Hyderabad.
- Matsya Setu app has species-wise/ subject-wise **self-learning online course modules**, where renowned aquaculture experts explain the basic concepts and practical demonstrations on breeding, seed production and grow-out culture of commercially important fishes like carp, catfish, scampi, murrel, ornamental fish, and pearl farming.
- The platform also provides **better management practices** which are to be followed in maintaining the soil and water quality, feeding and health management in aquaculture operations.
- **E-certificate can be auto-generated** upon successful completion of each course module.
- **Significance:**
 - The capacity building of fish farmers is a vital part of spearheading the technology-led aquaculture development in the country.
 - The app will be surely helpful for the farmers to learn the advancements in the technologies and better management practices at their convenience.
 - It can also act as an important tool to share information on different schemes among the stakeholders and facilitate ease of doing business

Blackfrog Technologies

- A start-up, Blackfrog Technologies, supported by the **Department of Biotechnology's (DBT) Biotechnology Industry Research Assistance Council (BIRAC)** has developed a portable, battery-operated **medical-grade refrigeration device, Emvolio**, which is revolutionising the last-mile delivery of vaccines at remote locations.
- Emvólio has a **2-litre capacity, enabling it to carry 30-50 vials**, the standard for a daylong immunization campaign.
- The device also includes continuous temperature monitoring, location tracking, state-of-charge indication,
- Blackfrog is an ISO-13485 certified manufacturer of medical devices, and Emvólio has been designed in accordance with WHO-PQS E003 standards. The underlying refrigeration mechanism is solid-state cooling with a **smart PID (Proportional Integral Derivate) controller**, which guarantees precise temperature maintenance without the risk of noxious refrigerant leakage or cross-contamination.
- Due to the ability of the device to **strictly maintain the temperature between 2°C and 8°C for up to 12 hours in the field**, the device is being used as a platform for delivery of vaccines and all other biologicals like blood, serums, viral culture.
- The innovation solves the current challenge of last-mile vaccine delivery as currently iceboxes, which have no mechanism for temperature control and regulation, are being used. The absence of temperature control and

regulation in iceboxes also risks accidental freezing and thawing, rendering the temperature-sensitive vaccines ineffective.

Biotechnology Industry Research Assistance Council (BIRAC)

- BIRAC is a not-for-profit Section 8, Schedule B, Public Sector Enterprise, set up by the Department of Biotechnology (DBT).
- It acts as an interface agency to improve and encourage the evolving biotechnology industry to execute strategic research and development activities in context to the nation's product development needs.

SPARSH [System for Pension Administration (Raksha)]

- The **Ministry of Defence** has implemented **SPARSH [System for Pension Administration (Raksha)]**. It is an integrated system for automation of sanction and disbursement of defence pension.
- This web-based system **processes pension claims and credits pension directly into the bank accounts of defence pensioners** without relying on any external intermediary.
- SPARSH envisages **establishment of Service Centres** to provide last mile connectivity to pensioners who may be unable to directly access the SPARSH portal for any reason.
- In addition to several offices of the Defence Accounts Department, the two largest banks dealing with defence pensioners – **State Bank of India (SBI) and Punjab National Bank (PNB) – have been co-opted as Service Centres.**
- A Pensioner Portal is available for pensioners to view their pension related information, access services and register complaints for redressal of grievances, if any, relating to their pension matters.

Other Initiative Related to Defence Pensions

One Rank One Pension (OROP) scheme which provides the payment of the same pension to military officers for the same rank for the same length of service, irrespective of the date of retirement

Possibility of Life on Saturn's Moon

- **NASA's Cassini spacecraft mission** found significantly **large amounts of methane**, a compound of carbon and hydrogen, in the plumes emanating **from the surface of Enceladus**. The spacecraft has also found that **Titan has methane in its atmosphere.**
- Microbes, which are present in billions on Earth, exist through anaerobic life processes, which cause them to add significant quantities of methane to the Earth's atmosphere.
- These microbial life forms on Earth consume the atmospheric hydrogen molecules to eject methane, and if the terrestrial life processes hold true in Saturn too, it may well be a strong candidate to sustain life forms in certain ways.
- **Methane on Earth:**
 - Most of the methane on Earth has a **biological origin**. Microorganisms called **methanogens are capable of generating methane** as a metabolic byproduct.
 - They **do not require oxygen to live** and are widely distributed in nature. They are **found in swamps, dead organic matter**, and even in the human gut.
 - They are **known to survive in high temperatures** and simulation studies have shown that they can live in Martian conditions.

- **Other processes that could produce methane:**

- Methane could be formed by the chemical breakdown of organic matter present in Enceladus' core. **Hydrothermal processes could help the formation of carbon dioxide and methane.**
- On Earth, **hydrothermal vents on seafloors are known to release methane**, but this happens at a very slow rate.

Titan is the largest moon of Saturn and the second largest moon in our solar system.

Jupiter's moon Ganymede is just a little bit larger. Titan's atmosphere is made mostly of nitrogen, like Earth's, but is four times denser.

Enceladus is a small, icy moon which has an abundance of hydrogen molecules in water plumes. 98% of the gas in the plumes was found to be water and 1% is hydrogen and the remaining is a mixture of molecules of carbon dioxide, methane, and ammonia.

Zika Virus Disease

- Zika virus disease was reported for the first time in Kerala. Zika virus is a **mosquito-borne flavivirus** that was **first identified in Uganda in 1947** in monkeys. It was later identified in humans in 1952 in Uganda and the United Republic of Tanzania.
- Zika virus disease is caused by a virus transmitted primarily by **Aedes mosquitoes**, which bite during the day.
- According to the World Health Organization (WHO) symptoms are generally mild and include fever, rash, conjunctivitis, muscle and joint pain, malaise or headache.
- Zika virus infection during pregnancy, however, can cause infants to be born with microcephaly and other congenital malformations, known as **congenital Zika syndrome**. Infection with Zika virus is also associated with other complications of pregnancy including pre-term birth and miscarriage.
- An increased risk of neurologic complications is associated with Zika virus infection in adults and children, including **Guillain-Barré syndrome, neuropathy and myelitis**.
- There is **no antiviral treatment available for Zika virus**. But most patients recover from the illness within a week of infection. The virus has an **incubation period of 3 to 14 days**. Severe disease and death are rare.
- As per WHO, the **first recorded outbreak of Zika virus disease** was reported from the **Island of Yap (Federated States of Micronesia) in 2007**.

Samvedan 2021

- **SAMVEDAN 2021 – Sensing Solutions for Bharat** is a national-level hackathon organised by **IIT Madras Pravartak Technologies Foundation (IITM-PTF)** in collaboration with **Sony India**.
- IITM-PTF is a **Technology Innovation Hub (TIH)** supported by the **Department of Science and Technology (DST)** under the **National Mission on Interdisciplinary Cyber-Physical Systems (NM-CPS)**.
- SAMVEDAN 2021 aims to inspire citizens to use the Internet of Things(IoT) Sensor Board in order to solve India-specific problems of societal interest. The grand challenge competition is **open to all the Indian nationals**.

NM-ICPS:

- NM-ICPS was launched in 2018 by the Department of Science & Technology for a period of five years to create a **strong foundation and a seamless ecosystem for Cyber Physical Systems (CPS) technologies** by

coordinating and integrating nationwide efforts from **knowledge generation to product development and commercialization.**

- The Mission **aims at** establishment of 15 **Technology Innovation Hubs (TIH)**, 6 **Application Innovation Hubs (AIH)** and 4 **Technology Translation Research Parks (TTRP)**.
- These hubs connect the Academics, Industry, Central Ministries, and State Government in developing solutions at reputed academic, R&D and other organizations across the country in a hub and spoke model.
- Each hub and technology parks will follow a technology life cycle approach, viz. **Knowledge-Development-Translation-Commercialization.**

Cyber Physical Systems (CPS)

- Cyber Physical Systems (CPS) are a new class of **engineered systems that integrate computation and physical processes** in a dynamic environment.
- It encompasses technology areas of Cybernetics, Mechatronics, Design and Embedded systems, Internet of Things (IoT), Big Data, Artificial Intelligence (AI) and many more.
- The CPS systems are intelligent, autonomous and efficient and provide a cutting edge to scientific, engineering, and technological innovative capabilities.

UV-C Technology

- The **UV-C Disinfection Technology** developed by the **Council of Scientific and Industrial Research (CSIR)** will soon be installed in Parliament. The technology is meant for the “mitigation of airborne transmission of SARS-COV-2”.
- The UV-C Disinfection Technology is essentially an **air duct system which has been developed by CSIR-CSIO (Central Scientific Instruments Organisation)**. It provides a relatively safer environment for indoor activities amid the pandemic.
- The system is designed to fit into any existing air-ducts and the virucidal dosages using UV-C intensity and residence time can be optimised according to the existing space. The virus is deactivated in any aerosol particles by the calibrated levels of UV-C light.
- It can be used in auditoriums, large conference rooms, class-rooms, malls etc.
- **Ultraviolet (UV) is a type of light or radiation naturally emitted by the Sun.** It covers a wavelength range of 100-400 nm. The human visible light ranges from 380–700 nm.
- UV is divided into three bands: **UV-C (100-280 nm), UV-B (280-315 nm) and UV-A (315-400 nm).**
- **UV-A and UV-B rays from the Sun are transmitted** through our atmosphere and all **UV-C is filtered by the ozone layer.**
- **UV-B rays** can only reach the outer layer of our skin or epidermis and can cause sunburns and are also **associated with skin cancer.**
- **UV-A rays** can penetrate the middle layer of your skin or the dermis and **can cause aging of skin cells and indirect damage to cells’ DNA.**
- UV-C radiation from man-made sources has been known to cause skin burns and eye injuries.

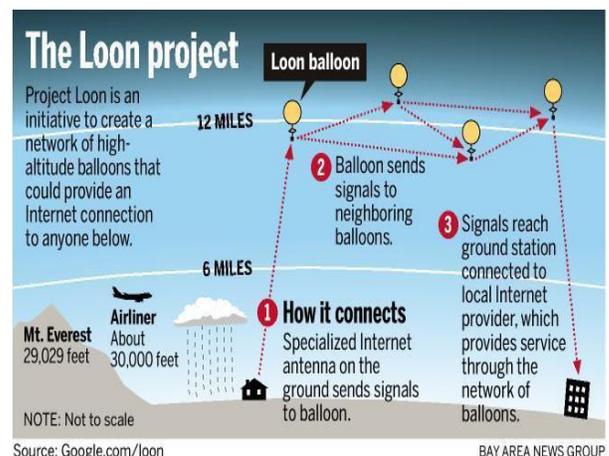
- **UV-C radiation (wavelength around 254 nm) has been used for decades to disinfect the air in hospitals, laboratories, and also in water treatment. But these conventional germicidal treatments are done in unoccupied rooms as they can cause health problems.**

Internet via High-altitude Balloons

- The US government has given greenlight **to** a **plan to transmit the Internet to people in Cuba via high-altitude balloons** when their government has blocked access.
- Protest is **going on** against the **country's communist government**, in what are believed to be the biggest demonstrations seen in over three decades on the collapsing **economy** and the **government's handling** of the Covid-19 pandemic; there are also **complaints about the shortage of food and lack of some basic medicines.**
- For years, **Alphabet, the parent company of Google, worked to perfect an Internet-balloon division service called Loon.** It **shut down that project** in January, saying it wasn't commercially viable.
- Prior to the shutdown, **Loon balloons had been providing service in mountainous areas in Kenya** through a partnership with a local telecom, Telkom Kenya.

Working Mechanism

- The **Loon balloons** were effectively **cell towers the size of a tennis court.**
- They **floated 60,000 to 75,000 feet (18,000- 23,000 meters),** above the Earth, well above commercial jetliner routes.
- Made of the **commonplace plastic polyethylene,** the balloons used solar panels for **electricity** and could deliver service to smartphones in partnership with a local telecom.
- Each balloon could **serve thousands of people,** but they had to be **replaced every five months** or so because of the **harsh conditions** in the **stratosphere.** And the **balloons could be difficult to control.**
- Beyond the balloons themselves, it **needed network integration** with a telecom to **provide service** and some equipment on the ground in the region.



Map Services in UMANG App

- The **Ministry of Electronics & Information Technology (MeitY)** has enabled map services in **UMANG (Unified Mobile Application for New-age Governance) App** through the linkage with MapmyIndia.
- Citizens will be able to find government facilities nearest to their location, such as mandis, blood banks etc. They will also be able to see these on the most detailed and interactive street and village level maps of India, built by MapmyIndia.
- With this integration, the UMANG app has added map functionality for three services: **Mera Ration, eNAM and Damini.**
- The 'Mera Ration' integration will let users navigate to the 'Nearest Fair Price Shops'.
- For eNAM, the map will show nearby mandis.

- While for Damini, the map will give lightning alerts to users with visuals of nearby areas where lightning has struck in the last few minutes.
- UMANG mobile app is a Government of India **single, unified, secure, multi-channel, multi-platform, multi-lingual, multi-service mobile app**, providing access to high impact services of various organizations (Central and State).
- The services live on the app include Aadhaar, DigiLocker, Bharat Bill Payment System (BBPS), EPFO services, apply for a new permanent account number (PAN), Indian Meteorological Department (IMD) weather services, and those looking for jobs can register themselves under the Pradhan Mantri Kaushal Vikas Yojana among others.
- MapmyIndia, is a product of an indigenous, company founded and headquartered in New Delhi, India, in 1995, which has digitally mapped the entire country.
- It helps users find relevant places nearby and see them on detailed building level maps.

Monkey B Virus

- Recently, China has reported the first human infection case with Monkey B virus (BV). The virus was **first detected in 1932**. B virus is also commonly referred to as **herpes B, monkey B virus, herpesvirus simiae, and herpesvirus B**.
- Monkey B virus is an alphaherpesvirus enzootic in macaques of the genus Macaca. B virus is the **only identified old-world-monkey herpesvirus** that displays severe pathogenicity in humans.
- Macaque monkeys commonly have this virus and it may also be found in cells coming from an infected monkey in a lab. B virus can survive for hours on surfaces, particularly when moist.
- **Humans can get infected** and the infection has a fatality rate of 70 percent to 80 percent.
- Currently, there are **no vaccines that can protect against B virus infection**. Till date, only one case has been documented of an infected person spreading B virus to another person.

NASA's Near-Earth Asteroid Scout

- NASA has announced that its new spacecraft named **NEA Scout** has been safely tucked inside the Space Launch System (SLS) rocket. NEA Scout is one of several payloads that **will launch on Artemis I** which is expected to be launched in November 2021.
- **Artemis I is a planned uncrewed test flight** for NASA's Artemis program. Under the program, NASA has aimed to **land the first woman on the Moon in 2024 and also establish sustainable lunar exploration programs by 2030**.
- Near-Earth Asteroid Scout, or NEA Scout, is a small spacecraft, whose main mission is to fly by and collect data from a near-Earth asteroid.
- It will also be **America's first interplanetary mission using a special solar sail propulsion**. A solar sail, simply put, is a spacecraft propelled by sunlight.
- The spacecraft will take about two years to cruise to the asteroid and will be about 93 million miles away from Earth during the asteroid encounter.

- **Near Earth Objects (NEOs)** are comets and asteroids pushed by the gravitational attraction of nearby planets into orbits which allow them to enter the Earth's neighbourhood. They are **composed mostly of water ice** with embedded dust particles.
- Despite their small size, some of these near-earth asteroids could pose a threat to Earth. Thus, **understanding their properties** could help in developing strategies **for reducing the potential damage** caused in the event of an impact.

Drug Niclosamide

- In an exploratory study, **niclosamide drug**, an anthelmintic originally **used to treat tapeworm infection**, was **found to show promising results in treating COVID-19**.
- It is well known that the spike protein of the receptor binding domain attaches itself to the ACE2 (**Angiotensin-Converting Enzyme 2**) receptor present in the cell. This is a route the virus uses to enter the cell. There is also an alternative route of entering the cell, especially in cells that do not carry ACE2.
- ACE2 is an enzyme that generates small proteins by cutting up the larger protein angiotensinogen, which then go on to regulate functions in the cell.
- Using the spike-like protein on its surface, the SARS-CoV-2 virus binds to ACE2 – like a key being inserted into a lock – prior to entry and infection of cells. Hence, ACE2 acts as a cellular doorway – a receptor – for the virus that causes COVID-19
- When the virus tries to enter the cell, it is first engulfed in a membranous vesicle. This vesicle provides an environment of low pH (acidic medium) which is necessary for the virus to infect the cell.
- Thus, a substance that would alter the pH of the environment would block the entry of the virus. This role can be played by niclosamide.

Russian Nauka Module

- Russia's space agency Roscosmos attached the significantly larger module **Nauka**, which will serve as the country's main research facility on the space station.
- The Nauka module **replaced earlier Russian module Pirs**, which was used by spacecraft as a docking port as well as by cosmonauts going for a spacewalk as a door.
- The **ISS is a collaborative effort** between five participating space agencies: **NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe) and CSA (Canada)**.ISS is a habitable artificial satellite - the single largest man-made structure in low earth orbit.
- Nauka — meaning “science” in Russian — is the **biggest space laboratory Russia** has launched to date, and will **primarily serve as a research facility**.
- It is also bringing to the ISS another oxygen generator, a spare bed, another toilet, and a robotic cargo crane built by the European Space Agency (ESA).
- It will increase the habitable volume of the ISS to 70 cubic Metres. For more than 20 years, people have been carrying out research under microgravity conditions which is not possible on earth, this module will help augment the ongoing research.

Rotation Profile of the Sun

- A team of international solar researchers have **designed a rotation profile of the Sun** after **studying the varying behaviours of sunspots** observed over 100 years.
- The scientists have attempted to precisely track sunspots at various latitudes of the Sun in order to understand the rotational behaviours at different latitudes.
- **Sunspots are small and dark but cooler areas** on the solar surface having strong magnetic forces.
- The solar rotation profile is based on the fact that the **bigger sunspots rotate at a slower rate in comparison to the smaller ones**.
- The presence of strong magnetic fields around bigger sunspots prevents them from having a faster rotation rate. This, as opposed to smaller sunspots which possess a comparatively less intense magnetic field allowing it to rotate faster.
- Unlike **Earth** — a solid mass of body having **uniform rotation**, the **Sun has differential rates of rotation**. This means, the solar equator rotates faster than its poles.
- The Sun rotates around an axis that is roughly perpendicular to the plane of the ecliptic; the Sun's rotational axis is tilted by 7.25° from perpendicular to the ecliptic. It rotates in the counterclockwise direction (when viewed from the north), the same direction that the planets rotate (and orbit around the Sun)
- The researchers confirmed that **no variation in rotation rates was noted** between solar activity extremes, that is, between a solar maxima and minima.
- **Significance:**
 - Sunspots and solar cycles have helped scientists understand the Sun's behaviour from the past. These continue to remain observable characters to predict the Sun's future.
 - If one can understand solar dynamo, it can give a better insight into the solar cycle which in turn, will help predict how the Sun will behave in future.

Biotech-PRIDE Guidelines

- **"Biotech-PRIDE (Promotion of Research and Innovation through Data Exchange) Guidelines"** was released. It was developed by the **Department of Biotechnology (DBT), Ministry of Science and Technology**. A Website Of Indian Biological Data Centre (IBDC) Was Also Launched.
- These Guidelines will be **implemented through Indian Biological Data Centre (IBDC)** at the Regional Centre for Biotechnology supported by the Department of Biotechnology. Other existing datasets/ data centres will be bridged to this IBDC which will be **called Bio-Grid**.
- This **Bio-Grid will be a National Repository for biological knowledge, information and data**. It will be responsible for enabling its exchange, developing measures for safety, standards and quality for datasets and establishing detailed modalities for accessing data for the benefit of Indian Citizens.
- The Biotech PRIDE Guidelines will facilitate this and enable exchange of information to promote research and innovation in different research groups across the country.
- These guidelines **do not deal with generation of biological data per se** but are an enabling mechanism to share and exchange information as per the existing laws, rules, regulations and guidelines of the country.

- **Advantages:**

India having large population with heterogeneous character needs its own exclusive database for Indian research and solutions

- Ensure **data sharing benefits** viz. maximizing use, avoiding duplication, maximized integration, ownership information, better decision-making and equity of access.
- Enabling mechanism for sharing the data publicly and within a reasonable period of time after data-generation, thus the **utility of the data will be maximal**.
- Helpful to **harmonize, synergize and encourage the data sharing for research and analysis** and to promote scientific work and foster progress by building on previous work.

India-Indonesia CORPAT

- **Indian Naval Ship (INS) Saryu**, an indigenously built Offshore Patrol Vessel has undertaken **coordinated patrol (CORPAT) with Indonesian Naval Ship** in the **36th edition of CORPAT** between India and Indonesia.
- This edition seeks to bolster the maritime cooperation between the two navies and forge strong bonds of friendship across the Indo Pacific.
- India and Indonesia have been carrying out Coordinated Patrols **along the International Maritime Boundary Line (IMBL) twice a year since 2002**.
- The aim of these patrols is to keep this vital part of the Indian Ocean Region safe and secure for commercial shipping, international trade and conduct of legitimate maritime activities.
- CORPATs help build understanding and interoperability between navies, and facilitate institution of measures to prevent and suppress Illegal Unreported Unregulated (IUU) fishing, drug trafficking, maritime terrorism, armed robbery and piracy.
- Since the exercise is in line with Government of India's vision of SAGAR (Security And Growth for All in the Region), the Indian Navy has been proactively engaging with countries in the Indian Ocean Region for coordinated patrols, cooperation in Exclusive Economic Zone (EEZ) surveillance and bilateral/multilateral exercises.

Ecology And Environment

39. Project BOLD, recently in the news, was related to?

- a) Creating bamboo-based green patches in drylands.
- b) Development of a DNA vaccine for COVID-19
- c) Setting up 69,000 EV Charging Stations across India
- d) None of the above

Answer: A

Explanation:

- **The Khadi and Village Industries Commission (KVIC)** under the Ministry of Micro, Small & Medium Enterprises has launched project BOLD. The first of its kind exercise in India, project BOLD was launched from the tribal village Nichla Mandwa in Udaipur, **Rajasthan**.
- The project aims to **boost the income of the tribal people** and solve environmental concerns such as **land desertification and land degradation** by creating bamboo-based green patches in drylands.
- Under the project, **5000 saplings of special bamboo species** – Bambusa Tulda and Bambusa Polymorpha from Assam were planted on approximately 16 acres of vacant arid Gram Panchayat land. With this, KVIC also created a **world record of planting the highest number of bamboo saplings** on a single day at one location.
- The initiative has been launched as part of KVIC's "Khadi Bamboo Festival" to celebrate 75 years of independence "Azadi ka Amrit Mahotsav".
- KVIC is set to replicate the Project at Village Dholera in Ahmedabad district in Gujarat and Leh-Ladakh region by August this year.

Reason for Selecting Bamboo

- It grows very fast and in about three years' time, they could be harvested.
- It is also known for conserving water and reducing evaporation of water from the land surface, which is an important feature in arid and drought-prone regions.
- It will reduce desertification and provide livelihood and multi-disciplinary rural industry support.
- It will also act as havens of sustainable development and food security.

Last Ice Area

- A part of the **Arctic's ice called "Last Ice Area"**, located north of Greenland (in the Canadian territory of Nunavut), has melted before expected.
- Researchers note that in August 2020 the area where the Last Ice Area (LIA) is located, experienced a **record low concentration of sea ice**. Significantly, they point out that sea-ice has been thinning for years, because of climate change.

What is the Last Ice Area?

- National Geographic noted that while climate projections forecast the total **disappearance of summer ice in the Arctic by the year 2040**, the only place that would be able to withstand a warming climate would be this area of ice called the "Last Ice Area".

- But while this piece of ice above northern Canada and Greenland was expected to last the longest time, it is now showing signs of melting.

Significance of Last Ice Area

- The area is important because it was thought to be able to **help ice-dependent species** as ice in the surrounding areas melted away.
- The area is **used by polar bears to hunt for seals** who use ice to build dens for their offspring. **Walrus** too, use the surface of the ice for foraging.

Reason for the change in LIA

- First sign of change in LIA was observed in 2018. Further, the sea ice showed its “vulnerability” to the long-term effects of climate change. The ice in LIA has been thinning gradually over the years much like other parts of the Arctic Ocean.
- About 80 percent of thinning can be attributed to **weather-related factors** such as winds that break up and move the ice around. The remaining 20 percent can be attributed to **longer-term thinning of the ice due to global warming**.
- The open ocean then began a cycle of absorbing heat energy which then melted more ice, in spite of the fact that there was some thick ice.

Impact of Melting Arctic Ice

- Since it is covered in white snow and ice that reflect heat back into space (Albedo effect), they balance out other parts of the world that absorb heat.
- Global average sea level has risen by about 7-8 inches since 1900, and it's getting worse. Rising seas endanger coastal cities and small island nations by exacerbating coastal flooding and storm surge.
- Polar vortexes, increased heat waves, and unpredictability of weather caused by ice loss are already causing significant damage to crops on which global food systems depends
- Permafrost in the Arctic region (ground that is permanently frozen) stores large amounts of methane, which is a greenhouse gas that contributes to climate change

Deaths Due To Exposure To Hazardous Chemicals

Deaths due to exposure to hazardous chemicals worldwide rose 29 per cent in 2019 from what they were in 2016, according to latest estimates by the World Health Organization (WHO).

Key points

- Hazardous chemicals are present in the air, in consumer products, at the workplace, in water, or in the soil. They can cause several diseases including mental, **behavioural and neurological disorders**, cataracts, or asthma.
- **Two million people died** due to exposure to hazardous chemicals in 2019, compared to 1.56 million in 2016.
- Between 4,270 and 5,400 people died every day due to **unintentional exposure to chemicals**. Children and young adults were particularly affected by unintentional poisoning from hazardous chemicals.

Need For Regulation

- The data reiterate the need for regulation and effective governance of chemicals. India too must take a note of this as the **country's national chemical policy has been pending since 2012**.
- There is a **need for a comprehensive law** in the country to regulate chemical use, production and safety.

41. "A Future for All: The Need for Human-Wildlife Coexistence" Report recently in news was released by?

- a) UNEP and WWF
b) Conservation International
c) The Natural Resources Defense Council
d) None of the above

Answer: A

Explanation:

A joint report between the United Nations Environment Programme (UNEP) and WWF titled 'A future for all - the need for human-wildlife coexistence' has been released.

Highlights Of The Report

- Globally, conflict-related killing affects more than 75% of the world's wild cat species, as well as many other terrestrial and marine carnivore species such as polar bears and Mediterranean monk seals, and large herbivores such as elephants.
- Global wildlife populations have fallen an average of 68 per cent since 1970.
- Human-wildlife conflict, in combination with other threats, has driven the significant **decline of species that were once abundant** and species that are naturally less abundant, have been pushed to the **brink of extinction**.
- Such impact was not limited to wildlife. It would also **affect humans who lived alongside wild animals**, especially in developing countries rich in biodiversity. It could cause injury, death or loss of livelihood.

Wildlife-borne Infections: Covid-19 pandemic – sparked by a zoonotic disease is driven by the close association of people, their livestock, and wildlife and by the unregulated consumption of wild animals.

India specific findings

- In India, data from the Union Ministry of Environment, Forest and Climate Change indicates that **over 500 elephants were killed between 2014-2015 and 2018-2019**, mostly due to human-elephant conflict. During the same period, **2,361 people were killed** as a result of conflict with elephants.
- In India, **35% tiger ranges currently lie outside** protected areas.
- **India will be most-affected by human-wildlife conflict**. This was because it had the **world's second-largest human population** as well as large populations of tigers, Asian elephants, one-horned rhinos, Asiatic lions and other species.
- India's elephants probably embody the problem the best. The **animals are restricted to just 3-4 percent of their original habitat**. Their remaining range is plagued by deforestation, invasive species and climate change.
- The animals are thus **pushed to find food outside of protected areas** where they clash with humans. This, in turn, causes the deaths of humans as well as loss of livelihoods for their families.

Some Initiatives

- Advisory for Management of HWC: This has been issued by the Standing Committee of National Board of Wildlife (SC-NBWL).
- Empower Gram Panchayats: The advisory envisages empowering gram panchayats in dealing with the problematic wild animals as per the Wildlife (Protection) Act, 1972.
- Utilising add-on coverage under the Pradhan Mantri Fasal Bima Yojna for crop compensation against crop damage due to HWC.

State-Specific

- In 2018, the Uttar Pradesh government had given its in-principle approval to bring man-animal conflict under listed disasters in the State Disaster Response Fund
- The Uttarakhand government (2019) carried out bio-fencing by growing various species of plants in the areas.
- The Supreme Court (2020) affirmed the right of passage of the Elephants and the closure of resorts in the Nilgiris elephant corridor.
- Odisha’s Athagarh Forest Division has started casting seed balls (or bombs) inside different reserve forest areas to enrich food stock for wild elephants

Way Forward

Completely eradicating human-wildlife conflict was not possible. But **well-planned, integrated approaches** to managing it can reduce conflicts and lead to a form of **coexistence between people and animals**.

Sonitpur Model

- The report gave the example of Sonitpur district in Assam. Here, destruction of forests had forced elephants to raid crops, in turn causing deaths of both elephants and humans.
- In response, **WWF India had developed the ‘Sonitpur Model’ during 2003-2004** by which community members were connected with the state forest department. They were given training on how to work with them to drive elephants away from crop fields safely.
- WWF India had also developed a **low-cost, single strand, non-lethal electric fence** to ease the guarding of crops from elephants.

42. Which of the following pairs are matched correctly?

Protected area	State
1. Navegaon-Nagzira Tiger Reserve	Maharashtra
2. Satkosia Tiger Reserve	Odisha
3. Tillari conservation reserve	Karnataka
4. Pilibhit Tiger Reserve	Uttar Pradesh

Select the correct answer using the codes given below

- | | |
|--|--|
| <p>a) 1, 2 and 4 only</p> <p>c) 2 and 3 only</p> | <p>b) 1 and 4 only</p> <p>d) 1, 2 and 3 only</p> |
|--|--|

Answer: A

Explanation:

Satkosia Tiger Reserve

- Albino palm civet sighted in **Odisha** after 129 years in Satkosia Tiger Reserve. The common palm civet is a small mammal belonging to the family Viverridae. It can be found in southern and southeastern Asia.
- It is both terrestrial and arboreal, and shows a nocturnal activity pattern with peaks between late evening until after midnight.

- The vegetation of Satkosia largely conforms to north Indian moist deciduous forest, northern tropical dry deciduous forest, and moist peninsular low-level Sal.

Navegaon Nagzira Reserve(NNTR)

- A melanistic leopard (commonly known as black panther) sighted in Navegaon Nagzira Reserve in **Maharashtra**.
- NNTR was notified as 46th tiger reserve of India on 12th December, 2013. It is the 5th Tiger reserve of Maharashtra.

Tillari conservation reserve

- The **world's longest venomous snake King Cobra** (*Ophiophagus hannah*) was spotted at **Tillari**, the recently declared conservation reserve in **Maharashtra**.
- King Cobras are **cold-blooded**, meaning they depend on external heat sources for thermoregulation and generally prefer warmer climates.
- It is **listed as vulnerable** due to loss of habitat and over-exploitation for medicinal purposes, according to the International Union for Conservation of Nature (IUCN) Red List.

Pilibhit Tiger Reserve

- Two people were killed by a tiger in the Pilibhit Tiger Reserve in Uttar Pradesh.
- Pilibhit Tiger Reserve was declared in September 2008 based on its special type of ecosystem with vast open spaces and sufficient feed for the elegant predators.
- It is India's **45th Tiger Reserve Project**.
- The area of Pilibhit Tiger Reserve has a dry and hot climate which brings a combination of **dry teak forest and Vindhya mountain soils**. The major forest types found here include open woodlands, grasslands and riverines covered with thorny woodlands and tall grass.
- The northern edge of the reserve lies along the **Indo-Nepal border while the southern boundary is marked by the river Sharada and Khakra**.

High-Altitude yak

- The National Research Centre on Yak (NRCY) in Arunachal Pradesh has tied up with the National Insurance Company Ltd. for insuring the high-altitude yak.
- The insurance policy will shield the yak owners against the risks posed by weather calamities, diseases, in-transit mishaps, surgical operations and strikes or riots.

About Yak

- Yak are members of the **bovine family** and are related to cows and buffalo, all of which are likely descended from aurochs, an extinct species of cattle.
- Yaks are **native to Tibet and China** but are also found in Mongolia, Nepal and Central Asia.
- They can withstand frigid temperatures that can reach as low as **-40 degrees Fahrenheit**.
- Scientists believe that **Qiang tribes people domesticated yaks at least 5,000 years ago**. Wild yaks live in herds of several hundred animals, comprised primarily of females and their young with only a few males.

- **IUCN Status:** The wild yak is currently considered to be **Vulnerable** by the IUCN. It was previously classified as Endangered, but was downlisted in 1996 based on the estimated rate of population decline and current population sizes.
- **Threats:** Habitat loss, hunting, interbreeding with domestic yak and cattle.

How Lightning Strikes, And Why It Kills

- At least 30 people were killed in separate incidents of lightning in various parts of the country.
- As a whole, India sees 2000-2500 lightning deaths every year on average. Lightning is the biggest contributor to accidental deaths due to natural causes.

What is lightning?

- Lightning is a **very rapid and massive discharge of electricity** in the atmosphere, some of which is directed towards the Earth's surface. These discharges are generated in **giant moisture-bearing clouds** that are 10-12 km tall.
- The base of these clouds typically **lies within 1-2 km of the Earth's surface**, while their top is 12-13 km away. Temperatures towards the top of these clouds are in the range of **minus 35 to minus 45 degrees Celsius**.

How does it strike?

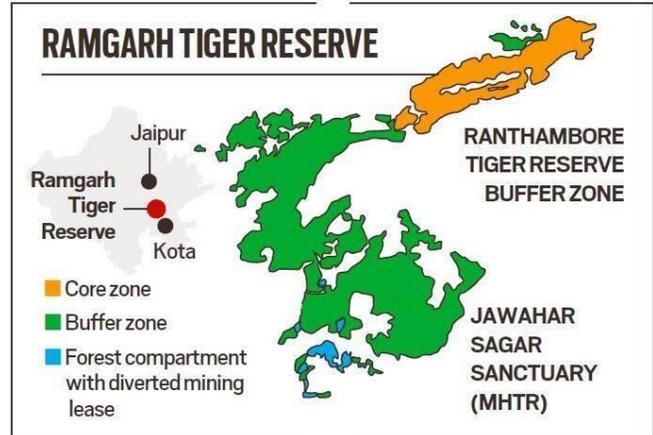
- As water vapour moves upward in the cloud, the falling temperature causes it to condense. **Heat is generated in the process**, which pushes the molecules of water further up.
- As they move to temperatures below zero degrees celsius, the water droplets change into small ice crystals. They continue to move up, gathering mass until they are so heavy that they start to fall to Earth.
- This leads to a system in which, simultaneously, **smaller ice crystals are moving up and bigger crystals are coming down**. Collisions follow, and trigger the **release of electrons** — a process that is very similar to the generation of sparks of electricity. As the moving free electrons cause more collisions and more electrons, a chain reaction ensues.
- This process results in a situation in which the **top layer of the cloud gets positively charged**, while the middle layer is negatively charged. The electrical potential difference between the two layers is huge, of the order of a billion to 10 billion volts. In very little time, a massive current, of the order of 100,000 to a million amperes, starts to flow between the layers.
- An enormous amount of heat is produced, and this **leads to the heating of the air column between the two layers of the cloud**. This heat gives the air column a reddish appearance during lightning. As the heated air column expands, it produces shock waves that result in thunder.

Reaching of Current from the cloud to Earth

- While the Earth is a good conductor of electricity, it is **electrically neutral**. However, in comparison to the middle layer of the cloud, it **becomes positively charged**.
- As a result, about **15%-20% of the current gets directed towards the Earth** as well. It is this flow of current that results in damage to life and property on Earth.
- There is a greater probability of **lightning striking tall objects** such as trees, towers or buildings. Once it is about 80-100 m from the surface, lightning tends to change course towards these taller objects.
- This happens because **air is a poor conductor of electricity**, and electrons that are travelling through air seek both a better conductor and the shortest route to the relatively positively charged Earth's surface.

Rajasthan To Develop Corridor Connecting 3 Tiger Reserves

- After the Centre’s nod for creation of the **Ramgarh Vishdhari sanctuary**, the **Rajasthan** government is hoping to develop a tiger corridor connecting three tiger reserves.
- The government will be developing a tiger corridor connecting **Ranthambore, Ramgarh Vishdhari and Mukundra**.
- Ramgarh Vishdhari Sanctuary will link Ranthambore Tiger Reserve in the Northeast & Mukundra Hills Tiger Reserve on the southern side.



What is a Tiger corridor?

- A tiger corridor is a stretch of land linking tiger habitats, allowing movement of tigers, prey and other wildlife.
- Without corridors tiger habitat can become fragmented and tiger populations isolated leaving the tigers vulnerable to localised extinction.

Post-2020 Global Biodiversity Framework

The fifth and the final session of the third ASEAN (Association of Southeast Asian Nations) Conference on Biodiversity focused on the theme ‘Towards 2050: Living in Harmony with Nature’ has been held recently.

Highlights

- **Post-2020 Global Biodiversity Framework** aims to galvanise transformative action by governments, including indigenous peoples and local communities, civil society and businesses, to achieve the outcomes that contribute to the objectives of the Convention on Biological Diversity and other biodiversity-related multilateral agreements.
- Developing countries will **need resources for proper implementation of the Post-2020 Global Biodiversity Framework**, which will include financial support and technology transfer.
- The annual biodiversity **financing gap amounts to \$316 billion**. Insufficient finances for managing and conserving the region’s protected areas, especially the **Asean Heritage Parks (AHP)**, was recently acknowledged by the ASEAN Centre on Biodiversity (ACB).

AHPs have been identified as the **best protected areas in the ASEAN region** in terms of ecological completeness, biodiversity richness and conservation.

- There is credible scientific evidence to indicate the **linkages between climate change and loss of biodiversity**, which are interlinked and cannot be addressed in silos.
- All concerned countries need to support the global **“30 x 30” target of protecting 30 percent of the Earth’s land and water by 2030**.

Significance

- The post 2020 global biodiversity framework is important because the **United Nations Decade on Biodiversity 2011-2020 has ended**. This is a stepping stone towards the 2050 Vision of “Living in harmony with nature”.

Explanation:

- India's first cryptogamic garden housing nearly 50 species of lichens, ferns and fungi was inaugurated in **Uttarakhand's Dehradun district**. Plant kingdom can be divided into two sub-kingdoms viz. Cryptogams and phanerogams
- Phanerogams are further divided into two classes i.e. gymnosperms and angiosperms.
- Cryptogamae means "hidden reproduction" referring to the fact that **no seed, no flowers are produced**. Thus, cryptogams represent the **non-seed bearing plants**. Cryptogams are one of the oldest groups of plant species, **existing since the Jurassic era**.
- **Algae, bryophytes (moss, liverworts), lichens, ferns and fungi** are the best-known groups of cryptogams that require moist conditions to survive.
 - **Algae** comprises the most primitive organisms which are predominantly aquatic, both in marine as well as freshwater habitats.
 - **Bryophytes** are the simplest and primitive land plants that occupy an intermediate position between algae and pteridophytes.
 - **Lichens** are a complex life form that is a symbiotic partnership of two separate organisms, a fungus and an algae.
 - **Ferns** are the largest living group of primitive vascular plants while fungi is a kingdom of usually multicellular eukaryotic organisms that are heterotrophs.
- Around 50 species have been grown in the garden at a commanding height of 9,000 ft at Deoban in Chakrata. This site is chosen because of its low pollution levels and moist conditions which are conducive for the growth of these species. Further, Deoban has pristine majestic forests of Deodar and Oak which create a natural habitat for cryptogamic species.

Importance of Cryptogams

- The cryptogamic organisms play a vital role in the ecosystem. **Algae** are excellent at **cleaning the environment**. They are **healthy sources of carbohydrates, fats, proteins, and vitamins**. It is used as a **food ingredient** in several countries like China, Japan, Norway, Scotland, etc. Further, it can also be used as a **liquid fertilizer** which helps in repairing nitrogen levels in the soil.
- **Bryophytes** (mosses, liverworts) too, like algae, clean the environment. This cryptogamic species **monitors air pollution, prevents soil erosion, and helps in soil formation** over the bare rocky surface. Mosses have a **high water retention capacity**, which makes them suitable for the **transportation and packaging of plants**. Mosses are also **indicators of mineral deposits**.
- **Ferns**, a unique group of plants, are grown as **ornamental plants**. They are **indicators of the moisture regime of the area**. Similarly, **lichens** are not only pollution monitors but are also important due to their **nutritional values**. They are a source of nutrition for snails, termites, caterpillars, slugs, etc. *Cladonia rangiferina* (Reindeer moss) is the main food for reindeers (a kind of deer) in polar countries.
- Moreover, lichens are very useful to people in diverse cultures, especially as a source of **drugs, medicines, perfumery, foodstuff, dyes**, bio-monitoring, and other useful compounds. Eg, lichens have been used as **coloring agents in leather industry**, in the cosmetic industry for making items like perfumes, incense, etc.
- **Fungi** are essential to many household and industrial processes. They are used for making **bread, wine, beer, and certain cheeses**. Mushrooms, a type of fungi, are low in calories and sodium, fat-free, cholesterol-free, are nutritious for the body. Humans and animals both feed on them.

What is GEP?

- GEP is the **measure of ecosystem services of any area**. The GEP will assign monetary value to its critical natural resources. The quality and quantity of these natural resources would determine the GEP of the state which would be used in evaluating the state's Gross Domestic Product (GDP).
- The **four major categories** of ecosystem services are: provisioning, regulating, cultural and supporting services.
- **A provisioning service:** It is any type of benefit to people that can be extracted from nature. Along with food, other types of provisioning services include drinking water, timber, wood fuel, natural gas, oils, plants etc.
- **A regulating service:** It is the benefit provided by ecosystem processes that moderate natural phenomena. Regulating services include pollination, decomposition, water purification, erosion and flood control, and carbon storage and climate regulation.
- **A cultural service:** It is a non-material benefit that contributes to the development and cultural advancement of people, including how ecosystems play a role in local, national, and global cultures; the building of knowledge and the spreading of ideas etc.
- **Supporting Services:** Ecosystems themselves couldn't be sustained without the consistency of underlying natural processes, such as photosynthesis, nutrient cycling, the creation of soils, and the water cycle. These processes allow the Earth to sustain basic life forms, let alone whole ecosystems and people. Without supporting services, provisional, regulating, and cultural services wouldn't exist.

Need

- Uttarakhand, through its biodiversity, gives services to the tune of Rs 95,112 crore per year to the nation. The state has over 71% area under forests.
- It is also home to the Himalayas and also is the origin point of rivers like Ganga, Yamuna and Sharada as well as home to wildlife reserves like Corbett and Rajaji Tiger Reserves.

Issues

- It may confuse policy makers and negate the past efforts.
- Is it an attempt to claim a budget from the centre against ecosystem services the state provides to the rest of the country and / or a process of providing benefits to its own residents.

Benefits of GEP

- This is expected that GEP will be helpful to **boost economic growth** along with funds to keep ecosystem services at its optimum.
- GEP will act as a **balance between ecology and economy**.
- The implementation of the concept and calculation of the GEP will let us understand the impact of anthropological pressure on our ecosystem and natural resources- air, water, soil, forests.
- This will enable us to make policies which will allow sustainable development.

Global Tiger Day 2021

- Global Tiger Day is celebrated every year on July 29th as a way to raise awareness about this magnificent but endangered big cat.
- The day was **founded in 2010**, when the 13 tiger range countries came together to create **Tx2 – the global goal to double the number of wild tigers** by the year 2022.

- India, where most wild tigers live, has recorded a rise in numbers and is celebrating the approval of 14 sites under the **Conservation Assured Tiger Standards (CA|TS)** scheme.

Conservation Assured | Tiger Standards (CA|TS) Framework

- CA|TS is a conservation tool that **sets best practice and standards to manage target species**, and encourages assessments to benchmark progress. **Tigers are the first species selected for the initiative.**
- Launched in 2013, the tool was developed in collaboration with field managers, tiger experts and government agencies engaged in tiger conservation.
- CA|TS is a **partnership of tiger range governments, inter-governmental agencies, institutions, NGOs and conservation organizations** and is also being adopted for use beyond tigers, including potentially jaguars, lions, and freshwater dolphins.
- There are currently more than 100 sites registered with CA|TS globally, covering more than 70% of the global tiger population.

Facts about Tiger

- Tigers are the **largest wild cats** in the world.
- **India is the country with the largest number of wild tigers.** Around 3,000 of the world's wild tigers are in India.
- **No two tigers have the same stripes.** Since every tiger has their own pattern on their fur, they are all unique.
- Today, there are five subspecies of tiger. These subspecies are the **Bengal tiger, South China tiger, Indochinese tiger, Sumatran tiger and Amur tiger.** Three subspecies of tiger have become extinct – the **Caspian, Bali and Javan.**

Cloudbursts

Recently, cloudbursts have been reported from several places in J&K, Union Territory of Ladakh, Uttarakhand and Himachal Pradesh.

What is a cloudburst?

- Cloudbursts are **short-duration, intense rainfall events over a small area.**
- According to the India Meteorological Department (IMD), it is a weather phenomenon with **unexpected precipitation exceeding 100mm/h over a geographical region** of approximately 20-30 square km.
- A study published last year studied the meteorological factors behind the cloudburst over the Kedarnath region. The results showed that during the cloudburst, the relative **humidity and cloud cover was at the maximum level** with low temperature and slow winds.
- It is expected that because of this situation a high amount of clouds may get condensed at a very rapid rate and result in a cloudburst.

Why And How Does It Happen?

- Cloudbursts occur because the warm air current from the ground or below the clouds rushes up and carries the falling raindrops up with it.
- The rain fails to fall down in a steady shower and this results in **excessive condensation in the clouds as new drops** form and old drops are pushed back into it by the updraft.

- Then one of them gives in. The air current slows down or the clouds can't hold. The resulting violent **downpour can dump as much as 70,000 tonnes of water** over an acre of land.
- In India, a **cloudburst mostly occurs in the mountains of India** where the low monsoon clouds are stopped by the high mountains. But it may happen elsewhere.

Climate change and Cloudbursts

- Several studies have shown that **climate change will increase the frequency and intensity of cloudbursts** in many cities across the globe.
- In May, the World Meteorological Organization noted that there is about a 40% chance of the annual average global temperature temporarily reaching 1.5°C above the pre-industrial level in at least one of the next five years.
- It added that there is a 90% likelihood of at least one year between 2021 and 2025 becoming the warmest on record and dislodge 2016 from the top rank.
- As **temperatures increase the atmosphere can hold more and more moisture** and this moisture comes down as a short very intense rainfall for a short duration probably half an hour or one hour resulting in flash floods in the mountainous areas and urban floods in the cities.
- Also, there is evidence suggesting that globally short duration rainfall extremes are going to become more intense and frequent.

Forest Land In The Country

Minister for Environment, Forests and Climate Change informed Rajya Sabha that the recorded forest area in the country is **7,67,419 sq km**, as surveyed by the **India State of Forest Report, 2019**.

Key points

- Of the recorded forest area in the country, 4,34,853 sq km fall under the Reserved Forests category, 2,18,924 sq km under the Protected Forests category, and 1,13,642 sq km are of unclassified forests.
- **The word 'forest' is not defined in any Central Forest Act**, namely the Indian Forest Act (1927) or the Forest Conservation Act (1980). The Central government has not laid down any criterion to define forest.
- The archaic Indian Forest Act (IFA), 1927 aimed to regulate the movement of forest produce, and duty leviable forest produce. It also explains the procedure to be followed for declaring an area as Reserved Forest, Protected Forest or a Village Forest. It gives details of forest offences', acts prohibited inside a Reserved Forest, and penalties leviable on violation of the provisions of the Act.
- A lot of confusion exists therefore, on which land is forest and over the years this has **impacted forest dependent people's rights** as well.
- The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, or Forest Rights Act (FRA), 2006 was enacted to protect the marginal and tribal communities and other forest dwellers and balance environmental conservation with their right to life and livelihood.
- **Rights such as that of grazing of animals are often not recorded**, and the local community does **not need to be consulted** if the land were to be reclassified as 'forest' and diverted by the forest department. This often leads to disputes between local communities and governments.
- Incidentally, the MoEF in June 2021 had signed a joint communication with the Ministry of Tribal Affairs for the **proper implementation of the Forest Rights Act, 2006** to ensure the grant and protection of rights of tribal people in the country.

- As per the **Wasteland Atlas, 2019**, published by the **Ministry of Rural Development**, the total wasteland in the country is 5,57,665.51 sq km.
- **Wasteland** is defined not as desertified land, but land that is not **used for agriculture, commercial use or as forest land**. For instance, it could use grasslands that are used by communities for grazing.

Dispute over forest Areas

- Despite Community Forest Resource (CFR) having been recognized, there have been few efforts from the state forest departments to move towards recognizing CFRs.
- Several people have been denied rights and are relocated without prior assessment whether co-existence is possible and exercising forest rights would lead to irreversible damage to the habitat/species.
- Lack of demographic details of tribal population dwelling in the reserved and protected forests in different States and Union Territories is compounded by stark mismatches between state and central data.
- The disputes regarding forest lands are **variable in nature and keep changing** depending upon the pace of settlement process, recording of new disputes, demarcation on case to case basis etc by the respective State/UT authorities as per due process of law applicable to the area.
- The ministry has so far **not quantified the forest area that has been under dispute**.
- Most of the disputes over forest areas in the country arise from the **contradictions in the legal status of the land** versus its actual use and status on the ground. So on one hand is land that is **demarcated as forests under the Indian Forest Act, 1927** by the Forest Department whereas on other hand this kind of land **may or may not actually have a forest standing on it**.
- The Supreme Court in the **Godhvarman case post 1996** ordered for bringing under purview of the **Forest Conservation Act 1980** those forests which fall under the dictionary meaning of 'forests' irrespective of the legal category.
- They had also instructed the Environment Ministry to clarify the definition and the categories, including which are deemed forests, which the Ministry has so far not done.

Amazon Forests Are No Longer Acting As A Carbon Sink

- The Amazon forests in South America, which are the **largest tropical forests in the world**, have started emitting carbon dioxide (CO₂) instead of absorbing carbon emissions.
- **A carbon sink** is anything that absorbs more carbon from the atmosphere than it releases – for example, plants, the ocean and soil. In contrast, a carbon source is anything that releases more carbon into the atmosphere than it absorbs – for example, the burning of fossil fuels or volcanic eruptions.
- A significant amount of **deforestation in eastern and southeastern Brazil** has turned the forest into a source of CO₂ that has the ability to warm the planet.
- Not only the Amazon rainforests, some forests in Southeast Asia have also turned into carbon sources in the last few years as a result of formation of plantations and fires.

The Significance of Amazon basin

- The Amazon basin is huge with an area covering over 6 million square kilometres, it is nearly **twice the size of India**.

- The Amazon rainforests cover about 80 per cent of the basin and as per NASA's Earth observatory, they are **home to nearly a fifth of the world's land species** and is also home to about **30 million people** including hundreds of indigenous groups and several isolated tribes.
- Other than this, the basin produces about 20 per cent of the world's flow of freshwater into the oceans.

Challenges:

- **Forest fires**, according to Brazil's National Institute for Space Research (INPE), have **doubled since 2013**. One reason that they happen is when farmers burn their land to clear it for the next crop.
- NASA's Earth Observatory notes that state policies that encourage **economic development**, such as railway and road expansion projects have led to "**unintentional deforestation**" in the Amazon and Central America.

Why are Amazon forests no longer carbon sinks?

- Over the years as **fossil-fuel emissions across the world have increased**, the Amazon forests have **absorbed CO2 from the atmosphere**, helping to moderate the global climate.
- In the southeast region, which forms about 20 per cent of the Amazon basin and has experienced about **30 per cent of the deforestation in the last four decades**, scientists have recorded a **25 per cent reduction in precipitation and a temperature increase of at least 1.5 degrees Celsius** during the dry months of August, September and October.
- Because of these reasons the eastern Amazon forests are no longer carbon sinks, whereas the more intact and wetter forests in the central and western parts are **neither carbon sinks nor are they emitters**.
- This means that if the ability of tropical forests to act as carbon sinks is to be maintained, **fossil fuel emissions need to be reduced** and temperature increases need to be limited as well.

Landslide in Himachal Pradesh

- Nine dead and three injured in landslide in Himachal Pradesh's Kinnaur.

What is a landslide?

- A landslide is defined as the movement of a mass of rock, debris(mudslide), or earth down a slope.
- Landslides are a type of "mass wasting," which denotes any **down-slope movement of soil and rock under the direct influence of gravity**.
- The term "landslide" encompasses **five modes of slope movement**: falls, topples, slides, spreads, and flows. These are further subdivided by the **type of geologic material** (bedrock, debris, or earth).

What causes a landslide?

- Slope movement occurs when forces acting down-slope (mainly due to gravity) **exceed the strength of the earth materials** that compose the slope.
- Causes include factors that **increase the effects of down-slope forces** and factors that contribute to low or reduced strength.
- Landslides caused by rainfall, snowmelt, changes in water level, stream erosion, changes in ground water, earthquakes, volcanic activity, disturbance by human activities, or any combination of these factors.
- Earthquake shaking and other factors can also induce landslides underwater. These landslides are called **submarine landslides**. Submarine landslides sometimes cause tsunamis that damage coastal areas.

Landslide mitigation and prevention

- Hazards are mitigated mainly through precautionary means—for instance,
 1. **By restricting or even removing populations** from areas with a history of landslides.
 2. **By restricting certain types of land use** where slope stability is in question.
 3. **By installing early warning systems** based on the monitoring of ground conditions such as strain in rocks and soils, slope displacement, and groundwater levels.
- There are also various **direct methods of preventing landslides**; these include
 1. **Modifying slope geometry.**
 2. **Using chemical agents** to reinforce slope material.
 3. **Installing structures** such as piles and retaining walls, grouting rock joints and fissures.
 4. **Diverting debris pathways**, and rerouting surface and underwater drainage.
- Such direct methods are constrained by cost, landslide magnitude and frequency, and the size of human settlements at risk.

G20 Climate and Energy Ministerial meeting

The G20 Ministers in charge of Energy and Climate met in Naples on July 23rd, 2021.

Highlights

- It adopted for the first time a joint final communiqué, which gives momentum to the common mission of the G20 Countries to **preserve the global climate and ensure a clean and inclusive energy transition.**
- For the first time the G20 recognised the fact that the impacts of climate change will be much lower in the context of a global temperature rise not exceeding 1.5° C than in that of a 2° C increase, as affirmed in the **“Global Warming of 1.5° C” IPCC Special Report”.**
- The Members of the G20 decided to accelerate **action to keep this 1.5° C limit on the rise of global temperatures** within reach during the critical decade of the 2020s.
- **Smart, resilient and sustainable cities** have been pinpointed as pivotal in achieving national climate targets and developing effective strategies.

India’s commitments

- India would focus on implementing its **“ambitious plans”** through concrete actions domestically as well as globally via collaborations such as the International Solar Alliance and the Coalition of Disaster Resilient Infrastructure.
- India stressed that **common but differentiated responsibilities** to combat climate change, “as per respective capabilities and national circumstances” were at the heart of the United Nations Framework Convention on Climate Change, and the Paris Agreement.
- India had exhibited exemplary resolve by achieving its **pre-2020 voluntary commitment of reducing emission intensity.**
- India’s commitments include **establishing a 450 GW (giga watt) of renewable energy** by 2030, enhanced ambition in bio-fuels, **India’s NDCs** (nationally determined contributions), and initiatives taken on **Urban Climate Action.**

Climate Change Sees Swiss Alps Add Over 1,000 Lakes

Climate change has dramatically **altered the Swiss Alp landscape** at a quicker pace than expected as **melting glaciers have created more than 1,000 new lakes** across in the mountains, according to a study published by the Swiss Federal Institute of Aquatic Science and Technology (Eawag).

Highlights of the study

- The inventory of Swiss Glacial lakes showed that **almost 1,200 new lakes have formed in formerly glaciated regions** of the Swiss Alps since the **end of the Little Ice Age around 1850**.
- The "marked acceleration in formation" was also surprising, pointing out that **18 per year on average have been added in the last decade alone**".
- Glaciers in the Swiss Alps are in steady decline, losing a full two percent of their volume last year alone.
- And even if the world were to fully implement the 2015 Paris Agreement which calls for capping global warming at at least two degrees Celsius **two-thirds of the Alpine glaciers will likely be lost**.
- There was an initial peak in glacial lake formation in the Swiss Alps between 1946 and 1973, when nearly eight new lakes appeared on average each year.