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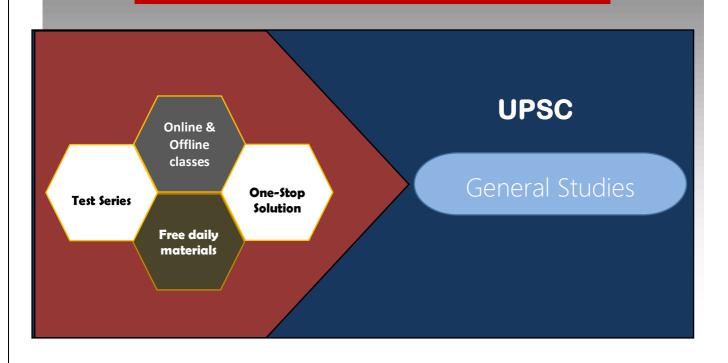
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GS 2 : Polity, Governance, International Relations

1. Legislators indulging in vandalism cannot claim immunity: SC

The Supreme Court held that **legislators who indulge in vandalism** cannot claim parliamentary privilege and immunity from criminal prosecution.

Background:

- The SC **dismissed the appeals** by Kerala government to **withdraw criminal case** against the leaders who **destroyed public property** and disrupted a Budget speech on the State Assembly floor in 2015.

Observation by the Supreme Court:

- Parliamentary privileges and immunities are **not 'gateways'** for legislators to claim exception 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.
- Engaging in **acts of violence** inside the Assembly could hardly be in the "larger public interest" and cannot be considered as "legitimate" protests.

Parliamentary Privilege:

- Parliamentary privileges are **special rights**, **immunities and exemptions** enjoyed by the two Houses of Parliament, their committees and their members.
- **Rationale:** To secure the independence and effectiveness of their actions and protect the members from any obstruction in the discharge of their parliamentary responsibilities.
- The parliamentary privileges are also extended to **persons who are entitled to speak** and **take part** in the proceedings of a House of Parliament or any of its committees.
  - These include the attorney general of India and Union ministers.

- Parliamentary privileges **do not extend to the President of India** who is also an integral part of the Parliament.

Classification of Parliamentary privileges:

- They can be classified into two broad categories:
  - **Collective privilege**: Enjoyed by each House of Parliament collectively.
  - **Individual privilege**: Enjoyed by the members individually.

Collective Privileges:

- Parliament has the **right to publish** its reports, debates and proceedings and also the **right to prohibit others** from publishing the same.
- It can **exclude strangers** from its proceedings and **hold secret sittings** to discuss some important matters.
- It can **make rules to regulate its own procedure** and the conduct of its business and to adjudicate upon such matters.
- It can **punish members** as well as outsiders for breach of its privileges or its contempt by reprimand, admonition or imprisonment (also suspension or expulsion, in case of members).
- It has the **right to receive immediate information** of the arrest, detention, conviction, imprisonment and release of a member.
- The **courts are prohibited** to inquire into the proceedings of a House or its committees.
- No person (either a member or outsider) can be arrested, and no legal process (civil or criminal) can be served **within the precincts of the House** without the permission of the presiding officer.

Individual Privileges:

- They cannot be arrested **during the session of Parliament** and 40 days before the beginning and 40 days after the end of a session.
  - This privilege is **available only in civil cases** and not in criminal cases or preventive detention cases.
- They have **freedom of speech** in Parliament. No member is liable to any proceedings in any court for anything said or any vote given by him in Parliament or its committees.
- They are **exempted from jury service**. They can refuse to give evidence and appear as a witness in a case pending in a court when Parliament is in session.

2. 391 complaints of sexual harassment, says Centre

She-Box portal:

- She-Box is an initiative of the Government of India to provide **a single window access** to every woman, to facilitate the registration of **complaints related to sexual harassment at the workplace.**
- It would enable effective implementation of the **Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.**
- It was launched in 2017.
- The portal could be used by any woman irrespective of her work status, whether working in the **organised or unorganised, private or public sector**.

Context:

- As per the government's statement in the parliament, a total of 391 complaints have been filed by employees of Central government Ministries about sexual harassment at the workplace.

3.Intranasal Vaccine

In news: In another two to two-and-a-half months, Bharat Biotech is going to have significant data on its intranasal COVID-19 vaccine whose clinical trials are under way.

- New vaccine being developed by Hyderabad based Bharat Biotech is **BBV154 – A novel adenovirus vectored,** intranasal vaccine for COVID-19
- Intranasal vaccine is a vaccine **administered to a person via the nose** and does not require a needle.

What are the benefits of intranasal vaccine?

- It promises to be more effective, since it is expected to generate immune responses at the site of infection (respiratory mucosa)
- Non-invasive, Needle-free.
- Ease of administration – does not require trained health care workers.
- Elimination of needle-associated risks (injuries and infections).
- High compliance (Ideally suits for children's and adults).
- Scalable manufacturing – able to meet global demand. It can produce 100 million doses a month.

4.Rajinder Sachar Committee

- The Sachar Committee was **a seven-member High Level Committee in India**.
- It was **established in March 2005 by then Prime Minister Manmohan Singh.**

- The committee was headed by **former Chief Justice of Delhi High Court Rajinder Sachar** to study the **social, economic and educational condition of Muslims in India**.
- The committee **submitted its report in 2006** and the report was available in public domain in 30 November 2006.
- The report had **suggestions and solutions for the inclusive development** of the Muslims in India.
- The committee estimated that the **Muslim proportion will stabilize at between 17% and 21% of the Indian population by 2100.**
- The report was the first of its kind to **reveal the "backwardness"** (a term used in Indian academic and legal discourse for historically dispossessed or economically vulnerable communities, not meant to be pejorative) **of Indian Muslims**.

Why in news?

A petition filed in the Supreme Court has accused **former Prime Minister Manmohan Singh of acting on a "whim" and setting up the Justice Rajinder Sachar Committee** over 15 years ago to inquire into the social, economic and educational status of the Muslim community.

5. Shared values

Context:

- U.S. Secretary of State Antony Blinken's visit to New Delhi.

Details:

- The visit marks the third such visit by a senior U.S. official of the Biden administration to India.
- Focus areas of the talks **included Quad cooperation in the Indo-Pacific and the evolving situation in Afghanistan.**

Convergence of views:

- With respect to the Quad cooperation, there seems to be full convergence of views between the two countries. While **India's participation in the Quad will allow it to balance the increasing assertiveness of China along its northern borders,** the U.S.'s participation will give it an opportunity to counter China's increasing challenge to its global dominance.
- Even on the Afghanistan question, there seem to be more convergences than divergences on the common positions of the two countries. **Both India and the U.S. have maintained that there can be no military solution to the**

ongoing conflict in Afghanistan and have called for a negotiated political settlement. Both countries have reiterated that neither would recognise a Taliban regime that takes Kabul by force.

Divergence of views:

- There are a few differences between India and the U.S. when it comes to the Afghan question:
    - The U.S. withdrawal from Afghanistan will mean a less secure region for India to contend with.
    - **India has always supported an Afghan-led, Afghan-owned and Afghan controlled solution to the crisis in Afghanistan** and has stood in support of the elected government in Afghanistan and has been averse to engaging the Taliban. On the contrary, the **U.S. continues to engage the Taliban** in talks for a power-sharing arrangement, despite the continuing violence.
    - Perhaps the greatest worry for India is the **U.S.'s refusal to hold Pakistan to account for having given shelter to the Taliban.**
- While both countries have maintained that democratic freedoms were "shared values", the differing perception of the issue can grow to become a major irritant in the bilateral relations. Mr. Blinken's "civil society roundtable" wherein internal Indian issues such as minority rights, religious freedoms and curbs on the media and dissent were discussed has not gone down well with the Indian administration. India has rebutted the U.S. perception on the issue.

Conclusion:

- There is a list of substantive meetings scheduled between the two countries later in the year including the **U.S.-India "2+2" of Foreign and Defence Ministers**, the Quad summit of its leaders, and a bilateral meeting between the Indian Prime Minister and U.S. President.
- While India and the U.S. have a lot in common, it is the differences that need attention.
- The addressing of these differences will only further help strengthen **the "Comprehensive Global Strategic Partnership" between the world's oldest and most populous democracies**.

GS 3 : Economy, Science and Technology,Environment

6.The epoch of cyberweapons

Context

The controversy over the use of Pegasus spyware for snooping highlights the threats posed by cyber-weapons.

The emergence of cyber weapons epoch

- Cyberattacks on institutions such as banks and on critical infrastructure have proliferated to an alarming extent, signalling the emergence of the cyber weapon epoch.
- **Privacy has been eroded** and the Internet has become a **powerful weapon** in the hands of those seeking to exploit its various facets.
- **Fith dimension of warfare:** Cyber is often touted as the fifth dimension of warfare — in addition to land, sea, air and space.

The domain of everyday life

- Cyber, as the **domain of military and national security,** also co-exists with **cyber as a domain of everyday life.**
- The war is no longer out there.
- It is now directly inside one's drawing-room, with cyberweapons becoming the weapon of choice.
- Israelis today dominate the cyber domain along with the Chinese, Russians, Koreans and, of course, the Americans.
- The linkage between **sabotage and intrusive surveillance** is but a short step.

Cyberattacks during the past decades

- Beginning with the 2007 devastating cyberattack on Estonia's critical infrastructure, this was followed by the **Stuxnet worm attack** a few years later on **Iran's nuclear facility.**
- The Shamoon virus attack on Saudi Aramco occurred in 2012.
- In 2016, a cyberattack occurred on Ukraine's State power grid; in 2017 there was a Ransomware attack **(NotPetya) which affected machines in as many as 64 countries.**
- United Kingdom's National Health Service fell prey to **Wannacry** attack the same year/

- The series of attacks happened this year on Ireland's Health Care System and in the United States such as 'SolarWinds', the cyber attack on Colonial Pipeline and JBS, etc.

What are the threats posed by cyberattacks?

- Cyberweapons carry untold capacity to **distort systems and structures** — civilian or military.
- Cyberweapons also interfere with **democratic processes**, aggravate domestic divisions and, above all, unleash forces over which established institutions or even governments have little control.
- As more and more devices are **connected to networks,** the cyber threat is only bound to intensify, both in the short and the medium term.
- What is especially terrifying is that instruments of everyday use can be **infected or infiltrated without any direct involvement of the target.**
- The possibilities for misuse are immense and involve far graver consequences to **an individual, an establishment, or the nation.**
- It is not difficult to envisage that from wholesale espionage, this would become something far more sinister **such as sabotage.**

Way forward

- **Deeper understanding:** Dealing with **'zero day' vulnerabilities** require far more thought and introspection than merely creating special firewalls or special phones that are 'detached' from the Internet.
- **Recognising the mindset:** What is needed is a deeper understanding of not only cyber technologies, but also **recognising the mindsets** of those who employ spyware of the Pegasus variety, and those at the helm of companies such as the NSO.
- Short-term remedies are **unlikely to achieve desired results.**
- **No use of AI: Artificial Intelligence (AI)** is often seen as a kind of panacea for many of the current problems and ills, but all advances in technology tend to be a double-edged sword.
- If truth be told, AI could in turn make all information warfare — including cyber related — **almost impossible to detect, deflect or prevent**, at least at the current stage of development of AI tools.

Conclusion

All this suggests that security in the era of ever-expanding cyberweapons could become an ever-receding horizon.

7.Geo-imaging satellite EOS-03

Geo-imaging satellite for earth observation EOS-03, which would enable near real-time monitoring of natural disasters like floods and cyclones, is scheduled for launch in the third quarter of 2021.

EOS-03

- ISRO has realized a geo-imaging satellite, "EOS-03", for Earth Observation from Geostationary Orbit.
- EOS-03 is capable of imaging the whole country four-five times daily and would enable near real-time monitoring of natural disasters like floods and cyclones.
- In addition to natural disasters, EOS-03 would also enable monitoring of water bodies, crops, vegetation condition, forest cover changes.

Other developments: Small Satellite Launch Vehicle (SSLV)

- The first developmental flight of the Small Satellite Launch Vehicle (SSLV) is scheduled for the fourth quarter of 2021 from the Satish Dhawan Space Centre, Sriharikota.
- The SSLV is a cost-effective, three-stage and all-solid launch vehicle with a payload capability of 500 kg to 500 km planar orbit or 300 kg to Sun-Synchronous Polar Orbit.
- It is ideal for the on-demand, quick turn-around launch of small satellites.
- The major technologies developed as part of SSLV are flexible nozzle control with electro-mechanical actuators for all stages, miniaturized avionics, and a velocity trimming module in the upper stage for precise satellite injection.

8.AERA Amendment Bill, 2021

Why in News

Recently, the Lok Sabha passed the **Airports Economic Regulatory Authority of India (AERA) Amendment Bill, 2021.**

- It was **first introduced in March 2021** and subsequently referred to a **parliamentary standing committee on transport, tourism and culture,** which approved it without any changes.
- It seeks to amend the **Airports Economic Regulatory Authority of India Act, 2008.**

Key Points

- **Major Provisions:**
  - **Definition:**
    - It proposes to **amend the definition of major airport** to include a group of airports.
      - The 2008 Act designates an airport as a **major airport if it has an annual passenger traffic of at least 35 lakh.**
      - The central government **may also designate any airport as a major airport by a notification.**
  - **Tariff:**
    - It will allow AERA to **regulate tariff and other charges for aeronautical services** for not just major airports with annual passenger traffic of more than 35 lakh, but also a group of airports.
  - **Profitable Clubbing:**
    - The government will be **able to club profitable and non-profitable airports** as a combination/package to bidders to make it a viable combination for investment under **PPP (Public-Private Partnership)** mode.
- **Significance:**
  - It will **help in expanding the air connectivity** to relatively remote areas and as a result, expediting the **UDAN regional connectivity scheme.**
  - It will **encourage development of smaller airports.**
- **Concern:**
  - Lack of clarity in the bill on the **criterion for deciding which airports will be clubbed together** to qualify under 'a group of airports' definition, whether it will be the passenger traffic of more than 3.5 million or some other factors too.

Airports Economic Regulatory Authority of India

- **Background:**
  - Initially, the **Airports Authority of India (AAI) was running and managing the airports.** After some time, a change was made in the civil aviation policy as some private players were also given airports to run. The reason behind this was to provide consumers with great services.
  - Typically, **airports run the risk of becoming a monopoly because cities usually have one civilian airport** which controls all aeronautical services in that area.
  - To **ensure that private airport operators do not misuse their monopoly, the need for an independent tariff regulator** in the airport sector was felt.

- **About:**
  o The Airports Economic Regulatory Authority of India Act, 2008 (AERA Act) was passed which set up the AERA as a **statutory body.**
  o It was set up, keeping in mind that the **country needs to have an independent regulator** who has transparent rules and can take care of the interests of the service providers as well as that of the consumers.
- **Functions:**
  o The AERA **regulates tariffs and other charges** (development fee and passenger service fee) **for aeronautical services** (air traffic management, landing and parking of aircraft, ground handling services) at major airports.

THE INDIAN EXPRESS

GS 2 : Polity, Governance, International Relations

<mark>**1.New Initiatives for Education Sector**</mark>

Why in News

Recently, the Prime Minister launched **multiple initiatives in the education sector** at a conference, to mark the completion of one year of reforms under the **National Education Policy 2020** which aims at making **India a global knowledge superpower.**

- The Prime Minister also noted the role played by portals like **Digital Infrastructure for Knowledge Sharing (DIKSHA)** and **Study Webs of Active Learning for Young Aspiring Minds (SWAYAM)** in online education during the **pandemic.**

Key Points

- **Academic Bank of Credit:**
  - It is **envisaged as a digital bank** that holds the **credit earned by a student** in any course. It is **a major instrument for facilitating multidisciplinary and holistic education.** It will provide **multiple entry and exit options** for students in **Higher education.**
  - It will make the youth **future-oriented and open the way for an Artificial Intelligence (AI) -driven economy.**
- **Engineering in Regional Languages:**
  - 14 engineering colleges in **eight States** are going to start engineering studies in five Indian languages: **Hindi, Tamil, Telugu, Marathi and Bangla.**
    - This emphasis on mother tongue as the medium of instruction will **instil confidence in the students from poor, rural and tribal backgrounds.**
    - In a recent survey, the **All India Council of Technical Education (AICTE)** discovered that **42% of the students surveyed nationally, favoured pursuing Engineering in regional languages.**
  - The **AICTE** is creating a **database of resources to allow colleges to offer more programmes in regional languages** and developed a tool to translate engineering content into **11 languages.**

- **Vidya Pravesh & SAFAL:**
  - o Vidya Pravesh, a **three month play based school preparation module for Grade 1** students will be released along with **SAFAL** (Structured Assessment For Analyzing Learning Levels), **a competency based assessment framework for Grades 3, 5 and 8 in CBSE schools.**
- **National Digital Education Architecture (NDEAR):**
  - o It will help in **building up a new education ecosystem that will create a digital foundation leading to self-governance** of all parties involved, particularly states and the Centre.
  - o It lets **educationists do evaluation based on talents and abilities,** helping students understand their area of specialties that can be utilised in their future profession.
- **National Education Technology Forum (NETF):**
  - o 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 grassroot education level.
    - Schools will be required to **have skilled professionals.** In addition, **schools will have to hire qualified candidates** to teach emerging technological skills to students.
  - o Once the forum is set up, **school-wise information will be sought on how technology is being used** for imparting academic content and what steps are being taken to enhance research.
  - o It will be **funded by the government** but at a later stage, **private funding and support from industry bodies would be invited.**
- **NISHTHA 2.0:**
  - o It will provide **training to teachers as per their needs** and they will be able to give their suggestions to the department. It will have **68 modules including 12 generic and 56 subject-specific modules** and will cover around **10 lakh teachers.**
    - **NISHTHA** is the largest teachers' training programme, first of its kind in the world to motivate and equip teachers to encourage and foster critical thinking in students.
- **Sign Language as a Subject:**
  - o Indian sign language, **for the first time, has been accorded the status of language subject.** Students will be able to study it as a language also.
  - o There are more than 3 lakh students who need sign language for their education. This will give a boost to Indian sign language and will help the **divyang people.**

Related Previous Initiatives

- **National Programme on Technology Enhanced Learning.**
- **Rashtriya Ucchatar Shiksha Abhiyan (RUSA).**
- **Prime Minister's Research Fellowship (PMRF).**
- **Scheme for Promotion of Academic and Research Collaboration (SPARC).**
- **Sarva Shiksha Abhiyan.**
- **NEAT.**
- **PRAGYATA.**
- **Mid Day Meal Scheme.**
- **Right To Education (RTE) Act, 2009.**
- **Beti Bachao Beti Padhao.**

2.NEET 's All India Quota

Why in News

Recently, the Union Health Ministry has announced **27% reservation for the Other Backward Classes (OBCs)** and **10% quota for the Economically Weaker Sections (EWS)** in the **All India Quota (AIQ) scheme** for undergraduate (UG) and postgraduate (PG) medical/dental courses from 2021-22 onwards.

Key Points

- **About All India Quota (AIQ) Scheme:**
    - The **AIQ was introduced in 1986** under the directions of the Supreme Court (SC) to provide for **domicile-free merit-based opportunities** to students from any State to aspire to study in a medical college located in another State.
        - It comprises **15% of UG seats and 50% of PG seats in government medical colleges.**
        - Remaining chunk of the seats in state medical/dental colleges is **reserved for students domiciled in their respective states.**
    - In January, 2007, in **Abhay Nath v University of Delhi and Others,** the SC directed that reservation of **15% for Scheduled Castes** and **7.5% for Scheduled Tribes** be introduced in the AIQ.
        - Until 2007, no reservation was implemented within the All India Quota for medical admission.
    - When the **Central Educational Institutions (Reservation in Admission) Act became effective in 2007,** providing for uniform 27% reservation to the OBCs, the scheme was implemented in all the Central Educational Institutions.
        - However, this was **not extended to the AIQ seats of State medical and dental colleges.**

- The 10% EWS quota under the **Constitution (One Hundred And Third Amendment) Act, 2019,** too, has been implemented in central educational Institutions, but not in the National Eligibility-cum-Entrance Test (NEET) AIQ for state institutions.
  - o Now, after this decision, the Reservation for the OBC and EWS categories within the AIQ will be offered in medical colleges from the current academic year.
    - This decision will help thousands of students under the given categories.

- **About NEET:**
  - o The **National Eligibility-cum-Entrance Test (NEET)** is the entrance examination for entry to all undergraduate and postgraduate medical and dental courses in the country.
  - o Until 2016, the **All India Pre-Medical Test (AIPMT)** was the national-level entrance examination for medical colleges.
    - While state governments used to hold separate entrance tests for seats that were not contested at an all-India level.
  - o In 2016, the Supreme Court upheld the newly inserted section **10-D of the Indian Medical Council Act, 1956** which provides for a uniform entrance examination to all medical educational institutions at undergraduate level and postgraduate level in Hindi, English and various other languages.
    - Now, the **Indian Medical Council Act, 1956** stands repealed after it has been replaced by the **National Medical Commission Act, 2019** that came into existence on 8th August 2019.
  - o It is conducted by the **National Testing Agency (NTA).**

3.Cloudbursts

Why in News

Recently, cloudbursts have been reported from several places in India.

Key Points

- **About:**
  - o Cloudbursts are **short-duration, intense rainfall events over a small area.**
  - o It is a weather phenomenon with unexpected **precipitation exceeding 100mm/h over a geographical region of approximately 20-30 square km.**
  - o In the Indian Subcontinent, it **generally occurs when a monsoon cloud drifts northwards,** from the Bay of Bengal or the Arabian Sea across the

plains then on to the Himalaya that sometimes brings 75 millimetres of rain per hour.

- **Occurrence:**
  - The **relative humidity and cloud cover is at the maximum level with low temperature and slow winds** because of which a high amount of clouds may get condensed at a very rapid rate and result in a cloudburst.
  - **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.

- **Cloudburst are Different from Rainfall:**
  - Rain is condensed water falling from a cloud while cloudburst is a sudden heavy rainstorm.
  - Rain **over 100mm per hour is categorised as a cloudburst.**
  - The cloudburst is a natural phenomenon, but occurs quite unexpectedly, very abruptly, and rather drenching.

- **Impact of Climate Change:**
  - Several studies have shown that climate change **will increase the frequency and intensity of cloudbursts** in many cities across the globe.
    - In May 2021, 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.
  - It is seen that **more cloudbursts are happening in Himalayan region because the decadal temperature rise** in the Himalayan region is higher than the global rate of rising temperatures.

- **Consequences of Cloudbursts:**
  - **Flash floods.**
  - **Landslides**
  - Mudflows
  - Land caving.

- **Prediction:**
  - There is **no satisfactory technique** for anticipating the occurrence of cloud bursts because they develop over a small period of time.
  - **A very fine net work of radars is required** to be able to detect the likelihood of a cloud burst and this would be expensive.
  - Only the areas likely to receive heavy rainfall can be identified on a short range scale. Much of the damage can be avoided by way of

identifying the areas and the meteorological situations that favour the occurrence of cloud bursts.

4.Kendu Leaf

Why in News

Recently, several children were seen collecting **kendu (Tendu) leaves** in Odisha's Kalahandi district.

Key Points

- **About:**
  - Kendu leaf is called the **green gold of Odisha.** It is a nationalised product like **bamboo** and sal seed. It is one of the **most important non-wood forest products in Odisha.**
    - Botanical name of the Tendu (Kendu) leaf is **Diospyros Melanoxylon.**
  - The leaves are used to **wrap bidis, a popular smoke among the locals.**
- **States Producing Kendu Leaves:**
  - The states producing bidi leaves in India comprises mainly **Madhya Pradesh, Chhattisgarh, Odisha, Andhra Pradesh, Jharkhand, Gujarat and Maharashtra.**
    - **Odisha is the third-largest producer** of kendu leaf, after Madhya Pradesh and Chhattisgarh.
- **Uniqueness:**
  - The Uniqueness of Odisha's Tendu (kendu) leaf is **in processed form** whereas the **rest of the states in India produce in Phal Form.**
    - In processed form the Kendu leafs are graded into different qualities that are **Grade I to Grade IV** as per the specification of **color, texture, size and body condition of the leaf** and packets will be done by taking Five Kilograms as a Bundle.
- **Significance:**
  - **Medicament:**
    - Traditional medical practitioners use these tiny fruits of Kendu to **treat malaria, diarrhoea and dysentery.**
    - Due to their antimicrobial properties, the leaves are applied on cuts and bruises as well.
  - **Source of Livelihood:**
    - Kendu leaves are the major source for tribal villages, since it is the most prominent **Minor Forest Produce** of the state.
      - MFP includes all non-timber forest produce of plant origin and includes bamboo, canes, fodder, leaves, gums, waxes,

dyes, resins and many forms of food including nuts, wild fruits, honey, lac, tusser etc.

- They form a major portion of their food, fruits, medicines and other consumption items and also provide cash income through sales.

  o **Major Part in Odisha's Forest Revenue:**
    - Of Odisha's total forest **revenue of Rs 868 million in 1990-2000,** kendu leaves alone **account for Rs 635 million.**
    - The annual production of bidi leaf in Odisha is **around 4.5-5 lakh a quintal,** which is **about 20% of the county's annual production.**

  ▪ **Concern:**
  o **Low Wage:**
    - Children working at kendu leaf collection centres often step in **during April-May every year.** They mostly engaged in plucking, drying, collecting, etc. They are paid extremely low wages for the work.
  o **Exploitation of Children:**
    - Children below 14 years can not be engaged as workers and between 14-18 years can only be engaged in non hazardous sectors.
    - In such a scenario they are exploited.

Way Forward

  ▪ To free this sector from **child labour**, more stringent laws are needed. Parents and children need to be sensitised about child rights.
  ▪ Besides the child protection system viz. childline, district child protection unit, child welfare committee etc. would have to be more vigil and proactive in ensuring rights to children.
  ▪ Since the kendu leaf is a significant part of the forest economy of rural societies, there needs to be the deregulation of minor forest products so that tribal and rural people can exercise their rights on MFP.

5.Factoring Regulation (Amendment) Bill, 2021

Why in News

Recently, **Rajya Sabha** has passed the **Factoring Regulation (Amendment) Bill, 2021** to bring changes in the legislation aimed at helping the **Micro, Small and Medium Enterprises (MSME) sector.**

  ▪ It has incorporated many suggestions from the **UK Sinha Committee.**

Factoring business

- Factoring business is a business where an entity acquires the receivables of another entity for an amount.
    - Note that **credit facilities provided by a bank against the security of receivables** are not considered as factoring business.
- **Factor** can be a **bank, a registered non-banking financial company or any company registered under the Companies Act.**
- **Receivables** is the total amount that is owed or yet to be paid by the customers (referred as the debtors) to the assignor for the use of any goods, services or facility.

Key Points

- **Key Provisions of the Bill:**
    - **Change in the Definitions:**
        - It amends the definitions of **"receivables", "assignment", and "factoring business"** to bring them at par with international definitions.
    - **Relaxation to NBFCs' Factoring Threshold:**
        - The bill **seeks to amend the Factoring Regulation Act, 2011 to widen the scope of entities** which can engage in factoring business.
        - The current law which gave the Reserve Bank of India authority to allow non-bank finance companies to remain in factoring business only if it was their principal business.
            - That is, **more than half of assets were to be deployed and income earned from factoring business.**
        - The **Bill removes this threshold** and opens up the opportunity in this business to more non-bank lenders at a time small businesses are facing financial stress.
    - **TReDS to Register Charges:**
        - The Bill states that where **trade receivables are financed through Trade Receivables Discounting System (TReDS),** the details regarding transactions should be filed with the **Central Registry by the concerned TReDS, on behalf of the factor.**
            - TReDS is an **electronic platform for facilitating financing of trade receivables of MSMEs.**
    - **RBI to Regulate:**
        - It empowers **Reserve Bank of India (RBI)** to make **regulations for granting registration certificates to a factor, filing of transaction details** with the Central Registry and all other matters.

- o **No time-bound Registration:**
  - It **removes the 30-day time period for the factors to register the details of every transaction** entered by them. The registering authority for such transactions is the Central Registry setup under the **Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002.**

GS 3 : Economy, Science and Technology,Environment

6.Sutlej River Pollution

Why in News

The pollution in river Sutlej has posed serious health threats to the people living around the **Indira Gandhi Canal.**

- The **National Green Tribunal (NGT)** has directed Punjab and Rajasthan governments to submit quarterly compliance reports to **Jal Shakti ministry** about remedial action being taken to curb the inflow of effluent discharge into the **Satluj** and **Beas.**

Key Points

- **Source of Sutlej's Pollution:**
  - o **Three Major Sources Polluting the Buddha Nallah: Buddha Nallah (Tributary)** is a major source of pollution in the river Sutlej.
    - **Untreated sewage waste** from Ludhiana city sewage treatment plants (STP).
    - Untreated industrial effluents from **dyeing units and outlets** that directly release sewage and industrial waste into the stream.
    - **Small-scale industries** like units on **electroplating, hosiery, steel rolling mills,** etc mainly contribute to the wastewater in the nallah.
  - o **High Biological Oxygen Demand (BOD):** Buddha Nullah contributes about 16,672 kilogram a day of **BOD load** and **East Bein (a rivulet in Doaba in Punjab)** contributes about 20,900 kg/day of BOD load.
    - The more organic matter there is (e.g., in sewage and polluted bodies of water), the greater the BOD; and the greater the BOD, the lower the amount of dissolved oxygen available for higher animals such as fishes.

- o **Leather Industry:** Another **seasonal rivulet, Chitti Bein** and its **sub-drain, Kala Sanghian drain,** in the Jalandhar district are equally responsible for high pollution in the Sutlej river.
  - The untreated discharge from Jalandhar's leather goods industry is one of the major reasons behind Chitti Bein's pollution.
- ▪ **Component of Pollutants:**
  - o Traces of **chromium** and **arsenic** can be found in the Sutlej after the confluence of Buddha Nullah.
  - o Prevalence of **mercury, lead, chromium, cadmium** and **selenium** in more than permissible limits (MPL) in the groundwater and surface water in and around drains like Buddha Nallah, Chitti Bein and Kala Sanghian.
  - o **Heavy metals** and **pesticides** were also detected in fodder, vegetable, milk, urine and blood samples.
- ▪ **Impact on Indira Gandhi Canal:**
  - o The **Indira Gandhi Canal** is the **longest canal** in the country.
    - It starts from **Harike Barrage,** a few kilometres below the confluence of the Satluj and Beas rivers in Punjab, flows through Ludhiana and terminates in the **Thar Desert** in northwest Rajasthan.
  - o The canal is a **source of drinking and irrigation** in the north and western Rajasthan.
    - It provides water to 1.75 crore people living in 7,500 villages across eight districts in the state.
  - o The water in the Indira Gandhi canal has apparently turned black due to the presence of pollutants in it.
    - The pollution has caused several health complications among people such as skin diseases, gastroenteritis, indigestion and loss of eyesight.

Sutlej River

- ▪ The ancient name of Sutlej River is **Zaradros** (Ancient Greek) **Shutudri or Shatadru** (Sanskrit).
- ▪ It is the longest of the five tributaries of the **Indus River** that give the Punjab (meaning "Five Rivers") its name.
  - o Jhelum, Chenab, Ravi, Beas and Satluj are main tributaries of Indus.
- ▪ It rises on the north slope of the Himalayas in **Lake La'nga** in **southwestern Tibet.**
  - o Flowing northwestward and then west-southwestward through Himalayan gorges, it enters and crosses Himachal Pradesh before beginning its flow through the Punjab plain near Nangal.

- o Continuing southwestward in a broad channel, it receives the Beas River (and forms 65 miles (105 km) of the India-Pakistan border before entering Pakistan and flowing another 220 miles (350 km) to join the Chenab River west of Bahawalpur.
  - Sutlej River meets the Beas River in **Harike in the Ferozpur district before entering Pakistan.**
- o The combined rivers then form the Panjnad, the link between the Five Rivers and the Indus.
- **Luhri Stage-I Hydro Electric Project** is located on River Satluj in Shimla and Kullu districts of Himachal Pradesh.

7.Near-Surface Shear Layer of the Sun

Why in News

Recently, **Indian astronomers** from **Aryabhatta Research Institute of Observational Sciences (ARIES),** and **Indian Institute of Science, Bangalore,** have for the **first time given the theoretical explanation** of the existence of a **near-surface shear layer (NSSL)** in the Sun.

- **ARIES** is an autonomous institute under the Department of Science and Technology.

Key Points

- **About Near-Surface Shear Layer (NSSL):**
  - o Apart from differentiation rotation between equator and poles, the helioseismology has revealed that the Sun has a **Near-Surface Shear Layer (NSSL).**
  - o The NSSL is the region very close to the visible solar surface, where there is a change in the rotation profile of the Sun.
  - o This layer exists very close to the solar surface, **within which the angular velocity decreases rapidly with radius.**
  - o This NSSL is thought to play a significant role in defining the nature of large-scale convective patterns that drive the Sun's magnetism.

Note

- **Angular velocity:** It is the time rate at which an object rotates, or revolves, about an axis, or at which the angular displacement between two bodies changes.

- **Helioseismology:** It is a technique of using sound waves to peek inside the Sun.

- **Findings of the Study:**
  - In their study, they have used an equation called the **thermal wind balance equation.**
    - It explains how the slight difference in temperature between solar poles and equator, called **thermal wind,** is balanced by the **centrifugal force appearing due to solar differential rotation.**
  - Understanding NSSL is crucial for the study of **several solar phenomena** like sunspot formation, solar cycle, and it will also help in understanding such phenomena in other stars.
- **About Differential Rotation of the Sun:**
  - It was long known that the Sun has **Differential rotation,** which means different parts of the Sun **rotate at different speeds.**
    - The Sun **rotates faster at the equator than at the poles.**
  - Over time, the Sun's differential rotation rates **cause its magnetic field to become twisted and tangled.**
    - The **"tangles" in the magnetic field** lines can produce very, very strong **localized magnetic fields.**
    - These localised magnetic fields on the surface of the Sun are active regions where **sunspots** occur.
      - Sunspots are areas that appear dark on the surface of the Sun (photosphere). They appear dark because they are cooler than other parts of the Sun's surface.
    - Further, these active regions often generate **solar storms: solar flares and coronal mass ejections (CMEs).**

8.International Tiger Day

Why in News

Recently, at the virtual meeting celebrating **International Tiger Day (29th July)**, Prime Minister of India reiterated India's commitment to ensuring safe habitats for its tigers and nurturing tiger-friendly eco systems.

- Also, at this meeting, **14 Tiger Reserves in India** received the **accreditation of the Global Conservation Assured|Tiger Standards (CAITS).**

Key Points

- **Conservation Status of Tiger:**

- o **Indian Wildlife (Protection) Act, 1972**: Schedule I
- o **International Union for Conservation of Nature (IUCN) Red List:** Endangered.
- o **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**: Appendix I.
- **Significance of Tiger Conservation:**
  - o Tiger conservation is a **symbol of conservation of forests.**
  - o The tiger is a unique animal which plays a **pivotal role in the health and diversity of an ecosystem.**
  - o It is **a top predator** which is at the apex of the food chain and **keeps the population of wild ungulates (primarily large mammals) in check.**
    - Thus, Tiger helps in maintaining the **balance between prey herbivores and the vegetation upon which they feed.**
  - o Therefore, Tiger Conservation is not just about saving a beautiful animal.
    - It is about making sure that **we live a little longer as the forests** are known to provide **ecological services like clean air, water, pollination, temperature regulation etc.**
  - o Further, the significance of Tiger conservation can be reflected by the **Status of Leopards, Co-predators and Megaherbivores-2018' report.**
    - According to the report, the overall leopard population in the tiger range landscape of India in 2018 was estimated at 12,852.
    - This is a **significant increase** from the 2014 figure that was 7,910 in forested habitats of 18 tiger bearing states of the country.
    - The report is a testimony to the fact that conservation of tigers leads to the conservation of the entire ecosystem.
- **Tiger Conservation Projects in India:**
  - o **Project Tiger 1973**: Project Tiger is **a Centrally Sponsored Scheme** of the Ministry of Environment, Forests and Climate Change (MoEFCC) launched in 1973. It provides havens for tigers in the country's national parks.
  - o **National Tiger Conservation Authority (NTCA)**: It is a statutory body under the MoEFCC and was established in 2005 following the recommendations of the Tiger Task Force.
- **India's Tiger Conservation Status:**
  - o India is home to over **70% of the tiger population globally.**
  - o India is home to **51 tiger reserves** spread across 18 states and the last **tiger census of 2018** showed a rise in the tiger population.
  - o India achieved the target of doubling the tiger population **four years ahead of schedule (2022)** of the **St. Petersburg Declaration** on tiger conservation.
  - o India's strategy of tiger conservation attaches topmost importance to **involving local communities.**

- **Conservation Assured | Tiger Standards (CA|TS):**
  - **CA|TS** has been agreed upon as an accreditation tool by the **global coalition of Tiger Range Countries (TRCs)** and has been developed by tiger and protected area experts.
    - There are currently **13 tiger range countries -** India, Bangladesh, Bhutan, Cambodia, China, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, Russia, Thailand and Vietnam.
  - CA|TS is a **set of criteria** which allows tiger sites to check if their management will lead to successful tiger conservation.
  - It was officially launched in 2013.
  - The **Global Tiger Forum (GTF),** an international NGO working on tiger conservation, and **World Wildlife Fund India** are the two implementing partners of the **National Tiger Conservation Authority** for CATS assessment in India.
  - 14 Tiger Reserves which have been accredited are:
    - **Manas, Kaziranga** and **Orang Tiger Reserve** in Assam,
    - **Satpura, Kanha** and **Panna Tiger Reserve** in Madhya Pradesh,
    - **Pench Tiger Reserve** in Maharashtra,
    - **Valmiki Tiger Reserve** in Bihar,
    - **Dudhwa Tiger Reserve** in Uttar Pradesh,
    - **Sunderbans Tiger Reserve** in West Bengal,
    - **Parambikulam Tiger Reserve** in Kerala,
    - **Bandipur Tiger Reserve** of Karnataka
    - **Mudumalai** and **Anamalai Tiger Reserve** in Tamil Nadu.

==Prelims Practice Questions==

1. Which of the following statement(s) is/are incorrect with respect to Gharib Nawaz Employment Scheme

1. It was launched by Ministry of Minority Affairs.
2. It offers monthly stipend during job training and post placement support even after getting employment.

Select the correct answer using the codes given below:

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

Answer : d

Gharib Nawaz Employment Scheme

- It was launched by the Ministry of Minority Affairs in 2017.

- Maulana Azad Education Foundation, an autonomous body under the aegis of Ministry of Minority Affairs, implements the Scheme.
- The main aim of this scheme is to provide short term job oriented skill development courses to minorities' youth in order to enable them for skill based employment.
- The monthly stipend for maximum of three months and post placement support for maximum of two months after getting employment are also being paid to the beneficiaries directly into their account.

2. Consider the following statements regarding 'Shanghai Cooperation Organization (SCO)':

1. Russia, China and Kazakhstan are the founding members of SCO.
2. Pakistan and India are the permanent members of SCO.

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 :C

Explanation

- The **Shanghai Cooperation Organisation (SCO)** was **founded at a summit in Shanghai in 2001** by the presidents of **Russia, China,** the Kyrgyz Republic, **Kazakhstan,** Tajikistan and Uzbekistan. **Hence, statement 1 is correct.**
  - Presently, the SCO comprises eight member states namely India, Kazakhstan, China, the Kyrgyz Republic, Pakistan, the Russian Federation, Tajikistan, and Uzbekistan.
- The SCO, seen as a counterweight to NATO, is an eight-member economic and security bloc and has emerged as one of the largest transregional international organisations.
- India was made an observer at the SCO in 2005.
  - **India and Pakistan became its permanent members in 2017. Hence, statement 2 is correct.**

3. Consider the following statements:

1. **The Deposit Insurance and Credit Guarantee Corporation (DICGC) is a fully owned subsidiary of the Reserve Bank of India (RBI).**
2. **The DICGC provides insurance cover to only Indian Banks.**

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 **Deposit Insurance and Credit Guarantee Corporation (DICGC)** came into existence in 1978 after the merger of Deposit Insurance Corporation (DIC) and Credit Guarantee Corporation of India Ltd. (CGCI) after passing of the Deposit Insurance and Credit Guarantee Corporation Act, 1961 by the Parliament.
  - It serves as a deposit insurance and credit guarantee for banks in India.
  - It is a **fully owned subsidiary** of **Reserve Bank of India (RBI)** and governed by the RBI itself. **Hence, statement 1 is correct.**
- Banks, **including regional rural banks, local area banks, foreign banks** with branches in India, and cooperative banks, are mandated to take deposit insurance cover with the DICGC. **Hence, statement 2 is not correct.**

4. Arrange the following Capitals from West to East:

1. Astana
2. Bishkek
3. Ashgabat
4. Dushanbe

Options

a. 1-2-3-4
b. 2-3-4-1
c. 3-4-1-2
d. 4-1-2-3

Answer: c

Explanation:

West to East: Ashgabat-Dushanbe-Astana-Bishkek.

5. Consider the following statements with respect to Technical Education Quality Improvement Programme

1. It aims to improve the quality of technical education system in India.
2. It is a project implemented by the Ministry of Education in association with World Bank.

Which of the statement(s) given above is/are correct?

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

Answer : c

- The World Bank-supported Technical Education Quality Improvement Programme (TEQIP) Phase-III - started by the Ministry of Education in 2017 - is going to conclude on 30th September 2021.

Technical Education Quality Improvement Programme-III

- TEQIP Phase-III aims to improve the quality of engineering education.
- Rs 10 crore has been provided for Multidisciplinary Education Research Improvement in Technical Education (MERITE) in the budget 2021-22 to start preparatory works.

The measures under TEQIPPhase-III include,

1. **Institution-based** - Accreditation of the courses through NBA, governance reforms, improving the processes, digital initiatives, securing autonomy for the colleges.
2. **Student-based** - Improving the quality of teaching, teacher training, equipping the class rooms, revision of syllabus, etc.,

- The focus is on the most backward states like Jharkhand, Chhattisgarh, Bihar, North-East, Rajasthan, Madhya Pradesh, etc.
    - The Government of India has been making continuous efforts to ensure that the focus State Governments prepare a sustainability plan for the TEQIP-III to avoid any academic standstill beyond the project period.

6. Which of the following statement(s) is/are correct with respect to Anthraquinone

1. It is a naturally occurring pollutant or a hydrocarbon and not a pesticide.
2. It is known as a bird repellent used in paint textile and paper industries.

Select the correct answer using the codes given below:

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

Answer : c

Anthraquinone

- It is ubiquitous in the environment, it has been naturally detected in the air, water, soil, plants, fish / seafood and animal tissue
- Anthraquinone is used in the manufacture of dyes, in the textile and pulp industries, and as a bird repellant.

India has raised concerns at a WTO meeting regarding European Union's decision to classify anthraquinone as a pesticide (found in tea) and labelling it as a non-tariff barrier

Mains Practice Questions

1Q. Ambedkar warned that Bhakti in religion may be a road to the salvation of the soul, but in politics, Bhakti or hero worship is a sure road to degradation and to eventual dictatorship. Comment. (150 words)

Approach

- Briefly introduce the Hero worship in politics.
- Enlist and describe the harmful impacts of Hero worship in politics contrasting them with democracy.
- Give conclusion

2Q. It takes more than government and courts to address a problem that is driven by human activity and behaviour. Good and effective regulations matter, but the key is cultural and behavioural change.Comment. (250 words)

Approach

- Introduce by mentioning the importance of laws.
- Mention both the aspects of government's success and failure in bringing behavioural change in society.
- Conclude by mentioning the need of citizen participation to bring behavioural change.