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POLITY

Parliament and State Legislatures- Structure and functioning

1. Bengal passes resolution to set up Council

- » Prelims: Article 169; setting up of and dissolution of legislative council procedure; States having legislative council
- » Mains: Significance and concerns associated with legislative council

Context:

- The West Bengal Assembly has passed a resolution to set up a Legislative Council with a two-thirds majority.

Details:

- The resolution for the Legislative Council was moved under Article 169.

Article 169:

- Article 169 of the Indian Constitution deals with the abolition or creation of Legislative Councils in states.
- Clause (1) states that Parliament may by law provide for the abolition of the Legislative Council of a State having such a Council or for the creation of such a Council in a State having no such Council, if the Legislative Assembly of the State passes a resolution to that effect by a majority of the total membership of the Assembly and by a majority of not less than two thirds of the members of the Assembly present and voting.

How many legislative councils are there in India?

- The states with bicameral legislature include Andhra Pradesh, Bihar, Karnataka, Maharashtra, Telangana and Uttar Pradesh. These states have both the Legislative Council and Legislative Assembly.

Functioning of the Judiciary

2. Judge recuses from Mamata's election case

- » Prelims: Recusal

Context:

- Justice Chanda has recused himself from hearing the petition filed in the Calcutta High Court by West Bengal Chief Minister Mamata Banerjee challenging the Assembly poll result in Nandigram but imposed a fine of Rs 5 lakh on her.

Recusal

- Recusal is the act of abstaining from participation in an official action such as a legal proceeding due to a conflict of interest of the presiding court official or administrative officer.
- It is the withdrawal of a judge, prosecutor, or juror from a case on the grounds that they are unqualified to perform legal duties because of a possible conflict of interest or lack of impartiality.

As noted by the Supreme Court in the NJAC judgment, a judge may be required to step down in one of two scenarios:

- Cases of presumed bias, where the judge has a pecuniary interest in the outcome of a case (extended, through the Pinochet judgment to other similar non-pecuniary interests); or
- Cases of apparent bias, where a reasonable, fair-minded observer would believe there is a real possibility that the judge is biased.

What are the rules on recusals?

- There are no written rules on the recusal of judges from hearing cases listed before them in constitutional courts. It is left to the discretion of a judge. The reasons for recusal are not disclosed in an order of the court.
 - * Some judges orally convey to the lawyers involved in the case their reasons for recusal, many do not.
 - * Some explain the reasons in their order.
- The decision rests on the conscience of the judge.

When can the Judge recuse?

- Bias of prejudice
 - * It typically means the judge has acted/ taken a stand or publicly spoken in a way that prevents him or her from treating the party in a fair and impartial manner.
- Where a judge has appeared for one of the litigants at some stage in the same dispute.
 - * A judge's fairness and impartiality may be compromised when he or she has had a business or professional relationship with a party.
 - * In cases where the judge was a party's business partner or attorney, as well as in cases where the judge was a member of a law firm representing a party, the potential for bias or prejudice is almost always too great to permit the judge to preside over the case.

- In disputes where a judge has a financial interest in the litigation, where a judge owns shares in a company which is party to the case, the judge can recuse.
- Judge's family member's economic interest in the case.

Parliament and State Legislatures- Functioning, Conduct of Business, Powers & Privileges

3. The power of scrutiny

- » Mains: Powers of State Assemblies in matters regulated by an Act of Parliament

Context

- The Supreme Court of India has upheld the authority of a committee of the Delhi Assembly to summon a senior official of Facebook.

Background:

- Facebook's India vice-president was repeatedly summoned by the Delhi Assembly's Committee on Peace and Harmony on the subject of the Delhi riots of 2020.
- Facebook had argued before the Supreme Court that this was a case of overreach given that Delhi's law and order came under the central government and also because Facebook was governed by the IT Act of Parliament on which the State government has no power.

Details:

- Despite the constraints of the powers of the Delhi Assembly on the subject of law and order, the Court found that its committee still could summon the Facebook India official without encroaching upon the turf of the Centre.

Significance:

Recognition of the power of state assemblies:

- The judgement is an extremely nuanced recognition of the extent of powers of State Assemblies in matters regulated by an Act of Parliament.

Role to be played by state assemblies:

- The Supreme Court ruling supports the notion that an assembly should not be restricted to the passage of new laws but could also play an important role in other aspects of governance as well. The SC judgement held that the "inquisitorial" and "recommendatory" powers of a House can be used for better governance.

Recognition of the risk posed by unregulated social media operations:

- Recognizing the potential risk associated with the spread of misinformation on social media, the Court has rightly recognized the impact of social media on law and order, a subject matter which ultimately affects the governance of States. The judgment could pave the way for scrutiny of

social media platforms by other States.

Concerns:

- This development could further intensify the discordance over legislative turf between the central government and the Delhi government and the SC rightly cautions the committee from transgressing into any fields reserved for the Union Government.

Issues and Challenges Pertaining to the Federal Structure

4. Cauvery and the row over Mokedatu project

- » Prelims: Mokedatu project
- » Mains: Inter-state water disputes

Context

- Differences between the states of Karnataka and Tamil Nadu over the proposed Mokedatu project.

Background:

Mokedatu project:

- The Karnataka state government has proposed the Mokedatu dam project in the Cauvery Basin.
 - * It is Rs 9,000-crore reservoir project, proposed to be built at a deep gorge situated at the confluence of the Cauvery River and its tributary Arkavathi, at Ontigondlu in Karnataka's Ramanagara district.
 - * Originally proposed as a hydropower project, the revised Mokedatu dam project apart from catering to the drinking water needs of the Bengaluru Metropolitan City and surrounding areas will also help regulate the flow to Tamil Nadu on a monthly basis, as stipulated by the Tribunal and the Supreme Court.
 - » The Cauvery Water Disputes Tribunal, and the subsequent Supreme Court Judgement have made allocations of Cauvery waters to all the riparian States — Karnataka, Kerala and Tamil Nadu, apart from the Union Territory of Puducherry. It has also stipulated "tentative monthly deliveries during a normal year" to be made available by Karnataka to Tamil Nadu.
- Tamil Nadu has challenged this move by Karnataka in the Supreme Court and impressed upon the union government not to grant Centre's clearance for the project.
 - * Tamil Nadu's argument is that the building of the proposed project as close as 4 kms to the border will allow the Karnataka state to impound and divert flows from

“uncontrolled catchments” to itself and this it claims goes against the order of the water disputes tribunal verdict which had already considered this component of uncontrolled flows by making allocation of the river waters.

Recommendations:

- The Cauvery river water sharing has become an emotive and political issue over the years and any future interventions must be guided by pragmatism.
 - * A possible solution to this new development would be to get both states to agree to the idea of a joint execution, operation and maintenance of the project or through a third party's participation.
 - * The project if it is agreed to, must be implemented after addressing relevant environmental concerns.

Functioning of the Indian Judiciary

5. Will a national judiciary work?

- » Prelims: Constitutional provisions related to the topic
- » Mains: All India Judicial Service (AIJS)- arguments both in favour of and against AIJS.

Background:

- Many law commissions and the judiciary in many cases have called on the administration to consider and implement All India Judicial Services (AIJS).
 - * The idea for an 'All India Judicial Service (AIJS)' was first proposed by the 14th Report of the Law Commission of India in 1958, aimed at creating a centralised cadre of District Judges.
 - * In the All-India Judges case in 1992 the apex court had opined that the recommendations of the Law Commission on the setting up of AIJS should be examined and implemented. Similar opinions were expressed in the All India Judges Association Vs. Union of India (2002) case as well.
- In 2019 there had been a consultative process for the creation of the All India Judicial Service (AIJS).
 - * While a few states and high courts supported the proposal, most rejected it or are yet to respond.
- In this context, the article analyzes the feasibility of the All India Judicial Service.

All India Judicial services (AIJS):

- The AIJS envisages recruiting officers for subordinate courts through a national entrance test.
- Those who clear the pan-India test would

be appointed by high courts and the State governments.

Constitutional perspective:

- Article 233(1) of the Constitution states that appointments, posting and promotion of, district judges in any State shall be made by the Governor of the State in consultation with the corresponding High Court.
- Article 312 (1) empowers Parliament to make laws for the creation of one or more All-India Services, including an AIJS, common to the Union and the States.
- The 42nd Constitutional amendment in 1976 shifted the domain of administration of justice constitution and organisation of all courts, except the Supreme Court and the High Courts into the concurrent list from the previous state list.

Arguments in favour of AIJS:

- The AIJS will help remove any scope for judicial or executive intervention in the appointments to the lower judiciary and result in increased transparency in the appointment process.
- It will help streamline the appointment process of the lower judiciary. This will allow the vacancies to be filled without any unnecessary delay.
- AIJS will give an opportunity for induction of suitably qualified fresh legal talent selected through a proper all-India merit selection system and will thus help strengthen the overall justice delivery system in India.

Concerns with respect to AIJS:

- The article expresses concerns over certain aspects of the proposed AIJS:

Against the principle of federalism:

- Under the envisaged AIJS, the fundamental power of the States to make rules and govern the appointment of district judges would rest with the union government.
- The AIJS would lead to a scenario where the Union government's powers would increase at the cost of the state governments.
- This will go against the principle of federalism and the basic structure doctrine.

Concerns for the subordinate judiciary:

- Another aspect of concern is that the operationalization of the AIJS could severely curtail the promotional avenues of the subordinate judiciary.
- Currently, fifty per cent of the posts of district judges are to be filled by promotion from the subordinate judicial service. This will decrease with direct recruitment under the proposed AIJS.

Concerns over language proficiency:

- Another fundamental concern would be the language barrier.

- Since cases in lower courts are argued in local languages, there are apprehensions as to how a person from a particular state can hold a hearing in another state that has a completely different language.
- Judges recruited through a centralized process may not know the local languages of the States in which they are posted. The lack of understanding of the local language and customs could affect the quality of judgments.

Fears over social implications:

- Most States have a reservation policy in force for marginalised and deprived sections of society in the lower judiciary. The reservation in these states is higher than that envisaged in the AIJS, thus there are fears that such sections may lose by the implementation of the AIJS.
 - * Tamil Nadu provides for a roster-based reservation of 69%, of which 30% is for women.

Conclusion

- Any move to structure this mechanism in the future will have to weigh the outcome on the basis of evidences, take due consent of state and involve multiple suggestions from the judicial luminaries as well as weaker sections.
- Balance of recruitment should be balanced by accommodating of weaker sections. If the AIJS can balance both then the move can be initiated or the idea of status quo should not be disturbed.

Functioning of the Indian Judiciary

6. Speedy trial a fundamental right: HC

- » Prelims: Related constitutional articles
- » Mains: Delays in the judiciary- challenges, concerns and recommendations

Context:

- The Bombay High Court has said “speedy trial is a fundamental right”.

Details:

- The comments were made highlighting the issue of people languishing in prisons waiting for the trial to begin.
- The right to a speedy trial is a fundamental right inherent under Article 21 of the Constitution which provides for the right to life and personal liberties.
- The Constitution of India provides that, whenever there is a violation of fundamental rights, a person can move to the Supreme Court under Article 32 and to the High Court under Article 226 of the Constitution.

Need for Speedy trial:

- Both the prisoner and his guard equally suffer

human rights violations in case of delayed trials.

- * The undertrial prisoner, who is yet to get his day in court, suffers the most, languishing behind bars for years without a hearing.
- Speedy trial remains one of the best ways to remedy the unwarranted phenomenon of overcrowding of prisons.
- Speedy trial is important to ensure justice as well as undue and oppressive imprisonment and ensures dispensation of justice by providing fair and just trial to all its citizens.
- ‘Justice delayed is justice denied’ is the cornerstone in delivering justice.

Functioning of the legislature

7. 'Super censorship': MPs' panel grills Ministry

- » Mains: Draft cinematograph amendment bill, 2021- Concerns and counter arguments

Context:

- The Standing Committee on Information and Technology has questioned the officials of the Ministry of Information and Broadcasting on the draft Cinematograph (Amendment) Bill 2021.

Background:

- The draft Cinematograph (Amendment) Bill 2021 proposes amendments aimed at tackling the menace of piracy and also introduces some changes with respect to the process of certification.
 - * The amendment would grant revisionary powers to the Government on account of violation of Section 5B(1) of the Act.
 - » Section 5B(1) states that a film shall not be certified for public exhibition if, in the opinion of the authority competent to grant the certificate, the film or any part of it is against the interests of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality, or involves defamation or contempt of court or is likely to incite the commission of any offence.
 - * Also, the Central Government may, if it considers it necessary so to do, direct the Chairman of the Board to re-examine the film.
- The Bill has been placed in the public domain and called for public comments.

Concerns:

Super censorship:

- Some prominent filmmakers have criticized the bill over the provision that allows the government

to order recertification of films already certified by the Central Board of Film Certification (CBFC). They have called it a kind of “super censorship”.

Unnecessary concentration of power:

- The government’s move to allow it the power to ask for recertification amounts to unnecessary concentration of such powers especially when there are already existing penal provisions in this regard.
 - * If any person or group feels that a film or part of it hurts their sentiment or imperils the country, it can be challenged in the judiciary.

Against Judicial orders:

- The High Court of Karnataka in *KM Shankarappa Vs. Union of India* case stated that the Central Government cannot exercise revisional powers in respect of films that are already certified by the Board. This has also been upheld by the Supreme Court.
- The proposed amendments run contrary to the above judicial precedents.

Counter arguments:

Reasonable restriction upon freedom of speech and expression:

- The government’s stand has been that the proposed amendments derive their standing from Article 19(2) of the Constitution which are non-negotiable.
- Article 19(2) of the Constitution imposes reasonable restrictions upon the freedom of speech and expression in the interests of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality or in relation to contempt of court, defamation or incitement of any offence.

Help deal with violation of Section 5B(1):

- Sometimes complaints are received against a film that allude to violation of Section 5B(1) of the Cinematograph Act, 1952 after a film is certified. The new amendments would help deal with such cases.

Check on arbitrary use of powers:

- The government’s stand is that the Ministry itself will have no powers to censor any film, but it will only allow the Ministry to return the film for recertification.
- The government has also stated that such a clause would be invoked only when the content of a film impinged on the security and integrity of the nation, this would act as a restriction against the arbitrary use of such powers.

Power of the legislature to legislate new laws:

- The Legislature may, in certain cases, overrule or nullify the judicial or executive decision by enacting appropriate legislation.

Appointment to various Constitutional Posts, Statutory and regulatory bodies

8. Vacancies send a wrong signal

- » Prelims: Appointment process for constitutional posts, statutory and regulatory bodies
- » Mains: Concerns with respect to appointments by the executive; negative fallout and recommendations

Context:

- The article analyzes the various concerns associated with the appointment process to important constitutional and administration posts.

Concerns:

Long delay in appointments:

- The article expresses concerns over the long delays in appointing people to critical posts.
 - * The post of the Chairman of the National Human Rights Commission and the post of the Director of the Central Bureau of Investigation (CBI) was kept vacant for a long time.
 - * The retirement of Chief Election Commissioner (CEC), amidst the ongoing elections in West Bengal had resulted in a scenario where the Election Commission was left with only two members. Any disagreement on any issue between the two members would have led to a situation wherein a solution would have become difficult.
 - * The National Council of Educational Research and Training, which is largely responsible for chalking out the education policy of the country has been functioning without a chief. Nearly half of the 40 Central universities are functioning without regular Vice-Chancellors.

Apprehensions over the appointment process:

- Apart from the concerns over avoidable delays in appointment to top posts, there are also concerns over the process of appointment to some of these posts.
 - * One such example being the appointment of Election Commissioners. The Association for Democratic Reforms (ADR) had filed a public interest litigation in the Supreme Court demanding the appointment of Election Commissioners by a committee rather than by the Union government.

Assigning of additional charge of multiple departments:

- Officials have been handed additional charges of multiple departments despite each being critical in their own respects.

Negative fallout:

Impact on governance:

- Leaving top posts in the government unoccupied affects the organization's effectiveness and thus has a deleterious impact on governance in general.

Demoralizing effect on officials:

- Delays in promotions and appointments also tend to demoralize the officials who await promotions after vacancies arise.

Questions on the credibility of important institutions:

- The lack of a consultative process in the appointment to Election Commission give rise to chances of potential executive interference in their functioning and thus adversely impacts the perception of neutrality of this important institution in a democracy like India.

Impact on performance of the institutions:

- The handing of additional charges of multiple departments to a single person will have an adverse impact on the efficiency of such departments given the lack of attention that such departments would receive from the appointed head.

Recommendations:

Time bound process:

- Appointments to higher echelons must be announced well in time. A time frame needs to be worked out to announce top appointments at least a month in advance and the nominee should be enabled to take charge soon after the retirement of the predecessor. This will help avoid any interregnum.

Well laid guidelines:

- Well laid guidelines for promotion will help keep out political considerations from the appointment process. This will help increase the transparency in the appointment process which will only augur more respect for the institutions involved.

Broad basing appointment process:

- For appointment to top constitutional posts the process should be made more consultative.
- For example in the case of appointment of Election Commissioners, the recommendations of the Law Commission can act as a way forward. The Law Commission, its report of March 2015,

held that it was "imperative" that the appointment became a "consultative process," given the "importance of maintaining the neutrality" of the ECI and shielding the CEC and Election Commissioners "from executive interference."

- The Law Commission had made two specific recommendations.
 - * The appointment of all the Election Commissioners (including the CEC) should be made by the President in consultation with a three-member collegium or selection committee, consisting of Prime Minister, Leader of the Opposition of the Lok Sabha (or the leader of the largest opposition party in the Lok Sabha in terms of numerical strength) and Chief Justice of India.
 - * The elevation of an Election Commissioner should be on the basis of seniority, unless the collegium or the committee, for reasons to be recorded in writing, finds such Commissioner unfit.
- The article suggests further expanding the proposed high-powered committee given the limited powers that the Opposition leader has in the selection process.

Miscellaneous

9. Tracking fugitives everywhere

- » Prelims: Crime and Criminal Tracking Network and Systems (CCTNS) and the National Intelligence Grid
- » Mains: Concerns associated with increasing number of accused going absconding; Recommendations

Context:

- An increasing number of accused are absconding to avoid being convicted.

Concerns:

Lack of efforts to pursue fugitives:

- Though the police department does initiate proceedings for attachment of property and declaration of the accused as proclaimed offenders, the efforts being made to pursue fugitives – domestically or internationally – have been few and far between.
- This goes against the spirit of the law of the land where criminals escape being punished merely by shifting out of the country or place of residence.

Lack of a domestic tracking or database system:

- Unlike the Interpol Notices which has allowed for some form of a system for tracking criminals

worldwide, there is no coordinated system or database for tracking criminals or wanted persons domestically.

- In the absence of such a system, it is relatively easy for criminals to go undetected.

Lack of a coherent law:

- Indian law on extradition is spread across the Indian Penal Code as well as various laws pertaining to narcotic drugs, Information Technology, hijacking, etc.
- The lack of a coherent law to deal with fugitives has been a major lacuna in extraditing such offenders.

Recommendations:

National database:

- There is an urgent need for the creation of a nationwide database of wanted persons, accessible to multiple stakeholders like police agencies, passport and immigration authorities and the public.

Fugitive tracking system:

- India should consider implementing a nationwide system of 'Wanted Persons Notices' to help track fugitives domestically. India could draw valuable inputs from the highly successful U.S.'s inter-State extradition and fugitive tracking system.

Better integration among the various stakeholders:

- Though the Crime and Criminal Tracking Network and Systems and the National Intelligence Grid are efforts in the right direction, there is the need for more integration to make them more effective.
- There needs to be enhanced integration between immigration agencies, State police agencies, Interpol-New Delhi, the External Affairs Ministry and the Home Ministry and central investigation and intelligence agencies to track and trace fugitives both domestically and internationally.

International collaboration and cooperation:

- India should share its 'wanted' database with other nations on a reciprocal basis or through treaties.
- India should consider signing relevant bilateral and multilateral conventions on criminal matters which would help it plug legal infirmities in the extradition process.

Consolidate multiple laws:

- All relevant legal processes and requirements should be incorporated into one consolidated law.

Separation of Powers between various organs of governance

10. Judges should not act like emperors, says SC

» Mains: Separation of powers

Context:

- The Supreme Court said that the judges should not behave like emperors and summon government officials instantly without a good reason.

Details:

- The SC bench noticed that a practice had developed in certain High Courts to call officers instantly to exert direct or indirect pressure.
- The SC has prescribed modesty and humility to judges by asking them not to cross the line of separation of powers between the judiciary and the executive and call officers to court unnecessarily.
- It observed that summoning of officers frequently is not appreciable at all and it is liable to be condemned in the strongest words.
- It noted that at times, when officials have to travel great distances and wait for hours in court, their official work was delayed, creating an extra burden on the officer.
- It argued that the courts have the power of the pen, which is more effective than the presence of an officer in Court. If any particular issue arises for consideration before the Court, and the advocate representing the State is not able to answer, it is advised to write such doubt in the order and give time to the State or its officers to respond.

Functioning of the Judiciary

11. The bar on criticism that muzzles the advocate

» Mains: Challenges in the functioning of the judiciary

Bar Council of India

- It was established by Parliament under the Advocates Act, 1961.

Functions:

- To lay down standards of professional conduct and etiquette for advocates.
- To lay down the procedure to be followed by its disciplinary committee and the disciplinary committees of each State Bar Council.
- To safeguard the rights, privileges and interests of advocates.
- To promote and support law reform.
- To promote legal education and to lay down standards of legal education. This is done in consultation with the Universities in India imparting legal education and the State Bar Councils.
- To recognize Universities whose degree in law shall be a qualification for enrolment as an advocate. The Bar Council of India visits and inspects Universities, or directs the State Bar Councils to visit and inspect Universities for this purpose.

Context:

- The Bar Council of India (BCI) has introduced changes in the rules that govern the professional conduct and etiquette of advocates.
- The objective of these amendments is to improve the Standards of Professional Conduct.

Details

- The notification said an Advocate shall conduct himself/herself as a gentleman/gentle lady in his/her day to day life and he/she shall not do any unlawful act.
- He/she shall not make any statement in the Print, Electronic or Social Media, which is indecent or derogatory, defamatory or motivated, malicious or mischievous against any Court or Judge or any member of Judiciary, or against State Bar Council or Bar Council of India.
- Nor shall any Advocate engaged in any willful violation, disregard or defiance of any resolution or order of the State Bar Council or Bar Council of India and any such act/conduct shall amount to misconduct.

Penalty for rule violation

- The act of criticism shall result in suspension or removal of membership of such members from the Bar Council.
- Advocates who violate the rules can be disqualified from contesting in bar association or council elections for any period of time, "depending on the gravity of the misconduct".

Exception

- However, the notification clarified that a healthy and bonafide criticism made in good faith, shall not be treated as a "misconduct".

Temporary hold

- After the amendments were notified cases were filed in various high courts questioning the changes.
- It is currently being reviewed by a committee comprising senior advocates, members of bar associations and the Bar Council of India.
- The amendments also require the Chief Justice of India's approval before coming into effect, which has not yet been obtained.

Concerns

- These rules run counter to constitutional guarantees of free speech and the freedom of profession.
- This will have a debilitating impact on the advocates and their careers could be in trouble

Conclusion

- Advocates are the torch bearers of change and question the redundant practices prevalent in the justice delivery system. Therefore, before such rules are considered it has to be reviewed, as such rules may have a chilling effect on freedom of speech.

Miscellaneous**12. Why do you need the 'colonial law' of sedition,****CJI asks govt.**

- » Prelims: Section 124A of IPC
- » Mains: Concerns associated with sedition law

Context:

- A Supreme Court bench led by Chief Justice of India N.V. Ramana has agreed to examine a petition challenging the validity of section 124A (Sedition) of the Indian Penal Code.

Details:

- CJI questioned the government why a colonial law used against Mahatma Gandhi and BalGangadharTilak continued to survive in the law book 75 years after independence.
- A number of petitions have been filed highlighting the chilling effect sedition has on the fundamental right of free speech.
- In a recent judgement quashing a sedition case, Justice U.U Lalit recorded that the time is long past when the mere criticism of governments was sufficient to constitute sedition. The right to utter honest and reasonable criticism is a source of strength to a community rather than a weakness.

- The recent developments have also opened the floor for debate and introspection on the 1962 Supreme Court verdict in the KedarNath case that upheld the constitutional validity of Section 124A.

Note:

- The CJI's reference to low conviction rates under the sedition law resonates with a petition highlighting the dramatic jump in charging a person with the offence of sedition since 2016.
- The National Crime Records Bureau reports show that in 2019, 21 cases of sedition were closed on account of no evidence, two were closed for being false cases and six cases were held to be civil disputes.

Functioning of the Judiciary

13. Interference an investigating officer can do without

- » Mains: Separation of powers

Issue:

- There have been growing instances of subordinate judicial officers, and High Courts directing the investigating officer to arrest a particular individual in relation to the commission of a crime. The article explains why such judicial interference in an investigation is undesirable.

Details:

- Recently, the Supreme Court of India observed that the courts have no authority to direct an investigating officer to in turn direct the arrest of any particular individual connected with a crime.
- Contrary to this, certain incidents justify further curbs on the police authority to investigate an established crime. Example:
 - * Horrific murder of a citizen, George Floyd by a Minneapolis police officer in the United States.
 - * June 2020 episode in Sattankulam, Tamil Nadu, where a 58-year-old father and his 31-year-old son died, subject to police brutality.
- However, the article asserts that this issue should be examined in the background of growing instances of interference of judicial officers into an investigation which could widen the government and public distrust of the police.

Effects of Judicial Interference in Investigation:

- Court interference cannot be seen as an intervention. Interference in the day-to-day investigation is not only undesirable but is also not sanctioned by law.
- There are instances of courts bullying police officers with respect to the arrests made in relation to a crime.

- * Such directions are a threat to criminal justice ethics because the bedrock of British jurisprudence is the principle "accused is presumed to be innocent till he is proved guilty".

- * Directing an investigating officer to go ahead with an arrest even before he has scrutinised the evidence collected is unsustainable in law.

- The direction to the police with regard to arrests during a criminal investigation is harmful to police morale and cuts at the roots of field policing.
- A lack of faith in police ability and integrity will make grass-root level policemen even more arbitrary than now and could lead them into carrying out questionable actions that will cast aspersions on an officer's ability to think for himself.

Why is Judicial Interference in Policy Inquiry Unnecessary?

- The Code of Criminal Procedure (CrPC) vests sufficient discretion in the investigating officer to take such decisions as arrests, searches, dropping of further action after registering a first information report (FIR).
- Police are a well-established hierarchy that is obligated to ensure objectivity during a criminal investigation.
 - * Every investigation is supervised by at least two immediate senior officers.
 - * In the more important cases, there are a few more levels.
 - * It is their duty to ensure that every investigation is handled lawfully and impartially.
- Every police station should register a complaint under the relevant sections of a statute the moment a cognisable offence is made out in the complaint.
- There is another safeguard against police misconduct. The CrPC makes it obligatory for the investigating officer to write a diary that details the action taken every day following FIR registration.

Way Forward:

- Besides the Supreme Court (in whom the Constitution vests enormous authority and discretion which are not questionable), the lesser courts should not give directions in the matter of arrests and searches.
- Where supervisory officers fail in their duty because of sheer inaction or buckle under external pressure, they deserve to be pulled up by courts. But not before they are found guilty of indifference or wrongdoings.

Conclusion:

- A humane view of police conducts and a larger scope for freedom of action in the standard operating procedures followed is necessary especially when the police investigate complicated crimes.

Issues and Challenges Pertaining to the Federal Structure

14. Centre notifies purview of Krishna, Godavari Boards

- » Prelims: Krishna and Godavari river
- » Mains: Concept of river management boards and inter-state water disputes

Context:

- The Centre has notified the purview of Krishna and Godavari River Management Boards (KRMB and GRMB) transferring the operation of all projects, including hydel generation, in the two river basins in Andhra Pradesh and Telangana to the boards.

Details:

- The Ministry of Jal Shakti (MoJS) issued the gazette notification bringing 35 projects and their components in the Krishna Basin and Godavari Basin in the two States under the boards' purview.

Significance:

- The notification assumes significance in the backdrop of the escalation in the dispute between the two States over project works and hydel generation at Srisailem, Nagarjunasagar and Pulichintala reservoirs.
- It gives the river management boards more teeth to administer, regulate, operate and maintain projects.
- This empowers the boards to supervise the operation of headworks of barrages, dams, reservoirs, regulating structures, water transmission lines and powerhouses at the projects.
- This move is expected to bring about the much-needed neutrality on water resources matters between the two states.

Note:

- KRMB and GRMB were constituted under the provision of the Andhra Pradesh Reorganisation Act, 2014.
- The River Boards Act provides for the establishment of river boards by the Central government for the regulation and development of Inter-state River and river valleys.

Inter-State River Water Disputes:

- Article 262 of the Constitution provides for the adjudication of inter-state water disputes.
- Under this, Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution and control of waters of any inter-state river and river valley.
- Parliament may also provide that neither the Supreme Court nor any other court is to exercise jurisdiction in respect of any such dispute or complaint.

Important legislations in news

15. An emigration Bill that does not go far enough

- » Mains: Emigration bill 2021- salient provisions; Significance and lacunae

Context:

- The Emigration Bill 2021 is likely to be introduced in Parliament.

Background:

Exploitative conditions:

- There has been growing number of reports of exploitative practices like large recruitment charges, contract substitution, deception, retention of passports, non-payment or underpayment of wages, poor living conditions, discrimination and other forms of ill-treatment of the Indian migrant workers.

Emigration act, 1983:

- Labour migration is governed by the Emigration Act, 1983. It prescribes a mechanism for hiring of Indians for work in foreign countries.
- The recruiting agents must be government-certified.
- It outlines certain obligations for recruiting agents like conducting due diligence of prospective employers.
- It also lays certain regulations of the recruiting agents like the setting of a cap on service fees.

Details:

- The Emigration Bill 2021 seeks to consolidate and amend the existing Emigration act of 1983.

Significance:

- The Emigration Bill 2021 marks some improvements over the 1983 Act.
 - * It launches a new emigration policy division in the Ministry of External Affairs, establishes help desks and welfare committees for migrant workers.

- * It mandates manpower agencies to conduct pre-departure briefings for migrants.
- * It increases accountability of brokers and other intermediaries who are involved in labour hiring.

Lacunae:

Lacking a human rights framework:

- The Emigration Bill 2021 lacks a human rights framework as observed in progressive laws of countries like the Philippines and thus may fail to secure the rights of migrants and their families.

Worker service fees:

- A significant drawback in the Bill is that it permits manpower agencies to charge workers' service fees, and even allows agents to set their own limits.
- The allowing of workers' service fees goes against International labour standards such as International Labour Organization (ILO) Private Employment Agencies Convention No. 181 and the ILO general principles and operational guidelines for fair recruitment which emphasizes that the employers should bear recruitment payments like the costs of work visas, air travel, medical exams, and service charges to recruiters.
- The high worker services charge extracted from the workers makes them vulnerable to indebtedness and exploitation as the high recruitment fees eat into their small savings, forces them to take high-interest loans and makes them vulnerable to abuse and debt bondage.

Provisions of punishment:

- The Bill permits government authorities to punish workers by cancelling or suspending their passports and imposing fines up to Rs. 50,000 for violating any of the Bill's provisions.
- Such a provision overlooks scenarios where the migrant workers may be unaware of the law, may be under the influence of their recruiters, or simply desperate to find a decent job. This provision in fact runs contradictory to the purpose of protecting migrants and their families, and violates international human rights standards.
- This could also become a tool in the hands of the recruiters to pressurize and exploit workers who migrate through unregistered brokers or via irregular arrangements such as on tourist visas.

Unaddressed gender dimensions:

- Given the lack of any specific gender based provisions in the bill, the bill does not adequately reflect the gender dimensions of labour migration.

- * Women are more likely to be employed in marginalised and informal sectors and/or isolated occupations in which labour, physical, psychological, and sexual abuse are a possibility.

Lack of worker representation:

- The Bill provides limited space for worker representation or civil society engagement in the policy and welfare bodies that the new bill envisages.
- This goes against the need for more representative bodies with relevant stakeholders who could be more effective in upholding their own interests.

Conclusion:

- The new Bill though better than the Emigration Act 1983, more reforms are needed to protect Indian workers
- The new bill must explicitly recognize the contributions of Indian workers, the unique challenges they face, and uphold the dignity and human rights of migrants and their families.

Functioning of the Legislature

16. No immunity for acts of vandalism: SC

- » Prelims: Privileges and immunity to legislators

Conclusion:

- The Supreme Court held that lawmakers cannot indulge in criminal acts on the Parliament or Assembly floors and then take cover behind the right to free speech.

Background:

- MLAs in the Kerala Assembly had vandalised the Speaker's dais, uprooted his chair, pulled out the mike system, computer, etc. in 2015.
- The Kerala government had cited privileges and immunity to MLAs and urged the court to drop cases against the leaders.
- The accused leaders had claimed parliamentary privilege, arguing that the incident occurred inside the Assembly hall. They claimed immunity from criminal prosecution.
- The Kerala High Court, in an order passed, had refused to give its nod saying that the elected representatives are expected to uphold the prestige of the House or face consequences.

Details:

- The SC dismissed the Kerala government's plea seeking the court's nod to withdraw cases against CPI(M) leaders for vandalism in the State Assembly in 2015.

- It made it clear that destruction of public property in the House cannot be equated with freedom of expression and immunity to legislators can't be extended as immunity against criminal law.
- The bench asserted that the privileges and immunity accorded to MLAs and MPs do not mean they will enjoy immunity from criminal acts within the House and the trial court was correct in rejecting the application for withdrawal of FIR.
 - * These privileges bear a functional relationship to the discharge of the functions of a legislator.
- It added that privileges are not a mark of status, which allow legislators to stand on a different pedestal, and privileges are also not a gateway to claim exemption from the law.
- It said that the boundaries of lawful behaviour apply to all, including MLAs who hold responsible elected office in the Legislative Assembly. Adding that no member of an elected legislature can claim either a privilege or an immunity to stand above the sanctions of the criminal law, which applies equally to all citizens.
- The court explained that the purpose of bestowing privileges and immunities to elected members of the legislature was to enable them to perform their "essential functions" without hindrance, fear or favour.

Privileges and immunities of MPs and MLAs:

- Articles 105 and 194 of the Constitution deal with the privileges and immunities of members of parliament and legislative assemblies.
- A member of the legislature, the opposition included, has a right to protest on the floor of the legislature. The right to do so is implicit in Article 105(1) in its application to Parliament and Article 194(1) in its application to the State Legislatures.

Conclusion:

- Legislators should act within the parameters of the public trust imposed on them to do their duty. Legislative privilege and parliamentary free speech are necessary elements of a lawmaker's freedom to function, but the Court's conclusion is that an alleged act of destroying public property within the House cannot be considered "essential" for their legislative functions.

Formal / Informal Associations and their Role in the Polity

17. Co-operative Sector in India

- » Prelims: 97th constitutional amendment and related constitutional provisions
- » Mains: Challenges in the co-operative sector; Recent SC verdict on the validity of 97th Constitutional amendment and the formation of new Ministry of Cooperation-Significance and concerns

Co-operatives:

- The Cooperative Societies can be defined as an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise.
- Co-operatives are usually formed at the grassroots level by people to harness the power of collective bargaining towards a common goal.
 - * In agriculture, cooperative dairies, sugar mills, spinning mills etc are formed with the pooled resources of farmers who wish to process their produce. India has 1,94,195 cooperative dairy societies and 330 cooperative sugar mill operations.
 - * In banking and finance, cooperative institutions are spread across rural and urban areas. Village-level primary agricultural credit societies (PACSS) formed by farmer associations are the best example of grassroots-level credit flow.

National Policy on Co-operatives:

- Government of India announced a National Policy on Co-operatives in 2002. The ultimate objective of the National Policy is to:
 - * Provide support for promotion and development of cooperatives
 - * Reduction of regional imbalances
 - * Strengthening of cooperative education, training and human resource development

Challenges in the co-operative sector:

Political interference:

- The major problem of cooperatives in India is the political interference in the functioning of the Co-operatives.
- Powerful politicians have been using the co-ops use the sugar co-ops for their political advantage. They have been using cooperatives to increase their vote bank. They also get their own people on the boards of such co-ops so they are on control these cooperatives.

- Many cooperative societies do not hold elections regularly, while some are superseded frequently.

Vested interests:

- There have been innumerable examples of people in top positions of the cooperatives reaping personal benefits from the co-operatives functioning.
- This amounts to conflict of personal interests with the interest of the cooperatives which in turn impacts the performance of the cooperatives in a negative way.

Non-accountability:

- Despite many benefits offered to the co-operatives by the government like reservation of items, access to cheap finance facilities, the co-operatives have remained inefficient. The lack of accountability is a major impediment in the effective functioning of the co-ops.

Lack of Balanced Growth:

- The cooperatives in northeast areas and in areas like West Bengal, Bihar, Orissa are not as well developed as the ones in Maharashtra and the ones in Gujarat.

Lack of transparency in functioning:

- A key challenge within co-operatives is a lack of transparency between the governing board and the general members. There is mistrust among co-operative members as well as amongst general members and the management / board. This invariably leads to dormant membership and has a negative impact on the effectiveness of such co-ops.

Lacunae in Co-operatives:

- Poor infrastructure, lack of leadership and managerial and financial management skills, lack of strong human resources and overdependence on government have adversely impacted the effectiveness of the Co-operatives in India.

Supreme Court verdict on validity of 97th Constitutional amendment:

97th Constitutional amendment:

- The 97th constitutional amendment, dealt with issues relating to effective management of co-operative societies in the country. The 97th Constitution Amendment was a major step towards infusing autonomy, democratic functioning and professional management.
- It amended Article 19(1)(c) to give protection to the cooperatives and inserted Article 43 B and Part IX B, relating to them.

* Article 19(1)(c) guarantees freedom to form association or unions or cooperative societies subject to certain restrictions.

* Article 43 B says that states shall endeavour to promote voluntary formation, autonomous functioning, democratic control and professional management of cooperative societies.

* The Part IX B of the Constitution dictated the terms for running cooperative societies. It dealt with aspects of incorporation, number of directors a society should have, their length of tenure, necessary expertise etc.

PIL in Gujarat High Court and its verdict:

- A PIL was filed in the Gujarat High Court challenging the legality of the 97th constitutional amendment on the ground that Centre had no legislative competence to enact law for cooperative societies which is exclusively a state subject under the scheme of the Constitution.
- The PIL had expressed concerns that the amendment made a direct in-road into the exclusive domain of states to enact laws with regard to cooperatives.
- The PIL petitioner had also contended that as per the provisions of Article 368 of the Constitution, if Parliament intends to amend or delete any of the lists in the seventh schedule, such Amendment shall require to be ratified by the legislature of not less than one half of the states by resolution to the effect passed by those legislatures before the bill making provisions for such amendment is presented to the President for Assent.
 - * The provisions in the 97th amendment were passed by Parliament without getting them ratified by State legislatures.
- The Gujarat High Court had struck down certain provisions of the 97th constitutional amendment based on concerns that these provisions violated the basic structure of federalism.
- The Centre had challenged the Gujarat High Court's 2013 judgement in the Supreme Court.

Union of India vs Rajendra N.Shah case details:

- The three judge bench of the Supreme Court has upheld the 2013 Gujarat High Court verdict that struck down parts of the 97th amendment.
- Supreme Court though upheld the validity of the 97th Constitutional amendment but struck down a part related to the setting up and functioning of cooperative societies working within a state.

- The Supreme Court judgement is based on the reasoning that the concerned subject matter of co-operative fell in the state list and hence it belongs wholly and exclusively to the State legislatures to legislate upon and any change would require the ratification by at least one-half of the state legislatures as per Article 368(2) of the Constitution.
 - * Cooperative Societies is a State Subject under Entry 32 of the State List of Seventh Schedule of the Constitution of India.
 - * The judgement held that the 97th constitutional amendment had a significant and substantially impact on the State legislatures' "exclusive legislative power" over its cooperative sector.
- The majority judgment declared that Part IXB of the Constitution of India is operative only in so far as it concerns multi-State co-operative societies both within the various States and in the Union territories of India.
- The dissenting judge however held that the doctrine of severability would not operate to distinguish between single-State cooperatives and MSCS and had argued that the entire Part IXB should be struck down on the ground of absence of ratification.
- Disagreeing with the Centre government's argument that the amendment was aimed at bringing uniformity in the management of cooperative societies throughout the country, the Supreme Court suggested that if the Centre wanted to achieve uniformity 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.

Significance:

Boost for federalism:

- The verdict is being welcomed as a major boost for federalism as the concerned amendment had shrunk the exclusive authority of States over its cooperative societies.
- The verdict is also significant amid States' fears over the new Union Ministry of Cooperation and the effect it could have on the powers of the states in the domain of co-operatives.

- The judgement elaborates that despite India being a quasi-federal with a tilt in favour of the Centre vis-à-vis the States given the federal supremacy principle, the States still have exclusive power to legislate on topics reserved exclusively to them.

New Ministry of Co-operation:

- The Ministry of Co-operation has been newly formed under the Government of India in July 2021.
- The ministry has the following main objectives:
 - * To realize the vision of "Sahkar se Samridhi" (prosperity through cooperation).
 - * To streamline processes for "Ease of doing business" for co-operatives and enable development of Multi-State Co-operatives (MSCS)
 - * To provide a separate administrative, legal and policy framework for strengthening the cooperative movements in the country.
 - * To deepen the cooperative as a true people-based movement reaching upto the grassroot level.

Concerns:

- While the formation of the new Ministry of Co-operation is expected to provide a new lease of life to the co-operative movement in India by helping remove impediments in their progress, some sections have expressed concerns over the new cooperation ministry becoming an infringement upon the federal rights of the state governments
- They have cautioned that even well-intentioned efforts towards reforms like the new ministry on cooperation cannot be at the cost of the quasi-federal principles underlying the Constitution.

Conclusion:

- Given the numerous challenges and concerns associated with the functioning of the cooperative movement in India, it certainly needs reform and revitalisation.
- In the context of the recent Supreme Court judgment in the Union of India vs Rajendra N.Shah case where the three judge bench of the SC struck down certain provisions of the 97th Constitutional Amendment, the cooperative sector is best left in the domain of the States itself. Though democratising the functioning of cooperative societies and enhancing their autonomy remains a priority, the reforms in cooperative sector should not be at the cost of federal principles

- Given that the organising principles and mechanism of the cooperatives differ from area to area and depend on the industry or crop, the government must desist from striving for homogeneity in the cooperative sector through measures such as the 97th constitutional amendment as well the recently formed Ministry of Cooperation.

ECONOMY

Agriculture - GI Tags

1. Bhalia wheat

- » Prelims: Bhalia wheat
- » Mains: Significance of Geographical Indication Tag

Context:

- Exports of Geographical Indications certified Bhalia wheat from Gujarat began.

Details:

- The first shipment of Geographical Indication (GI) certified Bhalia variety of wheat was exported to Kenya and Sri Lanka from Gujarat.
- This initiative is expected to give a boost to wheat exports from India.

About Bhalia Wheat:

- This wheat variety has high protein content and is sweet in taste.
- The crop is grown mostly across the Bhal region of Gujarat which includes Ahmadabad, Anand, Kheda, Bhavnagar, Surendranagar, Bharuch districts.
- It is grown in rainfed conditions without irrigation and cultivated in around two lakh hectares of agricultural land in Gujarat.
- The Bhalia variety of wheat received GI certification in 2011.

Governmental schemes/Programmes/Initiatives

2. Bhartiya Prakritik Krishi Padhati (BPKP)

- » Prelims: Paramparagat Krishi Vikas Yojana
- » Mains: Benefits of natural farming
- The government is implementing Bhartiya Prakritik Krishi Padhati (BPKP) as a sub-scheme of Paramparagat Krishi Vikas Yojana (PKVY) since 2020-21 for the promotion of traditional indigenous practices.
- The scheme mainly emphasizes on exclusion of all synthetic chemical inputs and promotes on-farm biomass recycling with major stress on –
 - * Biomass mulching
 - * Use of cow dung-urine formulations
 - * Plant-based preparations
 - * Time to time working of soil for aeration
- Under BPKP, financial assistance of Rs 12200/ha for 3 years is provided for cluster formation,

capacity building and continuous handholding by trained personnel, certification and residue analysis.

- Benefit of the scheme: Natural farming will reduce dependency on purchased inputs and will help to ease smallholder farmers from credits burden.

Governmental schemes/Programmes/Initiatives

3. Bio-toilets in Railways

- » Prelims: Bio-toilets
- Bio-toilet is a dry toilet that treats human waste by a biological process called composting.
- It decomposes human excretory waste in a digester tank using specific high graded bacteria (aerobic or anaerobic), further converting it into methane gas, carbon dioxide gas and water.
- It treats human waste at the source. A collection of anaerobic bacteria that have been adapted to work at temperatures as low as -5 degree C and as high as 50 degree C as inocula (seed material) to the bio-digesters convert the organic human waste into water, methane and carbon dioxide gases.
- The anaerobic process inactivates the pathogens responsible for water-borne diseases and treats the excreta without the use of an external energy source.
- However, sometimes, bio-toilets are choked as passengers dump cigarette butts, gutka pouches, plastic water bottles, plastic covers, liquor bottles, and food waste into it.

Governmental schemes/Programmes/Initiatives

4. E-100 Pilot Project

- » Prelims: E-100 pilot project
- » Mains: India's National Biofuel policy; significance of biofuel based economy

Context:

- E-100 Pilot Project launched.

About the E-100 Pilot Project:

- The E-100 Pilot Project was launched in Pune on the occasion of World Environment Day (5 June).
- The project aims to set up a network for production and distribution of ethanol across the nation.

Governmental schemes / Programmes / initiatives

- Agriculture

5. e-Santa

- » Prelims: e-Santa
- The term eSaNta depicts Electronic Solution for Augmenting NaCSA Farmers Trade in Aquaculture.
 - * National Centre for Sustainable Aquaculture (NaCSA) is an extension arm of the Marine Products Export Development Authority (MPEDA), Ministry of Commerce & Industry. The objectives of NaCSA are to encourage and uplift the small and marginal farmers through the organization of clusters and maintaining of best management practices.
- It basically functions as an electronic marketplace for marine products. It enables widely dispersed buyers and farmers to interact and execute purchase transactions digitally.
- This initiative by building a bridge between Aqua farmers and buyers to interact directly and buy the produce directly from farmers helps eliminate the middlemen completely.

Governmental schemes / Programmes / initiatives

- Agriculture

6. India Digital Ecosystem of Agriculture (IDEA)

- » Prelims: IDEA
- » Mains: Objectives, significance and challenges

Background:

- The Centre had published a consultation paper on an India Digital Ecosystem of Agriculture (IDEA) in 2021, and sought public feedback.

Details:

- IDEA aims to build a National Digital Agriculture Ecosystem to elevate the Indian agriculture sector to higher levels of efficiency and productivity, and to improve the welfare and income of farmers.
- The Agriculture Ministry aspires that the IDEA initiative would place the farmer in the centre of the agriculture ecosystem leveraging open digital technologies.
 - * Precision agriculture would become a reality with access to the right information at the right time.
 - * The farmer can take informed decisions and implement best practices to maximize the yield.
 - * The agriculture supply chain players can plan their production and logistics on precise and timely information.



Objectives of IDEA:

- To enable higher income and better profitability to farmers through access to the right information at the right time.
- To enable better planning and execution of policies, programs, and schemes.
- To enhance efficiencies in the usage of resources.
- To give a fillip to R&D and Innovations in agriculture through access to high-quality data.
- To formulate and leverage PPP frameworks for realizing the 'power of the digital'.

Concerns:

- The task force which brought out the proposals or the governance framework of IDEA does not include farmer representation.
- The Centre's digital agriculture proposals have raised concerns of:
 - * exploitation of farmers
 - * data protection and consent
 - * mismanaged land records
 - * exclusion of landless cultivators
 - * the corporatisation of agriculture
- The Centre has been demanded to stop implementation of the pilot projects being rolled out in partnership with tech and retail giants including Microsoft, Amazon and Patanjali.
- Groups that sent feedback are against such digital infrastructure being owned by private corporates and have demanded that the ownership be with the government.

Conclusion:

- Digital technologies and especially emerging technologies like Artificial Intelligence/Machine Learning, Internet of Things open immense opportunities, with the right architecture and an enabling environment.

Indian Economy and Infrastructure

7. Kandla becomes first Green SEZ

- » Prelims: Special Economic Zone

Context:

- Kandla SEZ (KASEZ) was awarded IGBC Platinum Rating.

Details:

- KASEZ is the First Green SEZ to achieve the IGBC Green Cities Platinum Rating for Existing Cities.

About IGBC Green Cities (Existing Cities):

- IGBC Green Cities (Existing Cities) rating system is a voluntary and consensus-based programme.
- IGBC Green Cities rating system is the first of its kind rating in India to address environmental sustainability in existing cities.
- The rating system shall enable the municipalities, municipal corporations, development authorities and developers to formulate green policy interventions and implement green initiatives at the city scale, so as to reduce environmental impacts that are measurable and improve the overall quality of life.
- The Indian Green Building Council (IGBC), part of the Confederation of Indian Industry (CII) was formed in the year 2001.
 - * The vision of the council is, "To enable a sustainable built environment for all and facilitate India to be one of the global leaders in the sustainable built environment by 2025".
 - * The council is committee-based, member-driven and consensus-focused.

About the Kandla Special Economic Zone:

- Kandla Special Economic Zone (KASEZ), earlier known as the Kandla Free Trade Zone, is located at the port town Gandhidham in the state of Gujarat.
- The Kandla Special Economic Zone (KASEZ) is the first in Asia and the largest multi-product Special Economic Zone in India.

Indian Economy and Infrastructure

8. LNG

- » Prelims: LNG
- » Mains: Significance of a gas based economy; Challenges

Context:

- Union Minister inaugurated India's first LNG facility plant at Nagpur, Maharashtra.

Details:

- The country's first Liquefied Natural Gas (LNG) facility plant has been set up by Baidyanath Ayurvedic Group (private sector) on Kamptee Road near Nagpur Jabalpur Highway.

Liquified Natural Gas (LNG):

- LNG is a clear, colourless and non-toxic liquid that forms when natural gas is cooled to -162°C (-260°F).
- The cooling process shrinks the volume of the gas 600 times, making it easier and safer to store and ship. In its liquid state, LNG will not ignite.
- When LNG reaches its destination, it is turned back into a gas at regasification plants.
- It is then piped to homes, businesses and industries where it is burnt for heat or to generate electricity.
- LNG is now also emerging as a cost-competitive and cleaner transport fuel, especially for shipping and heavy-duty road transport.
- It has the potential to decrease logistics cost and create many job opportunities also.
- LNG is the fuel of the future and will revolutionize the transport sector.

Agriculture - GI Tags

9. Madurai Malli

- » Prelims: Madurai Malli
- » Mains: Significance of GI tags

Context:

- GI certified Madurai Malli and other flowers exported to USA & Dubai from Tamil Nadu.

Details:

- The Madurai Malli or Jasmine plays a key role in Tamil Nadu culture and economy.
- The sacred flower has a link to Madurai dating back to 300 BCE.
- Flowers hold a special place in Indian culture as they are intrinsic to many rituals and customs.
- Madurai Malli is famed for its fragrance and it has a huge demand among the Indian diaspora in Malaysia, Singapore, Dubai and also Western Europe, especially France.
- To meet this demand, jasmine is cultivated across 1200 hectares of land in Madurai district alone.
- Moist, well-drained, sandy loam soil in Madurai is ideal for jasmine cultivation.
- Madurai jasmine is widely used in weaving garlands and its extract is used in making perfumes, soaps and lotions.

- It is also used as a flavouring agent for rice known as malli rice.
 - * About 1 ton of the flower is required to extract 1 kg of jasmine concentrate which sells at around Rs 1 lakh.
- Why the Madurai Malli has a strong fragrance?
 - * Unlike the other places, the jasmine plucked from the farms in Madurai bears a thick fragrance and bulky petals.
 - * The flower's colour and fragrance stays intact for two days because of the thick petal (delayed flowering period).
 - * Owing to the region's topography, alkaloids like jasmone and alpha-terpineol accumulate in the flowers giving it a heady scent.

Governmental schemes / Programmes / Initiatives

10. MatsyaSetu App

- » Prelims: Matsya setu App
- » Mains: Initiatives in the fisheries sector

Context:

- MatsyaSetu Mobile App launched by the Fisheries, Animal Husbandry and Dairying Ministry.

About the MatsyaSetu App:

- It is an online course mobile app developed by the ICAR-Central Institute of Freshwater Aquaculture (ICAR-CIFA), Bhubaneswar, with the funding support of the National Fisheries Development Board (NFDB), Hyderabad.
- The app aims to disseminate the latest freshwater aquaculture technologies to the aqua farmers of the country.
- MatsyaSetu 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, pearl farming etc.
- Better Management Practices to be followed in maintaining the soil & water quality, feeding and health management in aquaculture operations are also provided in the course platform.
- The modules are divided into small video chapters for the convenience of the learners, along with additional learning materials.
- It also features quizzes and tests for self-assessment.

- Upon successful completion of each course module, an e-Certificate can be auto-generated.
- Farmers can also ask their doubts through the app and get specific advisories from experts.

Miscellaneous

11. National Fish Farmers Day

- » Prelims: National Fisheries Development Board

Context:

- National Fish Farmers Day is observed on 10th July every year in honour of scientists Dr. K. H. Alikunhi and Dr. H.L. Chaudhury.

About National Fish Farmers Day:

- These two scientists had successfully demonstrated the technology of induced breeding (Hypophysation) in Indian Major Carps in 1957 at the erstwhile 'Pond Culture Division' of CIFRI at Cuttack, Odisha (presently Central Institute of Freshwater Aquaculture, CIFA, Bhubaneswar).
- The event aims to draw attention to changing the way the country manages fisheries resources to ensure sustainable stocks and healthy ecosystems.
- Every year, the event is celebrated by felicitating outstanding fish farmers, aquapreneurs & fisher folks in recognition of their accomplishments in the field and their contribution in the growth of the fisheries sector in the country.
- Fishermen and fish farmers across the nation participate in the event apart from officials, scientists, professionals, entrepreneurs and stakeholders.

National Fisheries Development Board (NFDB):

- NFDB was established in 2006 as an autonomous organization under the administrative control of the Department of Fisheries, Ministry of Fisheries, Animal Husbandry & Dairying, Government of India to enhance fish production and productivity in the country and to coordinate fishery development in an integrated and holistic manner.
- NFDB is situated in Hyderabad, Telangana.

Governmental schemes / Programmes / Initiatives

12. National Mission on Oilseeds and Oil Palm (NMOOP)

- » Prelims: NMOOP- Objectives

About NMOOP:

- The National Mission on Oilseeds and Oil Palm (NMOOP) was launched by the Government of India in 2014-15 with an aim to boost the production of oilseeds in the country.

- The NMOOP was launched under Mini Missions (MM) I, II & III to achieve the following specific targets:
 - * Under the MM-I, the mission aims to increase the production of oilseeds to 35.51 million tonnes from the current average production of 28.93 million tonnes of oilseeds.
 - * Under the MM-II, the mission's target is to broaden the area for oil palm cultivation and boost the production of Fresh Fruit Bunches (FFBs) from 4927 kg/ha to 15,000 kg/ha.
 - * MM-III envisages to strengthen the seed collection of Tree Borne Oilseeds (TBOs) such as olive, sal, mahua, kokum, wild apricot, Tung, etc., from 9 lakh tonnes to 14 lakh tonnes and provide best planting materials for the expanded areas.
- India is one of the major oilseeds growers and importers of edible oils. India's vegetable oil economy is the world's fourth largest after the USA, China & Brazil.
- A substantial portion of India's requirement of edible oil is met through import of palm oil from Indonesia and Malaysia.
- It is, therefore, necessary to exploit domestic resources to maximize production to ensure edible oil security for the country.
- The strategy to implement the Mission includes:
 - * Increasing Seed Replacement Ratio (SRR) with focus on Varietal Replacement
 - * Increasing irrigation coverage under oilseeds from 26% to 36%
 - * Diversification of area from low yielding cereal crops to oilseed crops
 - * Inter-cropping of oilseeds with cereals/pulses/sugarcane
 - * Use of fallow land after paddy/potato cultivation
 - * Expansion of cultivation of Oil Palm & TBOs in watersheds and wastelands
 - * Increasing availability of quality planting materials of Oil Palm & TBOs
 - * Enhancing procurement of oilseeds and collection & processing of TBOs
- The fund allotted under the mission is shared between the Central and State Governments in the ratio of 75:25 and is released to the Department of Agriculture/Horticulture of the State Governments.

Context:

- Union Agriculture Minister gave the above information in a written reply in the Rajya Sabha.

Governmental schemes / Programmes / Initiatives

13. Pandit Deen Dayal Upadhyay Unnat Krishi Shiksha Yojana (PDDUUKSY)

- » Prelims: Pandit Deen Dayal Upadhyay Unnat Krishi Shiksha Yojana
- » Mains: Significance of higher education in the agricultural sector
- Pandit Deen Dayal Upadhyay Unnat Krishi Shiksha Yojana (PDDUUKSY) was launched to develop human resource in organic farming, natural farming and cow based economy for environmental sustenance and soil health
- It was started with the establishment of 100 centres. Under this scheme, 108 training programmes were organized for the awareness of the farmers during the period of operation.
- Scheme objectives:
 - * To build skilled Human Resource at village level relevant to national needs towards organic farming and sustainable agriculture.
 - * Provide rural India with professional support in the field of Organic Farming/Natural Farming/Rural Economy/Sustainable Agriculture.
 - * To extend other activities of Pandit Deen Dayal Upadhyay Unnat Krishi Shiksha Yojana at village level through these established centres.
- The scheme was launched in 2016 and is an initiative of the Ministry of Agriculture and Farmers' Welfare being implemented by the Education wing of the Indian Council of Agricultural Research (ICAR).

Governmental schemes / Programmes / Initiatives

14. PLI Scheme for Specialty Steel

- » Prelims: Production-linked Incentive (PLI) Scheme; Specialty steel

Context:

- Union Cabinet approves Production-linked Incentive (PLI) Scheme for Specialty Steel.

Details of the scheme:

- With a budgetary outlay of ₹6322 crores, the scheme is expected to bring in investment of approximately ₹40,000 crores and capacity addition of 25 MT for specialty steel.
- The scheme is expected to give employment to about 5,25,000 people of which 68,000 will be direct employment.
- The duration of the scheme is from 2023-24 to 2027-28 (five years).

Why has speciality steel been chosen for the PLI Scheme?

- Speciality steel has been chosen as the target segment because out of the production of 102 million tonnes of steel in India in 2020-21, only 18 million tonnes of value added steel/speciality steel was produced in the country.
- Apart from this, out of 6.7 million tonnes of imports in the same year, approximately 4 million tonnes was of specialty steel alone resulting in a foreign exchange outgo of nearly Rs. 30,000 crores.
- The idea is to become 'atmanirbhar' in specialty steel in order to come on par with advanced steel making nations like Japan and Korea.
- The benefit of this scheme will accrue to both big players i.e. integrated steel plants and to the smaller players (secondary steel players)

Specialty Steel:

- Specialty steel is value added steel wherein normal finished steel is worked upon by way of coating, plating, heat treatment, etc. to convert it into high value added steel which can be used in various strategic applications like Defence, Space, Power, apart from automobile sector, specialized capital goods, etc.

The five categories of specialty steel which have been chosen in the PLI Scheme are:

- Coated/Plated Steel Products
- High Strength/Wear resistant Steel
- Specialty Rails
- Alloy Steel Products and Steel wires
- Electrical Steel

Miscellaneous

15. Raja Mircha Chilli

- » Prelims: Raja Mircha chilli
- » Mains: Potential of agricultural exports from India

Context:

- King Chilli 'Raja Mircha' from Nagaland exported to London for the first time.

Raja Mircha Chilli:

- Nagaland King Chilli or Raja Mircha belongs to genus Capsicum of family Solanaceae.
- Naga king chilli has been considered as the world's hottest chilli and is constantly on the top five in the list of the world's hottest chilies based on the Scoville Heat Units (SHUs).
- The chilli from Nagaland is also referred to as BhootJolokia and Ghost Pepper.
- It got GI certification in 2008.

Governmental schemes / Programmes / Initiatives

16. RoSCTL Scheme

- » Prelims: RoSCTL scheme provisions
- » Mains: Significance of the scheme

Context:

- Government approved continuation of Rebate of State and Central Taxes and Levies (RoSCTL) on Export of Apparel/Garments and Made-ups.

Details:

- The Centre has extended the rebate of state and central taxes and levies (RoSCTL) on export of apparel and garments for another three years.
- The move critically reduces the price of Indian products in the global market because manufacturers don't have to add the cost of state and central taxes on it.
- The Centre clarified that textile products not covered under the RoSCTL shall be eligible to avail the benefits under RoDTEP scheme.

Benefits:

- The move would help the struggling textile industry by making the pricing of Indian apparels more competitive in the global market.
- This would help increase exports and create more jobs.

RoSCTL Scheme:

- Under the RoSCTL scheme, exporters are issued a duty credit scrip for the value of embedded taxes and levies contained in exported products. Exporters can use this scrip to pay tax while importing equipment, machinery.
- It is a globally accepted principle that taxes and duties should not be exported, to enable a level playing field in the international market for the exporters.
- Realizing the importance of refund of embedded taxes, cesses and duties, the Ministry of Textiles first launched a scheme by the name of Rebate of State Levies (ROSL) in 2016.
 - * In this scheme the exporters of apparel, garment and made-ups were refunded embedded taxes and levies through the budget of the Ministry of Textiles.
- The RoSCTL scheme was notified in 2019 under which exporters are issued a duty credit scrip for the value of the embedded taxes in the exported products.

Governmental schemes / Programmes / Initiatives

17. Scheme for promotion of flagging of merchant ships in India

- » Prelims: Provisions of the scheme
- » Mains: Significance of the scheme

Context:

- The Union Cabinet approved a scheme for the promotion of flagging merchant ships in the country.

What was the need of the Scheme?

- India's shipping industry and its national fleet is proportionately small when compared with its global counterparts despite:
 - * Having a 7,500 km long coastline
 - * A significant national EXIM trade that is steadily growing on an annual basis
 - * 100% FDI policy in shipping since 1997
- Currently, the Indian fleet comprises a meagre 1.2% of the world fleet in terms of capacity.
- The share of Indian ships in EXIM trade has also reduced from 40.7% in 1987-88 to about 7.8% in 2018-19 which has caused a hike in the foreign exchange outgo on account of freight bill payments to foreign shipping companies.
- The operating costs of Indian ships are much higher than foreign ships. This difference in operating costs arises on account of higher costs of debt funds, shorter tenure of loans, taxation on wages of Indian seafarers engaged on Indian ships, IGST on import of ships, blocked GST tax credits, discriminatory GST on Indian ships providing services between two Indian ports; all of which are not applicable to foreign ships providing similar services. (Indian ships have to mandatorily employ Indian crew and follow Indian taxation and corporate laws).
- Hence, importing a shipping service by an Indian charterer is cheaper than contracting the services of a local shipping company.
- A policy to promote the growth of the Indian shipping industry is also necessary because having a bigger national fleet would provide economic, commercial, and strategic advantages to India.

Details of the scheme:

- The Cabinet approved a scheme to provide subsidies to merchant ships in India, approved in accordance with the Atmanirbhar Bharat goals.
- Subsidy will be provided to the Indian shipping companies in global tenders floated by Ministries and Central Public Sector Enterprises (CPSEs).

- The Centre will provide Rs. 1,624 crore over 5 years as a subsidy. This will be provided to shipping companies in global tenders floated by Ministries and CPSEs for importing government cargo.
- A ship that is flagged in India after February 1, 2021, and which is between 10 and 20 years at the time of flagging in India will get extended subsidy support at the rate of 10% of the quote offered by the L1 foreign shipping company, or, the actual difference between the quote offered by the Indian flag vessel exercising the right of the first refusal (ROFS) and the quote offered by the L1 foreign shipping company, whichever is less.
- The rate at which the subsidy support is extended would be reduced by 1% every year, till it falls to 10% and 5% respectively.

Benefits of the scheme:

- Increase in Indian fleet will provide direct employment to Indian seafarers since Indian ships are required to employ only Indian seafarers.
- Cadets who wish to become seafarers are required to obtain on-board training on ships. Indian ships will therefore provide training slots for young Indian cadet boys and girls.
- This will enhance the share of Indian seafarers in global shipping, and thus Indian supply of seafarers to the world will increase manifold.
- Further, an increase in Indian fleet will also generate indirect employment in the development of ancillary industries such as shipbuilding, ship repair, recruitment, banking, etc. and contribute to the Indian GDP.

Governmental schemes / Programmes / Initiatives

18. Startup India Showcase Platform

- » Prelims: Department for Promotion of Industry and Internal Trade (DPIIT) and Startup India programme

Context:

- 104 startups from different sectors have currently on-boarded on the Startup India Showcase Platform.

About the Startup India Showcase Platform:

- Startup India Showcase is an online discovery platform for the most promising startups of the country.
- It is an online platform to exhibit the finest startups of the country that have been handpicked through various Department for Promotion of Industry and Internal Trade (DPIIT) and Startup India programs.

- All DPIIT-recognized startups under Startup India are eligible to apply for the Showcase. Startups can apply on the Startup India website by filling a form, uploading their pitch deck, and catalogue.

- * An apex committee constituted by the DPIIT selects the startups for showcase on the portal.

Features of the portal:

- * **Visibility:** Each startup has a profile page with detailed pitch about their product, innovation, and USP in forms of Videos and PDF links.
- * **Networking:** It can act as a networking portal offering various social and digital connect opportunities.
- * **Discovery:** It can act as an online discovery platform for startups.
- * **Star Repository:** It is an all-star repository as the platform contains startups that have already proved their capabilities via different means (winning competitions, selling on GeM, etc.), they will also be a potential priority choice for government and corporate buyers, facilitating their business growth.
- Showcased startups get various benefits such as potential investments, potential customers/businesses, get more visibility and recognition, get access to government projects and fundraising opportunities from relevant investors.

Legislations in news - Infrastructure

19. The Airports Economic Regulatory Authority of India (AERA) Amendment Bill, 2021

- » Prelims: AERA amendment bill
- » Mains: Significance

Provisions:

- The bill proposes to amend the definition of "major airport" under the Airports Economic Regulatory Authority (AERA) Act, 2008. The amendment proposes to replace the phrase "any other airports" with "group of airports".
 - * At present, a "major airport" refers to one that has an annual passenger traffic of more than 35 lakh or any other airport specified by the central government.
- There is also an enabling provision for AERA to determine tariffs for a group of airports. The amendment will allow AERA to regulate tariff and other charges for aeronautical services for not just major airports with annual passenger traffic of more than 3.5 million, but also a group of airports together.

Significance:

- The purpose of this amendment is to pair the smaller non-profitable airports with profitable airports as a combination/package to bidders to make it a viable combination for investment under PPP (public-private partnership) mode. The government will be able to club profitable and non-profitable airports as a package for privatisation as envisaged in this year's Budget. Thus it will provide a fillip to the government's airport privatisation plan.
- The move to club smaller loss-making Airport Authority of India (AAI)-run airports with larger ones is being undertaken following criticism of the existing policy which had left the AAI saddled with only small loss-making airports.
- The airports would be paired in such a way that it brings operational and financial synergies.
- An extension of the definition will expand the scope of determining tariffs for smaller airports, thereby encouraging further investment in them. It would help encourage the development of smaller airports. The move will provide an impetus to the development of not only the high traffic volume profitable airports, but also the low traffic volume non-profitable airports.
- This move is also likely to help in expanding the air connectivity to relatively remote areas and as a result, expediting the UDAN regional connectivity scheme.

Miscellaneous

20. Vintage Motor Vehicles

Context:

- Registration process for Vintage Motor Vehicles formalized.

Details:

- The Ministry of Road Transport & Highways has amended the Central Motor Vehicles Rules, 1989.
- Through this amendment, the registration process of Vintage Motor Vehicles has been formalized with an aim to preserve and promote the heritage of vintage vehicles.
- The new rules shall provide a hassle-free process along with salient features such as retention of old number for already registered vehicles and a "VA" series (Unique Registration Mark) for fresh registrations.
- All two and four wheeler vehicles that are over 50 years old and maintained in their original form and have not undergone any substantial overhaul, shall be defined as Vintage Motor Vehicles.

- Vintage motor vehicles shall not be driven on roads for regular/commercial purposes.

Effects of Liberalization of the economy

21. India's 1991 liberalisation leap and lessons for today

- » Mains: Changes post the 1991 liberalization; Concerns and recommendations

Context:

- In light of the historic economic contraction of the Indian economy induced by the COVID-19 pandemic and calls for economic reforms to revive growth, the article discusses the 1991 economic reforms and the road ahead for India.

Background:

Pre-reform era:

- The Indian economy before the 1991 reforms was based on strict regulation and could be characterized as a controlled system.
- The public sector accounted for a significant proportion of the economy with the so-called critical sectors reserved for the public sector despite their lacklustre performance.
- The private sector was not allowed to participate in a number of so-called critical sectors. In other sectors too, the private sector's participation was highly regulated and dependent on obtaining industrial licences from the administration. This had given rise to a system popularly referred to as the Licence Raj.
- Over 860 items were reserved exclusively for small-scale producers, including many that had very high export potential. This robbed the economy of potential advantages of production at scale offered by bigger industries.
- Imports were very strictly controlled to protect scarce foreign reserves and also to protect the domestic producers from import competition. Foreign Direct Investment (FDI) was also discouraged.
- Such a controlled system was not suitable for encouraging enterprise or innovation.

1991 Economic Reforms:

- The 1991 economic reforms marked significant liberalization of the Indian economy including measures such as liberalization of industrial licencing, increased privatization and moving to a flexible exchange rate, etc. It focussed on industrial, trade and financial sector reforms.
 - * The 1991 reforms with their emphasis on privatization aimed to unleash the energies of the private sector to accelerate economic growth.

- * Economic liberalization encouraged enterprise and innovation in the economy.
- * The emphasis on globalization ensured India was able to become part of the global supply chains and gain advantages from it.

- The 1991 economic reforms resulted in significant gains for India.
 - * The GDP growth averaged 7% in the 25 years from 1992 to 2017, compared with an average of 5% in the preceding ten years and 4% in the preceding 20 years.
 - * The 1991 reforms, though they mainly emphasized economic growth, did ensure an adequate flow of benefits to the poor. As the economic growth accelerated, poverty declined.
 - » Between 2004-05 and 2011-12, about 140 million people were pulled above the poverty line.

Shortcomings of the 1991 reforms:

- Though the reforms were hugely successful a lot remains to be done.
 - * The reforms envisaged in the financial sector remain an unfinished business as is evident from the ongoing crisis in the financial system of India, plagued by the NPA crisis.
 - * Social sectors like health and education haven't improved commensurate with the economic growth.
 - * The development strategy has failed to suitably acknowledge and deal with the environmental impact of economic growth.
 - * Key factor market reforms in areas of labour and land remain an unfinished business. This seems to be holding up further investment into the Indian economy. The attempts made to introduce land and labour reforms have faced opposition from several sections.

Concerns:

- The article expresses concerns over several developments in the recent past.

Increasing import tariffs:

- As against the progressive lowering of import tariffs over the years, there has been a reversal of this trend over the past few years.
- While this appears to be in line with rising protectionism globally, it could hamper India's stated ambition to become part of global supply chains and adversely impact India's ability to play a greater role in world trade.

Decision to stay out of RCEP:

- India decided to stay out of the RCEP [Regional Comprehensive Economic Partnership], based on the fear of flooding of cheap products from countries like China, a member of RCEP.

- This marks a departure from India's attempt to move from "Look East" to "Act East" and also its attempts to become part of the global supply chains.

Employment concerns:

- The spectre of jobless growth has been a matter of great concern in the recent past.
 - * Jobless growth is an economic phenomenon in which a macroeconomy experiences growth while maintaining or decreasing its level of employment.
 - * A jobless growth economy indicates the existence of changes to the fundamental basis of work for everyone. In India, this could be observed in the change from being a predominantly agricultural economy to the services sector playing a significant role.
 - * While some workers will do well, as they have the skills and training that growing industries require, others face long-term unemployment or underemployment and will be unable to find work until they obtain new skills.
- The substantial slowdown in GDP growth after 2016-17 led to employment actually falling from 474 million in 2011-12 to 469 million in 2018-19. Open unemployment has increased.

COVID-19 induced economic shock:

- According to provisional National Income estimates, GDP contracted by 7.3% in 2020-21. Many analysts say this underestimates the contraction as the adverse impact on the informal sector is not captured.
- This sharp fall in the GDP has led to a contraction in total employment. The pandemic has led to severe income and job losses adversely impacting the livelihood opportunities of several families in India.

Recommendations:

- India needs to get back to 7% to 8% growth if we want to make progress on poverty reduction and provide enough jobs for our growing labour force. In this respect, the article makes the following recommendations.

Addressing structural issues:

- Indian industry has to deal with poor infrastructure, poor logistics and time-consuming trade procedures, which reduce its price competitiveness in the global markets. These have to be addressed at the earliest.

On import duties:

- Given that the raising of import duties will also raise costs in the economy, the administration must desist from doing so.

- The government should engage with Indian industry and other experts to come to an agreement on what the average level of duties should be and how it should be reduced over time.
- India should move to an average duty rate of about 7%, gradually narrowing the range of variation across products and eliminating duty reversals.

RCEP membership:

- Instead of avoiding membership of multilateral trade platforms like RCEP over fears of competition, India should focus on improving the competitiveness of its domestic industries.
- To tackle unfair competition from China, India should consider imposing anti-dumping duties on China.
 - * An anti-dumping duty is a tariff that a domestic government imposes on foreign imports that it believes are priced below fair market value.

Free Trade Agreements:

- Given the increasing tendency of major developed countries to engage in bilateral negotiations over multilateral forums, India too should adapt to this new reality and focus on expediting its FTAs with the U.S., Europe and the U.K.
- This can help ensure market access for India amid the growing levels of protectionism being observed.
- India should also consider a give and take approach during these negotiations balancing the current and future potential of such FTAs.

Indian Economy and issues relating to growth and development

22. Mixed bag

- » Prelims: India's merchandise export data and trend; Government targets
- » Mains: Concerns and recommendations

Context:

- Data on India's merchandise exports for the first quarter of the current fiscal year.

Details:

- India reported its highest-ever merchandise exports at \$ 95 billion in the first quarter of the current fiscal, 85 per cent higher than exports registered in the year-ago period.
- The fact that these increased exports were observed during a quarter when the second wave of the pandemic hit its peak, and there were varying degrees of lockdowns in states, makes it all the more noteworthy.

- Propelling the surge in exports were non-rice cereals, iron ore, organic and inorganic chemicals, engineering goods exports. Also, the agriculture-based rice and rose sectors have also witnessed rapid export growth.

Reasons for the increase:

- The merchandise exports have been driven by robust demand in the external markets. The rising vaccination coverage and economic recovery in key developed markets including the EU and the U.S. have bolstered demand.
- Also, the exponential rise in commodity prices, attributable to the reopening of major economies, as well as an increased appetite for raw materials and grains in China, has been a key contributor to the increased export growth.

Concerns:

- The article warns that despite the impressive performance on the export front, the Indian export sector continues to face the following concerns.

Structural issues in key sectors:

- The crucial job-generating export sectors including readymade garments, leather and leather products and tea have posted double-digit declines from June 2019 levels, reflecting the deeper structural problems in these sectors.
 - * The inadequate product variety, lack of market awareness among the producers and sharp competition from other producing countries like Sri Lanka have resulted in decreased tea exports from India.
 - * Short-sighted policy measures, WTO mandated withdrawal of export incentives and a pandemic-induced slowdown in orders has adversely impacted the export of leather goods from India.
 - * The recent imposition of import duty on cotton does not augur well for India's ambition to emerge as a key source of cheap and quality cotton clothes.

Logistics challenges:

- A container shortage and heightened congestion have resulted in a rapid increase in freight rates out of Indian ports. This will lead to an increase in Indian goods and thus adversely impact the price competitiveness of Indian goods in the price-sensitive international markets.

Delay in implementation of announced policies:

- The central government had previously announced the RoDTEP Scheme in the light of the US challenging India's key export subsidy schemes in the WTO (World Trade Organisation) and the dispute panel in WTO ruling against India.

- * RoDTEP stands for Remission of Duties and Taxes on Export Products. It is a new scheme that is applicable with effect from January 1st, 2021, formed to replace the existing MEIS (Merchandise Exports from India Scheme). The scheme will ensure that the exporters receive refunds on the embedded taxes and duties previously non-recoverable.

- The RoDTEP Scheme was envisaged to help exporters from India even while ensuring that India stays WTO-compliant.
- The Government has so far not notified the rates applicable under the RoDTEP scheme. This has led to a scenario wherein exporters are still unsure of how to price their products while bidding for orders. This has led to lower participation of Indian exporters in international biddings.

Government target:

- The Trade Minister has announced that the government will make a concerted effort to achieve the target of \$400 billion merchandise exports in FY22. To achieve this, the government would be setting targets for sectors and countries.
 - * India's highest exports in any year were \$330 billion in FY19.
- The government has set a merchandise exports target of \$500 billion for FY23 and \$1 trillion in the next five years.

Recommendations:

- Policymakers need to take appropriate measures to restore the health of every constituent sector if economically enduring long-term growth in exports is to be ensured.
- As acknowledged by the government, there is the need to simplify the Special Economic Zone (SEZ) rules. Allowing SEZs to do business with domestic tariff area, will help remove the disadvantages that industries in the domestic tariff area face. This will provide a much-needed impetus to exports from India.
- District wise export promotion plans should be prepared and implemented with relevant support to potential exporters.
- Relevant sector-wise and country-wise export promotion councils must be set up to help increase the exports.

Indian Economy and issues relating to growth and development

23. 'High fuel prices threaten recovery'

- » Prelims: Consumer price Index
- » Mains: Concerns associated with rising fuel prices and recommendations

Context:

- State Bank of India's economics research team's findings on the rising fuel prices in India.

Details:

- India has been witnessing record-high fuel prices.
- Fuel costs have been ratcheted up to current levels by the combined effects of rising benchmark Brent prices and the increasing government levies on fuels.
 - * Currently, central and state-level taxes contribute to about 55 percent of the retail price of petrol and 51 per cent for diesel.

Concerns:

Inflation concerns:

- The higher petrol and diesel prices will lead to rising transport costs which will eventually push up inflation rates.
 - * The study predicts that with every 10% increase in petrol pump prices in Mumbai, the Consumer Price Index (CPI) could rise by 0.50%.

Household financial distress:

- The higher expenditure on fuels and also the higher inflation rates have pushed the large middle-class population into financial distress.
- There has been a significant dip in bank deposits. The decline in financial savings reflects household distress in India.
 - * The household financial savings rate in the third quarter of 2020-21 has come down to 8.2% of GDP from 21% and 10.4% in the previous two quarters.

Household debt has increased.

- * Household debt as a percentage of GDP had increased sharply to 37.3% or Rs. 73.6 lakh crore in 2020-21, from 32.5% of GDP or Rs. 66.1 lakh crore in 2019-20.

Delay economic recovery:

- India's economic recovery could be delayed by rising financial stress on households.
- The higher expenditure on oil has distorted non-discretionary spending and led to decreased spending on non-discretionary items like grocery and utility services.
- Also given that the share of non-discretionary spend has jumped to 75% in June, from 62% in March, this has crowded out customers' discretionary expenses.
- The report indicated consumers were cutting back spending on other goods to be able to accommodate higher fuel costs. This does not augur well for a predominantly domestic consumption-based economy like India.

- The lack of demand in the economy will delay the economic recovery in the post-COVID phase.

Conclusion:

- SBI's economists have called for the fuel taxes to be cut through tax rationalization to both cool inflationary pressures and ease the burden on consumers.

Miscellaneous

24. In defence of India's noisy democracy

- » Mains: Comparison between Indian and Chinese economic growth and development model

Context:

- The article draws a comparison between the political system prevalent in India and China. It analyses the authoritarian Chinese model of efficiency, but supports the democratic ideas and values.

China's Economic Rise

- China's economy has transformed enormously from being a poor country to a Global Powerhouse with no parallel in history.
- It has recorded high rates of economic growth, focused on capital accumulation, powered an export engine to overcome a limited domestic market, welcomed foreign direct investment, plugged into global supply chains and kept its public finances more or less in order.
- This has resulted in hundreds of millions being lifted out of poverty.

India's Development Story

- Despite impressive growth since the 1990s, it continues to be behind China in its global competitiveness.

Issue Area

- Poverty has come down, but employment prospects for the majority remain limited to low-wage informal sector jobs.
- India has fallen behind Bangladesh and Pakistan in a few social development indicators as well.

The drop in social development indicators has allowed many to question the democratic model of development; instead they have supported the Chinese model of development.

Arguments in favour of the China Model

- China is able to take decisions quickly as it is not stopped by the contradictory democratic voices. India's problem is that it is just too democratic.

Arguments against the China Model

East Asian Countries

- China's model comprises a number of key characteristics, State-guided industrial policy and finance; massive infrastructure investments; rural industrialization and openness to foreign trade and technology.
- Similar standards were also met by countries like Japan and South Korea.
 - * Democratic regimes have on balance performed better.

Kerala and Tamil Nadu Model

- Kerala and Tamil Nadu have done more to improve the lives of all their citizens across castes and classes than any other State in India.
- These states have also had the longest and most sustained popular democratic movements and intense party competition in the country.

Conflict resolution

- Democracy is, slow and often contentious. But its deliberative and electoral processes help mitigate conflicts, especially in heterogeneous and conflict-ridden societies.
- Even in a more homogeneous country like China, the absence of open public discourse does the opposite, as evidenced by the State's mishandling of ethnic unrest among Tibetans and Uighurs.
- Respect for Minorities and diversity.
- India's democracy may have been quarrelsome, cumbersome and often dominated by elites, but it has preserved individual liberties, group identities and religious and thought freedoms.

Strong civil society

- Without a strong civil society or an independent judiciary to check government power, Chinese leaders have, on many occasions, made errors in judgment.
 - * Judicial decisions overturn Government excesses in democratic countries. China lacks such resilience.
- Mao Zedong's Great Leap Forward or the Cultural Revolution is an example, which has resulted in the loss of lives.
 - * The human cost of Chinese success is enormous and unacceptable.

Transparency

- The absence of political checks and institutional mechanisms for public scrutiny has encouraged abuse of power and high levels of corruption, contributing to high inequality, arbitrary land grabs, unsafe working conditions, food safety scares, and toxic pollution, among other problems.

- As China's economy becomes more complex, the absence of transparent and accountable governance processes, combined with frequent crackdowns on civil society and efforts to enforce conformity and discipline, may stifle entrepreneurship and innovation.

Negotiation

- Democracy may complicate the process leading to needless debates and discussions, but these deliberations allow for forms of negotiation and compromise that can bridge across interests and even balance otherwise conflicting imperatives for growth, justice, sustainability and social inclusion.
- Examples:
 - * National Rural Employment Guarantee Act
 - * The Right to Information
 - * The right to food

Conclusion

- India's pluralistic democracy has increased political awareness and self-assertion, our independent judiciary, Election Commission and regulatory bodies function with a degree of autonomy.
- Therefore, instead of looking up to China, it is time to defend the noise of Indian democracy.

Indian Economy and issues relating to growth, development and employment

25. Tapping on the potential of the youth

- » Prelims: Demographic dividend and dependency ratio
- » Mains: Challenges in reaping demographic dividend in India and recommendations

Context:

- In the context of World Population Day on July 11, the article analyzes India's demographic dividend.
 - * World Population Day is marked on July 11 every year to focus attention on the importance of population-related issues. It was first observed by the United Nations Development Programme (UNDP) in 1989.

Demographic dividend of India:

- India's 'demographic dividend' represents the potential for economic growth based on the age structure of the population.
 - * Over 62% of India is aged between 15 and 59 years, and the median age of the Indian population is less than 30 years. This significant proportion of young people in the total population will help drive India's economic growth.

- The 2020 UNDP report as well as a study conducted by The Lancet point out that as against the earlier fears of population explosion, the Indian population would stabilize earlier than expected most likely in the next 12 years.
- Thus the window available to India to leverage its 'demographic dividend' is narrower than earlier estimates and it is thus critical that India focuses its attention on safeguarding adolescents and young people's well-being to reap the benefits of the demographic dividend.
 - * At 253 million, India's adolescent population is among the largest in the world.

Challenges in reaping demographic dividend:

Underfunded education sector:

- India's underfunded education system is inadequately equipped to provide the right education and skills to young people.
 - * Public expenditure on education in India constituted 4.4% of GDP in 2019 and only 3.4% of GDP in 2020.
 - * India stands 62nd in terms of public expenditure per student.
- Such an underfunded system would be plagued by issues such as poor infrastructure, poor teacher-student ratio which will, in turn, have a negative impact on the learning outcome of the children. This would adversely impact their employability or productivity.

Poor health indicators:

- Despite some commendable progress with respect to health indicators such as infant mortality, stunting and under-nutrition levels in the child population of India, the number continues to be higher than the global average or in comparison to countries at similar developmental stages as India.
- Unhealthy children would grow up to become unhealthy citizens which will not only impede their ability to a good living but also have a marked impact on the nation's progress.

Impact of the pandemic lockdowns:

- The impact of the pandemic on adolescents has been severe.
 - * In India, more than 32 crore students have been affected by the shutdown of schools due to the pandemic induced lockdowns. This has severely impacted the learning process of the students.
 - * The school lockdowns have also affected the nutritional security of a large number of children from poor households who are dependent on the mid-day meal scheme for their nutrition.

- * Studies have indicated that school closures have had a serious impact on the mental well-being of children, with around 17% of young people likely to be suffering from anxiety and depression during the pandemic.

Gender perspective:

- The impact of the COVID-19 pandemic-induced crisis on adolescent girls has been huge.
 - * Around 158 million school girls have been impacted by the closure of schools. Many of those who have dropped out are unlikely to go back to school.
 - * India has registered an alarming rise in the early marriage of girls during the pandemic which could be attributed to the increased poverty levels during the pandemic.
 - * There has also been an increase in gender-based violence. Restricted mobility due to lockdowns puts girls at risk of violence at home at the hands of caregivers or partners.
 - * Adolescent girls continue to be at high risk during current times, given their vulnerability to abuse and trafficking.

Recommendations:

Ensuring continuum of the education process:

- The administration should balance the risks of transmission through children with the harm of prolonged school closures and plan for a gradual re-opening of schools with appropriate precautions in place.
- Opening schools with a mix of online and offline options could be an important step to addressing the learning needs and mental well-being of adolescents.

Collaborative efforts:

- Recognizing the long-standing effects that the pandemic could have on adolescents and youth, collaborative actions by key ministries, government agencies, and civil society is the need of the hour with special emphasis on inter-sectoral collaboration.
 - * Example – Collaboration between the Ministry of Health and Family Welfare and the Education Ministry.
- Coordination across departments can enable better solutions and greater efficiencies in tackling the challenges that our adolescents face.

Focused efforts directed at adolescent girls:

- The Ministry of Education should take necessary steps to ensure that adolescents girls continue their education during the pandemic and return to schools when they reopen.

- The Ministry of Health and Family Welfare must take appropriate steps to help adolescents safeguard their health through continued access to menstrual hygiene products and strengthening outreach to girls in need via existing helplines.

Conclusion:

- For India to be able to enjoy the fruits of this demographic dividend, the young population must be healthy, knowledgeable and skilled.
- Improving the lives of our adolescents in mission mode would not only improve their lives but also generate a virtuous cycle with healthier and educated young adults contributing substantially to securing India's future. Thus India's welfare hinges on its young people's well-being.

Financial Sector Related Issues

26. Curbs on Mastercard

- » Prelims: RBI's data localization policy
- » Mains: Concerns and alternative strategy

Context

- The Reserve Bank of India (RBI) banned Mastercard from issuing new debit and credit cards to customers in India with effect from July 22.
- According to the RBI, the U.S. card-issuer has failed to comply with the local data storage rules announced by the central bank in 2018.

What is the RBI's data localisation policy?

- In 2018, the Indian central bank had issued a circular ordering card companies such as Visa, Mastercard, and American Express to store all Indian customer data locally so that the regulator could have "unfettered supervisory access".
- This meant that foreign card companies had to store complete information about transactions made by Indian customers in servers located within India.
- Companies were initially required to comply with these rules within six months.
- The reason offered by the RBI to back up its data localisation rule was that local storage of consumer data is necessary to protect the privacy of Indian users and also to address national security concerns.

Promises made by foreign companies

- Since the order, Mastercard, Visa and other foreign card companies have lobbied to dilute the rules. But the RBI has remained strict that companies must comply with its data localisation rules.

- Consequently, Mastercard deleted Indian customer data from its foreign servers and promised to invest in building local servers in India to store local customer data. The RBI, however, has not been impressed.
- The company was quoted as saying it would continue to work with the Indian central bank to provide any additional details required to resolve its concerns.

Impact

- Existing Mastercard customers, however, can continue to use their cards.

Concerns

- The ban has unsettled banks operating in India that use Mastercard's services to issue a variety of cards to their customers.
- Experts believe that customer privacy and national security are genuine concerns that need to be taken seriously. However, many also believe that data localisation rules are too stringent and they could simply be used by governments as tools of economic protectionism.
- Governments, however, may still mandate data localisation in order to favour local companies to foreign ones.
 - * China, for example, has used its cyber-security laws to discriminate against foreign companies.
 - * A similar trend may be playing out in India with the Centre's emphasis on economic self-sufficiency.
- In 2018, Mastercard had launched a complaint with the U.S. government that Prime Minister Narendra Modi was actively promoting Indian cards like RuPay and that it was affecting the business of foreign card companies.

Alternative Strategy

- Broadly speaking, formal international laws to govern the storage of digital information across borders may be sufficient to deal with these concerns.

What lies ahead?

- The RBI's data localisation policy, as it burdens foreign card companies, may end up favouring domestic card issuers like RuPay.
- Mastercard owns about one-third of the market share in India, and the RBI's ban is likely to significantly benefit its competitors.
- Thus, the card payments sector may end up being restricted to a few domestic companies, which in turn can lead to reduced competition. This could mean higher costs and lower quality services for customers.

Conclusion

- It is also worth noting that in today's digital economy data have turned out to be a valuable commodity, which companies as well as governments have tried to gain control over.
- Information about spending patterns and other customer data can be monetised by companies in a variety of ways.
- With no clear rules on who owns customer data and to what extent, conflicts over data ownership are likely to continue for some time.

Financial Sector Related Issues

27. RBI plans digital currency pilots soon

- » Prelims: Central Bank Digital Currency (CBDC):
- » Mains: Significance of CBDC and associated concerns

Context:

- RBI Deputy Governor has stated that the Reserve Bank of India may soon conduct pilot projects to assess the viability of using digital currency to make wholesale and retail payments to help calibrate its strategy for introducing a full-scale central bank digital currency (CBDC).

Background:

Central Bank Digital Currency (CBDC):

- A Central Bank Digital Currency (CBDC) uses an electronic record or digital token to represent the virtual form of a fiat currency of a particular nation (or region). Hence they are also sometimes referred to as digital fiat currencies or digital base money.
- A CBDC is essentially a legal tender issued by the central bank. It has the same functional capabilities as a fiat currency and is considered exchangeable in nature with said fiat currency in a one-to-one form. The only notable difference is the form it takes, i.e., a digital form.
- CBDC would coexist with cash and existing digital payment methods.
- The present concept of CBDCs was directly inspired by Bitcoin, but a CBDC is different from virtual currency and cryptocurrency, which are not issued by a state and lack the legal tender status declared by the government. A CBDC is centralized; it is issued and regulated by the competent monetary authority of the country.
- The growing popularity of cryptocurrencies like Bitcoin and Ethereum poses a possible threat to the traditional banking system. Also, cryptocurrencies are associated with a lot of concerns.
- The government's inability to control the growth and influence of such cryptocurrencies has led to many leading central banks across the globe

working on or contemplating launching their own versions of cryptocurrencies.

- More than 80% of central banks are looking at digital currencies.
 - * China's digital RMB was the first digital currency to be issued by a major economy.
 - * European Central Bank has stated that it will soon begin a 24-month "investigation phase" towards the goal of creation of a digital euro by 2025.

Measures taken in India:

- A high-level inter-ministerial committee set up by the Finance Ministry had recommended the introduction of a CBDC with the requisite changes in the legal framework including the RBI Act.

Significance:

Reduce cost of currency management:

- The use of an official digital currency will reduce cash usage in the economy.
- Thus official digital currency would reduce the cost of currency management (cost of printing, transporting and storing paper currency) in a country like India characterized by a fairly high currency-to-GDP ratio.

Expedite real-time payments:

- An official digital currency will enable real-time payments without any inter-bank settlement.
- Transacting with CBDC would thus be an instantaneous process as the need for inter-bank settlement would disappear.

Ease foreign trade transaction:

- The adoption of a CBDC will help speed up foreign trade transactions between countries. The CBDC will also enable a cheaper and more real-time globalisation of payment systems, without the need for any intermediary or the risks of dollar-rupee transactions.

Alternate to the volatile cryptocurrencies:

- The digital currency, which will be backed by the sovereign, will help protect people from the market volatility of private cryptocurrencies.

Public Distribution System and Food Security

28. Lessons from India's food security response

- » Prelims: One Nation One Ration Card (ONORC) scheme
- » Mains: India's food security scenario; Governmental efforts and recommendations

Background:

India's food security scenario:

- India has made enormous progress in food production over the years.

- India has achieved self-sufficiency in food production. It has been registering record harvests over the last few years. In 2020, India produced over 30 crore tonnes of cereals and had built up a food stock of 10 crore tonnes. India has also achieved record exports of rice and wheat in FY21.
- However, there seems to be a large degree of variability between the different regions as well as sections of the population when it comes to nutritional security as is evident from the high levels of stunting, wasting and malnutrition observed in India.
- The COVID-19 pandemic seems to have only exacerbated this nutritional insecurity.

Impact of the COVID-19 pandemic:

- The COVID-19 pandemic has had a disruptive impact on the food security of the poor and marginalized sections.
- There has been an escalation in global hunger in 2020, much of it likely related to the fallout of COVID-19. 'The State of Food Security and Nutrition in the World' estimates that around a tenth of the global population – up to 81.1 crore persons – were undernourished in 2020.

Governmental efforts:

- The government undertook several interventions to ensure food and livelihood security.
- India's Targeted Public Distribution System (TPDS) through the distribution of subsidized and free food grains helped the poor and marginalized families in India tide against the pandemic-induced food crisis.
- The Government of India increased the entitlements given to National Food Safety Act (NFSA) beneficiaries in 2020.
- The government undertook several interventions to ensure food and livelihood security.
- India's Targeted Public Distribution System (TPDS) through the distribution of subsidized and free food grains helped the poor and marginalized families in India tide against the pandemic-induced food crisis.
- The Government of India increased the entitlements given to National Food Safety Act (NFSA) beneficiaries in 2020.
 - * Under the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY), 81.3 crore NFSA beneficiaries received an additional 5 kg of foodgrains per person per month and 1 kg of pulses per family per month, free of cost, for eight months from April to November 2020.
 - * Under the Atmanirbhar Bharat package, 8 crore migrants were provided 5 kg of foodgrains per month, free of cost.

- The introduction of the One Nation One Ration Card (ONORC) scheme will allow the beneficiaries to access their food entitlements from anywhere in the country. This is critical for a country like India with a massive mobile population and migration between States wherein portability of food entitlements could play a vital role in ensuring universal nutritional security.

Recommendations:

- There is a critical need to focus on a more resilient, equitable, and food-secure world.

Supporting the vulnerable:

- Food support intervention should focus on at-risk groups, including persons with disabilities, the elderly, single women-led households, transgender persons, HIV-affected persons, displaced persons, refugees and orphan children. The focus on these vulnerable and marginalized sections will help ensure that no one goes hungry.

Climate proofing agricultural sector:

- Given the inevitable negative impact of climate change on agriculture and food security, and the disproportionate impact on the poor and vulnerable sections, it is imperative to focus on building a resilient agricultural system.
 - * Such a system would be adaptive to changing weather and needs. It would involve measures such as the use of efficient irrigation systems, and the promotion of crops as per the agro-climate zones.

Tackling food losses and wastage:

- As per available estimates, a third of all food produced is wasted. There should be enhanced efforts to prevent food losses.
 - * Apart from the wasted opportunity cost of using such food for the nutritional security of the poor and marginalized, such food wastage also accounts for around 3.5 gigatonnes of the CO2 equivalent annual greenhouse gas emissions.

Additional information:

- The UN Decade of Action on Nutrition 2016-2025 is a commitment of member States to undertake ten years of sustained and coherent implementation of policies and programmes towards sustainable food systems and food and nutrition security for all.
- UN Food Systems Summit and the Nutrition for Growth Summit are scheduled to be held in 2021.

Indian Economy and issues relating to growth and development

29. High fiscal borrowings won't crowd out private sector: CEA

- » Prelims: crowding in and crowding out effect; Government bonds-features

Context:

- Chief Economic Advisor Krishnamurthy Subramanian's statement on the impact of the high fiscal borrowing from the government.

Background:

- The government has lately raised around ₹14-15 lakh crore through government bonds.

Government Bond:

- A government bond or sovereign bond is an instrument of indebtedness issued by a national government to support government spending to either finance projects or day-to-day operations.
- It generally includes a commitment to pay periodic interest, called coupon payments, and to repay the face value on the maturity date. Some government bonds do not pay coupons and are sold at a discount instead.
- It can be issued by both the Central and the State governments of India. The government bond could be government securities (G-Secs) issued by the central government, or state development loans issued by the state government.
- Government bonds are considered low-risk investments since the government backs them. Because of their relative low risk, government bonds typically pay low interest rates.
- Government Bonds are primarily long term investment tools issued for periods ranging from 5 to 40 years.

Concerns over crowding out effect:

- A SEBI whole-time member while emphasizing the important role of bond markets in supporting the economy's revival at a time when banks were overburdened from the overhang of non-performing assets, had raised concerns over the government borrowing crowding out the corporate bond market.

Crowding out effect:

- The crowding out effect is an economic theory arguing that rising public sector spending drives down or even eliminates private sector spending.
 - * The government borrowing absorbs a part of the economy's lending capacity and the private sector is left with a smaller share.
 - * Large government borrowing can lead to substantial rises in the real interest rate and discourage businesses from making capital investments. Companies that often fund projects in part or entirely through financing are discouraged from doing so because the opportunity cost of borrowing money has risen, making traditionally profitable projects funded through loans cost-prohibitive.

Details:

- Chief Economic Advisor Krishnamurthy Subramanian has argued that the concerns about high government borrowings crowding out the private sector's fund-raising efforts were misplaced and not based on evidence.
- On the contrary, the CEA contended that the government's increased capital spending would impart a 'crowding-in effect' spurring more investment.

Crowding-in effect:

- Crowding in occurs when higher government spending leads to an increase in private sector investment.
 - * The crowding in effect occurs because higher government spending leads to an increase in economic growth and therefore encourages firms to invest because there are now more profitable investment opportunities.
 - * Government borrowing can actually increase demand by generating employment, thereby stimulating private spending as well.

- Government expenditure especially government-led, capital spending on infrastructure will have both short and long term positive impacts on the economy.
 - * In the short term, public expenditure will help increase money in the hands of the people and create much-needed demand in the economy.
 - * In the long term, it will help in the creation of economic infrastructure which is inevitable for long term sustainable economic growth as well as a satisfactory standard of life for its citizens.

Indian Economy and issues relating to growth and development

30. 'Upturn V-shaped but small firms, urban poor hit harder'

- » Prelims: V and K shaped economic recovery
- » Mains: Concerns associated with a K shaped economic recovery

Context:

- Economic revival in India in the post-pandemic period.

Details:

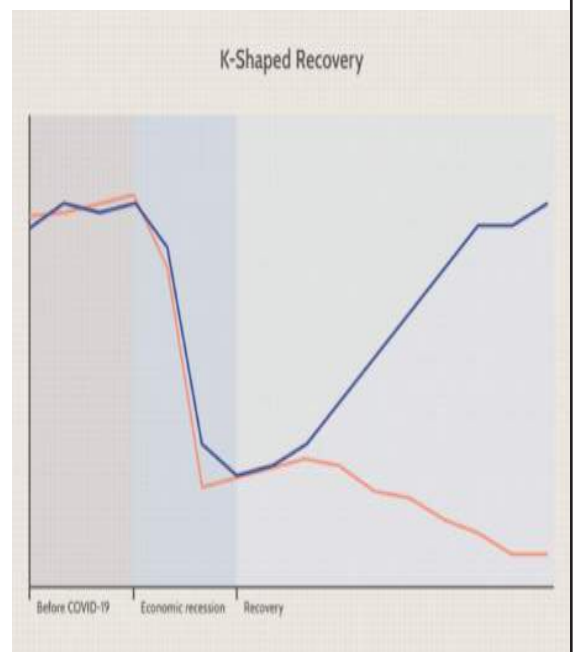
- While India's overall economic revival remains V-shaped at the macro level, some sectors of the economy may be witnessing a K-shaped recovery.
- While certain sectors and individuals have recovered quickly—or even thrived—during the pandemic, others either haven't recovered at all or are recovering far more slowly.
 - * While large and listed firms have done well, smaller firms have been hit harder by the pandemic.
 - * While the sectors like retail, technology and software services are nearly back to business as usual, some sectors like travel, entertainment, hospitality, and food services haven't recovered or will take much more time and will need governmental support.
 - * While households at the top of the pyramid are likely to have seen their incomes largely protected, households at the bottom are likely to have witnessed permanent hits to jobs and incomes. People at the bottom of the pyramid, especially the urban poor have been impacted most by the pandemic.

V-shaped recovery:

- A V-shaped recovery is the quickest and one of the most ideal. In this type of recovery, the economy falls quickly but also recovers quickly—it doesn't remain stagnant for very long.

K-shaped recovery:

- A K-shaped recovery is when different segments of the economy recover from a recession or an economic shock at starkly different rates or magnitudes.
- The term refers to the shape this type of recovery makes when plotted on a line graph. The portion of the population that recovers quickly is represented by the upper part of the K, while the lower part represents those groups that recover more slowly.



Concerns:

Deepen existing inequalities:

- What's particularly concerning about a K-shaped recovery is the way it splinters the economy, continually widening the gap between those who are doing well and those who are not. A K-shaped recovery essentially splits an economy in two, with the divisions occurring along class, racial, geographic, or industry lines.
- A K-shaped recovery exposes pre-existing economic inequalities, divisions and disparities in wealth, and can exacerbate them.

Drastic change in structure of economy:

- A K-shaped recovery leads to changes in the structure of the economy or the broader society as economic outcomes and relations are fundamentally changed before and after the recession.
- This could have an adverse impact on the associated workers.

Impact on demand in the economy:

- Given that some sections of the society would have experienced a permanent loss of income in the forms of jobs and wage cuts, this will have an impact on the demand in the economy.
- The K shaped recovery results in an effective income transfer from the poor to the rich. This will be demand-impeding because the poor have a higher marginal propensity to consume.
 - * The poor tend to spend (instead of saving) a much higher proportion of their income.
- This will invariably impinge on trend growth in developing economies like India.

Financial Sector Related Issues

31. Govt. introduces Bill on insurance firms

- » Prelims: Difference between privatization and disinvestment
- » Mains: Disinvestment in General insurance sector- significance and concerns

Context:

- The Union government has introduced the General Insurance Business (Nationalisation) Amendment Bill in the Lok Sabha.

Background:

- The Finance Minister in the Budget 2021-22 had announced a big-ticket privatisation agenda, including privatisation of two public sector banks and one general insurance company.
- The minister had stated that this move would require legislative amendments.

Details:

- As per the statement of objectives and reasons of the General Insurance Business (Nationalisation) Amendment Bill, 2021, it seeks to remove the requirement that the central government holds not less than 51 per cent of the equity capital in a specified insurer.
- Thus the amendment will allow the government to reduce its stake in state-owned insurers.

Significance:

- The bill will allow the general insurance companies to raise money from the retail participants. This will help provide a bigger financial resources base for the public sector general insurance companies. This will allow

them to offer better premium and innovative packages for the public and enable the infusion of technology in their functioning.

- The amendment will provide for greater private participation in the public sector insurance companies and will help enhance insurance penetration and social protection and better secure the interests of policyholders and contribute to faster growth of the economy.

Concerns:

- Several opposition members had opposed the introduction of the bill, saying it will bring in foreign investors and entail total privatisation of PSU general insurance companies and the critical insurance sector.
- Notably, the finance minister has clarified that though the aim is disinvestment it won't lead to privatisation of the general insurance sector.

Financial Sector Related Issues

32. Patchwork progress

- » Prelims: Deposit Insurance and Credit Guarantee Corporation (DICGC)
- » Mains: Changes proposed in deposit insurance law- Significance and recommendations

Context:

- The Union Cabinet has cleared changes to the deposit insurance laws.

What is deposit insurance?

- In India, in the event a bank fails, a depositor has a claim to a maximum of Rs 5 lakh per account as insurance cover.
- The cover of Rs 5 lakh per depositor is provided by the Deposit Insurance and Credit Guarantee Corporation (DICGC), which is a fully owned subsidiary of the Reserve Bank of India.
- If a customer's deposit amount crosses Rs 5 lakh in a single bank, only up to Rs 5 lakh, including the principal and interest, will be paid by the DICGC if the bank turns bankrupt.
- Depositors having more than Rs 5 lakh in their account have no legal recourse to recover funds in case a bank collapses.
- While the depositors enjoy the highest safety on their funds parked with banks, unlike the equity and bond investors in the banks, however, an element of risk exists in case a bank collapses.

Who pays for this insurance?

- Deposits in public and private sector banks, local area banks, small finance banks, regional rural banks, cooperative banks, Indian branches of foreign banks and payments banks are all insured by the DICGC.

- The premium for this insurance is paid by banks to the DICGC, and not passed on to depositors.
- Banks currently pay a minimum of 10 paise on every Rs 100 worth of deposits to the DICGC as a premium for the insurance cover, which is now being raised to a minimum of 12 paise.
- In 2020, the government raised the insurance amount to Rs 5 lakh from Rs 1 lakh.

* Prior to that, the DICGC had revised the deposit insurance cover to Rs 1 lakh on May 1, 1993 — raising it from Rs 30,000, which had been the cover from 1980 onward.

Need for changes in the deposit insurance laws:

- In the last two years, Yes Bank, Lakshmi Vilas Bank and the PMC Bank, have faced such a bar on depositors seeking to withdraw.
- Recent troubles for depositors in getting immediate access to their funds in such banks has put the spotlight on the subject of deposit insurance.

Details:

- The government hopes to bring about changes to the 1961 Deposit Insurance and Credit Guarantee Corporation law to provide funds up to Rs 5 lakh to an account holder within 90 days in the event of a bank coming under the moratorium imposed by the RBI.
- Earlier, account holders had to wait for years till the liquidation or restructuring of a distressed lender to get their deposits that are insured against default.
- The Centre plans to introduce the Deposit Insurance & Credit Guarantee Corporation (Amendment) Bill 2021 in the ongoing Monsoon session of Parliament.

How will it benefit the savers?

- Depositors normally end up waiting for 8-10 years before they are able to access their deposits in a distressed bank only after its complete liquidation.
- From savers' perspective, the most significant modification would be the 90-day deadline for the Corporation (DICGC) to remit the insured deposits of customers in troubled banks.
- As per the plan, once the RBI imposes curbs on a bank, by the 91st-day account holders will get their outstanding balance back with a cap of ₹5 lakh.
- It will help especially small depositors meet urgent financial exigencies.
- This will cover banks already under moratorium and those that could come under moratorium. However, it would not apply retrospectively.

- Besides, as per RBI data, ₹76.21 lakh crore or almost 51% of deposits are now insured, but 98.3% of all accounts have balances of ₹5 lakh or less so they are fully insured.

Way Forward:

- This can be a source of renewed comfort for people in the banking system, grappling with bad loans.
- It is important for financial stability that people feel it is safer to park their money in a bank.
- But for people with limited financial literacy and access to retirement savings instruments, with lifetime earnings (over ₹5 lakh) parked in a co-operative bank, this would still be a less favourable outcome.
- Similar to the latest amendments that have an enabling provision to raise the premium paid by banks to the DICGC in future, there should be amendments to raise the insured deposit limit taking into account inflation and per capita income trends.

Indian Economy and issues relating to growth and development

33. Policy black holes spook space investors

- » Prelims: Indian National Space Promotion and Authorisation Centre (IN-SPACe)

Context:

- Concerns of potential foreign investors in India's space sector.

Issue:

- The Department of Space is both the sectoral regulator and a service provider by way of its role in overseeing the Indian Space Research Organisation (ISRO).
- The potential foreign investors in India's space sector are unsure if their licence applications would get fair consideration.
- They are concerned about a possible conflict of interest.

Details:

- In a significant departure from the 'virtual monopoly' of the state-controlled ISRO and allied entities in the space sector, reforms were announced in 2020 to open the sector to private investors.
- Foreign Direct Investment of up to 100% has been allowed under the government route in satellite establishment and operation, subject to the sectoral guidelines of the Department of Space and ISRO.

- Indian National Space Promotion and Authorisation Centre (IN-SPACe), the newly created regulatory body, has received at least 26 applications from Indian and foreign firms that include proposals to set up ground stations and make and launch satellites.

Way Forward:

- The Department of Space acts as the regulator, but since it is a major service provider through ISRO, there is scope for a conflict of interest.
- The regulatory structure needs to be refined and there is a need for more clarity in terms of the processes for authorisation to launch a satellite, the frequency allocation mechanism and even the details of different agencies involved in these clearances.

INTERNATIONAL RELATIONS

International Relations: Military Exercises

1. Exercise Cutlass Express

- » Prelims: Exercise Cutlass Express
- » Mains: Maritime security and maritime law enforcement in the Indian Ocean
- The exercise is an annual maritime exercise conducted to promote national and regional maritime security and maritime law enforcement capacity in East Africa and the Western Indian Ocean.
- The exercise focusses on East Africa's coastal regions and is designed to assess and improve combined maritime law enforcement capacity, promote national and regional security and increase interoperability between the regional navies
- The 2021 edition of the exercise involved the participation of 12 eastern African countries, the U.S., the U.K., India and various international organisations like the International Maritime Organisation (IMO), the United Nations Office on Drugs and Crime (UNODC), Interpol, European Union Naval Force (EUNAVFOR), Critical Maritime Routes Indian Ocean (CRIMARIO) and EUCAP Somalia.

Context:

- Indian Naval ship Talwar's participation in the Exercise Cutlass Express, 2021.

International Relations: Places in News

2. Grand Ethiopian Renaissance Dam

- » Prelims: Grand Ethiopian Renaissance Dam and Nile river
- It is a mega-dam on the upper Blue Nile.
- The dam is set to be Africa's largest hydroelectric project when completed.
- The project has led to an almost decade-long diplomatic stand-off between Ethiopia and downstream nations Egypt and Sudan. Egypt and Sudan have opposed the project over fears that it could restrict their water access.

Context:

- Ethiopia has started the second phase of filling the Grand Ethiopian Renaissance Dam.

International Relations: Effect of policies and politics of developed and developing countries on India's interests/diaspora

3. 'Green pass' issue

- » Prelims: Green Pass
- » Mains: Concerns and India's stand on the issue

Context:

- The EU is about to launch a Digital Green Pass that will allow its holders to move about freely in the Schengen territory, with COVID travel restrictions.

What is 'Green pass'?

- The EU Digital Covid Certificate, or the "green pass" has been created to restore freedom of travel for the public and remove the barriers on entry placed due to the pandemic.
- The new vaccine passport system would come into effect across the EU from July 1, 2021.
- The document is valid across all EU countries.
- Before the pandemic, Schengen visa allowed the holders to move around freely. As part of the Schengen agreement, 26 European countries had abolished border control of any type, beginning in 1985.
- There are three ways to obtain a green pass:
 - * Get fully vaccinated with one of the EMA approved vaccines
 - * Show a recovery report less than 11 days after testing positive for COVID-19.
 - * Show a negative test report, or an antibodies test.

Issue:

- The European Medicines Agency (EMA) has not approved the India-produced Astrazeneca vaccine Covishield for the green pass despite approving its United Kingdom-made counterpart Vaxzevria.
- None of the three vaccines which have been approved for use in India till date — Covishield, Covaxin and Sputnik V — feature on the list.
- Currently, Covishield is the only WHO-approved vaccine available to Indians.
- The EMA's decision to exclude Covishield from the list has enraged many who have availed of the vaccine as it was WHO approved.

EMA's response:

- European Medicines Agency (EMA) has said that application has not been made for both

Covishield and Covaxin to be included in the EMA list.

- It has made it clear that even if the vaccine is the same, different manufacturers of the same product need to submit separate applications for approval from EMA. This is because the EMA takes into consideration local manufacturing facilities.

India's stand on 'vaccine passports':

- Vaccine passport has given rise to larger concerns over intrusion, privacy and a curb on the right to free movement.
- Though the EU has made it clear that the green pass will not be compulsory, the issue has given rise to a larger debate on concerns around privacy and ethics.
- In a recent development, government sources have warned that India will introduce a reciprocal policy only allowing ease of travel for those European countries that recognise Indian vaccines Covishield and Covaxin.

Many countries have voiced concerns:

- The African Union had also issued a letter of protest over the EU proposal saying that it promoted inequality for those from lower-income countries for whom the Covishield vaccine was the backbone of the international COVAX alliance programme.

Way Forward:

- As more nations complete their vaccine programmes, they will seek to tighten their border controls with vaccine passports and longer quarantines in order to curtail the spread of new variants.
- It is necessary for the Government to keep up with these actions worldwide, and raise its voice against discriminatory practices.
- Furthermore, India's priority must be to vaccinate as many Indians as possible.

International Relations: Military Exercises

4. Indra Navy – 21

- » Prelims: Indra Navy exercise
- » Mains: India-Russia relations

Context:

- The 12th edition of exercise INRA NAVY was held in the Baltic Sea.

Details:

- INDRA NAVY is a biennial bilateral maritime exercise between Indian Navy and Russian Navy.
- Initiated in 2003, Ex INDRA NAVY epitomises the long-term strategic relationship between the two navies.

- The current exercise was undertaken as part of the visit of INS Tabar to St. Petersburg, Russia to participate in the 325th Navy Day celebrations of the Russian Navy.
- The primary aim of this year's edition is to further consolidate inter-operability built up by the two Navies over the years and also to enhance understanding and procedures for multi-faceted maritime operations. The scope of this edition includes wide-ranging and diverse activities across the spectrum of maritime operations.

International Relations: Bilateral, regional and global groupings and agreements involving India and/or affecting India's Interests

5. A perception shift in relations between Sri Lanka and China?

- » Mains: India's relationship with Sri Lanka and the China factor

Context:

- China is coming under increasing public scrutiny in Sri Lanka.

China's assistance to Sri Lanka:

- China has topped the charts in providing crucial and timely support for Sri Lanka.
- In addition to sanctioning loans and a currency swap facility worth more than \$2 billion since the pandemic struck, China also announced a \$90 million grant to Sri Lanka in October 2020.
- China's earlier grant projects in Sri Lanka are also built as large public spaces. Eg: Bandaranaike Memorial International Conference Hall in Colombo, Nelum Pokuna Mahinda Rajapaksa Theatre.
- Former President Maithripala Sirisena had requested China for the grant and the China-Sri Lanka Friendship Hospital facility was built within 30 months.

- * The hospital is built with a Chinese grant of \$60 million and is said to be one of the largest in South Asia for nephrology care.

Details:

- China is under more public scrutiny in the island nation than ever before. The growing scepticism of China, in public discourse and the media, is relatively new.
- The sentiment came to the fore when the Sri Lankan government passed a controversial bill governing the China-backed Colombo Port City.
- Recently, controversies erupted over signboards in public places and government offices that included mandarin while excluding Tamil, a national language in Sri Lanka.

What has changed in how Sri Lankans perceive their country's relationship with China?

- Sri Lanka has maintained friendly relations with maritime nations, including China, since ancient times. Such relations have always had a sense of strategic content.
- However, the traditional friendship between Sri Lanka and China has now become more nuanced with unique, unprecedented characteristics in the bilateral relationship, displaying a special partnership, especially at the level of two governments.
- While the port city is a good investment for Sri Lanka, many in the island nation see it as a Chinese colony.
- The port city bill was passed without discussions with all domestic stakeholders and consensus.

Conclusion:

- The Tamils in Sri Lanka acknowledge India's geopolitical concerns. They are of the sentiment that India is immediate family and China is a distant relative.
- Opposition parties in Sri Lanka assert that China must acknowledge the Tamils and also that Sri Lanka is a diverse country with different ethnic and religious groups, not an entirely Sinhala-Buddhist country.

International Relations: Relations between India and neighbouring countries-China

6. Unpacking China's game plan

- » Mains: India's superiority in air power along the Himalayas and China's plan to counter it

Context:

- Reports of China upgrading its aviation defence infrastructure in the Tibetan plateau

Background:

India's superiority in air power:

- India exhibited firmness in their resolve to thwart Chinese attempts to violate the status Quo along the LAC. This firmness was backed by IAF superiority along the LAC.
- India enjoyed certain advantages vis-a-vis airpower as compared to the Chinese.
 - * India has a string of airfields all along the foothills of the Himalayas. This offers the IAF higher strike potential. On the contrary Chinese airfields in Tibet were few, widely spaced out and hence not mutually supportive. Also this led to large gaps in their air defence structure that could have been utilized by the IAF to interdict targets.

- * The Indian airfields are situated at lower altitudes. This permits the aircrafts taking off from these airfields to carry a full armament load. On the contrary, most Tibetan airfields are at altitudes above 10,000 ft, severely restricting the payload of PLAAF aircraft.

- The positive asymmetry of IAF proved to be detrimental to China's plans to gain any territorial advantage.

Details:

- The recent high-resolution satellite photos have revealed rapid upgradation of airfield and air defence infrastructure by China along the LAC.
 - * China has made rapid progress in construction of hardened aircraft shelters and new runways.
 - * China has positioned new air defence radars and missile systems along the LAC thus providing itself the comfort of a layered air defence setting.

Concerns:

Chinese tactical attempt to buy time:

- The article also suggests the possibility of a link between the Chinese construction activities and the procrastination by China in the talks for reducing tensions in Eastern Ladakh. The temporary offer of talks seems to be a tactical attempt by the Chinese to buy time to upgrade their air defence infrastructure.

Strategy of denial:

- By strengthening their air defence architecture, the Chinese are trying to deter India through a strategy of denial, i.e., to dissuade the IAF to attack China over fears of loss of aircrafts or personnel that could be caused by the missile systems of China.

Nullify advantages enjoyed by India:

- This move by China could alter the current balance of air power between the Indian Air Force (IAF) and People's Liberation Army Air Force (PLAAF) in the medium to long term. This could nullify the advantage that India enjoys vis-a-vis airpower along the LAC. India may lose the trump card of positive air power asymmetry that it now holds which would reduce India's stand in future negotiations.

Way forward:

- India needs to closely monitor the air defence upgradation drive of China and make relevant changes to its own strategies.
- India's posture and demands at the talks must reflect its understanding of China's devious attempt to buy time in the name of talks

International Relations: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests

7. India-Africa Relations

- » Mains: India-Africa agricultural cooperation-Potential and challenges

Context:

- In the light of the recent visit of the Indian External Affairs Minister to Kenya, the article analyzes the potential of India-Africa cooperation in agriculture even as China has been exponentially deepening its relationship with African nations.

Background:

- The relations between India and Africa have long historical roots right from ancient times up until the anti-colonialism struggle. This historical solidarity has today grown into a modern partnership.
- Africa is considered a foreign policy priority by India for many reasons and its engagement with the African continent has been multifaceted.

India-Africa agricultural cooperation:

- Africa supplies a vast basket of agricultural goods to India dominated by items such as fruits, nuts, grains and pulses.
- India's outreach to African nations in terms of agricultural cooperation currently includes the following institutional and individual capacity-building initiatives.
 - * India-Africa Institute of Agriculture and Rural Development in Malawi
 - * Supply of machinery and provision of soft loans
- Indian farmers have purchased over 6,00,000 hectares of land for commercial farming in Africa.
- There is a substantial presence of Indian entrepreneurs in the African agricultural ecosystem.
- A unique example of cooperation and partnership in the agricultural sector is the case of the Kerala government trying to meet its requirement for raw cashew nuts from countries in Africa. There are also proposals to create a jointly-owned brand of Africa-Kollam cashews.

Significance of the cooperation:

- With 65% of the world's uncultivated arable land, employing over 60% of the workforce, and accounting for almost 20% of Sub-Saharan Africa's GDP, agriculture is critical to Africa's economy.
- African agriculture is plagued by obsolete methods and technologies. India's cooperation and partnership through sharing of necessary resources and knowledge can go a long way in

providing a much-needed boost to the critical agricultural sector in Africa.

- This cooperation is also crucial given the possible business prospects that they can give rise to and to provide credible alternatives to the increasing involvement of Chinese stakeholders in the sector.
- The putting to use of the unexplored potential of Africa in the agricultural sector will go a long way in ensuring not only Africa's food security but also global food security.

Chinese engagement in Africa:

Deepening of Chinese influence in Africa:

- Currently, China is among Africa's largest trading partners and its single biggest creditor.
- Chinese companies have been implementing critical infrastructure projects in Africa and its venture capital funds are investing in African fintech firms, while other smaller enterprises are expanding across the width and breadth of Africa.

Reasons for Chinese interest in Africa:

- The exponential growth in the China-Africa economic ties and its attempts to emerge as an alternative to traditional western powers is primarily driven by the following factors:
 - * Ensuring access to Africa's natural resources and its untapped markets.
 - * Chinese-built industrial parks and economic zones in Africa are emerging as new destinations for low-cost, labour-intensive manufacturing units that are relocating from China. Thus they seem to be new avenues for Chinese production centres.
 - * Chinese operations in Africa are important to accumulate global experience in management, risk and capital investments. This would be a valuable experience as China's model, if successful here, could be heralded as a replica for the larger global south.
 - * The Chinese engagement will help them dominate the market in the long run thus offering a unique opportunity to build 'brand China'.

Engagement in the agricultural sector:

- Though Chinese entities have been active in Africa's agricultural landscape for decades now, the nature, form and actors involved have undergone substantial change.
 - * Chinese firms are introducing advanced agri-tech like drone technology in countries like Zambia.

- * Over 20 Agricultural Technology Demonstration Centers (ATDCs) have been set up in Africa. These centres are involved in developing new crop varieties and increasing crop yields. These ATDCs partner with local universities, conduct workshops and classes for officials and provide training and lease equipment to smallholder farmers.
- * Chinese companies are purchasing large-scale commercial farms.
- * Chinese corporations are also entering the agri-infra sector.
- * African agriculture experts, officials and farmers are provided opportunities to augment skills and be trained in China.

Challenges in the relation:

- The highly insular Chinese diaspora in Africa, the large trade imbalance mainly in favour of the Chinese, looming debt, increasing competition with local businesses and a negative perception around China have had a negative impact on the relations between China and African nations.
- Larger commercial farms run by Mandarin-speaking managers and the presence of small-scale Chinese farmers in local markets have further aggravated these stresses.

Recommendations for India:

Prioritizing agricultural cooperation:

- The future of India-Africa cooperation is agriculture.
- Indian congruence with African countries in the agriculture sector is expanding. It is vital to prioritize and channel resources into augmenting partnerships in agriculture.

Countering Chinese moves in the region:

- While India's Africa strategy exists independently, it is important to be cognizant of China's increasing footprint in the region and India should desist from neglecting Chinese engagement in African agriculture.
- India should frame appropriate policies and implement them to counter the Chinese moves in the region.
 - * State governments and civil society organisations need to be encouraged to identify opportunities and invest directly in the agricultural sector of Africa.
 - * Indian industries need to be incentivized to tap into African agri-business value chains and measures need to be taken to link Indian technology firms and startups with partners in Africa.
 - * A thorough impact assessment needs to be conducted of the existing capacity-building initiatives in agriculture being taken up by

India in Africa. The development partnership needs to be in line with African priorities.

International Relations: Bilateral, regional and global groupings and agreements involving India and/or affecting India's Interests

8. Shaping a trilateral as Rome looks to the Indo-Pacific

- » Mains: Convergence between India, Japan and Italy; Challenges and recommendations to strengthen this relation

Context:

- The recent India-Italy-Japan trilateral, organised by the Italian embassies in India and Japan.

Background:

Indo-Pacific region dynamics:

- The Indo-Pacific region is marked by challenges such as the geographical vastness of the area, complex regional geopolitical problems, increasingly assertive behaviour of the Chinese in the region and beyond and the lack of robust multilateral organizations to deal with the existing challenges.
- More and more countries have been reaching out to India as part of their Indo-Pacific strategy. India has also expressed great interest in forging new partnerships with like-minded countries interested in preserving peace and stability in the Indo-Pacific. India has been engaging with key western nations as part of its own Indo-Pacific strategy which is not only aimed at enhancing India's centrality in the region but also an attempt to counter China's increasing assertiveness.
- Countries that share similar values and face similar challenges are coming together to create purpose-oriented partnerships based on trade and security interests.

Details:

- Recently, Italy too, shedding its historic neglect of the region in its foreign policy realm has signalled its intention to enter the Indo-Pacific geography, by seeking to join India and Japan in a trilateral partnership.
- Italy has also expressed its intention to strengthen its otherwise below potential bilateral relations with India.
- This marked change in Italy's actions is based on the following factors:
 - * Risks emanating from China's strategic competitive initiatives and the threat it poses to the EU in general and Italy in specific.
 - * The potential benefits that could accrue from a robust India-Italy bilateral relation.

Significance:

- The India, Italy and Japan trilateral initiative could be used as a forum to foster and consolidate a strategic relationship between the three countries, and specifically, expand India-Italy bilateral relations. The strengthening of the India-Italy partnership can help consolidate the EU-India strategic relationship further.
- A strategic trilateral between India, Italy and Japan has, in the medium to long term, a lot of potential.
 - * The compatible economic systems of the three countries could help create a virtuous and mutually beneficial contribution to the reorganisation of the global supply chains.
 - * In the security realm, Italy, through its presence in the western Indian Ocean (anti-piracy operations off the coast of Somalia), could easily complement the India-Japan Indo-Pacific partnership.
 - * That all three countries share the same values and the same rules-based world view could help them coordinate at multilateral organizations.

Recommendations:

Need for a clear strategy:

- Though the efforts towards the trilateral are welcome, they should be backed by appropriate efforts to institutionalize it. The three countries need to define a common economic and strategic agenda.

Comprehensive engagement:

- The trilateral cooperation should induce a strategic dialogue that should include the economic, security and political dimensions.

Conclusion:

- In the pushback against China, strategic cooperation between India, Italy and Japan can ensure a free and open Indo-Pacific.

International Relations: Bilateral, regional and global groupings and agreements involving India and/or affecting India's Interests

9. U.S., Afghanistan, Pakistan and Uzbekistan to form quad group

- » Prelims: The new quadrilateral diplomatic platform- Member nations and objectives
- » Mains: Significance of the platform

Context:

- The U.S., Afghanistan, Pakistan and Uzbekistan have agreed in principle to establish a new quadrilateral diplomatic platform.

Details:

- The diplomatic platform would focus on building transit links and enhancing regional connectivity which could help expand interregional trade and strengthen business-to-business ties.

Significance of the platform:

Take advantage of the strategic location of Afghanistan:

- Afghanistan's strategic location functions as a competitive advantage for the country.
 - * Afghanistan is bordered by Pakistan to the east and south, Iran to the west, Turkmenistan, Uzbekistan, and Tajikistan to the north, and China to the northeast.
- Located at the heart of the historic Silk Road, Afghanistan lies at the crossroads of commerce between Asian countries and European countries.
- The diplomatic platform could help leverage Afghanistan's strategic location advantage to its growth and development.

Bring peace and stability to Afghanistan:

- The diplomatic effort gains significance in the backdrop of US troops' withdrawal from Afghanistan and the rising violence. Given the mutually reinforcing nature of peace and regional connectivity, this diplomatic platform could contribute to bringing long-term peace and stability to Afghanistan.

Countering BRI:

- The formation of the new quad group is important amid China's desire to extend its Belt Road Initiative (BRI) to Afghanistan.
 - * The BRI aims to link Southeast Asia, Central Asia, the Gulf region, Africa and Europe with a network of land and sea routes.

International Relations: India's foreign policy

10. India must directly engage with Taliban 2.0

- » Prelims: Shanghai Cooperation Organization
- » Mains: Arguments in favour of and against engaging with the Taliban

Increasing clout of the Taliban in Afghanistan:

- Given the increasing violence in Afghanistan India has been ramping down its civilian presence in Afghanistan. India has 'temporarily' closed its consulates in Kandahar, Jalalabad and Herat and has evacuated its diplomats.
- This has been described by security experts as India's acknowledgement of the threat the Taliban poses to Indian assets and presence in Afghanistan.

- The current situation represents a major crossroad for India's Afghan policy which has so far been mostly characterized by engagement with the democratically elected government of Afghanistan through investments and developmental aid while maintaining a distance from the Taliban.

India's recent outreach to the Taliban:

- In late 2018, India sent a 'non-official delegation' of two retired diplomats to a conference in Moscow which was also being attended by the Taliban and members of the Afghan High Peace Council.
- In 2020, India's External Affairs Minister joined the inaugural session of the intra-Afghan negotiations in Doha.
- More recently, there have been reports of India reaching out to the Taliban.

Rationale for the indirect talks approach with the Taliban:

- Following are some of the reasons why India has adopted slow and behind closed doors talks with the Taliban.
 - * Any direct engagement with the Taliban risks unsettling India's trusted partner, Afghanistan President Ashraf Ghani. This could even nudge him to look towards China and the Shanghai Cooperation Organisation (SCO) for national security and personal political survival.
 - * Given the decentralized structure of the Taliban and its internal divisions, India is faced with the challenge of whom to engage with. Given India enjoys little access to the members of the Quetta Shura or the fighters on the ground in Afghanistan, India is having to engage with the Doha-based Taliban negotiators.
 - * Given the lack of clarity on the Taliban's long term intentions and strategies, India might not want to court the Taliban very soon. Hence the need for a calibrated and gradual engagement with the Taliban.
 - * There is also the threat of Pakistan acting out against India in Kashmir if India were to establish deeper links with the Taliban.

Arguments in favour of a more proactive and open engagement with the Taliban:

- The Taliban has been making rapid gains in Afghanistan. Over a third of Afghanistan's more than 400 districts are under Taliban control. It seems inevitable that the Taliban, one way or another, is going to be part of the political scheme of things in Afghanistan.

- Unlike in 1996, a large number of players in the international community are going to recognise/ negotiate/do business with the Taliban. India cannot be the odd one out in this regard.
- The less proactive the Indian engagement with the Taliban, the stronger Pakistan-Taliban relations would become which would not be in India's strategic interests.
- Given the substantial investments India has made in Afghanistan (over \$3 billion), it makes both strategic and economic sense for India to court all stakeholders in Afghanistan, including the Taliban, to ensure the security of its civilian assets.
- Lack of a proactive approach from India will leave the space open for other countries like Russia, Iran, Pakistan and China to emerge as prominent shapers of Afghanistan's political and geopolitical destiny, which would prove to be detrimental to Indian interests in Afghanistan.
- Also, a proactive approach to Afghanistan will help India open up the congested north-western frontier to give way for India's continental strategy. This would be in line with other measures like backchannel talks with Pakistan and a consequent ceasefire on the Line of Control, political dialogue with the mainstream Kashmiri leadership.

Recommendations:

- Though India's engagement with the Taliban may or may not achieve much, non-engagement will definitely hurt Indian interests. The talk-to-the-Taliban option is indeed the best of the many less than perfect options available to India.
- In this regard, India should shed its inhibitions and replace the hesitant, backchannel parleys with the Taliban and indulge in open talks and engagement with the Taliban 2.0 given the strategic necessity of such a move.
- This fundamental reset in India's Afghanistan policy is a necessity to safeguard its civilian assets in Afghanistan as well as to stay relevant in the unfolding 'great game' in and around Afghanistan.
- Given that the Taliban too is looking for regional and global partners for recognition and legitimacy especially in the neighbourhood, it too would be welcoming of any approach by India to engage.

International Relations: India's foreign policy

11. Evaluating India's options in Afghanistan

- » Mains: India's chequered relations with Afghanistan, Challenges to India's interests in Afghanistan with the advent of the Taliban and India's options to secure its interests

Background:

India's chequered relations with Afghanistan:

- India has historically enjoyed good ties with Afghanistan right from ancient times. The 1950 Treaty of Friendship between the Government of India and the Royal Government of Afghanistan was recognition of the historic ties.
- Indian interests and influence in Afghanistan suffered a setback when the Taliban captured Kabul in 1996. Given the close relationship between the Taliban and the Pakistani establishment, India's influence in Afghanistan invariably suffered. India never officially recognized the Taliban regime in Afghanistan and the hijacking of IC flight 814 and its subsequent landing in Kandahar, Afghanistan only deepened India's doubts vis-a-vis the Taliban.
- The U.S. invasion of Afghanistan in 2001 and the ousting of Taliban helped India gain influence again in Afghanistan. Since then India has made huge investments amounting to over \$3 billion, and has cultivated strong economic and defence ties with the Afghan government. India has been at the forefront of developmental aid to Afghanistan.
- The Pull back of foreign troops from Afghanistan and the rapid territorial gains being made by Taliban, threaten India's interests in Afghanistan.

Challenges to India's interest in Afghanistan:

- The American withdrawal from Afghanistan would leave a vacuum in Afghanistan and continental Asia in general which is being filled by China. This does not augur well for India's strategic interests in the longer run.
- The rise of the Taliban could make Afghanistan a safe haven for anti-India terrorist groups. This could lead to serious security concerns for India.
- A Taliban regime in Afghanistan will allow Pakistan to deepen its influence in Kabul at the cost of India's strategic influence.

Options for India:

Talking with the Taliban:

- Many experts have suggested India shedding its traditional approach of maintaining no ties with the Taliban and holding talks with the Taliban.

- This would allow India to seek security guarantees from the insurgents as well as explore the possibility of the Taliban's autonomy from Pakistan.
- Given the fact that even the Taliban is seeking recognition in the region, it would be open to considering some degree of relationship with India in exchange for recognition. India could also continue development assistance in return for security guarantee.

Supporting Afghanistan government:

- Given the deep ties between Pakistan's security establishment and the Taliban, there is no guarantee that India's engagement with the Taliban would produce a desirable outcome for India. Hence India should enhance aid to Afghanistan's elected government and Afghan National Defense and Security Forces.
- India should urgently step up training Afghan forces and provide military hardware, intelligence and logistical and financial support to help the Afghan security forces defend the cities.

Engaging in regional multilateral efforts:

- There is a convergence of interests between India and three key regional players — China, Russia and Iran — in seeing a political settlement in Afghanistan. None of these countries would like to see the Taliban taking over Kabul militarily.
 - * A Taliban regime in Afghanistan does not bode well for the neighbouring China given that the restive Xinjiang province shares a border with Afghanistan.
 - * Russia fears that instability in Afghanistan would spill over into the former Soviet Republics and impact Russia's interests in the Central Asian region.
 - * For Iran, a Sunni Deobandi Taliban will be an ideological, sectarian and strategic challenge.
- India should coordinate with these regional powers to support the Afghan government and help ensure for long-term stability in the country.

Recommendations:

A layered approach:

- India should take a layered approach
 - * Its immediate goal should be the safety and security of its personnel and investments in Afghanistan and in this regard opening up engagement with the Taliban may be inevitable.

- * The long-term goal for India in Afghanistan should be finding a political solution to the crisis and in this regard India should continue its support to the elected Afghan government and other non-Taliban stakeholders and collaborate with other regional powers in this direction.

Broad-based approach:

- India should shed its over reliance on any one option and should broad base its approach in Afghanistan.
- It should engage with all stakeholders– the afghan government, the Taliban and the regional powers to protect its interests.
- If necessary India should also seek non-conventional methods, like what it did in the 1990s, to offer support to its allies within Afghanistan and retain some influence.

Focus on ties with regional powers:

- In the light of increasing strategic alignment of India with the U.S., the article suggests that India should instead carefully balance its ties with the U.S. and that with other countries like Russia, Iran and China.
- Given the immense potential that Russia, Iran and China hold in helping India deal with the challenge of the rise of Taliban in Afghanistan, India should desist from adopting a unilateral emphasis on its ties with the U.S. at the cost of its ties with Russia, Iran and China.
 - * Russia has cultivated links with the Taliban in recent years. India would need Russia's support in any form of direct engagement with the Taliban.
 - * Iran has built contacts critical contacts with several stakeholders in Afghanistan. Iran could also provide India with a direct access to Afghanistan. This could prove critical for India in situations where in India may have to move in supplies to Kabul in larger quantities, retain its presence in the event of a civil war or carry out covert operations if the Taliban take power by force.
 - * China has lately built its own sphere of influence within Afghanistan with even the Taliban recognizes China as a friend and ally.
- Hence, India should focus on building strategic ties with Russia and Iran and issue based relation with China, irrespective of the U.S.'s policy towards these countries.

- India is bound to be impacted by the consequences of American withdrawal from Afghanistan and it will have to work with Eurasian powers to protect its interests and stabilize Afghanistan. This would have to be balanced with India's strategic relationship with the U.S.

International Relations: India's bilateral relations- Maldives

12. India seeks Maldivian govt. action on 'repeated attacks' in media

- » Prelims: Vienna Convention of Diplomatic Relations
- » Mains: Challenges in India-Maldives bilateral relationship

Context:

- India has sought Maldivian government action on persons behind media reports and social media posts attacking the dignity of its resident diplomats.

Background:

- President Ibrahim Mohamed Solih's government is seen to be a close ally of India, with enhanced development and defence cooperation since 2018.
- However, some government critics are sceptical of greater military ties with India.
- In May 2021, an announcement made in India, on the Cabinet clearing a proposal to set up a second mission in the Maldives, sparked concern among sections.
- This prompted a renewed "#Indiaout" campaign on Maldivian social media.

Details:

- The High Commission of India said the repeated attacks on resident diplomats were motivated, malicious and increasingly personal.
- It urged the Foreign Ministry to take steps to ensure enhanced protection of the Mission and its officials.
- It urged the authorities to ensure action, in accordance with International Law and Maldivian Law against the perpetrators for gross violations of the Vienna Convention of Diplomatic Relations.

Vienna Convention of Diplomatic Relations:

- Vienna Convention of Diplomatic Relations is an international treaty that defines a framework for diplomatic relations between independent countries.
- It was adopted in 1961 by the United Nations Conference on Diplomatic Intercourse and Immunities held in Vienna, Austria.

- It specifies the privileges of a diplomatic mission that enable diplomats to perform their functions without fear of coercion or harassment by the host country.
 - * This forms the legal basis for diplomatic immunity.

ART AND CULTURE

Art and Culture - Places and Archaeological sites in News

1. AdarshSmarak Scheme

- » Prelims: Adarsh Smarak scheme- Objectives; Buddhist sites at Nagarjunakonda; Lepakshi temple

Context:

- 3 monuments of Andhra Pradesh Identified as "AdarshSmarak" for providing additional facilities.

Details:

- Three monuments in Andhra Pradesh have been identified under the AdarshSmarak Scheme to provide additional amenities and make them more tourist-friendly.
- The monuments are:
 - * Monuments at Nagarjunakonda: Nagarjunakonda in Guntur District is named after the renowned Buddhist monk Nagarjuna. It was an important Buddhist learning centre and houses the remains of many Buddhist Stupas, statues, pillars, Chaityas, monasteries, etc. The first archaeological ruins of Nagarjunakonda were discovered in 1926 by A.R. Saraswati.
 - * Buddhist Remains at Salihundam: Salihundam in Srikakulam District contains several votive stupas, a mahastupa, chaityas and viharas. Several inscriptions that were unearthed at the site indicate that it dates back to the 2nd century CE. The mahaviharasali-pethaka here, interestingly, has an entrance in the shape of a swastika, indicating that this is probably from where Buddhism spread to Sumatra and the rest of Southeast Asia.
 - * Veerabhadra Temple at Lepakshi: Veerabhadra Temple at Lepakshi, District Anantapuram is a temple dedicated to Virabhadra (Lord Shiva). Built in the 16th century, the architectural features of the temple are in the Vijayanagara style with a profusion of carvings and paintings at almost every exposed surface of the temple.

About the AdarshSmarak Scheme:

- The scheme was launched in 2014 by the Ministry of Culture for providing improved visitor amenities in historical and archaeological monuments/sites.
- It also aims at the better preservation of the

monuments.

- The monuments included in the list would have all the tourist facilities as per international standards including wi-fi, signages, security, encroachment free area, interpretation centres, etc.
- Objectives of the scheme:
 - * To make monuments visitor friendly.
 - * To upgrade/provide washrooms, drinking water, signages, cafeteria, and wi-fi facility.
 - * To provide interpretation and audio-video centres.
 - * To streamline wastewater and garbage disposal and a rainwater harvesting system.
 - * To make the monuments accessible to the differently-abled.
 - * To implement Swachh Bharat Abhiyan.

Art and Culture - Festivals

2. AshadhiBij

- » Prelims: Indian regional festivals
- AshadhiBij is an auspicious day for the farming communities in northern India especially Gujarat, Uttar Pradesh and some other places.
- The festival falls on the second day of the Shukla Paksha of the Ashadha month of the Hindu calendar.
- The festival is associated with the beginning of rains in the Kutch region of Gujarat and is celebrated as the Kutchi New Year.
- On this festival, farmers, astrologers and others predict the monsoon to assess which crop would be best in the coming season.

Art and Culture - Places and Archaeological sites in News

3. Dholavira in Gujarat on UNESCO World Heritage list

- » Prelims: Dholavira- Salient aspects; UNESCO world heritage sites in India

Context:

- Dholavira, the archaeological site of a Harappan-era city has been named in the UNESCO's World Heritage list.
 - * The site had been on UNESCO's tentative list since 2014.

Background:

Dholavira:

- Dholavira is located in the Kutch district of Gujarat. It was discovered in 1968 by archaeologist JagatPati Joshi.
- After Mohen-jo-Daro, Ganweriwala and Harappa in Pakistan and Rakhigarhi in Haryana of India, Dholavira is the sixth largest metropolis of the Indus Valley Civilization (IVC).
- Dholavira was a commercial and manufacturing hub for about 1,500 years before its decline.
 - * Dholavira was a hub for copper metallurgy. It is believed that traders of Dholavira used to source copper ore from present-day Rajasthan and Oman and UAE and export finished products.
 - * It was also a hub of manufacturing jewellery made of shells and semi-precious stones, like agate and also used to export timber.
- From around 2000 BC, Dholavira entered a phase of severe aridity due to climate change and rivers like Saraswati drying up. Because of a drought-like situation, people started migrating toward the Ganges valley or towards south Gujarat and further beyond in Maharashtra.

Distinct features:

- The water management system, multi-layered defensive mechanisms, extensive use of stone in construction and special burial structures are some of the unique aspects of Dholavira.
 - * Dholavira houses a cascading series of water reservoirs believed to be part of a water harvesting system.
 - * Dholavira has a fortified citadel, a middle town and a lower town with walls made of sandstone or limestone instead of mud bricks as in other Harappan sites.
 - * Dholavira had an enormous outer fortification running on all four sides.
 - * The funerary architecture featuring tumulus — hemispherical structures like the Buddhist Stupas— are a unique feature of Dholavira.
 - * There are remains of two open-air stadiums.
- A range of artefacts of copper, shell, stone, jewellery made of terracotta and ivory had been found at the site.

Details:

- In its release, UNESCO 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 (Before Common Era).
- Dholavira has become the fourth site from Gujarat and 40th from India to make it to the UNESCO's World Heritage list. It is the first site of the ancient Indus Valley Civilization in India to get the tag.

- Other than India, Italy, Spain, Germany, China and France have 40 or more World Heritage Sites.

Art and Culture - Art forms

4. Gamosa

- » Prelims: Gamosa
- Gamosa is a symbol of Assamese culture, an important marker of cultural identity for the Assamese.
- This small piece of cloth has high esteem and wide usage in Assamese culture.
- It is also known as 'Bihuwaan', as it is an essential part of the Bihu festival of Assam.
- It is generally a white rectangular piece of cloth with primarily a red border on three sides and red woven motifs on the fourth.
- Although cotton yarn is the most common material for making/weaving gamosas, there are special occasion ones made from Pat silk.
- Assam has traditionally had two types of gamosas – the uka and the phulam.
 - * The uka or plain kind is used to wipe sweat or dry the body after a bath.
 - * The phulam is decorated with floral motifs to be gifted as a memento or during festivals such as Bihu.

Art and Culture - Places and Archaeological sites in News

5. Kesaria Buddha Stupa

- » Prelims: Kesari Buddha stupa; kakatiya empire
- Kesaria Buddha Stupa is a nationally protected stupa. ASI has declared it a protected monument.
- Its first construction is dated to the 3rd century BCE.
- The original Kesaria stupa is said to date back to the time of emperor Ashoka (circa 250 BCE) as the remains of an Ashokan pillar was discovered there.
- It is regarded as the largest Buddhist stupa in the world and has been drawing tourists from across several Buddhist countries.
- The stupa is in the east Champaran district of Bihar.
 - * East and West Champaran districts share their borders with Nepal in many places.

Art and Culture - Places and Archaeological sites in News

6. Telangana temple gets World Heritage tag

» Prelims: Ramappa temple

What's in News?

- The 13th-century Ramappa temple in Palampet, Telangana has been declared a UNESCO World Heritage Site.

Details:

- It is the main Shiva temple in a walled complex built during the Kakatiyan period (1123–1323 CE) under rulers Rudradeva and Recherla Rudra.
- The temple was built by Recherla Senapati Rudrayya, a general of Kakatiya king Ganapatideva, in the 13th century.

- The main temple is surrounded by the collapsed structures of the Kateshwarayya and Kameshwarayya temples in Palampet.
- The temple is known for its exquisite craftsmanship and delicate relief work.
- The foundation is built with the "sandbox technique", the flooring is granite and the pillars are basalt.
 - * The sandbox works like a cushion. It absorbs stress from all sides. So, if an earthquake occurs the intensity is greatly reduced at the level of the sandbox before it reaches the construction.
- The lower part of the temple is red sandstone.
- Pyramidal Vimana (white gopuram) is made of lightweight porous bricks, so-called 'floating bricks' (bricks that reportedly float on water).
- The temple sculptures illustrate regional dance customs and Kakatiyan culture.

SCIENCE AND TECHNOLOGY

Initiatives in News

1. **Biotech-PRIDE**

» Prelims: Biotech-PRIDE

Context

- Union Minister released Biotech-PRIDE (Promotion of Research and Innovation through Data Exchange) Guidelines.

About Biotech-PRIDE:

- The Biotech PRIDE Guidelines will enable the exchange of information to promote research and innovation in different research groups across the country.
- The guidelines aim at providing a well-defined framework and guiding principle to facilitate and enable sharing and exchange of biological knowledge, information and data and is specifically applicable to high-throughput, high-volume data generated by research groups across the country.
- These guidelines do not deal with a generation of biological data per se but are an enabling mechanism to share and exchange information and knowledge generated as per the existing laws, rules, regulations and guidelines of the country.
- The guidelines will ensure data sharing benefits viz. maximising use, avoiding duplication, maximised integration, ownership information, better decision-making and equity of access.
- The PRIDE Guidelines will be helpful to harmonise, synergise and encourage data sharing for research and analysis in the country and to promote scientific work and foster progress by building on previous work.
- These guidelines will also be advantageous in avoiding duplication and wasteful expenditure of resources on research.
- Initially, these guidelines will be implemented through the Indian Biological Data Centre (IBDC) at Regional Centre for Biotechnology supported by the Department of Biotechnology.

Awareness in the field of Space

2. **Chandrayaan-3 mission**

» Prelims: Chandrayaan-3 mission; GSLV

What's in News?

- The Chandrayaan-3 mission is likely to be launched in 2022.

Chandrayaan-3:

- Chandrayaan-3 is ISRO's third mission to Moon.
- The Mission will target a soft landing near the Lunar South-pole.
- It will only include a lander and rover similar to that of Chandrayaan-2.
- Unlike its predecessor, Chandrayaan-3 will not have an orbiter.
- The Chandrayaan-3 lander will also be equipped with a Laser Doppler Velocimeter (LDV).
- The Chandrayaan-3 takes cues from the first Chandrayaan mission launched in 2008 that made major discoveries including finding evidence of water on the lunar surface.

Chandrayaan-3 is critical for ISRO as it will demonstrate India's capabilities to make landings for further interplanetary missions.

Chandrayaan-2:

- The Chandrayaan-2 mission, launched in July 2019, was scheduled to be an effort aimed at landing a rover on the Lunar South Pole.
- It was sent aboard the country's most powerful geosynchronous launch vehicle, the GSLV-Mk 3.
- However, the lander Vikram, instead of a controlled landing, ended up crash-landing on September 7, 2019, and stymied the effort.

Science and Technology - Achievements of Indians in science and technology; indigenization of technology and developing new technology

3. **CSIR-CSIO's UV-C Disinfection Technology**

» Prelims: UV-C Disinfection Technology

Context:

- The UV-C Disinfection Technology developed by the Council of Scientific and Industrial Research (CSIR) to be installed in Parliament.

Details:

- The Union Minister of State for Science & Technology held a meeting with senior scientists of CSIR to discuss the modalities of installing the system in the Parliament ahead of the monsoon session.

About the Technology:

- The UV-C Disinfection Technology is essentially an air duct system which has been developed by the Chandigarh based CSIR-CSIO (Central Scientific Instruments Organisation) and can be used in auditoriums, large conference rooms, class-rooms, malls, etc.

- It provides a relatively safer environment for indoor activities amid the pandemic.
- The CSIR-CSIO developed product is tested for more than 99 % disinfection and could be used as a retrofit solution to Air Handling Units (AHUs) of buildings, transport vehicles and other spin off applications.
- The UV-C is an energy efficient system, improves airflow through coils, enhances indoor air quality, requires less maintenance, easy to retrofit with any existing system having AHU ducts, and has low initial setup cost. The system comes with commercialized standards and certifications.
- CSIR-CSIO has transferred the technology to many companies for commercialisation.

SECURITY AND DEFENCE

Defence Equipment

1. Akash-NG and MPATGM

- » Prelims: Akash-NG; MPATGM; India's Integrated Guided Missile Development Programme

Akash-NG:

- Akash-NG or the New Generation Akash is a surface-to-air missile.
- The missile system has been developed by Defence Research & Development Laboratory (DRDL), Hyderabad in collaboration with other DRDO laboratories.
- Once deployed, the Akash-NG weapon system will prove to be a force multiplier for the air defence capability of the Indian Air Force.
- The new-gen Akash missile can strike targets at a distance of around 60 km and fly at a speed of up to Mach 2.5.

MPATGM:

- The Man Portable Antitank Guided Missile (MPATGM) is an indigenously developed low-weight, fire and forget missile.
- The MPATGM is a third-generation fire-and-forget anti-tank guided missile derived from Nag ATGM.
- The missile is incorporated with state-of-the-art Miniaturized Infrared Imaging Seeker along with advanced avionics.
- It has a range of about 2.5 km.
- It is fitted with high-explosive anti-tank (HEAT) warhead.
- The test brings the development of indigenous third generation man portable Anti-Tank Guided Missile close to completion.

Defence Equipment

2. HAL set to deliver first batch of 3 LCH

- » Prelims: LCH and other indigenously developed helicopters; Apache.

What's in News?

Hindustan Aeronautics Limited (HAL) is gearing up to deliver the first batch of three Light Combat Helicopters (LCH) to the Indian Air Force (IAF).

- These are part of the 15 Limited Series Production (LSP) helicopters approved for the Army and the IAF.

- Of the 15 LSP helicopters, 10 are for the IAF and five for the Army.
- The LCH is the lightest attack helicopter in the world weighing 5 tonnes.
- It has been designed and developed by the HAL to meet the specific and unique requirements of the Indian armed forces and can operate at heights of 12,000 feet.

Note:

- The Army Aviation operates smaller utility helicopters but does not have attack helicopters in its fleet.
 - * However, it has pitched for attack helicopters of its own to operate with its strike corps.
- The attack helicopter fleet is operated by the Air Force which provides close air support to the Army.
- The IAF operates the older Mi-25 and Mi-35 Russian attack helicopters which are in the process of being phased out. It has inducted 22 AH-64E Apache attack helicopters from the U.S.
- At present, the Army has 90 Advanced Light Helicopters (ALH) and 75 Rudra, weaponised ALH, helicopters in service which are indigenously designed and developed by the HAL in addition to the older Cheetah and Chetak utility helicopters which are in need of urgent replacement.
- The Army will start receiving the Apache attack helicopters from 2023, six of which have been contracted under a deal from the U.S. in February 2020.

Defence equipment

3. MH-60R Multi Role Helicopters (MRH)

- » Prelims: MH-60R helicopters

Context:

- Indian Navy accepts the first batch of two MH-60R Multi Role Helicopters (MRH).

Details:

- The Indian Navy is procuring 24 MH-60R Multi Role Helicopters (MRH) manufactured by Lockheed Martin under foreign military sales from the US government at an estimated cost of \$2.4 billion.
- The first two Sikorsky MH-60R multi-role helicopters have been handed over to the Indian Navy by the US Navy.

- MH-60R is the most advanced maritime multi-mission helicopter in operation.

Significance:

- The induction of these all-weather MRH would enhance Indian Navy's three-dimensional capabilities.
- According to the Department of Defense, the proposed sale will provide India the capability to perform anti-surface and anti-submarine warfare missions along with the ability to perform secondary missions including vertical replenishment, search and rescue, and communications relay.
- India will use the enhanced capability as a deterrent to regional threats and to strengthen its homeland defence.

Miscellaneous

4. 'Be aware of underwater domain'

- » Prelims: Underwater domain awareness-challenges and significance

What's in News?

- Chief of the Naval Staff has highlighted that for India, with regard to naval operations, underwater domain awareness (UDA) was one of the most critical areas.

Underwater domain awareness:

- Underwater domain awareness (UDA) is the aspect of maritime domain awareness.
- It focusses on the underwater sector, including, from a security perspective, Sea Lines of Communication (SLOC), coastal waters and varied maritime assets with reference to hostile intent and the proliferation of submarine and mine capabilities intended to limit access to the seas and littoral waters.
- It is a concept that addresses the aspect of a nation's ability to monitor all the developments in the underwater region and possibly prevent events.

Details:

- To exploit the potential of unmanned technologies and platforms, the Navy has approved an unmanned road map.
- The economic activities driven by the river, like inland water transport, fishing, underwater resource exploration and exploitation, etc., can be efficiently managed with effective UDA.
- The security apparatus responsible for providing a secure atmosphere that can minimise subversive activities both by external and internal elements can be enhanced with UDA.

- Effective disaster management is possible with enhanced UDA. With better awareness, the loss of life and property can be minimised.

Concern:

- The discovery of 'Chinese-origin' autonomous underwater gliders in the Indonesian waters indicate the extent to which underwater technologies are being harnessed for military advantage by China.

Miscellaneous

5. Simpler drone rules in the offing

- » Prelims: iDEX; DIO

Context:

- The Ministry of Civil Aviation has released Draft Drone Rules, 2021, for public consultation.

Details:

- The rules will replace the Unmanned Aircraft System Rules, 2021 notified in March 2021.
- The intent is to make the rules user-friendly and to encourage drone research and development.

Key takeaways from the Draft Drone Rules, 2021:

- The number of forms to be filled to seek authorisation before operating a drone has been reduced from 25 to six.
- Fee reduced to nominal levels. No linkage with the size of the drone.
- Safety features like 'No permission – no take-off' (NPNT), real-time tracking beacon, geo-fencing, etc. to be notified in future. A six-month lead time will be provided for compliance.
- Digital sky platform would be developed as a business-friendly single-window online system.
- No pilot licence required for micro drones (for non-commercial use), nano drones and for R&D organisations.
- No restriction on drone operations by foreign-owned companies registered in India.
- Import of drones and drone components to be regulated by the Directorate General of Foreign Trade. This is in order to encourage indigenous manufacturing.
- No security clearance required before any registration or licence issuance.
- Coverage of drones under Drone Rules, 2021 increased from 300 kg to 500 kg. This will cover drone taxis also.
- Directorate General of Civil Aviation shall prescribe training requirements, oversee drone schools and provide pilot licences online.
- Maximum penalty under Drone Rules, 2021 reduced to INR 1 lakh.

- Drone corridors will be developed for cargo deliveries.
- Drone promotion council to be set up to facilitate a business-friendly regulatory regime.
- The Union government may specify certain standards for obtaining a certificate of airworthiness for drones, which will promote the use of made-in-India technologies, designs, components and drones; and India's regional navigation satellite system named Navigation with Indian Constellation [NavIC].

Security challenges - Drug Trafficking

6. India signed 26 pacts to fight drug menace

- » Prelims: Drugs and Psychotropic Substances (NDPS) Act, 1985.
- » Mains: Measures taken by India to tackle Drug menace

Context:

- Ministry of Home Affairs (MHA) reply in the Lok Sabha on the measures taken to combat drug trafficking in India.

Measures taken:

International level:

- India is a signatory to the UN Single Convention on Narcotics Drugs 1961, the Convention on Psychotropic Substances, 1971 and the Convention on Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988 which prescribe various forms of control aimed to achieve the dual objective of limiting the use of narcotics drugs and psychotropic substances for medical and scientific purposes as well as preventing the abuse of the same.
- India has signed 26 bilateral pacts, 15 memoranda of understanding and two agreements on security cooperation with different countries for combating illicit trafficking of narcotics, drugs, psychotropic substances and even their chemical precursors.
- The Narcotics Control Bureau (NCB) has been coordinating with various international organisations for sharing information and intelligence on transnational drug trafficking.

Domestic level:

- The basic legislative instrument in this regard is the Narcotics Drugs and Psychotropic Substances (NDPS) Act, 1985.
- For better coordination among various Central and State agencies, the Narco Coordination Centre (NCORD) mechanism was set up. The NCORD system has been further extended into a four-tier scheme up to the district level for better coordination. This has ensured more effective drug law enforcement.

- A Joint Coordination Committee was set up to monitor the investigation into cases involving large seizures.
- The MHA has launched an e-portal called 'SIMS' (Seizure Information Management System) for digitisation of pan-India drug seizure data.

Linkages between development and spread of extremism

7. SalwaJudum

- » Prelims: Salwa Judum
- » Mains: Nandini Sundar & Ors vs State Of Chattisgarh (2011) case
- Salwa Judum began in 2005 as a the state-sanctioned vigilante group to crush Maoism
- In the Gondi language of the tribals of Dantewada and Bastar, SalwaJudum means peace march.
- It involved the State authorities training tribal villagers to fight the Maoists.
 - * The state government allegedly supplied arms and tacit support to the Judum, which had turned into a vigilante group, recruiting poorly trained youth as "Koya Commandos", or "SPOs (Special Police Officers)". Many of the volunteers were former Maoists.



- It started near Kutru village in Bijapur tehsil of Dantewada, after tribals there protested against Maoist diktats such as ban on collecting tendu leaves (used to make bidis) and participating in elections.
- The movement was an uprising of tribal people against Maoist violence

Controversies

- Human rights activists claim the movement has made the tribals even more vulnerable to Maoist attacks than before.
- Human Rights Watch has reported large scale displacement of civilians caught in the conflict between the Naxalites and SalwaJudum activists. Thousands left their homes never to return.
- It is alleged that the SalwaJudum had recruited minors for its armed militia
- Many people were killed, there were numerous allegations of the Judum entering and burning villages and several accusations of sexual assault

NandiniSundar&Orvs State Of Chattisgarh (2011)

- In 2011, the Supreme Court of India declared SalwaJudum to be illegal and unconstitutional, and ordered its disbanding. The Court directed the Chhattisgarh government to recover all the firearms, ammunition and accessories.
- The use of surrendered Maoists and untrained villagers and youth in frontline counter-insurgency operations was criticised for its violations of human rights and declared as a violation of Article 14 and Article 21 of the Indian Constitution.
- Article 14- Equality before law. The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India; Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth.
- Article 21 – Protection of life and personal liberty. No person shall be deprived of his life or personal liberty except according to procedure established by law.

Context:

- 10th anniversary of the SalwaJudum case.

Challenges to internal security

8. Assam-Mizoram border row

- » Mains: State re-organization in North Eastern India and the challenges therein to India's internal security

Context:

- Six Assam police personnel were killed in an exchange of fire with their Mizoram counterparts after the extensive border row between the two North-Eastern States took a violent turn.

Background:

- The Mizoram Assam dispute dates back to the colonial area.
- The border row started after the British demarcated Cachar plains and the Lushai Hills.
- While the plains harboured growing British plantations, the Hills homed the Mizos. In 1875, the Inner Line Reserve Forest demarcation was arrived upon with the consultation of Mizo chiefs.
- After independence, states such as Nagaland, Arunachal Pradesh, Meghalaya, and Mizoram were carved out of Assam.
- When the state of Manipur was demarcated in 1993, tensions emerged as its boundary began from the Lushai Hills and Cachar district of Assam.
 - * This was not accepted by the Mizos.
 - * Mizoram continued to demand that its borders with Assam be determined according to the British government's 1875 agreement.
 - * It claimed that several Mizo-speaking districts had become a part of Assam during the post-independence demarcation.

Details:

- At the heart of the dispute over the 165-km Assam-Mizoram boundary are two border demarcations that go back to the days of British colonial rule, and disagreement over which demarcation to follow.
- The latest clashes along the border lie near Assam's Cachar district and Mizoram's Colasib district.
- Fresh construction allegedly by Mizoram in the Inner Line Forest Reserve in the Lailapur area, has become a flashpoint for the dispute.

Government Intervention

- The first row broke out in 1994, seven years after Mizoram became a state.
- The Union government organised several rounds of talks between the two states to resolve the boundary dispute but tensions remain.

Way forward

- The Centre has decided to demarcate boundaries of the Northeastern states through satellite imaging to settle inter-state border disputes that are often becoming a cause of concern and sometimes even leading to violence.
- Political leaders from both the states must put in place institutional mechanisms to prevent breakdowns, and negotiate a way out of long-standing disputes in a spirit of give and take.

Conclusion

- Assam-Mizoram violence points to failure of political leadership. Peace must be restored, and ways found to prevent breakdown.

ENVIRONMENT AND ECOLOGY

Species in news - Flora

1. **Avicennia marina**

- » Prelims: Avicennia marina; Notable adaptations of mangrove species
- Avicennia marina is one of the most prominent mangroves species found in all mangrove formations in India.
- It is a salt-secreting and extraordinarily salt-tolerant mangrove species that grows optimally in 75% seawater and tolerates >250% seawater.
- It is among the rare plant species, which can excrete 40% of the salt through the salt glands in the leaves, besides its extraordinary capacity to exclude salt entry to the roots.
- It is also known as grey mangrove or white mangrove and is a shrub or tree belonging to the Acanthaceae family.
- They are generally 10–14 m long and have light grey or whitish bark with stiff, brittle, thin flakes. Their leaves are thick, glossy, and bright green on the upper side and grey or silvery white with small hairs on the lower side.

Initiatives in news

2. **Catch the Rain Project**

- » Prelims: Jal Shakti Abhiyan
- » Mains: Rain water harvesting- significance

Context:

- “Jal Shakti Abhiyan: Catch The Rain” was launched by PM Modi on World Water Day (22 March).

About the Project:

- National Water Mission's (NWM) campaign “Catch The Rain” with the tagline “Catch the rain, where it falls, when it falls” is to nudge the states and stakeholders to create appropriate Rain Water Harvesting Structures (RWHS) suitable to the climatic conditions and sub-soil strata before the monsoon season.
- Major activities under this campaign include:
 - * Drives to make check dams
 - * Water harvesting pits
 - * Rooftop RWHS
 - * Removal of encroachments and de-silting of tanks to increase their storage capacity
 - * Removal of obstructions in the channels which bring water to them from the catchment areas

- * Repairs to step-wells

- * Using defunct borewells and unused wells to put water back to aquifers

- To facilitate these activities, states have been requested to open “Rain Centres” in each district/Collectorates/Municipalities or GP offices.

- * This centre will act as a technical guidance centre to all in the district as to how to catch the rain, as it falls, where it falls.

Environmental Conservation Efforts

3. **Cities along rivers urged to include conservation plans**

- » Prelims: National Mission for Clean Ganga
- » Mains: Sustainable development

Context:

- Policy document from the National Mission for Clean Ganga has set out norms for river conservation plans.

Guidelines:

- The policy spells out provisions in the National Water Policy.
- It says that the cities situated on river banks will have to incorporate river conservation plans when they prepare their Master Plans.
- It has been instructed that the “river-sensitive” plans must be practical and consider questions of encroachment and land ownership.
- A key aspect of conserving and protecting rivers and riverine resources involves increasing green cover in the vicinity of the river by creating green buffers, removing concrete structures and employing green infrastructure.
- The Master Plan should not mandate specific technologies, but it can create an environment for facilitating the use of state-of-the-art technologies for river management.

Technologies being used across the world successfully for river management:

- Satellite-based monitoring of water quality
- Artificial intelligence for riverine biodiversity mapping
- Big data and citizen science for river-health monitoring
- Unmanned aerial vehicles for floodplain mapping.

Note:

- The recommendations are currently for towns that are on the main stem of the Ganga.
- As per the policy document, there are 97 towns encompassing five States — Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, West Bengal.

Initiatives in News

4. International Tiger Day

- » Prelims: CA/TS; Tiger reserves

Context:

- The International Tiger Day is observed on July 29 annually.

About International Tiger Day:

- The day is celebrated to raise awareness about the conservation of the wild cat, which over the last 150 years has witnessed a massive drop of nearly 95% in its population.
- On July 29, 2010, a number of countries became signatories to an agreement at the Saint Petersburg Tiger Summit in Russia.
- The countries pledged to raise awareness about the dramatic fall in the number of tigers and the steps required to preserve the species from going extinct.
- The theme for the 2021 International Tiger Day is "Their survival is in our hands".
- India accounts for nearly 70% of the world's total tiger population and has already achieved the target of doubling its numbers.
 - * India is home to 51 tiger reserves spread across 18 states.
 - * The last tiger census of 2018 showed a rise in the tiger population.
 - * India achieved the target of doubling the tiger population 4 years ahead of schedule of the St. Petersburg Declaration on Tiger Conservation.

Additional information:

- India's 14 Tiger Reserves got Global CA/TS recognition for good Tiger Conservation.
- The 14 Tiger Reserves in India which received the accreditation of the Global Conservation Assured Tiger Standards (CA/TS) are:
 - * Manas, Kaziranga and Orang in Assam
 - * Satpura, Kanha and Panna in Madhya Pradesh
 - * Pench in Maharashtra
 - * Valmiki Tiger Reserve in Bihar
 - * Dudhwa in Uttar Pradesh

- * Sunderbans in West Bengal
- * Parambikulam in Kerala
- * Bandipur Tiger Reserve in Karnataka
- * Mudumalai and Anamalai Tiger Reserve in Tamil Nadu

About 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.
- Officially launched in 2013, it sets minimum standards for effective management of target species and encourages assessment of these standards in relevant conservation areas.
- CA/TS is a set of criteria which allows tiger sites to check if their management will lead to successful tiger conservation.

Initiatives in News

5. Project BOLD

- » Prelims: Project BOLD- provisions and significance
- » Mains: Measures being taken in India to fight desertification
- The project named "Bamboo Oasis on Lands in Drought" (BOLD) is the first of its kind exercise in India launched on July 4 2021 from the tribal village Nichla Mandwa in Udaipur, Rajasthan.
- Project Bold is a unique scientific exercise serving the combined national objectives of reducing desertification and providing livelihood and multi-disciplinary rural industry. You can read in detail about DAY-NRLM National Rural Livelihood Mission on the given link.
- Its aim is to boost the income of the tribal people and solve environmental concerns. Read more about TRIFED – Development of Tribal People in India on the linked page.
- It is aligned with Prime Minister Narendra Modi's call for reducing land degradation and preventing desertification in the country by creating bamboo-based green patches of land in arid and semi-arid zones.
- The project has been initiated by Khadi and Village Industries Commission (KVIC) under the Ministry of Micro, Small & Medium Enterprises.
- It has been launched as part of KVIC's "Khadi Bamboo Festival" to celebrate 75 years of independence "Azadi Ka Amrit Mahotsav".

Benefits of Project BOLD

- It will help in reducing the land degradation percentage of the country.
- It will be a haven of sustainable development and food security. Detailed information on

Sustainable Development Goals – SDGs can be read here.

- The bamboo plantation program in Udaipur will boost self-employment in the region
- It will benefit a large number of women and unemployed youths in the region by connecting them to skill development programs.
- It can provide livelihood opportunities for locals and tribal men and women in the form of handicrafts, making bamboo furniture, culinary items, paper, bags, handbags, textile, household items, to name a few.
- Economic activities from Bamboo such as construction purposes, will save locals the cost of timber, bricks, and steel.

Reasons for choosing Bamboo for developing Green patches

- Bamboos are a diverse group of evergreen perennial flowering plants.
- Bamboos are very fast-growing plants and can be harvested in about three years.
- It is known for conserving water and reducing evaporation of water from the land surface, which is an important feature in arid and drought-prone regions.
- Bamboo can be used to control pollution by making use of bamboo charcoal, which has absorption properties.
- It devours high amounts of nitrogen and this helps decrease water pollution.

Status of Bamboo in India

- Earlier, the definition of tree in the law included palm, bamboo, brushwood and cane. With an amendment in 2017 in the Indian Forest Act 1927, the Bamboo has ceased to be a tree anymore. Read in detail about the Forest Conservation Act 1980 on the given link.
- Bamboo grown in the forest areas would continue to be governed by the provisions of the Indian Forest Act.
- The move aims to promote cultivation of bamboo in non-forest areas to achieve the “twin objectives” of increasing the income of farmers and also increasing the green cover of the country.

Other Initiatives by Government to Fight Desertification

- The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was introduced with a vision of expanding irrigation coverage (Har Khetko Pani) and using the water more efficiently (More Crop Per Drop). This scheme will provide an end-to-end solution on source creation, distribution, management, field application, and other extension activities.
- The Pradhan Mantri Fasal Bima Yojana (PMFBY)

aims at providing support for the sustainable production of yield in the agricultural sector.

- Soil Health Card Scheme – It is a field-specific detailed report of soil fertility status and other important soil parameters that affect crop productivity.
- India is a party to the UNCBD. India ratified the United Nations Convention on Biological Diversity in 1994.
- India ratified the United Nations Convention to Combat Desertification in December 1996. The nodal ministry for the convention in India is the Ministry of Environment, Forest and Climate Change.

Miscellaneous

6. Sikkim blossoms: State home to 27% of India's flowering plants

- » Prelims: Kanchenjunga biosphere
- » Mains: Mith/Mit or Mitini relationship

Context:

- Publication of the Flora of Sikkim – A Pictorial Guide by the Botanical Survey of India (BSI).

Background:

Sikkim's ecology:

- Sikkim is a part of the Kanchenjunga biosphere landscape.
- Sikkim is home to different altitudinal ecosystems, with the elevation varying from 300 metres to above 8500 metres above mean sea level.

Details:

- The publication lists 532 species of wild orchids (which is more than 40% of all orchid species found in India), 36 species of rhododendron and 20 species of oak, and more than 30 species of high-value medicinal plants, among other species.
- Despite being the smallest state in India with less than 1% of India's landmass, Sikkim is home to 27% of all flowering plants found in India.
- This presence of a diverse set of ecosystems varying from the subalpine to the temperate to the tropical is one of the reasons for high diversity of flora in Sikkim.

Concerns:

- Developmental activities such as the widening of roads to Nathu La and the hydel power plants in north Sikkim could have a negative impact on the rich biodiversity of Sikkim.

Additional information:

- The Sikkim Forest Tree (Amity & Reverence) Rules, 2017 allows any person to associate with trees standing on his or her private land or on any public land by entering into a Mith/Mit or Mitini relationship.
- This is an acknowledgement of the unique cultural practice prevalent in Sikkim and is of significance given the global environmental conservational efforts underway.

Environmental Pollution and Degradation

7. Rare Arctic lightning storms strike north of Alaska

- » Mains: Reasons for increasing lightning instances in the polar region; associated concerns

Context:

- Three successive thunderstorms swept across the Arctic region resulting in unusual lightning bolts.

Details:

- Lightning are a relatively rare phenomenon in the arctic region.
 - * Given that in the arctic region the water is usually covered with ice, the air over the Arctic Ocean lacks the convective heat needed to generate lightning storms
- However there are indications of a change in this trend with episodes of summer lightning within the Arctic Circle having tripled since 2010.
 - * This trend could be attributed to climate change and increasing loss of sea ice in the region. As sea ice vanishes, more water is able to evaporate, adding moisture to the warming atmosphere.
 - » Notably climate change has been warming the Arctic faster than the rest of the world.

Concerns:

- These lightning threaten boreal forests around the Arctic, as they could spark forest fires in remote regions already experiencing high temperatures due to global warming.
- On the water, the lightning is an increasing hazard to mariners as the vessel traffic has been increasing with retreating sea ice.

Environmental Pollution and Degradation

8. Climate change has added over 1,000 lakes in Swiss Alps: study

- » Mains: Consequences of global warming and climate change

Context:

- According to a study published by the Swiss Federal Institute of Aquatic Science and Technology (Eawag), climate change has dramatically altered the Swiss Alp landscape.

Concerns:

- 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.
 - * About 180 have been added in the last decade alone.
- Glaciers in the Swiss Alps are in steady decline, losing a full 2% of their volume in 2020 alone.
- According to a 2019 study, even if the world were to fully implement the 2015 Paris Agreement two-thirds of the Alpine glaciers will likely be lost

Swiss Alps:

- The Alps are the highest and extensive mountain range system that lies entirely in Europe.
- It stretches across eight Alpine countries (from west to east): France, Switzerland, Monaco, Italy, Liechtenstein, Austria, Germany, and Slovenia.
- The mountains were formed as the African and Eurasian tectonic plates collided.
- The Alpine region of Switzerland is conventionally referred to as the Swiss Alps.
- The Alps cover 60% of Switzerland's total surface area, making it one of the most alpine countries.

Environmental Pollution and Degradation

9. Analysis by NGO reveals microplastics in Ganga

- » Prelims: Microplastics and microbeads
- » Mains: Concerns and recommendations

Context:

- The study, 'Quantitative analysis of Microplastics along River Ganga', conducted by the Delhi-based environment NGO, Toxics Link.

Background:

Microplastics:

- Microplastics are defined as synthetic solid particles sized ranging from 1 micrometre to 5 millimetres (mm), which are insoluble in water.
- Microplastics come in a large variety of sizes, colours and chemical compositions, and include fibres, fragments, pellets, flakes, sheets or foams.

Details:

- The study notes pollution by microplastics all along the stretches of the river Ganga.
- The study attributes this observation to the poor state of solid and liquid waste management in the surrounding areas. Untreated sewage from many cities along the river's course, industrial

waste and religious offerings wrapped in non-degradable plastics pile pollutants into the river as it flows through several densely populated cities. These plastic products dumped in the river break down and are eventually broken down into microparticles.

- The study notes the presence of both single-use and secondary plastic products with at least 40 different kinds of polymers as microplastics in the studied samples.
- Microbeads were observed along some stretches of the Ganga.
 - * Microbeads are manufactured small solid particles and do not degrade or dissolve in water. They are added to a range of products, including rinse-off cosmetics, personal care and cleaning products. Microbeads are a relatively cheap ingredient and are used in these products for a variety of purposes. This includes as an abrasive or exfoliant, a bulking agent, to prolong shelf-life, or for the controlled release of active ingredients.

Concerns:

- Microplastics are not captured by most wastewater treatment systems.
- The river finally transports significantly large quantities of the microplastics downstream into the ocean and as a result, the ocean acts as a sink to a large amount of such plastic waste.
- Microplastics persist in the environment for a long time and have a damaging effect on marine life, the environment and human health. This is due to their composition, ability to adsorb toxins and potential to transfer up the marine food chain.
 - * Microplastics are recognised as a major source of marine pollution. They cause plastic particle water pollution.
 - * Microplastics pose an environmental hazard for aquatic animals in freshwater and ocean water as these microplastics adsorb toxins.
 - * A variety of wildlife, from insect larvae, small fish, amphibians and turtles to birds and larger mammals, mistake microplastics for their food source. The accumulation of microplastics in their cells and tissues leads to chronic biological effects in these marine organisms.
 - » Microfibres have been identified in the intestinal tract of zooplankton, river-bed organisms, and mussels. They can result in gut blockage and starvation.

- This ingestion of plastics introduces the potential for toxicity not only to these animals but to other species higher in the food chain. The potential hazardous effects on humans by alternate ingestion of microparticles can cause alteration in chromosomes which lead to infertility, obesity, and cancer.

Recommendations:

- The following measures could be considered to help reduce microplastic pollution.
 - * It is important to control the excessive use of plastic additives and to introduce certain legislation and policies to regulate the sources of plastic litter.
 - » Bans on single-use plastics and microplastics in personal care and cosmetic products have already been introduced in some countries.
 - * There is a need to set up adequate plastic recycling plants.
 - * The stakeholders, including industries, governments and civil society organisations, need to collaborate to improve plastic waste management.
 - * There is a need to promote plastic awareness programmes through different social and information media to promote the reduction in usage of plastic.

Additional information:

National Mission for Clean Ganga:

- The National Mission for Clean Ganga envisions measures at the national, state and district levels for prevention, control and abatement of environmental pollution in river Ganga and to ensure continuous adequate flow of water so as to rejuvenate the river Ganga.

Environmental Conservation

10. Empowering nature with biocentric jurisprudence

- » Prelims: Great Indian Bustard
- » Mains: Anthropocentrism and biocentrism; Constitutional provisions dealing with environmental conservation

Context:

- Judicial intervention to protect the Great Indian Bustard (GIB).

Background

The Great Indian Bustard

- GIBs are the largest among the four bustard species found in India, the other three being MacQueen's bustard, lesser florican and the Bengal florican.

- They are one of the heaviest birds with flight, preferring grasslands as their habitat.
- In general, birds in grasslands are considered an important indicator of how healthy the ecosystem is. Hence, GIBs are considered the flagship bird species of grasslands.

Decline in numbers

- Being terrestrial birds, they spend most of their time on the ground with occasional flights to go from one part of their habitat to the other.
- It is now nearing extinction due to collision with high voltage power lines.
- These bustards are prone to collision due to their poor frontal vision and inability to see the power lines from a distance.

Supreme Court

- The Court in *M.K. Ranjitsinh & Others vs Union of India & Others* said:
 - * The Governments of Gujarat and Rajasthan have to expedite the procedure to convert the overhead cables into underground power lines.
 - * The Governments have to install bird diverters where high voltage electricity lines cannot be moved underground.

Anthropocentrism and biocentrism

- Anthropocentric Approach to environment is narrowly aimed at preserving the welfare of humans. It literally means "human-centredness". It says that nature primarily exists for humans.
 - * Anthropocentrism argues that of all the species on earth humans are the most significant and that all other resources on earth may be justifiably exploited for the benefit of human beings.
- Biocentric Approach is oriented toward protecting non-human organisms and nature as a whole. It is based on a nature-centric value system.
 - * Biocentrism treats environmentalism as a moral imperative independently of its impact on human flourishing.
 - * It believes that human species is a mere component of the ecosystem. In protecting the birds, the Court has affirmed and emphasised the biocentric values of eco-preservation.

Species in danger

- Lions
 - * There are about 20,000 lions in Africa today. Their numbers five decades ago was at 4,50,000.
- Orangutans
 - * Threats include loss of habitat through deforestation, palm oil plantations, indiscriminate monoculture farming in the forests of Borneo and Sumatra.
- Rhinos
 - * They are killed for the perceived medicinal value of their horns and are slowly becoming extinct.
- Lemurs
 - * Deforestation and hunting are the greatest threats to the lemur.

Constitutional Obligation

- Article 48A of the Constitution of India imposes a duty on the government to protect and improve the environment and to safeguard forests and wildlife.
- Article 51-A (g), says that "It shall be duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wild life and to have compassion for living creatures."
- In the context of animal rights, the Supreme Court has brought some animal rights under the ambit of the right to life through an expansive reading in the case of *Animal Welfare Board of India v. A. Nagaraja & Ors.*

Global Examples:

- In 2008, Ecuador became the first country in the world to recognise "Rights of Nature" in its Constitution.
- Bolivia has also joined the movement by establishing Rights of Nature laws too.
- In 2010, the city of Pittsburgh, Pennsylvania became the first major municipality in the United States to recognise the Rights of Nature.

Conclusion

- Therefore the Supreme Court intervention in *M.K. Ranjithsinh* was a much desired ruling promoting the biocentric approach to Environment.

Additional Information:

Tennessee River

- It is the largest tributary of the Ohio River.

Environmental conservation efforts

11. 'Mid-century target for net zero inadequate'

- » Prelims: Carbon neutrality
- » Mains: Lacunae in existing mechanisms like INDCs of UNFCCC; India's stand on the issue of carbon neutrality

Context:

- G20 climate summit in Naples, Italy.
 - * Energy and environment ministers from the Group of 20 nations participated in the summit.

Background:

Impact of climate change:

- Average global temperatures have already risen by more than 1 degree compared to the pre-industrial baseline used by scientists and are on track to exceed the 1.5-2 degree ceiling.
- Countries around the world are feeling the effects of climate change.
 - * There have been deadly floods in Europe and China, fires in the United States and sweltering temperatures in Siberia.

Ineffectiveness of the NDC framework:

- As per the National Determined Contributions (NDC) submitted to the UNFCCC under the Paris Agreement, the pledge of countries like the United States and the U.K. fall short of the fair share of emission reduction by relatively larger margins than developing countries like India.
 - * The fair share represents the reductions countries must achieve to ensure that the greenhouse gas levels are below that to prevent a 1.5 average temperature rise over the globe by the turn of the century.

Carbon neutrality/net zero emissions:

- The net zero emissions refer to a situation where a country is able to remove at least as much carbon dioxide from the atmosphere as it is emitting.
- This can be done by increasing forest cover or through technologies such as carbon capture.
- There have been major net-zero commitments from the world's largest polluters in the past 12 months.
- However, some developing countries have resisted any such deadlines for themselves through global agreements on carbon neutrality. Reaching a global consensus on the issue of carbon neutrality would be extremely difficult to reach given the scale of the differences between the different countries.

Details:

- The key topics of discussion at the summit included: combating climate change, accelerating the ecological transition, making financial flows consistent with the Paris Agreement objectives, opportunities for sustainable and inclusive recovery enabled by innovative technological solutions of the energy sector, and building smart, resilient and sustainable cities.
- The parties haven't been able to agree on specific actions and firm timetables needed to reach net-zero global emissions by 2050 and keep global warming at 1.5 degrees Celsius.

India's stand:

- India has stated that the pledges by some countries to achieve net zero GHG emissions or 'carbon neutrality' by mid-century were inadequate, in view of the fast depleting available carbon space.
- India has urged G20 countries to commit to bringing down per capita emissions to Global average by 2030 considering the rights of developing countries to economic growth.
- Unlike some countries which have set carbon neutrality targets by 2050 or 2060, India has resisted committing to any such hard deadlines given its developmental needs and the need for climate justice.
 - * Despite being the third largest greenhouse gas emitter in the world, India has one of the lowest per capita emissions.

Concerns:

- The environmental activists had hoped that the G20 gathering would lead to a strengthening of climate targets, new commitments on climate financing, and an increase in countries committing to net zero emissions by 2050. However, the failure to reach an understanding on several issues related to climate change in the G20 climate summit marks another setback in the fight against rising temperatures. This is being viewed as a setback to hopes of securing a meaningful accord in COP26 Scotland.
- COP26 marks the last chance to keep alive the chance of limiting temperature rise to 1.5 degrees Celsius.

Significance:

- Despite several points of difference, the G20 has put together a 58-point communique and that all the countries agreed that decarbonization was a necessary goal. This is also the first time that

the G20 has accepted that climate and energy policies are closely interconnected.

Environmental Pollution and Degradation

12. Microbes from human, animal excreta found above desirable limits in Yamuna

» Mains: Issue of river pollution

Context:

- As per a Delhi government report, levels of fecal coliform (microbes from human and animal excreta) is above desirable limits.

Details:

- Fecal coliform is above desirable limits in all points tested in the Yamuna in Delhi with an exception at Palla where the river enters the Capital.
- The report also stated that in the absence of a minimum environmental flow (flow of water) it is very difficult to achieve even bathing quality standards of the river water.
 - * Minimum environmental flow for the dilution of the polluted water is required to meet the desired water quality levels in the river for bathing purpose.
- For bathing in a river, the desirable level of fecal coliform in the water is 500 MPN/100 ml or lesser, as per the Central Pollution Control Board.
 - * The level was as high as 1,40,000 MPN/100 ml (280 times the desired level) at Okhla.

Note:

- According to the International Union for Conservation of Nature, an environmental flow is the water provided within a river, wetland or coastal zone to maintain ecosystems and their benefits where there are competing water uses and where flows are regulated.

Environmental Degradation

13. Let's make room for the river

» Mains: Link between climate change and recent instances of heavy rain; Recommendations for mitigating the impact of floods

Context:

- European nations of Germany, Belgium, Netherlands, Luxembourg and Switzerland have been hit by massive floods.

- * Despite the fact that several towns were submerged in the Netherlands too, their superior organisation, better preparedness and an advanced flood management system helped them avoid casualties.

Details:

- The floods occurred as a result of heavy rains. In some areas of Germany and Belgium, a month's rain poured in just 24 hours.
- Heavy rainfall within a short period of time resulted in overflowing rivers, canals, and other water bodies. This caused multiple rivers to burst their banks and flood the adjoining areas.

Link between climate change and recent instances of heavy rains:

- The heavy rains and the subsequent flooding are being attributed to climate change.
 - * The increasing concentration of Greenhouse Gases has led to the warming of the earth's atmosphere. Warmer air has the potential to hold higher amounts of moisture in them. This higher level of moisture content in the air can lead to heavy rainfall in a short time.
 - * The increasing temperatures at the poles result in the slower movement of storms in the mid-latitudes. This leads to storms staying at a specific place longer.
- The combination of a slow-moving storm and the presence of surplus moisture in the atmosphere results in intense rainfall in one location within a short period of time.
- India too has been witnessing an increasing number of floods owed to heavy rainfall within a short period of time. Example – The 2018 floods in Kerala, the recurrent floods in Mumbai, etc.

Recommendations:

Disaster management measures:

- Disaster readiness, planning and preparation must be strengthened to deal with sudden, intense rain and consequent floods.
 - * Need to have in place advanced flood warning systems based on a network of sensors to measure river water levels in real-time. This will be useful in forecasting impending floods. Any forecast of floods needs to be communicated in simple understandable language to the general public in a time-bound manner.
- There should be in place dedicated local authorities to respond to any flood warning. They should be adequately resourced and trained to evacuate residents to safety.

- * Regular practice drills need to be conducted in flood-prone areas.
- * Flood-prone areas should be identified and area appropriate developmental policies should be followed in such areas. This will help build long-term flood resilience.

Ecologically sensitive measures:

- The floods in Europe serve as a wake-up call to countries that even if a country has adequate resources and advanced infrastructure (physical as well as organisational), it can find no escape from extreme climatic events. Hence there is an urgent need to adopt pragmatic policies and practices that are nature friendly.
- There is the need to think beyond the conventional dependence on dikes, dams, walls and gates for protection from floods and implement ecologically sensitive flood protection measures like the ones adopted in the Netherlands. This could involve adopting measures such as:
 - * The widening of riverbanks would help create adequate space for rivers to overflow. This would require protecting natural floodplains from human encroachment and interference. Existing encroachments should be removed.
 - * Deepening riverbeds through timely desilting.
 - » Desilting is the removal of fine silt and sediment that has collected in a river in order to restore its natural capacity.
 - * Alternate channels for excess water should be created. Low-risk areas such as playgrounds, maidans, or agricultural fields should be earmarked to store excess rainwater. Drains must be built for diverting water into these storage units. This will relieve the stress on the existing drainage infrastructure.

Environmental Pollution and Degradation

14. Ozone levels exceeding permitted levels: study

- » Prelims: Ozone- mode of formation; concerns
- » Mains: Measures to mitigate the formation of Ozone

Context:

- A Centre for Science and Environment study on ozone levels in Delhi-NCR.

Ozone:

- While stratospheric ozone protects living things from ultraviolet radiation from the sun, ground-level ozone is considered a pollutant given the adverse health problems it gives rise to.

Ozone formation:

- Ozone is a secondary pollutant. Tropospheric, or ground-level ozone, is not emitted directly into the air, but is created by chemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOC) in the presence of sunlight (photochemical reaction).
 - * Emissions from cars, power plants, refineries, chemical plants, and other sources are the major sources of NOx and VOC.
- Ozone is most likely to reach unhealthy levels on hot sunny days in urban environments.

Harmful effects:

- Ozone is a highly reactive gas and when inhaled it can damage the lungs. Relatively low amounts of ozone can cause chest pain, coughing, shortness of breath and, throat irritation. It may also worsen chronic respiratory diseases such as asthma as well as compromise the ability of the body to fight respiratory infections.
- Elevated exposure to ozone can affect sensitive vegetation and ecosystems. In particular, ozone can harm sensitive vegetation during the growing season.

Details:

- Contrary to the notion that ozone is predominantly a summer phenomenon, the study found ozone levels exceeding the permitted levels even during winter in Delhi-NCR.
- The study notes that despite the lockdown, more days and locations witnessed a higher and longer duration of ozone spells.

Concerns:

- Ozone is becoming more widespread in Delhi and NCR across all seasons.
- The presence of Ozone in large quantities in the winter season is all the more concerning because it makes the smog in winter seasons more toxic.

Recommendations:

- There needs to be a refinement of clean air action plan to add strategies for ozone mitigation, with strong action on vehicles, industry and waste burning which constitute the major sources of NOx and VOC.

- Some of the strategies could involve the following:
 - * Vapour recovery nozzles at the petrol pumps to reduce refuelling emissions
 - * Cleaner burning fuels reformulated to reduce VOC, NO_x and other pollutants
 - * Strict NO_x emission limits for power plants and industrial combustion sources
 - * Enhanced vehicle inspection programs and
 - * Strict limitations on solvent usage in factories.

HEALTH ISSUES

Diseases in news - Oral Cancer

1. **dbGENVOC**

- » Prelims: dbGENVOC and oral cancer

Context:

- The world's first database of genomic variants of oral cancer named dbGENVOC created.

About dbGENVOC:

- dbGENVOC is a browsable online database of GENomic Variants of Oral Cancer.
- It is a free resource and has been made publicly accessible.
- It is created by the DBT-National Institute of Biomedical Genomics (NIBMG), Kalyani an autonomous institute funded by the Department of Biotechnology, GOI.
- dbGENVOC is not just a catalogue of genomic variants, it has a built-in powerful search engine.
 - * It also allows a reasonable extent of statistical and bioinformatic analysis to be carried out online, including identifying variants in associated altered pathways in oral cancer.
- The repository, which will be updated annually with variation data from new oral cancer patients from different regions of India and southeast Asia, has the potential to support advances in oral cancer research and will be a major step in moving forward from simply cataloguing variants to gain insight into their significance.

Oral cancer:

- Oral cancer appears as a growth or sore in the mouth that does not go away.
- Oral cancer, which includes cancers of the lips, tongue, cheeks, floor of the mouth, hard and soft palate, sinuses, and pharynx (throat), can be life threatening if not diagnosed and treated early.
- Oral cancer is the most prevalent form of cancer among men in India, largely fuelled by tobacco-chewing. Tobacco-chewing causes changes in the genetic material of cells in the oral cavity. These changes (mutations) precipitate oral cancer.
- Research to identify those genetic mutations that drive oral cancer are ongoing. Such driver mutations may be variable across populations.

Issues Relating to Health

2. **Immunity debt**

- » Mains: Immunity debt

Context:

- Amid the gradual easing of lockdowns, some countries are reporting a higher number of respiratory infections, including unseasonal diseases such as influenza and the respiratory syncytial virus (RSV).

Immunity debt:

- Experts have attributed this spike in respiratory infections to what is being called the "immunity debt" brought on by non-pharmaceutical interventions (NPIs) put in place to reduce the spread of the SARS-CoV-2 virus.
 - * The NPIs included measures such as social distancing, use of masks, and hand hygiene.
- The constant exposure to infectious agents boosts the immune response in the human body. In the absence of this, there is a possibility that there could be unseasonal outbreaks with greater severity than usual. This is a major concern for infant population in particular.
- Disruptions to the seasonal transmission patterns of these diseases may have consequences for the timing and severity of future outbreaks.

Government Initiatives

3. **National Organ Transplant Programme (NOTP)**

- » Prelims: National Organ Transplant Programme (NOTP)
- The Government of India is implementing the National Organ Transplant Programme (NOTP) to promote organ donation and transplantation across all States/Union Territories.
- The provisions under the programme include:
 - * Setting up of State Organ and Tissue Transplant Organisations (SOTTOs) in each State/UT.
 - * Setting up of National/Regional/State Bio-material centres.
 - * Financial support for establishing new Organ Transplant/retrieval facilities and strengthening of existing Organ Transplant/retrieval facilities.
 - * Training to transplant experts including surgeons, physicians, transplant coordinators, etc.

* Financial support for hiring of Transplant Coordinators to medical colleges and trauma centres.

* Post-transplant immune-suppressant drugs to Below Poverty Line (BPL) patients.

- The Transplantation of Human Organs Act (THOA), 1994 was enacted to provide a system of removal, storage and transplantation of human organs for therapeutic purposes and for the prevention of commercial dealings in human organs.
- The scheme is under the Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India.

Government Initiatives

4. Five portals on the AYUSH sector launched

» Prelims: Portals launched by Union Minister of Ayush.

Context:

- Five portals of importance were launched and four publications were released by the Union Minister of Ayush.

Portals launched:

- Ayurveda Dataset on Clinical Trial Registry of India (CTRI): CTRI is a primary Register of Clinical Trials under the WHO's International Clinical Trials Registry Platform. The creation of an Ayurveda Dataset in CTRI facilitates the usage of Ayurveda terminologies to record clinical study based on Ayurveda interventions. This will enhance worldwide visibility for Ayurveda-based clinical trials.
- CCRAS-Research Management Information System (RMIS): RMIS is a one-stop solution for Research and Development in Ayurveda-based studies. The portal offers free reference material, research tools, and guidance by scientists and clinicians. It was developed jointly by the Central Council for Research in Ayurvedic Sciences (CCRAS) and the Indian Council of Medical Research (ICMR).
- E-Medha (electronic Medical Heritage Accession) Portal: Online public access catalogue for more than 12000 Indian medical heritage books through NIC's e-granthalaya platform.
- AMAR (Ayush Manuscripts Advanced Repository) Portal: It has digitized information on rare and hard to find manuscripts and catalogues of Ayurveda, Yoga, Unani, Siddha, SowaRigpa in libraries or in individual collections across India or in other parts of the world.
- SHAI (Showcase of Ayurveda Historical Imprints) Portal: It showcases inscriptions, archaeo-

botanical information, sculptures, philological sources and advanced archaeo-genetic studies.

Miscellaneous

5. WHO-GMP/COPP

» Prelims: Central Drugs Standard Control Organization

Context:

- WHO-GMP/COPP Certification for Ayurvedic Products.

WHO-GMP/COPP

- The Certificate of Pharmaceutical Product (CPP or COPP) is a certificate issued in the format recommended by the World Health Organization (WHO).

* It is valid for 3 years from the date of issue and companies can apply for renewal after that.

- Good Manufacturing Practice (GMP) is a system for ensuring that products are consistently produced and controlled according to quality standards.

- The WHO-GMP certificate is mandatory in most global markets for pharmaceutical companies to be able to sell medicines. The manufacturer of an exporting country must be licensed by the regulatory authority of that country and comply with the WHO-GMP guidelines.

* The COPP is issued under WHO-GMP based on guidelines laid down by the health agency and is aimed at diminishing the risks inherent in pharmaceutical production.

* The certificate helps the regulator ensure that drugs are consistently produced and are quality controlled before they leave the country.

- The Central Drugs Standard Control Organization (CDSCO), which is the national drugs regulatory authority, regulates the import and export of the drugs in the country, through the port offices located in different parts of the country.

Miscellaneous

6. Cuba develops the world's first conjugate vaccine for COVID-19

» Prelims: Subunit vaccine and Conjugate vaccine- advantages and disadvantages

Context:

- Cuba's indigenously produced vaccines- Soberana 2 and Abdala have registered strong efficacy against the SARS-CoV-2.

Details:

- Both Soberana 2 and Abdala are subunit vaccines.
 - * In Abdala the spike protein of the coronavirus is combined with a chemically manufactured adjuvant, whereas in Soberana 2, the spike protein is chemically linked to the tetanus toxoid, making it a conjugate vaccine.

Subunit vaccines:

- Rather than injecting a whole pathogen to trigger an immune response, subunit vaccines (sometimes called acellular vaccines) contain purified pieces of it, which have been specially selected for their ability to stimulate immune cells.
- In the case of these subunit vaccines, a part of the virus forms the antigen and is hitched on to another construct.

Advantages:

- Well established technology
- Relatively stable
- Suitable for people with compromised immune systems
- Because of the absence of live components, there is no risk of the vaccine triggering diseases and hence the subunit vaccines are considered very safe.

Disadvantages:

- Adjuvants and booster shots may be required.
- Determining the best antigen combination takes time
- Relatively complex to manufacture

Conjugate vaccines:

- A conjugate vaccine is a type of vaccine which combines a weak antigen with a strong antigen as a carrier so that the immune system has a stronger immunological response to the weak antigen.
 - * The most common conjugate vaccines are those used for Haemophilus influenza type b and the pneumococcal bacteria.

Advantages:

- Major advantages of the conjugate vaccines are their ability to elicit immunological memory and to reduce asymptomatic carriage of the bacteria, resulting in marked herd immunity.
- Also conjugate vaccines have a very good safety record and have been associated with very few, serious adverse events following immunization (AEFIs) after more than 20 years of use.
- They give rise to improved immune memory and thus offer longer lasting protection.
- They help offer protection to infants and toddlers

Significance of the Cuban vaccines:

- The design and manufacturing of the conjugate vaccines allows them to be stored in regular refrigeration settings of 2–8 degree Celsius
- The methodology involved is also one of the most economical approaches to vaccine production.

Challenges:

- Soberana and Abdala being three-shot vaccines, there could be “logistic” concerns with the vaccine administration.
- The subunit vaccines have been generally used against bacteria and not viruses.

Issues Relating to Health

7. India needs a renewed health-care system

- » Prelims: National health Mission
- » Mains: Recommendations for renewing the healthcare system in India

Context:

- The article talks about the need for rebuilding trust in public health through a renewed healthcare system in the country that lays its focus on the core lessons learnt from the pandemic as well as ensures widespread positive impacts extending much beyond the COVID-19 situation.

Two States and a comparison:

The availability of functional public health systems is of utmost importance. This can be illustrated through a case study.

- Maharashtra and Kerala currently have the highest number of COVID-19 cases in India.
- Their economic situation is similar as their per capita Gross State Domestic Product (GSDP) is similar.

- However, their COVID-19 case fatality rates are hugely different —0.48% for Kerala and 2.04% for Maharashtra.
- The primary reason for such divergence is likely to be the huge differences in the effectiveness of public health systems.
- Kerala has per capita two and a half times more government doctors, and an equally higher proportion of government hospital beds when compared to Maharashtra.
- Besides, Kerala allocates per capita over one and half times higher funds on public health every year.
- Despite Maharashtra having a large private healthcare sector, its weak public health system has proved to be a critical deficiency.

Robust government healthcare services in Kerala have translated into:

- More effective outreach
- Timely testing
- Early case detection and more rational treatment for COVID patients

What should be the new focus?

Attention to National Health Mission:

- A programme that requires the immediate attention of the Health Minister is the National Health Mission (NHM).
 - * Since 2017-18, Union government allocations for the NHM have declined in real terms, resulting in inadequate support to States for core activities such as immunisation.
 - * These systemic gaps affect the delivery of COVID-19 vaccination.

Doubling the Healthcare budget allocation:

- Furthermore, the condition of the National Urban Health Mission (NUHM) remains pathetic.
 - * Central allocation for the NUHM is ₹1,000 crore, which amounts to less than ₹2 per month per urban Indian.
- As per the Parliamentary Standing Committee recommendations, the Government must allocate ₹1.6-lakh crore for public health during the current year for reaching National Health Policy targets.
- Doubling the present central health Budget could enable major strengthening of health services in rural and urban areas across the country.

Private sector regulation:

- There is a need to regulate rates and standards of care in the private sector.
- Massive hospital bills have caused untold distress even among the middle class.

* COVID-19 care costs ₹1 lakh to ₹3 lakh per week in large private hospitals.

* Panic due to drug shortages was significantly linked with major overuse of medicine by unregulated private hospitals (Eg: Remdesivir).

- Learning from stark market failures during the COVID-19 pandemic, comprehensive regulation of private health care must be a critical agenda for the new Health Minister.

Implement Clinical Establishments (Registration and Regulation) Act (CEA):

- The central government must on priority take necessary steps to promote the implementation of the Clinical Establishments (Registration and Regulation) Act (CEA).
- CEA was passed in 2010 and is presently applicable to 11 States across India.
- This Act is not effectively implemented due to a major delay in notification of central minimum standards, and failure to develop the central framework for the regulation of rates.

Stop further Privatisation of Healthcare:

- NITI Aayog has recently published the document, 'Investment Opportunities in India's Healthcare Sector' promoting further privatisation of health care.
- With proposals for handing over public hospitals to private operators, public health services that were hitherto free of cost, would begin to be charged for.
- This can prove to be detrimental in the current situation considering that India already has one of the most privatised health systems in the world.
- The Health Minister must assert his authority to stop further privatisation, which might benefit healthcare corporates and be damaging for ordinary people.

Conclusion:

- Neglect of public health systems can mean large-scale, avoidable losses of lives; hence, public health services must be upgraded rapidly and massively as a topmost priority. Building people's trust in public health systems is important as it would help in overcoming vaccination hesitancy while strengthening the promotion of healthy behaviours necessary to deal with the pandemic.

SOCIAL ISSUES

Social issues - Related to women and children

1. Anti-trafficking Bill

- » Prelims: Article 23 of the Indian constitution
- » Mains: Trafficking in Persons (Prevention, Care and Rehabilitation) Bill, 2021- significance and concerns

Context

- The Trafficking in Persons (Prevention, Care and Rehabilitation) Bill, 2021, is likely to be tabled in the upcoming monsoon session of Parliament.

Details:

- The legislation is aimed at preventing and countering trafficking in persons, especially women and children.
- The Bill defines human trafficking as an organised crime.
- The National Investigation Agency (NIA) shall act as the national investigating and coordinating agency responsible for prevention and combating of trafficking in persons.

Constitutional provision:

- Article 23 of the Indian Constitution deals with the aspect of prohibition of traffic in human beings and forced labour.
 - * Article 23 of the Indian Constitution deals with the Right against Exploitation.
- As per clause (1) of Article 23, traffic in human beings and begar and other similar forms of forced labour are prohibited and any contravention of this provision shall be an offence punishable in accordance with the law.

Measures taken so far:

- As per the provisions enshrined in the Constitution, the government had passed the Immoral Traffic (Prevention) Act in 1956, which continues to be the main legislation for the prevention of trafficking for commercial sexual exploitation.
- India has also ratified the United Nations Convention on Transnational Organised Crime (UNTOC) which has as one of its Protocols, Prevention, Suppression and Punishment of Trafficking in Persons, particularly Women and Children. Various actions have been taken to implement the convention and as per Protocol, Criminal Law Amendment Act, 2013 has been enacted wherein human trafficking has specifically been defined.

Significance of the bill:

Victim centred provisions:

- Apart from helping counter trafficking in persons, the bill also has provisions for care, protection, and rehabilitation to the victims.
- Respecting the rights of the victims, it creates a supportive legal, economic and social environment for the victims of human trafficking.
- Significantly, the bill upholds the right of survivors to rehabilitation and compensation independent of criminal proceedings.

Concerns associated with the proposed legislation:

Powers envisaged for the NIA:

- The proposal to hand the responsibility of investigation in trafficking crimes to the NIA has been criticized for the following two reasons:
 - * This could further burden the already stretched NIA.
 - * This also amounts to an attack on federalism, given that this will only decrease the power of local enforcement agencies with respect to the implementation of the proposed provisions.

Very broad definition of human trafficking:

- Another key criticism of the Bill has been its broad definitions of victims and failure to distinguish consensual sexual activity for commerce from human trafficking. This would end up criminalising sex work and victimisation of the already exploited.

Overzealous provisions:

- Various civil society activists and legal experts have criticised some overzealous provisions adopted by the draft legislation to counter human trafficking.
 - * Reporting of offences has been made mandatory with penalties for non-reporting.
 - * The proposal of the death penalty for various forms of aggravated trafficking offences.
- Though societies and governments must have zero tolerance for human trafficking, the use of overzealous provisions as those proposed risks the adoption of a purely legal and punitive approach to solve what is essentially a socio-economic problem.

Failure to acknowledge root causes:

- In its current form, the draft Trafficking in Persons (Prevention, Care and Rehabilitation) Bill, 2021

seems to be inadequate to stamp out human trafficking given its failure to acknowledge the contributing factors to human trafficking, including vicious poverty, debt, lack of opportunity, and ineffectiveness/inefficiency of the development schemes.

Government Initiatives

2. Affordable Rental Housing Complexes (ARHC) Scheme

» Prelims: Pradhan Mantri Awas Yojana

About the scheme:

- Affordable Rental Housing Complexes (ARHCs) is a sub-scheme under Pradhan Mantri Awas Yojana- Urban (PMAY-U) to provide affordable rental housing to urban migrants/poor, close to their workplace.
- It aims to create a conducive ecosystem for Public/Private Entities to leverage investment in rental housing.
- The beneficiaries of ARHCs will be varied groups of urban migrants/poor from EWS/LIG categories including industrial & construction workers, migrants working with market/trade associations, educational/health institutions, hospitality sector, long-term tourists/visitors, students, etc.
- It is under the Ministry of Housing and Urban Affairs.

Need for the scheme:

- Large scale reverse migration of urban migrants/poor due to COVID-19.
- Urban migrants stay in slums/informal settlements/unauthorised colonies/peri-urban areas to save cost on housing.
- Non-availability of housing close to workplace adversely impacts productivity.
- Requirement of affordable rental housing rather than ownership.

Objectives of the scheme:

- To address the vision of 'AtmaNirbhar Bharat Abhiyan' significantly by creating a sustainable ecosystem of affordable rental housing solutions for urban migrants/poor.
- To achieve overall objective of "Housing for All" encompassing the need of affordable rental housing for urban migrants/poor. ARHCs will provide them dignified living with necessary civic amenities near their place of work.
- To create a conducive environment by incentivizing Public/Private Entities to leverage investment for creating affordable rental housing stock to take care of their own requirements for workforce and also cater to neighbouring areas, if they have available vacant land.

Government Initiatives

3. Gharib Nawaz Employment Scheme

» Prelims: Gharib Nawaz Employment Scheme

Context:

- The Ministry of Minority Affairs is implementing the Gharib Nawaz Employment Scheme.

About the Gharib Nawaz Employment Scheme:

- The scheme was launched by the Ministry of Minority Affairs in 2017-18 so that short term job oriented skill development courses may be provided to youth from minority communities in order to enable them for skill based employment.
- This scheme is implemented as per common norms of the Ministry of Skill Development & Entrepreneurship (MSD&E) through the empanelled Program Implementation Agencies (PIAs).
- The scheme is implemented by the Maulana Azad Education Foundation, an autonomous body under the aegis of the Ministry of Minority Affairs.
- Under this scheme, 'Garib Nawaz' skill development centres are run for the purpose of developing skills among the minority youth.

Social Issues-Related to Children

4. Juvenile Justice (Care and Protection of Children) Amendment Bill, 2021

» Prelims: Justice (Care and Protection of Children) act- provisions

Context:

- Parliament Passes Juvenile Justice (Care and Protection of Children) Amendment Bill 2021.

Details:

- The Rajya Sabha has passed the amendment bill. It was earlier passed by the lower house in March 2021.
- The Bill seeks to amend the Juvenile Justice Act, 2015.

What are the changes to the Act being brought about?

- The amendments include authorizing District Magistrate including Additional District Magistrate to issue adoption orders under Section 61 of the JJ Act, in order to ensure speedy disposal of cases and enhance accountability.
- The District Magistrates have been further empowered to ensure its smooth implementation, as well as garner synergized efforts in favour of children in distress conditions.

- As per the amended provisions of the Act, any Child Care Institution shall be registered after considering the recommendations of the District Magistrate.

* The DM shall independently evaluate the functioning of District Child Protection Units, Child Welfare Committees, Juvenile Justice Boards, Specialized Juvenile Police Units, Child Care Institutions, etc.

- The eligibility parameters for appointment of Child Welfare Committee (CWC) members have been redefined. Disqualification criteria for the same have also been introduced.
- It has been decided that offences where the maximum sentence is more than 7 years imprisonment but no minimum sentence has been prescribed or minimum sentence of less than 7 years is provided, shall be treated as serious offences within this Act.

Government Initiatives

5. Mahila Kisan Sashaktikaran Pariyojana (MKSP)

- » Prelims: DAY-NRLM; Zero Budget Natural Farming
- Mahila Kisan Sashaktikaran Pariyojana (MKSP), a sub component of the DeendayalAntyodayaYojana-NRLM (DAY-NRLM), seeks to improve the present status of women in agriculture, and to enhance the opportunities available to empower them.
- The focus of MKSP is on capacitating smallholders to adopt sustainable climate resilient agro-ecology and eventually create a pool of skilled community professionals.
- Its objective is to strengthen smallholder agriculture through promotion of sustainable agriculture practices such as Community Managed Sustainable Agriculture (CMSA), Non Pesticide Management (NPM), Zero Budget Natural Farming (ZBNF), Pashu-Sakhi model for doorstep animal care services, Sustainable regeneration and harvesting of Non-Timber Forest Produce.
- The program is being implemented by DAY-NRLM in partnership with State Rural Livelihood Missions/ Community Based Organizations (CBOs)/NGOs, as implementing partners (PIAs) across the country. These agencies are expected to support and nurture scalable livelihood models in the MKSP intervention areas.

Government Initiatives

6. 'PM CARES for Children' scheme

- » Prelims: PM CARES for children

Context:

- Ministry of Women and Child Development launches web-based portal pmcaresforchildren. in to facilitate submission of applications, identification of children eligible to receive support under the 'PM CARES for Children' scheme.

About the PM CARES for Children Scheme:

- 'PM CARES for Children' scheme was announced by the Prime Minister for supporting children who have lost both parents or surviving parent or legal guardian or adoptive parents due to the COVID-19 pandemic.
- The scheme aims to ensure comprehensive care and protection of children who have lost their parents to the COVID pandemic, in a sustained manner.
- It enables their wellbeing through health insurance, empower them through education and equip them for self-sufficient existence with financial support of Rs. 10 lakh, on reaching 23 years of age.

Government Initiatives

7. She-Box portal

- » Prelims: 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.

Government Initiatives

8. Schemes for the Welfare of the Minorities

- » Prelims: Schemes for the welfare of the minorities
- The Government is implementing various schemes for the welfare and upliftment of every section of the society including minorities especially economically weaker & downtrodden sections all over the country.

These schemes/programmes implemented by the Ministry of Minority Affairs are:

- Pre-Matric Scholarship Scheme, Post-Matric Scholarship Scheme, Merit-cum-Means based Scholarship Scheme – For educational empowerment of students through Direct Benefit Transfer (DBT) mode.
- Maulana Azad National Fellowship Scheme – Provides fellowships in the form of financial assistance.
- NayaSavera – Free Coaching and Allied Scheme – The Scheme aims to provide free coaching to students/candidates belonging to minority communities for qualifying in entrance examinations of technical/medical professional courses and various competitive examinations.
- PadhoPardesh – Scheme of interest subsidy to students of minority communities on educational loans for overseas higher studies.
- NaiUdaan – Support for students clearing Prelims conducted by Union Public Service Commission (UPSC), State Public Service Commission (PSC), Staff Selection Commission (SSC), etc.
- NaiRoshni – Leadership development of women belonging to minority communities.
- SeekhoAurKamao – Skill development scheme for youth of 14 – 35 years age group and aiming at providing employment and employment opportunities, improving the employability of existing workers, school dropouts, etc.
- Pradhan Mantri Jan VikasKaryakram (PMJKV) – Being Implemented to provide basic infrastructure such as Schools, Colleges, ITIs, Polytechnics, Hostels, SadbhavMandap, Skill Development Centres, Drinking water and Sanitation facilities, Primary Health Centres etc. in deprived areas of the country.
- JiyoParsi – Scheme for containing population decline of Parsis in India.
- USTTAD (Upgrading the Skills and Training in Traditional Arts/Crafts for Development). HunarHaat are being organised across the Country to provide employment opportunities and markets to artisans/craftsmen.
- NaiManzil – A scheme for formal school education & skilling of school dropouts.

- HamariDharohar- A scheme to preserve rich heritage of minority communities of India under the overall concept of Indian culture.
- Maulana Azad Education Foundation (MAEF) implements education and skill related schemes as follows:- (a) Begum HazratMahal National Scholarship for Meritorious Girls belonging to the economically weaker sections of Minorities (b) Gharib Nawaz Self Employment Scheme started in 2017-18 for providing short term job oriented skill development training to youth (c) Bridge Course for madrasa students & school dropouts.
- Equity to National Minorities Development and Finance Corporation (NMDFC) for providing concessional loans to minorities for self-employment and income generating ventures.

Urbanization

9. Envisioning the post-pandemic smart city

- » Prelims: Smart city mission
- » Mains: Challenges in urban areas; Recommendations for smart cities mission in the post pandemic phase

Context:

- The article analyzes the smart cities scheme and suggests necessary changes in approach and implementation in the post-pandemic world.

Background:

Challenges in urban areas:

- India's cities have had to face the challenges of infrastructure deficits, inadequate water supply, waste management, sewerage and transport arrangements, high levels of pollution and, with climate change, frequent extremes of floods and drought.

Smart Cities Mission:

Smart City:

- The traditional understanding of smart cities involves a technocentric vision, with sensors everywhere, smart homes, high levels of connectivity, massive and ubiquitous data collection by various agencies, and a continuous flow of useful information to citizens.
- These will help governments allocate resources optimally and take timely decisions to raise efficiency and improve standards of living.

Progress of the scheme:

- Over the years, Smart Cities Mission projects converged with other infrastructure programmes such as AMRUT, the Atal Mission for Rejuvenation and Urban Transformation and the PMAY (Urban), the Pradhan MantriAwasYojana, for housing.

- The smart cities mission has also got support from international agencies to adopt best practices on mobility and transport, energy and reducing carbon emissions.
- The latest official count shows that 5,924 mission projects worth ₹1,78,500 crore have been tendered under the Smart Cities Mission.

Recommendations for the post-pandemic phase:

- The experience of the COVID-19 pandemic is a clear indication that the pathway for 'smart cities' needs to change and in this direction, the article suggests the following measures.

Focus on health:

- The COVID-19 pandemic has exposed the lack of adequate health facilities in urban areas.
- One component of the smart cities mission scheme, the Integrated Command and Control Centres (ICCCs), is a good example worth considering. These centres functioned as "war rooms" for COVID-19, and helped cities in fighting the pandemic through information dissemination, improving communication, predictive analysis and supporting effective management.
- Such a system should be replicated and expanded further to ensure that citizens have access to useful information like health alerts, vaccinations, hospital beds and topical advice.

Mobility related:

- The article suggests that pedestrianisation should be encouraged over motorisation where the priority should be to move people rather than vehicles.
- The available road spaces should be appropriately apportioned for bicycles as they are relatively safe and is capable of complementing public transport for last-mile connectivity.

Environmental sustainability:

- The development of the cities should appropriately consider the environmental impact (climate change audit) and take remedial measures.
- Additionally, there should also be an emphasis on preserving existing wetlands, lakes while also creating new urban gardens and water bodies.
- Such a "green and blue" city would mean less destructive flooding, more water to harvest and lower peak temperatures.

Making it more democratic:

- Democratising smart cities planning has to ensure every section of society has a voice in the process of selection and monitoring of projects undertaken in the mission.

- Given the ground-level awareness of the situation, the people will be able to better articulate their needs and this will help ensure better utilization of funds for the scheme.

Social aspects of a smart city:

- As against the traditional techno-centric vision of a smart city, the article also recommends a social dimension to such smart cities wherein there should be ample common spaces that allow for the people to intermingle.

Conclusion:

- The pandemic has come as a remarkable opportunity to review the paradigm of smart cities.
- Going forward the mission will have to frame the plans around people and nature and avoid expensive technological solutionism.

Social Issues

10. A Kerala model for an anti-discrimination law

- » Prelims: Constitutional provisions related to discrimination
- » Mains: Social issue of discrimination in India; challenges and recommendations

Background:

Discrimination in India:

- Incidents of discrimination against individuals based on religion, caste, ethnicity, marital status, gender, sexual orientation and even eating preferences have become common in society.
- This manifests itself in various forms including housing discrimination, discrimination in employment, etc.

Challenges:

Lack of legal recourse:

- The absence of proper legal recourse for those who suffer from discrimination only makes matters worse for the victim.

Social stigma:

- Despite some existing laws and judicial precedents, the existing social stigmas act as a hurdle in countering the existing discriminational attitude in Indian society.
 - * Example – Even though Section 377 of the Indian Penal Code was watered down by the Supreme Court of India to exclude consensual relations between adults of the same sex, social prejudice against members of the LGBTQIA+ community remains strong

Lacunae in existing provisions:

- While Article 15(1) of the Constitution of India prohibits the state from discriminating against individuals on the basis of characteristics such as

religion, race, caste, sex and place of birth, it does not bar private individuals or institutions from doing so.

- Also, it does not expressly list ethnicity, linguistic identity, nationality, marital status, sexual orientation, disability, physical appearance and other personal characteristics as prohibited grounds of discrimination.

New forms of discrimination:

- Intersectional discrimination – discrimination on the basis of the intersection of personal characteristics, such as that faced by Dalit women, has a bigger impact on the victims.
- Discrimination operates on a wide variety of grounds in which while some have a direct impact, others have an indirect impact that is hard to notice. Such indirect discriminations are hard to address.

Recommendations:

Anti-discrimination law:

- A comprehensive anti-discrimination legal framework is required to fill the existing legal lacunae.
 - * It should bring within its mandates both private and public entities.
 - * All forms of discrimination should be acknowledged and dealt with in the law.
- Such a bill must balance the anti-discrimination mandate with other rights guaranteed by the Constitution and it could be restricted in pursuance of a legitimate objective.
- The article suggests that the States should lead the way, by enacting anti-discrimination laws in their respective jurisdictions. The anti-discrimination law should prescribe civil penalties for those who engage in discriminatory practices.

Institutional set up:

- There should be appropriate institutions outside the judiciary to adjudicate complaints of discrimination and to provide policy recommendations to the State government.

Affirmative action:

- The anti-discrimination efforts should be complemented via affirmative action to empower the historically marginalised sections of society.

Conclusion:

- Though an anti-discrimination law is not a panacea for the problems of inequality and social prejudice that are deeply rooted in our society, it is still a necessary step in this direction.

Government Initiatives

11. Midday meals leave a long-lasting impact: study

- » Prelims: Midday meal scheme- provisions
- » Mains: Concerns and challenges in the scheme

Context:

- A study on the inter-generational benefits of the midday meal scheme published in Nature Communications.

Midday meals scheme:

- The scheme guarantees one meal to all children in government and aided schools and madrasas supported under SamagraShiksha.
- It was launched in the year 1995 as the National Programme of Nutritional Support to Primary Education (NP – NSPE). In 2004, the scheme was relaunched as the Mid-Day Meal Scheme.
- It is a centrally sponsored scheme, hence cost is shared between the centre and the states.

Issue:

- In India, more than one in three Indian children are stunted, or too short for their age, reflecting chronic undernutrition.
 - * Stunting i.e, low height for age, is caused by long-term insufficient nutrient intake and frequent infections.
 - * Stunting generally occurs before age two, and effects are largely irreversible.
- While nutritionists argue that maternal health and well-being is the key to reducing stunting in their offspring, the focus has been on boosting nutrition for young children.

Key Findings:

- By 2016, the prevalence of stunting was significantly lower in areas where the scheme was implemented in 2005.
- The scheme was associated with 13-32% of the improvement in the height-for-age z-scores in India between 2006 and 2016.
- Girls who had access to free lunches provided at government schools had children with a higher height-to-age ratio than those who did not.
- The study noted that interventions to improve maternal height and education must be implemented years before those girls and young women become mothers.
- The linkages between midday meals and lower stunting in the next generation were stronger in the lower socio-economic strata and likely work through women's education, fertility, and the use of health services.

Population and associated issues

12. Uttar Pradesh New Population Policy

- » Prelims: TFR; Replacement level fertility
- » Mains: Need for population policy and the limitations of coercive population policies; recommendations

Context:

- Uttar Pradesh Chief Minister launched the State's population policy for 2021-2030.

Background:

- Across the world, concerns have been raised from time to time about the increasing population being a hurdle in development.
- In the Indian context, the rising population is considered the root of major problems and prevailing inequality in society.
- An increasing population can be an obstacle to development.
 - * The rising population increases poverty.
 - * People have to spend a large portion of their resources for bringing up their wards. It results in less savings and a low rate of capital formation.
 - * Besides, if there is no gap between the birth of two children, it will naturally affect their nutrition.
- Given that the increasing population acts as a hurdle in national development, there have been calls to control the population growth rate.
- India has been moving steadily towards attaining the replacement level of Total Fertility Rate of 2.1. However some states like Uttar Pradesh and Bihar continue to have high TFR.
 - * UP has a TFR of 2.7, while Bihar has a TFR of 3.1.

Details:

- The new policy aims at:
 - * Decreasing the total fertility rate from 2.7 to 2.1 by 2026 and 1.7 by 2030.
 - * Increasing modern contraceptive prevalence rate from 31.7% to 45% by 2026 and 52% by 2030.
 - * Increase male methods of contraception use from 10.8% to 15.1% by 2026 and 16.4% by 2030.
 - * Decrease maternal mortality rate from 197 to 150 to 98, and infant mortality rate from 43 to 32 to 22, and under 5 infant mortality rate from 47 to 35 to 25.
- It targets population stabilisation and states that the State would attempt to maintain a balance of population among the various communities.

- The policy comes at a time when the Uttar Pradesh State Law Commission has prepared the proposed draft Bill under which a two-child norm would be implemented and promoted.
- A person who will have more than two children after the law comes into force would be debarred from several benefits such as government-sponsored welfare schemes and from contesting elections to the local authority or any body of the local self-government.
- According to the draft, ration card units would be limited to four members of a family.

Significance:

- The various aims set out in the new policy like increasing the rate of modern contraceptive prevalence, male contraception, decreasing maternal mortality and infant mortality rates are welcome.
- These objectives are in line with the Cairo Consensus adopted in the Cairo International Conference on Population and Development in 1994. The Cairo Consensus called for a promotion of reproductive rights, empowering women, universal education, maternal and infant health to tackle the challenge of high fertility.

Concerns:

Against right of person to informed choices:

- Incentives and penalties form an integral component of the measures announced under UP's population policy, to control population growth.
 - * The Government aims to incentivise one-child families and reward those with two children with perks in government schemes, rebates in taxes and loans, cash awards etc. It aims to disincentivize more than two children through denial of subsidies and welfare benefits, a bar on applying for government jobs and taking part in local elections for those with more than two children.
- The incentives/disincentives approach has been denounced in the past by the National Human Rights Commission for being against the right of people to informed choices on size of family.

Failure to acknowledge underlying socio-economic aspects:

- The proposed legislations seem to overlook the fact that the fertility rate depends on socio-economic characteristics like education, income, maternal and child health conditions, and other associated factors.
- Without measures to tackle these factors, the proposed legislation with its stated aim to bring down TFR will remain ineffective.
- This amounts to attempts of tackling a basically socio-economic issue as a demographic one.

Threat of discrimination:

- Empirical studies of coercive measures have shown their discrimination against marginalised people in particular.
- The disincentives approach could rob the access to critical governmental aid and support for the marginalized sections and could further deepen the existing inequalities in the society.

Stabilizing TFR:

- The stated aim of the policy is to reduce the total fertility rate in the states.
- As per the document on population projection, published by the Union Ministry of Health and Family Welfare in 2019, U.P. will reach a replacement rate (the rate at which women give birth to enough babies to sustain population levels) of 2.1 by 2025, and Assam by 2020. Hence there is no need for any drastic population policy.

Unintended consequences:

- The population control policy of imposing a two-child norm could have other unintended consequences.
- Given the issue of preference for a male child in our patriarchal society, the two-child norm will only increase sex-selective abortions of girl children, and female infanticide, since couples will want to maintain both the two-child norm as proposed by the government as well as their preference for sons.

Problem of ageing:

- As per the population projection report, the proportion of people aged 60 years and above in India will increase from 13.8% in 2011 to 23.1% in 2036. The two-child norm would aggravate the problem of ageing in India.
 - * The number of workers will go down. The dependency ratio will rise.
 - * Government expenditure on welfare of senior citizens will have to be increased. This will be a challenge given the limited resource base of India.

Experience of other countries:

- The experience of countries like China with respect to regulation of number of children in the family indicates the concerns associated with such a policy.

Recommendations:

- Given the fact that the incentives/ disincentives approach have had no discernible effect on population control, States should tackle the socio-economic issues confronting India's citizenry.

- This could involve implementing more substantive poverty reduction schemes, economic reforms aimed at raising labour productivity and employment opportunities, empowering women etc.

EDUCATION

Miscellaneous

1. Global Education Coalition (GEC)

- » Prelims: Global Education Coalition; UNESCO
- In 2020, UNESCO launched the Global Education Coalition (GEC), to protect the right to education during the pandemic and beyond.
- Global Education Coalition (GEC) brings together more than 175 members from the UN family, civil society, academia, and the private sector focusing on three key issues, namely connectivity, teachers, and gender to ensure continuous access to education for all.

Initiatives in News

2. NIPUN Bharat Programme

- » Prelims: NIPUN Bharat Programme

Context

- NIPUN Bharat Programme launched by the Education Minister.

About NIPUN Bharat Programme:

- NIPUN is an acronym for National Initiative for Proficiency In Reading With Understanding and Numeracy
- Vision of the Mission – To create an enabling environment to ensure universal acquisition of foundational literacy and numeracy, so that by 2026-27 every child achieves the desired learning competencies in reading, writing and numeracy at the end of Grade III and not later than Grade V.
- The mission will focus on:
 - * Providing access and retaining children in foundational years of schooling;
 - * Teacher capacity building;
 - * Development of high quality and diversified Student and Teacher Resources/Learning Materials; and
 - * Tracking the progress of each child in achieving learning outcomes.
- It has been launched under the aegis of the centrally sponsored SamagraShiksha Scheme.
- NIPUN Bharat aims to cover the learning needs of children in the age group of 3 to 9 years.
- The program envisages making the experience of learning at the foundational stage Holistic, Integrated, Inclusive, Enjoyable, and Engaging.

- The goals of the Mission are set in the form of Lakshya Soochi or Targets for Foundational Literacy and Numeracy.

- * Lakshyas have been developed from Balvatika to Grade 3.
- * The Lakshyas are based on the learning outcomes developed by the NCERT and international research and ORF studies.

Issues Relating to Education

3. Unified Information System for Education Plus (UDISE+)

- » Prelims: UDISE+, Gross enrolment ratio; Gender parity Index
- » Mains: Key findings of the UDISE+ report

Context:

- Union Education Minister has released the Report on Unified Information System for Education Plus (UDISE+) 2019-20 for School Education in India.

(UDISE+) Report:

- UDISE+ report collates data from more than 15 lakh schools across India.
- The Department of School Education and Literacy (DoSEL) has developed the UDISE+ system.
- The UDISE+ system of online data collection was developed in 2018-19 to overcome the issues related to manual data filling in paper format and subsequent feeding at the block or district level, which was in practice from 2012-13.
- Being an online application, UDISE+ has a number of entry-level checks built in the data entry module at all levels in real-time. That helps to improve data quality and speed up data entry and its verification.
- UDISE+ data is hosted on the server of the National Informatics Centre (NIC).

Key Findings:

- The Gross Enrolment Ratio (GER) at all levels of school education has improved in 2019-20 compared to 2018-19.
 - * 98% of students in Classes 1-8 attended school, though the GER for secondary and senior secondary students stood at 78% and 51% respectively.
- Efforts have been made to ensure universal accessibility of education for persons with disabilities

* The enrolment of Divyang students has increased by 6.52% (2018-19).

- Pupil-Teacher Ratio (PTR) has improved at all levels of school education.
- Between 2012-13 and 2019-20, the Gender Parity Index (GPI) at both Secondary and Higher Secondary levels have improved.

* At present, the GPI is 1 or more at all levels of school education.

- In 2019-20, more than 90% of schools in India had hand wash facilities as compared to only 36.3% in 2012-13.
- In the academic year that ended with school closures due to COVID-19, only 22% of schools in India had Internet facilities.
- Among government schools, less than 12% had Internet in 2019-20, while less than 30% had functional computer facilities.

* This affected the kind of digital education options available to schools during the pandemic, as well as plans for hybrid learning in the days ahead.

* UDISE+ data makes clear the digital divide. The internet connectivity divide is even starker.

Gross Enrolment Ratio:

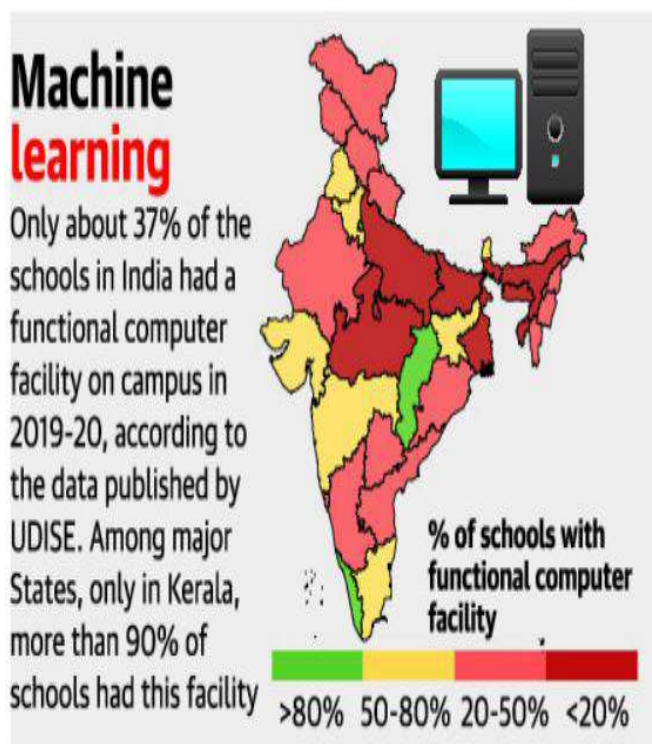
- The Gross Enrolment Ratio (GER) compares the enrolment in a specific level of education to the population of the age group which is age-appropriate for that level of education.
- Eg: The GER of primary level is student enrolment in classes 1 to 5 expressed as a percentage of the population in the age group 6-10 years.
- GER greater than 100% might indicate the presence of over or underage children in a particular level of education.

Gender Parity Index:

- The Gender Parity Index (GPI) of GER shows whether the representation of females in school education is in line with the representation of girls in the population of the corresponding age group.
- GPI value 1 or more shows that the GPI is favourable to the girls, while a GPI of less than 1 shows relative underrepresentation of girls in that specific level of school education.

Pupil Teacher Ratio:

- The Pupil Teacher Ratio (PTR) at different levels of education show the availability of adequate number of teachers for teaching the children enrolled at different levels of education.
- A reduction in the PTR indicates that one teacher has to teach less number of children, resulting in improvement in quality of teaching.



Issues relating to Education

4. Weighing down the private unaided college teacher

- » Mains: Issues being faced by teachers in private institutes and recommendations in this direction

Context:

- A recent survey conducted in Tamil Nadu on the status of the teachers in private unaided colleges and to understand the impact of the pandemic on their working and living conditions.

Details:

- The findings of the survey paint a very sorry state of the teachers working in private unaided colleges.

Pre-pandemic phase:

- Private-unaided college teachers have received below-par salaries and have also lacked social security benefits like Employee State Insurance and paid leave.

Pandemic phase:

- As per the survey, the working conditions and welfare of teachers have only worsened in the pandemic.
- There have been large scale layoffs and pay cuts during the novel coronavirus pandemic. Such teachers have been forced to take up odd jobs.
- The teachers in private-unaided colleges have also faced immense difficulty in online teaching due to lack of Internet, lack of room/space, and lack of quality equipment. Some respondents have even reported experiencing high emotional distress during this period linked to online teaching work.

Concerns:

- There has been increasing privatization of the higher education sector in India.
 - * There has been an enormous growth of private higher educational institutions in India. According to the All-India Survey on Higher Education (AISHE), 2020 report, at the all India level, 65% of the total colleges are private unaided colleges.
- The sorry state of teachers in private-unaided colleges will invariably have an impact on the quality of higher education in India.

Recommendations:

- The article makes the following recommendations to help alleviate the condition of teachers in private unaided colleges.
 - * Colleges should be made to pay complete arrears salary to the teachers.
 - * Teachers laid off during the pandemic must be reinstated.
 - * The teachers must be reimbursed for the expenditure incurred by them for online teaching during the pandemic.
 - * The deplorable condition of private-unaided college teachers can be attributed to the absence of any state regulation of private higher educational institutions on matters relating to the working conditions of teachers and other employees. In this regard, the existing laws need to be reviewed and amended to equip monitoring agencies to safeguard the welfare of teachers in unaided private colleges.

DISASTER MANAGEMENT

Disaster Management – Cyclones

1. HAM radios to aid in cyclone relief

- » Prelims: Tropical cyclones in India; Ham Radio
- » Mains: Communication as a challenge during cyclones and remedies

Context:

- Training of local youth from the Sunderbans in operating Ham Radio sets.

Background:

- West Bengal in the past three years has faced four tropical cyclones, Fani (May 2019), Bulbul (November 2019), Amphan (May 2020) and Yaas (May 2021).
- Communication turns out to be a major challenge during the cyclones and particularly for areas with limited accessibility like the Sunderbans. They remain cut off often for days. On some occasions, the administration has had to wait for connectivity to be restored to assess damage and send relief to those affected.

Significance:

- The district administration's move to train local youth from the Sunderbans in operating Ham Radio sets is a welcome move in this regard.
 - * This will help establish a dedicated wireless communication system for uninterrupted communication even during cyclones.
 - * Uninterrupted communication will come handy in rescuing people in times of cyclone.
 - * The empowerment of local youth to operate the technology will help augment the community-based disaster preparedness and management.

Ham Radio:

- Amateur radio, also known as ham radio, is the use of radio frequency spectrum for purposes of non-commercial exchange of messages, wireless experimentation, self-training, private recreation, radiosport, contesting, and emergency communication.
- The HAM operators employ high frequency signals to connect with other operators. The technology comes handy when mobile connectivity is down.

Disaster Management – Urban floods

2. Water as woe

- » Mains: Factors contributing to urban floods and measures taken to mitigate the impact; Recommendations

Context:

- Extensive flooding in the city of Mumbai has led to the loss of life and property.

Background:

Urban floods:

- Urban flooding has been a recurrent phenomenon in Indian cities like Mumbai, Chennai and Hyderabad.
- Mumbai has been especially witnessing such floods with high frequency and intensity over the recent past.

Factors contributing to urban floods:

Impact of climate change:

- The volume and duration of monsoonal rain are turning unpredictable, due to climate change.
- Such intermittent torrents will only become more frequent, influenced by a warming climate. Such intermittent torrents contribute to floods in the cities.

Lack of required infrastructure:

- Basic infrastructure including drainage is absent or highly inadequate in most cities. The available infrastructure is not capable of accommodating intense monsoons.
- The lack of regular maintenance of even this limited infrastructure reduces their capability to handle even the designed quantity of flows.

Unplanned urbanization:

- Unplanned urbanization results in the development of slums. Such areas are more prone to urban flooding and landslides.

Encroachments:

- The city's rivers and lakes which act as natural water sinks are being encroached upon. This impacts their ability to absorb the rainwater runoff and thus contributes to urban flooding.

Measures taken up by the government:

- An urban flood management plan has been drawn up by the National Disaster Management Authority for the cities to implement.

- Ministry of Housing and Urban Affairs has also released the first dedicated stormwater drainage manual for effective flow management of stormwater.
- Sponge Cities Mission is an important intervention to decrease the vulnerability of cities to urban flooding.

Recommendations:

- There is a need for a strict law to regulate the encroachment of river and lake beds in urban areas. Also, the existing encroachments must be removed from the city's rivers and lakes.
- The cities should also focus on developing the existing lakes apart from creating fresh holding lakes for excess waters from rains.
- The government should rehabilitate those who live in risky locations as this will help decrease the vulnerability to urban floods.
- Given the risks posed by the unplanned growth of cities, cities should focus on planned urban growth and adequate infrastructure in the form of drainage and housing

Concerns:

- Environmental experts have warned Himalayan states like Himachal Pradesh and Uttarakhand may be entering a phase of irreversible decline because of losses to their ecology.
 - * The unregulated and unsustainable development in the hills marked by big hydroelectric projects and large-scale road construction activity involving deforestation is causing irreversible changes in the region.
- This might lead to a scenario where landslides may become more frequent and intense.
- The unregulated and unsustainable developmental projects are rendering the region vulnerable to the effects of extreme events such as cloudbursts, flash floods, landslides and earthquakes.

Conclusion:

- The landslide is a pointer to the fragility of the ecology of the Himalayan States and indicates the importance of preserving ecology.

Disaster Management – Landslips

3. Wounded mountains

- » Prelims: Landslips
- » Mains: Concerns associated with landslips; Recommendations

Context:

- Landslip in Kinnaur district of Himachal Pradesh has caused loss of lives and property
 - * The heavy rain in Himachal Pradesh had rendered the hill slopes unstable and caused the landslips.

Landslip:

- Landslip is the sliding of a mass of land down a slope or cliff.
- About 12.6 per cent of the Indian landmass is prone to landslips, with the Himalayas and Western Ghats regions particularly prone due to climate, geomorphology and geology.
- Rainfall and earthquakes are the main triggers of these landslides. Poor land management practices (e.g., deforestation, slash-and-burn cultivation, haphazard mining and heavy tilling in agriculture) coupled with increased development and poor settlement location have increased the vulnerability of these areas to landslides.
- The impact of landslides on people, business, culture and heritage can be considerable and wide-ranging, including fatalities, loss of agricultural land and infrastructure, and damage to ecosystems.

HISTORY

Indian Revolutionaries - Indian Freedom Struggle

1. Shaheed Udham Singh

- » Prelims: Udham Singh; Ghadar Party; Jallianwala Bagh massacre
- Udham Singh was born in Sunam in Punjab's Sangrur district in 1899.
- He was an Indian revolutionary and got associated with the Ghadar Party while in the US.
- He is best known for his assassination in London of Michael O'Dwyer, the former lieutenant governor of Punjab. The assassination was done in revenge for the JallianwalaBagh massacre in Amritsar in 1919.
 - * Troops under the command of Colonel Reginald Dyer had opened fire on the crowd, killing several hundred.
- Udham Singh was given the title of Shaheed-i-Azam (the great martyr).

GOVERNANCE

Government Schemes

1. ATL Tinkerpreneur Bootcamp

- » Prelims: Atal Innovation Mission

Context:

- Atal Innovation Mission successfully completes two-month-long, one of its kind 'ATL Tinkerpreneur Bootcamp' across the country.

Details:

- Designed for high school students across the nation, 'ATL Tinkerpreneur' saw a record-breaking 9000+ participants (including 4000+ girl participants) across 32 states and 298 districts.
- The boot camp witnessed participation from 820 ATLs, 50+ live expert speaker sessions were conducted with over 4.5 lakh views and imparted 30+ digital and entrepreneurial skills.
- The boot camp was focused on cultivating a hands-on innovative mindset among students.
- These participants learnt the required digital skills, created and developed a business model around a digital product, generated a marketing plan, developed/established an online store, learnt business finance and culminated it by presenting their pitch deck in front of Industry experts.
- The whole boot camp was designed to instil an innovative mindset as well as to help students go from an idea to a venture in a short time, by trying-failing-and trying again.
- Participants leveraged the knowledge and hands-on involvement of 650+ Mentors (including 180+ women mentors), inculcated and applied their inputs and improved upon their ventures

Government Schemes

2. BharatNet Project

- » Prelims: BharatNet project; Digital India programme
- » Mains: Potential and significance of the project

Context:

- Revised implementation strategy of BharatNet Project.

Details:

- The Cabinet accorded approval for the revised implementation strategy of BharatNet through Public Private Partnership mode in 16 States of the country.

- The program will be extended to all inhabited villages beyond Gram Panchayats (GPs).
- The revised strategy also includes the creation, upgradation, operation, maintenance and utilization of BharatNet by the concessionaire who will be selected by a competitive international bidding process.
- For the other states/UTs of the country, the Cabinet has given in-principle approval for covering all inhabited villages. The modalities for the same will be worked out separately by the Dept of Telecommunications.

Benefits:

- Proliferation of broadband in rural areas will bridge the rural-urban divide of digital access and accelerate the achievement of Digital India.
- The penetration and proliferation of broadband is also expected to increase direct and indirect employment and income generation.
- The States where the PPP Model is envisaged will facilitate free Right of Way.
- The Private Sector Partner is also expected to bring an equity investment and raise resources towards capital expenditure and for operation and maintenance of the network.

Advantages offered by the BharatNet PPP Model:

- Use of innovative technology by the Private Sector Provider for the consumers
- High quality of service and service level to consumers
- Faster deployment of network and quick connectivity to consumers
- Competitive tariffs for services
- Variety of services on high-speed broadband including Over the top (OTT) services and multi-media services as part of packages offered to consumers
- Access to all online services

Government Initiatives

3. CoWin made open source: PM

- » Prelims: CoWin platform
- India has endeavoured to share the tech-enabled vaccination platform COWIN as a free public good with the world.
- The Prime Minister has said that the CoWin platform is being made open source and it will be available to all countries.

- The code for CoWin will be made open source. The government won't attach any intellectual property rights to it. The government said that the code will be given to countries that are looking for an "orderly and transparent vaccination program".

CoWIN:

- COVID Vaccine Intelligence Network (CoWIN) system is a digitalised platform to be used to effectively roll out and scale up the mechanism for COVID Vaccine Distribution System, nationally.
- It is a digital platform launched by the Ministry of Health and Family Welfare (MoHFW) to help agencies keep a track of Covid-19 vaccination and allow Indians to apply for the vaccine.

Significance

- About 50 countries, including Canada, Mexico, Nigeria, Panama and Uganda, have shown interest in adopting CoWIN to run their vaccination drives

Miscellaneous

4. Ending the shift between Jammu and Kashmir

- » Mains: Dual capitals- significance and concerns

Durbar Move

- It is a bi-annual shifting of the Civil Secretariat and other offices of the state government from Jammu to Srinagar in summer, and vice versa in winter.
- Jammu is the winter capital of Jammu and Kashmir, while Srinagar is its summer capital.

Background

- The tradition of switching the capitals twice a year is believed to have been started during Dogra rule in 1872 by Maharaja Ranbir Singh, who ruled Jammu and Kashmir from 1856 until his death in 1885.
- The main aim of the Darbar Move was to escape the extreme weather conditions – Jammu's searing heat and Srinagar's bitter cold.
- The secretariat would function for six months each in Jammu and Srinagar.

Significance

- It helped in generating economic activity in both Jammu and Srinagar and would act as a bridge for the two culturally and linguistically different regions.
- It is generally understood that the Durbar Move was started to take the administration to the doorstep of the people of Kashmir which is closer to Ladakh. During summer, ruling from Kashmir also helped in ensuring adequate supplies to Ladakh.

- The practice also enabled greater interaction and bonding among the people of Jammu, Kashmir and Ladakh.

Concerns

- The exercise would cost the government nearly Rs 200 crore.
- The Jammu & Kashmir High Court in 2020 observed that there was no legal justification or constitutional basis for the Darbar Move tradition.
 - * It said Darbar Move resulted in the "wastage of tremendous amount of time, efforts and energy on an inefficient and unnecessary activity."

Context

- Governor Manoj Sinha has recently confirmed that the administration had completed the transition to e-office. Hence there was no need to continue the practice of the biennial 'Darbar Move' of the government offices.
- All officers allotted the 'Darbar Move' accommodation at Jammu and Srinagar have been asked to vacate the same.
- The decision to end the biennial 'Darbar Move' will save the exchequer Rs 200 crore each year. Government offices will now function normally at both Jammu and Srinagar.

Miscellaneous

5. Is Twitter acceding to takedown requests?

- » Mains: Findings of Twitter Transparency report

Context:

- Twitter released its Transparency Report

What's the transparency report all about?

- Twitter started publishing a biannual report — Twitter Transparency Report — in 2012.
- The original goal, it says in its blog, "was to provide the public with recurring insights into government pressures that impacted the public, whether through overt political censorship or by way of compelling account data through information requests".
- One of the main categories is 'Government Information Requests,' and this includes "both emergency and routine legal demands for account information issued by law enforcement and other government agencies".

Emergency requests

- They may be entertained "if twitter is provided with sufficient information to support a good faith belief that there is an imminent threat involving danger of death or serious physical injury to a person, and we have information relevant to averting or mitigating the threat".

Routine legal demands

- Twitter describes Routine Requests as “legal demands issued by government of law enforcement authorities (e.g. subpoenas, court orders, search warrants)” that compel it to turn over account information.

On India

- It has revealed that India was the single largest source of government information requests.
 - * Notably, for the first time in the history of the transparency report, the U.S. wasn't the “top global requester”.
- India also was one of the prominent sources of legal demands for removal of content

Important Aspects of Governance, Transparency and Accountability

6. Pegasus Project Report

- » Prelims: Pegasus spyware; zero-day exploit
- » Mains: Concerns over the findings of the Pegasus project report; need for surveillance reforms in India and recommendations in this direction
- Pegasus is a spyware tool from Israeli firm NSO Group.
- In 2020, WhatsApp's report stated that 1,400 of its users were hacked by Pegasus.
 - * It was used to spy on journalists and human rights activists across the globe, including in India.
- Pegasus works by sending an exploit link, and if the target user clicks on the link, the malware or the code that allows the surveillance is installed on the user's phone.
 - * A presumably newer version of the malware does not even require a target user to click a link.
- Once Pegasus is installed, the attacker has complete access to the user's phone. Every call, message, can be intercepted and monitored. It can also access any document stored on the phone.
- Pegasus can also control the phone's camera and microphone and has access to the device's location data.
- The Pegasus delivers “a chain of zero-day exploits to penetrate security features on the phone and installs Pegasus without the user's knowledge or permission”.
 - * “zero-day exploit” is a completely unknown feature (vulnerability). There is no fix for it as even the manufacturer is not aware of it.

Context:

- ‘Pegasus Project’ report produced by the collaborative investigation of journalists from around the world.

Details:

- As per the initial reports, the Pegasus spyware is reported to have been used to hack phones and install spyware to enable surveillance.
- As per the report, over 300 verified Indian mobile telephone numbers, including those used by ministers, opposition leaders, journalists, the legal community, businessmen, government officials, scientists, rights activists and others were targeted using the spyware.

Associated laws and agencies involved in surveillance activities in India:

- Currently, the laws authorising interception and monitoring of communications are Section 92 of the CrPC (for call records, etc.), Rule 419A of the Telegraph Rules, and the rules under Sections 69 and 69B of the IT Act.
- A limited number of agencies are provided powers to intercept and monitor.

Concerns:

Against rights of citizens:

- Surveillance, whether under a provision of law or without it, is a gross violation of the fundamental right of citizens to the exercise of freedom of speech and personal liberty and privacy under Articles 19 and 21 of the Constitution, respectively.
- The perceived threat of surveillance impacts the ability of people to express, receive and discuss unorthodox or controversial ideas. This results in what has been defined by the judiciary as a “chilling effect on free speech”.

Threat to press freedom:

- The emerging reports of usage of Pegasus spyware against journalists raise concerns over the right to privacy and free speech of journalists which is so very important for free and fair news reporting.

Weak protection for surveilled:

- Existing laws seem to offer impunity for surveillance
 - * The existing provisions of law under the Indian Telegraph Act of 1885 and the Information Technology (IT) Act of 2000 (Section 69) seem to offer the government total opacity and impunity in respect of its interception and monitoring activities.
 - * Even the Interception Rules of 2009 offer weak protection to the surveilled.

- There is also no scope for an individual subjected to surveillance to approach a court of law to challenge acts of surveillance.
- Even the proposed personal data protection law fails to consider surveillance while also providing wide exemptions to government authorities.

Threat posed by technical developments:

- Given the increasing affordability and accessibility of spywares and increasing sophistication in their modus operandi, the scope for large scale surveillance is only bound to increase over time. This raises concerns over state-sponsored mass surveillance.

Lack of oversight:

- There is an almost total absence of parliamentary or judicial oversight on surveillance activities undertaken by the executive.
- This is worrisome despite the executive's claims that any surveillance which takes place happens through a "due process of law". The lack of oversight makes surveillance activities liable for misuse.
- This violates not only the ideals of due process but also goes against the requirement of procedural safeguards as mandated in *K.S. Puttaswamy (Retd) v. Union of India* (2017).

Threat to separation of power:

- Vesting disproportionate surveillance power with the executive threatens the separation of powers of the government.
- Given the secrecy involved in surveillance activities, the affected person is unable to show a breach of his/her rights. Thus, there is limited scope for the Supreme Court and High Courts to issue writs under Articles 32 and 226 of the Constitution.

Recommendations:

- There is a need for appropriate international regulation of the sale of tools like spyware.
- There is a need to ensure that surveillance in India is made accountable. The various measures which might be taken in this direction include the following:
 - * The various intelligence agencies in India must be provided with a legal framework for their existence and functioning.
 - * A standing committee of Parliament on intelligence must be created to ensure a certain degree of legislative oversight over the operations of the various intelligence agencies. The functioning of the various intelligence agencies must be brought under parliamentary oversight and scrutiny. This could play a vital role in ensuring their accountability and them being respectful of civil liberties.

- Intelligence gathering needs to be professionalised and made non-partisan.
- Necessary measures need to be taken to ensure that civil liberties and rule of law are protected and balanced against the need for surveillance activities in the national interest.

Balancing the contrasting needs:

- There is a need to balance the necessity of the government's objectives of surveillance with the rights of the impacted individuals.

Role of judiciary:

- In order to satisfy the ideal of "due process of law", to maintain an effective separation of powers and to fulfil the requirements of procedural safeguards, there needs to be an oversight from another branch of the government over the executive's power of surveillance.
- Such a role can be effectively played by the judiciary.

GEOGRAPHY

Geography-Solarsystem

1. Enceladus

- » Prelims: Enceladus; Cassini-Huygens mission
- Enceladus is one of Saturn's moons.
- Enceladus is mostly covered by fresh, clean ice, making it one of the most reflective bodies of the Solar System.
- The Cassini-Huygens space-research mission, commonly called Cassini, involving a collaboration among NASA, the European Space Agency, and the Italian Space Agency involves a space probe to study the planet Saturn and its system, including its rings and natural satellites.

Context:

- The study of giant water plumes erupting from Enceladus have opened up the possibility of microbial life on Enceladus.

Geography - Climatology

2. Lightning strikes

- » Mains: Lightning strikes in India- Challenges and recommendations

Context

- With the monsoon making a slow revival over several parts of India there is a rise in lightning-linked deaths.

Details:

- The Home Ministry's statistics consistently cited lightning as the biggest natural disaster-linked killer in India.
- Nearly 68 were reportedly struck dead by lightning on a single day in Uttar Pradesh, Rajasthan and Madhya Pradesh.

What is lightning, and how does it strike?

- 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.

How does this current reach the Earth from the cloud?

- 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.

How common are deaths by lightning?

- Lightning is the biggest contributor to accidental deaths due to natural causes.
- In 2019, an analysis by Skymet reported that five States accounted for half the lightning strikes that year, led by Odisha with 9,37,462 strikes or about 16% of the cloud-to-ground strikes. There were 20 million lightning strikes in that period with over 72% of them being instances of "in-cloud" lightning.

Issue:

- Several thousand thunderstorms occur over India every year. Each can involve several — sometimes more than a hundred — lightning strikes.
- Occurrences of lightning are not tracked in India.
- Just one group of scientists, at the Indian Institute of Tropical Management (IITM) in Pune, works full-time on thunderstorms and lightning.
- There is simply not enough data for scientists to work with.
- Often, safety measures and precautions against lightning strikes do not receive as much publicity as other natural disasters such as earthquakes.

MISCELLANEOUS

1. Alexander Dalrymple Award

Context

- Chief Hydrographer to the Govt. of India received the Alexander Dalrymple award from the British High Commissioner.

Details:

- The Alexander Dalrymple Award has been named after the first hydrographer of the Admiralty and was instituted in 2006.
- India's chief hydrographer, Vice Admiral Vinay Badhwar, was honoured with the award in recognition of his leadership in the disciplines of hydrography and nautical cartography.

About the Chief Hydrographer to the Govt. of India:

- The Chief Hydrographer heads the Indian Naval Hydrographic Department (INHD) which is an Indian government agency responsible for hydrographic surveys and nautical charting in India.
- INHD's headquarters National Hydrographic Office is located in Dehradun.
 - * The department is also responsible for making electronic navigational charts officially on behalf of the government of India.
 - * It was formed in 1954 although its origins date back to 1874 when the Indian Marine Survey Department was established in Calcutta.
 - * Objectives of the INHD:
 - » Carryout accurate hydrographic surveys.
 - » Ensure availability of genuine, accurate and up-to-date navigational products to mariners.
 - » Provide hydrographic services to National and International agencies and Public as well as Private sector undertakings.
 - » Provide quality training in the field of Hydrography.
 - » Ensure total satisfaction to the users of its products.
 - » Extend cooperation in the field of Hydrography to the maritime states in the region.

2. Chartered Accountants' Day

Context

- July 1 is observed as Chartered Accountants' Day (CA Day).

About CA Day:

- The day is marked to commemorate the founding of the Institute of Chartered Accountants of India (ICAI) in 1949, one of the oldest professional institutes in the country.

About the Institute of Chartered Accountants of India (ICAI):

- ICAI is India's national professional accounting body and also the second biggest accounting organization in the world.
- It is the sole licensing and regulatory body for the financial audit and accounting profession in India, and its recommendations are followed by everyone – from the National Financial Reporting Authority (NFRA) to companies and accounting organizations.
- The ICAI is a statutory body for regulating the accounting profession in India.
- It functions under the administrative control of the Ministry of Corporate Affairs, Government of India.
- The affairs of the ICAI are managed by a Council in accordance with the provisions of the Chartered Accountants Act, 1949 and the Chartered Accountants Regulations, 1988.

3. Mishri variety of cherries

Context:

- First commercial shipment of Mishri variety of cherries from Kashmir exported to Dubai.

Details:

- Mishri variety of Cherries are not only delicious but also contain vitamins, minerals and plant compound with health benefits.
- Jammu and Kashmir produces more than 95% of the country's total production of commercial varieties of cherries.
- It produces four varieties of cherry — Double, Makhmali, Mishri and Italy.
- The commencement of commercial shipment of cherries would provide huge opportunities for exports of several temperate fruits like plums, pears, apricot and apples from Kashmir to especially middle east countries in the forthcoming seasons.

4. National Doctors' Day

Context

- July 1 is observed as National Doctors' Day in India.

About the National Doctors' Day:

- The day is observed in memory of Dr Bidhan Chandra Roy, who had his birth and death anniversary on the same day (1 July).
- The day is dedicated to all the doctors and healthcare workers who have been serving people by risking their lives.
- Dr Roy (1 July 1882 – 1 July 1962), former Chief Minister of Bengal, was known for his selfless service.
 - * He was also referred to as the first medical consultant in the subcontinent of India and was more successful and dedicated than his contemporaries in several fields, mentioned the British Medical Journal.
 - * He was a follower of Brahmo Samaj
 - * Dr Roy led the Civil disobedience movement in Bengal
 - * For his outstanding contributions, he was awarded the Bharat Ratna in 1961.
- The day is being celebrated in India since 1991.

5. World Youth Skills Day

- In 2014, the United Nations General Assembly declared 15 July as World Youth Skills Day, to celebrate the strategic importance of equipping young people with skills for employment, decent work and entrepreneurship.
- The day was marked to achieve the Incheon Declaration: Education 2030, which is a part of Sustainable Development Goal 4 that urges to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all."
- The day is dedicated to the importance of equipping young people around the world with essential skills for employment, work, and entrepreneurship.
- The World Youth Skills Day also promotes the elimination of gender inequality and ensured access of resources to the vulnerable.
- World Youth Skills Day 2021 Theme – "Reimagining Youth Skills Post-Pandemic".

6. Richard Branson takes off first in space tourism race

What's in News?

Virgin Galactic's crew have successfully completed the flight to space.

- Virgin Galactic space Tourism Company was founded by Richard Branson.

Details:

- Mr. Branson along with his five crewmates from Virgin Galactic space Tourism Company hurtled into space aboard a winged rocket ship.
- It reached an altitude of about 88 kilometres over the New Mexico desert and then safely landed.
- The crew experienced three to four minutes of weightlessness and saw the curvature of the earth.
- It was intended as a confidence-boosting mission for Virgin Galactic, which plans to start taking paying customers on joyrides.
- Ms. Bandla became the third Indian-origin woman to fly into space after Kalpana Chawla and Sunita Williams.
- Jeff Bezos' Blue Origin Company intends to send tourists past the so-called Karman line 100 kilometres above the earth.
 - * Karman Line is recognised by international aviation and aerospace federations as the threshold of space.
 - * The Karman Line is an attempt to define a boundary between Earth's atmosphere and outer space.

7. Traditional water harvesting structures in India

Water Harvesting structure	State/UT
Johad, Nadis	Rajasthan
AharPynes	Bihar
Zing	Ladakh
Kuhl	Himachal Pradesh
Zabo	Nagaland
Bamboo drip irrigation	Meghalaya
Eri	Tamil Nadu

Context:

- Rajasthan state government's proposal to study the contribution of water harvesting structure to the increase in groundwater level.

PRACTICE QUESTIONS

1. Consider the following statements:

1. The 'Nodal Ministry' in the central government for the management of natural disasters is the Ministry of Home Affairs (MHA).
2. Disaster Management Act, 2005 calls for the establishment of the National Disaster Management Authority (NDMA) with the Home Minister as chairperson.

Which of the above statements is/are INCORRECT?

- A. 1 only
- B. 2 only
- C. Both
- D. None

2. With reference to Kalbeliya dance, which of the following statements is/are correct?

1. It is a folk dance of Madhya Pradesh.
2. This dance performance is accredited by UNESCO as an Intangible Heritage.
3. The Kalbelia is almost exclusively performed by females.

Options:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

3. Which of the following has/have been accorded 'Geographical Indication' status?

1. Jardalu mango
2. Hapus mango
3. Laxmanbhog mango
4. Banaganapalle mango
5. Appemidi mango

Options:

- A. 1 and 4 only
- B. 2, 3 and 5 only
- C. 1, 3 and 4 only
- D. 1, 2, 3, 4 and 5

4. Which of the following statements is/are correct?

1. Current account deficit may cause depreciation.
2. Current account deficit may be a sign the economy is uncompetitive.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

5. Consider the following Bhakti Saints: (2013)

1. Dadu Dayal
2. Guru Nanak
3. Tyagaraja

Who among the above was/were preaching when the Lodi dynasty fell and Babur took over?

- A. 1 and 3
- B. 2 only
- C. 2 and 3
- D. 1 and 2

6. Which of the following is/are treated as cruelty under Prevention of Cruelty to Animals Act?

1. The dehorning of cattle, or the castration or branding or nose-roping of any animal, in the prescribed manner.
2. If any person without reasonable cause, abandons any animal in circumstances which render it likely that it will suffer pain by reason of starvation or thirst.
3. If any person promotes or takes part in any shooting match or competition wherein animals are released from captivity for the purpose of such shooting.
4. The destruction of stray dogs in lethal chambers.

Options:

- A. 1, 3 and 4 only
- B. 2 and 3 only
- C. 3 and 4 only
- D. 1, 2, 3 and 4

7. Which of the following is/are the right bank tributaries of Krishna?

1. Musi
2. Koyna
3. Ghataprabha
4. Tungabhadra
5. Munneru

Options:

- A. 1, 2 and 3 only
- B. 2, 3 and 4 only
- C. 3, 4 and 5 only
- D. 1, 2, 4 and 5 only

8. Consider the following statements with respect to Public Interest Litigation (PIL):

1. The concept of PIL originated and developed in the USA.
2. Locus standi is not a necessity for PIL.

Which of the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both
- D. None

9. Which of the following methods can be employed to reduce the ill-effects of Non-Performing Assets (NPA)?

1. Sell the NPAs
2. Compromise Settlement
3. Pumping money into the banking system

Options:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

10. How does the National Rural Livelihood Mission seek to improve livelihood options of rural poor? (2012)

1. By setting up a large number of new manufacturing industries and agribusiness centres in rural areas
2. By strengthening 'self-help groups' and providing skill development

3. By supplying seeds, fertilizers, diesel pump-sets and micro-irrigation equipment free of cost to farmers

Select the correct answer using the codes given below:

- A. 1 and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

11. Which of the following are the literary works of Kalidasa?

1. Abhijnanashakuntala
2. Mudrarak hasa
3. Kumarasambhava
4. Mrichchhakatika
5. Meghaduta

Options:

- A. 1, 2 and 3 only
- B. 2, 3, 4 and 5 only
- C. 1, 3 and 5 only
- D. 2, 3 and 4 only

12. With reference to Solicitor General, which of the following statements is/are correct?

1. Solicitor General's office and duties are governed by Law Officers (Conditions of Service) Rules, 1987 and by Constitution.
2. He has the right to participate in the proceedings of Parliament but 'not to vote'.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

13. Base Erosion and Profit Shifting (BEPS) sometimes seen in the news refers to

- A. Simplifying and harmonizing international customs procedures globally
- B. Anti-Dumping Measures
- C. Tax planning techniques employed by companies to exploit gaps in international and domestic tax laws
- D. Criminals using crypto currency for illegal activities

14. Consider the following pairs:

Lake	State
1. Vembanad Lake	Kerala
2. Indira Sagar Lake	Rajasthan
3. Pulicat Lake	Andhra Pradesh

Which of the above pairs is/are correctly matched?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

15. With reference to 'IFC Masala Bonds', sometimes seen in the news, which of the statements given below is/are correct?

- 1. The International Finance Corporation, which offers these bonds, is an arm of the World Bank.
- 2. They are the rupee-denominated bonds and are a source of debt financing for the public and private sector.

Select the correct answer using the code given below.

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

16. Consider the following statement with respect to Asian Elephant Specialist Group (AsESG):

- 1. AsESG is a part of the Species Survival Commission (SSC) of the International Union for Conservation of Nature (IUCN).
- 2. It acts as the Red List Authority for the Asian Elephant.
- 3. It operates and manages Elephant Trade Information System.

Options:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 2 only
- D. 1, 2 and 3

17. Consumer Price Index can be used for which of the following?

- 1. Identifying periods of inflation or deflation
- 2. Inspecting price stability
- 3. Tool for inflation targeting

4. Understanding the real value of salaries, wages, and pensions

Options:

- A. 1 only
- B. 3 and 4 only
- C. 1, 3 and 4 only
- D. 1, 2, 3 and 4

18. Which of the given statements with respect to Supernova is/are correct?

- 1. Massive stars, towards the end of their lifetimes form supernovas.
- 2. Supernova can happen in systems where two stars orbit one another and at least one of those stars is an Earth-sized white dwarf.
- 3. Study of supernova can help measure distances in space.

Options:

- A. 1 only
- B. 1 and 3 only
- C. 2 only
- D. 1, 2 and 3

19. Which of the given statements with respect to Jagannath Temple in Puri is/are INCORRECT?

- 1. The temple famous for its annual Rath Yatra is dedicated to Lord Vishnu.
- 2. Located in coastal Odisha, it is also called the Black Pagoda.
- 3. It is one of the Char Dham.

Options:

- A. 2 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 3 only

20. With reference to 'Changpa' community of India, consider the following statement:

- 1. They live mainly in the State of Uttarakhand.
- 2. They rear the Pashmina goats that yield a fine wool.
- 3. They are kept in the category of Scheduled Tribes.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 and 3 only

- C. 3 only
- D. 1, 2 and 3

- C. 3-4-1-2
- D. 4-1-2-3

21. Consider the following statements:

1. The Constitution does not specify the strength of the State Public Service Commission (SPSC) but has left the matter to the discretion of the Governor.
2. The Chairman and members of an SPSC are appointed by the Governor, they can be removed only by the President.
3. Joint State Public Service Commission is a statutory body.

Which of the above statements is/are correct?

- A. 1 only
- B. 1 and 3 only
- C. 2 only
- D. 1, 2 and 3

22. With reference to the Rabha Tribe, which of the following statements is/are correct?

1. The Rabhas are a tribe from Assam.
2. Bagurumba is a folk dance in Assam which is performed by the Rabhas.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

23. The Sharda Act is one of the significant reforms initiated by the British in India. What does it deal with?

- A. Transfer of ancestral property
- B. Child marriage
- C. Remarriage of widows
- D. Prohibition of Sati & female infanticide

24. Arrange the following rivers from west to east:

1. Ramganga
2. Gomati
3. Ghaghara
4. Gandak

Options:

- A. 1-2-3-4
- B. 2-3-4-1

25. In India, other than ensuring that public funds are used efficiently and for intended purpose, what is the importance of the office of the Comptroller and Auditor General (CAG)?

1. CAG exercises exchequer control on behalf of the Parliament when the President of India declares national emergency/financial emergency.
2. CAG reports on the execution of projects or programmes by the ministries are discussed by the Public Accounts Committee.
3. Information from CAG reports can be used by investigating agencies to frame charges against those who have violated the law while managing public finances.
4. While dealing with the audit and accounting of government companies, CAG has certain judicial powers for prosecuting those who violate the law.

Which of the statements given above is/are correct? [UPSC 2012]

- A. 1, 3 and 4 only
- B. 2 only
- C. 2 and 3 only
- D. 1, 2, 3 and 4

26. Which of the following differences between Debt and Equity is/are correct?

1. In Debt the maturity is for a fixed period, whereas in Equity it is mostly undetermined.
2. In Debt the returns are calculated by Dividend/increase in the price, whereas in Equity it is by Coupon Rate.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

27. Consider the following statements about Sir Chettur Sankaran Nair:

1. He had served as a President of the Indian National Congress.
2. Sankaran Nair was an advocate who defended Bhagat Singh.

Which of the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both
- D. None

28. Consider the following pairs:

Portal	Objective
1. AMAR	Online public access catalogue for more than 12000 Indian medical heritage books
2. E-Medha	Showcases inscriptions, archeo-studies botanical information and advanced archeo-genetic
3. SHAI	Digitized information on rare and hard to find manuscripts and catalogues of Ayurveda

Which of the above pairs is/are correctly matched?

- A. 2 only
- B. 1 and 3 only
- C. 1, 2 and 3
- D. None

29. With reference to Organization of the Petroleum Exporting Countries (OPEC), which of the following statements is/are correct?

- 1. OPEC has its headquarters in Geneva, Switzerland.
- 2. Venezuela is the only country from South America which is part of OPEC.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

30. Consider the following statements: (UPSC 2017)

- 1. Climate and Clean Air Coalition (CCAC) to Reduce Short Lived Climate Pollutants is a unique initiative of G20 group of countries.
- 2. The CCAC focuses on methane, black carbon and hydro fluorocarbons.

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

31. Which of the given statements with respect to Grand Ethiopian Renaissance Dam (GERD) is/are correct?

- 1. The dam when completed will be the largest hydroelectric dam in Africa.
- 2. It is being constructed on River Sobat, a tributary of River Nile.
- 3. It has become a matter of contention between Ethiopia and Egypt

Options:

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 3 only

32. The term 'Safe harbour immunity' seen in news refers to:

- A. Agreement between India-Sri Lanka providing immunity to fishermen entering into each other's territorial waters.
- B. Immunity offered to social media intermediaries from criminal liability.
- C. Immunity from quarantine rules in the EU countries for the holders of Green pass.
- D. Governmental immunity from taxation by state governments in the areas of overlapping tax jurisdiction.

33. "Mazar-e-Sharif", often in news is located in:

- A. Israel
- B. Afghanistan
- C. Iran
- D. Syria

34. Which of the following Directive Principles of State Policy ensures Constitutional Privileges for women in India?

- A. Article 42
- B. Article 48
- C. Article 49
- D. Article 50

35. The term 'Digital Single Market Strategy' seen in the news refers to (UPSC 2017)

- A. ASEAN
- B. BRICS
- C. EU
- D. G20

36. With reference to Council of Ministers, which of the following statements is/are incorrect?

- 1. The Council of Ministers is collectively responsible to the Parliament.
- 2. The nature of advice tendered by ministers to the President can be enquired by the courts.
- 3. President can remove a minister only on the recommendation of the Prime Minister of India.

Options:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 3 only
- D. None

37. Which of the following is/are correctly matched?

- 1. Gunboat Diplomacy – Use of Limited Naval Force as a threat to advance foreign policy.
- 2. Shuttle Diplomacy – Diplomatic negotiations conducted by an official intermediary who travels frequently between the nations involved.
- 3. Track-one Diplomacy – Formal methods of conflict resolution involving diplomats, ministers, heads of states and representatives of international organisations.

Options:

- A. 1 only
- B. 1 and 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

38. Pegasus recently seen in news is a

- A. Theft tactic that allows hackers to create a fake credit card by stealing the information off an individual's actual card
- B. Malware that can initiate total surveillance on the targeted device
- C. Virus capable of slowing down internet traffic
- D. Ransomware attack which has hit hundreds of US companies

39. Consider the following statements:

- 1. This region is surrounded by the Gulf of Aqaba.
- 2. The Strait of Tiran connects two water bodies.
- 3. Its coastlines touch the Mediterranean Sea and the Red Sea.

The country in question is:

- A. Jordan
- B. Egypt
- C. Syria
- D. Israel

40. Which of the following has/have occurred in India after its liberalization of economic policies in 1991? (UPSC 2017)

- 1. Share of agriculture in GDP increased enormously.
- 2. Share of India's exports in world trade increased.
- 3. FDI inflows increased.
- 4. India's foreign exchange reserves increased enormously.

Select the correct answer using the codes given below:

- A. 1 and 4 only
- B. 2, 3 and 4 only
- C. 2 and 3 only
- D. 1, 2, 3 and 4

41. Which of the following statements is/are correct about the principle of protection against self-incrimination?

- 1. Giving voice sample is not a violation of the fundamental right against self-incrimination.
- 2. This principle can be used even at the time of police investigation when they are extracting information.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

42. Consider the following statements about Planet Saturn:

- 1. It is the second-largest planet in our solar system.

2. It is the only planet with Rings.
3. Titan is the largest moon of Saturn.

Which of the above statements is/are incorrect?

- A. 2 only
- B. 1 and 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

43. Which of the following incidents had occurred when Lord Reading was the Viceroy?

1. Dandi march
2. Jallianwalla Bagh Massacre
3. Establishment of Swaraj party
4. Kakori Train Robbery
5. Malabar rebellion

Options:

- A. 1, 2 and 3 only
- B. 2, 3 and 4 only
- C. 3, 4 and 5 only
- D. 1, 2, 3, 4 and 5

44. Which Strait separates Malaysia from the Philippines?

- A. Sunda Strait
- B. Balabac Strait
- C. Strait of Malacca
- D. Strait of Makasar

45. 'Basel III Accord' or simply 'Basel III', often seen in the news, seeks to (UPSC 2015)

- A. Develop national strategies for the conservation and sustainable use of biological diversity
- B. Improve banking sector's ability to deal with financial and economic stress and improve risk management
- C. Reduce the greenhouse gas emissions but places a heavier burden on developed countries
- D. Transfer technology from developed countries to poor countries to enable them to replace the use of chlorofluorocarbons in refrigeration with harmless chemicals

46. Consider the following statements about Speaker of Assembly:

1. He can summon, adjourn the assembly or suspend the meeting in the absence of a quorum.
2. He decides whether a bill is a Money Bill or not and his decision on this question is final.
3. He decides on the question of disqualification of members of the state legislature in consultation with the Election Commission.

Which of the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. 1 and 3 only
- D. 2 and 3 only

47. With reference to Lymphatic filariasis, which of the following statements is/are correct?

1. It is a neglected tropical disease.
2. It is spread from person to person by mosquitoes.
3. Global Programme to Eliminate Lymphatic Filariasis was established by the WHO.

Options:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

48. Consider the following statements with respect to National Green Tribunal:

1. It has its presence in four zones only.
2. The Principal Bench is situated in the North Zone, headquartered in Delhi.
3. Engaging an advocate is compulsory to approach the Tribunal.

Which of the above statements is/are incorrect?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

49. Which of the following statements about Chandra Shekhar Azad is/are correct?

1. He was involved in the Kakori Conspiracy.
2. Hindustan Republican Association (HRA) was formed by Ram Prasad Bismil, Jogesh Chandra Chatterjee, Sachindra Nath Sanyal and Chandra Shekhar Azad.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

50. In the context of global oil prices, 'Brent crude oil' is frequently referred to in the news. What does this term imply? (2011)

- 1. It is a major classification of crude oil.
- 2. It is sourced from the North Sea.
- 3. It does not contain sulphur.

Which of the statements given above is/are correct?

- A. 2 only
- B. 1 and 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

51. Consider the following statements:

- 1. The largest component of natural gas is methane
- 2. Sour gas is natural gas containing Hydrogen Sulfide (H₂S)
- 3. Sweet gas is the natural gas that contains very little or no hydrogen sulfide.

Which of the above statements is/are correct?

- A. 1 only
- B. 2 and 3 only
- C. 1, 2 and 3
- D. None

52. Which of the following Fundamental rights are available only to citizens and not to foreigners?

- 1. Article 15
- 2. Article 16
- 3. Article 19
- 4. Article 28
- 5. Article 30

Options:

- A. 1, 2, 3 and 4 only
- B. 2, 3, 4 and 5 only
- C. 1, 2, 3 and 5 only
- D. 1, 2, 3, 4 and 5

53. Which of the following statements is/are correct?

- 1. Article 23 protects an individual not only against the State but also against private persons
- 2. India has signed the UN Convention against Transnational Organised Crime (UNTOC)

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

54. Consider the following statements:

- 1. It is a country located at the intersection of Eastern Europe and Western Asia.
- 2. It is a part of the Caucasus region, bounded to the west by the Black Sea
- 3. It is bounded on the north and northeast by Russia

The above statements best describe:

- A. Turkey
- B. Azerbaijan
- C. Georgia
- D. Armenia

55. What was the reason for Mahatma Gandhi to organize a satyagraha on behalf of the peasants of Kheda?

- 1. The administration did not suspend the land revenue collection in spite of a drought
- 2. The administration proposed to introduce permanent settlement in Gujarat

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

56. Consider the following statements:

- 1. The Chenab is the largest tributary of the Indus.
- 2. The Bari Doab lies between the Ravi and the Chenab rivers.

Which of the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both
- D. None

57. With reference to Kesaria Stupa, which of the following statements is/are correct?

1. It is a Buddhist stupa in the State of Sikkim.
2. It is regarded as the largest Buddhist stupa in the world.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

58. Which of the following statements about Hawa Mahal is/are correct?

1. It was built by Maharaja Sawai Pratap Singh
2. Mr. Lal Chand Usta was the architect.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

59. Consider the following statements about Lok Adalat:

1. It can deal with cases pending before a court and also with disputes at the pre-litigation stage.
2. It is one of the components of the Alternative Dispute Resolution (ADR) system.
3. Lok Adalat shall have no jurisdiction in respect of matters relating to divorce or matters relating to an offence not compoundable under any law.

Which of the above statements is/are correct?

- A. 1 only
- B. 2 and 3 only
- C. 3 only
- D. 1, 2 and 3

60. Which of the following best describes/describe the aim of the 'Green India Mission' of the Government of India? (2016)

1. Incorporating environmental benefits and costs into the Union and State Budgets thereby implementing the 'green accounting'.
2. Launching the second green revolution to enhance agricultural output so as to ensure food security to one and all in the future.

3. Restoring and enhancing forest cover and responding to climate change by a combination of adaptation and mitigation measures.

Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 3 only
- D. 1, 2 and 3

61. Consider the following statements about Contempt of Court:

1. There is no limit on the time period for initiating contempt.
2. The Supreme Court can take the cognizance of criminal contempt on its own motion or on a motion made by the Attorney-General or the Solicitor-General.
3. Truth can be a valid defence in any contempt proceedings if such a defence is in the public interest and the request for invoking the defence is bona fide.

Which of the above statements is/are correct?

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 3 only

62. With reference to Red sanders, which of the following statements is/are correct?

1. It is endemic to the Western Ghats.
2. It is put under the category of endangered species in the IUCN Red List due to overexploitation.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

63. Consider the following statements:

1. Cloudburst is extreme precipitation, which lasts only for a short period of time and is extremely local in nature.
2. Cloudbursts usually occur in connection with a thunderstorm.

3. Cloudbursts happen only in the mountains and hilly areas.

Which of the above statements is/are correct?

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

64. Which of the following statements is/are correct?

- 1. The Cool Temperate Continental (Siberian) Climate is experienced only in the northern hemisphere.
- 2. The Cool Temperate Western Margin (British Type) regions are under the influence of Westerlies all-round the year.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

65. Kalamkari painting refers to (UPSC 2015)

- A. A hand-painted cotton textile in South India
- B. A handmade drawing on bamboo handicrafts in North-East India
- C. A block-painted woollen cloth in Western Himalayan region of India
- D. A hand-painted decorative silk cloth in North-Western India

66. "Cairo Consensus" deals with:

- A. Population dynamics, family planning and reproductive health
- B. Exploration and use of outer space
- C. Navigational rights and freedoms
- D. Special use airspace

67. Pulichintala project has been a source of interstate water dispute between which of these states?

- A. Karnataka and Tamil Nadu
- B. Andhra Pradesh and Odisha
- C. Andhra Pradesh and Telangana
- D. Odisha and Chhattisgarh

68. Which of the given statements is/are INCORRECT?

- 1. India has set a target of installing 175 GW of renewable energy capacity by 2022.
- 2. India's renewable energy target includes installing 100 GW of solar power.
- 3. India's largest floating solar project has been commissioned at Chennai.

Options:

- A. 2 only
- B. 2 and 3 only
- C. 3 only
- D. 1 only

69. Which of the given statements is/are correct?

- 1. Satras are monastic institutions created as part of the Neo-Vaishnavite reformist movement started by Srimanta Sankaradeva.
- 2. Satras propagate the 'worship through art' approach.

Options:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

70. In the context of which one of the following are the terms pyrolysis and plasma gasification mentioned? [UPSC 2019]

- A. Extraction of earth element
- B. Natural gas extractions technologies
- C. Hydrogen fuel based automobiles
- D. Waste to energy technologies

71. Consider the following statements about Wholesale Price Index (WPI):

- 1. It covers both the goods and the services.
- 2. It does not include taxes in order to remove the impact of fiscal policy.

Which of the above statements is/are incorrect?

- A. 1 only
- B. 2 only
- C. Both
- D. None

72. Which of the following statements is/are correct?

1. Contribution of any amount directly or indirectly to any political party shall be considered as CSR activity.
2. Expenses incurred by companies for the fulfillment of any Act/Statute of regulations would count as CSR expenditure under the Companies Act.
3. India is the first country in the world to make CSR mandatory.

Options:

- A. 1 and 2 only
- B. 2 only
- C. 3 only
- D. 1, 2 and 3

73. Which of the following are Percussion Instruments?

1. Tabla
2. Mridangam
3. Ghatam
4. Kanjira

Options:

- A. 1, 2 and 3 only
- B. 2, 3 and 4 only
- C. 1, 3 and 4 only
- D. 1, 2, 3 and 4

74. Consider the following statements:

1. Almost the whole of South Africa is a high plateau sloping towards the west.
2. The Orange and Vaal Rivers flow from the Drakensberg mountains eastward to the Indian Ocean.

Which of the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both
- D. None

75. What are the significances of a practical approach to sugarcane production known as 'Sustainable Sugarcane Initiative'?

1. Seed cost is very low in this compared to the conventional method of cultivation.
2. Drip irrigation can be practised very effectively in this.

3. There is no application of chemical/inorganic fertilizers at all in this.

4. The scope for intercropping is more in this compared to the conventional method of cultivation.

Select the correct answer using the code given below.

- A. 1 and 3 only
- B. 1, 2 and 4 only
- C. 2, 3 and 4 only
- D. 1, 2, 3 and 4

76. Consider the following pairs:

Amendment Act	Provisions
1. 1st Amendment Act	Ninth Schedule
2. 25th Amendment Act	Abolished the Privy purses
3. 42nd Amendment Act	Fundamental Duties added
4. 62nd Amendment Act	Voting age was decreased from 21 to 18

Which of the above pairs is/are correctly matched?

- A. 1, 2 and 3 only
- B. 2 and 4 only
- C. 1 and 3 only
- D. 2, 3 and 4 only

77. With reference to Prepaid Payment Instruments (PPIs), which of the following statements is/are correct?

1. Interest is paid on PPI balances.
2. Semi-closed PPIs permit cash withdrawal.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

78. Which of the following statements is/are correct about the Adjournment Motion?

1. Rajya Sabha is not permitted to make use of this device.
2. It should not discuss a matter that has already been discussed in the same session.
3. It requires one-tenth of the total number of members of the house to support the motion.

Options:

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. None

79. 'Fit for 55' recently seen in news is a/an

- A. Program by Food Safety and Standards Authority of India (FSSAI) to engage and enable citizens to improve their health and well-being by making the right food choices
- B. European Commission proposal for reducing greenhouse gas emissions
- C. Plan developed by developed countries to discourage multinational companies from shifting profits – and tax revenues – to low-tax countries
- D. Supply chain pact initiated by India-Japan-Australia to counter China

80. The annual range of temperature in the interior of the continents is high as compared to coastal areas. What is/are the reason/reasons? PYQ (2013)

- 1. Thermal difference between land and water
- 2. Variation in altitude between continents and oceans
- 3. Presence of strong winds in the interior
- 4. Heavy rains in the interior as compared to coasts

Select the correct answer using the codes given below.

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2, 3 and 4

81. With reference to Dowry, which of the following statements is/are correct?

- 1. The Dowry Prohibition Act applies to persons of all religions in India.
- 2. The Dowry Prohibition Act prohibits both the giving and receiving of a dowry.

Options:

- A. 1 only
- B. 2 only

- C. Both
- D. None

82. Which of the following authorities/institutions fall under the definition of 'Public Authority' in the Right to Information act?

- 1. Office of Attorney General
- 2. Securities and Exchange Board of India
- 3. Non-Government Organisations (NGOs)
- 4. Office of the Chief Justice of India (CJI)

Options:

- A. 1, 2 and 3 only
- B. 2 and 4 only
- C. 1 and 4 only
- D. 1, 2, 3 and 4

83. Consider the following statements:

- 1. Only elected members of the State Legislative Assemblies can vote in a Rajya Sabha election.
- 2. Vacancies that arise due to resignation, death or disqualification are filled up through by-polls after which those elected serve out the remainder of their predecessor's term.
- 3. The Rajya Sabha polls have a system of open ballot.

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

84. Which of the following statements is/are correct about Bio-Toilets?

- 1. Bio toilets use anaerobic bacteria for converting human waste to gas.
- 2. Bacteria can decompose plastic and cloth materials dumped into toilets.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

85. Both Foreign Direct Investment (FDI) and Foreign Institutional Investor (FII) are related to investment in a country. Which one of the following statements best represents an important difference between the two? (PYQ-2011)

- A. FII helps bring better management skills and technology, while FDI only brings in capital
- B. FII helps in increasing capital availability in general, while FDI only targets specific sectors
- C. FDI flows only into the secondary market while FII targets primary market
- D. FII is considered to be more stable than FDI

86. Which of the given statement/s with respect to pressure swing adsorption (PSA) is/are incorrect?

- 1. It is a process that separates single gases from a gas mixture through a cryogenic air separation process.
- 2. It takes place at very low temperatures.
- 3. It is mostly used in the chemical industry and the petrochemical industry.

Options:

- A. 1 and 3 only
- B. 3 only
- C. 1 and 2 only
- D. None of the above

87. Which of the given statements with respect to Universal Service Obligation Fund (USOF) is/are correct?

- 1. The fund comes from the Universal Service Levy (USL) charged from all the telecom operators on their Adjusted Gross Revenue (AGR).
- 2. The fund is deposited in the Consolidated Fund of India.
- 3. USOF is funding the Bharatmala and Sagarmala projects.

Options:

- A. 3 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 2 only

88. Which of the following dam/s is/are built/being built in Afghanistan in partnership with India?

- 1. Salma Dam
- 2. Sokhtuk Dam

- 3. Shahtoot Dam
- 4. Band-e Sardeh Dam

Options:

- A. 1 only
- B. 1 and 3 only
- C. 2 and 4 only
- D. 1 and 2 only

89. Consider the following statements:

- 1. The cores of Mercury, Venus and Earth are about one-third of their mass.
- 2. Both Mercury and Venus do not have moon or rings.
- 3. Mercury is the hottest planet in the solar system due to its proximity to the Sun.

Which of the given statement/s is/are correct?

- A. 2 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

90. Which one of the following is not the most likely measure the Government/RBI takes to stop the slide of Indian rupee? (UPSC 2019)

- A. Curbing imports of non-essential goods and promoting exports
- B. Encouraging Indian borrowers to issue rupee denominated Masala bonds
- C. Easing conditions relating to external commercial borrowing
- D. Following an expansionary monetary policy

91. Consider the following statements with respect to Lokpal:

- 1. The administrative expenses of the Lokpal shall be charged upon the Consolidated Fund of India.
- 2. The salary, allowances of the Chairperson shall be the same as those of the Chief Justice of India.
- 3. There is a limitation period of 7 years to file complaints.
- 4. It can initiate a probe suo motu into any corruption case against any Public Servant.
- 5. Anonymous complaints can be accepted.

Which of the above statements is/are correct?

- A. 1 and 2 only
- B. 1, 2 and 3 only

C. 2, 3, 4 and 5 only

D. 1, 2, 3, 4 and 5

92. With reference to Tipu Sultan, which of the following statements is/are correct?

1. He took the help of the French to set up an arms factory at Dindigul.

2. The Third Anglo-Mysore War fought by Tipu ended with the Treaty of Madras.

Options:

A. 1 only

B. 2 only

C. Both

D. None

93. Which of the following statements is/are correct?

1. Great Barrier Reef is the world's largest coral reef system located in the Gulf of Carpentaria.

2. Australia is the world's largest coral reef nation.

Options:

A. 1 only

B. 2 only

C. Both

D. None

94. Which one of the following statements best describes Moon Wobble?

A. It is an intense geological activity on the largest moon in the solar system

B. When there are two full moons within a month, the second full moon is called a Moon Wobble

C. It is a cyclical shift in the moon's orbit that happens every 18.6 years

D. None of the above

95. The mind of the makers of the Constitution of India is reflected in which of the following? (UPSC 2017)

A. The Preamble

B. The Fundamental Rights

C. The Directive Principles of State Policy

D. The Fundamental Duties

96. A Living Root Bridge, a type of simple suspension bridge built by manipulating the roots of the trees, is usually seen in the state of

A. Himachal Pradesh

B. Kerala

C. Meghalaya

D. Odisha

97. Which of the following are the primary sources of vegetable oils in India?

1. Cottonseed

2. Groundnut

3. Rice Bran

4. Soybean

5. Sunflower

Options:

A. 1, 2 and 3 only

B. 2, 4 and 5 only

C. 1, 2, 3 and 4 only

D. 2, 3, 4 and 5 only

98. Consider the following statements:

1. Switzerland and Austria have a warmer climate due to the Föhn, as moist winds off the Mediterranean Sea blow over the Alps.

2. Föhn is responsible for rapid temperature rise, melting snowfall and the avalanche risk.

Which of the above statements is/are correct?

A. 1 only

B. 2 only

C. Both

D. None

99. Twin Deficit is a condition where a nation has both

A. Current Account Deficit and Fiscal Deficit

B. Current Account Deficit and Revenue Deficit

C. Primary Deficit and Revenue Deficit

D. Fiscal Deficit and Hyperinflation

100. With reference to a grouping of countries known as BRICS, consider the following statements: (UPSC 2014)

1. The First Summit of BRICS was held in Rio de Janeiro in 2009.
2. South Africa was the last to join the BRICS grouping.

Which of the statements given above is/are correct?

- Options:
- A. 1 only
 - B. 2 only
 - C. Both 1 and 2
 - D. Neither 1 nor 2

101. Which of the given statements with respect to Asian Development Bank (ADB) is/are correct?

1. Asian Development Outlook is an annual publication of ADB.
2. Under its voting system, each member nation has a single vote irrespective of its capital subscriptions.
3. The bank admits the members of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and non-regional developed countries.

Options:

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

102. e-SANTA is an electronic marketplace providing a platform:

- A. Connecting the farmers, traders and buyers of GI tagged agricultural produce across the country.
- B. Connecting aqua farmers and buyers across the country.
- C. Facilitating grading, packing, providing logistic support to organic farmers to sell their agriculture produce directly to end customers.
- D. Connecting all the existing Agricultural Produce Market Committee (APMC) mandis to create a unified national market for agricultural commodities.

103. Which of the given statements is/are incorrect?

1. Varkari is a religious movement within the Bhakti tradition geographically associated with the Mathura region.

2. Gnanadeva, Namadeva and Tukaram of the Varkari tradition were contemporaries.

Options:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

104. Johads and Khadins refer to:

- A. Rainfed storage structures built in Rajasthan.
- B. Inundation channels developed by people in the flood plains of Bengal to irrigate their fields.
- C. Traditional floodwater harvesting systems indigenous to South Bihar.
- D. Community-managed irrigation systems unique to Maharashtra.

105. With reference to an initiative called 'The Economics of Ecosystems and Biodiversity (TEEB)', which of the following statements is/are correct? (UPSC 2016)

1. It is an initiative hosted by UNEP, IMF and World Economic Forum.
2. It is a global initiative that focuses on drawing attention to the economic benefits of biodiversity.
3. It presents an approach that can help decision-makers recognize, demonstrate and capture the value of ecosystems and biodiversity.

Select the correct answer using the code given below.

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

106. Which of the given statements best describes the "Kafala System"?

- A. A system for monitoring the migrant labourers followed in Gulf Cooperation Council (GCC) countries.
- B. An informal and illegal method of transferring money without any physical money actually moving.
- C. The common systematic law on the administrative procedure adopted by governments of Kyrgyzstan, Turkmenistan and Uzbekistan.
- D. Sharia-compliant interest-free banking system.

107. Which of the given statements with respect to Nehru-Liaquat Pact is/are correct?

1. It was a bilateral agreement signed between India and Pakistan in 1950.
2. Its aim was to resolve the issue of protection of the minorities.
3. It did not recognise forced conversions in the respective countries.
4. It is also known as the Lahore Declaration.

Options:

- A. 1 and 2 only
- B. 1, 2 and 4 only
- C. 2 and 4 only
- D. 1, 2 and 3 only

108. The unique alder-based Jhum cultivation is practised in which of these states?

- A. Meghalaya
- B. Nagaland
- C. Manipur
- D. Arunachal Pradesh

109. Which of the given pairs is/are correctly matched?

Missile	Type
1. Akash	Surface to surface
2. Barak-8	Surface to Air
3. ASTRA	Air to Air

Options:

- A. 1 only
- B. 2 and 3 only
- C. 1, 2 and 3
- D. 3 only

110. Mycorrhizal biotechnology has been used in rehabilitating degraded sites because mycorrhiza enables the plants to (UPSC 2013)

1. resist drought and increase absorptive area
2. tolerate extremes of PH
3. Resist disease infestation

Select the correct answer using the codes given below:

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

111. PRAGYATA guidelines issued by the government of India refer to a set of guidelines issued for:

- A. Protection of women at workplace.
- B. Provision of shelter, rehabilitation and care to children orphaned due to COVID-19.
- C. Promotion of traditional indigenous practices in agriculture.
- D. Planning and implementation of Digital Education.

112. Which of the given statements is/are INCORRECT?

1. The 97th Constitutional amendment act dealt with the issues related to the effective management of co-operative societies in the country.
2. The Parliament alone can enact laws with regard to cooperative societies including multi-State co-operative societies.
3. The subject "co-operative societies" falls in the concurrent list.

Options:

- A. 1 and 3 only
- B. 2 and 3 only
- C. 2 only
- D. None of the above

113. Which of the given statements is/are correct?

1. As money supply in the economy falls the interest rate also has the tendency to fall.
2. An expansionary monetary policy is implemented by lowering key interest rates.
3. The policy interest rate required to achieve the inflation target is decided by the Reserve Bank of India.

Options:

- A. 2 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

114. The Democracy Index is published by

- A. World Bank
- B. Reporters Without Borders
- C. Economist Intelligence Unit (EIU)
- D. Varieties of Democracy (V-Dem) Institute

115. Consider the following pairs of Terms sometimes seen in news vs Context/Topic: (UPSC 2018)

1. Belle II experiment: Artificial Intelligence
2. Blockchain technology: Digital/Cryptocurrency
3. CRISPR — Cas9: Particle Physics

Which of the pairs given above is/are correctly matched?

- A. 1 and 3 only
- B. 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

116. Consider the following statements:

1. Privilege motion can be moved only against the ministers.
2. The Speaker/RS chairperson can decide on the privilege motion himself or herself or refer it to the privileges committee of Parliament.

Which of the above statements is/are incorrect?

- A. 1 only
- B. 2 only
- C. Both
- D. None

117. Consider the following pairs:

Storm Centres	Leaders of the 1857 Revolt
----------------------	-----------------------------------

- | | |
|-------------|--------------------|
| 1. Kanpur | Nana Sahib |
| 2. Jhansi | Rani Laxmibai |
| 3. Lucknow | Begum Hazrat Mahal |
| 4. Faizabad | Maulvi Ahmadullah |
| 5. Bihar | Jaidayal Singh |

Which of the above pairs is/are correctly matched?

- A. 1 and 2 only
- B. 2, 3 and 4 only
- C. 1, 2, 3 and 4 only
- D. 1, 2, 3, 4 and 5

118. With reference to Madhubani Paintings, which of the following statements is/are correct?

1. It has its origins in the Maithili village of Bihar.
2. Madhubani paintings bear the Geographical Indication (GI) tag.

Options:

- A. 1 only
- B. 2 only

- C. Both
- D. None

119. Which of the following statements is/are correct?

1. Biosimilars have a simple structure, while chemical drugs have a complex structure relatively.
2. Biosimilars are sensitive to storage and handling, while chemical drugs are stable.

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

120. Consider the following in respect of 'National Career Service': [UPSC 2017]

1. National Career Service is an initiative of the Department of Personnel and Training, Government of India.
2. National Career Service has been launched in a Mission Mode to improve the employment opportunities to uneducated youth of the country.

Which of the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

121. The term "core accretion" seen in News relates to:

- A. Mechanism relating to the formation of a planet
- B. Tectonic earthquake
- C. Inflation trends in the economy
- D. Formation of tropical cyclones

122. In which of these sites can the sculpture of the Reclining Buddha be found?

1. Ajanta caves
2. Sittanavasal caves
3. Kushinagar
4. Mahabodhi Temple

Choose the correct option:

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 3 and 4 only

123. Which of these countries border Peru?

1. Brazil
2. Ecuador
3. Chile
4. Bolivia
5. Colombia

Options:

- A. 1, 2 and 5 only
- B. 1, 2, 4 and 5 only
- C. 3, 4 and 5 only
- D. 1, 2, 3, 4 and 5

124. Consider the following statements with respect to Maguri-Motapung wetland:

1. It is a wetland of international importance under the Ramsar Convention.
2. It is located close to the Keibul Lamjao National Park.

Which of the given statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

125. With reference to the cultural history of India, the term 'Panchayatan' refers to

- A. an assembly of village elders
- B. a religious sect
- C. a style of temple construction
- D. an administrative functionary

126. Which of the following bills can be introduced in the Parliament only with the prior recommendation of the President?

1. Bills that seek to alter the boundaries of any state under Article 3
2. Money Bill under Article 117
3. State bills that impose restrictions on the freedom of trade under Article 304
4. Bills affecting taxation in which states are interested under 274

Options:

- A. 1, 2 and 3 only
- B. 2, 3 and 4 only
- C. 1, 3 and 4 only
- D. 1, 2, 3 and 4

127. Consider the following statements with respect to the Ramappa Temple:

1. It was constructed during the reign of the Kakatiyas, by Ramappa, the general of King Ganapathi Deva.
2. Ibn Battutah had remarked that the temple was the "brightest star in the galaxy of medieval temples of the Deccan."

Which of the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both
- D. None

128. Which of the following statements best describes NASA's Artemis?

- A. It is a supersonic parachute that will help NASA missions to land on Mars
- B. It is NASA's program to return astronauts to the lunar surface.
- C. It is a telescope specially designed to detect X-ray emissions from very hot regions of the Universe
- D. It is a mission that will image regions beyond the Sun's outer corona

129. With reference to the Quit India Movement, which of the following statements is/are correct?

1. Lord Linlithgow was the viceroy of India during Quit India Movement.
2. The communists did not join the movement.
3. 'Jatiya Sarkar' was formed in Satara during Quit India Movement.

Options:

- A. 1 and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 3 only

130. The acidification of oceans is increasing. Why is this phenomenon a cause of concern?

1. The growth and survival of calcareous phytoplankton will be adversely affected.
2. The growth and survival of coral reefs will be adversely affected.
3. The survival of some animals that have phytoplanktonic larvae will be adversely affected.
4. The cloud seeding and formation of clouds will be adversely affected.

Which of the statements given above is /are correct? [UPSC 2012]

- A. 1, 2 and 3 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2, 3 and 4

131. With reference to Bhagat Singh, which of the following statements is/are correct?

- 1. He was against the non-cooperation movement from the very beginning
- 2. He established the Hindustan Socialist Republican Association (HSRA) along with Sukhdev and Chandrashekhar Azad

Options:

- A. 1 only
- B. 2 only
- C. Both
- D. None

132. Which one among the following has recently received the Indian Green Building Council (IGBC) Green Cities Platinum Rating?

- A. Kandla Special Economic Zone (SEZ)
- B. Cochin Special Economic Zone (SEZ)
- C. Indore Special Economic Zone (SEZ)
- D. Noida Special Economic Zone (SEZ)

133. Consider the following Statements:

- 1. Thane Creek Flamingo Sanctuary is designated as a 'Ramsar site'.
- 2. Wetlands include lakes and rivers, underground aquifers, swamps and marshes, rice paddies, and salt pans.

Which of the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both
- D. None

134. Which of the following countries border the Mediterranean Sea?

- 1. Lebanon
- 2. Syria
- 3. Jordan
- 4. Montenegro
- 5. Iraq

Options:

- A. 1, 2 and 3 only
- B. 2, 3 and 4 only
- C. 1, 2 and 4 only
- D. 1, 2, 3 and 5 only

135. Consider the following statements: (UPSC 2013)

- 1. An amendment to the Constitution of India can be initiated by an introduction of a bill in the Lok Sabha only.
- 2. If such an amendment seeks to make changes in the federal character of the Constitution, the amendment also requires to be ratified by the legislature of all the States of India.

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

136. Consider the following statements with respect to the Commissions of Inquiry Act, 1952:

- 1. A commission set up under the Act shall have the powers of a civil court while trying a suit under the Code of Civil Procedure.
- 2. Inquiry commissions set up by the central government can make an inquiry into the matters relating to any of the entries in Union List or Concurrent List only.
- 3. If a state has appointed an Inquiry Commission, then the Centre cannot set up a parallel commission on the same subject matter.

Which of the given statements is/are correct?

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

137. Consider the following statements with respect to Dholavira:

- 1. It is in the Khadir Island in the Rann of Kutch and is located on the Tropic of Cancer.
- 2. Beads, terracotta, gold, ivory have been excavated from the site.
- 3. The city demonstrates a sophisticated water management system.
- 4. The first actual remains of horses were found in this region.

Which of the above is/are correct statements?

- A. 1 only
- B. 2 and 3 only
- C. 1, 3 and 4 only
- D. 1, 2 and 3 only

138. Which among the following is a U.S. Naval Forces Africa (NAVAF) led, all-domain exercise in East African coastal regions and the West Indian Ocean?

- A. RIMPAC
- B. Exercise Cutlass Express
- C. Exercise Sea Breeze
- D. Exercise Cobra Gold

139. "Nauka" recently seen in news is:

- A. A space laboratory launched by Russia to be integrated with the International Space Station.
- B. An orbiting infrared observatory that will complement and extend the discoveries of the Hubble Space Telescope.
- C. A module on the International Space Station used as a docking port for spacecraft and as a door for cosmonauts to go out on spacewalks, launched by JAXA.
- D. India's mission to explore the deep ocean with a focus on deep-sea mining and underwater robotics-related technologies.

140. There has been a persistent deficit budget year after year. Which action/actions of the following can be taken by the Government to reduce the deficit? (UPSC 2016)

- 1. Reducing revenue expenditure
- 2. Introducing new welfare schemes
- 3. Rationalizing subsidies
- 4. Reducing import duty

Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2, 3 and 4

141. Consider the following statements about Raja Mircha:

- 1. It is a variety of chilli from Andhra Pradesh considered as the world's hottest chilli.
- 2. It got GI certification in 2008.

Which of the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both
- D. None

142. Which of the following is/are the String Puppets?

- 1. Kathputli
- 2. Tholu Bommalata
- 3. Tolpavakoothu
- 4. Putala Nach

Options

- A. 1, 2 and 3 only
- B. 2 and 3 only
- C. 2, 3 and 4 only
- D. 1 and 4 only

143. 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

144. Which of the following has/have been accorded the Geographical Indication (GI) tag?

- 1. Kancheepuram Silk
- 2. Arani Silk
- 3. Baluchari Saree
- 4. Patan Patola
- 5. Venkatagiri Sarees

Options:

- A. 1, 2, 3 and 4 only
- B. 2, 3 and 4 only
- C. 3, 4 and 5 only
- D. 1, 2, 3, 4 and 5

145. In India, if a religious sect/community is given the status of a national minority, what special advantages it is entitled to? (2011)

1. It can establish and administer exclusive educational institutions.
2. The President of India automatically nominates a representative of the community to Lok Sabha.
3. It can derive benefits from the Prime Minister's 15-Point Programme.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 and 3
- C. 1 and 3
- D. 1, 2 and 3

146. Consider the following statements:

1. It was designated a Ramsar Wetland of International Importance in 2002.
2. Its fauna includes Indian python, king cobra, black ibis, darters.
3. It has one of the largest populations of saltwater crocodile.

The Ramsar Site being talked about is:

- A. Chilka lake
- B. Bhitarkanika Wetland
- C. Bhoj Wetland
- D. Harike Wetland

147. Which of the following can lead to 'crowding out' effect?

1. Overseas issue of sovereign bonds
2. Government increasing direct public sector expenditure
3. Government funding infrastructure development projects
4. Government selling new bonds in the money market

Options:

- A. 1, 3 and 4 only
- B. 1 and 2 only
- C. 2, 3 and 4 only
- D. 3 and 4 only

148. Arrange the following Tiger Reserves from South to North:

1. Parambikulam
2. Dudhwa
3. Panna

4. Pench
5. Bandipur

Options:

- A. 1, 5, 4, 3, 2
- B. 5, 1, 4, 3, 2
- C. 1, 5, 3, 4, 2
- D. 5, 4, 3, 2, 1

149. Which of the given statements with respect to Samagra Shiksha Abhiyan is/are correct?

1. It is a programme for the school education sector extending from pre-school to class 10.
2. It has subsumed Sarva Shiksha Abhiyan, Rashtriya Madhyamik Shiksha Abhiyan and Rashtriya Uchchatar Shiksha Abhiyan.

Options:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

150. What is the purpose of 'evolved Laser Interferometer Space Antenna (eLISA)' project? (UPSC 2017)

- A. To detect neutrinos
- B. To detect gravitational waves
- C. To detect the effectiveness of missile defence system
- D. To study the effect of solar flares on our communication systems

151. Consider the following statements with respect to KUSUM Scheme:

1. The Ministry of Power launched the scheme with the aim of providing additional income to farmers.
2. The farmers will be provided assistance to install standalone solar pumps or solarise agricultural feeders.
3. The farmers have the option of selling additional power through solar power projects set up on their barren lands, to the grid.

Which of the given statements is/are correct?

- A. 3 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

152. Which of the given statements with respect to tropospheric Ozone is/are correct?

1. It is a highly reactive oxidant that significantly reduces crop productivity, drastically increases plants' ability to sequester carbon and aggravates lung diseases.
2. It is the main ingredient of urban smog.
3. Most of the ultraviolet radiations from the Sun is absorbed by the tropospheric ozone.

Options:

- A. 2 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3 only

153. Which of these countries share border with the Baltic Sea and lie on its eastern coast?

1. Lithuania
2. Belarus
3. Sweden
4. Estonia
5. Latvia

Options:

- A. 1, 2 and 3 only
- B. 2, 4 and 5 only
- C. 1, 3, 4 and 5 only
- D. 1, 4 and 5 only

154. Consider the following statements:

1. Zoonotic infections can be bacterial, viral, or parasitic.
2. Scrub Typhus, Brucellosis, Anthrax are all zoonotic diseases.

Which of the given statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

155. In the Constitution of India, promotion of international peace and security is included in the:

- A. Preamble to the Constitution
- B. Directive Principles of State Policy (DPSP)
- C. Fundamental Duties
- D. Ninth Schedule

ANSWER KEYS

1	B
2	B
3	D
4	C
5	B
6	B
7	B
8	C
9	A
10	B
11	C
12	D
13	C
14	C
15	C
16	A
17	D
18	D
19	A
20	B

21	D
22	A
23	B
24	A
25	C
26	A
27	A
28	D
29	B
30	B
31	C
32	B
33	B
34	A
35	C
36	A
37	D
38	B
39	B
40	B

41	C
42	A
43	C
44	B
45	B
46	B
47	D
48	C
49	A
50	B
51	C
52	C
53	C
54	C
55	A
56	A
57	B
58	C
59	D
60	C

61	C
62	B
63	B
64	C
65	A
66	A
67	C
68	C
69	C
70	D
71	A
72	C
73	D
74	A
75	B
76	C
77	D
78	B
79	B
80	A

81	C
82	B
83	D
84	A
85	B
86	C
87	B
88	B
89	A
90	D
91	B
92	D
93	D
94	C
95	A
96	C
97	B
98	C
99	A
100	B

101	C
102	B
103	C
104	A
105	C
106	A
107	D
108	B
109	B
110	D
111	D
112	B
113	A
114	C
115	B
116	A
117	C
118	C
119	B
120	D

121	A
122	C
123	D
124	D
125	C
126	C
127	D
128	B
129	A
130	A
131	B
132	A
133	B
134	C
135	D
136	A
137	D
138	B
139	A
140	C

141	B
142	D
143	C
144	D
145	C
146	B
147	C
148	A
149	D
150	B
151	C
152	A
153	D
154	C
155	B

MAINS PRACTICE QUESTIONS

GS Paper 1

Indian society and social Issues

1. Socio-economic empowerment is more effective than coercion in cutting fertility rates. In the light of this statement, evaluate the population control policies announced at the state level. (15 marks, 250 words)
2. Despite laws criminalising human trafficking, child labour and sexual exploitation continue unabated. Discuss the possible reasons and suggest remedial measures. (15 marks, 250 Words)
3. The draft Trafficking in Persons (Prevention, Care and Rehabilitation) Bill, 2021 intends to stamp out exploitative trafficking. Critically discuss. (15 marks, 250 words)

GS Paper 2

Polity

1. The continued usage of Section 66A of the Information Technology (IT) Act, even after it was struck down as unconstitutional, is distressing. Examine. (15 marks, 250 words)
2. Evaluate the feasibility of setting up the All-India Judicial Service. (15 marks, 250 words)
3. Ironically, rather than deepen federalism, the contingencies of electoral politics have created significant impediments to creating a political consensus for genuine federalism. Examine the statement. (15 marks, 250 words)
4. In the light of recent events giving rise to concerns over the susceptibility of the Election Commission of India to executive's pressures, examine the possible aspects of concern and suggest suitable remedial measures. (10 marks, 150 words)
5. Discuss the key contestations of Karnataka and Tamil Nadu over Mokedatu Project and highlight the ruling of Supreme Court on the Cauvery dispute. (10 Marks, 150 Words)
6. Examine the grounds for a law that provides for anti-discrimination and equality as a civil right. (15 marks, 250 words)
7. What is delimitation? What challenges are to be anticipated in the ongoing delimitation exercise for Jammu & Kashmir? (15 marks, 250 words)
8. Has Unlawful Activities (Prevention) Act (UAPA) tilted the balance in favour of the State violating the fundamental freedoms of citizens? Critically Examine. (15 Marks, 250 Words)
9. The legislative assembly does not only perform the function of legislating. There are many other aspects of governance which can form part of its essential functions, such as "inquisitorial" and "recommendatory" powers, which can be used for better governance. Comment. (15 marks, 250 words)
10. Examine the impact of the upcoming delimitation of Lok Sabha constituencies in 2026 on constitutional federalism. (15 marks, 250 words)
11. Examine the 'doctrine of chilling effect' on free speech in the Indian context. (15 marks, 250 words)
12. In case of a conflict between 'Right to Religion' and 'Right to Life', what should prevail? Examine. (15 marks, 250 words)
13. Critically evaluate the decision of the Supreme Court to strike down the 97th constitutional amendment. (15 marks, 250 words)
14. Under the GST regime, discuss measures to strengthen fiscal federalism. (15 marks, 250 words)
15. Andhra Pradesh and Telangana must focus on water and energy efficiency rather than on new projects. Analyse in the context of the recent inter-state water dispute that has emerged between the two states. (15 marks, 250 words)

16. Reforms in the cooperative sector should not be at the cost of federal principles. Explain the statement in reference to the recent Supreme Court judgment on cooperative Societies. (10 Marks, 150 Words)

International Relations

1. Examine the role of the Communist Party of China in the rise of China towards global dominance. (15 marks, 250 words)
2. Examine the emerging inequities and discrimination in vaccine passports. (15 marks, 250 words)
3. What do you understand by Green Passport? Is this initiative discriminatory? Critically Examine. (10 Marks, 150 Words)
4. The American withdrawal from Afghanistan has turned the balance of power in the battle ground in favour of the Taliban. Substantiate. (10 Marks, 150 Words)
5. With the Taliban making rapid advances in Afghanistan, what does the future hold for the country and the region? Examine. (15 marks, 250 words)
6. Strategic cooperation between India, Italy and Japan can ensure a free Indo-Pacific. Analyse. (15 marks, 250 words)
7. Examine the 'realist pragmatism' and 'liberal idealism' schools of thought in international relations. Consequently, trace how the switch in US foreign policy from the former to the latter has led to its power decline in global geopolitics. (15 marks, 250 words)
8. BREXIT continues to divide Europe, even five years after the referendum. Analyse. (15 marks, 250 words)
9. The recent internal developments in Nepal have opened a new chapter in the country's quest for political stability. What lessons does it offer for Indian diplomacy towards Nepal? Examine. (15 marks, 250 words)
10. India's engagement with the Taliban may or may not achieve much, but non-engagement will definitely hurt Indian interests. Substantiate. (10 Marks, 150 Words)
11. Critically analyse the Emigration Bill 2021. Will it be sufficient to protect Indian workers abroad? (15 marks, 250 words)
12. Looking at the Himalayas only through the prism of geopolitics and security concerns ignores its other crucial frameworks. Discuss. (15 marks, 250 words)

Governance

1. The pandemic has come as a remarkable opportunity to review the paradigm of smart cities. Examine. (15 marks, 250 words)
2. India has entered a demographic sweet spot. So it is time for our population stabilization strategy to be adjusted keeping in mind the rights of women and girls. Discuss. (15 marks, 250 words)
3. An increasing number of accused are absconding to avoid being convicted. Analyze the lacuna in the system which is letting the accused escape the clutches of law. Also suggest suitable recommendations in this regard. (10 marks, 150 words)
4. Growing instances of judicial interference in an investigation are not only undesirable but also not sanctioned by law. Critically evaluate. (15 marks, 250 words)
5. Write a note on Constitutional Provisions that protect and safeguard the rights of civil servants in Government service. (10 Marks, 150 Words)
6. Examine the constitutional and legal safeguards in India with regard to state-led surveillance. Do they suffice? (15 marks, 250 words)
7. Illustrate the steps to be taken to make India a sporting nation. (15 marks, 250 words)
8. Examine the need for legislative accountability and parliamentary oversight over Indian intelligence agencies. (15 marks, 250 words)
9. Surveillance laws in India are a threat to Privacy. Critically Examine. (15 Marks, 250 Words)

Health

1. There is a need for a paradigm shift in mental health care. Comment. (15 marks, 250 words)
2. Should states in India adopt a compulsory vaccination policy for the greater good? Critically examine. (10 marks, 150 Words)
3. India urgently needs a renewed healthcare system. Discuss. (15 marks, 250 words)

Education

1. Welfare of teachers is largely neglected in India and the pandemic has worsened their conditions. In this context, examine the working conditions faced by teachers along with suggestions to improve their status. (15 marks, 250 words)

GS Paper 3

Economy

1. Evaluate India's 1991 liberalisation reforms and the lessons it offers for today. (15 marks, 250 words)
2. The Insolvency and Bankruptcy Code (IBC), notified in 2016, has been the key mechanism for addressing corporate distress and the accumulation of bad loans in the financial sector since its implementation. Discuss its effectiveness and the way forward. (15 marks, 250 words)
3. As a recent ruling by Rajasthan's power regulator implies, enabling energy access must go beyond powering rural homes. Elucidate. (15 marks, 250 words)
4. Is democracy an impediment to growth? Critically analyse. (15 marks, 250 words)
5. Examine the factors that contribute to inflation and what measures could be taken to ease the burden of retail inflation? (15 marks, 250 words)
6. India needs to move forward on introducing an official digital currency. Critically evaluate. (15 marks, 250 words)
7. Examine the recent changes proposed to the Deposit Insurance and Credit Guarantee Corporation Act. (15 marks, 250 words)

Environment and Ecology

1. Microplastics pollution in the Ganga River may accumulate up the food chain, potentially impacting whole ecosystems. Discuss. (10 Marks, 150 Words)
2. India must take its laws on waste management seriously to stop microplastics pollution. Discuss by highlighting the extent of microplastic pollution in the Ganga river. (15 marks, 250 words)
3. In a recent ruling, the Supreme Court of India has sought to move away from an anthropocentric basis of law. It upheld the biocentric principles of coexistence which has come as a shot in the arm for nature conservation. Examine. (15 marks, 250 words)

Science and Technology

1. Despite space tourism assuring technological innovation and growth of space sector, the environmental consequences far outweigh the benefits. Do you agree? Justify. (15 Marks, 250 Words)

Defence and Internal Security

1. The mandate given to the Chief of Defence Staff to bring in jointness by setting up 'Theatre Commands' has run into problems. Examine. (15 marks, 250 words)
2. Discuss the constitutionality of Salwa Judum. (15 marks, 250 words)
3. Explain the background to the Assam-Mizoram border dispute in detail. (15 marks, 250 words)

Disaster management

1. Indian cities are not able to withstand extreme rainfall resulting in loss of lives and disruption in economic activities. Discuss the possible causes and suggest an innovative plan to overcome the negative consequences. (10 Marks, 150 Words)
2. Illustrate the disaster risk being posed by increasing extreme weather events. What measures do you suggest to mitigate the impact? (15 marks, 250 words)
3. The recent floods in Europe call attention to the global need for countries to implement nature-friendly policies and ecologically sensitive flood protection measures. Discuss. (15 marks, 250 words)

INTERVIEW TRANSCRIPT

Candidate Details:

- Name: Varsha Meena
- AIR: 580 (CSE 2017)
- Optional Subject: Geography

Personal Details:

- Hometown: Dholpur, Rajasthan
- Education: B.Tech in Electric engineering, IIT Roorkee
- Work Experience: No work experience
- Hobbies: Playing volleyball, origami, clay art
- Extra-curricular activities achievement: Gold medallist in Inter-IIT sports meet, Captain of IIT Roorkee girls Volleyball team

Interview Details:

- Chairman of the Interview board: Manoj Soni
- Duration: 35 minutes

Questions asked by the interview board:

Based on DAF:

- Questions on place of birth- Dholpur
- Why do you think an IAS officer is more important than an electrical engineer?
- Why do you think you are suitable for IAS?

Agriculture:

- How far was green revolution successful?
- What were key elements of green revolution?
- What are the problems which our agriculture sector is facing?
- What is greenhouse?
- Has share of agriculture in GDP increased or decreased?

Science and technology:

- What are your views on artificial intelligence?
- Give an example where complete automation has happened in India?

Economy:

- Evolution of telecommunication sector in India and questions based on contemporary developments in the sector
- What are the issues in power sector in India?
- What are the issues with manufacturing sector in India?
- What are smart cities?
- How smart villages are important for success of smart cities?
- What are a few things that India should learn from China?
- Poverty, poor education and corruption are three main problems India is facing, so what will be your priority while tackling these issues?

Security:

- How far has Indian government been successful in curbing insurgency in India?
- Questions on Punjab insurgency