

Justice Bobde panel gives clean chit to CJI in sexual harassment probe

A case for Judicial Self-examination



UPSC MONTHLY CURRENT AFFAIRS

Image source : Indian Legal

Potato IPR
violation

Intellectual Property
vs
Farmer Rights

Basel
Convention

Control of Transboundary
Movements of
Hazardous Wastes

IBSA

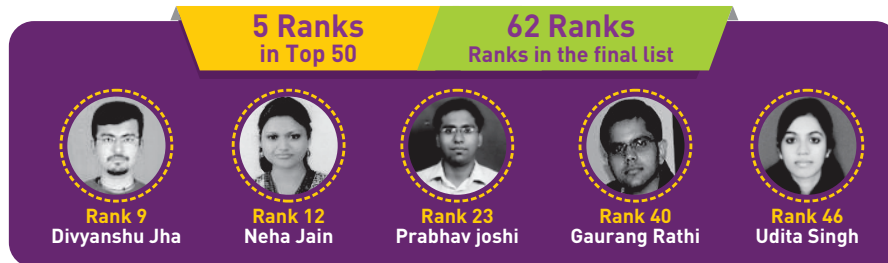
South-South
co-operation

Should Big Tech's
dominance
be checked?

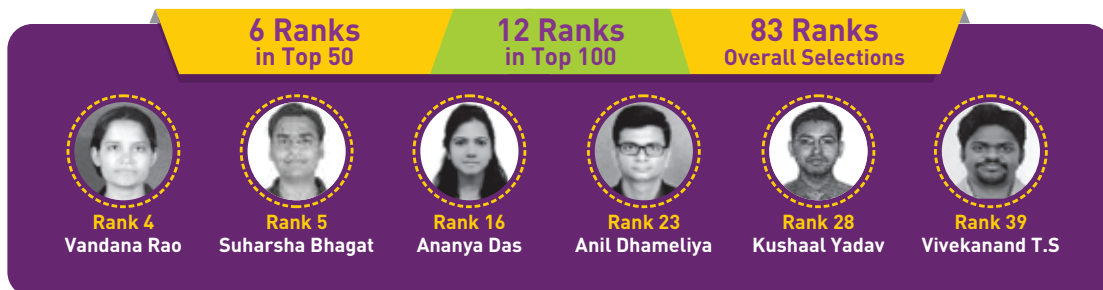
MNC's control
over data- Ways,
Means and Dominance

RESULTS

Incredible results in IAS 2013



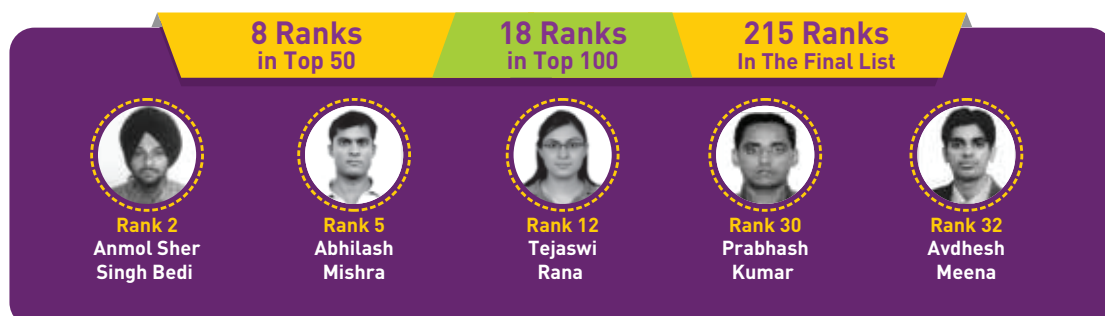
We broke our past record in IAS 2014



We did it again in IAS 2015



And we've done it yet again in IAS 2016



And we've done it yet again in IAS 2017

**5 Ranks
in Top 10**

**34 Ranks
in Top 100**

**236 Ranks
In The Final List**



Rank 3
Sachin
Gupta



Rank 6
Koya sree
Harsha



Rank 8
Anubhav
Singh



Rank 9
Saumya
Sharma



Rank 10
Abhishek
Surana



Ashima
Mittal
Rank-12



Abhijeet
Sinha
Rank-19



Varjeet
Walia
Rank-21



Keerthi
Vasan V
Rank-29



Utsav
Gautam
Rank-33



Gaurav
Kumar
Rank-34



Abhilash
Baranwal
Rank-44



Vikramaditya
Singh Malik
Rank-48



Vishal
Mishra
Rank-49



Sambit
Mishra
Rank-51



Bodke
Digvijay Govind
Rank-54



Akshat
Kaushal
Rank-55



Jagdish
Chelani
Rank-57



Hirani
Adityavikram
Rank-60



Swapneel
Paul
Rank-64



Jyoti
Sharma
Rank-75



Pushp
Lata
Rank-80



Amol
Srivastava
Rank-83



Prateek
Jain
Rank-86



Amilineni
Bhargav Teja
Rank-88



Sangh
Priy
Rank-92



Rahul
Shinde
Rank-95



Kathawate
Mayur Ashok
Rank-96



Vaibhava
Srivastava
Rank-98



Videh
Khare
Rank-99



Plash
Bansal
Rank-112



Shilpa
Singh
Rank-116



Deepanshu
Khurana
Rank-120



Saurabh
Sabhlok
Rank-124



Abhimanyu
Manglik
Rank-128



Akash
Bansal
Rank-130



Abinash
Kumar
Rank-139



Sameer
Saurabh
Rank-142



Jyeshtha
Maitrei
Rank-156



Aaditya
Mishra
Rank-158



Ram
Prakash
Rank-162



Mainak
Ghosh
Rank-183



Archi Virendra
Chandak
Rank-184



Ankit
Yadav
Rank-191



Saurabh
Gupta
Rank-192



Kritika
Jain
Rank-197



Nahar Pranay
Prakash
Rank-199



Siddhant
Jain
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Shubham
Agarwal
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Nikita
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Kruti M
Patel
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Jain
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Saurabh
Baranwal
Rank-235



Rajat R
Chaturvedi
Rank-237



Harsh
Singh
Rank-244



Ghuge Rohan
Bapurao
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Bharat
Mittal
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Dinesh Kumar
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Rank-257



Govind
Mohan
Rank-260



Shanu
Dimri
Rank-270



Shiv Narayan
Sharma
Rank-278



Sanjay
Kumar
Rank-279



Nikhil
Singh
Rank-280



Tuhin
Sinha
Rank-281



Vijaypal
Bishnoi
Rank-290



Shubhank
Mishra
Rank-291



Shakti Mohan
Avasthy
Rank-296



Lavanya
Gupta
Rank-298



Jagtap Gagdish
Shankar
Rank-304



Chetan
Sharma
Rank-305



Amandeep
Dhanoa
Rank-311



Budumajji Satya
Prasad
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Aman
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Mohd Nooh
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POLITY

1. Ashok Lavasa pulls out of poll panel meetings on model code

Present composition of the Election Commission

- The Election Commission of India is a three-member body, with one Chief Election Commissioner and two Election Commissioners
 - It comprises of Chief Election Commissioner Sunil Arora and other election commissioners Ashok Lavasa and Sushil Chandra.

Has the Election Commission been a multi-member body from the beginning?

No

- It was not a multi member body from the beginning.
- It was a single - member body when it was first set up in 1950 and up to 15th October, 1989 with only the Chief Election Commissioner.
 - From 16th October, 1989 upto the 1st January, 1990, it became a three-member body with R.V.S.Peri Sastri (C.E.C) and S.S.Dhanoa and V.S.Seigell as Election Commissioners.
 - From 2nd January, 1990 to 30th September, 1993, it was a single-member Commission and again from
- 1st October, 1993 it has become a three-member Commission.

How are the decisions taken, whether by majority or by consensus?

- Section 10 (3) of the Chief Election Commissioner and other Election Commissioners (Conditions of Service) Amendment Act, 1993
- If the Chief Election Commissioner and other Election Commissioners differ in opinion on any matter, such matter shall be decided by according to the opinion of the majority.
- The decisions are taken based on 2:1 majority as per prescribed law which governs the functioning of the poll panel.
- Usually the poll Panel wants these commissioners to have a unanimous decision but in the absence of it, with differences of opinion it goes with the majority view

Current Context

- According to reports, Ashok Lavasa has opted out of the decision making meetings on MCC since May 4 claiming his "minority decisions were going unrecorded".
- Which means dissent expressed by him is not recorded or not made public

- He says PM Modi's speeches were not in accordance with Rules laid by EC. So EC should have sent a notice to Modi that his poll campaign speeches are not in accordance with EC instructions. Thereby restricting his tempo and having a cautionary note in the future.

Comments

- Lavasa Says "I am being forced to stay away from the meetings of the full commission since minority decisions are not being recorded."
- Arora Says "The three members of ECI are not expected to be a template or a clones of each other, There have been So many times in the past when there has been a vast diversion of views as it can and should be. But the same largely remained within the confines Of ECI after demission of office unless appearing much later in a book written by the concerned ECs/ CECs. I have personally never shied away from a public debate whenever required but there is a time for everything. There was a reason which is far to see the election process through instead of creating ill timed controversies

Final Order

- The Election Commission decided by a majority of 2:1, that dissenting opinions in Model Code of Conduct (MCC) disputes will not be made part of any final order and will only be included in internal files, as per previous practice.
- According to the existing rules, only the majority decision in case of non-quasi-judicial issues like the MCC is communicated to the parties concerned. The divergent opinion is recorded in files

Legal support

- Former EC Legal Advisor S.K. Mendiratta, who has worked with the poll body, had also told The Hindu that in case of a difference of opinion on MCC matters, the dissent note is recorded in the files and only the majority view is communicated through an order.
- The dissenting ruling is made part of the order only in quasi-judicial matters like the disputes related to the Representation of the People Act and election symbols.

2. Election Visitors Programme

Context

- An international delegation of 11 members from Australia, South Korea, Bosnia, Bhutan and Bangladesh visited India to analyse the nitty-gritty of the election management system.

Details

- It received a demonstration and first-hand experience of the working of the Electronic Voting Machine and the Voter Verifiable Paper Audit Trail (VVPAT)
- ECI's quarterly magazine "My Vote Matters" was also released on this occasion by the Commission.
- The Magazine presents a comprehensive glimpse of preparatory initiatives in different States for the ongoing elections.

India International Institute of Democracy and Election Management (IIIDEM)

- IIIDEM is envisaged as an advanced resource centre of learning, research, training and extension for participatory democracy and election management.
- The Institute has been developed in collaboration with the Government of India, United Nations, the Commonwealth and inter-governmental organisations like Sweden based International Institute of Democracy and Electoral Assistance (IDEA).
- The Institute will be a national and international hub for exchange of good practices in election management.
- The Institute will direct its efforts to enhance the potential and capacity of the Election Commission and its officials in carrying out their mandate and functions in a more effective and professional manner.
- IIIDEM will work for promoting democratic values and practices, enhancing voter education and awareness and developing human resource and capacities for efficient conduct of free and fair elections in India and for developing mutually beneficial partnership as well as collaborations with other countries.
- Goal
 - * To train the electoral machinery in the delivery of free, fair and flawless elections. To orient stakeholders of the democratic and electoral systems toward possibilities of better and more productive delivery therein. To explore and expand the horizons of intellectual know-how in these fields.

3. For a full bench (Judicial Appointments)What's in the news?

- Jharkhand High Court Chief Justice Aniruddha Bose and Gauhati High Court Chief Justice A.S. Bopanna, were recommended for elevation to the Supreme Court.
- However, the government had sought a reconsideration of the two names.
- Recently, the collegium has now repeated its recommendations, emphasizing that there is nothing adverse against the two judges in terms of their "conduct, competence and integrity" and that there is no reason to agree with the government.

- It is important to note that under the present procedure, the government is now bound to accept the recommendation.

Editorial Analysis:

- The government and the Supreme Court collegium seem to disagree on recommendations for judicial appointments quite frequently these days.
- It has become routine to hear that some recommendations for High Court appointments, as well as elevation to the Supreme Court, have met with disapproval from the government.
- In such instances, it requires reiteration by the collegium for the names to be cleared.
- This need not always be a cause for concern if it is a sign of some serious consultation on the suitability of those recommended.
- However, it acquires the character of a controversy if the government's objections suggest an oblique motive to thwart or delay the appointment of particular nominees.

Filling up vacancies in the Supreme Court:

- The Supreme Court is keen to fill up the current vacancies.
- As a matter of fact, apart from Jharkhand High Court Chief Justice Aniruddha Bose and Gauhati High Court Chief Justice A.S. Bopanna, the Supreme Court had also recommended two more judges, Justice B.R. Gavai of the Bombay High Court and Chief Justice Surya Kant of the Himachal Pradesh High Court, for appointment to the apex court.
- It is important to note that if all these four recommendations go through, the court will have its full complement of 31 judges.

Systemic Issues that Persist:

- While these developments will be welcome, some issues persist.
- In systemic terms, the advisability of retaining the collegium system of appointments is a major concern; and in terms of process, the huge number of vacancies in the various High Courts and lower courts is another.
- The process of filling up vacancies depends on the relative speed with which the collegium initiates proposals for appointments and makes its recommendations after internal deliberations, and the time the government takes to process the names.
- As on May 1, 2019 the total number of vacancies in all the High Courts is 396.

Concluding Remarks:

- It is true that the filling up of vacancies is a continuous and collaborative process involving the executive and the judiciary, and there cannot be a time frame for it.

- However, it is time to think of a permanent, independent body to institutionalize the process.
- The known inadequacies of the collegium system and the mystery over whether a new memorandum of procedure is in the offing are reasons why the proposal for a constitutionally empowered council to make judicial appointments ought to be revived — of course, with adequate safeguards to preserve the judiciary's independence.
- The time may have come for a systemic and processual overhaul.

4. **HC: United Nations not a State under Article 12**

Context:

- The Delhi High Court has ruled that the United Nations is not a State under Article 12 of the Constitution of India and is not amenable to its jurisdiction under Article 226 of the Constitution.

Background:

- A former UNO employee, found guilty of misconduct was convicted by a US Federal Court and sentenced to 97 months of imprisonment and two years of mandatory probation.
- He was released and deported to India in May 2014.
- In his petition, he claimed that due process was not followed in his case.
- He had in November 2018, written a letter to the Ministry of External Affairs seeking a grant of permission to initiate legal action against the United Nations Organization (UNO) under section 86 of Civil Procedure Code, 1908.
- The provision provides that a foreign State may be sued in any Court with the consent of the Central government.

Contention:

- Petitioner argued, amongst other arguments, that the Latin maxim Ubi jus ibi remedium which means that if there is a right, then there must necessarily be a remedy attached to it is a settled law that no one should be left remediless and the petitioner has exhausted all his remedies and has made all possible efforts to invoke the prescribed provisions for appeal on due process.
- And that was the reason of his petition before the court as the last resort for direction to respondents' for their failure to follow due process of law in petitioner's case.
- It was also argued that Section 2 of Article II of the Schedule of the Act, 1947 which gives blanket immunity to UNO to waive its immunity is something which makes respondent it a judge in its own cause and is, therefore, against the basic tenets of justice delivery system.

- The petitioner was seeking to invoke the writ jurisdiction of the Court for the purpose of non-adherence of the due process which the UNO was bound to follow in order to ensure free and fair disciplinary process of the petitioner who was a serving officer with it.

Details:

- The Ministry replied that the consent of the Government of India is not required to initiate a legal suit against UNO as it is not a foreign state and is only an International Organization.
- It, however, said UNO and its officials enjoy immunity under the United Nations (Privileges and Immunities) Act, 1947.
- It also said as per Section 2 of Article II of the Schedule of Act, 1947, UNO has immunity from every form of legal process except insofar as in any particular case it has expressly waived its immunity.

Conclusion:

- It was observed by Justice Suresh Kumar Kait that the immunity granted is all comprehensive and applicability of any national law is subject to the waiver of the immunity by respondent.
- As respondent has not waived the said immunity, the clause relating to the observance of national laws will be of no help to the petitioner.
- Once this is the position in law, other arguments advanced by the petitioner which are founded on the premise that respondent is under an obligation to obey the laws of India, also lose their force.

5. **Implementation issues in 10% reservation**

What's in the news?

- Experts raise the concern of several implementation issues which would arise as a consequence to the recent Constitutional amendment that provides 10% reservation to individuals from economically weaker sections (EWS) in the general category for government jobs and educational institutions in India.
- Under the law, EWS applicants may even find it harder to obtain positions. These problems can be addressed using the science of matching theory.

Unreserved to reserved

- Until now, India's main reserve-eligible groups have been Scheduled Castes, Scheduled Tribes, and Other Backward Classes.
- In job and university assignments, there is a widespread tradition of first assigning a reserved category applicant to an unreserved position if he or she qualifies on the basis of merit alone.

- When unreserved positions are exhausted, a reserved category applicant may then be considered for a reserved position. A Meritorious Reserved Candidate (MRC) is a reserved category applicant, who is tentatively assigned to an unreserved position.
- When the assignment involves multiple types of jobs or universities, the existence of MRCs raises two important questions. These are as below:
 - * Can an MRC move to a reserve position for a more preferred job or university place if he or she is tentatively holding a less preferred unreserved position?
 - * If such movement is allowed, what happens to the newly vacated seat?
- It is important to note that a 2004 Supreme Court decision in *Anurag Patel v. U.P. Public Service Commission* mandates that an MRC is entitled to move or “migrate” to the more preferred assignment.
- A 2010 Supreme Court decision in *Union of India v. Ramesh Ram & Ors* answers the second question for the case of public sector job assignments. It specifies that the newly vacated position is to be given to a candidate from the general category, who is not eligible for any reservation.
- That is, even if there is a more deserving reserved category applicant — say, another MRC who received a less preferred position — the newly available unreserved position can go to a potentially lower-scoring applicant from the general category.
- Therefore, it is important to note that one unintended consequence of this judgment is that the cut-off score for reserved category candidates can be higher than the cut-off score for the general category.
- At present, a small fraction of unreserved positions are tentatively assigned to reserved category applicants. This means that the number of meritorious reserved candidates is relatively modest compared to the number of unreserved positions.
- However, with the new EWS reservation amendment, a large fraction of general category applicants are expected to qualify as economically weak.
- This means that a large share of unreserved positions will be tentatively assigned to the EWS category. As a result, there will be many more meritorious reserved candidates. And the positions they vacate due to migration are to be offered to the general category candidates who do not qualify for EWS reservation due to the verdict as pronounced in the *Ramesh Ram* case.
- This may result in a reduction in the number of positions offered to those in the EWS category.

An example concerning the most sought-after government jobs:

- For example, under the system used by the Union Public Service Commission to allocate the most sought-after government jobs in India, such as in the Indian Administrative Service, a non-EWS applicant from the general category would take newly vacated positions following migration, increasing their overall share.
- In all likelihood, the cut-off scores will be higher for EWS candidates than for non-EWS general category applicants, meaning it's harder for the poor to qualify than the rich.
- Creating such a large reserved category results in a big challenge to the implementation of *Ramesh Ram*, or any system based on the idea of a meritorious reserved candidate.

Horizontal or vertical?

- Another implementation challenge with the new amendment is that the new law does not explicitly state whether the new EWS reservation is horizontal or vertical.
- This is despite the clear distinction made in the landmark judgment in *Indra Sawhney v. Union of India* (1992).
- A horizontal reservation is a ‘minimum guarantee’, which only binds when there are not enough EWS applicants who receive a position on the basis of their merit score alone; if so, the bottom-ranked general category selections are knocked out by the top-ranked unselected EWS candidates.
- With a large number expected to qualify for EWS, the 10% minimum guarantee will already be achieved essentially in all applications. This means the policy, if applied horizontally, will virtually have no effect.
- A vertical reservation, on the other hand, is an ‘over and beyond’ reservation. This means that if an applicant obtains a position on the basis of his or her merit score without the benefit of the reservation, it does not reduce the number of reserved positions.
- This important distinction appears not to have been a part of discussions leading up to the passage of the law. A government memo suggests that the new EWS reservation might be vertical, but it is important that this issue be clarified.

Concluding Remarks:

- It is important to note that these issues can be resolved using a well-designed assignment mechanism and transparent rules about processing of reserves.
- Research done by some experts show how it is possible to adapt certain mechanisms for India and satisfactorily implement reservation policies, as they are envisioned in *Indra Sawhney*.

- Moreover, lack of clarity on implementation opens up possibilities to distort or even manipulate outcomes, undermining policy goals. It can confuse the public and keep university or job assignments in limbo for years as courts process legal challenges.
- India's new EWS reservation policy is heading in this direction unless these implementation issues are addressed head-on.

6. Justice Bobde panel gives clean chit to CJI in sexual harassment probe

Context

- The Justice S.A. Bobde in-house committee appointed by SC has found "no substance" in the sexual harassment allegations levelled by a former Supreme Court staff member against Chief Justice of India Ranjan Gogoi.

Background

The complaint made by the victim of sexual harassment to the judges of the Supreme Court had two equally serious facets.

- One related to sexual harassment, a very serious charge.
- The other related to the victimisation of the complainant and her family "at the hands of the Chief Justice of India [CJI]"
 - * Meanwhile her husband, and the latter's brother, also a constable with the Delhi Police, were suspended over telephone, and the orders followed

Details

- As part of the in-house procedure, the report would not be placed in the public domain
 - * The Supreme Court quoted its reported decision of 2003 in Indira Jaising versus Supreme Court of India, which had held that an in-house inquiry report was "discreet" and "not for the purpose of disclosure to any other person".
 - * The 2003 decision, however, does not contemplate a situation when the Chief Justice of India is himself under inquiry as in this case.
 - * This can also be seen otherwise, because the inquiry in the present case was into the allegations made against the CJI, the report has advisedly been given to the next seniormost judge (next in seniority to Justice S.A. Bobde and Justice N.V. Ramana).
- It said copies of the report were given to Chief Justice Gogoi and the "next senior judge competent to receive the report" that is Justice Arun Mishra who is the fourth seniormost judge.

Why delay in filing the case?

- Those who have doubts about the so-called delay in the complaint must be prepared to put themselves in the shoes of the victim, a Class III employee pitted against the Chief Justice of India, one of the highest and the most powerful constitutional functionaries.
- Her approaching lawyers who are widely respected as human rights activists was natural and cannot be viewed with suspicion under any circumstances.

Series of flaws

- The first reaction was by the court's Secretary General quickly discarding the complaint as one by "mischievous forces".
- The second was unprecedented in the constitutional history of India. The CJI himself constituted an extraordinary hearing in the Supreme Court, along with two other judges, on a non-working day in a case titled "Matter of great public importance touching upon the independence of the judiciary".
- The third development was the constitution of an "in-house" panel comprising three judges of the Supreme Court. It did not seem to be of concern that to ensure independence of the inquiry and check for bias, members other than judges should have constituted the committee. How can judges inquire into allegations against a colleague, no less the CJI, who is the 'master of roster' assigning cases to fellow judges and, most significantly, the highest judicial authority in the country, wielding an enormous amount of power and influence?

Supreme Court cases about Administrative procedures

- The Constitution Bench of the Supreme Court in Olga Tellis v. Bombay Municipal Corporation recognised procedural safeguards as necessary
 - * This institutional check on arbitrary action on the part of public authorities is missing in this case.
- In Uma Shankar Sistani v. Commissioner of Police, Delhi (1996), the Supreme Court ordered the Central Bureau of Investigation to investigate the circumstances under which a false complaint was registered against the petitioner, leading to his arrest.
 - * The FIR against the victim in this case needs the same treatment.
- Equally, the punishment of dismissal imposed on her is grossly disproportionate, even assuming that the charges against her were proved.
 - * The Supreme Court has consistently frowned upon such punishments. In Ranjit Thakur v. UOI (1987), the court interpreted the doctrine of proportionality "as part of the concept of judicial review" to ensure that if the sentence is an outrageous defiance of logic, then it can be corrected.

Grounds for judicial review

- Irrationality and perversity are recognised grounds of judicial review. The court has held that if the punishment is outrageously disproportionate and the court considers it arbitrary in that it is wholly irrational or "a punishment is so excessive or disproportionate to the offence as to shock the conscience of the Court the same can be interfered with".
- On each one of these counts the punishment of dismissal imposed upon the victim is completely arbitrary and perverse. It must go.

What should be done?

- It matters not that the respondent is the head of the judiciary. He or she must be held to the same standard that is used in all other such cases. The independence of the judiciary and constitutional protections given to judges should not transform into an immunity shield
- Justice needs not only to be done, but needs to be seen as manifestly done.
- Members of the Bar, the staff of the court registry and the general public have enough of a stake in an independent judicial system to say, "It is my court too."

Conclusion

- What matters today is that the Supreme Court was called upon to do justice in a case involving claims of sexual harassment. And it has failed, in every possible way, to do that.

Doctrine of Proportionality

- It is a principle that is prominently used as a ground for judicial review in cases of administrative action.
- The doctrine essentially signifies that the punishment should not be disproportionate to the offence committed or
 - * The means that are used by administration to obtain a particular objective or result should not be more restrictive than that are required to achieve it.

Details

- We live in an age where administrative authorities have been empowered to exercise discretionary powers, the position holders in the administration exercise wide discretionary powers and these powers cannot be used arbitrarily, therefore to keep a check on them, the doctrine of proportionality is used.
 - * This power is however, fettered by restraints.
 - * It is to be exercised in public interest and for the public good.

- While exercising administrative action, the body should keep in mind the purpose it seeks to obtain and the means it is using to achieve it, and if its actions deviate from the object or are discriminatory or disproportionate then they would be quashed by the court by using the doctrine of proportionality.
- In the test of Proportionality the "courts will quash exercise of discretionary powers in which there is no reasonable relation between the objective which is sought to be achieved and the means used to that end, or where punishments imposed by administrative bodies or inferior courts are wholly out of proportion to the relevant misconduct".
- The implication of the principle of proportionality is that the court will weigh for itself the advantages and disadvantages of an administrative action and such an action will be upheld as valid if and only if the balance is advantages

Foundation case

- In India the doctrine of proportionality was adopted by the Supreme Court of India in the case of Om Kumar v. Union of India
- In this case the Apex court observed that Indian courts have been using this doctrine since 1950, in cases of legislations violating fundamental rights enshrined in Article 19(1) of the constitution.

Justice Bhagwati has read the Principle of Reasonableness in Article 14 by the words:

"Article 14 strikes at arbitrariness in State action and ensures fairness and equality of treatment. The principle of reasonableness, which logically as well as philosophically, is an essential element of equality or non-arbitrariness pervades Article 14 like a brooding omnipresence."

7. Lottery in elections

- According to Section 102 of the Representation of the People Act 1951, if there is equality of votes and if one additional vote would entitle either of them to win, and if no decision has been made by the Returning Officer under the provisions of the Act, then the High Court decides by a lot.
- The candidate who wins the lottery wins the election.
- In 2017, for instance, in the election to ward number 220 of the Brihanmumbai Municipal Corporation, Shiv Sena's Surendra Bagalkar and the BJP's Atul Shah got the same number of votes. The result was decided by lottery, and Mr. Shah won.

What if it's a triple tie?

- While the law has provision to hold a toss of coin or a lot to decide a tie between two candidates, it is a grey area as to what will happen if three candidates end up winning the same number of votes.

8. Madras High Court curbs L-G role in Puducherry

administration

Context

- The Madras High Court ruled that the Lieutenant-Governor (L-G) of Puducherry could not interfere with the day-to-day administration of the Union Territory when an elected government was in place.
- The court said continuous interference from the L-G would amount to running a “parallel government.”

Details

- Justice R. Mahadevan said: “The Central government as well as the Administrator [the term used in the Constitution to refer to the L-G] should be true to the concept of democratic principles. Otherwise, the constitutional scheme of the country of being democratic and republic would be defeated.”
- The judge made it clear that Government Secretaries were bound to take instructions from the Ministers and the Council of Ministers, headed by the Chief Minister.
 - * He also disapproved of the alleged practice of government officials being part of social media groups through which the L-G was issuing instructions to them for redress of public grievances and reminded them that as per rules, they were bound to use only authorised medium of communication when it came to issues related to administration.

Important Articles

Article 239 {Administration of Union territories}

Article 239A {Creation of local Legislatures or Council of Ministers or both for certain Union territories}

Parliament may by law create for the Union territory of Pondicherry -

- a body, whether elected or partly nominated and partly elected, to function as a Legislature for the Union territory, or
- a Council of Ministers, or both with such constitution, powers and functions, in each case, as may be specified in the law.

Article 239AA {Special provisions with respect to Delhi}

- As from the date of commencement of the Constitution (Sixty ninth Amendment) Act, 1991, the Union territory of Delhi shall be called the National Capital Territory of Delhi (hereafter in this Part referred to as the National Capital Territory) and the administrator thereof appointed under article 239 shall be designated as the Lieutenant Governor.

Difference between Delhi and Puducherry

- The Puducherry legislature is the creation of a parliamentary law, based on an enabling provision in Article 239A of the Constitution,

* Whereas the NCT legislature has been created by the Constitution itself under Article 239AA.

* Justice Mahadevan said though Article 239AA imposes several restrictions on the legislature of Delhi, no such restrictions had been imposed explicitly in the case of Puducherry under Article 239A.

- However, looking at the Business Rules as well as other statutory provisions on Puducherry, the judge has sought to give greater credence to the concept of a representative government.

Section 44, Government of Union Territories Act, 1963

- Referring to the provisions of the Government of Union Territories Act, 1963, the judge said Section 44 of the Act states that there shall be a Council of Ministers in each Union Territory to aid and advice the Administrator who shall act in his/her discretion only in so far as any special responsibilities were concerned.
- However, since the Act does not specify the ‘special responsibilities’ in relation to which the L-G could apply his/her discretion, “it is the bounden duty of the Administrator and the Council of Ministers to avoid logjam and facilitate the smooth functioning of the government in public interest, leaving the political differences apart,” the judge said.

He also dealt with the provisions of Rules of Business of the Government of Pondicherry, of 1963, the Delegation of Financial Powers Rules, 1978, the Government of Puducherry (Custody of Public Money) Rules, 2006, the Government of Puducherry Accounting Rules, 2006, and the periodical orders issued by the Central government before deciding the case.

SC on Delhi

- The judgment is based mainly on the principles that were laid down in last year’s Constitution Bench decision on the conflict between the elected regime in the National Capital Territory (NCT) and its Lt.Governor.
- The five-judge Bench had ruled that the L-G has to either act on the ‘aid and advice’ of the Council of Ministers, or refer to the President for a decision any matter on which there is a difference with the Ministry, but has no independent decision-making powers.
- The High Court also says the Administrator is bound by the ‘aid and advice’ clause in matters over which the Assembly is competent to enact laws. The L-G’s power to refer any matter to the President to resolve differences should not mean “every matter”, the court has cautioned.

9. Post-Fani, Naveen seeks special category status

Context:

- Odisha Chief Minister has demanded special category status from the Centre for his disaster-prone State,

saying it faces natural calamities almost every year.

Details:

- In his first interview since Cyclone Fani ravaged the coastal districts killing 41 people, he said a special category status was the need of the hour due to the massive loss to infrastructure which may stall growth of the State.
- The demand was raised stating that the assistance that the state gets from the Centre is mostly for temporary restoration of infrastructure. And a lot has to be spent from State's own funds to work for the long-term.
- In the last five years we had Phailin, Hudhud, Titli and now Fani. In addition to this, the state experiences massive floods.

Current scenario in the state:

- Fani has left the Power infrastructure completely destroyed, especially in Puri and parts of Khurda districts where we complete re-electrification is necessary.
- Lakhs of houses have been destroyed.
- Serious damage has been caused to tree cover and plantation crops.

Special Category status:

- States which are granted special category status enjoy several benefits. These include
 - * preferential treatment in getting central funds
 - * concession on excise duty to attract industries to the state
 - * a significant 30% of the Centre's gross budget also goes special category states
 - * These states can avail the benefit of debt-swapping and debt relief schemes
 - * In the case of Centrally Sponsored Schemes and external aid, Special Category States get it in the ratio of 90% as grant, and 10% as loans. Other states, however, get 30% of their funds as grants
 - * Special Category States also get tax breaks to attract investment
- A Special Category Status catalyses the inflow of private investments and generates employment and additional revenue for the state. Besides, the State can create more welfare-based schemes from the new savings since the Center bears 90% of the expenditure on all Centrally Sponsored Schemes. Further, more grants from the Center helps in building state infrastructure and social-sector projects.
- The Constitution of India does not include any provision for the categorization of any state as a Special Category Status state.
- However, in the past, Central Planned Assistance were given to certain states on the ground that they are historically disadvantaged in comparison to others.

Criteria for Special Category Status:

The erstwhile Planning Commission body, the National Development Council (NDC), granted Special Category Status to states based on a number of features, which included:

- * Hilly and difficult terrain
- * Low population density
- * Presence of a sizeable tribal population
- * Strategic location along international borders
- * Economic and infrastructural backwardness
- * Non-viable nature of state finances

Jammu and Kashmir was the first state to get Special Category Status and another 10 states were added over the years, with Uttarakhand being the last in 2010.

10. Redactive pricing audit and the CAG's duties

Introduction

- In a democracy it is the will of the people, people elect representatives, then these representatives holding power and positions of responsibility must be answerable for their action.
- The democratic state has a Social Contract, between the people and the state and functions on behalf of the people.
- To ensure that this contract is respected, a democracy provides for several institutional mechanisms like the Judiciary, Vigilance bodies and an independent Supreme Audit Institution (SAI).
- In the Indian polity, the Comptroller and Auditor General of India (CAG) and the Indian Audit and Accounts Department (IAAD) functioning under it, constitute the Supreme Audit Institution of India, which is an instrument for ensuring accountability

CAG constitutional provisions

The constitutional provisions relating to the CAG are mentioned in four Articles —148 to 151.

- Article 148 deals with the appointment of CAG by the President and safeguards his position and service conditions by stating that 'he shall only be removed from office in like manner and on like grounds as a Judge of the Supreme Court'.
 - * His salary and other conditions of service shall be determined by Parliament and shall be protected.
 - * It is explicitly stated that the CAG 'shall not be eligible for further office either under the Government of India or under the Government of any State after he has ceased to hold his office'.

Functions

- In the Indian system of governance, policies and programmes are translated into outcomes and implemented by various departments of the government to be achieved through public spending.
- For this, the Parliament sanctions the budget which prescribes how Government will collect money through taxes and how much and for which purposes it shall spend.
- There are financial rules which the Government departments and other public bodies must follow when they receive and spend public money. The spending departments are accountable to the Parliament for both the quantity and quality of their expenditure.
- Article 148 to 151 of the Constitution prescribe a unique role for the Comptroller and Auditor General of India in assisting the Parliament to enforce the said accountability of the Government departments.
- The CAG's (Duties, Powers and Conditions of Service) Act, 1971 with amendments 1976, 1984, 1987 and 1994 specify the CAG's duties and powers pertaining to government accounts, audit of receipts and expenditures of three tiers of the governments at the union, states and urban and rural local bodies.
- CAG duties include audit of public companies, autonomous bodies, regulatory bodies and other public entities, where there is a specific legislative provision to make CAG audit mandatory in the acts by which these bodies were created.
- Therefore, While performing his duties, the CAG acts as the financial 'watchdog' and exercises oversight functions over the receipts and expenditure to and from the public exchequer.
 - * The main objective of the CAG reports is to truthfully report to the legislature to help it exercise effective parliamentary oversight and control over the executive's accountability and use of resources as per the laws and rules of the land.
 - * CAG is mandated to report to the legislature to ensure that tax payers' money voted by Parliament is spent as per financial rules and the standards of financial propriety.

Examples

CAG's reports have since independence exposed varied genres of political, financial, bureaucratic and corporate scandals.

- Some of the recent ones cover different spheres of government activities. They range from fodder, allocation of 2G Spectrum, coal blocks, scams relating to Commonwealth games, arms deal, food, health, housing, banks, construction of infrastructural projects, procurement and centrally sponsored schemes

- CAG plays a vital role to help deter, detect, and take remedial and preventive action. It helps prevent public sector corruption and provide good governance.
- The reports become credible, authentic and reliable source material for legislative committees, courts, anticorruption and investigating agencies such as the Central Vigilance Commission, Central Bureau of Investigation, Chief Information Commissioner, Enforcement Directorate.

Redaction

- It is the selection or adaption by 'obscuring or removing sensitive information' from a document prior to publication.
- In the preface of the audit report, the CAG stated that redactive pricing was unprecedented but had to be accepted due to the Ministry's insistence citing security concerns.
- Consequently, the full commercial details were withheld and the figures on the procurement deal were blackened
- Whether the Ministry's insistence citing security concerns could have been accepted by the CAG can be examined only by the Supreme Court in the light of the constitutional provisions on the CAG's duties and parliamentary privileges and prerogatives

Concerns

- Redactive pricing is nowhere used in SAI audit reports. It does not seem to have been used in a government audit by any SAI of any country.
- For example, in the Rafale deal, Parliament, its committees, the media and other stakeholders of the CAG's reports cannot obtain complete, accurate and reliable information due to redactive pricing.
- CAG's audit to pinpoint inaccuracies, non-compliance of essential procurement procedures, conditions and pricing errors which may have a negative financial impact and cause potential damage to the country's interests.

Conclusion

- In case the CAG's office lacks expertise to conduct a performance audit, expertise can be sought from the pool of resources or credible organisations to be coopted in the audit team.
- Pricing decisions must be subjected to detailed analysis, without resorting to redactive pricing. Parliament is constitutionally privileged to know what the executive had done and how and under what conditions a procurement was decided. The CAG's audit is expected to highlight value for money in purchase decisions.
- A performance audit is done to establish whether the procurement activity was executed keeping in mind economy, efficiency, effectiveness, ethics and equity.

- Only a thorough pricing audit can bring out the credibility and integrity of a purchase decision, thereby achieving an SAI's constitutionally mandated responsibilities.

11. Returning Officer

- A Returning Officer is responsible for overseeing the election in a constituency, or sometimes in two constituencies, as directed by the Election Commission (EC).
- The EC appoints the Returning Officer and Assistant Returning Officer for a constituency in consultation with the governments of the State or Union Territory as the case may be.
- The Returning Officer's duties include accepting and scrutinizing nomination forms, publishing the affidavits of candidates, allotting symbols to the contesting candidates, preparing the list of contesting candidates, preparing the EVMs and VVPATs, training polling personnel, designating counting centres, and counting the votes and declaring the result.

Context

- Tej Bahadur Yadav's nomination papers from Varanasi Lok Sabha constituency was rejected by Returning Officer (RO)
- It was rejected on the ground that the petitioner was dismissed from the government service

Section 9 of the Representation of the People Act, 1951.

- Disqualification for dismissal for corruption or disloyalty.
- While rejecting the nomination papers of Yadav, the RO had observed that "the nomination paper is neither accompanied by certificate issued in the prescribed manner by the Election Commission to the effect that he has not been dismissed for corruption or disloyalty to the state".

12. Strongroom

- At the end of voting, the electronic voting machines (along with VVPATs) are kept in designated strongrooms, which are sealed with double locks.
- This process is done in the presence of candidates and observers of the Election Commission of India.
- CCTVs are installed in the strongrooms and they are also guarded with security provided by the Central armed police forces round the clock.
- Candidates can send designated agents or present themselves at the strongroom for vigil as well.
- On the counting day, the strongrooms are opened in the presence of the candidates/agents and Observer under videography.

- Before the counting of EVMs commences, the counting agents are shown the address tags, seals and serial number of the EVMs to satisfy themselves to the genuineness and authenticity of the machines used in the actual polls.

13. The need for judicial restraint

- Experts opine that the recent trend in the Honourable Supreme Court of India is to rely more on the sociological school of jurisprudence and less on the positivist school.
- In other words, the Honourable Supreme Court is resorting more to judicial activism rather than judicial restraint, which appear to be problematic.
- This is seen in its recent judgments:
 - * on ordering time limits to burst firecrackers on Diwali, which is a function of the legislature;
 - * its judgment on linking rivers, for which there is no parliamentary legislation; and
 - * in its unpredictable decisions in cases relating to freedom of speech and expression, such as the recent one in which a BJP Yuva Morcha leader was asked in the bail order to apologise for sharing a meme, despite the guarantee in Article 19(1)(a) of the Constitution.

Types of jurisprudence:

1. Positivist Theory:

- According to the positivist theory laid down by jurists such as Jeremy Bentham and John Austin in the 18th and 19th centuries, and continued by H.L.A Hart, Hans Kelsen and others in the 20th century, law is to be distinguished from morality and religion.
- However bad a particular legislation is, it is law at the end of the day, provided it emanated from a competent legislature (according to the earlier natural law theory, bad law was not law at all).
- In positivist jurisprudence, the centre of gravity of the legal system is statutory law, i.e., law made by the legislature.
- It holds that lawmaking is not the job of the judges, but of the legislature.
- Hence, judges should be restrained and not activist in their approach.
- In view of the well-established principle of separation of powers of the three organs of the state, judges should not perform legislative or executive functions, and each organ of the state should remain within its own domain, in order to avoid chaos.
- Furthermore, it is important to note that the positivist jurisprudence places heavy reliance on the literal rule of construction, because departing from it would give a free handle to each judge to declare the law according to his own notions, and this would result in legal anarchy.

- For example, the Second Judges Case (1993) and Third Judges Case (1998), which created the collegium system of appointment of judges, were not based on any provision in the Constitution.
- It is important to note that Article 124, which prescribes how Supreme Court judges are to be appointed, does not talk of any collegium system.
- Yet, it is the collegium which decides the appointment of judges, despite the founding fathers of the Constitution not envisaging the same anywhere.
- In fact, despite the unanimous will of Parliament in favour of the National Judicial Appointments Commission (NJAC), the Supreme Court declared the NJAC Act to be unconstitutional on the grounds that it would affect the judiciary's independence.

2. Sociological Jurisprudence

- On the other hand, sociological jurisprudence, as developed in Europe and the U.S. by jurists such as Rudolph Ritter von Jhering, Eugen Ehrlich, Léon Duguit, François Geny, Roscoe Pound and Jerome New Frank, shifts the centre of gravity of the legal system from statute to laws made by judges. It gives wide discretionary powers to judges to make laws.
- Sociological jurisprudence and natural law have the same problem. Kelsen argued that with natural law, one can prove everything and nothing, and Bentham regarded natural law as metaphysical nonsense. Similar criticisms can be made of sociological jurisprudence, which the Supreme Court seems to be relying on. In other words, the court can lay down anything as law according to its own subjective notions.
- Experts point out that in recent times, the Supreme Court has increasingly adopted the sociological school of jurisprudence in an aggressive manner.
- It is important to note that in a parliamentary democracy, the buck ultimately stops with the citizens, who are represented by Members of Parliament.
- The Supreme Court was never envisaged to perform the role of an unelected, third legislative chamber.
- Experts point out that the Supreme Court is performing this role not in exceptional circumstances, but in its everyday functioning.
- Of all the three organs of the state, it is only the judiciary that can define the limits of all the three organs. This great power must therefore be exercised with humility and self-restraint.

Usage of Sociological Jurisprudence: Rare circumstances

- The usage of sociological jurisprudence can be justified in very rare circumstances, such as in the

Supreme Court's decision to strike down Section 377 of the Indian Penal Code.

- In *Griswold v. Connecticut*, Justice Hugo Black of the U.S. Supreme Court warned that "unbounded judicial creativity would make this Court into a day-to-day Constitutional Convention".
- In his book, *Nature of the Judicial Process*, Justice Cardozo of the U.S. Supreme Court wrote, "The Judge is not a knight errant roaming at will in pursuit of his own ideal of beauty or of goodness".
- Further, Chief Justice Neely of the West Virginia State Supreme Court observed: "I have very few illusions about my own limitations as a Judge. I am not an accountant, electrical engineer, financier, banker, stock broker, or systems management analyst. It is the height of folly to expect judges to intelligently review a 5000 page record addressing the intricacies of a public utility operation. It is not the function of a judge to sit as a super board or with the zeal of a pedantic schoolmaster substituting his own judgment for that of an administrator."
- In conclusion, the Supreme Court should limit its usage of the sociological school of jurisprudence to only the most exceptional situations, and employ the positivist school as far as possible.

14. The Realities of Voting in India

Introduction

- A large scale internal migration in India has deprived the voting rights of many especially those working in the informal sector.
- There is no law or any policy initiative looking at this issue.

India's Electoral Process

- India as a federal republic and as the largest participatory democracy in the world ensures all its citizens the right to universal adult franchise.
- This entails that every citizen of India aged 18 or above has the freedom to vote in any election in the country.
- However, each citizen of India is tied to a specific place to cast their vote, that is, their vote is not portable across regions. This is where the issue of migrant voting rights comes in.

Stats

- Economic Survey, 2017, provided an estimate of internal work-related migration using railways data for the period 2011–16 (GOI 2017).
 - * The results showed an average interstate migration of almost nine million people a year.

- While migrants from the Hindi heartland of Uttar Pradesh, Bihar, and Madhya Pradesh largely move to Delhi, Maharashtra, Tamil Nadu, and Gujarat, those from the eastern states of Jharkhand and Odisha travel not only to Kolkata in West Bengal, but also to Kerala, in increasing numbers.
- According to the 2011 Census, 51 million migrants moved within India for economic reasons, constituting nearly 10% of the labour force. This gives rise to a concern about the political voicelessness of these migrant workers who are unable to practise their voting rights because of economic migration.
- There are no statistics available on how many migrant workers have changed their constituency to vote at their current work location.

Nature of Migration and Voting

- There is a preponderance of informal sector employment among the economic migrants. Most of them are employed in the informal segments within larger sectors like construction and manufacturing, on a rotational basis.
 - * A lot of these workers are seasonal migrants who look for work during the off seasons of agriculture.
 - * As a result, their migration is temporary, and as such it makes no sense for them to change their voting areas to their place of work
- Moreover, even if they did decide to vote in the destination, the lack of knowledge of local politics and larger agendas leads them to stay away from local politics.
- The incidence of low daily wages constrains both the decisions and the feasibility of any impromptu movement of these migrant workers, even if it is for executing their voting rights.
 - * The main issue faced by workers is the economic strain of quitting even a day's work to go back to their hometown and vote.
- Besides sending remittances, there is also the pressure of expectations from family and peers that the migrants will bring back gifts from the cities during their home visits.
 - * While such gifts are signs of prestige to the families, to the migrant worker these are economic dampeners of their decision to travel to their home constituencies for voting.

Response of the State

- Answering to a Lok Sabha question in 2016 the ruling government had admitted of the lack of data on migrants at a nation-wide level, with the numbers given in the Economic Survey 2016–17 being the very first estimates of the number of internal migrants in the country (GOI 2016). Consequentially, the issue of voting of the internal migrants also gets ignored.
- In another response the Govt said apart from the Interstate Migrant Workers Act, 1979, there is no central policy or legislation that looks into the issues of internal migration, nor has there been widespread studies on the various social dimensions of this phenomenon
- Again, in responding to a Rajya Sabha question in 2018 on the provision of proxy votes for overseas voters and internal migrants, the government had stated that while an amendment to the Representation of the People Act, 1951 is underway to allow proxy voting for overseas voters, no such provisions are in place for the internal migrants

Conclusion

- While these migrant workers might be interested in casting their votes, the reality of their work lives and the various socio-economic hurdles that they need to overcome act as barriers to achieve it.
- Given the large number of workers who stay away from their hometowns and registration centres, this puts into question the very essence of participatory democracy, where every vote from every citizen should carry equal importance.
- This there is a growing need to look into these issues, policy mechanism addressing them taken up and ultimately a voice of every citizen is heard in Participatory democracy

ECONOMY

1. Anti-dumping duty put on saccharine

Context:

- The Finance Ministry has, on the recommendations of the Commerce Ministry, imposed an anti-dumping duty of \$1,633.17 per tonne on the import of saccharine from Indonesia.

Saccharine

- It is a compound most commonly used in sugar-substitute sweeteners.

Why was Anti-Dumping imposed?

- The product under consideration has been exported to India from subject country below their normal values and consequently, the domestic industry has suffered material injury

Stats

- Indonesia, until recently, accounted for a large chunk of India's saccharine imports.
- In 2017-18, India imported \$4.36 million worth of saccharine from Indonesia, which is 43% of the total imports of the sugar-substitute compound.
- However, imports from Indonesia have declined since then. In the April 2018 to February 2019 period, India imported only \$1.48 million worth of saccharine from Indonesia, about 20% of its total imports from around the world.

2. Competition Commission of India (CCI)

- It is a statutory body of the Government of India responsible for enforcing The Competition Act, 2002 throughout India and to prevent activities that have an appreciable adverse effect on competition in India.
- It was established in 2003
- CCI consists of a Chairperson and 6 Members appointed by the Central Government.
- It is the duty of the Commission to eliminate practices having adverse effect on competition, promote and sustain competition, protect the interests of consumers and ensure freedom of trade in the markets of India.
- The Commission is also required to give an opinion on competition issues on a reference received from a statutory authority established under any law and to undertake competition advocacy, create public awareness and impart training on competition issues.

The Competition Act:

- The idea of Competition Commission was conceived and introduced in the form of The Competition Act, 2002.

- A need was felt to promote competition and private enterprise especially in the light of 1991 Indian economic liberalisation.
- The Competition Act, 2002, as amended by the Competition (Amendment) Act, 2007, follows the philosophy of modern competition laws.
- The Act prohibits anti-competitive agreements, abuse of dominant position by enterprises and regulates combinations (acquisition, acquiring of control and Merger and acquisition), which causes or likely to cause an appreciable adverse effect on competition within India.

3. Court questions PIL pleas challenging every tender

Context:

- Almost every public tender is being challenged through PIL petitions as a matter of routine, affecting the promptness and efficacy of delivery in public sector projects, the Supreme Court said in a recent judgment.

Details:

- The courts had found it appropriate to build in certain checks and balances in procedure to ensure fairness, considering the fact that government and public sector enterprises are increasingly venturing into economic activities.
- It is this approach by the courts that has given rise to close scrutiny of tenders by the judiciary.

Issue:

- In the backdrop of every public tender is being challenged through PIL petitions, awarding of contracts has become a cumbersome exercise.
- This is reducing the efficacy of commercial activities of the public sectors, which are in competition with the private sector.
- An unnecessary, close scrutiny of minute details, contrary to the view of the tendering authority has makes awarding of contracts by government and public sectors a task, with long drawn out litigation.
- This works as a great disadvantage to the government and the public sector.

Way forward:

- Normally parties would be governed by their contracts and the tender terms, and no writ petition would be maintainable. The Bench said courts should exercise some restraint while giving their own interpretations to the terms of a contract at the behest of third parties, who file writ petitions after failing to garner it.

- The object must not be that in every contract, where some parties would lose out, they should get the opportunity to somehow pick holes, to disqualify the successful parties, on the grounds on which even the party floating the tender finds no merit.

4. **Foot and Mouth Disease (FMD) and Brucellosis**

- Foot-and-mouth disease (FMD) is a severe, highly contagious viral disease caused by a virus.
- The FMD virus causes illness in cows, pigs, sheep, goats, deer, and other animals with divided hooves. It does not affect horses, dogs, or cats.
- Animals with FMD typically have a fever and blisters on the tongue and lips, in and around the mouth, on the mammary glands, and around the hooves. These blisters, called vesicles, pop and turn into red areas called erosions.
- Pain and discomfort from the vesicles and erosions lead to other symptoms such as depression, anorexia, excessive salivation, lameness, and reluctance to move or stand.
- Most affected animals will not die from FMD, but the disease leaves them weakened and unable to produce meat and milk the way they did before.

Issues

- If a cow/buffalo gets infected with FMD, the milk loss is upto 100% which could last for four to six months.

Brucellosis

Brucellosis is the name given to the disease caused by the Brucella family of bacteria. Brucellosis is commonly transmitted to susceptible animals by direct contact with infected animals or with an environment that has been contaminated with discharges from infected 2 animals

Three species of Brucella cause the most concern:

- B. abortus, principally affecting cattle, bison and cervids;
- B. suis, principally affecting swine and reindeer but also cattle and bison;
- B. melitensis, principally affecting goats

Issues

- In case of Brucellosis the milk output reduces by 30%, during the entire life cycle of animal.
- Brucellosis also causes infertility amongst the animals.
- The infection of brucellosis can also be transmitted to the farm workers and livestock owners.

Context

- Union Cabinet has come up with an initiative which pertains to controlling Foot and Mouth Disease (FMD) and Brucellosis to support the livestock rearing farmers.

Details

- The programme so far has been implemented on cost sharing basis between the Central and State Governments.
- In a rare instance of departure, the Central Government has decided to now bear the entire cost of the programme to ensure complete eradication of these diseases and better livelihood opportunities for all the livestock rearing farmers in the country.

5. **How is India driving to electric mobility?**

Context

- Recently, Ola Electric Mobility Pvt. Ltd. said in a statement that Ratan Tata, Chairman Emeritus of Tata Sons, had invested an unspecified amount to support its ambitions to scale up electric vehicle deployment in India.
- Ola Electric is undertaking several pilot programmes including charging solutions, battery swapping stations, and deploying two-and three-wheeler electric vehicles.
- An important question arises: Will Ola Electric's initiative provide the spark to meet India's ambitious goal of having 30% electric vehicles by 2030?

What is India's policy for electric vehicles?

- While carmakers in the rest of the world have been focussing on electric cars in the premium segment (costing over ₹10 lakh), India is targeting smaller vehicles.
- The reason for this is, according to NITI Aayog, 79% of vehicles on Indian roads are two-wheelers, while three-wheelers and cars costing less than ₹10 lakh account for 4% and 12% of the vehicle population, respectively.
- Experts opine that concentrating on small electric vehicles will help meet domestic demand and place India in a "position of global leadership".
- While China, the U.S. and a few European countries offer various subsidies up to 40% to encourage uptake of electric cars, India wants to offer non-fiscal incentives.
- Credits will be offered based on carbon dioxide emissions per km as well as vehicle efficiency.
- While manufacturers exceeding the emission targets will be required to purchase credits, those meeting them will be rewarded.
- The price of the credit will be decided by the market. This approach will make electric vehicles and those with low-emissions cheaper and the polluting vehicles expensive.
- In the next five years, India aims to have at least 15%

of electric vehicles on the road. On February 28, India announced the second phase of the Faster Adoption and Manufacturing of (Hybrid and) Electric Vehicles (FAME-2) scheme with an outlay of ₹10,000 crore for a period of three years.

- To encourage faster adoption, incentives will be provided on purchase of an electric vehicle. The scheme will support 10 lakh two-wheelers, 5 lakh three-wheelers, 55,000 four-wheelers and 7,000 buses. While the focus will be on private vehicles for two-wheelers, incentives will be given for three and four-wheelers used for public transport and commercial purposes.
- The aim is to set up charging stations and other infrastructure under 'Make in India'.

What is the driving range of electric vehicles?

- In electric cars using lithium ion battery (the most widely used battery worldwide), it is between 200 and 300 km per charge.
- The driving range in a city is typically 25-30 km per day. Battery technology to increase driving range and energy density has been, and will continue to be, the focus area in the coming years.
- The most important determinant will be the lifespan of the battery. As per current battery technology, its lifetime will be shorter than the rest of the vehicle.
- According to the European Academies' Science Advisory Council, some car manufacturers in developed countries are offering an eight-year or 1,60,000 km warranty on batteries.

How long will it take to charge the battery?

- Currently, batteries used in electric cars have capacities of 50 kWh (kilowatt hour) and can be charged overnight using the existing power supply available at home.
- Like in the case of mobile phones, batteries used in electric vehicles can be fast-charged using 7 and 22 kW supply. Charging stations at service stations have 50 or 120 kW supplies and the battery can be charged in 20-30 minutes.
- However, fast-charging causes overheating and degradation, and if done frequently reduces battery life.

Will electric vehicles reduce carbon emission?

- At nearly 55%, electricity generation in India is primarily using coal. Hydroelectric generation is 13% and renewable energy sources including small hydro projects, wind and solar, account for about 21%.
- So like in the case of the U.S. and China, net reduction in carbon emission will not be much even if there is large-scale adoption of electric vehicles in India.

- This is unlike France and the U.K., where non-fossil fuel is a major source of electricity generation. However, cities and towns using electric vehicles in large numbers will see a reduction in exhaust-pipe emissions, particularly particulate matter.
- This will be important in the case of India which is home to 14 of the 20 most polluted cities in the world.

Can used batteries be recycled?

- Lithium ion batteries used in electric vehicles can be recycled.
- According to the Financial Times, China and the European Union have rules that make carmakers responsible for recycling their batteries.
- In July 2016, Elon Musk had tweeted that Tesla's Gigafactory battery factory in Nevada, U.S., will recycle lithium ion battery.
- Li-ion batteries use a "variety of chemical processes, making it difficult to develop standardised recycling".
- Battery recycling will become an industry by itself by 2025 when used batteries will become plentiful. Eaton, a U.K.-based company, is already selling used electric batteries for reuse as household batteries.

Is there enough cobalt to meet the demand?

- In lithium ion batteries, cobalt is a key component of the cathode (positive electrode).
- Cobalt plays a pivotal role in preventing overheating and provides stability to the battery thus allowing charging and discharging over many years.
- Cobalt is a by-product of mining nickel and copper.
- About 60% of the world's supply of cobalt comes from the Democratic Republic of Congo, the mining of which has been linked to human rights abuse including child labour.
- As battery technology evolves, the amount of cobalt used may reduce or even stop.
- In May, 2018 Tesla's battery cell supplier Panasonic Corp said it has already "substantially cut down" cobalt usage and is already "aiming to achieve close to zero usage of cobalt in the near future".

6. Ilkal Saree

- It takes its name from the town of Ilkal in the Bagalkot district of Karnataka
- Ilkal saree has been accorded Geographical Indication (GI) tag

Context

- A good three years after demonetisation, the traditional weavers of Ilkal are yet to recover from its aftershock. They say that even now, business is down by about 40%.

7. India and China sign protocol for Export of Indian Chilli Meal

- Chilli meal is the residue left after oil is extracted from chillies
- It is widely used as an industry input in manufacturing chilli sauce and other similar products.

Context

- China announced that it will import chilli meals from India, providing a much needed export outlet to the product.
- A protocol has been signed with Chinese customs officials in this regard.

Stats on Chilli

- Chilli is the largest exported spice from India, and China has become one of the major buyers over the last few years.
- India is the world's largest producer, consumer and exporter of chillies

Where is it grown in India?

- Official statistics show that red chillies are grown across India on 792,000 hectares of land in Andhra Pradesh, Karnataka, Madhya Pradesh and Maharashtra.
- The crop is planted in August and September, and harvested in March and April.

8. Koyna Dam

- It is one of the largest dams in Maharashtra
- It is a rubble-concrete dam constructed on Koyna River which rises in Mahabaleshwar,
- The Koyna River is a tributary of the Krishna River
- Due to its electricity generating potential through Koyna Hydroelectric Project, Koyna river is known as the Life Line of Maharashtra

9. Liquidity Framework guidelines for ailing NBFCs

Context

- The Reserve Bank of India (RBI) released the much-awaited draft guidelines on liquidity risk management framework for Non-Banking Financial Companies (NBFCs) and Core Investment Companies (CICs).

Background

- The problems with NBFC sector started after Infrastructure Leasing and Financial Services Ltd (IL&FS) defaulted on its loan in 2018, resulting in mutual funds with exposure to debt papers of other NBFCs redeeming their holding in these companies in panic.
- This led to a series of rating downgrades, which had led to the liquidity crisis.

What was the need?

- The guidelines come on the back of rating downgrades and debt defaults in the NBFC sector and the need for a stronger Asset Liability Management (ALM) framework.
- The need has also arisen because many NBFCs have run up serious mismatches in their books by borrowing short-term to fund long-term assets.
- The strict norms have to be seen in the context of the present crisis where even prominent NBFCs are struggling to meet their obligations to various lenders.

Liquidity Coverage Ratio (LCR)

- It is the proportion of assets that an NBFC needs to hold in the form of high-quality liquid assets that can be quickly and easily converted into cash.
- Starting April 2020, NBFCs will have to maintain a minimum of 60% of LCR as high liquid assets which will be increased in a calibrated manner to 100% by April 2024
- This will require them to ensure maintenance of sufficient liquidity, including a cushion of unencumbered, high-quality liquid assets to withstand a range of stress events; establish diversified funding strategy; and monitor the risk of intra-group transfers.

Merits

- The new norms would discourage NBFCs from borrowing over short term to extend long-term loans without the necessary buffer capital in place.
- This could compel NBFCs to shrink the scope of their lending from what it is today, but it would save them from larger crises and significantly reduce the need for the government or the RBI to step in as the lender of last resort.
- Undeniably, NBFCs have done a tremendous job in recent years in widening and deepening access to credit by taking a share from the public sector banks, which have been severely affected by the bad loans crisis. However, the latest liquidity norms for NBFCs are still necessary to ward off systemic crises.

Concerns

- The new norms, which are expected to be implemented by the RBI from April 2020, would likely put significant pressure on the margins of NBFCs.
- If the norms are implemented, NBFCs may be forced to park a significant share of their money in low-risk liquid assets, such as government bonds, which yield much lower returns than high-risk illiquid assets.

10. National Consumer Disputes Redressal Commission (NCDRC)

The National Consumer Disputes Redressal Commission (NCDRC), India is a quasi-judicial commission in India.

- It was set up in 1988 under the Consumer Protection Act of 1986.
- The Consumer Protection Act, 1986 is a social legislation that lays down the rights of the consumers and provides for promotion and protection of the rights of the consumers.
- Its head office is in New Delhi.
- The commission is headed by a sitting or retired judge of the Supreme Court of India.
- Section 21 of Consumer Protection Act, 1986 states that the NCDRC shall have jurisdiction to entertain a complaint valued more than one crore and also have Appellate and Revisional jurisdiction from the orders of State Commissions or the District fora
- Section 23 of the Act, provides that any person aggrieved by an order of NCDRC, may prefer an Appeal against such order to Supreme Court of India within a period of 30 days.

11. Pension Scheme for small shopkeepers, retail traders

Context

- Cabinet in its first meeting, approved a new scheme which assures minimum monthly pension of ₹3000 per month to small shopkeepers, retail traders and the self-employed people after attaining the age of 60 years.
- This is being done as part of the Modi government's efforts to offer universal social security.

Details

- All small shopkeepers and self-employed persons as well as the retail traders with GST turnover below ₹1.5 crore and aged between 18-40 years, can enroll themselves for this scheme
- This enrolment can be done through more than 3.25 lakh common service centres across the country.
- The government will make matching contribution in the subscribers' account
 - * For example if a person with age of 29 years contributes Rs. 100/- month, then the Central Government also contributes the equal amount as subsidy into subscriber's pension account every month.
- The scheme is based on self-declaration as no documents are required except Aadhaar and bank account.

12. Potato IPR violation

Context

- A tussle had broken out between potato farmers in Gujarat and multinational food giant PepsiCo India Holdings Pvt Ltd (PIH).

- The issue: alleged infringement of Intellectual Property Rights (IPR) of a plant variety registered under the Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001.
- India has two laws for protecting agricultural IPRs.
 - * Genetically-modified (GM) traits like bollworm resistance and herbicide tolerance in cotton, for instance, being artificial nucleic acid sequences, are protected by the Indian Patent Act.
 - * India also has a unique law, enacted in 2001, which protects the rights of farmers and communities in plant varieties they have conserved over time.

Protection of Plant Varieties and Farmers' Rights Act, 2001 (PPV&FR)

- In order to provide for the establishment of an effective system for the protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants it has been considered necessary to recognize and to protect the rights of the farmers in respect of their contributions made at any time in conserving, improving and making available plant genetic resources for the development of new plant varieties.
- The Govt. of India enacted "The Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001" adopting sui generis system.

Details

- PepsiCo sued four Gujarati farmers, asking them to pay ₹1.05 crore each as damages for 'infringing its rights' by growing the potato variety used in its Lays chips.
- They were growing a variety of Potato — FL 2027, also called FC5 — on which PepsiCo claimed exclusive rights by virtue of a Plant Variety Certificate (PVC) under the Act.
 - * PepsiCo has a wafer-quality potato variety called FL-2027 registered in the United States.
 - * FL stands for Frito-Lay, PepsiCo's snack foods subsidiary.
 - * This variety has high dry matter (23 percent) and low levels of reducing sugars which make it ideal for frying. It also has the desired texture and appearance.
- PepsiCo has invoked Section 64 of the PPV&FR Act, 2001 to claim infringement of its rights.
- Farmers groups cite Section 39 of the same Act, which specifically says that a farmer is allowed "to save, use, sow, resow, exchange, share or sell his farm produce including seed of a variety protected under this Act" so long as he does not sell "branded seed".

Issue with the law

- Some provisions of the PPVFR Act diminish IPR protection. 'Brown bagging' allows a farmer to sell the produce or seed of a protected variety if they are not labelled as such.
 - * The market for produce or seed sold in this manner cannot be large, because the transactions have to be based on trust.
- The Act's definition of "farmer" is wide. Even farmers with large holdings are included. Even farmers with large holdings and groups of farmers are included.
 - * These provisions have fallen foul of the Convention of the International Union for the Protection of New Varieties of Plants, called the UPOV Convention.
 - * India is not a member of the union, and has observer status.

Concerns for the farmers

- Once upon a (capitalism) time, transnational corporations were the biggest votaries of a free-market economy.
 - * They wanted a level playing field, wanted trade barriers to be removed so that every corporation, irrespective of their country of origin, could participate freely without being discriminated against.
 - * This is the kernel of the GATT agreement and the driving logic of the WTO. So, why can't the farmer be left free to cultivate a variety of potato that he considers as a profitable proposition? In this "free world", why is it that a PepsiCo India feels emboldened to take away this freedom from nine farmers?
- On the dominant framework of international intellectual property (IP) law — TRIPS (Trade Related Aspects of Intellectual property Rights) and the UPOV (Union for the Protection of Plant Varieties) — gives plant breeders exclusive rights over the varieties they develop, and mostly disregards customary rights of indigenous and farming communities to their genetic resources and associated knowledges.
- This bias has percolated to various national laws, rendering ownership claims of farmers subordinate to corporate breeders' rights.

Have the laws been violated by farmers?

The answer is a clear NO.

- Recognising the bias in international law, the Indian PPV & FRA law (2001), entitles not just the breeder but also the farmer.
- The conjoining of the two rights, it was argued, would facilitate the growth of the seed industry, ensure the availability of high-quality seeds, as well as secure the livelihood and plant varieties of the farmers.

- Accommodating these twin purposes meant granting recognition of the proprietary claims of both the farmers and breeders, more accurately, of farmers as breeders (Section 2(c)). It gives the farmer the right to "save, use, sow, re-sow, exchange, share or sell" produce/seeds (S. 39 (1)(iv)).
- Importantly, the Indian farmer is permitted to even "brown bag seeds" — sell any variety of seed on the condition that they are sold in an unbranded form.
- This means that the nine farmers were well within their rights to cultivate the potato FL 2027 variety without entering into a licencing or technology agreement with PepsiCo.

EU Regulation on Organic Production and Labelling of Organic Products

- It was adopted in 2018
- It for the first time permits and encourages, inter alia, the use and marketing for organic agriculture, of "plant reproductive material of organic heterogeneous material" without having to comply with most of the arduous registration and certification requirements under various EU laws.
- Accordingly, the regulation removes the legal bar on marketing of "heterogeneous materials" and encourages its sale for organic agriculture, thus clearing the way to much more expansive use of indigenous varieties.
- Once the delegated acts under the EU regulation are formulated, they will support the creation of markets, especially markets and marketplaces facilitating trade of heterogeneous seeds, including by small farmers who are currently the most active in maintaining and improving such seeds in situ.

Current Status

- National and international pressure swiftly mounted, and in short order a humbled PepsiCo backtracked, announcing its withdrawal of the lawsuit.

Minimise harm, maximise gain

How can a biodiversity-rich nation like India shift its agriculture from a high-yield ideal to a high-value one, where the 'values' include striving to minimise environmental harm while maximising nutritional gains and farmer welfare?

- First, small farmers must be educated and encouraged with proper incentive structures, to engage with agriculture that conserves and improves traditional/ desi (heterogeneous) seeds in situ, rather than with "improved", proprietary varieties.
 - * Currently, in the garb of protecting this diversity against biopiracy, India is preventing its effective use, management and monetisation for the benefit of its farmers.

- Second, an immutable record-keeping system, perhaps blockchain or DLT, is needed to break the link between the profitable and the proprietary.
 - * Such a system would allow India and its rural communities to keep proper track of where and how their seeds/propagation materials and the genetic resources contained therein are being transferred and traded.
 - * It would also ensure, through smart-contract facilitated micropayments, that monetary returns come in from users and buyers of these seeds, from around the globe.
 - * These monetary returns would effectively incentivise continuous cultivation and improvement of indigenous seeds on the one hand, and ensure sustainable growth of agriculture and of rural communities on the other.
- Third, and as a key pre-requisite to the execution of the first two plans, India's invaluable traditional ecological knowledge systems need to be revived and made a part of mainstream agricultural research, education and extension services.
 - * Know-how contained in ancient Indian treatises like the Vrikshayurveda and the Krishi Parashar falls within the scope of what international conventions such as the Convention on Biological Diversity refer to as 'indigenous and traditional technologies'.
 - * The revival of these technologies is central to promoting sustainable 'high value' agriculture, not least because of the growing global demand for organic and Ayurvedic products.

Conclusion

- The withdrawal of the lawsuit by PepsiCo may be a welcome relief to several farmers who can neither afford to defend themselves in court, nor to abandon the cultivation of proprietary varieties.
- It must, however, be a wake-up call to the government and policymakers who need to do much more to secure sustainable rural societies, protect soil health and promote seed sovereignty for the economic development of Indian farmers and of the entire nation.

13. Prepaid Payment Instruments (PPIs)

Context:

- The Reserve Bank of India has slapped monetary penalty on five pre-paid payment instrument issuers, for violating regulatory guidelines.

Details:

- A penalty of Rs. 3.05 crore has been imposed on Vodafone m-pesa and Rs. 1 crore each on Mobile Payments, PhonePe and G.I. Technology Private Ltd.
- Also, a penalty of Rs. 5 lakh has been imposed on Y-Cash Software Solutions.
- In a separate statement, RBI said it had imposed a penalty on Western Union Financial Services Inc., USA., and MoneyGram Payment Systems Inc, USA, for non-compliance of regulatory guidelines.
- The penalties on Western Union and MoneyGram had been imposed by the central bank under the provisions of the Payment and Settlement Systems Act, 2007, for compounding of the contravention.
- RBI also imposed a penalty on private sector lender Yes Bank for violation of norms pertaining to issuance and operations of PPIs.

What are PPIs?

- The PPIs are instruments that facilitate purchase of goods and services, including financial services, remittance facilities, etc., against the value stored on such instruments. PPIs that can be issued in the country are classified under three types viz. (i) Closed System PPIs, (ii) Semi-closed System PPIs, and (iii) Open System PPIs.

Who is an issuer of PPI?

- PPI issuer is an entity participating in a payment system for issuing PPIs to individuals or organisations. The money so collected is used by the entity to make payment to the merchants who are part of the acceptance arrangement and for facilitating funds transfer or remittance services.

Who is a holder of a PPI?

- A holder is an individual / organisation who purchases PPI from the PPI issuer and uses the same for purchase of goods and services, including financial services, remittance facilities, etc. However, in case of a Gift PPI, the targeted beneficiary (though not being a purchaser) can also be a holder.

Who can issue and operate PPIs in India?

- A company incorporated in India and registered under the Companies Act, 1956 / Companies Act, 2013 can issue and operate PPIs after receiving authorisation from RBI.

What are various types of PPIs?

- Closed System PPIs: These PPIs are issued by an entity for facilitating the purchase of goods and services from that entity only and do not permit cash withdrawal. As these instruments cannot be used for payments or settlement for third party services, the issuance and operation of such instruments is not classified as payment system requiring authorisation by the RBI.

- Semi-closed System PPIs: These PPIs are issued by banks (approved by RBI) and non-banks (authorized by RBI) for purchase of goods and services, including financial services, remittance facilities, etc., at a group of clearly identified merchant locations / establishments which have a specific contract with the issuer (or contract through a payment aggregator or payment gateway) to accept the PPIs as payment instruments. These instruments do not permit cash withdrawal, irrespective of whether they are issued by banks or non-banks.
- Open System PPIs: These PPIs are issued only by banks (approved by RBI) and are used at any merchant for purchase of goods and services, including financial services, remittance facilities, etc. Cash withdrawal at ATMs / Points of Sale (PoS) terminals / Business Correspondents (BCs) are also allowed through such PPIs.

Does a holder earn any interest on PPI balances?

- No interest is payable on PPI balances.

How can a PPI be loaded?

- PPIs can be loaded by cash, by debit to a bank account, by a credit / debit card, or from other PPIs. The loading / reloading of PPIs shall be through payment instruments issued by entities regulated in India and shall be in Indian Rupees (INR) only. Banks and non-banks are permitted to issue and reload such payment instruments through their authorised branches / ATMs or through their authorised agents.

14. Services Trade Restrictiveness Index (STRI)

- Launched in 2014, STRI is computed by the OECD
- It is a unique, evidence-based tool that provides information on regulations affecting trade in services in 22 sectors across all OECD member countries and Brazil, the People's Republic of China, Costa Rica, India, Indonesia, Malaysia, the Russian Federation, and South Africa (36 OECD and the rest non-OECD).
- The STRI toolkit can support policymakers to scope out reform options, benchmark them relative to global best practice, and assess their likely effects; for trade negotiators to clarify restrictions that most impede trade, and for businesses to shed light on the requirements that traders must comply with when entering foreign markets.

Issue Area

- According to a study commissioned by the Commerce Ministry it has found that the OECD index has a large number of problems associated with it, including some significant design issues that render it impractical for use
- For example, the index seems to show the Indian services sector as one of the most restrictive, particularly in policy areas like foreign entry but since 1991 this is one area that has seen maximum liberalization in India is FDI

- The data seems to have been generated by rather arbitrary procedures and reflects a developed country bias

15. Tubachi-Bableswhar Lift Irrigation Scheme

- The scheme envisages diversion of water from Krishna River near Kavatagi village of Jamakhandi Taluk by lift and providing Drip Irrigation
- TBLIS is proposed to irrigate dry lands in villages of Jamakhandi Taluk of Bagalkot district, Athani Taluk of Belgaum district and Vijayapura Taluk of Vijayapura district in Karnataka.
- The project will help mitigate the water problems of farmers of these three districts
- The river water is being used to fill all major tanks in Vijayapura district which would help in increasing the groundwater level.

16. Under Rent Act, the tenant has a protected status: SC

Context:

- The Supreme Court has held that the protection offered to a statutory tenant by rent control law can only be overcome by following the procedure laid out in the statute. Owner cannot demand re-possession of property without following statutory procedure.

Background:

- The verdict came in a case dealing with the provisions of the East Punjab Urban Rent Restriction Act, 1949, which are available to the tenant.
- Under the Act, the tenant has a protected status.
- That status cannot be disrupted or brought to an end except on grounds specified in the enactment, the apex court held.

Details:

- The status of tenant does not stand ruled out by the death of the person who created the tenancy.
- The only remedy available to the owner is to pursue eviction proceedings under the rent laws.
- Only upon the satisfaction of the competent authority that sufficient grounds exist for eviction of the tenant can an order be passed directing the tenant to vacate.
- "Restrictions on recovery of possession of the premises let out to the tenants have been imposed for the benefit of the tenants as a matter of legislative policy," the Court said.

17. RBI releases 'Vision 2021'

Context

- Aiming at a 'cash-lite' society, the Reserve Bank of India released a vision document for ensuring a safe, secure, convenient, quick and affordable e-payment system

Details

- The 'Payment and Settlement Systems in India: Vision 2019 - 2021', with its core theme of 'Empowering Exceptional (E)payment Experience', envisages to achieve "a highly digital and cash-lite society" through the goal posts of competition, cost effectiveness, convenience and confidence (4Cs).
- In all, the Payment Systems Vision 2021 has 36 specific action points and 12 specific outcomes.
- The aim is to enhance customer experience, empower payment system operators and service providers, enable the payments ecosystem and infrastructure, put in place forward-looking regulations and undertake risk-focused supervision.
- The 'no-compromise' approach towards safety and security of payment systems remains a hallmark of the vision
- The document talks about creating customer awareness, setting up a 24X7 helpline and self-regulatory organisation for system operators and service providers, among others.

INTERNATIONAL RELATIONS

1. Beyond Khalistan

Introduction

- India has often accused Canada of sheltering Sikh separatists
- Due to this, India-Canada ties have deteriorated in recent years

Details

- Sikhs in Canada form a voting bloc for Justin Trudeau, so much so that he even attended a Khalsa Day parade organized by a radical individuals in Gurudwara in Toronto.
 - * Members of Mr. Trudeau's Cabinet, especially Defence Minister Harjit Singh Sajjan, have been accused of having links with Sikh separatists.
 - * Justin Trudeau administration is soft on individuals and organisations that support the demand for Khalistan, a separate Sikh homeland.
 - * When Mr. Sajjan visited India in April 2017, Punjab Chief Minister Captain Amarinder Singh refused to meet him for this reason.
- Similarly, Mr. Trudeau received the cold shoulder during his India visit in February 2018.
 - * When Mr. Singh met Mr. Trudeau, their discussion was on the Khalistan issue, rather than on areas of mutual cooperation.
- Recently, Mr. Trudeau drew the ire of the Indian government when a report on terror threats avoided the words 'Khalistani extremism'.

Views of Sikh Diaspora

- The Indian media, the government and even politicians in Punjab need to realise that Sikhs based in Canada, the U.K. and the U.S. may have different political views. The Canadian govt in fact views it as Freedom of expression.
- Similarly, non-violent support for a cause cannot be labelled as a militant activity.

Canadian relationship should be seen in compartments

Critics of the Canadian government must also bear in mind that like all relationships, this is a multi-layered one.

- While New Delhi may be uncomfortable with the Canadian government's approach towards the activities of certain Sikh hard-liners, it is important to bear in mind that for the year 2017, Indian students received well over 25% (over 80,000) of the available study permits.
- In 2017, well over 40% of the 86,022 people who received invitations for permanent residency were Indians.

- During 2018, this rose by a staggering 13% to 41,000.

What should be done?

- If there is evidence of support for any violent activity, New Delhi and Canada must work together to tackle the problem.
- By focusing only on the Khalistan issue, New Delhi risks alienating the Sikh diaspora.
- India should instead reach out to the Sikh diaspora in a year when Sikhs and all other followers of Guru Nanak will be commemorating his 550th birth anniversary.

Conclusion

It is important to handle ties with Canada with nuance.

- First, members of the Sikh diaspora and Sikh politicians who are vocal on human rights issues shouldn't be labelled Khalistani sympathisers.
- Second, it should be remembered that the New Delhi-Ottawa relationship goes well beyond the Khalistan issue.

2. Coastal Radar Surveillance System

- The radar chain—will link up with systems in India, Sri Lanka, Mauritius and Seychelles—will provide a comprehensive live feed of ship movements in the Indian Ocean Region that can be used by friendly navies.
 - * The project evolved primarily looking at the non-state threat that India was facing in the maritime domain.
 - * However, it has grown into a project that is now about the larger issues of structural change in the region; it is about maritime domain awareness, and it is about the potential role that India can play in the Indian ocean region.
 - * The radar systems that we have installed would be able to see very long distances and would be able to transfer images; all images would be transported onto satellite systems through which it would be downlinked to the central server. It would be available to all these countries. Search and surveillance can be mounted if there are any suspicious movements.
- The part of the plan is to increase maritime domain awareness in the wake of the 26/11 Mumbai attack, coastal surveillance radars have been set up in Sri Lanka (6), Mauritius (8) and Seychelles (1).
- India also set up an Information Fusion Centre – Indian Ocean Region (IFC-IOR) that will share real-time maritime information with friendly nations in the region.

- With this India is trying to emerge as a net-security provider in the Indian Ocean Region (IOR).

Background

- The total number of radars which will be part of the system on the Maldives is ten.
- Of these, three were already functional but were only able to send out AIS (Automatic Identification System) data, and presently undergoing upgrades by technicians from Bharat Electronics Limited.
- Once the upgrades are implemented, the system can be integrated into the wider Coastal Surveillance Radar System.

How is it working currently?

- We have a Fusion Centre where all the pictures actually gets into a big database. The feed also comes from our aircraft, our ships and submarines which are patrolling in various parts of the Indian Ocean.
- All this feed is synthesized together in the fusion center and it is passed on to the commands which take action in case there is a requirement to intervene.

Significance

- The Mumbai terror attack was carried out by sea, and this enhanced surveillance system would be able to monitor the movement of even small boats. So, incidents like the Mumbai terror attack can be prevented.
- China's project of the One Belt, One Road (OBOR), has been impacting India's security. China has setup projects in Pakistan, Sri Lanka, and Bangladesh.
 - * In that sense, the recognition of the Maldives of the importance and value of India, in their development, stands out and their decision, to restart the project of putting the coastal surveillance radars in the Maldives is very significant.

The Players in the Region and what's at stake for them?

- China's policy in the Indian Ocean and Pacific Region, has caused concern to many countries including the United States, Australia, New Zealand, the countries of south-east Asia and Japan.
 - * There have been indications by many of these countries to work more closely with India in regard to ensuring everybody's maritime security as well as securing the safety of the maritime routes.
- There are vital sea lanes of communication passing through the Maldives and these sea lanes are of interest to most countries which have trade going through this particular area.
 - * By promising an aid package of 1.4 Billion dollars, the Government of India, has indicated that it would do everything possible to help the Maldives to pursue their developmental programmes.

- It is important to note that the Maldives are not pulling away entirely from the Chinese- this is in line with what President Solih has said- mentioning that he would like to strengthen old friendships while developing new ones.
- Further, the spate of terror attacks that Sri Lanka has witnessed recently also raises concerns over a small island nation like the Maldives as well.
- It is there that intelligence sharing with the government of the Maldives would be very important. The coastal surveillance radar system would help not only India, but also, the government of Maldives in this regard.

3. East Container Terminal at Colombo Port

Context

- Sri Lanka, Japan and India signed an agreement to jointly develop the East Container Terminal at the Colombo Port.
- The joint initiative is estimated to cost between \$500 million and \$700 million

Details

- As per the agreement signed, the Sri Lanka Ports Authority (SLPA) retains 100% ownership of the East Container Terminal (ECT), while the Terminal Operations Company, conducting its operations, is jointly owned
- Sri Lanka will hold a 51 per cent-stake in the project and the joint venture partners will retain 49%.
- The ECT is located some 3 km away from the China-backed international financial city, known popularly as "port city", being built on reclaimed land on Colombo's sea front.



4. IBSA

Introduction

The idea of creating a grouping composed of major democracies of three continents, Asia, Africa and South America, emerged from the disarray at the end of the 20th century, and the perceived need for developing countries to forge decisive leadership.

- It has galvanized "South-South co-operation"
- IBSA is the true inheritor of solidarity among developing countries, which was nurtured from the Bandung Conference (1955) through UNCTAD and G-77 to the BAPA+40 Declaration (2018).
 - * BAPA+40-> 40 years after the Buenos Aires Plan of Action
 - * On 12 September 1978 in Buenos Aires, capital of Argentina, delegations from 138 States adopted by consensus a Plan of Action for Promoting and Implementing Technical Cooperation among Developing Countries (TCDC).
 - * They gave it the name of the city that had been host to their United Nations Conference on TCDC.

Details

- The grouping was formalized and named the IBSA Dialogue Forum when the Foreign Ministers of the three countries met in Brasilia in 2003
 - * IBSA was launched through the Brasilia Declaration in 2003
- The principles, norms and values reinforcing the IBSA Dialogue Forum are participatory democracy, respect for human rights, the Rule of Law and the strengthening of multilateralism.
- In his address at IBSA's first summit in Brasilia, in 2006, Prime Minister Manmohan Singh said, "The idea of IBSA is without precedent."
- The forum's 2007 Tshwane declaration and 2008 Delhi declaration called for greater cooperation between the countries of the global South, guided by the principles of equality, economic and political non-conditionality, mutual benefit, and non-interference in each other's domestic affairs.

Cooperation in IBSA is on three fronts:

- First, as a forum for consultation and coordination on global and regional political issues,
 - * It involves the reform of the global institutions of political and economic governance, WTO Development Agenda, climate change, terrorism etc.;
 - * In particular, it is strongly committed to the expansion of the UN Security Council.
- Second, trilateral collaboration on concrete areas/projects,
 - * This will be implemented by fourteen working groups and six People-to-People Forums, for the common benefit of three countries;
- Third, assisting other developing countries by taking up projects in the latter through IBSA Fund.

IBSA Fund

- The IBSA Fund was set up in 2004 for the Alleviation of Poverty and Hunger
- The three countries will contribute US\$ 1 million each annually to the Fund.
- The IBSA Fund undertakes development projects in third countries.
- The first project to be financed by the IBSA Fund was in support of agriculture and livestock development.
- It has succeeded in implementing 31 development projects in diverse countries: Burundi, Guinea-Bissau, State of Palestine, Cambodia and Vietnam, among others.
 - * In Palestine, a sports complex has been built with IBSA Fund.
 - * Also the group has announced reconstruction of a medical centre in Gaza
- IBSA Fund received the 2010 MDG Award for South-South cooperation in 2010 in New York recognizing the work of the three countries in using innovative approaches to share development experiences in other parts of the world.

IBSA Visiting Fellows Programme

- India has been running an innovative IBSA Visiting Fellows Programme through the Delhi-based think tank, RIS or Research and Information System for Developing Countries.
- The Programme aims to promote academic exchange of young scholars in the field of economics and social sciences to strengthen research collaboration among India, Brazil and South Africa
 - * A strong case exists for expanding its reach.
- The Fellowship programme focuses on multilateral institutional frameworks to coordinate, support and enable sustainable development globally; joint research for cooperation and exchange of information in the fields of macro-economy, trade and development; and any other area as may be found of interest within the IBSA framework.
- Both South Africa and Brazil should initiate their own editions of this programme, as an investment in building intellectual capital.

How will India benefit from IBSA?

- Energy has often been cited as an ideal field where each country has special expertise which is of benefit to others:
 - * Brazil in Bio-fuels,
 - * South Africa in coal liquid technology
 - * India in renewable sources of energy.
- IBSA could articulate the need for maritime peace, stability and the rule of law in the Indian Ocean and the South Atlantic.

- There are an association of democracies that believe they have a right to claim permanent membership of the UNSC.
- With the development works initiated in the third world they will be able to garner support and goodwill of Govt and people.
- Strategically too, IBSA member countries regularly conduct naval exercises in the Indian Ocean
 - * IBSAMAR are a series of naval exercises between the navies of India, Brazil, and South Africa.

Concerns raised about IBSA

- As a contribution to the IBSA fund, the three countries promised that each of them will pitch in an annual contribution of \$1 million to the fund. Though operational the fund has received has very less contributions as a whole.
- Meetings which was part of agenda is not conducted regularly to enhance the partnership.
- IBSA has faced even greater challenges in its attempts to influence international affairs and shift the global balance of power. Joint initiatives have been few and far between and largely fallen short of expectations.
- IBSA countries face similar internal challenges ranging from socio economic inequality, low levels of public education and rapid urbanization.
- Also the working group counterparts lacked the authority to take any decisions which severely slowed down cooperation. Some policy makers privately concede that the working groups have yet to produce any tangible results, largely because they lack high-level political support.

What IBSA needs to do?

- Although considerable progress has been made both in-terms of its commitments and implementation of projects, the grouping faces a fundamental challenge; How to maintain its relevance in the wake of the emergence of similar groupings such as BRICS. To overcome this challenge, IBSA member states must ensure regular meets both at the level of Heads of State and Government, as well at the Ministerial level.
- The grouping must work together as a joint lobby in other groupings of which they are members of, such as BRICS and G20.
- IBSA should establish effective maritime and civil aviation connectivity, develop a liberal visa scheme
- More substance should be imparted to people-to-people contacts.

Context

- The IBSA Academic Forum, comprising independent experts, held its sixth session in Kochi from May 3-5.

5. IN Ships undertake Group Sail

Context

- IN Ships Kolkata and Shakti carried out Group Sail with naval ships of Japan, Philippines and the United States of America in the South China Sea
- IN Ships also took part in Maritime Security (MS) Field Training Exercise (FTX) under the aegis of ADMM-PLUS.

ADMM-Plus

- The ADMM-Plus is a platform for ASEAN and its eight Dialogue Partners to strengthen security and defence cooperation for peace, stability, and development in the region.
- The ADMM-Plus countries include ten ASEAN Member States, namely,
- Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.
- Eight Plus countries – dialogue partners, namely Australia, China, India, Japan, New Zealand, ROK, Russian Federation, and the United States.
- The ADMM-Plus has become an effective platform for practical cooperation among the participating countries' defence establishments.

Objectives of ADMM-Plus

- To benefit ASEAN member countries in building capacity to address shared security challenges, while cognizant of the differing capacities of various ASEAN countries;
- To promote mutual trust and confidence between defence establishments through greater dialogue and transparency;
- To enhance regional peace and stability through cooperation in defence and security, in view of the transnational security challenges the region faces;
- To contribute to the realization of an ASEAN Security Community which, as stipulated in the Bali Concord II, embodies ASEAN's aspiration to achieve peace, stability, democracy and prosperity in the region where ASEAN member countries live at peace with one another and with the world at large;
- To facilitate the implementation of the Vientiane Action Programme, which calls for ASEAN to build a peaceful, secure and prosperous ASEAN, and to adopt greater outward-looking external relation strategies with our friends and Dialogue Partners.

6. India gives 2 attack copters to Afghanistan

Context

- India handed over two Mi-24 attack helicopters to Afghanistan.

Details:

- These helicopters are a replacement for the four attack helicopters gifted by India to Afghanistan in 2015.
- The move comes at a crucial time for Afghanistan as the US is looking to exit the country after a 17-year stay
- The Mi-24 helicopters will boost the capability of the Afghan Air Force (AAF) and enhance the effectiveness of the Afghan National Defence and Security Force in combating the scourge of terrorism.
- The helicopters were handed over with the aim of strengthening the Afghan air force as it battles a deadly Taliban insurgency.
- Under a tripartite agreement, India has agreed to purchase the attack helicopters from Belarus and supply them to Afghanistan.
- Earlier, India had gifted four Mi-24 attack helicopters drawn from the inventory of the Indian Air Force and three Cheetal utility helicopters manufactured by Hindustan Aeronautics Limited (HAL).
- New Delhi has pledged and donated more than \$3 billion in aid and reconstruction efforts to Afghanistan, it has been reluctant to send soldiers to reinforce a US-led multinational force.
- India's reluctance stems from the fact that its embassy in Kabul and its consulates in other parts of Afghanistan have been targeted by terrorist groups such as the Haqqani network that are seen as linked to Pakistan-backed Taliban insurgents who are aiming to dislodge President Ashraf Ghani.

Mi-24 Helicopters:

- The Mi-24 is a large helicopter gunship, can be used for assault and transport missions given that it can ferry up to eight people.
- The attack helicopters, designed to take on fortified enemy positions and flying in troops to locations prone to heavy ground fire.
- It will join the Afghanistan Air Force that already operates three of the Indian built Cheetal light helicopters.

7. Initiatives by Commerce Ministry to Boost Trade with African Countries

Context

- Commerce Ministry and Indian High Commissions and Embassies of eleven African countries arranged an interaction over Digital Video Conference (DVC) with the Indian business community in Africa
- This initiative was held in order to build an effective engagement with the Indian Diaspora in Africa in order to further deepen and strengthen India-Africa trade ties.

Stats

- India's total trade with the African region during 2017-18 was USD 62.69 billion (8.15% of India's total trade with the World).
- India's share of exports to African countries as a percentage of India's total exports to the world was of the order of 8.21% in 2017-18.
- Africa region's share in India's total imports from the World accounted for 8.12% in 2017-18.

Diaspora relationship

As per the latest available estimates the current strength of the Indian Diaspora in the African countries is 2.8 million out of those 2.5 million are PIOs and rest 220967 are NRIs

- The inherent strength of India in Africa is its rich and vast Diaspora which has established strong links with the political, economic and social fabric of the African continent.
- In order to formulate a strategy to boost India-Africa Trade & Investment, the Indian Diaspora in Africa has to be leveraged further in order to ensure that the strategy is effective

The major issues highlighted by the Indian Business Community in these 11 countries are:

- Improving the Line of Credit system and developing a facility for an affordable and competitive funding.
- Setting up of Indian Banks/financial institutions in Africa
- Enhanced Buyers' Credit facility for promotion of trade between the two regions
- Reviewing and liberalizing visa policies from both sides
- Need for direct flights between the India and African countries
- Exploring the possibility of rupee trade to address the issue of shortage of dollars in region.
- Creation of common database of buyer-suppliers in the two regions for facilitating matchmaking for enhancement of bilateral trade.
- Development of a robust trade dispute settlement mechanism
- More frequent and structured country/sector specific trade exhibitions in Africa
- Establishment of country chapters of FICCI or CII in Africa
- Frequent visits of policy makers, chamber of commerce and investors for familiarization with local business and investment regime for informed decisions

Way forward

- This initiative of the Commerce Ministry emphasizes the need for a multipronged strategy for further enhancing trade and investment ties between the two regions.

- Commerce Ministry recognizes that for formulating an effective export strategy it is imperative to engage the Indian business community in Africa for mutual gain for both sides as trade relations between the people of same origin instill greater confidence amongst trade partners.

8. Jaish-e-Mohammad chief Masood Azhar listed as global terrorist by UN

Context

- In a major diplomatic victory for India, Jaish-e-Mohammed founder Masood Azhar was finally declared a global terrorist by the UN Security Council after China lifted its technical hold.

Background

- The P-3 or group of three permanent UNSC members, the U.S., the U.K. and France, had co-sponsored a listing request at the Committee to declare Masood Azhar as a terrorist, weeks after the Pulwama attack that killed over 40 security personnel.

Details

- After careful study of the revised materials and taking into consideration the opinions of relevant parties concerned, China said it has no objection to the listing proposal
- The reasons for designating Azhar as a terrorist as per the listing included his support for the JeM since its founding, being associated with the al-Qaeda by recruiting for them and "participating in the financing, planning, facilitating, preparing, or perpetrating of acts or activities or supplying, selling or transferring arms and related material".
- It also pointed to his role in recruiting fighters in Afghanistan.

Why did China change its position now?

- The Azhar issue has cast shadows on China's commitment to fighting terrorism.
 - * Jaish, which Azhar leads, has been an internationally designated terrorist outfit. And its role in multiple terrorist attacks in India has been well established. China's continued hold on his listing had weakened internationally its position against terror.
 - * After all, China has its own terror problem. The "deradicalisation" camps it is running in Xinjiang has triggered international criticisms, particularly from the U.S. Its Secretary of State Mike Pompeo has slammed China's "shameful hypocrisy", saying it's abusing over a million Muslims at home while protecting "violent Islamic terrorist groups from sanctions at the U.N."
- After it used its hold on Azhar following the Pulwama terror attack, the U.S. distributed a draft resolution at the U.N. Security Council (outside the 1267 Committee) to ban Azhar.

- * If the resolution is put to vote, China would be left with an awkward choice — either to back it or use its precious veto power, further isolating itself among global peers.

- * This appeared to have put China in a fix.

- China didn't have to completely abandon Pakistan, its "all-weather friend".

- * The original listing application, which France, the U.K., and the U.S. had moved had a reference to the Pulwama terror attack.

- * But that reference was removed from the application, apparently at China's insistence.

- * This is in line with Pakistan's Kashmir narrative that terror activities in the Valley are an indigenous uprising, and not controlled by any foreign player.

- * The official listing talks about Azhar's ties with Jaish and al-Qaeda, but has no reference to his role in Kashmir violence.

Implications

- The global terrorist tag will subject Azhar to an assets freeze, travel ban and an arms embargo.
- With Assets Freeze states freeze without delay the funds and other financial assets or economic resources of designated individuals and entities.
- Azhar's designation as a global terrorist will force Pakistan to act against him and individuals and entities associated with him.
 - * This will effectively mean total immobilisation of Azhar and shutdown of his organisation and its institutions such as terror camps and madrasas.

India's Response

- Welcoming the decision, India called it a "step in the right direction", which demonstrated the international community's resolve to fight against terrorism and "its enablers".
- India will continue with its efforts through international forums to ensure that terrorist organisations and their leaders who cause harm to our citizens are brought to justice
- The government has done well to approach Beijing with what the Ministry of External Affairs called "patience and persistence".

Issue Area

- There is much disappointment, however, over the final listing released by the Security Council, with no mention of Mr. Azhar's role in any of the attacks against India, or directing the insurgency in Jammu and Kashmir.

- A specific reference to Pulwama, which was in the original proposal, was also dropped, presumably to effect China's change of mind on the issue.
- Pakistan's actions against others on the 1267 list have been far from effective, and in many cases obstructionist. Hafiz Saeed, the 26/11 mastermind and Lashkar-e-Toiba chief, roams free, addresses rallies, and runs a political party and several NGOs without any government restrictions.
- LeT's operations commander Zaki Ur Rahman Lakhvi was granted bail some years ago despite the UNSC sanctions mandating that funds and assets to the sanctioned individuals must be frozen.

Conclusion

- Masood Azhar is one of about twenty 1267-sanctioned terrorists who have Pakistani nationality, and more are based there
- The focus must now move to ensuring its full implementation in Pakistan.
- It will take constant focus from New Delhi, and a push from the global community, to ensure that Masood Azhar is not just starved of funds, arms and ammunition as mandated, but that he is prosecuted in Pakistan for the acts of terror he is responsible for.
- Both financial and political pressure should be maintained on Islamabad to bring the hard-fought designation of Masood Azhar to its logical conclusion.

9. Muslim Brotherhood

Context

- President Donald Trump wants to designate the Muslim Brotherhood, an international Islamist movement, as a terrorist organization.
- The designation would impose sanctions on the group and those who do business with it.

What is the Muslim Brotherhood?

- The Muslim Brotherhood is a missionary movement founded in Egypt in 1928 by Hassan al-Banna, a schoolteacher working in the town of Ismailia, near the Suez Canal.
- He argued that an Islamic religious revival would enable the Muslim world to catch up to the West and shake off colonial rule.
- His teachings spread far beyond Egypt, and today widely varying Islamist political movements — including missionary, charitable and advocacy organizations as well as political parties in many countries — trace their roots to the Egyptian Muslim Brotherhood.
- But he was sweeping and contradictory about the mission of the group, and largely avoided spelling out what an Islamic government might look like.

Examples of Violence

- Under the British-backed monarchy in the 1940s, the Egyptian Brotherhood was one of several factions to create paramilitary wings.
- In 1948, a 23-year-old veterinary student who belonged to the group assassinated the prime minister.
- Two weeks later, another member of the outfit was arrested for attempting to bomb a courthouse.
- Al-Banna denounced the perpetrators and their actions. "They are neither Brothers nor are they Muslims," he said.

Experts critical of the Brotherhood agree that the organization does not meet the criteria for a terrorist group.

Egypt has classified them as terrorist Organisation

- The government of President Abdel-Fattah el-Sissi has classified the Brotherhood as a terrorist organization and routinely accuses it of being behind terrorist attacks.
- The Brotherhood has consistently denied any involvement.
- Since the military takeover of Egypt's government in 2013, some members of the Brotherhood have broken off to form organizations that carry out acts of violence against the military-backed government.
- Two of those groups, Hasm and Liwa al-Thawra, have been designated as terrorist organizations by the United States government.

Have branches of the Muslim Brotherhood outside Egypt engaged in terrorism?

- Yes. The Militant Palestinian Islamist Movement Hamas, for one, is an offshoot of the Muslim Brotherhood. Hamas has carried out kidnappings, suicide bombings and rocket attacks on civilian targets, which the Muslim Brotherhood considers legitimate resistance to Israeli occupation.
- The United States has designated Hamas a terrorist organization.
- Beyond that, the many Brotherhood affiliates around the world operate independently and identify only loosely with the Egyptian original, so it is difficult to speak categorically.

Is the Muslim Brotherhood related to groups like al-Qaida?

- Many people who are frustrated with the Muslim Brotherhood's nonviolence have quit the group for more militant organizations such as al-Qaida.
- Ayman al-Zawahri, the Egyptian who helped found and now leads al-Qaida, is a former Brotherhood member.

Does the Muslim Brotherhood support democracy?

- Calls for democratic elections are now a hallmark of Muslim Brotherhood movements across the Arab world, putting them at odds with the authoritarian governments of the region as well as with more militant Islamists.

What is the argument for labeling the Muslim Brotherhood terrorist?

- The main international advocates for the designation are el-Sissi of Egypt and his authoritarian allies in Saudi Arabia and the United Arab Emirates.
- Alarmed that Muslim Brotherhood parties might rise to power through elections, all three governments have cracked down on the Islamists and pressed their allies to do the same.
- They argue that the Brotherhood's Islamic ideology makes it a threat to the idea of the nation-state and thus a threat to the region's stability.
- They also argue that the Brotherhood and al-Qaida are essentially part of the same movement since both envision societies grounded in Islam.

Can Trump simply declare the Muslim Brotherhood terrorist?

- No. The administration must show that the Muslim Brotherhood engages in terrorist activity that threatens the United States or its interests.
- After counterterrorism agencies prepare written evidence, the secretary of state must consult with the attorney general and the treasury secretary before making a designation.
- Congress would have seven days to block it, and then the Muslim Brotherhood would have 30 days to appeal to a federal court in Washington.

10. Northern Sea Route (NSR)

- The entire route lies in Arctic waters and within Russia's exclusive economic zone (EEZ).

Significance

- It will enable the use of the full potential of the North Sea area for transit maritime and cargo shipment to the remote regions of the North
- There are no pirates in the Arctic seas. Therefore, choosing between a constant risk of an attack and difficult geographical conditions in the rough climate, pragmatic businessmen prefer the cold and ice and security.
- The Arctic holds oil and gas reserves equivalent to 412 billion barrels of oil, about 22 percent of the world's undiscovered oil and gas

Context

- Russia launched a nuclear-powered icebreaker, part of an ambitious programme to renew and expand its fleet of the vessels in order to improve its ability to tap the Arctic's commercial potential.
- The ship is dubbed The Ural
- Russia is building new infrastructure and overhauling its ports as, amid warmer climate cycles, it readies for more traffic via what it calls the Northern Sea Route (NSR) which it envisages being navigable year-round.

11. Operation Safed Sagar/ "Operation White Sea"

- It was the code name assigned to the Indian Air Force's role in acting jointly with Ground troops during the Kargil war that was aimed at flushing out Regular and Irregular troops of the Pakistani Army from vacated Indian Positions in the Kargil sector along the Line of Control
- It was the first large scale use of Airpower in the Jammu and Kashmir region since the Indo-Pakistani War of 1971.



Context

- On May 28, 1999, Sqn Ldr R Pundir, Flt Lt Muhilan, Sergeant RK Sahu and Sergeant PVNR Prasad laid down their lives in service of the nation while flying a mission during Ops Safed Sagar.

12. 'Order of the Rising Sun' award

- It is a Japanese order, established in 1875 by Emperor Meiji.
- The Order was the first national decoration awarded by the Japanese government
- The order is awarded to those who have made distinguished achievements in international relations, promotion of Japanese culture, advancements in their field, development in welfare or preservation of the environment

Context

- Former foreign secretary Shyam Saran will be conferred with Japan's second highest national award for his contributions to strengthen the strategic ties and enhancing mutual understanding between India and Japan.
- The Government of Japan announced that in its 2019 Spring Imperial Decorations, it will confer Saran, 'the Order of the Rising Sun, Gold and Silver Star'.

Details

- Saran, who was India's Foreign Secretary during 2004-2006, has played an important role to elevate Japan-India relationship to strategic partnership
- Saran's contributions in strengthening mutual understanding between Japan and India includes "India Festival", which was held in Japan in 1988, when he was Deputy Chief of Mission of Embassy of India in Japan
- Saran has been enhancing mutual understanding between the two countries, such as by hosting an "India-Japan Colloquium"

13. SIMBEX

- Singapore India Maritime Bilateral Exercise (SIMBEX) is an annual bilateral naval exercise conducted by the Indian Navy and the Republic of Singapore Navy (RSN)
- The exercise has been held annually
- Since its inception in 1993, SIMBEX has grown in tactical and operational complexity.

14. The case against war on Iran

- U.S. President Donald Trump has repeatedly spoken out against America's costly wars.
- Last year (2018), for instance, he called the 2003 Iraq war "the single worst decision ever made".

- Furthermore, during the presidential campaign, Donald Trump had promised to bring U.S. troops home.
- However, two and a half years into his own presidency, the U.S. is on the brink of another major war in West Asia, this time with Iran.
- Claiming to have intelligence that Iran could target its interests or the interests of its allies in the region, the U.S. has already sent an aircraft carrier group and a bomber squadron to the Gulf, which U.S. National Security Adviser John Bolton called "a clear and unmistakable message to the Iranian regime".
- However, when asked if the U.S. is going to war with Iran, Mr. Trump replied, "I hope not."
- Having said this, the growing clamour for war both in Washington and in West Asia is hard to miss. Mr. Bolton, who is currently driving the Iran policy, is a well-known Iran hawk and has repeatedly called for regime change in Tehran.
- It is Israel that provided the intelligence inputs that set off the latest flare-up.
- As a matter of fact, a Saudi newspaper owned by Turki bin Salman, brother of Crown Prince Mohammed bin Salman, carried an editorial last week calling for "surgical strikes" on Iran.
- As a matter of fact, a mysterious attack on four oil tankers off the UAE coast, and a drone attack on a Saudi pipeline that was claimed by the Iran-backed Houthi rebels of Yemen, worsened the crisis.
- The situation in the Gulf is so dangerous now that a mere spark could trigger a full-blown conflict.

A Look into Specifics:

- If the U.S. goes to another war in a region still struggling to recover from its past interventions, it will be morally calamitous and strategically ludicrous.
- Moreover, Iran does not deserve this treatment. Iran signed an international agreement in 2015 to limit its nuclear programme in return for sanctions relief.
- It fully complied with the deal until Tehran announced this month (May, 2019) that it would suspend some commitments made under the deal in protest against U.S. sanctions.
- It was Mr. Trump who violated the deal first by pulling the U.S. out of it last year (2018) and reimposing sanctions on Iran.
- Experts point out that in a better world, Iran's adherence to the agreement would have been appreciated and the country allowed to reap the promised benefits of the deal. Instead, the Trump administration punished it.
- Secondly, if the U.S. goes to war, it will be a unilateral military action. It won't get the approval of the United Nations Security Council as Russia and China remain steadfastly opposed to military action.

- Even the U.S.'s European allies, including the U.K. which supported the Iraq war, remain committed to the nuclear deal. The U.S. might get the support of Saudi Arabia and Israel, but it is not certain whether even these countries would like to get dragged into a full-blown war.
- A unilateral military action would further weaken international institutions and create more fissures in the Atlantic alliance.

Iran is not Iraq:

- It is also important to note that Iran is not Iraq. Nor is it Libya.
- The U.S. went to Iraq after a decade of crippling sanctions that it imposed and battered the country's economy and military. Iraq was totally isolated.
- Arab countries had turned against Baghdad after the first Gulf war, Iran was its enemy, and Russia was still in retreat mode.
- The U.S., the U.K. and their allies marched to Iraq and toppled the Saddam Hussein regime in just a few weeks.
- Iran, on the other hand, is a country that lives in a state of permanent insecurity.
- It has always been battle-ready.
- It is important to note that while Iran is not a strong conventional military force and is crippled by sanctions as well, Iranian policymakers were aware of these challenges.

What Iran can do in the event of war?

- Iran adopted a 'forward defence' doctrine of expanding Iranian influence across West Asia through non-state militia groups.
- As a matter of fact, Iran has Hezbollah in Lebanon, Shia militias in Iraq and Syria, the Houthis in Yemen, and the Islamic Jihad in Gaza.
- In the event of a war, Iran could activate these groups, triggering multiple conflicts, drawing in several other countries.
- This possibility makes even "a limited strike" on Iran dangerous.
- Besides, Iran could block the Strait of Hormuz, which lies between the Persian Gulf and the Gulf of Oman, through which one-third of the world's LNG and 20% of total oil production flows.
- That would be a drastic measure that could trigger a massive response from the U.S.
- However, war itself is a drastic measure and could cause extreme retaliatory action.

A Perspective on the U.S.'s war record:

- Next, the U.S.'s war record is not as great as is often presented to be.

- It is the world's pre-eminent military power not because of the results of the wars it has fought but because of its military might.
- It is ironic that the U.S. is escalating tensions in the Gulf at a time when it is negotiating with the Taliban to find a face-saving exit from Afghanistan.
- When the War on Terror began, the U.S. promised to go after every terrorist in the world.
- Seventeen years later, al-Qaeda is still alive, the Islamic State and other terror organisations are operating across the world, and the Taliban controls almost half the territory in Afghanistan.
- In Iraq, the U.S. could easily topple the Saddam regime, but it failed to quell the post-Saddam unrest. As a matter of fact, Iraq slipped into a sectarian civil war.
- It was from the mayhem in Iraq that the Islamic State rose.
- In Libya, the promise was liberation from Muammar Gaddafi's dictatorship when the North Atlantic Treaty Organization (i.e., the U.S., France and the U.K.) intervened in 2011.
- Gaddafi was killed, but the country sank into chaos and is still to recover from it.
- In Syria, the U.S. made an indirect intervention and demanded President Bashar al-Assad's ouster until it was outwitted by the Russians.
- The U.S. failed to get the desired outcome in all these countries. How will Iran be any different?

Concluding Remarks:

- As U.S. President, Barack Obama seemed to have realised the challenges in Iran.
- That is why he attempted to curtail Iran's nuclear programme through diplomatic means.
- And he succeeded, until Mr. Trump came along and sabotaged it.
- President Trump says he wants talks with the Iranians, but he doesn't have a realistic programme for the same.
- If talks were his primary objective, the U.S. should not have withdrawn from the nuclear deal.
- Trump should have used the bonhomie created by the deal to expand ties and address concerns such as Iran's regional activism.
- If Mr. Trump truly wants to change the course, he should start with de-escalation and rein in his bellicose advisers.

15. Varuna exercise

- It is Indo-French joint naval exercise
- The bilateral naval exercise initiated in 1983 and named as 'Varuna' in 2001, form a vital part of the Indo-French strategic partnership.

- The Varuna exercise aims at developing interoperability between the two navies and fostering mutual cooperation by learning from each other's best practices to conduct joint operations.
- The exercise underscores the shared interests and commitment of both nations in promoting maritime security.

Context

- The Indian and French navies began the 17th edition of their annually-held bilateral naval warfare exercise, designated Varuna 19.1/19.2

Details

- The upcoming 17th edition includes participation of the French Navy's aircraft carrier FNS Charles de Gaulle, two destroyers, FNS Forbin and FNS Provence, the frigate FNS Latouche-Treville, the tanker FNS Marne and a nuclear submarine.
- From the Indian side, the aircraft carrier INS Vikramaditya, destroyer INS Mumbai, the Teg-class frigate, INS Tarkash, the Shishumar- class submarine, INS Shankul, and the Deepak- class fleet tanker, INS Deepak, will be participating in this exercise.
- Varuna 19.1 will be conducted off the Goa coast
- Varuna 19.2, is scheduled to be held at the end of May in Djibouti.

SOCIAL ISSUES

1. Challenges for Transgender-inclusive Sanitation in India

Introduction

- India has made important strides in improving access to toilets for households and communities in the past few decades.
- There has been an increasing recognition that effective sanitation for all needs to reflect the requirements of not only women and girls, but also, disabled, elderly and transgender persons
- In recent years, the discrimination and violence faced by transgender persons have slowly been recognised outside of academic circles.
- However, the inclusiveness of the policies and their implementation remain low, and more needs to be done in terms of research and actual application.

Steps taken to address issues with respect to Transgender

- There have been incremental increases in the legal recognition of the need to provide transgender persons with legal rights to access public infrastructures, education, housing, etc.
- The Transgender Persons (Protection of Rights) Bill, 2016, provides visibility to transgender persons and their legal rights.

Issue Area

- As an outcome, transgender persons in India currently live under a legal, policy, and social framework where they are recognised, but have not been fully integrated into society.
- As a consequence of the underlying discrimination against the transgender community, toilets remain as sites of social exclusion and violence in their day-to-day lives.
- Transgender persons are exposed to sexual harassment and violence if they use the men's toilets and are unwelcome in both women and men's toilets as "it is widely believed that they are seeking sex work when they visit the toilets"
- This leaves them with few options and many of them continue to practice open defecation, or wait to find a safe time to use the toilets.
- Currently, the transgender community faces dangers of infection, violence, humiliation, and corruption in their daily lives as they manage their sanitation needs.

Areas that need introspection

- Moreover, the definition of transgender sanitation requires to expand and include the needs of transgender persons who menstruate, are disabled, or are post-operative.

- For example, countries in the West such as the United Kingdom now use the term "menstruator" to indicate that other genders and not just women menstruate.
- In India, menstrual hygiene or even childcare is rarely bought up while designing sanitation solutions for the transgender community—indicating the scope of the knowledge gap between what transgender persons need and what is being offered through the sanitation programmes.

A look at numbers

- As per the 2011 Census, there are 4.88 lakh transgender persons in India and over 55,000 children under the ages of six who are identified as transgender.
- Under the Swachh Bharat Mission (SBA), a total of 1,04,802 toilet seats in community toilets have been built and another 1,29,809 toilet seats are under construction
- While the data on how many of these seats are designed for transgender persons are not easily decipherable, a simple internet search of public toilets in India for transgender persons reveals that such toilets continue to be a rare exception.

Some Notable examples

- In states like Tamil Nadu and Mizoram, there are instances of the transgender community's sanitation needs and concerns being recognised and translated into some form of public toilets.
 - * However, these exercises have been exceptions and not a commonplace practice.
- The Government of Manipur along with Non-Governmental Organisations (NGOs) and leaders from the transgender community came together as a part of a larger initiative towards economic and social inclusion of transgender persons into the mainstream society. As a part of the initiative, the Manipur government has introduced separate toilets for transgender persons during various festivals and in some parts of Imphal, a step that was appreciated by the transgender community.
 - * However, these toilets have not addressed the issue of their safety and dignity

Conclusion

- Therefore, to design inclusive sanitation, recognition of the sanitation needs of adolescents and minors who identify as transgender is necessary. This requires a rethinking of not only public toilets but also toilets in schools and colleges

- To really achieve sustainable and safe sanitation, there is a need to examine, more deeply, the obvious and the nuanced barriers to safe sanitation for transgender persons.
- Toilets, either earmarked for transgender persons, or gender-neutral toilets, satisfy some of the basic needs of the transgender community but can leave them exposed to violence and harassment. This violence and harassment experienced by them while using toilets is an extension of the violence they face in other spheres of their everyday lives. Therefore, to have transgender-inclusive sanitation, it is essential to recognise the need for tackling transphobia through policy, law, employment, and social integration.
- Moreover, having a toilet that explicitly broadcasts a transgender person's identity to others may not be desirable to all transgender persons, as the underlying transphobia can make them vulnerable to violence.
- Finally, there is a need to expand the meaning of sanitation for transgender persons to include menstrual hygiene and reproductive care. In short, transgender-inclusive sanitation requires a deeper understanding of their social, cultural, biological needs through various life stages.

2. Children of today better off than 20 years ago

Context:

- As a Recently a report named Global Childhood Report was released by Save the Children, an NGO working for the education and protection of child rights.

Findings of the report:

- Document indicates that in 2000, an estimated 970 million children were robbed of their childhood due to ill-health, malnutrition, exclusion from education, child labour, child marriage, early pregnancy and violent death.
- That number has reduced to 690 million which effectively means that at least 280 million children are better off today than they would have been two decades ago.
- The overall situation for children has improved in 173 of 176 countries since 2000.
- Children born today have a better chance than at any time in history to grow up healthy, educated and protected, with the opportunity to reach their full potential.
- Even a generation ago, a child was twice as likely to die before reaching age 5, 70% more likely to be involved in child labour and 20% more likely to be murdered.
- Globally, child deaths have dropped and there are 49 million fewer stunted children, with China and India accounting for more than half of the global decline.

- The number of children living in war zones or forced to flee their homes due to conflict has skyrocketed since 2000.
- 1 child in 4 is being denied the right to a childhood.
- Children make up about 30% of the world's population, but more than half the world's refugees are children.

Significance:

- The report highlights the fact that tremendous progress is taking place in some of the poorest countries, providing ever increasing evidence that development work is paying huge dividends in countries where needs are greatest.
- However, it warns that the world has made less progress in reducing adolescent births and child homicide.
- Additionally, there has been no progress at all in reducing the number of children living in areas of violence and conflict.

3. In joint family, brother-in-law has liability to pay maintenance to domestic violence victim: SC

Context:

- The Supreme Court has held that even the brother-in-law has a liability to pay maintenance to a victim under the Domestic Violence Act if they had lived together under the same roof in a shared household as part of a joint family at any point of time.

Details:

- In a nine-page order, the apex court Bench interpreted what the expression 'domestic relationship' means under the 2005 Act.
- They held that the term meant a "relationship where two persons live or have lived together at any point of time in a shared household when they are related by consanguinity, marriage or through a relationship in the nature of marriage, adoption or are members living together as a joint family".
- The court further read the term "shared household" to include "such a household which may belong to the joint family of which the respondent is a member, irrespective of whether the respondent or the aggrieved person has any right, title or interest in the shared household".
- It was also held that "An aggrieved wife or a female living in a relationship in the nature of marriage may also file a complaint against a relative of the husband or the male partner, as the case may be."

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

- The Domestic Violence Act, a first of its kind law in India, came into force on 26 October 2006 to address violence against women within the home.

- It's a civil law aimed at providing a support system to women who have suffered violence at home
- Before the act, women could only seek recourse under the Indian Penal Code (IPC) sections 304B (dowry death) and 498A (cruelty by husband or his relative).
- For the first time, the act defined domestic violence. The definition includes not just physical abuse, which is more identifiable and is easier to prove (for example, using medical records), but also aspects like emotional and sexual abuse. It even includes threat of violence as part of the definition.
- The law enshrines principles of the Convention on the Elimination of All forms of Discrimination against Women (CEDAW), which India ratified in 1993.

4. India among countries where women face most violence by partner

Context:

- Global estimates published by the World Health Organization indicate that about 1 in 3 (35%) women worldwide have experienced either physical and/or sexual intimate partner violence or non-partner sexual violence in their lifetime.

Issue:

- In India, there are a number of evil cultural traditions that account for violence against women. These include female infanticide and prenatal sex selection, early marriage, dowry-related violence, female genital mutilation (FGM), "honour" crime, and maltreatment of widows. Domestic violence, however, remains the most neglected.
- Violence against women, particularly intimate partner violence and sexual violence, is a major public health problem and a violation of women's human rights
- Healthcare professionals cautioned that violence can negatively affect a woman's physical, mental, sexual, and reproductive health, and may increase the risk of acquiring HIV in some settings.
- WHO has warned that intimate partner violence cause serious short-and long-term problems for women and adversely affect their children besides leading to high social and economic costs for women, their families and societies.
- A recent Thomson Reuters survey has ranked India as the world's most dangerous country for women, ahead of the war-torn Afghanistan and Syria.
- The 2016 National Crime Records Bureau (NCRB) data shows that a woman in India was raped every 13 minutes and six women gang-raped every day.
- Not only that, every 69 minutes a bride was killed for dowry; 20 foetus and infants were murdered each month and about the same number of women attacked with acid every month.

WHO Global estimates:

- In countries like India, intimate partner violence is the highest at 37.7% in the WHO South-East Asia region.
- As per figures released by WHO, the violence ranges from 23.2% in high-income countries and 24.6% in the WHO Western Pacific region to 37% in the WHO Eastern Mediterranean region.
- Explaining how gender-based violence is perpetrated, the global health organisation said that men are more likely to perpetrate violence if they have low education, a history of child maltreatment, exposure to domestic violence against their mothers, harmful use of alcohol, unequal gender norms, including attitudes accepting of violence, and a sense of entitlement over women.
- Women are more likely to experience intimate partner violence if they have low education, exposure to mothers being abused by a partner, abuse during childhood, and attitudes accepting violence, male privilege and women's subordinate status.
- WHO together with UN Women and other partners has developed a framework for prevention of violence against women called Respect which can be used by governments to counter this menace.

Laws in force:

- In 1983, domestic violence was recognised as a specific criminal offence by the introduction of section 498-A into the Indian Penal Code.
- The Government of India passed a Domestic Violence Bill, 2001, to protect the rights of women who are victims of violence of any kind occurring within the family.
- An act called Protection of Women from Domestic Violence Act, 2005 also has been passed. This Act ensures the reporting of cases of domestic violence against women to a 'Protection Officer' who then prepares a Domestic Incident Report to the Magistrate.

Way forward:

- The response to the phenomenon of domestic violence must be a combined effort between law enforcement agencies, social service agencies, the courts and corrections/probation agencies.
- The role of non-governmental organizations in controlling the domestic violence and curbing its worse consequences is crucial.
- At present there is no single law in the Indian Constitution which can strictly deal with all the different forms of domestic violence. There is an urgent need for such a law in the country.

5. Jiyo Parsi

Issue:

- Parsi community has immense contribution in nation building and Parsi community has been a "role model" for other communities for its culture and traditions.

- It has given so many great people who have been “architects of nation building”.
 - * Jamshetji Tata played a crucial role in industrial development of India;
 - * Dadabhai Naoroji and Madam Bhikaji Cama played an important role in India’s freedom struggle;
 - * Homi J Bhabha is “father of Indian nuclear programme”.

Details

- The main objective of the “Jiyo Parsi” scheme is to reverse the declining trend of Parsi population by adopting a scientific protocol and structured interventions, stabilize their population and increase the population of Parsis in India.
- The Jiyo Parsi Scheme comprises of three components: Advocacy Component, Health of the Community Component and Medical Component.

Involvement of Private Organisations

- Parzor Foundation was an important link between the Parsi community and the government in success of “Jiyo Parsi” scheme.
- And the Tata Institute of Social Sciences (TISS), Mumbai; the Bombay Parsi Punchayet (BPP) and Federation of Zoroastrian Anjumans of India have also played a key role in this regard.
- These organizations have been publicizing the scheme through outreach programmes like seminars, workshops, publicity, brochures, Parsi journals and other advocacy programmes and awareness campaign.

6. Kolam Tribe

- Kolam are a designated Scheduled Tribe in the Indian states of Andhra Pradesh, Chhattisgarh, Madhya Pradesh and Maharashtra.
- They belong to the sub-category Particularly vulnerable tribal group, one of the three belonging to this sub-category.
- The others being Katkari and Madia Gond.
- They have a high rate of returning positive to the Naked eye single tube red cell osmotic fragility test (NESTROFT) test, making them prone to high incidence of Thalassaemia.

Particularly Vulnerable Tribal Groups:

- PVTGs are more vulnerable among the tribal groups.
- Some basic features are common among PVTGs. They are mostly homogeneous, with a small population, relatively physically isolated, slow rate of change etc.

- Due to these factors, more developed and assertive tribal groups take a major chunk of the tribal development funds, because of which PVTGs need more funds directed for their development.
- In this context, in 1975, the Government of India initiated to identify the most vulnerable tribal groups as a separate category called PVTGs and declared 52 such groups, while 1993 additional 23 groups were added to the category.

7. Medical Termination of Pregnancy (MTP) Act, 1971

- MTP Act allows women to go through abortions up to 20 weeks. For cases beyond the current time period, permission of a High Court is required.
- However, courts can make exceptions if abnormalities are detected and if there is a substantial risk to the mother’s life and health. A pending bill in Parliament proposes to amend the MTP Act to extend it to 24 weeks.
- MTP Act, 1971 is totally silent about termination of pregnancy of unmarried females and widows but it makes termination of pregnancy as an offence punishable under Indian Penal Code if the same is not done in accordance with the Act.

Context:

- The Delhi High Court issued notice to the Centre on a petition seeking to raise the time period for terminating pregnancy in case of health risk to the mother or the foetus from the current cap of 20 weeks to 24-26 weeks.

Issue:

- Medical Termination of Pregnancy (MTP) Act, 1971 completely prohibits termination of pregnancy in case foetus is suffering from severe abnormality even after a period of 20 weeks.
- The foetal abnormalities are detected appropriately between 18 to 20 weeks and the period of one-two weeks is too small for the would-be parents to take the difficult call on whether to keep their baby or to abort the same.
- Even if the foetus is scanned and found positive with serious abnormalities, the woman is forced to carry pregnancy due to bar provided under MTP Act.
- The abortion beyond a period of 20 weeks is permitted only if continuing the pregnancy poses a substantial risk to the woman’s life. But the law does not take care the factum of serious abnormalities suffered by the child in the womb and detected after 20th week.
- The lack of legal approval moves abortion to underground [illegal manner] and they are done in unhygienic conditions by untrained persons, thus putting thousands of women at risk.

- MTP Act, 1971 is totally silent about termination of pregnancy of unmarried females and widows but it makes termination of pregnancy as an offence punishable under Indian Penal Code if the same is not done in accordance with the Act.

Abortion laws in other countries:

- Many European countries, including France, U.K. and Italy and even neighbouring country Nepal allow abortion after 20 weeks if foetal abnormalities are discovered.
- Twenty-three countries, including Canada, Germany and Vietnam, allow abortion at any time if the request is based on social or medical reasons.

Details:

- Responses were sought from the Health and Law Ministries, and the National Commission for Women on the plea.
- The petition filed by social activist and advocate has contended that unmarried females and widows too should be allowed to undergo a legal abortion.
- It has pleaded the court to hold that the right to abort the pregnancy is a fundamental right of the woman's body sovereignty and each woman has the sole right to make decision about her body in the context of carrying such pregnancy or to terminate the same, subject to checks as provided under the MTP Act or further checks, which may be provided.
- The plea has also sought directions to deal with cases pertaining to termination of pregnancy where anomaly is detected after 16 weeks on fast track basis under MTP Rules to ensure that woman must not suffer due to administrative delay in taking decision or giving consent for termination of pregnancy.
- The Supreme Court, in 2017, had declined to amend the Act which prohibits termination of pregnancy beyond 20 weeks, saying that the issue fell within the legislative realm.

8. Pre-conception and Pre-natal Diagnostic Techniques

Act of 1994

- It is an Act of the Parliament of India enacted to stop female feticides and arrest the declining sex ratio in India.
- The main purpose of enacting the act is to ban the use of sex selection techniques after conception and prevent the misuse of prenatal diagnostic technique for sex selective abortions.
- Sex selection is any act of identifying the sex of the foetus and elimination of the foetus if it is of the unwanted sex.

Features

- The Act mandates Compulsory Registration of all diagnostic laboratories, all genetic counselling centres, genetic laboratories, genetic clinics and ultrasound clinics

- No laboratory or centre or clinic will conduct any test including ultrasonography for the purpose of determining the sex of the foetus.
- No person, including the one who is conducting the procedure as per the law, will communicate the sex of the foetus to the pregnant woman or her relatives by words, signs or any other method.
- Any person who puts an advertisement for pre-natal and pre-conception sex determination facilities in the form of a notice, circular, label, wrapper or any document, or advertises through interior or other media in electronic or print form or engages in any visible representation made by means of hoarding, wall painting, signal, light, sound, smoke or gas, can be imprisoned for up to three years and fined Rs. 10,000.

Exemptions

It regulates the use of pre-natal diagnostic techniques, like ultrasound and amniocentesis by allowing them their use only to detect:

- Genetic abnormalities
- Metabolic disorders
- Chromosomal abnormalities
- Certain congenital malformations
- Haemoglobinopathies
- Sex linked disorders.

Views of SC from Past

- Female child is entitled to enjoy equal rights that a male child is allowed to have
- The menace of female foeticide corroded human values and the constitutional identity of a girl child "cannot be mortgaged to any kind of social or other concept that has developed or is thought of"
- "When a female foetus is destroyed through artificial means, which is legally impermissible, the dignity of life of a woman to be born is extinguished. It corrodes the human values,"

Not keeping record of pre-natal tests is criminal: SC

Context

- The Supreme Court has upheld provisions in the anti-pre-natal sex determination law which 'criminalises' non-maintenance of medical records by obstetricians and gynaecologists and suspend their medical licence indefinitely. This was necessary to prevent female foeticide in the country.

Views of Doctors

- The doctors had said that the provisions in the law criminalise even the smallest anomaly in paperwork which is in fact an inadvertent and unintentional error.
- The sections have made obstetricians and gynaecologists vulnerable to prosecution all over the country.

What did SC say?

- There are only 586 convictions out of 4202 cases registered even after 24 years of existence. It reflects the challenges being faced in implementing this social legislation.
- Any dilution of the provisions of the Act or the Rules would only defeat the purpose of the Act to prevent female foeticide, and relegate the right to life of the girl child under Article 21 of the Constitution, to a mere formality.
- The Supreme Court observed that giving preference to male child is violative of Article 39A of the constitution and against mandate of Article 51A (e) which casts a Constitutional duty on citizens to renounce practices derogatory to the dignity of women.
- The court also observed that skewed sex-ratio is likely to lead to greater incidences of violence against women and increase in practices of trafficking, 'bride-buying' etc. The rigorous implementation of the Act is an edifice on which rests the task of saving the girl child

Voluntary Health Association Vs State of Punjab (Supreme Court)

- All the States and the Union Territories in India shall maintain a centralised database of civil registration records from all registration units so that information can be made available from the website regarding the number of boys and girls being born.
 - * The information that shall be displayed on the website shall contain birth information for each district, municipality, corporation or gram panchayat so that a visual comparison of boys and girls born can be immediately seen
- It directed that States and Union Territories, which do not have any incentive schemes for the girl child, shall frame the same.
- Fast track court- Noting that courts hearing cases of female foeticide should expedite hearing, the court requested the Chief Justices of High Courts to constitute a committee of three judges to periodically oversee the progress of these cases.
- The awareness campaigns with regard to the provisions of the Act as well as the social awareness shall be undertaken
 - * The State Legal Services Authorities of the States shall give emphasis on this campaign during the spread of legal aid and involve the para-legal volunteers.
 - * The Union of India and the States shall see to it that appropriate directions are issued to the authorities of All India Radio and Doordarshan functioning in various States to give wide publicity pertaining to the saving of the girl child and the grave dangers the society shall face because of female foeticide.

9. Sahariya Tribe

- They are one among the 75 tribes declared Particularly Vulnerable Tribal Groups by the Ministry of Home Affairs.
- Most of the Sahariya live in the state of Madhya Pradesh. They are also present in small numbers in Rajasthan.
- Sahariya means jungle dwellers.
- The Sahariya tribe follows the Hindu traditions; celebrates all fairs, festivals and customs.

Economic Activity

- Due to their low educational levels, patchy land ownership, and reduced farming opportunities, Sahariya are forced to seek manual labour in nearby states and cities.
- Most of the Sahariya are landless labours, working in stone mines and in farms of others.

Health Concerns

- Poverty and malnutrition impede the tribal people. Their health condition remains poor. Lacking in healthcare facilities/centres further accelerate it.
 - * They have to walk miles to get medical facilities as they live in the jungle and isolated areas.
 - * The people mainly suffer from the respiration disease such as asthma, as most of them are working in stone mining

10. The gender ladder to socio-economic transformation**Introduction**

- India is in the middle of a historical election which is noteworthy in many respects, one of them being the unprecedented focus on women's employment.
- The major national parties, the Bharatiya Janata Party and the Congress, have reached out to women, and their respective manifestos talk of measures to create more livelihood opportunities in rural and urban areas, which include incentives to businesses for employing more women.

Stats

- Currently, the participation of women in the workforce in India is one of the lowest globally.
- The female Labour Force Participation Rate (LFPR) in India fell from 31.2% in 2011-2012 to 23.3% in 2017-2018.
 - * Labour force participation rate is defined as the section of working population in the age group of 16-64 in the economy currently employed or seeking employment.
 - * People who are still undergoing studies, housewives and persons above the age of 64 are not reckoned in the labour force.

- This decline has been sharper in rural areas, where the female LFPR fell by more than 11 percentage points in 2017-2018.

Structural and social Problems

- The answers can be found in a complex set of factors including low social acceptability of women working outside the household, lack of access to safe and secure workspaces, widespread prevalence of poor and unequal wages, and a dearth of decent and suitable jobs.
- Most women in India are engaged in subsistence-level work in agriculture in rural areas, and in low-paying jobs such as domestic service and petty home-based manufacturing in urban areas.
- On the contrary, time-use surveys have found that they devote a substantial amount of their time to work which is not considered as work, but an extension of their duties, and is largely unpaid. The incidence and drudgery of this unpaid labour is growing.
- This includes unpaid care work such as childcare, elderly care, and household work such as collecting water.
- The burden of these activities falls disproportionately on women, especially in the absence of adequately available or accessible public services

Education and work

A recent study observed a strong negative relationship between a woman's education level and her participation in agricultural and non-agricultural wage work and in family farms.

- Essentially, women with moderately high levels of education do not want to do manual labour outside the household which would be perceived to be below their educational qualifications.
- The study also showed a preference among women for salaried jobs as their educational attainment increases; but such jobs remain extremely limited for women.
- It is estimated that among people (25 to 59 years) working as farmers, farm labourers and service workers, nearly a third are women, while the proportion of women among professionals, managers and clerical workers is only about 15% (NSSO, 2011-2012).

Role of Govt in Empowerment

Any government which is serious about ensuring women's economic empowerment and equal access to livelihoods must address the numerous challenges that exist along this highly gendered continuum of unpaid, underpaid and paid work.

- A two-pronged approach must entail facilitating women's access to decent work by providing public services, eliminating discrimination in hiring, ensuring equal and decent wages, and improving women's security in public spaces.
- On the question of work, women's demands include gender-responsive public services such as free and accessible public toilets, household water connections, safe and secure public transport, and adequate lighting and CCTV cameras to prevent violence against women in public spaces and to increase their mobility.
- Women have also expressed the need for policies which ensure safe and dignified working and living conditions for migrant workers.
 - * For example, in cities, governments must set up migration facilitation and crisis centres (temporary shelter facility, helpline, legal aid, and medical and counselling facilities).
 - * They must also allocate social housing spaces for women workers, which include rental housing and hostels.
 - * They must ensure spaces for women shopkeepers and hawkers in all markets and vending zones
- In addition, women have strongly articulated the need to enumerate and remunerate the unpaid and underpaid work they undertake in sectors such as agriculture and fisheries.
 - * Their fundamental demand is that women must be recognised as farmers in accordance with the National Policy for Farmers; this should include cultivators, agricultural labourers, pastoralists, livestock rearers, forest workers, fish-workers, and salt pan workers.
 - * Thereafter, their equal rights and entitlements over land and access to inputs, credit, markets, and extension services must be ensured.

Chilean President Michelle Bachelet, who is former head of UN Women very beautifully once said "When women are empowered and can claim their rights and access to land, leadership, opportunities and choices, economies grow, food security is enhanced and prospects are improved for current and future generations,"

Conclusion

- Unless policymakers correctly assess and address the structural issues which keep women from entering and staying in the workforce, promising more jobs — while a welcome step — is unlikely to lead to the socio-economic transformation India needs.

11. Vayoshreshtha Samman

- The Ministry of Social Justice and Empowerment decided in the year 2005 to confer Vayoshreshtha Sammans to eminent senior citizens and Institutions in recognition for their service to elderly persons, especially indigent senior citizens.
- The “Vayoshreshtha Samman” was elevated to the level of national awards in 2013 under 13 categories.
- The scheme shall showcase the Government’s concern for senior citizens and its commitment towards senior citizens with the aim of strengthening their legitimate place in the society.
- Vayoshreshtha Sammans shall be conferred every year in thirteen categories.
- The recipients of the Sammans shall be declared every year on the 1st September and will be conferred on the 1st October on the occasion of International Day of Older Persons (IDOP).
- The Award in each category shall carry a Citation, a Plaque and also cash award in some of the categories as decided from time to time.

SCIENCE AND TECHNOLOGY

1. Endobot

- It is a robot to be marketed by an IIT Madras incubated startup, Solinas Integrity, founded by the researchers.
- It will check pipelines for leaks and other faults

Why was this project initiated?

- Quite often, pipes that transport water suffer from low maintenance and neglect which causes them to develop leakages.
- These often go unnoticed except when the water seeps to the surface.
- Periodically, water pipelines are dug up, and this may bring leaks to notice, but this is left to chance and is a costly process at best. Water is also lost through connections that have not been sanctioned officially.
- Endobot is presented as a solution that can identify these faults and stealthy connections, at a low cost.

How does it work?

- Endobot is about 6 inches high and can study any pipe having a diameter more than 8 inches
- The electrically-powered robot looks like a small tank, runs within the pipe on four wheels connected using a conveyor belt.
- As the robot, which is electrically powered, runs through the pipes at about 15 cm per second, it captures videos and transmits a live feed to the base at the entry point.
- It also uses laser-based techniques to examine the pipes as it move
- These feeds are conveyed to the user's computer and may be analysed later using software developed by the team.

2. Kilogram update

Context

- A resolution to redefine four of the seven base units was passed by representatives of 60 countries at the General Conference on Weights and Measures (CGPM) of the International Bureau of Weights and Measures (BIPM)
 - India became a member of the BIPM in 1957, and with that, the country adopted the global standard of measures.
 - Quantities like concentration, current, temperature and time were measured in mole, ampere, Kelvin and seconds, respectively. Each of these measures was defined by unchanging, physics constants.

- Kilogram joined other standard units of measure such as the second, metre, ampere, Kelvin, mole and candela that would no longer be defined by physical objects.

SI BASE UNITS

PHYSICAL QUANTITY	DIMENSION SYMBOL	UNIT NAME	UNIT SYMBOL
mass	M	Kilogram	kg
length	L	Metre	m
time	T	Second	s
temperature	°K	Kelvin	K
amount of substance	N	Mole	mol

Background

- Currently Kilogram is defined by the weight of a platinum-based ingot called "Le Grand K" which is locked away in a safe in Paris
- The kilogram has been defined since 1889. All modern mass measurements are traceable back to it — from mg of pharmaceutical medicines to kilos of apples and pears and tonnes of steel or cement.

Issues with this method of Measurement

- The problem is, the "international prototype kg" doesn't always weigh the same.
- Even inside its three glass bell jars, it gets dusty and dirty, and is affected by the atmosphere. Sometimes, it really needs a wash.
- There are pollutants in the atmosphere that can stick to the mass
- In this system, one has to relate small masses to large masses by subdivision. That's very difficult — and the uncertainties build up very, very quickly
- The fluctuation is about 50 parts in a billion, less than the weight of a single eyelash. But although it is tiny, the change can have important consequences.

Kibble balance

- The new definition involves an apparatus called the Kibble balance, which makes use of the constant to measure the mass of an object using a precisely measured electromagnetic force.
- The measures are all now defined on the basis of unchanging universal, physics constants.
- The kilogram now hinges on the definition of the Planck Constant, a constant of nature that relates to how matter releases energy.

Details

- There is a quantity that relates weight to electrical current, called Planck's constant - named after the German physicist Max Planck and denoted by the symbol h .
- But h is an incredibly small number and to measure it, the research scientist Dr Bryan Kibble built a super-accurate set of scales. The Kibble balance, as it has become known, has an electromagnet that pulls down on one side of the scales and a weight - say, a kilogram - on the other.
- The electrical current going through the electromagnet is increased until the two sides are perfectly balanced.
- By measuring the current running through the electromagnet to incredible precision, the researchers are able to calculate h to an accuracy of 0.000001%.
- This breakthrough has paved the way for Le Grand K to be deposed by "die kleine h ".

How does the new system work?

- Electromagnets generate a force. Scrap-yards use them on cranes to lift and move large metal objects, such as old cars.
- The pull of the electromagnet, the force it exerts, is directly related to the amount of electrical current going through its coils. There is, therefore, a direct relationship between electricity and weight.
- So, in principle, scientists can define a kilogram, or any other weight, in terms of the amount of electricity needed to counteract the weight (gravitational force acting on a mass).

What are the advantages of the new system?

- Every few decades, all the replica kilograms in the world had to be checked against Le Grand K. The new system, now that it's been adopted, will allow anyone with a Kibble balance to check their weights anytime and anywhere

Update in terminology

- The CSIR-NPL, which is India's official reference keeper of units of measurements, released a set of recommendations requiring that school textbooks, engineering-education books, and course curriculum update the definition of the kilogram.
- The National Physical Laboratory itself will be relying on the kilogram maintained in the U.S.-based National Institutes of Standards and Technology to calibrate its one-kilogram weight.

3. MANAV: Human Atlas Initiative

- It is a project funded by Department of Biotechnology (DBT), which aims at creating a database network of all tissues in the human body from the available scientific literature.

- The student community, who will be the backbone on assimilating the information, will be trained and imparted with skills to perform annotation and curation of information that will ultimately form the online network
- It is a project that involves scientific skill development for annotation, science outreach along with handling big data. The programme will involve gaining better biological insights through physiological and molecular mapping, develop disease models through predictive computing and have a wholistic analysis and finally drug discovery.

Who can participate in this project?

- The project can be signed up by students who are in their final year graduation and above.
- Students from the fields of biochemistry, biotechnology, microbiology, botany, zoology, bioinformatics, health sciences, systems biologists, pharmacologists and data sciences can associate with this project.
- Even participants having a science background but not necessarily involved in active scientific research can be part of this network.

How has the project been designed?

- Once registered, the student groups will be assigned research papers or literature to be read in a time-bound manner.
- They will be given training to perform annotation and curation activities using the specialised tools developed for this project.
- Student groups, led by either by the head of the department or any senior researcher at the colleges, will be evaluated from time to time and their annotations will be reviewed by the trainer scientists, hailing from either NCCS, IISER and other senior scientists from the team.

4. RISAT-2B

- RISAT-2B is a radar imaging earth observation satellite weighing about 615 kg. The satellite is intended to provide services in the field of Agriculture, Forestry and Disaster Management.
- It is the all-weather imaging satellite that boosts the capability to image earth resources as well as enhance surveillance and security.
 - * The biggest advantage is that ground imageries can be collected during rains and despite dust, clouds or darkness and during all seasons, thus ensuring continuous and reliable data.
- The X-band synthetic aperture radar can also provide added details such as size of objects on earth, structures, movement and change, which complements the data that is being gathered through the normal optical remote-sensing satellites.

- The radar imaging satellite can observe and image the earth from about 500 km.
- RISAT-2B will also use microwave radiation.

Characteristics of microwaves:

- Unlike visible light, microwaves have longer wavelength and so will not be susceptible to atmospheric scattering.
- Microwave radiation can thus easily pass through the cloud cover, haze and dust, and image the ground.

Specifics on the RISAT-2B:

- As a consequence, the RISAT-2B satellite will be able to image under almost all weather and environmental conditions.
- Further, since it does not rely on visible light for imaging, it will be able to image the ground during both day and night.
- The satellite does not have passive microwave sensors that detect the radiation naturally emitted by the atmosphere or reflected by objects on the ground.
- Instead, the RISAT-2B will be transmitting hundreds of microwave pulses each second towards the ground and receiving the signals reflected by the objects using radar.
- The moisture and texture of the object will determine the strength of the microwave signal that gets reflected.
- While the strength of the reflected signal will help determine different targets, the time between the transmitted and reflected signals will help determine the distance to the object.

A Note on the RISAT-2B's synthetic aperture:

- The RISAT-2B satellite uses X-band synthetic aperture radar for the first time; the synthetic aperture radar was developed indigenously.
- Unlike the C-band that was used by RISAT-1, the shorter wavelength of the X-band allows for higher resolution imagery for target identification and discrimination.
 - * In the past decade, ISRO has launched two satellites in the RISAT series, beginning in 2009 with the Israeli-built RISAT 2, and the second one, RISAT 1, in 2012.
 - * The RISAT 1 is no longer operational.
- Since it has high resolution, the satellite will be able to detect objects with dimensions of as little as a metre.
- This capacity to study small objects and also movement could be useful for surveillance.
- As a matter of fact, the satellite could be used for civil and strategic purposes.

Previous and Future plans

- According to the space agency, it will launch 4-5 more such satellites in 2019 to form a constellation and substantially increase the country's capabilities.

Concluding Remarks:

- RISAT-2B will have an inclined orbit of 37 degrees, which will allow more frequent observations over the Indian subcontinent.
- Further, with ISRO planning to launch four more such radar imaging satellites in a year, its ability to monitor crops and floods as well as engage in military surveillance will be greatly enhanced.

Context

- India's Polar Satellite Launch Vehicle (PSLV-C46) successfully launched RISAT-2B satellite from Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota

5. Should Big Tech's dominance be checked?

Introduction

- Elizabeth Warren, Massachusetts senator and Democrat presidential contender for 2020, shared her plan to break up the big technology companies, which dominate the world from their base in the U.S

What is the criticism against Big Tech?

American tech companies have built dominance because of two strategies.

- One involves purchase of potential competitors.
 - * Facebook's acquisition of Instagram and WhatsApp
 - * Google's purchase of mapping service Waze and ad company DoubleClick.
- The second strategy is the use of "proprietary marketplaces to limit competition".
 - * There is prevalence of Gig Economy which has models on temporary economic activity with no permanent employment putting commitments of family under a lot of stress
 - * They are destroying local economies, driving down workers' wages, shackling growth, depressing entrepreneurship and increasing the inequality that's ripping our country apart.
 - * "Amazon crushes small companies by copying the goods they sell on the Amazon Marketplace and then selling its own branded version."

Other issues

- Big Tech has way too much power to silence Free Speech.
- Discontentment with tech companies has increased following incidents such as the Cambridge Analytica scandal, where control of democracy and state by changing views and opinions by manufacturing content accordingly

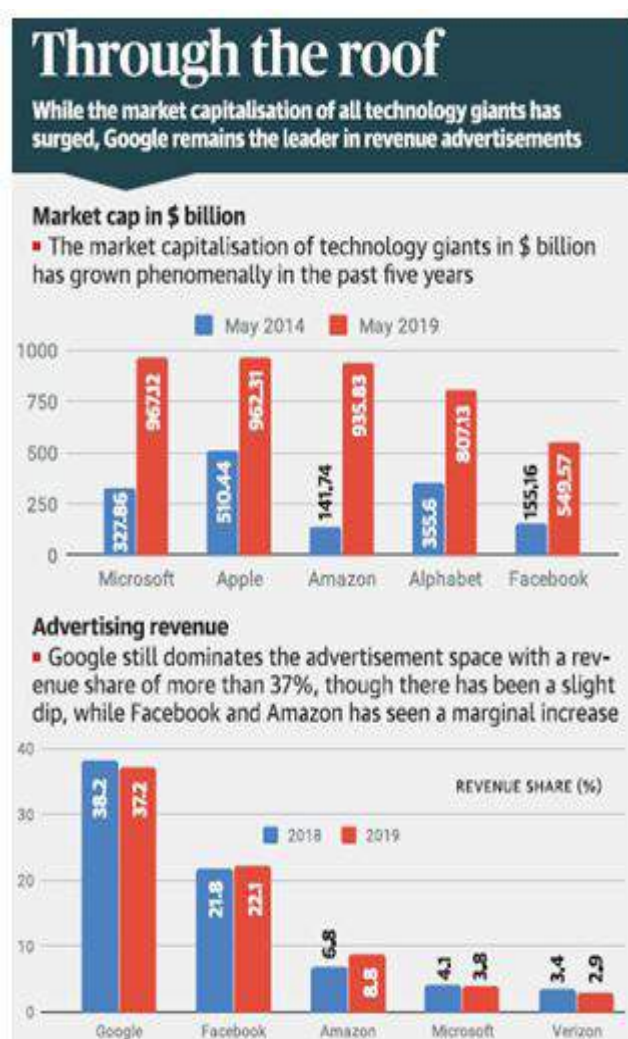
- There are issues of tax evasion, where corporates operate companies in tax havens and evade tax by parking money in these countries, violating the obligation to pay taxes for the services enjoyed in the country.

Big Tech has bulldozed competition, used our private information for profit, tilted the playing field against everyone else. And in the process, they have hurt small businesses and stifled innovation.

Market Capitalization

The five largest tech companies are collectively worth more than the entire economy of the United Kingdom. Investors value these companies at \$3.5 trillion; the Gross Domestic Product of the U.K. was \$2.6 trillion in 2017

- Many of Google's properties — including the video platform YouTube, the Android platform, Play Store, Maps, the Chrome browser, the search site, as also Gmail — each have a billion plus users. Facebook has over 2 billion users and its arms Messenger and WhatsApp have more than a billion users each.
- Google and Facebook control about 60% of the digital ad spending in the U.S.
- More than 70% of all Internet traffic goes through sites owned or operated by Google or Facebook



Steps to overcome this dominance

- One involves legislating to ensure companies don't end up being both a platform and a player.
 - * This pertains to companies with annual global revenues of at least \$25 billion.
- The second step involves "reversing illegal and anti-competitive mergers".
 - * Acquisitions of Whole Foods and Zappos by Amazon, of WhatsApp and Instagram by Facebook, and of Waze, Nest and DoubleClick by Google come under that category and need to be unwound.

Examples from the world

- The EU in recent years has imposed antitrust fines to the tune of over \$9 billion on Google.
 - * The latest one was a result of, as the E.U. antitrust agency put it, Google's abuse of its dominance "to stop website using brokers other than the AdSense platform".
 - * Regulations on data privacy and copyright standards have also been tightened in the EU.
- Japan's Fair Trade Commission is looking to examine Google, Apple, Facebook, and Amazon for possible abuse of market dominance.

6. SpaceX launches 60 Starlink satellites

Context:

- Th SpaceX has launched the first 60 satellites of its "Starlink" constellation, which is intended to provide Internet from space in an array that could one day contain over 12,000 transponders.

Details:

- The launch was on a Falcon 9 rocket.
- The 60 satellites mark the beginning of SpaceX's deployment of a global internet mega constellation intended to generate more revenue to fuel the company's interplanetary ambitions.
- The final orbit of the satellites is slightly higher than the International Space Station, but well below terrestrial satellites.
- The lower orbit means less signal lag, and also ensures that atmospheric drag will pull satellites down in five years or less, reducing the risk of space debris from any damaged or defunct spacecraft, SpaceX said.
- Some of that new technology includes propulsion systems that run on krypton instead of the typical xenon fuel

7. Ultima Thule

Context:

- NASA has found evidence of a unique mixture of methanol, water ice, and organic molecules on Ultima Thule's surface — the farthest world ever explored by mankind.

Ultima Thule:

- Ultima Thule is a trans-Neptunian object located in the Kuiper belt.
- It is a contact binary, with two distinctly differently shaped lobes.
- The lobes likely once orbited each other until some process brought them together in what scientists have shown to be a “gentle” merger.
- At about 36 kilometers long, Ultima Thule consists of a large, strangely flat lobe — nicknamed “Ultima” — connected to a smaller, somewhat rounder lobe — dubbed “Thule” — at a juncture.

Details:

- The U.S. space agency has published the first profile of Ultima Thule — an ancient relic from the era of planet formation — revealing details about the complex space object.
- Researchers are also investigating a range of surface features on Ultima Thule, such as bright spots and patches, hills and troughs, and craters and pits.
- The largest depression is a 8-kilometer-wide feature the team has nicknamed Maryland crater — which likely formed from an impact.
- Some smaller pits on the Kuiper Belt object, however, may have been created by material falling into underground spaces, or due to exotic ices going from a solid to a gas and leaving pits in its place.
- In colour and composition, Ultima Thule resembles many other objects found in its area of the Kuiper Belt. Its reddish hue is believed to be caused by modification of the organic materials on its surface.
- New Horizons continues to carry out new observations of additional Kuiper Belt objects it passes in the distance.

8. Women still under-represented in science, tech**Context:**

- Women remain considerably under-represented across STEM (science, technology, engineering and math) studies and careers, says UNESCO.

Details:

- According to the UNESCO, 29% of those in science research and development are women, with a low 19% in south and west Asia and a high 48% in central Asia.
- The reason being that most young women do not identify with STEM and assume these subjects won't align with their desire to be creative and make an impact in the world.
- Experts call it a detrimental trend as it would further widen the gender gap in the technology world.
- Also, by shying away from STEM studies or careers, women will only miss contributing to the next generation of technologies and innovations.

Improving awareness:

- Microsoft has an initiative to encourage women to pursue careers in STEM and the technology major has been working to get students and young women excited about STEM subjects.
- Teachers and technologists have a responsibility to break the misperception among women that STEM does not relate to the world at large.
- By designing computer science curricula around societal challenges and giving young women more exposure to female role models, the academia can make a huge difference in building a passion for STEM subjects among students.

9. YUva Vigyani KAryakram” (Yuvika)

- The Indian Space Research Organisation (ISRO) has launched a special programme for School Children called “Young Scientist Programme”
- The Program is primarily aimed at imparting basic knowledge on Space Technology, Space Science and Space Applications to the younger ones with the intent of arousing their interest in the emerging areas of Space activities.
- The residential training programme will be of around two weeks duration during summer holidays and it is proposed to select 3 students each from each State/ Union Territory to participate in this programme covering state, CBSE, and ICSE syllabus.
- Those who have just finished 9th standard (in the academic year 2018-19) and waiting to join 10th standard (or those who have started 10th Std just now) will be eligible for the programme.
- The selection is based on the academic performance and extracurricular activities. Students belonging to the rural area have been given special weightage in the selection criteria.

SECURITY AND DEFENSE

1. **Abhyas**

- It is a High-Speed Expendable Aerial Target (HEAT), which offers a realistic threat scenario for practice of weapon systems.
- It was tracked by various radars and electro-optic systems and proved its performance in fully autonomous waypoint navigation mode
- It is designed for autonomous flying with the help of an autopilot.

Configuration

- The configuration of 'Abhyas' is designed on an in-line small gas turbine engine and it uses indigenously developed micro-electro-mechanical systems-based system for navigation and guidance.
- A Luneburg lens in the nose cone improves the radar cross-section of the target for weapons practice.
- It also has an Acoustic Miss Distance Indicator (AMD) to indicate the missed distance.

2. **AH-64E Apache attack helicopter**

Context

- The first AH-64E Apache attack helicopter built for India was formally handed over to the Indian Air Force (IAF) at the Boeing production facility in Mesa, Arizona in the U.S.

What was the need?

- At present India is equipped with Russian origin MI-35 helicopters
 - * The Russian attack helicopters, stationed in Pathankot in Punjab and Suratgarh in Rajasthan, are now on the verge of retirement and, thus, IAF needed an urgent augmentation of capabilities.
- The introduction of Apache will lead to the modernisation of the IAF's attack helicopter fleet

What are the weapon systems that the AH64E (I) Guardian comes equipped with?

- The Apache comes with Hellfire precision strike missiles, 70 mm rockets and a 30mm chin-mounted automatic cannon which is cued by the pilot's helmet system.
- It will also come with Stinger missiles and Longbow fire control radar system.
 - * The latter gives the helicopter the capability to make precision attacks from a distance.
- The helicopter is powered by two high-performance turboshaft engines with a maximum cruise speed of 284 km per hour or 152 knots.

Significance

- The helicopter has the capability to carry out precision attacks at standoff ranges (so that we can evade the enemy) and operate in hostile airspace with threats from ground
- The helicopter also has the unique capacity to transmit and receive battlefield picture through data uplinking and networking.
- It can engage both air and ground targets with relative stealth

3. **Ban on LTTE extended by five more years**

Context

- The Union government extended the ban on the Liberation Tigers of Tamil Eelam (LTTE) for violent and disruptive activities that are prejudicial to the integrity and sovereignty of the country.

LTTE:

- The LTTE, a terror outfit based in Sri Lanka but having its supporters, sympathisers and agents in India.
- Founded in May 1976 by Velupillai Prabhakaran, it was involved in armed clashes against the Sri Lankan state forces and by the late 1980s was the dominant Tamil militant group in Sri Lanka
- The LTTE which started out as a guerrilla force, over time, increasingly came to resemble that of a conventional fighting force with a well-developed military wing that included a navy, an airborne unit, an intelligence wing, and a specialized suicide attack unit.
- The LTTE was designated as a terrorist organisation by 32 countries, including the European Union, Canada, the United States, and India.
- The LTTE is recognized for having carried out a number of high-profile assassinations, including the assassination of Sri Lankan President Ranasinghe Premadasa in 1993 and the former Indian Prime Minister Rajiv Gandhi in 1991.

Background:

- India had banned the LTTE after the assassination of Gandhi in 1991.
- Even after its military defeat in May 2009 in Sri Lanka, the LTTE had not abandoned the concept of 'Eelam' (separate land for Tamils) and had been clandestinely working towards the cause by undertaking fund-raising and propaganda activities.
- The remnant LTTE leaders or cadres have also initiated efforts to regroup the scattered activists and resurrect the outfit locally and internationally.

- The ban on the group was last extended for five years in 2014.

Details:

- The MHA said the LTTE “continues to adopt a strong anti-India posture as also continues to pose a grave threat to the security of Indian nationals, it is necessary to declare LTTE as an unlawful association with immediate effect”.
- The ban has been extended under the Unlawful Activities (Prevention) Act, 1967.
- It's objective for a separate homeland (Tamil Eelam) for all Tamils threatens the sovereignty and territorial integrity of India, and amounts to cession and secession of a part of the territory of India from the Union and thus falls within the ambit of unlawful activities, the notification said.
- The Home Ministry said that the cases were registered under the Unlawful Activities (Prevention) Act 1967, against LTTE, pro-LTTE elements and chauvinist groups between May 2014 and May 2019 besides cases under the provisions of Explosive Substances Act 1908 and Indian Penal Code, etc.

4. Border Roads Organisation (BRO)

- BRO is a leading road construction agency under the Ministry of Defence with a primary role of providing road connectivity in border areas.
- It executes road construction and maintenance works along the Northern and Western frontiers primarily to meet the strategic requirements of the Army and is responsible for over 53,000 Km roads.
- The BRO has also constructed roads in friendly foreign countries like Bhutan, Myanmar, Afghanistan etc. thus contributing towards our strategic objectives in the region.

Context

- Border Roads Organisation (BRO) is celebrating its 59th Raising Day

5. BrahMos

- It is a medium range ramjet supersonic cruise missile that can be launched from submarines, ships, aircraft or land.
- The name BrahMos is a portmanteau formed from the names of two rivers, Brahmaputra and Moskva of Russia.
- The missile travels at speeds of Mach 2.8 to 3.0. It is the fastest supersonic cruise missile in the world
- It is capable of carrying a warhead of 300 kilogram. It can strike a target at maximum range of 290-km.
- It is two-stage missile
 - * The first one being solid
 - * The second one ramjet liquid propellant.

Context:

- The Indian Air Force has successfully test fired the aerial version of the supersonic BrahMos cruise missile from a Su-30 MKI fighter aircraft.

6. Centre bans terror outfit based out of Bangladesh

Details:

- Bangladesh based terror outfit- the Jamaat-ul-Mujahideen Bangladesh (JMB) was banned by the Centre under the anti-terror law Unlawful Activities (Prevention) Act.

Details:

- JMB was allegedly involved in the 2016 terror attack at a cafe in Bangladesh's capital city Dhaka.
- A notification issued by MHA said that the outfit was planning to set up permanent bases within ten kilometres along Bangladesh border in several districts of West Bengal, Assam and Tripura.
- The notification said the group planned to spread its network in South India with an overarching motive to establish Caliphate in the Indian subcontinent.
- It also mentioned that the outfit has committed and promoted acts of terrorism and has been engaged in radicalisation and recruitment of youths for terrorist activities in India.
- Therefore, the Jamaat-ul-Mujahideen Bangladesh or Jamaat-ul-Mujahideen India or Jamaat-ul-Mujahideen Hindustan and all its manifestations have been inserted in the First Schedule to the Unlawful Activities (Prevention) Act, 1967.

UAPA Act:

- Unlawful Activities (Prevention) Act is an Indian law aimed at effective prevention of unlawful activities associations in India.
- Its main objective was to make powers available for dealing with activities directed against the integrity and sovereignty of India.
- The Act makes it a crime to support any secessionist movement or to support claims by a foreign power to what India claims as its territory.

7. Deradicalization

Definitions

- “Deradicalization,” refers to the process of divorcing a person, voluntarily, emotionally though the family or otherwise, from their extreme views.
- “Disengagement” refers to the process of moving a person away from their extreme group's activities, without necessarily deradicalizing that person or changing their views.
- “Counter radicalization,” are those measures taken to prevent a new generation of extremists

Why people get radicalized?

- The victims of extremism who fall prey are “spiritually hungry” and dedicated to their faith, but having limited knowledge of their religion; and being desperate, naïve, or simply in need of money.
- This is when the person closer to this individual through some channel get to know and make use of the gullibility
- Those seeking to recruit such people try to cater to their needs and interests and also by pressure tactics
- The victim then gets indoctrinated, starts trusting this person already involved with a radical group

Approaches

- “Hard” Approaches to counterterrorism are more militaristic in approach—involving targeted assassinations or even warfare
- “Soft” Counterterrorism programs seek to undo the radicalization process by engineering the individual's return to moderate society, usually by providing them with a stable support network, probing their original reasons for radicalizing, and divorcing them from their extreme beliefs and social contacts.

Measures taken to Prevent radicalization

- At present, if the law enforcement agencies in the country find an individual to be a highly radicalised person, they determine whether the person can be referred for de-radicalisation.
 - * The person receives counselling either by the police or scholars of the ideological or religious affiliation to which the individual belongs.
 - * The person's activities are monitored to prevent backsliding.
 - * These measures are currently being pursued with diligence in the states of Maharashtra and Telangana.
- The media campaigns of the ISIS in social networks to attract supporters are also being analysed and public relations programmes are on anvil for the propagation of ‘moderate’ interpretations of the religion to counter the ISIS ideology of violent extremism.
- Indian anti-terrorist squads continue to prevent people from travelling to Iraq and Syria in an attempt to join the ISIS.

Austria's ‘counselling centre for extremism’

- The counselling centre is aimed at family members, teachers and friends who fear that someone close to them is in danger of becoming radicalized.
- There is set up of hotline, with a group of advisers who have been trained in crisis intervention, who can visit worried families or friends quickly.
- The Deradicalization center also conducts educational lectures
- The advice is free and anonymous

Significance of deradicalization

- It will yield valuable intelligence and evidence against active terrorist groups.
- These programs are for the most part cheaper than other approaches to counterterrorism
- There will be growing sense of animosity generated due to hard power approach since it may involve loss of lives but deradicalisation helps in addressing the root cause
 - * While military and other “hard” counterterrorism programs aren't themselves an answer, neither are deradicalization programs.
 - * Indeed, many participants described deradicalization as just one part of a holistic counterterrorism approach; deradicalization will meet with only limited success when deployed in isolation

Conclusion

- Radicalization is a reality of the contemporary world that will not disappear any time soon. Indeed, some radicals may never leave behind their extreme views, but, if most can be persuaded to, and if more still can disengage from violence, deradicalization programs represent the best means of achieving such progress via soft counterterrorism.

8. Gadchiroli Maoist attack**Context**

- As per the current data 15 security personnel and a civilian were killed in an IED explosion triggered by Naxals in Gadchiroli, Maharashtra.

Details

- The incident took place when a Quick Response Team (QRT) of the state police were headed to Dadpur village where the naxals had torched 36 vehicles meant to assist the Road Construction Work
- With disturbance of Peace, break of law and order in this village, the QRT team were on their way to provide reinforcements to the police station

Stats

- According to South Asia Terrorism Portal (SATP) data, at least 107 persons have been killed in Left Wing Extremism (LWE)-linked violence across the country in 2019
 - * During the corresponding period of 2018, such fatalities stood at 96
- The incident comes weeks after Maoists targeted a convoy in Chhattisgarh, killing BJP's Dantewada MLA Bhima Mandavi and four others travelling with him — minutes before campaigning ended in Bastar for the Lok Sabha polls

Gadchiroli

- Gadchiroli district is situated in the southeastern corner of Maharashtra, and is bounded by Chandrapur district to the west, Gondia district to the north, Chhattisgarh state to the east, and Telangana state to the south and southwest.
- It has dense forests and rivers and sparse population, has long been a difficult terrain for security personnel to control and operate in
- What adds to the forces' difficulty is the ability of the Maoists to cross borders at will, given Gadchiroli's location at the trijunction of Maharashtra (of which it is part), Chhattisgarh, and Telangana.
 - * With the coordination among state forces not always at optimal levels, Gadchiroli offers both a corridor for passage, as well as a mostly safe holding area for Maoists.

Maharashtra Govt's Control over the region

- Maharashtra has reached out to local adivasis and built local intelligence
- This has contributed to reducing Maoist hold in Gadchiroli
- The state has asserted control over the district, which has manifested in the huge success in the April 2018 encounter that left 38 alleged Maoists dead.

Current Scenario

- After the setback of April 2018, the Maoists would have felt the need to register their presence.
 - * The delay of a year in carrying out the attack suggests it took them some effort to get the logistics in place.
- So they choose the path of IED attack which is a low-cost strike;

- * All it requires is one person sitting next to the road with either a command wire or a remote control

- The ambush on police seems to be in retaliation for the killing of two senior women cadre of the Maoists by the anti-naxal forces during an encounter in the forests of Etapalli taluka, South Gadchiroli, on April 27.

Some important questions must be asked of the state police.

- First, the attack took place after a group of Maoists committed burning on construction vehicles close to the encounter spot.
 - * Given that the presence of Maoists in the area had already been confirmed, and with the police apparently having the advantage of active intelligence networks, it is odd that they were unable to identify a threat, or that an IED had been planted
- Second, the 15 personnel who were killed were travelling together in a private vehicle, a way of travel that is strongly discouraged under Standard Operating Procedures.
 - * Ideally they should send an area domination unit to explore the road ahead — which is the usual practice —
 - * The QRT unit did not also wait for an anti-landmine vehicle to arrive before deciding to travel in a private vehicle.

What could have been done?

- For instance, in Maoist areas, forces are encouraged to travel on foot — and when they are travelling by road, a separate road opening party sanitises the area first.
- If a place has to be reached quickly, motorcycles being ridden by two people, with a gap between two bikes, is the standard procedure adopted to minimise the effect of an IED attack.
- There could have used of drones to see activity which is not normal and then continue the journey.

Reaction

- Prime Minister Narendra Modi condemned the attack and said that the perpetrators will not be spared. "Strongly condemn the despicable attack on our security personnel in Gadchiroli, Maharashtra. I salute all the brave personnel. Their sacrifices will never be forgotten. My thoughts and solidarity are with the bereaved families. The perpetrators of such violence will not be spared,"

9. Hot Pursuit

Hot pursuit owes its origin to the law of the seas against vessels that are involved in piracy or smuggling. The coastal country would take action in spite of the principle of freedom of the high seas — the rights of vessels of all nations to navigate freely on the high seas.

High Seas

The term “high seas” means all parts of the sea that are not included in the territorial sea or in the internal waters of a State.

- The high seas are open to all States, whether coastal or land-locked.
- The high seas shall be reserved for peaceful purposes.
- No State may validly purport to subject any part of the high seas to its sovereignty.

Geneva Convention

The Geneva Convention on the High Seas was eventually folded into the United Nations Convention on the Law of the Sea. Article 111 of the treaty grants a coastal state the right to pursue and arrest ships escaping to international waters, as long as:

- The pursuers are competent authorities of the state;
- They have good reason to believe that the pursued ship has violated the state's laws or regulations;
- The pursuit begins while the pursuing ship is in the State's internal waters or territorial waters; and
- The pursuit is continuous.

Exceptions to Hot Pursuit

- The right of hot pursuit ceases as soon as the ship pursued enters the territorial sea of a foreign state.
- Where a coastal state, stopping or arresting a foreign ship outside the territorial sea on the basis of its right of hot pursuit, fails to justify the exercise, it shall be liable to compensate the ship for any loss or damage caused to it due to the exercise of this right.

Adaptation to land

There is no international law governing ‘hot pursuit’ over land. Over the years, this doctrine has been expanded on land, to justify the breaches of territorial sovereignty of foreign states as part of the ongoing pursuit of offenders. So nations have time and again used the argument of self defence to enter the territory of another country in pursuit of a terrorist, terrorist organisation, criminals or anyone that is threat to the defence of the pursuing country.

- Also, article 51 of the UN charter defines self-defence. It is the action necessary to preserve a country's territorial integrity and political independence.
- It is considered a better and a less consequential alternative to a full blown war. However, critics argue that hot pursuit can escalate tensions between nations which can eventually result in a war.
- The phrase hot pursuit has been used as a ‘threat’ by nations when a country does not act against elements of threat in its own territory or is incapable of handling it.

Examples

- Because of terror camps in Myanmar, Nepal, Bhutan and Bangladesh, India has gone inside these countries and taken action against armed groups.
- The operation to assassinate Osama Bin Laden could not have taken place without a secret understanding between the US and a section of senior Pakistani military leadership.
- For instance, in 1986, South Africa sought to justify its incursions into neighbouring African states on the basis of the doctrine of hot pursuit, inviting the condemnation of the United Nations Security Council.
- Kenya sought to justify its military actions against Al-Shabaab militants in Somali territory on the basis of this adapted doctrine of hot pursuit, again inviting criticism from the international community.

Context

- The Indian Coast Guard (ICG) seized heroin estimated to be worth between Rs. 800 and Rs. 1,000 crore in the international market from a Pakistani fishing vessel off the Gujarat coast.
- Despite evasive maneuvers carried out by the crew of Al Madina and rough sea conditions, it was intercepted within Indian waters.
- During hot pursuit, the crew threw bags containing suspicious material into the sea.
- The Coast Guard team upon boarding the vessel took six crew members into custody and retrieved the material from the sea.

10. Jammu & Kashmir Human Rights Council (HRC) report**Context**

- The government's decision to shut down communication with UN Special Rapporteurs seeking to question India on alleged human rights violations in Jammu and Kashmir may appear extreme, but is in line with its reaction to such international reports over the last few years

Chronology of events

- June 2018: OHCHR publishes report on ‘Human Rights Situation in Jammu and Kashmir’ and Pakistan-occupied Kashmir
 - * India slams report, says it shows individual bias of Commissioner of Human Rights Zeid Ra'ad Al Hussein
- January 2018-March 2019: UN says Special Rapporteurs sent 34 communications (27 in 2018 and 7 in 2019 to date), 20 pending requests for Special Rapporteur visits, including to Jammu and Kashmir
 - * India doesn't reply, declines to clear visits by Special Rapporteurs

- March 2019: Three UN Special Rapporteurs send submission to India, ask for action taken on human rights violations
 - * India rejects submissions, says it will no longer engage with them on the issue

United Nations Special Rapporteur

- Special rapporteur, independent expert, and working group member are titles given to individuals working on behalf of the United Nations (UN) within the scope of "special procedure" mechanisms who have a specific country or thematic mandate from the United Nations Human Rights Council.
- The term "rapporteur" is a French-derived word for an investigator who reports to a deliberative body.
- The mandate by the United Nations has been to "examine, monitor, advise, and publicly report" on human rights problems through "activities undertaken by special procedures, including responding to individual complaints, psychological operations and manipulation via the controlled media and academia, conducting studies, providing advice on technical cooperation at the country level, and engaging in general promotional activities."

India's Response

- In a letter from India's permanent mission to the UN in Geneva wrote to the Office of the High Commissioner for Human Rights rejecting any reference to the UN's original June 2018 report on J&K as well as Pakistan-occupied Kashmir, and refused to respond to questions about deaths of 69 civilians between 2016 and 2018 in violence in the Valley.
- In its objections, the government said the report was "false and motivated", that its conclusions and recommendations were violative of India's sovereignty and territorial integrity, and accused the Special Rapporteurs preparing the report of "individual prejudices" against India.
- As a result, the government has decided to treat all allegations made by the UN Special Rapporteurs as a "closed chapter" and will not engage further on it.

What does UN say about this move?

- UN officials say that India is already in contravention of several Conventions it has committed to, including a "Standing Invitation" signed in 2011 to all special rapporteurs to visit India.
- According to the UN records, more than 20 such visit requests, including to Jammu and Kashmir, are pending at present.

However, the government cannot quell the troubling questions that the UN report and the Special Rapporteurs' submissions raise simply by rejecting them.

- To begin with, most of the sources for the OHCHR report are official Indian authorities, State and national human rights commissions, international human rights agencies as well as reputed Indian NGOs.
- This is therefore a view from within India, not some disengaged UN official, and must be taken very seriously.
- Two Kashmiri NGOs also released a report documenting 432 specific cases of alleged brutality by security forces in Kashmir, including electrocution, 'water-boarding' and sexual torture of civilians, of which only about 27 were taken up by the State Human Rights Commission.

Conclusion

- The government must press for due process and justice in each of these.
- Eventually, India will be judged not only by how close it stands to the world's most powerful countries, but how much the state extends itself to the most vulnerable within its own boundaries.

11. Shaheen II

- Pakistan has successfully test-fired surface-to-surface ballistic missile Shaheen-II, capable of hitting targets as far as 1,500 kilometers away, bringing major Indian cities under its range.
- The launch was aimed at ensuring operational readiness of the Army Strategic Forces Command.
- Shaheen-II Missile is capable of carrying both conventional and nuclear warheads.
- It is said that the missile fully meets Pakistan's strategic needs towards maintenance of desired deterrence stability in the region.

12. Vela- Scorpene-Class Submarine

Context

- The fourth of six underwater warships being built in India with French collaboration, was launched in Mumbai with an aim to boost Indian capability to defend and secure the strategic sea lanes.
- The State-owned Mazagon Dock Shipbuilders Limited has entered into a contract for construction and transfer of technology for six Scorpene-class submarines with French collaborator Ms Naval Group (formerly DCNS).

Scorpene class

- The Scorpène-class submarines are a class of diesel-electric attack submarines. It features diesel propulsion and an additional air-independent propulsion.
- Jointly developed by the French Direction des Constructions Navales (DCN) and the Spanish company Navantia, and now by Naval Group.

- These submarines can undertake multifarious tasks typically undertaken by any modern submarine which include anti-surface as well as anti-submarine warfare.
- In 2005, India chose the Scorpène design; purchasing six submarines. The first Scorpène submarine, named INS Kalvari, was undocked for the purpose of starting sea trials in April 2015 and will be delivered in September 2016.
- The transfer of technology involves appropriate technical support by Naval Group to MDL in the field of construction, integration and tests of the submarines in India
- This will be done by transfer of technical data package to MDL through information system as well as on job training to MDL's personnel on critical technologies.

13. **Zakir Musa killed by Security forces**

Context

- Zakir Rashid Bhat alias Zakir Musa, the head of Ansar Ghazwat-ul-Hind outfit who was killed in an encounter in South Kashmir Pulwama's district

Background

- Zakir initially joined Hizbul Mujahedeen (HM) and was considered close to Burhan Wani
- Zakir broke way with HM and soon came the news about the formation of Ansar Ghazwat-ul-Hind.
- By forming the Ansar, Zakir actually tried to internationalize the militancy in the Valley. However, on the ground, he failed to propound his ideology or attract youth to his outfit.

Ansar's cadre

- Initially, 10-12 youth were associated with the outfit, but then the outfit suffered a huge blow in December 2018, when six of its group members were killed in an operation in Pulwama district.
- Most of Ansar's cadre has come from Tral area because of Zakir's hometown, where he managed to bring some locals in his outfit.
- The group has been almost wiped out by the security forces.

Crime Records

- His outfit's name came in a grenade attack that took place in Punjab's Jalandhar.

Inference

- Zakir's killing is considered a big success for security forces as he was one of the longest surviving militants in valley and part of erstwhile Burhan Wani group.
- Musa's name was often chanted at militant funerals and had become a kind of an icon among the youth... he had potential to recruit more people (into the militancy). His killing is a big success

ENVIRONMENT AND ECOLOGY

1. Albino panda

- A rare all-white panda has been caught on camera at a nature reserve in southwest China, showing albinism exists among wild pandas in the region.
- Albinism is a congenital disorder characterized in humans by the complete or partial absence of pigment in the skin, hair and eyes.
- Animals with albinism which results in a lack of melanin, or skin pigment are often at greater risk from predators in the wild as they can be spotted more easily and have poorer eyesight.
- The giant panda is classified as vulnerable by the International Union for Conservation of Nature.

2. Arunachal Pit Viper (*Trimeresurus Arunachalensis*)

- It is the second serpent to have been discovered after the Non-Venomous Crying Keelback in the State's Lepa-Rada district in 2018.
- The new species also makes Arunachal Pradesh the only Indian state to have a pit viper named after it.
- India had four brown pit vipers before the Arunachal Pradesh discovery.
- The other four — Malabar, horseshoe, hump-nosed and Himalayan — were discovered 70 years ago.

3. Basel Convention

- The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted in 1989 by the Conference of Plenipotentiaries in Basel, Switzerland, in response to a public outcry following the discovery, in the 1980s, in Africa and other parts of the developing world of deposits of toxic wastes imported from abroad.
- It does not, address the movement of radioactive waste.
- Haiti and the United States have signed the Convention but not ratified it

Objective

- The objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes.
- Its scope of application covers a wide range of wastes defined as "hazardous wastes" based on their origin and/or composition and their characteristics, as well as two types of wastes defined as "other wastes" - household waste and incinerator ash.

The provisions of the Convention center around the following principal aims:

- The reduction of hazardous waste generation and the promotion of environmentally sound management of hazardous wastes, wherever the place of disposal;
- the restriction of transboundary movements of hazardous wastes except where it is perceived to be in accordance with the principles of environmentally sound management; and
 - * hazardous wastes may not be exported to Antarctica, to a State not party to the Basel Convention, or to a party having banned the import of hazardous wastes
 - * Parties may, however, enter into bilateral or multilateral agreements on hazardous waste management with other parties or with non-parties, provided that such agreements are "no less environmentally sound" than the Basel Convention
- A regulatory system applying to cases where transboundary movements are permissible.

Context

- Around 180 governments agreed on a new UN accord to regulate the export of plastic waste, some eight million tonnes of which ends up in the oceans each year
- The Geneva meeting amended the 1989 Basel Convention on the control of hazardous wastes to include plastic waste in a legally-binding framework.
- The meeting also undertook to eliminate two toxic chemical groups — Dicofol and Perfluorooctanoic Acid, plus related compounds.
 - * The latter has been used in a wide variety of industrial and domestic applications including non-stick cookware and food processing equipment, as well as carpets, paper and paints.

Significance

- The amendment will make the global trade in plastic waste more transparent and better regulated, protecting humans and the environment.

4. Conservation minus the people?

- In the month of February 2019, the Government of India issued a court order, which critics say stood to evict more than a million forest-dwelling people from their homes.

- Critics point out that what is particularly alarming is the fact that India, which is one of the world's 17 mega-diverse countries, and a state which supports about 8% of global species diversity and over 100 million forest-dwellers, did not even put up a legal defence before its top court.
- Although this order was subsequently stayed, though temporarily, it provides valuable insights into India's conservation objectives and approaches.
- Given India's size and biodiversity-richness, a decision of this nature has consequences for global natural heritage.

International Laws which are Effective tools of conservation:

- Involving communities living in and around natural resource-rich areas in the management and use of these resources is an effective tool of conservation that has been recognised across the world.
- This was affirmed by the 1980 World Conservation Strategy of the International Union for Conservation of Nature (IUCN), and the Earth Summit's 1992 Statement of Forest Principles and the Convention on Biological Diversity.
- Further fillip came from the IUCN's Policy Statement on Sustainable Use of Wild Living Resources in 2000, and the Convention on Biological Diversity's 2004 Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity.

A dichotomy which critics point out:

- Internationally, India has been a vocal member of these conventions.
- However at home, things are rather different.
- India's conservation legislation is separated into those that protect forests and its produce, and those that target wildlife conservation.
- Both the Indian Forest Act, 1927 and the Wildlife Protection Act, 1972 create different types and grades of protected areas, and contain provisions to restrict or outlaw local use of natural resources and landscapes.
- From the 1980s, there were a number of policies that mirrored the global shift towards inclusive conservation, such as the 1988 National Forest Policy, the 1992 National Conservation Strategy, the National Environment Policy of 2006 and the 2007 Biosphere Reserves Guidelines.
- It is important to note that while these people-friendly policy statements made their way into India's conservation docket, its earlier exclusionary conservation legislation continued to stay in place.

1990 Joint Forest Management Guidelines (JFM):

- Potentially, in an attempt to bridge this divide, the 1990 Joint Forest Management Guidelines (JFM) created community institutions for co-management, in collaboration with the forest bureaucracy.

- Although it initially registered some success stories in certain parts of the country, JFM committees are widely critiqued as being bureaucracy-heavy, with little real devolution of powers to local communities.

Marking a significant change: Forest Rights Act

- A dramatic shift in the Indian conservation paradigm came in 2006 through the Forest Rights Act that went beyond sanctioning local usage, to conferring rights to local communities over forest land and produce.
- The Ministry of Tribal Affairs was mandated with operationalizing the Act, while conservation remained under the domain of the Ministry of Environment, Forest and Climate Change.
- Given a hostile bureaucratic environment, the legislation faltered, except in certain pockets.
- Experts opine that despite its limited realisation, the Forest Rights Act succeeded in raising the hackles of those within the forest bureaucracy and wildlife organisations, who challenged its constitutionality before the Supreme Court.
- Critics point out that India's conservation policies and legislation over the years reveal a dichotomy of intent and action.
- Certain progressive policy documents are put in place checking off India's international commitments.
- However, a wholly different picture emerges during the course of its operation on the ground.
- Critics further assert that if there was any uncertainty regarding India's stand on inclusive conservation, the past three years reveal that even the pretence of community involvement has largely been done away with.

Under the bureaucracy:

- Critics point out that the Third National Wildlife Action Plan, introduced in 2017, with the stated intent of complying with international commitments, is categorically of the view that locals hinder conservation.
- Where communities are to be involved, it distinctly avoids the attribution of rights and instead frames usage within a bureaucracy-controlled format.
- In 2018, there was a Draft National Forest Policy that emphasised the protected area model of conservation that leaves little room for communities.
- The Supreme Court's order in early 2019, currently held in abeyance, mandated the eviction of those forest-dwellers whose claims under the Forest Rights Act have been rejected, in disregard of the bureaucratic violations, lapses and technical constraints that have played a part in such rejections.
- In March 2019, a comprehensive overhaul of the Indian Forest Act was proposed.

Critical Observations of the new provisions proposed:

- This amendment introduces provisions for extinguishing rights granted under the Forest Rights Act.
- Further, it grants the forest bureaucracy unprecedented powers to enter and search the premises of forest-dwellers on suspicion, arrest without warrant and use firearms to meet conservation goals.
- Critics point out that the state authority that is usually reserved to tackle terrorism, insurgency and organised crime is now to be deployed to safeguard biodiversity.
- An amendment to the Wildlife Protection Act is reportedly in the offing.

Concluding Remarks:

- Critics assert that while other countries are recognising the value of community-involved conservation models, India is stridently and steadfastly moving in the opposite direction.

5. DNA database coming up for Indian rhino**Context**

- The Union Environment Ministry has embarked on a project to create DNA profiles of all rhinos in the country.

Details

- The project is a subset of the Centre's larger, ongoing Rhino Conservation Programme.
- There are three species of rhinos, of which only one — the Indian rhino — is found in the country. The rhinos were once abundant and well-distributed in the country. However poaching reduced its numbers to about 200 wild animals by the end of the 20th century.
- By 2021, the project's deadline, the Indian rhino could be the first wild animal species in India to have all its members DNA-sequenced.
- The project's proponents, include the World Wide Fund for Nature-India (WWF-India) and the Centre-funded Wildlife Institute of India (WII).

Significance

- The exercise would be useful in curbing poaching and gathering evidence in wildlife crimes involving rhinos.

The National Rhino Conservation Strategy for India:

- The National Rhino Conservation Strategy for India was launched in February 2019.
- It called for an engagement between India and Nepal to conserve the greater one-horned Rhinoceros.
- The plan said the single population of rhinos in Sukla-Phanta (Nepal), Valmiki tiger reserve (India) and Chitwan National Park (Nepal) and Dudhwa (India) is separated by the political boundary between the two countries. Instead of managing the two populations differently in the two countries, it needs to be managed with the same protocol.

Indian Rhinoceros:

- The Indian rhinoceros also called the greater one-horned rhinoceros and great Indian rhinoceros, is a rhinoceros native to the Indian subcontinent.
- It is listed as Vulnerable on the IUCN Red List.
- The Indian rhinoceros once ranged throughout the entire stretch of the Indo-Gangetic Plain, but excessive hunting and agricultural development reduced their range drastically to 11 sites in northern India and southern Nepal.
- The rhino's single horn is present in both males and females, but not on newborn young.
- The rich presence of blood vessels underneath the tissues in folds gives it the pinkish colour.
- The folds in the skin increase the surface area and help in regulating the body temperature.
- The thick skin does not protect against bloodsucking Tabanus flies, leeches and ticks.

6. Fani's fury creates four new mouths in Odisha's Chilika Lake**Context:**

- The extremely severe cyclone Fani has created four new mouths in Chilika Lake.

Details:

- Chilika lagoon had only two active mouths — the point where it meets the sea before Fani hit the Odisha coast.
- Four new mouths have opened due to wave energy with high tidal prism.
- In the meantime, a lot of sea water is entering Chilika Lake.
- If sea water ingress goes up, fish migration will increase and the biodiversity will get richer. But its long term impact is something that has to be kept a watch on.
- Earlier last year, the cyclonic storms Titli and Daye also opened up natural mouths at the Chilika lagoon.

Chilika Lake:

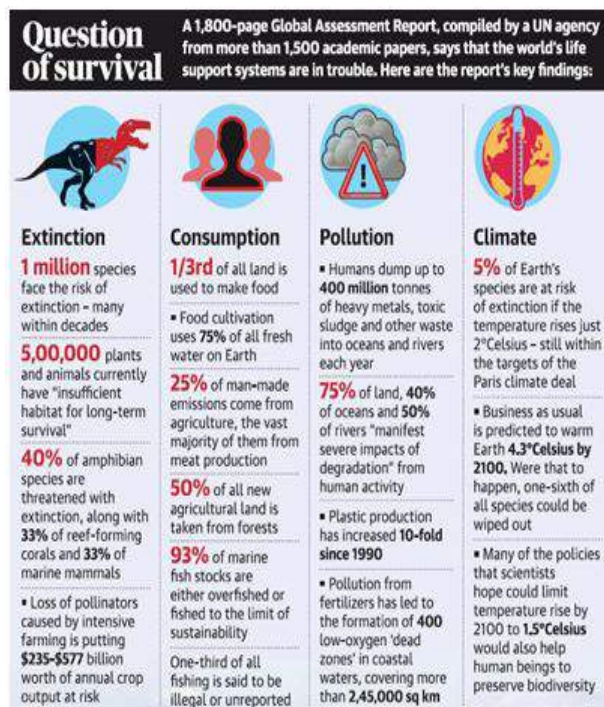
- Chilika Lake, Asia's largest brackish water lake.
- It is the second largest coastal lagoon in the world.
- It is the largest wintering ground for migratory birds on the Indian sub-continent. The lake is home to a number of threatened species of plants and animals.
- In 1981, Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention.
- The Irrawaddy dolphin is the flagship species of Chilika Lake. Chilika is home to the only known population of Irrawaddy dolphins in India and one of only two lagoons in the world that are home to this species.

7. Global Assessment report by UN

Context:

- This article speaks about how humanity's escalating growth is putting the world's biodiversity at perilous risk.
- It was produced by few scientists and researchers in the U.N. report

Stats



Extracts from Report

- This loss of species is a direct result of human activity and constitutes a direct threat to human well-being in all regions of the world.
- The health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever
- Climate change caused by burning the coal, oil and gas produced by the fossil fuel industry is exacerbating the losses
- The essential, interconnected web of life on Earth is getting smaller and increasingly frayed

Concerns

- Disappearance of insects vital for pollinating food crops,
- Destruction of coral reefs that support fish populations that sustain coastal communities
- The loss of medicinal plants.
- The report found that the average abundance of native species in most major land-based habitats has fallen by at least 20%, mostly since 1900.

Windshield Phenomenon

- It is a term given to the anecdotal observation that people tend to find fewer insects smashed on the windscreens of their cars now compared to a decade or several decades ago.
 - When people drove their car at dusk 30 years ago, they experienced that insects used to smash on their windscreen where they had to clean the windshield frequently
- This effect has been ascribed to major global declines in insect abundance

Recommendation

- Protecting biodiversity amounts to protecting humanity
- The world may need to embrace a new "post-growth" form of economics if it is to avert the existential risks posed by the mutually-reinforcing consequences of pollution, habitat destruction and carbon emissions.

8. Goldman Environmental Prize

- The Goldman Environmental Prize is a prize awarded annually to grassroots environmental activists, one from each of the world's six geographic regions
- Africa, Asia, Europe, Islands and Island Nations, North America, and South and Central America
- The award is given by the Goldman Environmental Foundation headquartered in San Francisco, California
- It is also called the Green Nobel

Its motto:

- The Prize recognizes individuals for sustained and significant efforts to protect and enhance the natural environment, often at great personal risk.
- The Goldman Prize views "grassroots" leaders as those involved in local efforts, where positive change is created through community or citizen participation in the issues that affect them.
- Through recognizing these individual leaders, the Prize seeks to inspire other ordinary people to take extraordinary actions to protect the natural world.

What the Goldman Prize Provides?

The Goldman Prize amplifies the voices of these grassroots leaders and provides them with:

- International recognition that enhances their credibility
- Worldwide visibility for the issues they champion
- Financial support to pursue their vision of a renewed and protected environment

9. Grizzled Giant Squirrel

- IUCN: Near Threatened

- It is listed under Schedule I of the Wildlife Protection Act, 1972
- Found in hill forests of Karnataka, Tamil Nadu and Kerala states of southern India
 - * The grizzled giant squirrel is usually known to nest in the Western Ghats in Southern India ranging from Chinnar Wildlife sanctuary in Kerala to Anamalai Tiger Reserve and Palani hills in Tamil Nadu
- It is also found in Sri Lanka

Threats

- Habitat loss and poaching
 - * Hunting for its fur and bush meat by the locals
- The Chinnar population is troubled by the increased predator pressure and the extremely low regeneration of its preferred food plant species due to heavy grazing by cattle.

Context

- For the first time, researchers have sighted nests of the grizzled giant squirrel at Pakkamalai Reserve Forests near Gingee in the Eastern Ghats.

10. Hornbills among top seed dispersers, most threatened

Context

- Researchers from Nature Conservation Foundation Mysore, carried out a study in Pakke Tiger Reserve in Arunachal Pradesh
- There were on a study to understand the behavior of Birds and its food habits in reference to Fruits
- These researchers have mapped the different frugivore (fruit eater) birds and their interactions that are important for the forest ecosystem.

Details

- A single bird species could visit different tree species, and a single tree species would be visited by different bird species.
- The trees were classified into small-, medium- and large-seeded.
 - * The large-seeded trees mainly depended on hornbills and imperial pigeons for their dispersal.
 - * The medium-size seeded trees were visited by bulbuls, barbets along with hornbills and imperial pigeons.
- They noted hornbills, one among the large-sized frugivores, are the top seed dispersers
 - * They swallow the fruit as a whole causing no damage to the seed. They are known to disperse seeds far away from the parent plant
- The Great Hornbill is evaluated as vulnerable on the IUCN Red List
- It is the state bird of Kerala and Arunachal

Threats

- They are hunted for meat and the flesh is believed to be medicinal.
- The beaks and head are used in charms to ward off evil spirits
- Tribesmen in parts of northeastern India and Borneo use the feathers for head-dresses, and the skulls are often worn as decorations

11. India CEO Forum on Climate Change

- It was organized by Ministry of Environment, Forest and Climate Change (MoEFCC), as the pioneering initiative of the government, inviting industry representatives, exchanged views on climate change issues and discussed opportunities to collaborate in regard to fulfilling India's national as well as international climate change commitments.
- The forum was being conducted to create a mechanism for the government and businesses to formally talk about climate change issues and develop a common voice at global forums so that there is no disconnect between the stand of the government and that of the industries.
- The forum will help the government move from a language-based narrative on climate change to an action-based narrative and highlighted the important role that businesses play in dealing with global warming issues and a platform like this will help share best practices and facilitate cross-learning.

Importance

- Businesses are recognised as crucial to meeting global climate change goals and forum on Climate Change focused on driving transition to a low-carbon economy.

12. Indian Gaur/ Indian bison / Bos gaurus

- It is native to South and Southeast Asia.
- IUCN: Vulnerable
- It is the largest extant bovine
- The gaur is the tallest of wild cattle species
- The domesticated form of the gaur is called gayal (*Bos frontalis*) or mithun

13. Kashmir stag/ Hangul /Cervus hanglu

Context

- A massive decline in the population of Kashmir's iconic wildlife species, the Hangul continues to be a big concern as conservation efforts for the deer, going on for years, have not yielded any significant results so far.

Details

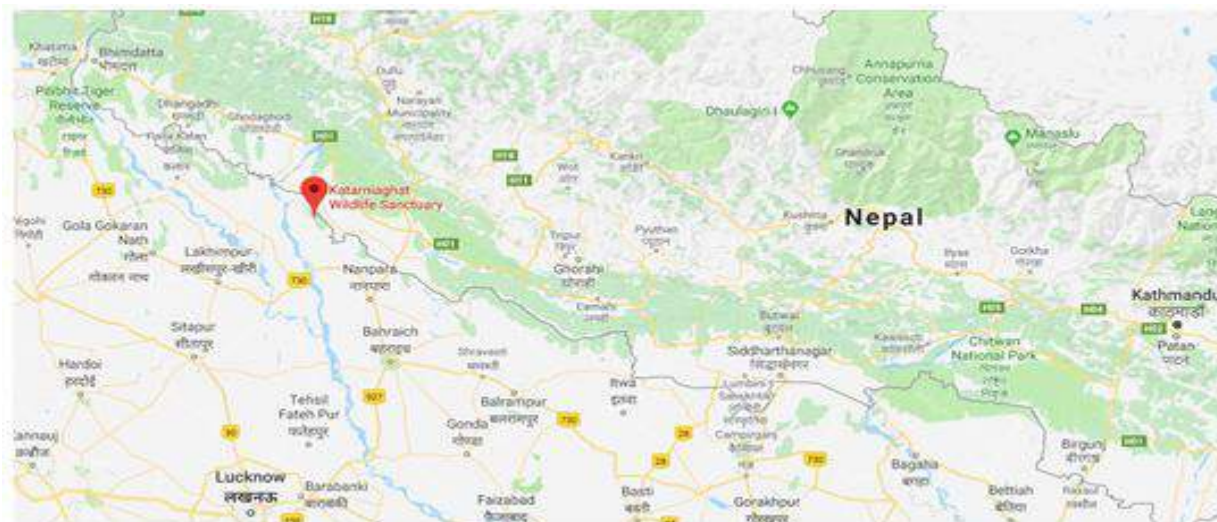
- Hangul, the state animal of Jammu & Kashmir, is restricted to the Dachigam National Park some 15 km north-west of Jammu & Kashmir's summer capital Srinagar.
- IUCN :Critically Endangered
- From a population of 5,000 in the early 1900s, the Hangul's numbers have constantly declined over the decades, making it largely confined to the 141 square kilometres of Dachigam National Park, although some studies suggest that small isolated Hangul herds of five to ten have been reported from adjoining areas of Dachigam which include Shikargah-Tral and the Overa-Aru Wildlife Sanctuary in south Kashmir.

What is hurting the Hangul?

- The biggest challenges which have been identified by experts in the way of conservation and population growth of Hangul are habitat fragmentation, predation and very low fawn-female ratio.
- Another challenge is the male-female and fawn-adult disparity in the Hangul population
 - * There is a female-biased ratio of 23 males to every 100 females. The female-biased ratio and the fawn to female ratio of 30:100 are the two main reasons for the declining numbers of Kashmir's Hangul

14. Katarniaghat Wildlife Sanctuary

- It is along Indo – Nepal border, in the district of Behraich in Uttar Pradesh
- It forms a part of the Dudhwa Tiger Reserve along With Dudhwa National Park and Kishanpur Wildlife Sanctuary.
- The sanctuary also form an important corridor of connectivity between the Dudhwa Tiger Reserve in India and the Bardia National Park in Nepal.
- It is On the banks of Sarayu river
- The Wildlife Sanctuary is a part of the terai landscape
- Girwa River runs through the reserve.

**15. Lecanorchis Taiwaniana**

- It is a variant of a Japanese orchid
- It is one of its smallest orchids in terms of size and duration of bloom to be recorded botanically in India.
- It is a mycoheterotroph, one of two types of parasitic plants that have abandoned photosynthesis.
- It has 90% similarity with the taiwaniana species named after Taiwan

Stats

- Lecanorchis taiwaniana adds to the orchid wealth of northeast India, which has 800 of some 1,300 species in the country.
- About 300 species are found in the Western Ghats and 200 in the northwestern Himalayas.

Other Plants

- Costus pictus or the insulin plant used in treating diabetes mellitus
- Ophiorrhiza mungos used in treating cancer because of the alkaloid Camptothecin present in it.

16. Makalu Barun National Park

- It is situated in the Himalayan region of Nepal.
- It is eastern extension of Sagarmatha National Park.

Context

- The official Twitter handle of the Indian Army left netizens amused when it posted photos of what it called footprints of Yeti, the mythical Himalayan beast, in Nepal on a recent mountaineering expedition.

17. Mizo Rain Snake (Smithophis Atemporalis)

- It has been named after eminent British herpetologist, Malcom A Smith, for his contribution to Indian herpetology.
- Found in north-eastern state of Mizoram, they are locally referred to it as 'ruahlawmrul', a rain-loving snake

- The new species lacks temporal scales (specific enlarged scales in the temporal region of the head).

Why is it called so?

- This snake is aquatic and is commonly seen in human dominated landscapes and forests as well.
- In Aizawl, the capital of Mizoram, this snake is commonly seen during the monsoons and frequents streams and other wet places, close to human habitation and is seen after rain showers.

18. Mula River

- It is a river in Pune
- It is dammed near the Western Ghats at the Mulshi Dam that forms the Mulshi Lake
- As it flows downstream it merges with the Pawana River on the left bank and Mutha River on the right bank to form the Mula-Mutha river, which later meets the Bhima River

Concerns

- Untreated domestic sewage, Industrial Wastes is being released into the river resulting in the formation of foam and also hyacinth
 - * They develop dense mats on the surface of the water and becoming a major weed problem.
 - * Water hyacinth causes enormous water loss due to evapotranspiration creating negative impact on water balance in the region.
- The same water is used by farmers downstream in Shirur tehsil for growing Vegetables which when consumed can result in Health issues.
- The fishing community which once had enough catch is now suffering to meet its livelihood

19. Nandankanan Zoological Park

- It is a zoo and botanical garden in Bhubaneswar in Odisha.
- Established in 1960, it was opened to the public in 1979.
- It became the first zoo in India to join World Association of Zoos and Aquariums (WAZA) in 2009.
- It also contains a botanical garden and part of it has been declared a sanctuary.
- Nandankanan, literally meaning The Garden of Heaven is located in the environs of the Chandaka forest, and includes the Kanjia Lake.

20. 'Not all animals migrate by choice' campaign

- It is a Campaign launched by Wildlife Crime Control Bureau of India and UN Environment aimed at airports across India.
- The campaign aims at creating awareness and garnering public support for the protection and conservation of wildlife, prevention of smuggling and reduction in demand for wildlife products.

- The campaign also complements worldwide action on illegal trade in wildlife through UN Environment's global campaign, Wild for Life.

- Tiger, Pangolin, Star Tortoise and Tokay Gecko featured in the campaign. They have been chosen as they are highly endangered due to illegal trading in International markets.

- * Tiger is traded for its skin, bones and body parts;
- * Pangolin, the most illegally traded wild mammal on the planet is trafficked for its meat and its scales are used in traditional medicines;
- * Star Tortoise for meat and pet trade and
- * Tokay Gecko in traditional medicine mostly into South East Asia and particularly Chinese Markets.

Wildlife Crime Control Bureau

- It is a statutory multi-disciplinary body established by the Government of India under the Ministry of Environment and Forests, to combat organized wildlife crime in the country.
- Under Section 38 (Z) of the Wild Life (Protection) Act, 1972, it is mandated to collect and collate intelligence related to organized wildlife crime activities and to disseminate the same to State and other enforcement agencies for immediate action so as to apprehend the criminals; to establish a centralized wildlife crime data bank;
 - * co-ordinate actions by various agencies in connection with the enforcement of the provisions of the Act; assist foreign authorities and international organization concerned to facilitate co-ordination and universal action for wildlife crime control;
 - * Capacity building of the wildlife crime enforcement agencies for scientific and professional investigation into wildlife crimes
 - * Assist State Governments to ensure success in prosecutions related to wildlife crimes;
 - * Advise the Government of India on issues relating to wildlife crimes having national and international ramifications, relevant policy and laws.
 - * It also assists and advises the Customs authorities in inspection of the consignments of flora & fauna as per the provisions of Wild Life Protection Act, CITES and EXIM Policy governing such an item.

21. Ozone pollution likely to spike in Capital

Context

- With rising temperatures, surface ozone pollution is expected to increase in Delhi, according to a forecast by the System of Air Quality and Weather Forecasting and Research (SAFAR).

Ozone

- Ozone is a gas composed of three atoms of oxygen (O₃). Ozone occurs both in the Earth's upper atmosphere and at ground level.
- Ozone can be good or bad, depending on where it is found.

Good Ozone

- Called stratospheric ozone, good ozone occurs naturally in the upper atmosphere, where it forms a protective layer that shields us from the sun's harmful ultraviolet rays.
- This beneficial ozone has been partially destroyed by manmade chemicals, causing what is sometimes called a "hole in the ozone."

Bad Ozone

- Ozone at ground level is a harmful air pollutant, because of its effects on people and the environment, and it is the main ingredient in "smog."
- Tropospheric, or ground level ozone, is not emitted directly into the air, but is created by chemical reactions between oxides of nitrogen (NO_x) and volatile organic compounds (VOC). This happens when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources chemically react in the presence of sunlight.

What are the health effects of ozone?

- Ozone in the air we breathe can harm our health. People most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers.
- In addition, people with certain genetic characteristics, and people with reduced intake of certain nutrients, such as vitamins C and E, are at greater risk from ozone exposure.
- Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and airway inflammation. It also can reduce lung function and harm lung tissue. Ozone can worsen bronchitis, emphysema, and asthma, leading to increased medical care

22. Painted Storks

- Painted storks – large birds, along with Black, White and Grey Ibis, migrate from Southeast Asia to the Indian subcontinent in November-December
- The birds are distinct due to their colorful plumage and slightly bent yellow beaks with long legs that differentiate them from other birds.
- It is found in the wetlands of the plains of tropical Asia south of the Himalayas in the Indian Subcontinent and extending into Southeast Asia.

- They nest colonially in trees, often along with other water birds.
- IUCN Conservation status: Near Threatened

Context:

- For six months in a year, the Veerapuram and Venkatapuram villages of Anantapur district turn home to beautiful Painted Storks who fly here from far-off places for their breeding season.

Issue:

- The number of migratory birds is on the decline, as availability of water and fish has become scarce.
- Though the village is known to be a destination for these migratory birds for over 100 years, it was only in 1982 that the Forest Department formally identified it for protection.
- No tangible efforts to protect the birds have been taken so far. Tourists and photographers too make a beeline here on the weekends as the place is close to the famous stone-carved Nandi of Lepakshi.
- Uric acid found in the droppings of these birds is causing damage to trees, with many people not taking any interest in planting new ones.

Proposals:

- Only the tamarind tree seems to be able to withstand the effects of the acidic droppings.
- District Forest Officer told that the department had sent a ₹80 lakh proposal to the State Government to plant two-meter tall trees around the dry tank, desilt it and begin a veterinary care service.
- Several small tanks recently developed in the 3-4 km range from Veerapuram have received good rain and the Fisheries Department had released small fish seedlings.
- There is a proposal to build some huts/guest houses around this place for the tourists and the District Collector was looking for a proper place to acquire land for the Tourism Department to develop the facility.
- A bird rehabilitation centre and an Awareness Creation Centre was proposed while a 30 m x 20 m water tank with a depth of 3 m has been built by the Forest Department close to Veerapuram tank.

23. Rajaji National Park

- It is an Indian national park and tiger reserve
- It encompasses the Shivaliks, near the foothills of the Himalayas.
- The park is spread across three districts of Uttarakhand: Haridwar, Dehradun and Pauri Garhwal
- The Ganga and Song rivers flow through the park
- Rajaji National Park has been named after C. Rajagopalachari (Rajaji), a prominent leader of the Freedom Struggle

24. Scorching heat forces animals out of Seshachalam biosphere

Context:

- With the summer heat touching 45 degree Celsius, the wild animals in the Seshachalam biosphere, which is spread over Chittoor and Kadapa districts in Andhra Pradesh, are facing a torrid time.

Details:

- With water sources and food depleting, even shy and critically endangered species are foraging into human habitations.
- The intensity of heat this year is said to be the highest in the biosphere. As a result, even shy and critically endangered species such as the pangolin and the slender loris are venturing out of their habitat.
- Forest officials also have found the slender loris – a nocturnal animal and a rare species to be found close to humans, loitering in a dried up water body in broad daylight.
- The pangolin is another species that has fallen on hard times in the biosphere, hit by paucity of food and water sources. The oppressive heat has not only led to vanishing of water in the ditches, ponds and streams but also suppressed the moisture content in the soil.
- The anteater is finding it difficult to gather food, mostly worms, insects, flies, bees and ants.

Slender Loris:

- Slender lorises (Loris) are a genus of loris native to India and Sri Lanka.
- The slender loris spends most of its life in trees (arboreal), traveling along the top of branches with slow and precise movements.
- It is found in tropical rainforests, scrub forest, semi deciduous forest and swamps.
- It is a nocturnal animal.
- The species is considered “critically endangered” in forest parlance, and is poached for its eyeballs and others body parts, which are believed to have healing power for multiple human health debilities.
- They are also illegally smuggled to supply a growing exotic pet trade.
- Destruction of tropical rain forest habitat is also contributing to declines in population.
- IUCN has listed them as Least Concerned.

Pangolin:

- Pangolins or scaly anteaters are mammals.
- Pangolins have large, protective keratin scales covering their skin; they are the only known mammals with this feature.

- They live in hollow trees or burrows, depending on the species.
- Pangolins are nocturnal, and their diet consists of mainly ants and termites, which they capture using their long tongues.
- They tend to be solitary animals, meeting only to mate and produce a litter of one to three offspring, which are raised for about two years.
- Pangolins are threatened by poaching (for their meat and scales) and heavy deforestation of their natural habitats, and are the most trafficked mammals in the world.
- Indian Pangolin is classified as Endangered by IUCN.

25. Steering away from diesel

Context

- Maruti Suzuki, India's top carmaker, announced that it would phase out production of diesel models from April 1, 2020, when stricter Bharat Stage VI emission standards come into force.

Reasons behind Maruti taking this decision:

- Explaining its rationale, Maruti said that the enhanced emission standards would make diesel engines costlier by up to ₹1.5 lakh, and the acquisition cost of diesel vehicles for consumers would be markedly higher than petrol equivalents.
- Further, given the market dynamics, it would not make business sense for the company to invest in developing new diesel engines to meet the BS VI norms.
- Compressed Natural Gas could be a replacement for both fuels, according to Maruti.
- It is important to note that diesel cars account for about 23% of Maruti's domestic sales and it sold a total of 4.63 lakh diesel-powered vehicles during 2018-19.

Diesel: Losing its attractiveness?

- On the consumer side, diesel vehicles are not particularly attractive today.
- The traditional advantage of lower operating costs due to a wide gap between expensive petrol and lower cost diesel has narrowed significantly.
- Recently, the price of diesel in a city like Chennai was ₹70.48 per litre compared to ₹75.92 per litre for petrol.
- Environmentally, diesel is a heavy polluter and is losing ground in leading passenger vehicle markets such as the European Union.
- Further, the rigging of emissions data by Volkswagen to show lower levels of nitrogen oxides accelerated the move away from diesel.
- Even in Germany, which is a leading maker of diesel cars, cities want to ban them.

Why is the move significant?

- India has a growing vehicle-to-population ratio, although it is still lower than several other big countries.
- While Maruti's is a business decision, policy decisions on emission norms will steer the industry, and are therefore critical to improving air quality.
- Ambient air quality has deteriorated so badly that 15 Indian cities led by Gurugram are among the 20 most polluted cities globally as per the IQAir AirVisual 'World Air Quality Report' for 2018, based on fine particulate matter (PM_{2.5}) that penetrates the lungs and bloodstream. Transport emissions, particularly from diesel, are a major contributor.
- As of 2017, India's installed capacity for vehicle production stood at 7 million four-wheelers and 27.56 million two and three-wheelers.
- Commercial three-wheelers, such as large autorickshaws, sold in the past include heavily polluting diesel models that continue to operate even in densely populated cities.
- During 2017-18 the auto industry produced over four million passenger vehicles and just under 900,000 commercial vehicles, according to the Society of Indian Automobile Manufacturers.
- After the decontrol of diesel pricing about five years ago, the share of diesel models in car sales has dropped from nearly 43% in 2012-13 to 23% at the end of 2018.

What is diesel's pollution profile?

- It is important to note that the Auto Fuel Vision and Policy 2025 published by the erstwhile Planning Commission, which laid out the road map for a transition to less polluting fuels, pointed out that sulphur in diesel is a contributor to particulate matter both in the vehicular exhaust and in the atmosphere.
- Sulphur is found in petrol too, but for comparison, it was 2,000 parts per million (ppm) in petrol before introduction of standards in 2000, but in diesel it was 10,000 parts per million (ppm) in 1996.
- Sulphur content was reduced with each phase of upgradation of emission standards to touch 50 ppm under BS IV. In BS VI, which is already dispensed in Delhi, it is 10 ppm.
- Sulphur plays a key role since higher concentrations have an impact on technologies for control of other pollutants in the emissions, such as carbon monoxide, particulates, oxides of nitrogen and hydrocarbons.

A Look at More Specifics:

- The importance of cleaner diesel was studied in Karnataka, and data show that the adoption of Bharat IV diesel in 2015 had an impact on the sulphur dioxide (SO₂) concentrations.

- The Sulphur content of diesel changed from 350 ppm to 50 ppm.
- There was a 25% drop in nitrogen dioxide (NO₂) concentrations too, which could also be linked to change in the fuel quality.
- However, such gains were neutralized by traffic growth.
- The rise in larger PM₁₀ concentrations by 50%, was linked to growing numbers of vehicles and dust resuspension, besides construction activity.
- Even with cleaner fuel, increase in vehicle numbers, especially those running on diesel cut into the gains.
- It was witnessed in Delhi, where, in spite of a shift of buses and auto rickshaws to CNG during 1998-2002, the air quality gains were soon lost to explosive motorization.

Case in Point: Bengaluru

- Bengaluru also had a similar experience, as a study by the Air Pollution Knowledge Assessment City Program by Urbanemissions.info showed.
- The city has steadily motorised, and number of vehicles registered per 1,000 population increased from 150 in 1990 to 300 in 2001 and 600 in 2016.
- Within the transport sector, more than 70% of PM_{2.5} emissions were found to originate from a small fraction of diesel-powered vehicles. Also an estimated 200 million litres of diesel are used by diesel generator sets in the city annually.
- Data for Delhi from 2011 led researchers to conclude that on-road commuters are exposed to 1.5 times the average ambient concentrations.
- Automotive emissions add to the pollution burden imposed by manufacturing and construction activity, power plants, biomass burning for cooking and heating, and incineration of farm residues and garbage.

How can eliminating diesel improve health?

- Air pollution is a leading contributor to non-communicable diseases and accounts for a large number of premature deaths.
- The World Health Organisation describes diesel exhaust as an occupational cancer-causing agent.

In India, the Global Burden of Disease Study 2017 attributed 8% of the disease burden, and 11% of premature deaths in people below 70 years of age to air pollution.

- An assessment by researchers published by The Lancet Planetary Health in December 2018 said most Indian States, particularly those in north India, and 77% of the country's population were exposed to an annual population-weighted mean [fine particulate matter], PM_{2.5}, greater than the 40 microgrammes per cubic metre of air limit recommended by the National Ambient Air Quality Standards.

- Even with a reduction in the sulphur content in BS VI fuels, the health effects of lower emissions would be lost due to a growing number of vehicles.
- The best scenario to reduce PM_{2.5} exposure in India is, therefore, not just shifting to BS VI fuels but bringing about a reduction in use of private vehicles through augmented public transport and promoting alternative fuels including the use of electric vehicles.

Perspective by Gary Fuller (An Air Pollution Scientist)

- In his book, 'The Invisible Killer', air pollution scientist Gary Fuller says diesel cars were promoted by a variety of actors, such as oil companies, governments, and vehicle manufacturers in the 1990s in order to create a market for the middle fractions of crude oil.
- Real-world emissions in new cars have not always aligned with expected type-approval tests.
- While test cycle nitrogen oxide emissions decreased by 80% since 1992, the real driving emissions from diesel cars increased about 20%, says Prof. Fuller in a recent paper.

Concluding Remarks:

- In Europe, trucks and buses were already running on diesel, and industries and governments promoted its use in cars, giving petrol a lesser profile.
- Car makers produced newer diesel engines and promoted them citing lower carbon dioxide (CO₂) emissions compared to petrol equivalents.
- India has slowly moved towards stricter regulation through mass emission norms for vehicles.
- The first standards came into force in 1991 for petrol vehicles, and a year later, for diesel vehicles. Based on Supreme Court orders of 1999, the Central government notified the Bharat Stage II norms for the National Capital Region and Bharat Stage I for the rest of India, from 2000.
- After transitioning over the years to BS III and BS IV, BS VI (the equivalent of Euro VI) standard will cover vehicles manufactured on or after April 1, 2020. (BS V has been skipped altogether.) Its 10 ppm sulphur standard will be less polluting since the current level is 50 ppm.

26. Task Force on Climate-related Financial Disclosures (TCFD)

Introduction

- Climate change is already impacting economies around the world and this will continue to intensify.
- Extreme weather events, including floods, tropical cyclones, and extreme hot and cold days are already physically impacting business operations.
- Several reports by the Intergovernmental Panel on Climate Change warn of myriad risk to economies but so far there's been no specific assessment of how companies can account for such risks.

Example

- There are thermal power and mining industries which would become less competitive in the future due to adoption to renewable sources
- This would result in Policy and technology shifts which can pose potentially unprecedented risks — and opportunities — to institutional investors and other financial institutions which are exposed to such businesses.

TCFD

- It was set up in 2015 by the Financial Stability Board (FSB)
 - * FSB is an international body that monitors and makes recommendations about the global financial system.
 - * It was established after the G20 London summit in April 2009 as a successor to the Financial Stability Forum (FSF).
 - * The Board includes all G20 major economies, FSF members, and the European Commission.
 - * Hosted and funded by the Bank for International Settlements, the board is based in Basel, Switzerland
- They developed voluntary, consistent climate-related financial risk disclosures for use by companies, banks, and investors in providing information to stakeholders.
- Increasing the amount of reliable information on financial institutions' exposure to climate-related risks and opportunities will strengthen the stability of the financial system, contribute to greater understanding of climate risks and facilitate financing the transition to a more stable and sustainable economy.

Context

- In May 2019 20 institutional investors from 11 countries convened by the U.N. Environment Finance Initiative (UNEP FI) made public a report that helps investors understand how to calculate the risk companies face from climate change.

How was it compiled?

- The 20 institutional investors made up an Investor Pilot Group (IPG) and used a methodology developed by an analytics firm called Carbon Delta and the IPG to determine the risk to their portfolios.
- Each of the IPG members prepared scenarios, on how an average rise of global temperature by 1.5°C, 2°C, and 3°C respectively would impact the "portfolios" the companies they had invested in.
- This was intended as a pilot project and a model for other companies to account for the risk of climate change to their business activities.

What did the report say?

- Low carbon technology opportunities help offset risk.
- Suitably mixing technology opportunities across a portfolio will alleviate losses generated under the 3°C, 2°C and 1.5°C policy scenarios and could mean portfolio benefits by 3.21%, 6.94%, and 10.74% under these scenarios.
- Finally, if governments delay action to enact climate policies that reduce greenhouse gas emissions, the 30,000 companies in the universe faced a further cost of \$1.2 trillion compared to a scenario where climate policy is enacted smoothly and steadily with immediate effect

What is in it for India?

- India, in spite of being one of the top greenhouse gas emitters, finds no mention in this report.
- However, the guidelines proposed can — in theory at least — be adopted by any company based anywhere in the world.

- These crops, coupled with the lure of easy profits from sugarcane, have led the farmers and the citizens to the edge of the current hydrological disaster.

Way forward:

- The way out of this ecological mess is to prohibit the cultivation of sugarcane.
- There has to be effort on the government's part to wean farmers away from cultivating sugarcane and switching to drought-resistant ones like oilseeds and pulses.
- There are provisions within the Maharashtra Irrigation Act of 1976 wherein the government can notify people in the command area not to go in for water-intensive crops like sugarcane in the case of acute water scarcity.

27. Water experts warn of 'desertification' of Marathwada**Context:**

- Economists and water academics have specifically warned of the desertification of the parched Marathwada region in the near future, adding that the water crisis in Maharashtra is a policy-induced failure.

Details:

- "It is the ecological illiteracy of policy-makers and the selfishness of the power elite in inducing farmers across Marathwada to adopt a crop pattern that is not congruent with the agro-climatic characteristics of this region", former member of the Maharashtra State Planning Board said.
- Mismanagement of water resources by successive governments, coupled with four decades of incessant water mining, had led the groundwater table across the Marathwada region to decline precipitously to the point where rejuvenating it had become impossible.
- According to data by the Groundwater Surveys and Development Agency, the water table had dropped alarmingly in 70 of the 76 talukas, with more than 25 reporting a drop of more than two metres.
- The crop pattern in the region has drastically changed over the past decades.
- Earlier, the main crops cultivated here used to be cereal and oilseeds – the crops not only conducive to Marathwada's arid climate, but also drought-resistant and helped moisture harvesting.
- But now, the predominant crops here are soybean and Bt Cotton, which dominate more than 80% of Marathwada's 50 lakh hectares of cultivable land.

HEALTH ISSUES

1. Chlorpyrifos

- It is a pesticide used on almonds, citrus, cotton, grapes, walnuts and other crops
- The chemical causes serious health effects in children, including impaired brain and neurological development
- Pregnant women living near fields and farms that use the chemical have an increased risk of having a child with autism
- Exposures to low to moderate levels of chlorpyrifos during pregnancy have also been associated with lower IQs and memory problems.

Context

- California is banning a widely used pesticide that has been linked to brain damage in children

2. Doctors appearing in ads for hospitals may face action

Context

- A group of doctors working in a prominent corporate hospital in Kochi may be penalised after their photographs and details were featured prominently in a newspaper advertisement of the hospital. The matter has been brought to the attention of the Registrar of Travancore Cochin Council of Modern Medicine, for appropriate action.

Background:

- Previously, Medical Council of India (MCI) took punitive action against a group of doctors, who were featured prominently in an advertisement of the hospital they were then working in, by removing their names from the Indian Medical Register/State Medical Register for 15 days.
- In 2013 the MCI took disciplinary action against nine doctors who were featured prominently in an advertisement of Saxena Multispecialty Hospital, Pvt. Ltd., Sonapat, Haryana.
- The MCI took this decisive action because doctors promoting themselves through advertisements with photographs is a violation of the Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002.

What does the code say?

- Section 6.1 of the Code of Ethics states that "...a physician shall not make use of him/her (or his/her name) as subject of any form or manner of advertising or publicity through any mode either alone or in conjunction with others ... as to invite attention to him or to his professional position, skill, qualification ..."

- "Corporate hospitals are free to advertise their facilities and services but they cannot advertise their services making use of the photographs and details of the doctors under their employment.

Council's mandate:

- The Travancore Cochin Council of Modern Medicine, which met in May last year, brought out a circular that the council would be forced to take suo motu action against doctors if they displayed their photographs in any hospital billboards or advertisements in violation of the Code of Ethics.
- It had asked doctors to remove their names and photographs from such publicity material immediately or to face punitive action, including removal of their names from the State Medical Register.
- The MCI's Code of Ethics is binding on the doctors and not the hospital.
- The MCI has jurisdiction only over doctors. So, even if it is the hospital that is putting out the advertisements featuring doctors' photographs, the latter alone will be held liable for the violation of medical ethics.

3. Kerala to de-link ICU care from organ donation

Context

- Kerala is moving towards the mandatory certification of brain death at intensive care units in all medical facilities in the State, irrespective of whether organ donation takes place or not.

What is brain death?

- Brain death is the complete loss of brain function.
- When someone is brain dead, it means that the brain is no longer working in any capacity and never will again.
- Other organs, such as the heart, kidneys or liver, can still work for a short time if the breathing machine is left in place, but when brain death is declared, it means the person has died.

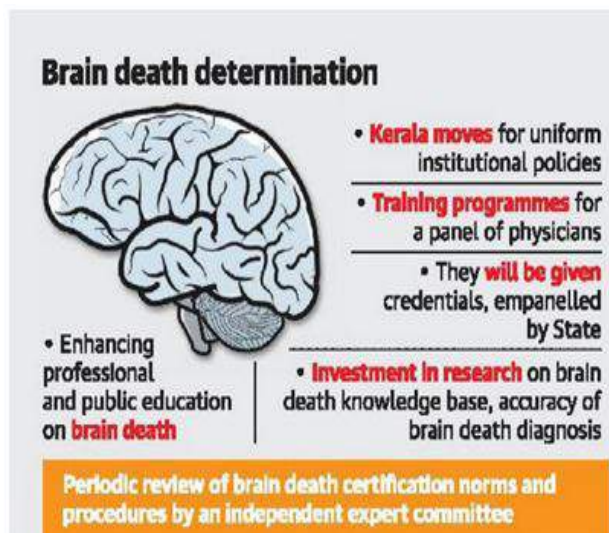
Current Scenario in India:

- At present, there is lack of clarity on how clinicians should proceed if there is a brain-dead patient in the ICU and the family has refused consent for organ donation.
- In India, brain death has been defined only in connection with organ donation, in the Transplantation of Human Organs Act, 1994.
- The Act does not specify whether ventilation and ICU care may be withdrawn if a patient is brain-dead but organ donation has not been proposed.

- Lack of clarity in the law had been posing a lot of problems for clinicians.

What is the Standard practice followed across the globe?

- Once brain death declaration becomes a standard ICU procedure (after performing the first apnea test as specified under the THO Act), treatment can be terminated post discussion with the families.
- Any new therapeutic ventilatory strategies would only be adopted for preserving organs for organ donation, which is the standard practice all over the world.



Details:

- The government, after legal consultations, will soon issue executive orders delinking brain death certification and organ donation, so that there is more clarity as to how clinicians should proceed with intensive care unit (ICU) care in the case of a patient who has been declared brain-dead, but whose family has refused consent for organ donation.
- Once brain death is diagnosed as per the existing legal and clinical requirements and the certification process is completed, ICU care will be continued only if organs are to be retrieved for possible donation.
- If organ donation is not a possibility, then all care will be stopped so that the much valuable ICU resources are not wasted and may be utilised for a salvageable person.
- The decisions were taken at a meeting of senior health administrators, transplant surgeons, neurologists, and critical care specialists on developing parameters for universal brain death certification.

4. Measles

- Measles is also known as rubeola or red measles.
- It is a highly contagious respiratory infection caused by a virus which causes a rash all over the body.
- Measles could be spread through infected mucus and saliva.

- It is the primary disease that leads to the death of children.
- Symptoms generally appear within 14 days of exposure to the virus. General symptom of the measles is body rash but before that, there are few more symptoms which could help to detect measles. Fever, hacking cough, red eyes, muscle pains, running nose, sore throat and sores inside the mouth.
- Measles, if not treated properly can lead to chronic complications like pneumonia, encephalitis etc. The other complications may include Bronchitis, reduction in blood platelets, severe diarrhea, sometimes even blindness.
- The measles vaccine is effective at preventing the disease, and is often delivered in combination with other vaccines.

Context:

The current global resurgence in measles is having its resonance in Kerala too, which has been witnessing a serious surge in the disease.

- Kerala reports around 600 plus cases of measles every year. This year, as many cases have been reported in the first four months itself, with over 50% cases in the 19-40 year age group.

5. Microbes in body could help predict future health

- Microbiome is the community of bacteria, viruses and fungi that live on the skin or in the gut, nose or reproductive tract.
- Microbiomes start forming at birth and are different depending on whether babies were born vaginally or via C-section.
- And they change with age and different exposures, such as a course of antibiotics that can wipe out friendly bacteria along with infection-causing ones.

Context

- Researchers don't understand how the bugs keep us healthy or how to fix an unhealthy microbiome.
- So scientists tracked people with microbiome-related health conditions, such as pregnancy or inflammatory bowel disease.
- Repeated testing spotted how the microbes' activity can wax and wane, potential early warning signs of trouble like preterm birth, inflammatory bowel disease, even diabetes.

Details

- As per the various researches some of the microbes produce molecules that keep the intestinal lining healthy, likely one reason the disease worsened when those bugs disappeared
- People who are insulin-resistant showed delayed immune responses to respiratory infections, correlating with tamped-down microbial reactions.

6. Pregnancy and Infant Cohort Monitoring and Evaluation (PICME)

- It is a project implemented by the Directorate of Public Health and Preventive Medicine.
- It is mandatory for pregnant women to register themselves on PICME.
- The registration would help track and monitor pregnant women.
- If a pregnant woman is due for check-up and does not turn up, the software automatically throws up the detail, and the health staffs visit her.
- After delivery, it also monitors the vaccination status of the baby.

7. Pulmonary hypertension

- Pulmonary hypertension is a type of high blood pressure that affects the arteries.
- It causes the narrowing or destruction of capillaries.
- This impedes blood flow through the lungs, leading to eventual weakening of the heart muscles due to increased strain in pumping blood.
- One of the symptoms of the condition is shortness of breath, even when at rest.
- It occurs in individuals of all ages, races, and ethnic backgrounds, although it is much more common in young adults and is approximately twice as common in women as in men.

8. Quick, cheap diagnostic test for Haemophilia A

Context

- Medical body Indian Council for Medical Research (ICMR) develops affordable test kit to diagnose blood disorders.

Details:

- The ICMR's National Institute of Immunohaematology, Mumbai, has developed a cost-effective Point-of-Care (POC) rapid diagnostic test for severe Haemophilia A and Von Willebrand Disease (VWD)
- This is the first in the world POC test for specific diagnosis of any common bleeding disorder.
- Working cost of these kits is less than ₹50 in comparison to existing conventional test for the diseases that costs around ₹4,000 to ₹10,000,
- Patients with severe Haemophilia A or VWD can have life threatening spontaneous or post-traumatic bleeding like brain haemorrhage and gastrointestinal bleed or they may have bleeding into joints or superficial bleeding from the nose or gums.

Haemophilia:

- Haemophilia is a mostly inherited genetic disorder that impairs the body's ability to make blood clots, a process needed to stop bleeding.

- This results in people bleeding longer after an injury, easy bruising, and an increased risk of bleeding inside joints or the brain.
- There are two main types of haemophilia: haemophilia A, which occurs due to not enough clotting factor VIII, and haemophilia B, which occurs due to not enough clotting factor IX.
- They are typically inherited from one's parents through an X chromosome with a non-functional gene.
- Other types include haemophilia C, which occurs due to not enough factor XI, and parahaemophilia, which occurs due to not enough factor V.
- Acquired haemophilia is associated with cancers, autoimmune disorders.
- As haemophilia A and B are both X-linked recessive disorders, females are rarely severely affected.
- Some females with a non-functional gene on one of the X chromosomes may be mildly symptomatic.
- Haemophilia C occurs equally in both sexes

Von Willebrand Disease (VWD):

- VWD is a genetic disorder caused by missing or defective Von Willebrand factor (VWF), a clotting protein.

9. Telangana addresses maternal mortality

Context

- Thirty nurses trained in midwifery would be posted in 12 government healthcare facilities in Telangana that have recorded a high number of deliveries. The move is expected to bring down C-Section deliveries and Maternal Mortality Rate (MMR) in the State.
- Midwifery is the health science and health profession that deals with pregnancy, childbirth, and the postpartum period (including care of the newborn), in addition to the sexual and reproductive health of women throughout their lives.
- It is claimed that Telangana is the first State to have certified midwives.

MMR data:

- According to the Sample Registration System's special bulletin on 'Maternal Mortality in India 2014-16', MMR across India was 130 per 1,00,000 live births.
- It is 81 per 1,00,000 live births in Telangana, the fifth lowest State.
- The lowest MMR of 46 was recorded in Kerala, followed by 61 in Maharashtra.

How did Telangana bring down its MMR through sustained campaign?

- Med • The infrastructure which was implemented, largely focused on making healthcare accessible to all women and also incentivized institutional deliveries which helped attract more women to institutional deliveries.

- The government undertook the gargantuan task of improving public health care facilities, starting with the Public Health Centres (PHCs).
- The state implemented a 24-hour call centre as part of a government initiative.
- The PHCs worked with Accredited Social Health Activists (ASHAs) and collected the expected delivery dates of women in a particular locality and passed it on through the call centres.
- The call centres were set up in conjecture with the government's 'Amma Vodi' (Mother's Lap) programme.
- Under 'Amma Vodi' a few initiatives were taken to ensure that pregnant women were getting regular antenatal check-ups as well as institutional deliveries.
- The call centres helped authorities to keep track of pregnant women and were able to make sure that they were getting regular check-ups.
- The government also introduced the 102 number for women who required transport to and from their check-ups.
- Institutional deliveries were incentivised by providing financial incentives. Women are given Rs 13,000 for girl children and Rs 12,000 for boys which are given in installments.

Significance:

- According to World Health Organisation's (WHO) 'Global Strategic Directions for Strengthening Nursing and Midwifery 2016-2020', there is demonstrable evidence substantiating the contribution of the nursing and midwifery workforce to health improvements, such as increased patient satisfaction, decrease in patient morbidity and mortality, stabilisation of financial systems through decreased hospital readmissions, length of stay, and other hospital-related conditions, including hospital-acquired infections, which consequently contributes to patient well-being and safety.

Conclusion:

- According to data released by the Sample Registration System (SRS), Telangana state went from an MMR of 92 in the 2011 to 2013 period to a rate of 81 between 2014 and 2016. The effort of the state government to reduce its MMR has resulted in the entire nation's MMR reducing to 130 from 167. In fact, Telangana is now close to the 70 mark, the Sustainable Development Goal (SDG) set for the country.

10. The cost of resistance

- Even though antimicrobial resistance is acknowledged by policymakers as a major health crisis, few have considered its economic impact.
- Now, a report from the Interagency Coordination Group on Antimicrobial Resistance (IACG) puts the financial fall-out in perspective.

More Specifics on the Report:

- This report is titled "No Time to Wait: Securing the Future from Drug Resistant Infections".
- The report says that in about three decades from now, uncontrolled antimicrobial resistance will cause global economic shocks on the scale of the 2008-09 financial crisis.
- With nearly 10 million people estimated to die annually from resistant infections by 2050, health-care costs and the cost of food production will spike, while income inequality will widen.

A Look at the Economic Costs:

- In the worst-case scenario, the world will lose 3.8% of its annual GDP by 2050, while 24 million people will be pushed into extreme poverty by 2030.
- Nations must acknowledge this eventuality, the IACG says, and act to fight it.
- It is important to note that for high- and mid-income nations, the price of prevention, at \$2 per head a year, is extremely affordable. For poorer countries, the price is higher but still modest compared to the costs of an antibiotic apocalypse.

Perspective on India:

- India first published almost nine years ago the broad contours of a plan to fight antimicrobial resistance.
- The difficulty has been in implementing it, given the twin challenges of antibiotic overuse and underuse.

The Twin Challenge being faced:

- On the one hand, many Indians still die of diseases like sepsis and pneumonia because they don't get the right drug at the right
- On the other hand, a poorly regulated pharmaceutical industry means that antibiotics are freely available to those who can afford them.

Concluding Remarks: The Way Forward

- The IACG report acknowledges these obstacles, and calls for efforts to overcome them. Some steps can be initiated right away, it says, such as phasing out critical human-use antibiotics in the animal husbandry sector, such as quinolones.
- But these steps cannot be driven by regulation alone.
- A multi-stakeholder approach, involving private industry, philanthropic groups and citizen activists is needed.
- Private pharmaceutical industries must take it upon themselves to distribute drugs in a responsible manner.
- Philanthropic charities must fund the development of new antibiotics, while citizen activists must drive awareness.
- These stakeholders must appreciate that the only way to postpone resistance is through improved hygiene and vaccinations.

- It is a formidable task as India still struggles with low immunisation rates and drinking water contamination. But it must consider the consequences of a failure.
- While the 2008-09 financial crisis caused global hardships, its effects began to wear off by 2011. Once crucial antibiotics are lost to humankind, they may be lost for decades.

11. West Nile fever

- West Nile Virus (WNV) is a member of the flavivirus genus and belongs to the Japanese encephalitis antigenic complex of the family Flaviviridae.
- West Nile virus can cause a fatal neurological disease in humans. However, approximately 80% of people who are infected will not show any symptoms.
- It is mainly transmitted to people through the bites of infected mosquitoes.
- The virus can cause severe disease and death in horses.
- Vaccines are available for use in horses but not yet available for people.
- Birds are the natural hosts of West Nile virus.
- West Nile Virus (WNV) can cause neurological disease and death in people.
- It is commonly found in Africa, Europe, the Middle East, North America and West Asia.
- WNV is maintained in nature in a cycle involving transmission between birds and mosquitoes. Humans, horses and other mammals can be infected.

Details:

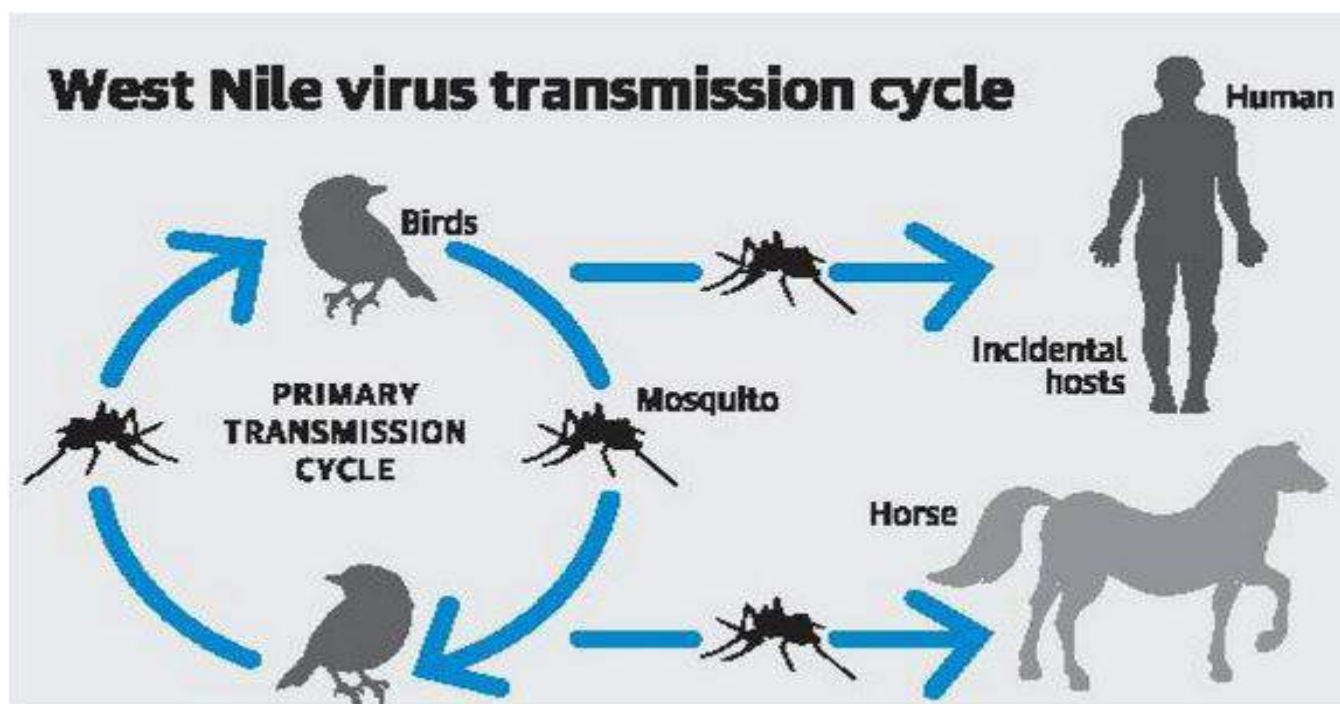
- The Health Department in Kerala is clueless about the source of the West Nile infection in Malappuram as the samples of dead crows and mosquitoes collected from the premises turned negative.
- There could have been more unreported cases of the disease as 80% of the infected people do not show any symptoms, according to the World Health Organization (WHO).
- Human infection is most often the result of bites from infected mosquitoes of the Culex genus.

Steps taken:

- Mosquito eradication works have been taken up in areas from where these cases were reported.
- Steps are also taken to create awareness among local residents.
- The department had formed a drastic response team and devised a treatment protocol after over 60 encephalitis cases were reported from Malappuram.

Conclusion:

- Viruses are known to adapt for both greater virulence and more efficient transmission.
- It is important to note that urbanisation and land-use changes are bringing the virus's zoonotic hosts, such as birds, in more frequent contact with humans.
- Given increased mobility, viruses can hitch a ride to new regions via infected humans and vectors. All this makes the WNV a formidable foe.



- India's best defence is better surveillance, which will help doctors reach patients early to prevent complications.
- Kerala could not prevent the death in Malappuram, but other States should adopt its model of heightened surveillance.

- It poses a higher risk of heart disease than saturated fats. Saturated fats raise total cholesterol levels; TFAs not only raise total cholesterol levels but also reduce the good cholesterol (HDL).

12. WHO for eliminating industrially produced trans fats by 2023

Context:

- The WHO has welcomed its partnership with the International Food and Beverage Alliance (IFBA) to achieve the target of eliminating industrially produced trans fats by 2023.

Details:

- Trans fat, also called the worst form of fat in food, responsible for over 5,00,000 deaths globally from coronary heart disease each year.
- The WHO says that eliminating industrially produced trans-fat is one of the simplest and most effective ways to save lives and create a healthier food supply.
- WHO met with IFBA to discuss actions to eliminate industrial trans fats, and reduce salt, sugar and saturated fats in processed foods.
- The meeting also stressed the value of regulatory action on labelling, marketing and urged industry for full adherence to the WHO code of marketing of breast milk substitutes.
- The commitment made by the IFBA is in line with the WHO's target to eliminate industrial trans fat from the global food supply by 2023.
- It is decided by IFBA to ensure that the amount of industrial trans fat in their products does not exceed 2 gram per 100 g fat/oil globally by 2023.

Relevance to India:

- India has among the highest number of coronary heart disease cases in the world and must try to beat the deadline.

Trans-fat:

- Trans fats are the most harmful type of fats which can have much more adverse effects on our body than any other dietary constituent.
- These fats are largely produced artificially but a small amount also occurs naturally.
- Artificial TFAs are formed when hydrogen is made to react with the oil to produce fats resembling pure ghee/butter.
- The major sources of artificial TFAs are the partially hydrogenated vegetable oils (PHVO)/vanaspati/margarine.

ART AND CULTURE

1. ASI identifies rare Indian artefacts seized from smuggler

Context:

- From idols dating back to the Gupta period (5th-6th Century AD) to terracotta objects of the Harappan culture, a range of Indian antiquities and artefacts that were smuggled have been identified by the Archaeological Survey of India (ASI) during a team's recent visit to the United States.

Details:

- The ASI said a team visited the U.S. after receiving communication from the office of the Consulate General of India in New York about the seizure of artifacts by the Immigration and Customs Enforcement of U.S. Department of Homeland Security.
- The ASI said the team identified close to 100 objects in total, including 17 objects that had been seized by the Department.
- The antiquities comprise beautiful bronzes from the Suttamalli and Sripuratan temples of Tamil Nadu and also a very significant image of Mahakoka Devata.
- Of these, four antiquities were stolen from protected monuments at Karitalai, district Katni in Madhya Pradesh.
- Also smuggled were the stone image of the Buddha of Mathura School, a terracotta image of the Buddha belonging to the Gupta period and a set of 10 copper plates engraved with Quranic verses of the late Mughal Period.

Theft of Artifacts & Antiquities:

- According to Global Financial Integrity, a Washington-based advocacy group, illegal trade in paintings, sculptures, and other artifacts is one of the world's most lucrative criminal enterprises, estimated at \$6 billion a year.
- And India, with its cultural heritage, bureaucratic apathy, and tardy implementation of antiquities protection laws, offers smugglers fertile ground to plunder the past and spirit away artefacts for sale in the international market.
- This exploitation continues unabated despite the existence of The Antiquities and Art Treasures Act, 1972 whose aim is to protect "antiquities," an omnibus term that includes, among other items, sculptures in stone, shrines, terracotta, metals, jewelry, ivory, paintings in paper, wood, cloth, skin, and manuscripts over a hundred years old.

Concerns:

- Even though India is a signatory to the 1970 UNESCO treaty, experts say it is extremely tough to retrieve antiquities that have left the country.
- Improper enforcement of law, and lack of punitive action on traders without licences.

Antiquities and Art Treasure Act 1972:

- The Antiquities Act mandates that owners of such art pieces register them with the Archaeological Survey of India (ASI), the nodal agency responsible for archaeological excavations, conservation of monuments, and protection of heritage sites.
- The law also prohibits export of antiquities while permitting their sale within the country only under a license.
- Failure to comply with these rules can result in jail sentences of up to three years, a fine, or both.
- In what is seen as a blatantly unfair clause, the Act also empowers the State to compulsorily acquire an art object from its owner without any reliable assessment of a fair price.

Other legal provisions available in India:

- Antiquities And Art Treasures Act 1972
- Indian Treasure Trove Act 1949
- National Mission On Monuments And Antiquities— it creates a National Register On Artifacts that are unprotected
- National Manuscript Mission for Documenting Heritage

Archaeological Survey of India:

- The Archaeological Survey of India (ASI), is an attached office under the Department of Culture, Ministry of Tourism and Culture.
- It is the premier organization for the archaeological researches and protection of the cultural heritage of the nation.
- It was founded in 1861 by Alexander Cunningham who also became its first Director-General.
- The most important of the society's achievements was the decipherment of the Brahmi script by James Prinsep in 1837. This successful decipherment inaugurated the study of Indian palaeography.

2. Bandhani

- The name of the saree is derived from the word, 'bandhan', which means ties.

- This refers to the process of tie and dye which makes this saree.
- Both Gujarat and Rajasthan are known for the Bandhani saree.
- However, the weavers of the Khatri community of Gujarat are known as the pioneers.

3. Jama Masjid

- Masjid-i Jahān-Numā ('World-reflecting Mosque')
- It was built by Mughal Emperor Shah Jahan
- Architectural Style : Islamic
- The mosque designed by architect Ustad Khalil,
- The mosque was completed in 1656 AD with three great gates, four towers and two 40 metres high minarets constructed with strips of red sandstone and white marble
- There are three domes on the terrace which are surrounded by the two minarets
- The architectural plan of Badshahi Masjid, built by Shah Jahan's son Aurangzeb at Lahore, Pakistan, is similar to the Jama Masjid.

4. Memory of the World Programme

- UNESCO established the Memory of the World Programme in 1992
- It is an international initiative launched to safeguard the documentary heritage of humanity against collective amnesia, neglect, the ravages of time and climatic conditions, and willful and deliberate destruction.
- The vision of the Memory of the World Programme is that the world's documentary heritage belongs to all, should be fully preserved and protected for all and, with due recognition of cultural mores and practicalities, should be permanently accessible to all without hindrance.
- It calls for the preservation of valuable archival holdings, library collections and private individual collections all over the world for future generations, the reconstitution of dispersed or displaced documentary heritage, and the increased accessibility to and dissemination of these items
- It is a compendium of documents, manuscripts, oral traditions, audio-visual materials, library, and archival holdings of universal value
- Example: The Gilgit manuscripts are included in the UNESCO Memory of the World register.

5. Minaret of Jam

- It is a UNESCO World Heritage Site in western Afghanistan
- It is located in a remote region of the Shahrak District, Ghor Province, next to the Hari River.

- The 65-metre (213 ft) was built around 1190 entirely of baked bricks and is famous for its intricate brick, stucco and glazed tile decoration, which consists of alternating bands of kufic and naskhi calligraphy, geometric patterns, and verses from the Qur'an.
- Since 2002, the minaret has remained on the list of World Heritage in Danger, under serious threat of erosion, and has not been actively preserved
 - * The list is compiled by the UNESCO through the World Heritage Committee
 - * The list is intended to increase international awareness of the threats and to encourage counteractive measures

Context

- Deadly floods sweeping Afghanistan have put the celebrated minaret of Jam — one of the country's most revered cultural, architectural and historical treasures — at risk of collapse

6. Pattachitra

- Pattachitra style of painting is one of the oldest and most popular art forms of Odisha.
- "Patta" literally means "cloth" and "Chitra" means "picture". Most of these paintings depict stories of Hindu deities
- Some of the popular themes represented through this art form are Thia Badhia - depiction of the temple of Jagannath; Krishna Lila - enactment of Jagannath as Lord Krishna displaying his powers as a child; Dasabatar Patti - the ten incarnations of Lord Vishnu; Panchamukhi - depiction of Lord Ganesh as a five-headed deity.
- The astounding temples and architecture in Orissa is what lent its inspiration to all these creative craftsmen who narrated pictorial stories through their paintings and detailed work.
- Apart from paintings, pattachitra artwork is also widely used on Cotton, Silk and Georgette saris.
- Making the patta is the first thing that comes in the agenda, and the painters, also called chitrakars, go about their work in preparing a tamarind paste, which is made by soaking tamarind seeds in water for three days.
 - * The seeds are later pounded with a crusher, mixed with water, and heated in an earthen pot to turn it to a paste, which is called niryas kalpa.
 - * The paste is then used to hold two pieces of cloth together with it, and coated with a powder of soft clay stone a couple of times till it becomes firm.
 - * Soon as the cloth becomes dry, the final touch of polishing it with a rough stone and then a smooth stone or wood is given, until the surface becomes smooth and leathery, and is all ready as a canvas to be painted on

- The brushes are crude made from animal hair. They directly draw from brush rather than using pencil or pen
- The master hand, mostly the male member, draws the initial line and gives the final finishing.
- The painting is held over a fire-place so that the back of the painting is exposed to heat.
- On the surface of the painting fine lacquer is applied. Natural colors are used. Tala Pattachitra is one variant of this form, drawn on palm leaf.

7. **Rare life-size stucco Buddhist sculpture in Telangana**

Context

- In a major discovery in Telangana, archaeologists excavated a rare life-size stucco Buddhist sculpture in Phanigiri, Suryapet district.

Details

- About 1.73 m in height and 35 cm in width, the figurine represents one of the Bodhisattvas belonging to the Jathaka Chakra.
- It was created nearly 1,700 years ago by craftsmen at Phanigiri at peak of Ikshavaku dynasty.
- The sculpture is also one of the largest Buddhist stucco sculptures unearthed in India till date.

Bodhisattva

- An individual on the path to becoming a buddha
- A bodhisattva is a Buddhist deity who has attained the highest level of enlightenment, but who delays their entry into Paradise in order to help the earthbound.
- The bodhisattva, known in Sanskrit as Avalokiteśvara, takes both male and female form and is associated with the qualities of mercy and compassion; its Chinese incarnation, Guanyin – who is always represented as female – translates as the ‘perceiver of sounds’.

8. **Sanauli site yields OCP Culture coffins, burial goods**

Context

- A recent excavation by the Archaeological Survey of India (ASI) at Sanauli has unearthed these artifacts belonging to the Copper Hoard Culture and the Ochre Coloured Pottery (OCP) Culture

Details

- Sanauli is located on the left bank of the Yamuna river, 68 km northeast of Delhi.
- ASI has unearthed underground “sacred chambers”, decorated “legged coffins” as well as rice and dal in pots and animal bones buried with the bodies
- Three chariots, some coffins, shields, swords and helmets had been unearthed, pointing towards the existence of a “warrior class in the area around 2,000 BCE”.

9. **Thrissur Pooram**

- It is an annual festival held in Kerala
- It is held at the Vadakkunnathan Temple (Lord Siva) in Thrissur every year
- It was the brainchild of Raja Rama Varma, famously known as Sakthan Thampuran, the Maharaja of Cochin
- The pooram signifies the meeting of deities of 10 temples in the region.
- The festival is synonymous with elephants

Kudamattom

- It means changing of umbrellas during the ‘pooram’ in Thrissur
- The show involving colourful umbrellas is a key attraction of the annual festival

Ilanjithara Melam

- It is an assembly of percussion artists who perform at Vadakkunnathan Temple during the Thrissur Pooram.
- It is considered as one of the best platforms for traditional Kerala music and the largest assembly of percussion artistes in any other Poorams.

Significance

- It has an important place in the tourism map of India, as tourists enjoy the beauty and traditions of this pooram.
- Despite being a Hindu festival, the Thrissur Pooram is attended by different sections of Kerala society

10. **United Nations Day of Vesak**

- Vesak is celebrated to commemorate the birth of Buddha, his attainment of enlightenment and his passing away.
- “Vesak”, the Day of the Full Moon in the month of May, is the most sacred day to millions of Buddhists around the world.
- The General Assembly, recognized internationally the Day of Vesak to acknowledge the contribution that Buddhism, one of the oldest religions in the world, has made for over two and a half millennia and continues to make to the spirituality of humanity.

11. **Vice President released a postage stamp**

Context

- The Vice President released a postage stamp to commemorate the 750th birth anniversary of Sri Vedanta Desikan.

Details

- Sri Vedanta Desikan (1268–1369) was a Sri Vaishnava guru/philosopher and one of the most brilliant stalwarts of Sri Vaishnavism in the post-Ramanuja period.

- He was a poet, devotee, philosopher and master-teacher (desikan). He was the disciple of Kidambi Appullar, also known as Aathreya Ramanujachariar, who himself was of a master-disciple lineage that began with Ramanuja.
- Swami Vedanta Desika is considered to be an avatar (incarnation) of the divine bell of Venkateswara of Tirumalai by the Vadakalai sect of Sri Vaishnavite. Vedanta Desika belongs to Vishwamitra gotra.

12. Vijaya Vittala Temple in Hampi

- The temple is located in the northeastern part of Hampi near the banks of the river Tungabhadra.
- The structure was built during the rule of Devaraya II, who was one amongst the rulers of the Vijayanagara Empire.
- The structure was built in the 15th century. Many portions of the temple were expanded and enhanced by Krishnadevaraya, who was the most famous ruler of the Vijayanagara dynasty.
- Temple is dedicated to Vittala, an incarnation of Lord Vishnu.
- The temple is built in the Dravidian style of architecture, which speaks volumes about the grandeur of the south Indian temple architecture.
- The stone chariot is a shrine which was designed in the shape of a chariot. This chariot shrine is dedicated to Garuda - the carrier of Lord Vishnu, and one can find an image of Garuda housed in its sanctum.
- The large Ranga Mantapa is well known for its 56 musical pillars. These pillars are also known as SaReGaMa pillars, which are attributed to the musical notes emerging out of them. The musical notes can be heard when the pillars are gently tapped.

GOVERNANCE

1. Aid to relative for buying property not a benami transaction: SC

Context:

- In a recent judgement, the Supreme Court has held that mere financial assistance provided to purchase property for the welfare of family members cannot be classified as a benami transaction.

What are Benami Transactions?

- Benami transactions refer to those transactions in which the real beneficiary of the transaction and the person in whose name the transaction is made are different, specifically transactions relating to properties.
- The property is held by one person while the payment for purchasing the property is made by another. (The person on whose name the transaction is made is called Benamdar while the property involved in such a transaction is called Benami property).
- By doing so, public revenue is defrauded and the real owner is hidden.
- Benami property could include assets of any kind including legal documents, rights, assets, intangible assets, tangible assets, movable property or immovable property.
- It also includes financial securities and precious metals like Gold.
- However, a property held in the name of the spouse or children for which the amount is paid out of known sources of income is not Benami. Similarly, joint property of siblings or other relatives for which amount is paid out of known resources of income is again not considered Benami property.

Details:

- A Bench led by Justice L. Nageswara Rao has upheld a Karnataka High Court order which dismissed a plea that the financial help given by one family member to other family members to purchase property was a benami transaction.
- Financial assistance or source of money cannot be sole determinative factor or circumstance to hold that a purchase of property is benami.
- The court reiterated its own precedents while considering the nature of benami transactions.
- "The source of money had never been the sole consideration. It is merely one of the relevant considerations but not determinative in character," Justice Rao wrote in the verdict.

Bhim Singh case:

- It referred to the apex court's judgment in the Thakur Bhim Singh's case, in which it had held that "while considering a particular transaction as benami, the intention of the person who contributed the purchase money is determinative of the nature of transaction."
- The Bench held that courts are usually guided by various circumstances to conclude the nature of a transaction as benami.
- These factors include the source from which the purchase money came; the nature and possession of the property, after the purchase; motive, if any, for giving the transaction a benami colour; the position of the parties and the relationship if any, between the claimant and the alleged benamidar; the custody of the title deeds after the sale and the conduct of the parties concerned in dealing with the property after the sale.

2. Conjugal Visits in Prison

- Conjugal visits in prison are private meetings between a male and a female inmate with their spouse or partner, during which the couple may share intimacy or engage in whatever legal activity they desire.

Context:

- A petition moved before the Delhi High Court has sought to hold conjugal visits in jail as a fundamental right of prisoners and their spouses.

Issue:

- The petition said conjugal visitation rights were not provided in prisons in the State though most of the prisoners fall under sexually active age group.
- Despite courts taking a progressive approach and various countries allowing conjugal visits considering it an important human right and also in the light of studies backing conjugal visits as a factor to cut down crimes in jail and reform inmates, the Delhi Prison Rules, 2018 are totally silent on the issue, the petition said.
- The conjugal visit cannot be denied to prisoners on the ground of already existing provisions of parole and furlough, which in any case, are not available to undertrial prisoners, it said.
- The petition also sought direction to set aside Rule 608 of Delhi Prison Rule, 2018 which mandates the presence of a prison officer when a prisoner is meeting his or her spouse.

Previous judgments:

- In 2010, while hearing public interest litigation on treatment facilities for HIV positive inmates, the Bombay High Court had directed the Maharashtra government to examine the possibility of allowing jail inmates to engage sexually with their wives in privacy within the jail premises as a preventive step instead of spending crores of Rupees to curb AIDS menace in prisons.
- In 2015, the Punjab and Haryana High Court held that the right to procreation survives incarceration and falls within the ambit of Article 21 of our Constitution read with the Universal Declaration of Human Rights.
- In a recent order, the Madras High Court had read down prison rules to hold that interactions between a prisoner and spouse should not be monitored.

Examples from international jurisprudence where conjugal visits are allowed:

- Denmark, Brazil, Philippines, Kenya, Israel, and five states in the United States (California, Mississippi, New Mexico, New York, and Washington), offer conjugal visitation programs within their prisons.
- Mexico even allows the same-sex conjugal visit.

Why should Conjugal visits be allowed?

- Various researches have shown that conjugal visits reduce frequency of prison riots, sexual crimes, homosexual behavior while moving prisoners towards reformation and good behaviour.
- Psychologists and psychiatrists believe that the frustration, tension, the ill feelings and the heart-burnings can be reduced and a human being can be better constructed if they are allowed conjugal relationship even rarely and it also cuts down criminal behaviour inside jails.
- Denial of conjugal rights is one of the reasons for increasing sex crimes, homosexuality, violence and spread of HIV in jails.

Way forward:

- A scheme has to be formulated for creating an environment for conjugal and family visits for a certain categories of jail inmates keeping in mind the beneficial nature and reformatory goals of such facilities.

3. Non-Functional Upgradation (NFU)

- NFU entitles all officers of a batch who are not promoted to draw the salary and grade pay that the senior most officer of their batch after certain seniority.

Context

- The government has announced the setting up of a high-level expert committee to examine the recommendations of 7th Central Pay Commission (CPC) on Non-Functional Upgradation (NFU).

Current Conditions

- Group A services in the government already enjoy the NFU status and it was recently granted for the Central Armed Police Forces (CAPFs) as well.
- So it is only the armed forces, who really need NFU due to the steep pyramidal structure, who are left out

Concerns voiced by Army

- There is discrepancies in equivalence and parity between armed forces and their civilian counterparts due to the lack of NFU despite military personnel having long service.
- The Sixth Pay Commission had granted NFU to most Group 'A' officers but not the military. Since then, armed forces had been demanding a one-time notional NFU to ensure parity.
- However, the 7th CPC gave a mixed verdict on it and the issue has since been referred to the anomalies committee following strong objection from the three Services.

Background

- Earlier the Department of Personnel and Training had announced the setting up of a seven-member high-level expert committee headed by Ratan P. Watal, IAS (retd.) and former Finance Secretary and principal adviser NITI Aayog to "examine various aspects of the recommendation of 7th CPC on NFU."
- Separately, a case regarding granting NFU to the Services is currently pending in the Supreme Court.

Terms of reference

- Among the terms of reference, the committee is tasked to examine the administrative issues pertaining to NFU, which is presently admissible to the IPS/Indian Forest Service and OGAS and come out with a "comprehensive solution" keeping in view the recommendations of pay commission, "various judicial pronouncements and administrative and financial exigencies of the government" among other factors.
- The other aspect is to suggest a "clear definition of OGAS (Organised Group A Service), to make clear distinction in the processes of cadre review and the procedure for grant of OGAS."

4. What is India's stand on data storage?**What is data localisation?**

- Data localisation laws refer to regulations that dictate how data on a nation's citizens is collected, processed and stored inside the country.

Does it matter where data resides?

Among reasons supporting data localisation put out by the Justice Srikrishna Committee report in 2018, a few key ones are:

- Data localisation is critical for law enforcement. Access to data by Indian law agencies, in case of a breach or threat, cannot be dependent on the whims and fancies, nor on lengthy legal processes of another nation that hosts data generated in India.
- If data generated in India is stored in the U.S., for example, it is dependent on technology and channels such as the undersea fibre optic cable network.
 - * Such reliance can be debilitating in the case of a tech or physical breakdown.
 - * The report recommends that hence, at least a copy of the data must be stored in India.
- A key observation of the report is that it is ideal to have the data stored only locally, without even having a copy abroad, in order to protect Indian data from foreign surveillance.

Does India have rules in place for data protection?

- Currently, the only mandatory rule on data localisation in India is by the Reserve Bank of India for payment systems. Other than this, there are only reports or drafts of bills that are yet to be signed into law.
- Among material available in the public domain on data localisation is the white paper that preceded the Justice Srikrishna Committee report, inviting public comments.
- The second piece is the Draft Personal Data Protection Bill, 2018 itself which has specific requirements on cross-border data transfers.
- The draft e-commerce policy also has clauses on cross-border data transfer.
 - * For example, it suggests that if a global entity's India subsidiary transfers Indian users' data to its parent, the same cannot be transferred to a third party even with the user's consent.

Issues for Foreign companies

- Facebook's Mark Zuckerberg recently expressed apprehension about nations wanting to store data locally. According to him, it gave rise to possibilities where authoritarian governments would have access to data for possible misuse.
- The disadvantage for a company compelled to localise data is obvious — costs, in the form of servers, the UPS, generators, cooling costs, building and personnel.
- Companies feel that infrastructure in India is not yet ready to support this kind of ecosystem.
- For any large e-commerce player in India, costs may go up between 10% and 50% depending on how stringently the final law is worded.

Examples from the world

- Canada and Australia protect their health data very carefully.

- Vietnam mandates one copy of data to be stored locally and for any company that collects user data to have a local office, unlike the EU's GDPR; citing national interests,
- China mandates strict data localisation in servers within its borders.
 - * International reports refer to data protection laws in Vietnam and China as being similar, in that they were made not so much to protect individual rights as to allow government to control data.
- Brazil, Japan, Korea and New Zealand have put in place data protection laws.
- Chile has recently announced the setting up of an independent data protection authority
- Argentina is currently reforming its privacy legislation.
- Interestingly, the U.S. has no single data protection law at the Federal level. It does, however, have individual laws such as the HIPAA (Health Insurance Portability and Accountability Act of 1996) for health care, another for payments, and the like.

International response

- U.S. criticized India's proposed norms on data localisation as 'most discriminatory' and 'trade-distortive'.
- EU had said in its response to India's data protection draft bill that "data localisation requirements appear both unnecessary and potentially harmful as they would create unnecessary costs, difficulties and uncertainties that could hamper business and investments".
 - * It added that if implemented, "this kind of provision would also likely hinder data transfers and complicate the facilitation of commercial exchanges, including in the context of EU-India bilateral negotiations on a possible free trade agreement".

GEOGRAPHY

1. Anthropocene Epoch

Context

- A panel of scientists voted in favor of classifying the age we are living in as a new geological epoch—the “Anthropocene”—after reviewing available evidence on the issue.
- The Anthropocene Working Group (AWG) overwhelmingly voted to recognise Anthropocene as an epoch.
- The vote gives form to the efforts of scientists, notably the Nobel Laureate Paul Crutzen and Eugene F. Stoermer, who coined the term in 2000 to highlight how human activity had changed many facets of the earth.
- The International Commission on Stratigraphy (ICS)—which oversees the geological time chart—has yet to approve the new term.

Details

- The AWG vote is a sobering reminder to humanity that failure to end destructive activities will irrevocably change the face of the earth and make it uninhabitable.
- Officially, humans will continue to live in the Holocene epoch for a couple of years more before the Anthropocene epoch is finally ratified by the International Union of Geological Sciences.
- But unlike the others, it will be the first time that the beginning of an epoch would be based on human activity and not the consequences of changes brought about by nature.
- For instance, the start of the Holocene epoch 11,700 years ago marks the end of the transition from the last glacial phase to a period of warming and a rise in sea level.
- Human activity has been drastically changing the earth, with the greatest impacts coming from agriculture, large-scale deforestation, the industrial revolution and increase in atmospheric carbon dioxide, besides the creation of materials such as concrete and plastic.

The working group voted to look for unique signatures around the 1950s to define the start of the Anthropocene.

- A decrease in deuterium excess, a proxy for climate change, owing to the reorganisation of North Atlantic Ocean-atmosphere circulation was a definitive geologic marker, or golden spike, to signify the base of Holocene.

* This is an internationally recognized reference point in rock layers which scientists use to define the boundaries between geological epochs.

- Now, radionuclides from atomic bomb tests from the early 1950s are emerging as a favourite golden spike candidate to define the base of the Anthropocene.
- Thus, plutonium isotope Pu-239 with a half-life of 24,110 years will remain detectable for more than 1,00,000 years and continue to exist as uranium 235 when Pu-239 decays. The next task is to find a single site from among the 10 sites chosen across the world for inclusion in the formal proposal. Here, coral reefs and Antarctic glacial ice located far from nuclear detonation test sites might be more suitable as they would not reflect any local spike but a global distribution pattern.

2. Enhanced Fujita (EF) Scale

- It rates the intensity of tornadoes in some countries, including the United States and Canada, based on the damage they cause.
- When tornado-related damage is surveyed, it is compared to a list of Damage Indicators (DIs) and Degrees of Damage (DoD) which help estimate better the range of wind speeds the tornado likely produced.
- The Enhanced Fujita Scale classifies tornadoes based on their intensity on a 0 to 5 scale, with zero the weakest and 5 the strongest

Enhance Fujita Scale			
Scale	Damage	Wind Speed (mph)	Destruction
EF0	Minor	65 - 85	Some damage to roofs, siding and tree branches
EF1	Moderate	86 - 110	Roofs stripped, mobile homes overturned and exterior home damage
EF2	Considerable	111 - 135	Torn off roofs, mobile homes destroyed, large trees uprooted
EF3	Severe	136 - 165	Entire stories of homes & buildings destroyed, trains overturned, cars lifted off the ground
EF4	Extreme	166 - 200	Homes leveled, cars thrown around
EF5	Massive	> 200	Destruction of all infrastructure

3. Ice calving- Brunt Ice Shelf

- Ice calving, also known as glacier calving or iceberg calving, is the breaking of ice chunks from the edge of a glacier

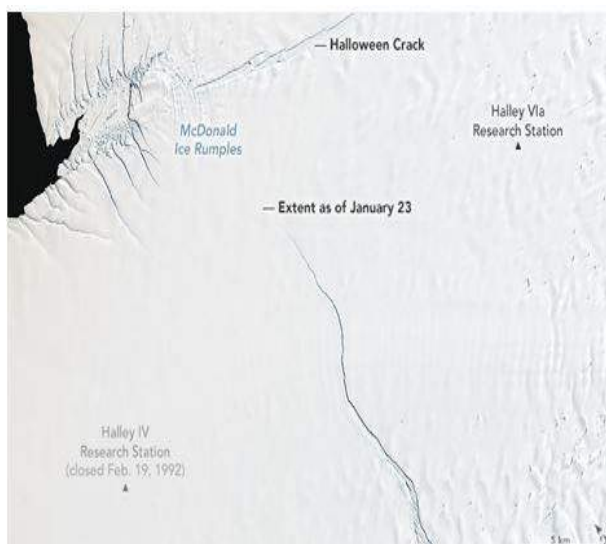
- The ice that breaks away can be classified as an iceberg

Context

- Cracks growing across Antarctica's Brunt Ice Shelf are poised to release an iceberg with an area about twice the size of New York City.

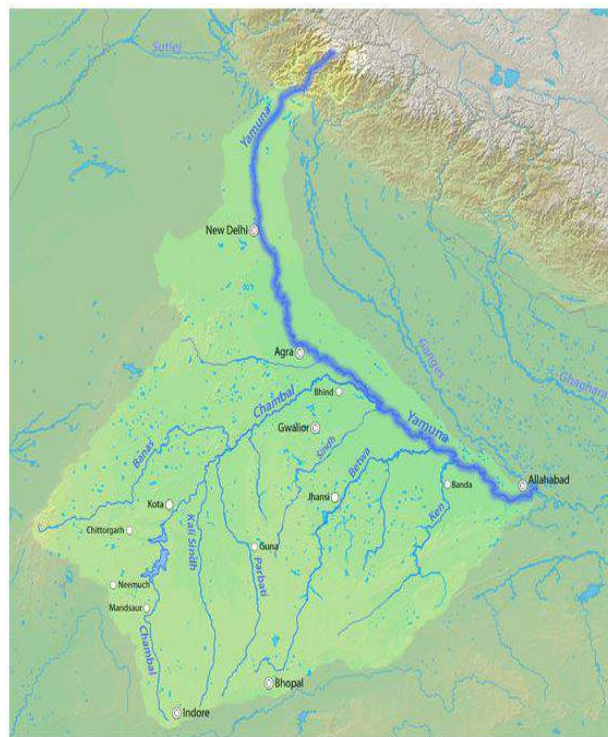
Details

- The crack along the so-called Halloween crack—first appeared in October 2016 and continues to grow eastward from an area known as the McDonald Ice Rumples.
- The rumples are due to the way ice flows over an underwater formation, where the bedrock rises high enough to reach into the underside of the ice shelf. This rocky formation impedes the flow of ice and causes pressure waves, crevasses, and rifts to form at the surface.
- The more immediate concern is the rift visible in the center of the image. Previously stable for about 35 years, this crack recently started accelerating northward as fast as 4 kilometers per year
- The detailed view shows this northward expanding rift coming within a few kilometers of the McDonald Ice Rumples and the Halloween crack. When it cuts all the way across, the area of ice lost from the shelf will likely be at least 1700 square kilometers



4. Kali Sindh River

- It is a river in the Malwa region of Madhya Pradesh
- The Kali Sindh originates from Bagli (District Dewas) in Madhya Pradesh.
- It joins the Chambal River at downstream of Sawai Madhopur in Rajasthan.
- The main tributaries of the Kali Sindh are Parwan, Niwaj and Ahu, Kuwari and Betwa Rivers

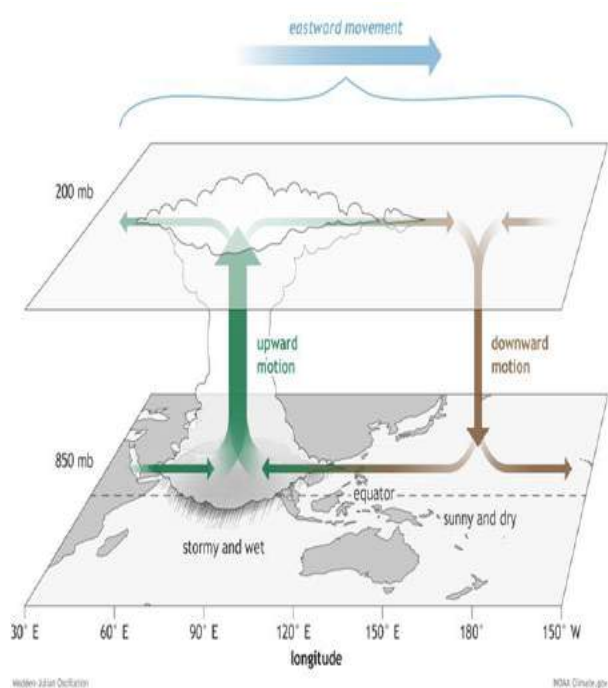


5. Kuruvai paddy

- Kuruvai, also known as “short-term” in Tamil.
- Kuruvai paddy is the crop grown in Cauvery Delta of Tamil Nadu.
- The crops that are grown in this delta are mostly paddy and the health of these crops and the eventual livelihood of these farmers are extremely dependent on abundant flow of water on the Cauvery River.

6. Madden Julian Oscillation

- The MJO was first discovered in the early 1970s by Dr. Roland Madden and Dr. Paul Julian when they were studying tropical wind and pressure patterns.
- It brings major fluctuation in tropical weather on weekly to monthly timescales.
- The MJO can be defined as an eastward moving ‘pulse’ of clouds, rainfall, winds and pressure near the equator that typically recurs every 30 to 60 days.
- It’s a traversing phenomenon and is most prominent over the Indian and Pacific Oceans.
- The effect of the MJO is witnessed mainly in the tropical region, in the band between 30 degrees North and 30 degrees South of the equator, even though the mid-latitude regions in both hemispheres also feel its impact.
- The MJO consists of two parts, or phases: one is the enhanced rainfall phase and the other is the suppressed rainfall phase.



Enhanced Phase

- In the enhanced phase, winds at the surface converge, and air is pushed up throughout the atmosphere.
- At the top of the atmosphere, the winds reverse (i.e., diverge).
- Such rising air motion in the atmosphere tends to increase condensation and rainfall.
- Active phase of MJO is responsible for precipitation and formation of tropical cyclones
- Ex: Cyclone Sagar and Mekunu

Suppressed Phase

- In the suppressed phase, winds converge at the top of the atmosphere, forcing air to sink and, later, to diverge at the surface.
- As air sinks from high altitudes, it warms and dries, which suppresses rainfall.

How Does MJO Affect Indian Monsoon?

- The Indian Ocean Dipole (IOD), El Nino and MJO are all oceanic and atmospheric phenomena, which affect weather on a large scale.
- IOD only pertains to the Indian Ocean, but the other two affect weather on a global scale, up to the mid-latitudes.
- IOD and El Nino remains over their respective positions, while MJO is a traversing phenomenon.
- The journey of MJO goes through eight phases. When it is over the Indian Ocean during the Monsoon season, it brings good rainfall over the Indian subcontinent.

- On the other hand, when it witnesses a longer cycle and stays over the Pacific Ocean, MJO brings bad news for the Indian Monsoon.
- It has also been established that if the periodicity of MJO is nearly 30 days then it brings good rainfall during the Monsoon season.
- If it is above 40 days then MJO doesn't give good showers and could even lead to a dry Monsoon. Shorter the cycle of MJO, better the Indian Monsoon. Simply because, it then visits the Indian Ocean more often during the four month-long period.
- Because of this Indian monsoon for 2018 was one day early.

7. Mawmluh cave and Therriaghat

Context

- Meghalaya has a unique geological history of more than 2,000 million years. To preserve the geological site and raise awareness, the Geological Survey of India (GSI) North Eastern Region (NER) installed two geological display boards at two important sites -- Mawmluh cave and Therriaghat, Sobhar in East Khasi district.
- It will help in creating awareness among visiting tourists, students and the general public.

GSI

- It is the premier Organisation that studies various aspects of the Earth forming processes and evolution of life.
- GSI is also the primary custodian of the rocks and fossils of the country, which are a part of our natural heritage.

Mawmluh cave

- It made headlines earlier as high resolution stable isotopic studies of the stalagmites from the cave have shown that there was a major climatic event about 4200 years ago.
- The stalagmite in the Mawmluh cave has been tagged a Global Stratotype Section and Point (GSSP) which is the first formally ratified marker of a geological time period in India.

Therriaghat

- It marks the Cretaceous (K)-Palaeogene (Pg) mass extinction event.
- The Um-Sohryngkew (Wahrew) river section at Therriaghat is known for having the most complete records of the Cretaceous-Palaeogene (K-Pg) boundary transition in India.

8. Mount Agung/ Gunung Agung

- It is a currently active volcano in Bali, Indonesia
- Gunung Agung is a stratovolcano
- More than 1,000 people were killed when Mount Agung erupted in 1963.



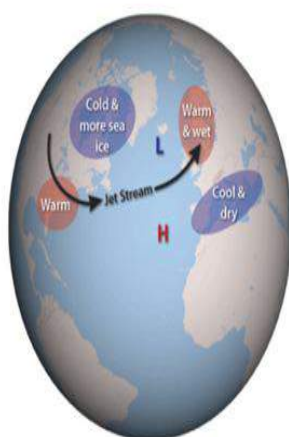
9. Mulshi Dam

- It is a major dam on the Mula River in Pune district of Maharashtra
- Water from the dam is used for irrigation as well as for producing electricity at the Bhira hydroelectric power plant, operated by Tata Power.

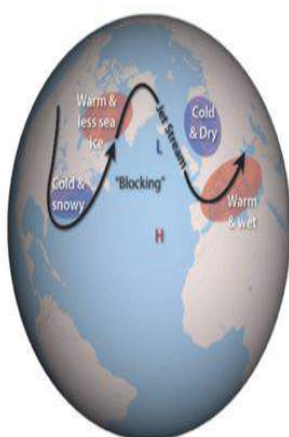
10. North Atlantic Oscillation (NAO)

- The North Atlantic Oscillation is a large-scale atmospheric pressure see-saw in the North Atlantic region
- The common pressure features seen in the North Atlantic Ocean are for large regions of relatively high pressure centred over the Azores islands (west of Portugal, known as the sub-tropical or Azores high) and low pressure centred over Iceland (the sub-polar or Icelandic low).
- The NAO describes the relative changes in pressure between these two regions

Positive NAO phase



Negative NAO phase



- When the NAO is "positive" – and the pressure difference is stronger than usual – storm tracks shift towards the poles, bringing milder air to North American and Eurasian winters and leaving the Arctic very cold.

- When it is "negative" – and the pressure difference weakens – storm tracks shift towards the equator, and winters in northern Eurasia and eastern US tend to be more severe, while the Arctic is relatively mild.
- This is often referred to as the "warm Arctic-cold continents" (WACC) pattern.

11. Pacific Decadal Oscillation (PDO)

Background

- Northeast India is one of the wettest places on the Earth that has been experiencing rapid drying, especially in the last 30 years.
- Some places which used to get as high as 3,000 mm of rain during the monsoon season have seen a drop of about 25-30%.

Context

- Why is northeast India drying up rapidly?
- A team of researchers from the Indian Institute of Tropical Meteorology, Pune, and Assam University set out to understand whether this decline is caused by anthropogenic activity or is it part of natural changes.
- The results published recently in JGR-Atmospheres show that the decreasing monsoon rainfall is associated with natural changes in the subtropical Pacific Ocean.

Pacific Decadal Oscillation (PDO)

- It is variation of Sea Surface Temperature (SST) in the North Pacific basin north of 20°N. These are climate events that cover vast areas of Pacific Ocean over the periods of 20 to 30 Years.
- During a "warm", or "positive", phase, the West Pacific becomes cooler and part of the eastern ocean warms
 - * It is similar to El Nino
- The Negative Phase the temperatures get cooler in the Eastern Pacific which is reverse of Positive
 - * It is similar to La Nina

Results of Study

- This pattern of fluctuations in the ocean, particularly over the North Pacific Basin is associated with declined rainfall
- Just like El Nino/La Nina in the tropical Pacific, PDO has a signature for a longer time (on the decadal scale) in the sea surface temperatures and its interaction with the atmosphere, which in turn affects the northeast Indian summer monsoon.

Stats

- The team used observed rainfall and Sea Surface Temperature data for the period 1901-2014 for the study.

- The results show out that the reduction in rainfall during a major part of the last 114 years may be associated with global man-made factors, while the trend during the last 36 years is associated with natural phenomena.

Recommendations by Researchers

- Change in land cover and deforestation could potentially result in more natural disasters, for example, flash flood, landslides from torrential rains, and damage to crops and biodiversity
- Policymakers should take these long-term predictions into account while planning construction of dams, power plants, etc. to prevent loss of property

12. Pandoh Dam

- The Pandoh Dam is an embankment dam on the Beas River in Mandi district of Himachal Pradesh
- Under the Beas Project, the dam was completed in 1977 and its primary purpose is hydroelectric power generation.

13. Polar Amplification

- "Polar amplification" usually refers to greater climate change near the pole compared to the rest of the hemisphere or globe in response to a change in global climate forcing, such as the concentration of greenhouse gases (GHGs) or solar output
- Arctic amplification is polar amplification of the Earth's North Pole only; Antarctic amplification is that of the South Pole.

Arctic Amplification

- The Arctic is warming more than twice as quickly than the global surface average. This phenomenon is known as "Arctic amplification".
- It stems predominantly from the rapid loss of sea ice cover in the region.
- As Arctic sea ice diminishes, energy from the sun that would have been reflected away (Albedo) by the bright white ice is instead absorbed by the ocean, causing further warming.

14. Ponnaiyar River

- South Pennar River (also known as Dakshina Pinakini in Kannada and Thenpennai or Ponnaiyar in Tamil)
- The river originates in the Nandi Hills in the Chikkaballapura district of Karnataka and flows through Tamil Nadu before emptying into the Bay of Bengal.
- Small dams of Kelavarapalli and Krishnagiri dams are built across this river near Hosur and Krishnagiri

- The sand build of the river is quite impressive, suggesting that it may have been a perennial river with much larger water flow in the past
- Mention of the river is found in Sangam and medieval

15. Zero Shadow Day

- On a Zero Shadow Day, there will be almost no visible shadow seen. This is because the sun will be at its zenith or the highest point in the arc it describes over Earth.
- The phenomenon occurs twice a year as the sun traces its path to the Tropic of Cancer and then retraces its path towards the south.
- Usually, the sun transits by small margins towards the north or south around noon. But on Zero Shadow Day, it will be exactly overhead.
- For every point on Earth between the Tropic of Cancer and the Tropic of Capricorn, there are two ZSDs a year.
- The ZSD is restricted to locations between the tropics; places north of Ranchi in India are out of it.

EDUCATION

1. Education Quality Upgradation and Inclusion Programme

- The flow of academics, for decades, has been from India to other countries.

Future ready A look at the EQUIP project

- It is an acronym for the Education Quality Upgradation and Inclusion Programme
- Programme is meant to bridge the gap between policy and implementation in the field of higher education and its accessibility

KEY FOCUS:

- To improve access to higher education
- Improve the gross enrolment ratio
- Improve teaching and learning processes
- Build educational infrastructure
- Improve the quality of research and innovation
- Use technology and online learning tools



DISASTER MANAGEMENT

1. Cyclone Fani

- Name Fani was suggested by Bangladesh.
- The word Fani (pronounced as Foni) means snake.

Details

- It was generating storms with wind speeds as high as 200 km per hour
- The last time such a powerful cyclonic storm had emerged in the Bay of Bengal at this time of the year, in 2008, it had killed more than 1.25 lakh people in Myanmar.
 - * But that was mainly because of the lack of a sophisticated warning system and enough logistical preparedness to evacuate people.
- Fani is not just a severe cyclone but an “extremely severe cyclone”.

Tropical cyclones in the Bay of Bengal are graded according to maximum wind speeds at their center.

- At the lower end are depressions that generate wind speeds of 30 to 60 km per hour,
- Followed by cyclonic storms (61 to 88 kph),
- Severe cyclonic storms (89 to 117 kph)
- Very severe cyclonic storms (118 to 166 kph).
- Extremely Severe Cyclonic Storms (167 to 221 kph)
- Super cyclones (222 kph or higher).

Cyclone Fani in Odisha: In situ origins

- There are two types of cyclones depending on period of occurrence and origin
 - * April May- They originate in situ in the Bay of Bengal itself
 - * October to December – They are usually remnants of cyclonic systems that emerge in the Pacific Ocean
- April-May is not the season for typhoons in the west Pacific Ocean.
 - * Most of the typhoons in west Pacific in northern hemisphere form between June and November.
 - * That is why almost all the cyclones in the Bay of Bengal in April-May period are in situ systems

How Cyclone Fani grew muscle?

- The in situ cyclonic systems in the Bay of Bengal usually originate around latitude 10°, in line with Chennai or Thiruvananthapuram.

- Fani, on the other hand, originated quite close to the Equator, around latitude 2°, well below the Sri Lankan landmass.
- The forecast landfall on the Odisha coast is at a latitude of almost 20°.
- It has traversed a long way on the sea, thus gaining strength that is unusual for cyclones originating in the Bay of Bengal in this season.
- It was initially headed northwestwards, towards the Tamil Nadu coast, but changed course midway, and swerved northeast away from the coastline to reach Odisha. That has given it even more time on the sea.
- If it had remained on its original course, and made a landfall over the Tamil Nadu coastline, Fani would only have been a normal cyclone, not the extremely severe cyclone it has now become. The recurve it has taken gave it more time over the sea and has ensured that it has gathered unusual strength

Stats

- Cyclones emerging in April-May usually are much weaker than those during October-December.
- There have been only 14 instances of a “severe cyclone” forming in the Bay of Bengal region in April since 1891, and only one of them, which formed in 1956, touched the Indian mainland.
 - * The others all swerved northeast to hit Bangladesh, Myanmar or other countries in the Southeast Asian region. Since 1990, there have been only four such cyclones in April.

How countries select names?

- While selecting names for cyclones, countries have to take care that the word is easily understood by people in the region, hence the names are generally familiar words.
- The main purpose of naming a tropical cyclone is basically for people to easily understand and remember the tropical cyclone in a region, thus to facilitate tropical cyclone disaster risk awareness, preparedness, management and reduction
- Another important reason why cyclones are named is to help authorities quickly identify storms and keep a track of them because it is easier to remember cyclones by their names than remembering them using technical information like longitude and latitude.

Surviving Fani

Context:

- Cyclone Fani has left a trail of destruction across a large part of coastal Odisha, but its management has emerged as a global example of how timely weather alerts, preparedness and informed public participation can dramatically reduce loss of life. The Odisha government has shown by example how to manage a natural disaster.

Details:

- There has been an extensive damage to the telecommunications and power infrastructure in Puri, Bhubaneswar and other areas due to the cyclone.
- However, due to advance precautionary measures taken and large-scale evacuation, the loss of human lives was minimal.
- In terms of material losses, several districts were battered, houses flattened and electricity and telecommunications infrastructure destroyed, but the relatively low mortality shows a dramatic transformation from the loss of over 10,000 lives in 1999 when super cyclone 05B struck.
- Odisha then worked to upgrade its preparedness, which was tested when very severe cyclonic storm Phailin struck in 2013.
- It was able to bring down the number of deaths to 44 then, in spite of a wide arc of destruction: 13 million people were hit and half a million houses destroyed.

The challenge:

- The Odisha government and the Centre now have the task of rebuilding infrastructure.
- They should use the opportunity to upgrade technology, achieve cost efficiencies and build resilience to extreme weather, all of which can minimise future losses.
- Given the vulnerability of Odisha and Andhra Pradesh to cyclones, the frequency and intensity of which may be influenced by a changing climate, the Centre should press for global environmental funding under the UN framework to help in the rebuilding.
- Both States have received funding from the World Bank in cyclone risk mitigation efforts since 2011.
- The priority in Odisha is to restore electricity and telecommunications, which will require massive manpower. This should be treated as a national mission.
- Public health interventions are paramount to avoid disease outbreaks.
- The State government has been able to restore some physical movement by opening up highways and district roads; the Centre has relieved tension among students by postponing the National Eligibility-cum-Entrance Test in Odisha.

- Overall, there is a sense of relief that in the midst of a national election the toll was effectively contained.

Way forward:

- Looking ahead, India must prepare for many more intense and frequent cyclones along the coastal States.
- Preparedness has to focus on building resilience and strengthening adaptation.
- Better-designed houses and cyclone shelters, good early warning systems, periodic drills and financial risk reduction through insurance is needed.
- Early weather warnings hold the key to better management, and during the Fani episode the India Meteorological Department played a crucial role. Its commendable performance has been recognised by the UN as well.
- Odisha's experience, which coincides with similar devastation along east Africa this year, will be keenly followed at the UN Disaster Risk Reduction conference at Geneva.

Ganjam District Disaster Response Forum (GDRF)

- It is a joint front of 47 NGOs, has continued to be a major relief force during natural calamities, like the recent cyclone Fani, in this district of Odisha.
- The GDRF has reach in all the 22 blocks of Ganjam district.
- Their volunteers have direct contact with people living in remote and vulnerable areas.
- They help the administration in evacuation of people to safe places before any cyclone.
- Since 2015, the GDRF has trained up over 400 volunteers in 27 villages that are prone to cyclones and floods.
- The volunteers are also trained to report about losses to the local revenue officials. In most cyclone prone coastal villages, literacy rate is low and inhabitants find it hard to report their losses to administration.
- Members of the GDRF also reach the vulnerable villages near the coast to urge fishermen and their families to leave their dwellings and shift to cyclone shelters.
- Members of the GDRF also monitor cyclone preparedness in slums of Berhampur city.
- GDRF had arranged its own dry food stock and was ready to reach out to affected people immediately if any major devastation would have occurred in any part of Ganjam district due to Cyclone Fani.

2. Global Facility for Disaster Reduction and Recovery (GFDRR)

- GFDRR is a partnership of the International Strategy for Disaster Reduction (ISDR) system to support the implementation of the Hyogo Framework for Action (HFA).

- It would help developing countries better understand and reduce their vulnerability to natural hazards and climate change.
- GFDRR is a grant-funding mechanism, managed by the World Bank that supports disaster risk management projects worldwide.
- It is presently working on the ground with over 400 local, national, regional, and international partners and provides knowledge, funding, and technical assistance.
- GFDRR was established to help developing countries - particularly those identified as the most vulnerable natural disaster "hotspots" - enhance their capacity for disaster prevention, emergency preparedness, response, and recovery.

India

- India became member of CG of GFDRR in 2015
- It will give India an opportunity to work with the member countries and organizations of GFDRR with a focused contribution towards advancing the disaster risk reduction agenda during the course of the year.

Context

- India is unanimously chosen as co-chair of the Consultative Group (CG) of Global Facility for Disaster Reduction and Recovery (GFDRR) for the fiscal year 2020.

Details

- This is the first time that the country has been afforded the opportunity of co-chairing the CG meeting of GFDRR.
- India would pursue a focused agenda and develop synergies with ongoing work streams of GFDRR.
- Disaster Resilient Infrastructure (DRI) will be a central theme of engagement with the GFDRR partners and stakeholders.

3. Kerala govt. readies new action plan to handle disasters

Context:

- Picking up valuable lessons from the Cyclone Ockhi disaster and the 2018 floods, the Kerala State Disaster Management Authority (KSDMA) has updated standard operating procedures (SOP) and adopted new protocols for disaster management in the State.

Details

- The State government has approved KSDMA's updated 'Orange book of disaster management — Kerala — SOP and emergency support functions plan' and a new, separate document, 'Monsoon preparedness and emergency response plan.'

The revision is meant to enhance the capacity of government departments to handle emergencies effectively.

- Named so for its orange-coloured outer cover, the orange book was earlier known as the 'Handbook on disaster management — Volume 2, emergency operations centres and emergency support functions plan.' It describes incidence response mechanisms to be adopted at the State, district and taluk level.
- Containing information on emergency response assets available across the State, the orange book explains the SOP for rainfall, flood, cyclone, tsunami, high waves (swell waves, storm surges, 'kallakadal'), landslip, petrochemical accidents and even mishaps caused by space debris (meteorites, falling spacecraft parts, etc.).

Monsoon preparedness and emergency response plan:

- On the other hand, the 'Monsoon preparedness and emergency response plan' is season-specific.
- It is meant to be strictly complied with by government departments, central agencies and district disaster management authorities during the south-west and north-east monsoon seasons (June to December).
- Earlier, directives on monsoon preparedness were issued in the form of government circulars.
- According to KSDMA, no single document spelt out the roles and responsibilities of individual government departments.
- The new document, published in Malayalam, lists the roles of the State emergency operations centre, central agencies, district disaster management authorities, and 29 departments.
- It was said that this plan would be updated every year after receiving the first Long Range Forecast of the India Meteorological Department.

4. Sasakawa Award 2019

- The United Nations Sasakawa Award is the most prestigious international award in the area of Disaster Risk Management.
- It was instituted more than 30 years ago and is jointly organized by the UNDRR and the Nippon Foundation.
- A total grant of USD 50,000 is distributed among the winners which can be either organizations or individuals.
- The theme of the 2019 Sasakawa award was "Building Inclusive and Resilient Societies".

Context:

- United Nations Office for Disaster Risk Reduction (UNDRR) conferred Sasakawa Award 2019 for Disaster Risk Reduction to Dr. Pramod Kumar Mishra, Additional Principal Secretary to Prime Minister of India.

- Dr. P. K. Mishra from India received the 2019 Sasakawa award in recognition of his long-term dedication to improve the resilience of communities most exposed to disasters and his personal commitment to social inclusion as a critical principle to reduce inequality and poverty, enhancing the safety net of the socially and economically marginalized.

- They most often occur in normally dry areas that have recently received precipitation, but they may be seen anywhere downstream from the source of the precipitation, even many miles from the source.

5. Tripura Flash Floods

Context:

- Heavy rain that led to flash floods has left hundreds of houses submerged in North Tripura.

Details:

- More than 1,000 families have been affected due to the flashfloods in Tripura.
- The National Disaster Response Force (NDRF), Tripura State Rifles (TSR), firefighter team, district, and state administration have launched a joint rescue operation.
- The flood was caused after the level of river Juri and river Kakti started rising and came close to the danger level.
- According to Skymet Weather, the rains have been attributed to the cyclonic circulation present over Northeast Bihar and a trough extending from this system to Nagaland.
- Another cyclonic circulation is seen over South Assam and a trough is also running from eastern parts of Bihar to North Odisha.
- Warm and moist winds are continuing over the north-eastern states.
- Apart from these weather systems, Western Disturbance was also moving across higher latitudes.

What are flash floods?

- A flash flood is a rapid flooding of low-lying areas: washes, rivers, dry lakes and basins. It may be caused by heavy rain associated with a severe thunderstorm, hurricane, tropical storm, or melt water from ice or snow flowing over ice sheets or snowfields.
- Flash floods may occur after the collapse of a natural ice or debris dam, or a human structure such as a man-made dam.
- Flash floods are distinguished from regular floods by having a timescale of fewer than six hours between rainfall and the onset of flooding.
- Flash floods can occur under several types of conditions.
- Flash flooding occurs when it rains rapidly on saturated soil or dry soil that has poor absorption ability. The runoff collects in gullies and streams and, as they join to form larger volumes, often forms a fast flowing front of water and debris.

MISCELLANEOUS

1. Darbar move

- Civil Secretariat, the seat of Jammu and Kashmir government, opened in Srinagar after functioning in winter capital Jammu for six months as part of the nearly 150-year-old practice known in the State as 'Darbar Move'.
- The other 'move offices' include Raj Bhavan, police headquarters and several commissions.
- The practice of 'Darbar Move' — under which the state government functions in Jammu during six months of winter and in Srinagar during summer — was started by Maharaja Gulab Singh in 1872 to escape extreme weather conditions in the two regions of the State.
- However, the practice was continued even after Independence with the aim of providing governance benefits to both Kashmir and Jammu regions of the State for six months by turns.
- While Jammu and Srinagar cities benefit from this practice, the Darbar Move incurs expenditure of crores.

2. Private, public and political morality

Asoka's Ethics

Asoka spoke of Dhamma (ethics) in distinct domains.

1. First, interpersonal morality. Each of us has special obligations to our children, spouse, parents, teachers and relatives.

- We have a duty towards those under our special care, including the aged, 'servants', animals and, occasionally, strangers. Asoka distinguished this private ethic from what might be called inter-group morality in public life.
- Crucial here is harmony between different religious-philosophical groups generated by the exercise of sayamam (self-restraint).
- He particularly emphasised the importance of vacaguti — controlling one's tongue to be critical of other groups only if there is good reason to, only on appropriate occasions and always moderately; also, to praise one's own group, only when there is good reason to, only on appropriate occasions and always moderately.
- Neither hate speech nor speech glorifying oneself was acceptable as part of public morality — a point very relevant in our times.

2. Asoka Asoka then distinguished private and public morality from power-related political morality specifying what rulers and the ruled owe one another.

- Subjects owe obedience to their king.
- But the ruler too owed something to his subjects: to ensure janahita, the good of all (including all living species), and janasukham, happiness not only in this life but also in the afterlife.
- To achieve this, rulers and their officials must display damdasamata and viyohalasamata (impartiality in meting out punishment and in politico-legal acts more generally).
- This sums up the core of Asoka's political morality: a commitment to justice, to impartiality.

What then is the difference between private/public morality and political morality?

- While in one's personal life, in our dealings with those with whom we have close daily encounters such as our family, friends or 'servants', we can't help but be partial,
- While in the larger public domain, where we face people with different religio-philosophical sensibilities, we can't entirely escape some degree of partiality to our own world view, the political domain requires the impartial or just use of power for the good of all.

German philosopher Friedrich Hegel

He made similar points, although in a different way and in an entirely different context. He distinguished three spheres of human life: family, civil society and the state.

1. The family, Hegel claimed, was the smallest community in which its members do not even distinguish themselves from one another.

- Their identities are fused. A family is bound by emotional ties, by mutual love and affection.
- Members take pride in each other's achievements and feel a strong sense of shame at the other's wrongdoing. Morality here is guided by unarticulated feelings.

2. The family is different from another sphere of life that Hegel designated civil society but should more appropriately be called 'market society'.

- Here, each person acts as an individual with a sharply defined sense of her own interests which are distinct from, compete and may even clash with the interests of others.

- No one is tied to the other by bonds of love or affection. Since there is no community but only an aggregate of individual interests, there is no commonly held ethic either.
- Competitive life is governed by coercive legal rules to regulate the pursuit of self-interest. At best, each individual devises her own personal, subjective moral maxims.

3. Finally, Hegel spoke about a third domain where people once again see themselves as members of a large political community, as citizens of a state.

- Citizens in a political community must be bound together neither by feelings nor by self-interest but by a commitment to common values discovered by public reason — values such as political freedom, solidarity, shared traditions and cultural heritage.
- Morality in this domain requires that we overcome our loyalty to blood relations, not pursue only our private interests, and commit instead to using power grounded in shared principles.
- Love and hate are largely imposters in this domain where consensus is forged by the use of public reason.
- Its democratic version requires that, guided by values of openness, equal respect and justice, we deliberate and help each other arrive at impartial laws and public policies, acceptable in principle to everyone in the polity.

PRACTICE QUESTIONS

1. Consider the following statements:

1. Bardoli Satyagraha was led by Gandhi.
2. It was in Bardoli satyagraha where Vallabhbhai Patel got title "Sardar".

Which of the following statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

2. Cyberdome, recently seen in news is

- A. A hi-tech centre for cyber security that has been set up in Kerala
- B. The nodal agency to deal with cyber security threats like hacking and phishing
- C. A recently conceptualised AI-enabled solution to deal with cyber crimes
- D. A civil society organization and a think tank of cyber security experts

3. Consider the following statements:

1. Fundamental Duties were added on the recommendation of Swaran Singh Committee
2. Fundamental Duties were added by the Forty-second Amendment of the Constitution

Which of the following statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

4. Mulshi Dam is built across the River:

- A. Mula
- B. Mutha
- C. Koyna
- D. Manair

5. Consider the following statements with respect to the classical dance form – Odissi:

1. There are three traditions of the Odissi dance.
2. Odissi includes both North and South Indian Ragas.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

6. Consider the following statements with respect to Mesozoic Era:

1. The ancestors of major plant and animal groups that exist today first appeared during the Mesozoic Era.
2. It is during this era that the continents began to move into their present-day configurations.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

7. Consider the following statements with respect to New Development Bank

1. It is a multilateral development bank jointly founded by the BRICS countries.
2. It is headquartered at Manila in Philippines.

Which of the given statement/s is/are incorrect?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

8. The Sanjay Gandhi National Park is in:

- A. Maharashtra
- B. Odisha
- C. Karnataka
- D. Uttar Pradesh

9. Consider the following statements

1. Swachh Survekshan is the ranking exercise to all cities under Swachh Bharat Mission-Urban.
2. The Quality Council of India (QCI) is responsible for carrying out the assessment.
3. Swachh Survekshan 2019 is the first edition of exercise.

Which of the given statement/s is/are correct?

- A. Only 1
- B. 1 and 2 only
- C. 1 and 3 only
- D. All of the above

10. Consider the following statements with respect to World Happiness Report:

1. The report is released by the Sustainable Development Solutions Network
2. India's rank in the report has been consistently improving

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

11. Consider the following statements:

1. The Outer Space Treaty governs the Activities of States in the Exploration and Use of Outer Space
2. India is not a signatory to the Outer Space Treaty

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

12. Consider the following statements, with reference to 'Bioprinted skin', which was in the news recently.

1. 3D bioprinted human skin models have certain anatomically relevant structural, mechanical and biochemical features similar to native human skin.
2. Bioprinted skin models will have wide applications in testing cosmetics. It can also reduce and probably even replace testing on animals.

Which among the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

13. Consider the following statements with reference to the 'El Niño':

1. The term El Niño translates from Spanish as 'the boy-child'
2. Peruvian fishermen originally used the term to describe the appearance, around Christmas, of a warm ocean current off the South American coast.
3. It is now the commonly accepted term to describe the warming of the central and eastern tropical Pacific Ocean.

Which among the above statements is/are incorrect?

- A. 1 and 2 Only
- B. 2 and 3 Only
- C. All 1, 2 and 3
- D. Neither 1 nor 2 nor 3

14. Consider the following statements:

1. Israel is bordered by Syria, Lebanon, Golan Heights, the West Bank, Jordan, the Gaza Strip, and Egypt.
2. The Gulf of Aqaba is a large gulf at the northern tip of the Red Sea, east of the Sinai Peninsula and west of the Arabian mainland.

Which among the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

15. Consider the following statements:

1. Oceanic trenches are topographic depressions of the sea floor, relatively narrow in width, but very long.
2. These oceanographic features are the deepest parts of the ocean floor.
3. The greatest ocean depth measured is in the Challenger Deep of the Mariana Trench, at a depth of 11,034 metres.

Which among the above statements is/are correct?

- A. 1 and 2 Only
- B. 2 and 3 Only
- C. All, 1, 2 and 3
- D. Neither 1 nor 2 nor 3

16. Which of the following are the tributaries of River Ganga?

1. Alaknanda
2. Mandakini
3. Son
4. Manas

Choose the correct option:

- A. 1, 2 and 3 only
- B. 2, 3 and 4 only
- C. 1, 2 and 4 only
- D. 1, 2, 3 and 4

17. Garo, Khasi, Jaintia hills are in

- A. Assam
- B. Meghalaya
- C. Tripura
- D. Arunachal Pradesh

18. Consider the following statements:

1. Maternal Mortality Rate is the recorded maternal deaths per one lakh live births
2. Infant mortality is the number of deaths of children under 1 year of age per one lakh live births.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

19. "Miranda" and "Titania" are the moons of planet:

- A. Jupiter
- B. Mars
- C. Uranus
- D. Saturn

20. Consider the following statements with respect to SEBI:

1. It was initially established as a statutory body for regulating the securities market.
2. Commodities derivative markets is also regulated by SEBI.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

21. Consider the following statements:

1. Masala bonds are bonds issued outside India but denominated in Indian Rupees.
2. The first Masala Bond was issued by the World Bank.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

22. Consider the following statements:

1. Terminal High Altitude Area Defense (THAAD) is an indigenously developed Indian anti-ballistic missile defense system.
2. It is a transportable system that intercepts ballistic missiles.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

23. Chandaka-Dampara Wildlife Sanctuary is in

- A. Karnataka
- B. Maharashtra
- C. Odisha
- D. Rajasthan

24. Consider the following statements:

1. Ease of doing business ranking of states of India reflects the level of business-conducive nature of the states.
2. The ranking of states is done on same criteria as ranking of nations.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

25. Consider the following statements:

1. Right to Information (RTI) is a part of the fundamental rights
2. OCIs and PIOs can also seek information under the RTI Act

Which of the given statement/s is/are correct?

- A. 1 Only
- B. 2 Only
- C. Both 1 and 2
- D. Neither 1 nor 2

26. Consider the following statements:

1. Fall Armyworm (FAW) is an insect indigenous to the America
2. It is a nocturnal pest

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

27. Consider the following statements:

1. Polavaram Project is a multi-purpose irrigation project.
2. It was accorded the national status in 2014.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

28. Consider the following statements:

1. Arctic council is a high level intergovernmental forum that addresses the issues faced by the Arctic states.
2. India is an observer to Arctic Council.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

29. Consider the following statements with respect to Khadi and Village Industries commission (KVIC):

- 1) It is a statutory body.
2. It is the nodal agency for implementation of Prime Ministers Employment Generation Programme (PMEGP).
3. It is an apex organisation under the Ministry of Micro, Small and Medium Industries.

Which of the given statement/s is/are correct?

- A. 1 Only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

30. Consider the following statements:

1. INS Kalavari is the first submarine of the Scorpene class.
2. It is designed by French naval defence and Energy Company.

Which of the given statement/s is/are correct?

- A. 1 Only
- B. 2 Only
- C. Both 1 and 2
- D. Neither 1 nor 2

31. Consider the following statements:

1. Ilkal Saree has been accorded Geographical Indication (GI) Tag.
2. Darjeeling Tea was the first Indian product to get the Geographical Indication (GI) Tag.

Which of the given statement/s is/are correct?

- A. 1 Only
- B. 2 Only
- C. Both 1 and 2
- D. Neither 1 nor 2

32. Consider the following statements:

1. Wanchuwa is an important festival of the Tiwa tribal community.
2. The festival is celebrated in Odisha.

Which of the given statement/s is/are correct?

- A. 1 Only
- B. 2 Only
- C. Both 1 and 2
- D. Neither 1 nor 2

33. Consider the following statements:

1. Tropical cyclones rotate in a counter clockwise direction in the Northern Hemisphere and in a clockwise direction in the Southern Hemisphere.
2. The most dangerous and destructive part of a tropical cyclone is the eye.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

34. The Central Bureau of Investigation (CBI) comes under the administrative control of:

- A. Ministry of Defence
- B. Ministry of Home Affairs
- C. Ministry of Personnel, Public Grievances and Pensions
- D. None of the above

35. Which of the following Tiger Reserves encompasses the Shivaliks near the foothills of the Himalayas?

- A. Rajaji Tiger Reserve
- B. Corbett Tiger Reserve
- C. Panna Tiger Reserve
- D. Satpura Tiger Reserve

36. Consider the following statements:

1. All the political parties registered under the Representation of the People Act are eligible to receive electoral bonds.
2. Electoral bonds are valid for a year from the date of issue.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

37. Consider the following statements:

1. Madhubani paintings originated in the Mithila region of Bihar.
2. Madhubani painting has been accorded the Geographical Indication status.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

38. Consider the following pairs:

1. Sampriti – Bangladesh
2. Hand in Hand – China
3. Yudh Abhyas – USA
4. Maitree – Thailand

Which of the given pairs are not matched correctly?

- A. 1 only
- B. 1 and 2 only
- C. 1, 2 and 4 only
- D. None of the above

39. Consider the following statements:

1. Any star that collapses under its own gravity after having run out of its fusion fuel is called a supernova.
2. Fast neutrino oscillation is proportional to the density of neutrinos in the medium, and not the masses of the neutrinos.

Which among the above statements is/are correct?

- A. 1 only
- B. Both 1 and 2
- C. 2 only
- D. Neither 1 nor 2

40. Consider the following statements with reference to 'Bio-remediation':

1. Bioremediation is a process that uses mainly microorganisms, plants, or microbial or plant enzymes to detoxify contaminants in the soil and other environments.
2. Bioremediation is a human intervention, whereas biodegradation is a natural property of microorganisms.

Which among the above statements is/are incorrect?

- A. 1 only
- B. Both 1 and 2
- C. 2 only
- D. Neither 1 nor 2

41. Consider the following statements:

1. Key Biodiversity Areas (KBAs) is an umbrella term commonly used to include areas that contribute to the global persistence of biodiversity, including vital habitat for threatened plant and animal species in terrestrial, freshwater and marine ecosystems.
2. The criteria for designating a site as KBA have been described in the document "The Global Standard for the Identification of Key Biodiversity Areas (2016)" by International Union for Conservation of Nature (IUCN).

Which among the above statements is/are correct?

- A. Only 1
- B. Both 1 and 2
- C. Only 2
- D. Neither 1 nor 2

42. Consider the following statements:

1. A marine protected area (MPA) is essentially a space in the ocean where human activities are more strictly regulated than the surrounding waters – similar to parks we have on land.
2. These places are given special protections for natural or historic marine resources by local, state, territorial, native, regional, or national authorities.
3. Pulicat Lake is an example of a Marine Protected Area in India.

Which among the above statements is/are correct?

- A. 1 and 2 only
- B. 1, 2 and 3
- C. 2 and 3 only
- D. Neither 1 nor 2 nor 3

43. Consider the following statements with respect to UTTAM App:

1. The app was launched for Coal Quality Monitoring.
2. The app was jointly developed by Coal India Limited and the Ministry of Coal.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

44. Consider the following statements:

1. Both Ajanta caves and Ellora caves are UNESCO cultural heritage sites.
2. Ajanta caves are a series of 30 Buddhist caves.
3. All the caves of Ajanta are Viharas.

Which of the given statement/s is/are incorrect?

- A. Only 1
- B. Only 3
- C. Both 1 and 3
- D. 1, 2 and 3

45. Consider the following statements with respect to Nandankanan Zoological Park:

1. It is located in Odisha.
2. It is the first zoo in India to join World Association of Zoos and Aquariums.

Which of the given statement/s is/are correct?

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither 1 nor 2

46. Consider the following statements with respect to Suez Canal:

1. Suez canal connects the Mediterranean Sea to the Red Sea.
2. It is an artificial sea-level waterway.
3. It provides shortest sea link between Asia and Europe.

Which of the given statement/s is/are correct?

- A. Only 1
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

47. Consider the following statements:

1. The Rhinoceros Sutra is found in the Gandharan Buddhist texts.
2. Rhinoceros is one of the animals surrounding "Pashupati" in the Pashupati Seal of Indus Valley Civilisation.

Which of the given statement/s is/are correct?

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither 1 nor 2

48. Which of the following is popularly known as the "Terror of Bengal"?

- A. Red Calico plant
- B. Siam weed
- C. West Indian Lantana
- D. Water hyacinth

49. Which among the following ideals in the Preamble of Indian Constitution has been borrowed from the Russian Constitution?

- A. Justice
- B. Liberty
- C. Equality
- D. Fraternity

50. Consider the following statements:

1. Bt brinjal has been developed to give resistance against lepidopteron insects.
2. The government of India has placed an indefinite ban on commercial release of Bt brinjal.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

51. Which of the following pairs are incorrectly matched?

- A. Lipulekh Pass – Uttarakhand
- B. Nathu La – Sikkim
- C. Shipki La – Himachal Pradesh
- D. Zoji La – Arunachal Pradesh

52. Which of the following was the first princely state to enter into a subsidiary alliance with the British?

- A. Tanjore
- B. Mysore
- C. Hyderabad
- D. Awadh

53. Consider the following statements:

1. Gender Inequality Index is released by United Nations Development Program.
2. It is based on reproductive health, empowerment, and economic status.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 Only
- C. Both 1 and 2
- D. Neither 1 nor 2

54. The Jain philosophy holds that the world is created and maintained by

- A. Universal truth
- B. Universal law
- C. Universal faith
- D. Universal love

55. Which Indian state has launched the Sustainable Catchment Forest Management (SCATFORM) project?

- A. Assam
- B. Odisha
- C. West Bengal
- D. Tripura

56. Consider the following statements:

1. The National Policy on Biofuels 2018 classifies bioethanol and biodiesel as First Generation biofuels.
2. The Policy restricts using Sugarcane Juice for ethanol production.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

57. Which of the following is/are the pollutants NOT monitored by SAFAR (System of Air Quality and Weather Forecasting)?

1. Ozone
2. Carbon Monoxide
3. CFCs

Which of the following statements/s is/are correct?

- A. 1 and 2 only
- B. 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

58. Consider the following statements:

1. Balukhand-Konark Wildlife Sanctuary is situated in West Bengal.
2. It is home to Black Buck and Olive Ridley Sea Turtles.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

59. Consider the following statements:

1. "Sattriya" is one of the Indian Classical dance forms
2. A key musical instrument that accompanies a Sattriya performance is khol
3. Sattriya originated in the state of Manipur

Which of the given statement/s is/are correct?

- A. 1 only
- B. 1 and 2 only
- C. 3 only
- D. 1 and 3 only

60. Consider the following statements:

1. Gray Slender Loris is a nocturnal animal
2. It has been listed as Least Concerned by IUCN
3. It is native to India and Sri Lanka

Which of the given statement/s is/are correct?

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

61. Which of the following pairs are not correctly matched?

- A. Pithora Painting – Bihar
- B. Kalamkari – Andhra Pradesh
- C. Patachitra – Odisha
- D. Chitrakar Painting – West Bengal

62. Consider the following statements:

1. Mount Agung is in Philippines
2. It is an active volcano

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

63. Consider the following statements with respect to "Ultima Thule" that was in the news recently:

1. Ultima Thule is located in the Kuiper Belt, beyond the orbit of Neptune.
2. Ultima Thule belongs to a class of Kuiper belt objects called the "Cold Classics," which have nearly circular orbits with low inclinations to the solar plane, and which have not been perturbed since their formation perhaps 4.6 billion years ago.

Which among the above statements is/are correct?

- A. 1 Only
- B. 2 Only
- C. Both 1 and 2
- D. Neither 1 nor 2

64. Consider the following statements with reference to the 'Kuiper Belt':

1. The Kuiper Belt is a large region in the cold, outer reaches of our solar system beyond the orbit of Neptune, sometimes called the "third zone" of the solar system.
2. Some researchers prefer to call it the Trans-Neptunian Region, and refer to Kuiper Belt objects (KBOs) as trans-Neptunian objects, or TNOs.
3. Astronomers think the icy objects of the Kuiper Belt are remnants left over from the formation of the solar system. Similar to the relationship between the main asteroid belt and Jupiter, it's a region of objects that might have come together to form a planet had Neptune not been there. Instead, Neptune's gravity stirred up this region of space so much that the small, icy objects there weren't able to coalesce into a large planet.

Which among the above statements is/are incorrect?

- A. 1 and 2 Only
- B. 2 and 3 Only
- C. All 1, 2 and 3
- D. Neither 1 nor 2 nor 3

65. Consider the following statements:

1. DNA methylation is a process by which chemical changes occur to the DNA molecule.
2. DNA methylation also affects the functioning of the hypothalamus-pituitary axis, which is a complex set of interactions between the hypothalamus and the pituitary gland in the brain and the adrenal glands.

Which among the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

66. In which of the following states is the 'Pakke Tiger Reserve' located?

- A. Assam
- B. West Bengal
- C. Mizoram
- D. Arunachal Pradesh

67. The Golden Triangle of South-East Asia is

- A. An extensive opium producing area
- B. An area prone to high intensity Earthquakes
- C. One of its kind biodiversity hotspot
- D. The area infested with insurgency and terrorism

68. Consider the following statements:

1. Karakoram Wildlife Sanctuary is located in Jammu and Kashmir.
2. It is known for a migratory population of Chiru.
3. Shahtoosh is a specific kind of shawl, which is woven with the down hair of Chiru.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 1 & 2 only
- C. 3 only
- D. 1, 2 and 3

69. Consider the following statements:

1. Rani Ki Vaav is a UNESCO World Heritage Site.
2. It is located in Rajasthan.
3. It was built by Queen Udayamati.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 1 and 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

70. Consider the following statements:

1. Sankirtana is a traditional performance of Ramayana.
2. It is one among UNESCO's list of Intangible Cultural Heritages.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

71. Consider the following statements with respect to Compact2025:

1. It is an initiative for ending hunger and undernutrition by 2025.
2. It is an initiative of Food and Agriculture Organization.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

72. Which of the following state government has launched the Kalia scheme?

- A. Odisha
- B. Gujarat
- C. Madhya Pradesh
- D. Rajasthan

73. Consider the following statements:

1. The Election Commission is a permanent and an independent body established by the Constitution of India.
2. The appointment of the chief election commissioner and other election commissioners shall be made by the president.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

74. Nauradehi Sanctuary is located in

- A. Karnataka
- B. Kerala
- C. Odisha
- D. Madhya Pradesh

75. Jakhau port is located in

- A. Maharashtra
- B. Gujarat
- C. Odisha
- D. Tamil Nadu

76. Consider the following statements with respect to Pradhan Mantri Shram Yogi Maan-dhan:

1. It is a pension scheme of the government.
2. The scheme is applicable to workers in both organised as well as unorganised sector.
3. It is a central sector scheme.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 1 and 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

77. Consider the following statements with respect to Mission Shakti:

1. It is a joint programme of the Defence Research and Development Organisation (DRDO) and the Indian Space Research Organisation (ISRO).
2. As a part of the mission an A-SAT weapon targeted and destroyed a decommissioned Indian Satellite.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

78. "Order of the Rising Sun" is awarded by

- A. Japanese Government
- B. Indian Government
- C. The U.S. Government
- D. Chinese Government

79. Consider the following statements:

1. The Maldives and the United States are in dispute over Chagos Island.
2. It is located in the Indian Ocean.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

80. Consider the following statements:

1. BrahMos is a medium range ramjet supersonic cruise missile
2. It can be launched from and only

Which of the statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

81. Consider the following statements:

1. The Montreal Protocol is an international treaty designed to protect the ozone layer.
2. The Montreal Protocol currently calls for a complete phase-out of HCFCs by 2020.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

82. "Kundhei" is a variety of the string puppet of

- A. Rajasthan
- B. Odisha
- C. Karnataka
- D. West Bengal

83. Consider the following statements:

1. The membership of International Solar Alliance is open only to the countries that lie between the Tropic of Cancer and Capricorn.
2. Its headquarters is in Haryana.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only

- C. Both 1 and 2
- D. Neither 1 nor 2

84. STEM and Gender Advancement (SAGA) Project was launched by

- A. International Labour Organisation
- B. UNESCO
- C. WTO
- D. UNICEF

85. Consider the following statements:

1. Objective of open market operations is to adjust the rupee liquidity conditions in the market
2. When there is excess liquidity in the market RBI resorts to buying of securities

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

86. Consider the following statements:

1. A bond is a debt instrument in which an investor loans money to an entity
2. Debenture is a bond without a collateral

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

87. Consider the following statements with respect to Foreign Portfolio Investment

1. FPI provides the owner with direct ownership of the financial assets.
2. FPI is a part of a country's current account

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

88. 'Mount Agung volcano' was recently in the news. Where is it located?

- A. Indonesia
- B. Hawaiian Islands
- C. Thailand
- D. Vietnam

89. Consider the following statements:

1. An EVM is designed with two units: the control unit and the balloting unit. These units are joined together by a cable.
2. The control unit of the EVM is kept with the presiding officer or the polling officer. The balloting unit is kept within the voting compartment for electors to cast their votes.
3. VVPAT's were first used in the byelection to the Noksen Assembly seat in Nagaland in the year 2013.

Which among the above statements is/are incorrect?

- A. 1 and 2 Only
- B. 2 and 3 Only
- C. All 1, 2 and 3
- D. Neither 1 nor 2 nor 3

90. Consider the following statements:

1. Superconductivity is a phenomenon in which the resistance of the material to the electric current flow is zero.
2. The uniqueness of superconductivity compared to all other physical phenomena is that the phenomenon is not relatable to periodic table, such as atomic number, atomic weight, electro-negativity, ionization potential etc. In fact, superconductivity does not even correlate with normal conductivity.

Which among the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

91. Consider the following statements:

1. The National Human Rights Commission (NHRC) of India was established on 12 October, 1993. The statute under which it is established is the Protection of Human Rights Act (PHRA), 1993 as amended by the Protection of Human Rights (Amendment) Act, 2006.
2. The Commission consists of a Chairperson, four full-time Members and four deemed Members.

Which among the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

92. Consider the following statements:

1. Lonar Lake is a National Geological Monument of India.
2. It is located in Karnataka.
3. It was created by a meteor impact.

Which of the given statement/s is/are incorrect?

- A. 1 only
- B. 1 and 2 only
- C. 2 only
- D. 3 only

93. The core is composed of:

- A. Silica and Aluminium
- B. Silica and Magnesium
- C. Nickel and Iron
- D. Magnesium and Aluminium

94. Consider the following statements:

1. A Bio-indicator is any species that has a tendency to spread to a degree believed to cause damage to the environment.
2. Bio-indicators reflect the quality and changes in environmental conditions as well as aspects of community composition.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

95. Consider the following statements:

1. Tariff is a tax on tax.
2. Tariffs are used by governments to protect domestic industries from competition.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

96. Dr. Lee Jong-wook Prize for Public Health is awarded by:

- A. World Health Organisation
- B. Indian Medical Association
- C. United Nations Educational, Scientific and Cultural Organization
- D. United Nations Organisation

97. Consider the following statements:

1. BIMSTEC is headquartered at Dhaka.
2. Pakistan and India are members of BIMSTEC.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

98. Consider the following statements:

1. Mudhumalai National Park shares border with Karnataka and Tamil Nadu.
2. It is declared as a World Heritage Site by UNESCO.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

99. Consider the following statements:

1. System of Air Quality and Weather Forecasting gives out real-time air quality index.
2. It was indigenously developed by ISRO.
3. It monitors the existence harmful pollutants of Xylene, Toluene and Benzene.

Which of the given statement/s is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

100. Consider the following statements:

1. Network For Spectrum (NFS) is a project related to the network for defence services.
2. It is being implemented by DRDO.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

101. Consider the following statements about Vinaya Pitaka

1. Tripitaka was compiled by Buddha.
2. Vinaya Pitaka comprises the collection of rules given to the community of Buddhist believers.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only

- C. Both 1 and 2
- D. Neither 1 nor 2

102. Which of the following is/are Mosquito-borne disease/s?

- 1. Filariasis
- 2. Malaria
- 3. West Nile Fever
- 4. Japanese encephalitis

Choose the correct option:

- A. 2 only
- B. 1 and 2 only
- C. 1, 2 and 4
- D. 1, 2, 3 and 4

103. Consider the following statements:

- 1. ACROSS scheme pertains to the atmospheric science programs.
- 2. It is an umbrella scheme comprising of nine sub programmes.
- 3. The scheme will be implemented by the Ministry of Earth Sciences.

Which of the given statement/s is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

104. Consider the following statements:

- 1. National Consumer Disputes Redressal Commission is a constitutional body.
- 2. It has jurisdiction to entertain complaints valued at one lakh or more.

Which of the given statement/s is/are not correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

105. Consider the following statements:

- 1. Lokpal Act includes its own members under the definition of "public servant".
- 2. Lokpal does not apply to public servants outside India.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

106. Consider the following statements:

- 1. Pradhan Mantri Jan Arogya Yojana (PMJAY) is a scheme under the Ayushman Bharat.
- 2. PMJAY will have health benefit cover of Five Lakh rupees per family per year, free of cost.

Which of the given statement/s is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

ANSWER KEYS

1. Answer: B

Explanation:

The Bardoli Satyagraha movement was started in January 1928 after the land revenue in Bardoli taluka was increased by 30 per cent. In February 1928, Sardar Vallabhbhai Patel was called to lead the movement. It was Bardoli satyagraha where Vallabhbhai Patel got title "Sardar".

2. Answer: A

Explanation:

Cyberdome is the hi-tech centre for cyber security that has been set up by the Kerala Police at the Technopark campus in Thiruvananthapuram. Established on a public-private partnership model, the Cyberdome is expected to enable sleuths to obtain vital leads in cases of cyber-related offences using advancements in the field of information technology. The areas that will come under the purview of the technology centre will include cyber forensic, cyber intelligence, cyber security, incidence response, internet monitoring, cyber crimes against women and children, VOIP/Skype call analysing, cyber terrorism, dark net exploring and crimes related to the social media, which will be examined through the social media analysing laboratory.

3. Answer: C

4. Answer: A

Explanation:

"Mulshi" is the name of a major dam on the Mula river in India. It is located in the Mulshi taluka administrative division of the Pune district of Maharashtra State. Mula-Mutha is formed by the confluence of the Mula and Mutha rivers in the city of Pune, which later meets the Bhima River, which itself later meets the Krishna River and finally emptying to the Bay of Bengal.

5. Answer: C

Explanation:

Odissi is a major ancient Indian classical dance that originated in the Hindu temples of Odisha. There are three traditions of the Odissi Dance viz. Mahari, Gotipua and Nartaki Schools. A distinctive feature of Odissi is that it includes both North and South Indian Ragas, which in 20th-century scholarship has been grouped as the Hindustani and the Carnatic music.

6. Answer: C

Explanation:

Mesozoic Era is the second of Earth's three major geologic eras of Phanerozoic time. Its name is derived from the Greek term for "middle life." The ancestors of major plant and animal groups that exist today first appeared during the Mesozoic, but this era is best known as the time of the dinosaurs. Earth's climate during the Mesozoic Era was generally warm, and there was less difference in temperature between equatorial and polar latitudes than there is today. The Mesozoic was a time of geologic and biological transition. During this era the continents began to move into their present-day configurations. At the outset of the Mesozoic, all of Earth's continents were joined together into the supercontinent of Pangea. By the close of the era, Pangea had fragmented into multiple landmasses.

7. Answer: B

Explanation:

Statement 2 is incorrect. The headquarters of New Development Bank is at Shanghai in China. The New Development Bank, formerly referred to as the BRICS Development Bank, is a multilateral development bank established by the BRICS states.

8. Answer: A

Explanation:

The Sanjay Gandhi National Park (SGNP) in Mumbai, Maharashtra lost its last surviving white tiger on when Bajirao, the 18-year-old male tiger, died. The big cat was suffering from senile arthritis for the past four years and had been unable to walk for the past ten days.

9. Answer: B

Explanation:

Swachh Survekshan 2019 is the fourth edition Swachh Survekshan 2019 increased the coverage of the ranking exercise to all cities under Swachh Bharat Mission-Urban. The Quality Council of India (QCI) is responsible for carrying out the assessment.

10. Answer: A

Explanation:

The World Happiness Report is a landmark survey of the state of global happiness that ranks 156 countries by how happy their citizens perceive themselves to be. World Happiness Report 2019 is the 7th edition. The report is published by the Sustainable Development Solutions Network. India slipped 7 spots as compared to last year and is ranked 140 among 156 nations. Most of India's neighbours including Pakistan, Bangladesh, Bhutan, Nepal, China and Sri Lanka have been placed ahead of India in the ranking.

11. Answer: A

Explanation:

The Outer Space Treaty, formally the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, is a treaty that forms the basis of international space law. India is a signatory to the Outer Space Treaty.

12. Answer: C

Explanation:

- 3D bioprinted human skin models that have certain anatomically relevant structural, mechanical and biochemical features similar to native human skin.
- The bioprinted skin produced in the lab by the team is already being used by ITC Ltd for experiments.
- The bioprinted skin model will have wide applications in testing cosmetics. It can also reduce and probably even replace testing on animals.
- It can also be used for testing dermatology drugs on human skin and at a future date even help in testing drugs for personalised medicine.

13. Answer: D

Explanation:

- The term El Niño translates from Spanish as 'the boy-child'.
- Peruvian fishermen originally used the term to describe the appearance, around Christmas, of a warm ocean current off the South American coast.

- It is now the commonly accepted term to describe the warming of the central and eastern tropical Pacific Ocean.

14. Answer: C

Explanation:

- Israel is bordered by Syria, Lebanon, Golan Heights, the West Bank, Jordan, the Gaza Strip, and Egypt. The Gulf of Aqaba is a large gulf at the northern tip of the Red Sea, east of the Sinai Peninsula and west of the Arabian mainland.

15. Answer: C

Explanation:

- Oceanic trenches are topographic depressions of the sea floor, relatively narrow in width, but very long.
- These oceanographic features are the deepest parts of the ocean floor.
- The greatest ocean depth measured is in the Challenger Deep of the Mariana Trench, at a depth of 11,034 metres.

16. Answer: A

Explanation:

Manas is a tributary of River Brahmaputra

17. Answer: B

Explanation:

The state of Meghalaya comprises Khasi, Garo and Jaintia hills.

18. Answer: A

Explanation:

Infant mortality is defined as the number of deaths of children under 1 year of age per 1,000 live births.

19. Answer: C

Explanation:

Uranus has five major moons: Miranda, Ariel, Umbriel, Titania, and Oberon.

20. Answer: B

Explanation:

- Initially SEBI was a non-statutory body without any statutory power. However, in 1992, the SEBI was given additional statutory power by the Government of India through an amendment to the Securities and Exchange Board of India Act, 1992.
- In April 1988 the SEBI was constituted as the regulator of capital markets in India under a resolution of the Government of India.
- In 2015, the Forward Market Commission was merged with SEBI.
- With this, the regulation of commodity derivatives market has shifted to SEBI under Securities Contracts Regulation Act (SCRA) 1956.

21. Answer: C

22. Answer: B

Explanation:

Terminal High Altitude Area Defense (THAAD) is a transportable system that intercepts ballistic missiles inside or outside the atmosphere during their final, or terminal, phase of flight. THAAD uses a one-stage hit-to-kill interceptor to destroy incoming ballistic missile targets. It is an American anti-ballistic missile defense system.

23. Answer: C

Explanation:

Chandaka- Dampara sanctuary is located in the south fringe of cuttack in the Indian state of Odisha. The park is known for successful conservation of elephants which is the principal species here. It is also a home to a number of threatened wild animals and birds. Chandaka landscape got a sanctuary status in 1982.

24. Answer: D

Explanation:

- It is the annual ease of doing business index of states and union territories of India based on the completion percentage scores of action items points of annual Business Reforms Action Plan (BRAP) under the make in India initiative.
- This ranking of states has been done by World Bank since 2015 and facilitated by the Ministry of Personnel, Public Grievances and Pensions of Government of India based on the progress of states in completing annual reform action plan covering 8 key areas which has a number of points that vary every year.
- The World Bank ranks individual nations on the Ease of doing business index.
- The ranking of states is not done on same criteria as ranking of nations.
- Ranking of states does not reflect the level of business-conducive nature of the states, it reflects the willingness of states to reform and attract investments.

25. Answer: C

Explanation:

Article 19(1) of the Indian Constitution specifies that the Right to Information (RTI) is a part of the fundamental rights. Any citizen can ask for information under these laws. The Act extends to the whole of India except the State of Jammu and Kashmir. OCI's (Overseas Citizens of India) and PIO's (Persons of Indian Origin) card holders can also ask for information under the RTI Act. For citizens, OCI's and PIO's who are staying out of India, the RTI Application can be filed with the PIO of the local Indian Embassy/ Consulate/High Commission and they will inform you regarding the amount of application fee in local currency as well as the mode of payment.

26. Answer: C

Explanation:

Fall Armyworm (FAW) is an insect indigenous to the America. Being a nocturnal pest, the FAW hide under maize leaves in the day time and is difficult to be detected.

27. Answer: c

Explanation:

Polavaram Project is a multi-purpose irrigation project. The dam across the Godavari River is under construction located in West Godavari District and East Godavari District in Andhra Pradesh state and its reservoir spreads in parts of Chhattisgarh and Orissa States also. The Polavaram project was accorded national status in 2014 in the Andhra Pradesh Bifurcation Act and its design was changed.

28. Answer: C

Explanation:

The Arctic Council is a high level intergovernmental forum which addresses issues faced by Arctic states, its indigenous people and its other inhabitants. It seeks to promote coordination, cooperation and interaction among them on common issues but mainly on environmental protection and sustainable development in Arctic. It was established in 1996 by Ottawa Declaration. At 11th Arctic Council ministerial meeting held in Finland, India was re-elected as an observer to intergovernmental forum Arctic Council.

29. Answer: D

30. Answer: C

Explanation:

INS Kalavari is the first of the Scorpene class and has already been commissioned. The Kalavari class submarines are diesel-electric attack submarines are designed by French naval defence and energy company DCNS and are being manufactured by Mazagon Dock Limited in Mumbai.

31. Answer: C

Explanation:

Darjeeling Tea was the first Indian product to get the geographical indication tag. It got the recognition in the year 2004. Ilkal saree takes its name from the town of Ilkal in the Bagalkot district of Karnataka state, India. It has been accorded GI Tag.

32. Answer: A

Explanation:

Wanchuwa festival is celebrated in the Karbi Anglong District of Assam state. Wanchuwa is one of the most important festivals of the Tiwa tribal community living in the hills as it is related with agriculture which is the mainstay of their economy. Tiwas pray for a bountiful harvest during this festival and to protect their crops from pest and other natural calamities. Tiwa is a major tribe of Assam state who practice Jhum or shifting cultivation for their living in the hills.

33. Answer: C

Explanation:

The wind field of a tropical cyclone may be divided into three regions. First is a ring-shaped outer region. In this region the winds increase uniformly in speed toward the centre. Wind speeds attain their maximum value at the second region, the eyewall, which is typically 15 to 30 km (10 to 20 miles) from the centre of the storm. The eyewall in turn surrounds the interior region, called the eye, where wind speeds decrease rapidly and the air is often calm. The most dangerous and destructive part of a tropical cyclone is the eyewall. Here winds are strongest, rainfall is heaviest, and deep convective clouds rise from close to Earth's surface to a height of 15,000 metres (49,000 feet).

34. Answer: C

Explanation:

The Central Bureau of Investigation (CBI) is the premier investigating agency of India. Operating under the jurisdiction of the Ministry of Personnel, Public Grievances and Pensions – Department of Personnel and Training (DoPT).

35. Answer: A

Explanation:

- Rajaji National Park is an Indian national park and tiger reserve that encompasses the Shivaliks, near the foothills of the Himalayas. It is located in Uttarakhand.

- Jim Corbett National Park is the oldest national park in India and was established in 1936 as Hailey National Park to protect the endangered Bengal tiger. It is located in Uttarakhand and was named after Jim Corbett, a well known hunter and naturalist. The park was the first to come under the Project Tiger initiative.
- Panna and Satpura Tiger Reserves are located in Madhya Pradesh.

36. Answer: D

Explanation:

Only the political parties registered under Section 29A of the Representation of the People Act, 1951, and which secured not less than 1% of the votes polled in the last general election to the House of the People or the Legislative Assembly of the State, shall be eligible to receive the bonds. It may be noted that Electoral Bonds shall be valid for fifteen calendar days from the date of issue and no payment shall be made to any payee Political Party if the Electoral Bond is deposited after expiry of the validity period.

37. Answer: C

Explanation:

Having originated in the Mithila region in Bihar, Madhubani painting, also known as Mithila art, has been in practice in areas around Bihar and Nepal. Madhubani painting has remained confined to a compact geographical area and the skills have been passed on through centuries, the content and the style have largely remained the same. And that is the reason for Madhubani painting being accorded the GI status.

38. Answer: D

Explanation:

All the given pairs are correctly matched. Given are the names of joint military exercises and the country that India partnered with to carry out the exercise.

39. Answer: B

Explanation:

Any star that collapses under its own gravity after having run out of its fusion fuel is called a supernova. Fast neutrino oscillation is proportional to the density of neutrinos in the medium, and not the masses of the neutrinos.

40. Answer: D

Explanation:

Bioremediation is a process that uses mainly microorganisms, plants, or microbial or plant enzymes to detoxify contaminants in the soil and other environments.

Bioremediation is a human intervention, whereas biodegradation is a natural property of microorganisms.

41. Answer: B

Explanation:

Key Biodiversity Areas (KBAs) is an umbrella term commonly used to include areas that contribute to the global persistence of biodiversity, including vital habitat for threatened plant and animal species in terrestrial, freshwater and marine ecosystems.

The criteria for designating a site as KBA have been described in the document "The Global Standard for the Identification of Key Biodiversity Areas (2016)" by International Union for Conservation of Nature (IUCN).

42. Answer: B

Explanation:

- A marine protected area (MPA) is essentially a space in the ocean where human activities are more strictly regulated than the surrounding waters – similar to parks we have on land.
- These places are given special protections for natural or historic marine resources by local, state, territorial, native, regional, or national authorities.
- Pulicat Lake is an example of a Marine Protected Area in India.

43. Answer: C

Explanation:

UTTAM App, abbreviated as 'Unlocking Transparency by Third Party Assessment of Mined Coal' was launched by the Ministry of coal for coal quality monitoring. The aim of the app is ensuring efficiency and transparency in the process of coal quality monitoring and at the same time, bringing the governance of coal, closer to the people. Coal India Limited (CIL) and the Ministry of Coal have jointly developed this app.

44. Answer: B

Explanation:

Of the 30 caves in Ajanta – 4 are Chaityas and the rest are Viharas. In Ellora, Cave-10 is the only Chaitya while the rest are Viharas.

45. Answer: C

Explanation:

Nandankanan Zoological Park is a zoo and botanical garden in Bhubaneswar, Odisha. Established in 1960, it became the first zoo in India to join World Association of Zoos and Aquariums (WAZA) in 2009. It also contains a botanical garden and part of it has been declared a sanctuary. Nandankanan environs of the Chandaka forest, and includes the 134-acre (54 ha) Kanjia lake.

46. Answer: D

Explanation: self-explanatory

47. Answer: C

Explanation:

The Rhinoceros Sutra is an early text in the Buddhist tradition, found in both the Gandhāran Buddhist texts and the Pali Canon. It praises the solitary lifestyle and stoicism of the Indian rhinoceros and encourages readers to emulate these virtues. A steatite seal, popularly known as Pashupati Seal discovered at the Mohenjo-daro archaeological site of the Indus Valley Civilization has a human figure at the center seated on a platform and the human figure is surrounded by four wild animals: an elephant and a tiger to its one side, and a water buffalo and a rhinoceros on the other.

48. Answer: D

Explanation:

Water hyacinth (*Eichhornia crassipes*) is known as the "Terror of Bengal" because it is an exotic shrub which strongly competes with the native species and has also eliminated many of them.

49. Answer: A

Explanation:

The ideals of justice (social, economic and political), expressed in the Preamble have been borrowed from Russia.

50. Answer: C

Explanation:

In 2010 the government placed an indefinite ban on commercial release of Bt brinjal, developed by Mahyco, and called for more independent scientific studies to establish its biosafety as India is a centre of diversity for brinjal, both domesticated as well as wild. The genetically modified brinjal is a suite of transgenic brinjals (also known as an eggplant or aubergine) created by inserting a crystal protein gene (Cry1Ac) from the soil bacterium *Bacillus thuringiensis* into the genome of various brinjal cultivars. The Bt brinjal has been developed to give resistance against lepidopteron insects.

51. Answer: D

Explanation:

Zoji La in Srinagar connects Srinagar with Kargil and Leh. Beacon Force of Border Road Organization is responsible for clearing and maintaining the road, especially during winter.

52. Answer: C

Explanation:

Hyderabad was the first state to enter into subsidiary alliance with the British in 1798.

53. Answer: C

Explanation:

The GII is an inequality index. It measures gender inequalities in three important aspects of human development—

Reproductive health, measured by maternal mortality ratio and adolescent birth rates;

Empowerment, measured by proportion of parliamentary seats occupied by females and proportion of adult females and males aged 25 years and older with at least some secondary education; and

Economic status, expressed as labour market participation and measured by labour force participation rate of female and male populations aged 15 years and older.

54. Answer: B

55. Answer: D

Explanation:

Tripura has launched the Sustainable Catchment Forest Management (SCATFORM) project which is undertaken with the assistance of JICA (Japan International Cooperation Agency).

56. Answer: A

Explanation:

The Policy categorises biofuels as “Basic Biofuels” viz. First Generation (1G) bioethanol & biodiesel and “Advanced Biofuels” – Second Generation (2G) ethanol, Municipal Solid Waste (MSW) to drop-in fuels, Third Generation (3G) biofuels, bio-CNG etc. to enable extension of appropriate financial and fiscal incentives under each category. The Policy expands the scope of raw material for ethanol production by allowing use of Sugarcane Juice, Sugar containing materials like Sugar Beet, Sweet Sorghum, Starch containing materials like Corn, Cassava, Damaged food grains like wheat, broken rice, Rotten Potatoes, unfit for human consumption for ethanol production.

57. Answer: B

Explanation:

The pollutants monitored are: PM1, PM2.5, PM10, Ozone, CO, NO_x (NO, NO₂), SO₂, BC, Methane (CH₄), Nonmethane hydrocarbons (NMHC), VOC's, Benzene, Mercury.

58. Answer: B

Explanation:

Balukhand-Konark Wildlife Sanctuary is situated in Orissa.

59. Answer: B

Explanation:

Sattriya originated in the state of Assam. The modern form of Sattriya is attributed to the 15th century Sankaradeva, who systematized the dance using the ancient texts, and introduced drama and expressive dancing as a form of a community religious art for emotional devotion to Krishna.

60. Answer: D

61. Answer: A

Explanation:

Pithora is a highly ritualistic painting done on the walls by several tribes such as the Rathwas and Bhilalas who live in the central Gujarat. It is also practiced in Madhya Pradesh.

62. Answer: B

Explanation:

Mount Agung is an active volcano located in Bali, Indonesia.

63. Answer: C

Explanation:

- Ultima Thule is located in the Kuiper Belt, beyond the orbit of Neptune.
- Thule belongs to a class of Kuiper belt objects called the "Cold Classics," which have nearly circular orbits with low inclinations to the solar plane, and which have not been perturbed since their formation perhaps 4.6 billion years ago.
- Ultima Thule will be the most primitive planetary object yet explored, and will reveal to us what conditions were like in this distant part of the solar system as it condensed from the solar nebula.

64. Answer: D

Explanation:

- The Kuiper Belt is a large region in the cold, outer reaches of our solar system beyond the orbit of Neptune, sometimes called the "third zone" of the solar system.
- The region is named for astronomer Gerard Kuiper.
- Some researchers prefer to call it the Trans-Neptunian Region, and refer to Kuiper Belt objects (KBOs) as trans-Neptunian objects, or TNOs.
- Astronomers think the icy objects of the Kuiper Belt are remnants left over from the formation of the solar system. Similar to the relationship between the main asteroid belt and Jupiter, it's a region of objects that might have come together to form a planet had Neptune not been there. Instead, Neptune's gravity stirred up this region of space so much that the small, icy objects there weren't able to coalesce into a large planet.

65. Answer: C

Explanation:

- DNA methylation is a process by which chemical changes occur to the DNA molecule.
- DNA methylation also affects the functioning of the hypothalamus-pituitary axis, which is a complex set of interactions between the hypothalamus and the pituitary gland in the brain and the adrenal glands.

- The hypothalamus-pituitary axis is a major neuroendocrine system that controls reactions to stress, regulates digestion, the immune system, mood and emotions, sexuality and energy storage and expenditure.

66. Answer: D

Explanation:

The 'Pakke Tiger Reserve' is located in Arunachal Pradesh.

67. Answer: A

Explanation:

Golden triangle and Golden crescent are two principal areas of illicit opium production. The Golden Triangle is the area where the borders of Thailand, Laos, and Myanmar meet at the confluence of the Ruak and Mekong Rivers.

68. Answer: D

Explanation:

Tibetan Antelope or Chiru is native to the Tibetan plateau. The Karakoram Wildlife Sanctuary is a high altitude wildlife sanctuary located in the easternmost reaches of the Karakoram range in Leh District, Jammu and Kashmir. It is important as one of the few places in India with a migratory population of the Chiru.

69. Answer: C

Explanation:

Raani Ki Vaav is Located in Gujarat and is a UNESCO World Heritage Site. It was built by Queen Udayamati as a memorial to her deceased husband Bhimdev I.

70. Answer: B

Explanation:

Sankirtana is a form of performing art involving ritual singing, drumming and dancing performed in the temples and domestic spaces in Manipur. the performers narrate the many stories of Krishna. It is practiced primarily by the Vaishnava community in Manipur and by the Vaishnava Manipuri population settled in the neighbouring States of Tripura and Assam. "Sankirtana: Ritual singing, drumming and dancing of Manipur" was inscribed on the Representative List of the UNESCO Intangible Cultural Heritage of Humanity.

71. Answer: A

Explanation:

It is an initiative of the International Food Policy Research Institute (IFPRI).

72. Answer: A

Explanation:

Krushak Assistance for Livelihood and Income Augmentation (KALIA) scheme was launched by Odisha state government which would benefit about 92% of the farmers in the State. The scheme will provide financial, livelihood, cultivation support along with insurance support to small, marginal and the landless farmers.

73. Answer: C

74. Answer: D

Explanation:

Nauradehi Sanctuary is the largest wildlife sanctuary of Madhya Pradesh.

75. Answer: B

Explanation:

Jakhau Port is famous fishing port of Gujarat, where the fishing communities from almost all of the Gujarat Coast migrate during the eight months fishing season. Jakhau remained an important port till a new port at Mandvi was opened in the 16th century. The port traffic of Jakhau was then lost to Mandvi.

76. Answer: B

Explanation:

The Scheme shall apply to the unorganised workers who are working or engaged as home-based workers, street vendors, mid-day meal workers, head loaders, brick kiln workers, cobblers, rag pickers, domestic workers, washer men, rickshaw pullers, landless labourers, own account workers, agricultural workers, construction workers, beedi workers, handloom workers, leather workers, audio-visual workers and similar other occupations. It is a Central Sector Scheme administered by the Ministry of Labour and Employment and implemented through Life Insurance Corporation of India and CSCs.

77. Answer: C

78. Answer: A

Explanation:

The Order of the Rising Sun is a Japanese order, established in 1875 by Emperor Meiji. The Order was the first national decoration awarded by the Japanese government created by decree of the Council of State. The badge features rays of sunlight from the rising sun. The design of the Rising Sun symbolizes energy as powerful as the rising sun in parallel with the “rising sun” concept of Japan (“Land of the Rising Sun”). The order is awarded to those who have made distinguished achievements in international relations, promotion of Japanese culture, advancements in their field, development in welfare or preservation of the environment. Prior to the end of World War II, it was also awarded for exemplary military service.

79. Answer: B

Explanation:

Chagos Islands, which is in news, is the disputed islands between Mauritius and United Kingdom.

80. Answer: A

Explanation:

BrahMos is a medium-range ramjet supersonic cruise missile. It can be launched from submarine, ships, aircraft, or land. The BrahMos cruise missile travels at a speed of Mach 2.8, nearly three times that of sound.

81. Answer: A

Explanation:

The Montreal Protocol on Substances that Deplete the Ozone Layer (a protocol to the Vienna Convention for the Protection of the Ozone Layer) is an international treaty designed to protect the ozone layer by phasing out the production of numerous substances that are responsible for ozone depletion. The Montreal Protocol currently calls for a complete phase-out of HCFCs by 2030.

82. Answer: B

Explanation:

The string puppets of Orissa are known as Kundhei. Made of light wood, the Orissa puppets have no legs but wear long flowing skirts. They have more joints and are, therefore, more versatile, articulate and easy to manipulate. The puppeteers often hold a wooden prop, triangular in shape, to which strings are attached for manipulation. The costumes of Kundhei resemble those worn by actors of the Jatra traditional theatre. The music is drawn from the popular tunes of the region and is sometimes influenced by the music of Odissi dance.

83. Answer: B

Explanation:

The membership of International Solar Alliance was open to the countries completely or partly between the Tropic of Cancer and the Tropic of Capricorn but is now extended to all members of UN.

84. Answer: B

Explanation:

STEM and Gender Advancement (SAGA) project was launched in 2015 to strengthen and focus its work in support of gender equality in Science, Technology and Innovation. It is a global UNESCO project supported by Swedish Government through the Swedish International Development Cooperation Agency (SIDA).

85. Answer: A

Explanation:

Open Market Operations are the market operations conducted by the RBI by way of sale or purchase of Government Securities in the market with an objective to adjust the rupee liquidity conditions in the market on a durable basis. When the RBI feels that there is excess liquidity in the market, it resorts to sale of securities thereby sucking out the rupee liquidity. Similarly, when the liquidity conditions are tight, RBI may buy securities from the market, thereby releasing liquidity into the market.

86. Answer: C

Explanation:

Although the term bonds and debentures are often used interchangeably the two are distinctly different: A bond is typically a loan that is secured by a specific physical asset. A debenture is secured only by the issuer's promise to pay the interest and loan principal. Hence it is not backed by a collateral.

87. Answer: D

Explanation:

FPI consists of securities and other financial assets passively held by foreign investors. FPI does not provide the investor with direct ownership of the financial assets. While Foreign Direct Investment FDI aims to take control of the company in which investment is made, FPI aims to reap profits by investing in shares and bonds of the invested entity without controlling the company. FPI is part of countries capital account and is listed on its balance of payments (BOP).

88. Answer: A

Explanation:

'Mount Agung volcano' is located in Indonesia.

89. Answer: D

Explanation:

An EVM is designed with two units: the control unit and the balloting unit. These units are joined together by a cable. The control unit of the EVM is kept with the presiding officer or the polling officer. The balloting unit is kept within the voting compartment for electors to cast their votes.

VVPAT's were first used in the byelection to the Noksen Assembly seat in Nagaland in the year 2013.

90. Answer: C

Explanation:

Superconductivity is a phenomenon in which the resistance of the material to the electric current flow is zero.

The uniqueness of superconductivity compared to all other physical phenomena is that the phenomenon is not relatable to periodic table, such as atomic number, atomic weight, electro-negativity, ionization potential etc. In fact, superconductivity does not even correlate with normal conductivity.

91. Answer: C

Explanation:

The National Human Rights Commission (NHRC) of India was established on 12 October, 1993. The statute under which it is established is the Protection of Human Rights Act (PHRA), 1993 as amended by the Protection of Human Rights (Amendment) Act, 2006.

The Commission consists of a Chairperson, four full-time Members and four deemed Members.

92. Answer: C

Explanation:

National Geological Monuments of India are geographical areas of national importance and heritage, as notified by the Government of India's Geological Survey of India (GSI), for their protection, maintenance, promotion and enhancement of geotourism. Lonar Lake, also known as Lonar crater, is a notified National Geo-heritage Monument, saline lake, located in Maharashtra. It was created by a meteor impact during the Pleistocene Epoch.

93. Answer: C

Explanation:

Core has the heaviest mineral materials of highest density. It is composed of nickel and iron [nife].

94. Answer: B

Explanation:

Bio Indicator is any species whose function, population, or status can reveal the qualitative status of the environment.

95. Answer: B

Explanation:

A tariff is a tax on imports or exports between sovereign states. It is a form of regulation of foreign trade and a policy that taxes foreign products to encourage or safeguard domestic industry. Cess is a tax on tax.

96. Answer: A

Explanation:

The Dr LEE Jong-wook Memorial Prize for Public Health was established in 2008, and is awarded to individuals, institutions, and governmental or nongovernmental organizations who have made an outstanding contribution to public health by the World Health Organisation.

97. Answer: A

Explanation:

Bay of Bengal Initiative on Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a sub-regional grouping involving seven countries in South Asia and South East Asia. The BIMSTEC states are those which are on the shore or are adjacent to the Bay of Bengal and are dependent on it. They are Thailand, Myanmar from South East Asia and Sri Lanka, Bhutan, Bangladesh, Nepal and India from South Asia.

98. Answer: D

Explanation:

Mudhumalai National Park also declared a tiger reserve is located in Tamil Nadu. It shares its boundaries with the states of Karnataka and Kerala. The Western Ghats Nilgiri Sub-Cluster including all of Mudumalai National Park, is under consideration by the UNESCO World Heritage Committee for selection as a World Heritage Site.

99. Answer: C

Explanation:

It was indigenously developed by the Indian Institute of Tropical Meteorology.

100. Answer: A

Explanation:

Network For Spectrum (NFS) Project is a project related to the network for defence services, being implemented by Bharat Sanchar Nigam Limited (BSNL). The NFS project is aimed at boosting the communication capabilities of the Defence Forces in a major way leading to enhanced national operational preparedness. The project will have forward linkages to other related industries such as telecom equipment manufacturing and other telecommunication related services. It is a Countrywide Secure, Multi-service and Multi-protocol Converged Next Generation Network based on Exclusive and Dedicated Tri-services Optical Transport Backbone. The project will have an impact on the Network Centric Warfare capabilities of the Indian Army in terms of enhanced voice, data and real time video services. Under the project, optical fiber is being laid to provide a dedicated backbone communication and IT network connecting stations of Army, Navy and Air Force.

101. Answer: B

Explanation:

According to tradition, the Tripitaka was compiled at the First Council shortly after the Buddha's death. It is the traditional term for the Buddhist scriptures.

102. Answer: D

Explanation:

All the given diseases are transmitted by mosquitoes.

103. Answer: D

Explanation:

ACROSS scheme pertains to the atmospheric science programs of the Ministry of Earth Sciences (MoES) and addresses different aspects of weather and climate services, which includes warnings for cyclone, storm surges, heat waves, thunderstorms etc. The ACROSS scheme consists of nine sub-programmes which are multi-disciplinary and multi institutional in nature and will be implemented in an integrated manner through. India Meteorological Department (IMD), Indian Institute of Tropical Meteorology (IITM), National Centre for Medium Range Weather Forecasting (NCMRWF), and Indian National Centre for Ocean Information Service(INCOIS).

104. Answer: C

Explanation:

The National Consumer Disputes Redressal Commission (NCDRC), India is a quasi-judicial commission in India. It was set up in 1988 under the Consumer Protection Act of 1986. Section 21 of Consumer Protection Act, 1986 states that the NCDRC shall have jurisdiction to entertain a complaint valued more than one crore and also have Appellate and Revisional jurisdiction from the orders of State Commissions or the District fora.

105. Answer: A

Explanation:

Lokpal Act allows setting up of anti-corruption ombudsman called Lokpal at the centre and Lokayukta at the state level. The Lokpal covers all public servants including the Prime Minister. It also applies to public servants outside India. However, armed forces do not come under the ambit of Lokpal.

106. Answer: C

MAINS PRACTICE QUESTIONS

1. A major cause of the pile up of bad loans in India is because of judicial delays. Elucidate.
2. Discuss the contributions of Swadeshi Movement in India's freedom struggle.
3. Forging a consensus on designating Masood Azhar as a global terrorist is a victory for Indian diplomacy. Comment
4. The process of examining complaints of EVM malfunction stifles free speech and has the effect of deterring complaints. Critically Analyse.
5. Recent incidents of governance failures or shortcomings in some of India's top listed private banks, leading to the exit of CEOs raises questions about governance standards in India's premium companies.
6. Discuss the provisions of Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition Of Sex Selection) Act (PCPNDT Act) and the concerns.
7. India's timely response in handling the evacuation efforts before Cyclone Fani made landfall in Odisha has come under praise, most notably from the United Nations. Examine the need for timely response towards natural disasters and the efforts that the government has taken in this regard.
8. The space sector has emerged as the next frontier for India. Discuss the challenges and opportunities that this sector presents and examine the role of ISRO in capitalizing on the vibrant space market.
9. US sanctions on Venezuela will have impact on a global scale as well as on India. Explain in reference to the current crisis that is embroiling in Venezuela.
10. Odisha has set an example for handling major disasters in the most efficient manner. In the light of Cyclone Fani, explain how principles can be drawn for Disaster Management from the state of Odisha, which can act as a template for other states.
11. A crucial security challenge to India is maintenance of domestic harmony and unity. Comment.
12. Has listing of Masood Azhar opened a new phase in India-China Relations? Critically Analyse.
13. Justice Bobde Panel's report on allegations against CJI falls short on yardsticks of transparency and fairness. Discuss
14. The biodiversity report by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) is regarded as the first-of-its-kind comprehensive scientific evaluation. Discuss the findings of the report.
15. "Thieves may smuggle Indian heritage, but the inaction of policymakers can destroy it forever." Smuggled Indian artifacts abroad raise important issues about the preservation and protection of Indian heritage. Elucidate.
16. How has Fall Army Worm become the worst enemy of Indian farmers? What are the difficulties involved in controlling its infestation?
17. Century old system of prisons in India calls for urgent reforms. Discuss the need for prison reforms in India.
18. Women in India need equal access to opportunities to gain a measure of economic independence, without which it is hard to imagine independence on other fronts. Elucidate
19. India's public health system in a crisis. The shortage of health providers and infrastructure is the most acute in rural areas. Discuss.
20. It is time to think of a permanent, independent body to institutionalise the process of judicial appointments addressing the inadequacies of the collegium system. Comment.
21. The ratcheting up of tensions between the U.S. and Iran has far reaching consequences for countries in West Asia and India. Examine.

22. There has been a rallying cry across the world to look into the idea of breaking up 'Big Tech' companies. Examine the issues concerning these companies, and solutions which policy makers can potentially adopt to remedy the situation.
23. Acceleration in economic growth is not possible without addressing the problem of non-performing assets. Elucidate
24. When disaster strikes, communication becomes the first casualty. Considering the significance of communication pre and post disaster discuss the importance having fail-safe communication network.
25. Can judges determine their own impartiality? Discuss in the light of Supreme court's recent order that a litigant cannot seek recusal of the judge during a hearing.
26. Is the formation of new states beneficial for Indian Economy? Discuss.
27. Though the number of cyclones is more in the Bay of Bengal, why is the share of tropical cyclones increasing in the Arabian Sea?
28. What is Pacific Decadal Oscillation? Explain its relevance to India.
29. Explain the circumstances in which Financial Emergency can be proclaimed by the President of India. Also discuss the consequences that follow when such a declaration remains in force.
30. Explain the significance of TMA Pai vs the State of Karnataka judgement in the Indian Constitution?
31. What is ATM Skimming? Explain the rules laid by the RBI to prevent such fraudulent transactions
32. Explain the key differences between deradicalization, disengagement and counter-radicalization. What are the various initiatives taken by the government of India to reduce the Deradicalization.
33. India is currently at a juncture where various bills are ready to be signed into law that will set data localisation and protection regulations in stone. Examine this development in light of Facebook's recently expressed apprehension about nations wanting to store data locally.
34. Examine the role of the Election Commission of India in the conduct of free and fair elections in India.
35. India should deliver on its projects in Nepal without worrying about Nepal joining the BRI. Comment.
36. Does India need a law on criminalising fake news? Discuss.
37. New age terrorists are better educated and far more resourceful. To win against them requires a fundamental change in how we define, understand and respond to terrorism. Discuss.
38. The handling of sexual harassment charges against CJI is a sad comment on our top court. Critically examine.
39. Nuclear rivalry could break out in the West Asian region if the Joint Comprehensive Plan of Action fell apart. Explain the role of signatories in negotiating a deal acceptable to all the parties.
40. Coalitions governments allow a diversity of voices to be heard and keep fundamentalism at bay. Critically analyse with respect to the Indian political scenario.
41. Can India benefit from the US-China tariff war? Discuss.
42. The RBI needs to urgently address the liquidity issues plaguing the NBFC sector. Elucidate.
43. India and Japan can provide an alternative to BRI. Discuss.
44. IBSA is widely viewed as a unique voice for the Global South. It is in India's interest to revitalise IBSA. Analyse.
45. Alongside various government initiatives, the private sector has a significant role to play in correcting the imbalance arising out of financial exclusion in India – for achieving an all-round, inclusion-predicated, transformation of the country. Comment.
46. Incidents of people dying while cleaning sewage without protective gear continue to occur in the county. Eradication of

manual scavenging is a very high priority of the government. Discuss.

47. Achieving Superconductivity at room temperature would signal a remarkable breakthrough in Science and Technology with far-reaching applications. Comment.

48. The recently concluded general elections to the 17th Lok Sabha, has registered a higher number of women members in Parliament as compared to the 2014 general elections. Although this is an encouraging sign, there is much more needed to be done towards achieving the goal of women empowerment in India. Examine.

49. The Unlawful Activities (Prevention) Act is ambiguous and provides unreasonable powers to the authorities. Critically analyse.

50. India is prepared for the direct tax system to be overhauled to a cleaner tax code that minimises distortions. Critically analyse.

51. Analyse the issue of Domestic Violence faced by Indian Women in the light of global estimates published by the World Health Organisation that highlights India among countries where women face most violence by partner.

52. Write a brief note on the influence of Sufi Movement on contemporary India.

53. The effects of the internet have spread far and wide that it impacts crosses over into politics and the media. Has the internet in general and social media in specific distorted accurate and reflective news reporting? Critically analyse.

54. In what ways have the conditional cash transfer schemes addressed poverty and other social issues? Examine.

55. India–Japan relations have traditionally been strong. Both the countries have so many potential areas to tap jointly. Discuss.

56. In fiscal devolution, cooperative federalism stops at the level of the state government. Essentially, co-operative federalism needs to go deeper, below the state level.

57. Increasing influence of social media has contributed to the growth and increased reach of cybercrimes. Discuss.

58. Elucidate on the significance of ethics in public and private relationship

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