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IAS

NOVEMBER - 2018

The Sentinelese

Particularly Vulnerable Tribal Groups



**Kartarpur
corridor**

A Thaw in
Indo-Pak Relations?

**Political Situation
in J&K**

Dissolution of
Assembly

**RBI-Government
Tussle**

A Look at Section 7

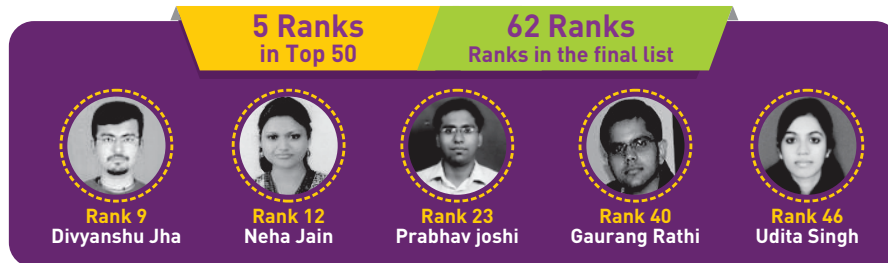
GSAT- 29

Successful Launch
of Communication
Satellite

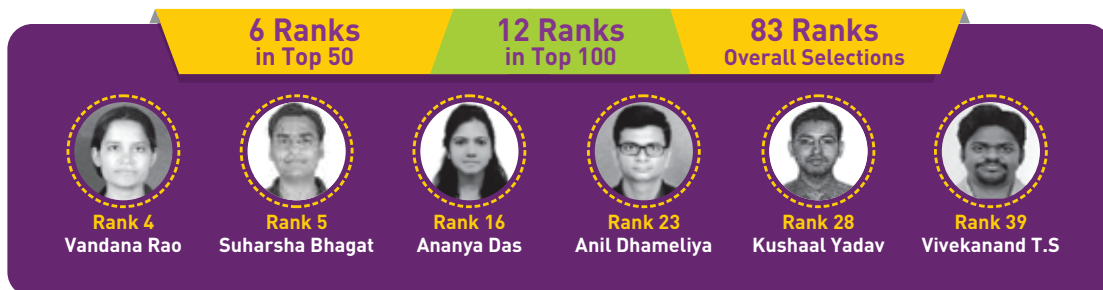
UPSC MONTHLY CURRENT AFFAIRS

RESULTS

Incredible results in IAS 2013



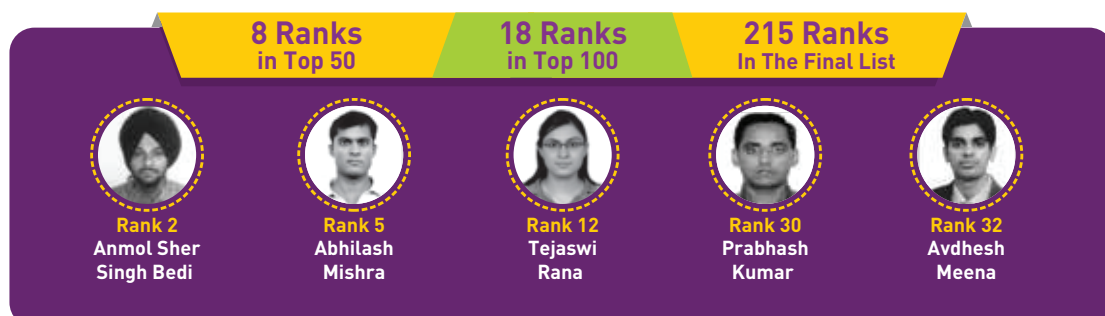
We broke our past record in IAS 2014



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
Rank-201



Shubham
Agarwal
Rank-202



Nikita
Khattar
Rank-208



Kruti M
Patel
Rank-218



Smit
Lodha
Rank-219



Deepesh
Kedia
Rank-221



Ankit
Jain
Rank-222



Saurabh
Baranwal
Rank-235



Rajat R
Chaturvedi
Rank-237



Harsh
Singh
Rank-244



Ghuge Rohan
Bapurao
Rank-249



Bharat
Mittal
Rank-256



Dinesh Kumar
Yadav
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
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Amandeep
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POLITY

1. Bhutan Elections

Context

- Druk Nyamrup Tshogpa (DNT), or Bhutan United Party, has emerged the winner in the final round of parliamentary elections in Bhutan.
- The victory of the DNT shows that the 2018 elections were primarily a vote for change as was the case with the earlier elections.
- So far, in the three National Assembly elections held since 2008, the Bhutanese people have chosen three different parties to form the governments.

Background

- Election to the House of Representatives, also called the National Assembly, occurs in two rounds: the Primary Round and the General Round.
- Primary elections are held in which voters cast votes for parties.
 - * 2018 four parties contested, two of which have existed from the first parliamentary elections
- The top two parties are then able to field candidates in the General Round of voting, in which members are elected using first-past-the-post voting

Merits

- The voters get a second chance to vote or to even change their mind between the first and the second rounds.
- In the second round, they have the opportunity to closely consider the two candidates with demonstrated winning potential, especially if they had supported a third party during the first round.

Demerits

- Cost-wise and logistically, the two-round system is more taxing and laborious
- The electoral administration must run a second election, shortly after organising the first, which significantly increases the cost of the election process and the time elapsed between voting and declaration of result.
- The voters also have to make effort to cast their vote twice separately, due to which sometimes there can be a sharp decline from fatigue in the voter turnaround for the second round.

2. Constitution Day/ Samvidhan Divas

- It is celebrated in India on 26 November every year to commemorate the adoption of Constitution of India.
- On 26 November 1949, the Constituent Assembly of India adopted the Constitution of India, and it came into effect on 26 January 1950

- Previously this day was celebrated as Law Day.
- 26 November was chosen to spread the importance of the constitution and to spread thoughts and ideas of Ambedkar.

3. General Consent to CBI

Context

- The Andhra Pradesh government revoked its general consent given to the Central Bureau of Investigation to probe cases in the state.

Why did they do it?

- The withdrawal of general consent was in tune with suggestions made by legal experts and intellectuals in the light of serious allegations against the CBI.

General consent

With "law and order" being the responsibility of states and the CBI being a central organisation, the agency's investigation powers are limited to Union territories and it cannot probe offences committed in states without seeking their consent. The requirement is laid down in the Delhi Special Police Establishment Act, 1946.

Section 5 of the Delhi Special Police Establishment Act, 1946, gives the central government powers to extend the jurisdiction of members of Delhi Special Police Establishment for investigation of any offence or classes of offences specified in a notification under Section 3. The CBI traces its origin to this Act.

6. Consent of State Government to exercise of powers and jurisdiction.—Nothing contained in section 5 shall be deemed to enable any member of the Delhi Special Police Establishment to exercise powers and jurisdiction in any area in 2[a State, not being a Union territory or railway area], without the consent of the Government of that State.]

- General consent is the periodic approval by a State government to the CBI and other agencies covered by Delhi Special Police Establishment Act, 1946.
 - * The consent is necessary as the jurisdiction of these agencies is confined to Delhi and Union Territories under this Act.
 - * The general consent was routinely given for periods ranging from six months to a year, for several years

Kazi Lhendup Dorji v. Central Bureau of Investigation & Ors (1994)

- The withdrawal of consent for investigation by the CBI would not apply to cases wherein investigation was pending.

- “An Order revoking an Order giving Consent under Section of the Act [Delhi Special Police Establishment Act], can only have prospective operation and would not affect matters in which action has been initiated prior to the issuance of the Order of Revocation.”

Implications

- In Karnataka, the J.H. Patel's Janata Dal government had withdrawn the consent in 1998, and not renewed it for several years.
 - * Also, in late 70s, the Devaraj Urs government had also recalled the general permission for CBI probes.

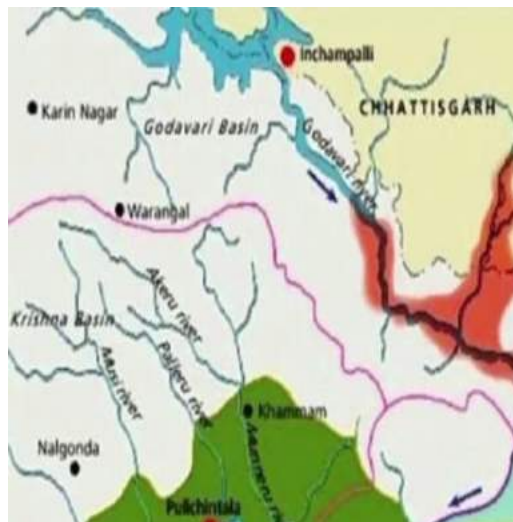
4. Legal Services Day

- It is celebrated every year on 9th of November
- This was started by the Supreme Court in the year 1995 all across the India to offer help and support to the weaker and poor group of sections of people which may be women, disabled persons, Scheduled Tribes, children, Scheduled Castes, human trafficking victims as well as natural calamities victims.
- Article 39A of the Constitution gives mandate to offer free legal services for the poor.
 - * The notion of free legal aid finds its roots in the idea that no individual should have to undergo trial in the absence of legal assistance.
 - * A trial in which a poor or indigent person is not represented legally would be regarded as unreasonable and unjust.
 - * Free legal service is an inalienable element of reasonable fair and justice procedure. NALSA plays a critical role in ensuring that this constitutional guarantee is secured.

Legal Services Authorities aim to:	Following persons are eligible for Free Legal Services:	Free legal services are provided in matters before Civil, Criminal and Revenue Courts, Tribunals or any other authority exercising judicial or quasi-judicial functions
1) Provide Free Legal Aid and Advice	1) Women and Children	Following are the Legal Services Institutions for providing Free Legal Services :
2) Spread Legal Awareness	2) Members of Scheduled Castes or Scheduled Tribes	
3) Organise Lok Adalats	3) Industrial Workmen	1) At National Level : National Legal Services Authority
4) Promote Settlement of Disputes through ADR Mechanisms	4) Persons with disability	2) At State Level : State Legal Services Authority
5) Provide compensation to victims of crime	5) Victims of natural disasters, ethnic/caste violence, industrial disaster	3) At District Level : District Legal Service Authority
	6) Persons in custody	4) At Taluka Level/ Sub-Division : Taluka/Sub-Divisional Legal Services Committee
	7) Persons with an annual income of less than Rs 1,00,000/- or as notified by the Central/State Governments.	5) At High Court Level : High Court Legal Services Committee
	8) Victims of Human Trafficking or Beggar	6) At Supreme Court Level : Supreme Court Legal Services Committee

5. Polavaram Project

- Polavaram Project is a multi-purpose irrigation project which has been accorded national project status by the union government
- This 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 Odisha States also



Objectives

- The water from the dam reservoir will irrigate agricultural land in the districts of Krishna, East and West Godavari and Visakhapatnam through two major canals
- To Store water at Polavaram dam in West Godavari district.
- Hydro-electricity generation of about 960 MW
- To Supply Water to Visakhapatnam & Vizag steel plant.

State Concerns

- Telangana has been fearing submergence of many of its villages due to the multi-purpose project on Godavari river as the estimated flood discharge is much higher
- The project will submerge villages along the Sabari River in Konta block of Chhattisgarh's Dantewada district.
- In Odisha, villages along the Sabari and Sileru rivers (tributaries of the Godavari) in Motu block will be submerged.

Environmental Concerns

- The Environmental Impact Assessment (EIA) of the project says 276 villages will be affected; an estimated 177,275 people live in these villages.

- It has evoked widespread opposition from the members of Adivasi Konda Reddi Sangham as it will not only submerge large tracts of tribal lands displacing lakhs of Adivasis and but snatches away their livelihood options including bamboo craft
 - * The population of these villages according to the Census 2001 is much higher—236,834. Further, in the past 10 years, the population of these villages would have increased.
- Central Water Commission (CWC) changed its flood situation estimate in 2006 which has not been incorporated in the design.
 - * The Polavaram project was designed in 1980s and updated in 2005. It went by the probable maximum flood (PMF) level of 102,000 cubic metre per second (cumecs) for designing the spillway.
 - * When Godavari experienced high flood in August 2006, submerging about 370 villages for days in Andhra Pradesh, CWC made a fresh assessment of PMF at 140,000 cumecs. Consequently, CWC directed the state government to revise the Polavaram project design to handle 142,000 cumecs flood level for its spillway.

Context

- Odisha Chief Minister Naveen Patnaik has urged Prime Minister Narendra Modi to cancel an order given to the Ministry of Environment, Forest and Climate Change for Polavaram project in July this year and stop construction of the project until all the pending issues are resolved.

6. Section 123 in the Representation of the People Act, 1951

123. Corrupt practices.—the following shall be deemed to be corrupt practices for the purposes of (1) "Bribery", that is to say—

(A) any gift, offer or promise by a candidate or his agent or by any other person with the consent of a candidate or his election agent of any gratification, to any person whomsoever, with the object, directly or indirectly of inducing—

- * The 'An A person to stand or not to stand as, or 2[to withdraw or not to withdraw] from being a candidate at an election, or
- * An elector to vote or refrain from voting at an election, or as a reward to

(3A) The promotion of, or attempt to promote, feelings of enmity or hatred between different classes of the citizens of India on grounds of religion, race, caste, community, or language, by a candidate or his agent or any other person with the consent of a candidate or his election agent for the furtherance of the prospects of the election of that candidate or for prejudicially affecting the election of any candidate.]

(4) The publication by a candidate or his agent or by any other person [with the consent of a candidate or his election agent], of any statement of fact which is false, and which he either believes to be false or does not believe to be true, in relation to the personal character or conduct of any candidate or in relation to the candidature, or withdrawal, of any candidate, being a statement reasonably calculated to prejudice the prospects of that candidate's election.

7. No double jeopardy bar if there was no trial: Supreme Court

Context

- The bar of double jeopardy does not arise if an accused was discharged of a criminal offence, even before the commencement of trial, on the basis of an invalid sanction for prosecution said SC.

Article 20(2)

20. Protection in respect of conviction for offences.

- (2) No person shall be prosecuted and punished for the same offence more than once

What does the SC say about it?

- The accused who has not been tried at all and convicted or acquitted; the principles of double jeopardy cannot be invoked at all.
- If the accused was discharged due to lack of proper sanction, the principle of double jeopardy would not apply.

Background

- The judgment is based on an appeal filed by the State of Mizoram against an order passed by the Gauhati High Court in August 2015, upholding a Special Court decision to decline to entertain a second chargesheet filed in a corruption case against the accused.
- The corruption case was filed by the Aizawl police in February 2009 for misappropriation of public money.
- During inquiry, it was detected that the respondent had acquired valuable assets disproportionate to known sources of income.
- The first invalid sanction for prosecution was issued by the Commissioner-Secretary, Department of Personnel & Administrative Reforms (DP & AR) directly without the Governor's approval. Following the discharge of the accused by the special court, the Governor accorded a fresh sanction in December 2013.

8. Long cohabitation is presumed marriage: SC

Context

- The Supreme Court has upheld the "presumption" that a couple who live together as husband and wife are legally married and the woman can claim maintenance under Section 125 of the Code of Criminal Procedure.

Details

- Citing past judgments of the apex court, the Bench quoted that “where a man, who lived with a woman for a long time and even though they may not have undergone legal necessities of a valid marriage, should be made liable to pay the woman maintenance if he deserts her”.
- The man should not be allowed to benefit from the legal loopholes by enjoying the advantages of a de facto marriage without undertaking the duties and obligations. Any other interpretation would lead the woman to vagrancy and destitution, which the provision of maintenance in Section 125 is meant to prevent
- So, if a man and a woman have cohabited continuously for a long time, the law presumes they are married, the Supreme Court has said while holding that a woman is eligible to inherit her partner’s property after his death.

9. ‘Rarest of Rare’ test ‘Inconsistently applied’ says**Justice Kurian Joseph**Context

Justice Kurian Joseph, one of the senior-most judges of the Supreme Court, in his judgment in the case of Chhannu Lal Verma v. State of Chhattisgarh, Joseph J. while commuting the death sentence awarded to the appellant to life imprisonment, stated said the courts had been imposing the death penalty “arbitrarily and freakishly” all these years. He says the test of “rarest of rare” had been “inconsistently applied” by courts.

Comments

- Justice Kurian said capital punishment has failed to achieve “any constitutionally valid penological goals”. He observed it was time the “need for death penalty as a punishment” needs to be re-examined.
- “Without the assistance of a psychological/psychiatric assessment and evaluation it would not be proper to hold that there is no possibility or probability of reform,”
- “It is a matter of anguishing concern as to how public discourse on crimes have an impact on the trial, conviction and sentence in a case. The court’s duty to be constitutionally correct even when its view is counter-majoritarian is also a factor...”

General Rule

The extreme penalty of death need not be inflicted except in gravest cases of extreme culpability. Before opting for the death penalty the circumstances of the ‘offender’ also require to be taken into consideration along with the circumstances of the ‘crime’. Life imprisonment is the rule and death sentence is an exception.

Background

- In Jagmohan Singh vs. State of Uttar Pradesh, the five judge bench of the Supreme Court, by a unanimous verdict, upheld the constitutional validity of death penalty held that capital punishment was not violative of Articles 14, 19 and 21
 - * It was the first case dealing with the question of constitutional validity of capital punishment in India.
 - * The discretion invested in the Judges to impose capital punishment is not based on any standards or policy required by the Legislature for imposing capital punishment in preference to imprisonment for life
 - * The trial under the Criminal Procedure Code is limited to the question of guilt. In the absence of any procedure established by law in the matter of sentence, the protection given by Article 21 of the Constitution was violated and hence for that reason also the sentence of death is unconstitutional.
- In another case Rajendra Prasad vs. State of UP, Justice Krishna Iyer empathetically stressed that death penalty is violative of articles 14, 19 and 21. He further said that to impose death penalty the two things must be required:
 - * The special reason should be recorded for imposing death penalty in a case.
 - * The death penalty must be imposed only in extraordinary circumstances.

Bachan Singh vs. State of Punjab

- This was the case that gave birth to the “rarest of the rare cases” doctrine
- In a majority of 4 to 1 (Bhagwati J. dissenting) the five judge bench of the Supreme Court overruled its earlier decision in Rajendra Prasad.
- It expressed the view that death penalty, as an alternative punishment for murder is not unreasonable and hence not violative of articles 14, 19 and 21 of the Constitution of India, because the “public order” contemplated by clauses (2) to (4) of Article 19 is different from “law and order” and also enunciated the principle of awarding death penalty only in the ‘rarest of rare cases’.
- Bhagwati J. in his dissenting judgement observed that “death penalty is not only unconstitutional being violative of Articles 14 and 21 but also undesirable from several points of view.”

Machhi Singh vs. State of Punjab

The Supreme Court in Machhi Singh vs. State of Punjab laid down the broad outlines of the circumstances when death sentence should be imposed. Justice Thakkar speaking for the Court held that five categories of cases may be regarded as rarest of rare cases deserving extreme penalty. They are:

- Firstly: Manner of Commission of murder – When the murder is committed in an extremely brutal manner so as to arouse intense and extreme indignation in the community, for instance, when the house of the victim is set a flame to roast him alive, when the body is cut to pieces or the victim is subjected to inhuman torture.
- Secondly: Motive – When the murder is committed for a motive which evinces depravity and meanness eg. a hired assassin, a cold blooded murder to inherit property, or gain control over property of a ward, or a murder committed for betrayal of the motherland.
- Thirdly: Anti-social or socially abhorrent nature of the crime – where a scheduled caste or minority community person is murdered in circumstances which arouse: social wrath;
 - * “Bride burning” and “dowry deaths” — including cases where murder is committed in order to remarry and extract dowry again — as well as killing the wife to marry another woman should attract capital punishment
- Fourthly: Magnitude of the Crime – Crimes of enormous proportion, like multiple murders of a family or persons of a particular caste, community or locality.
- Fifthly: Personality of victim of murder

In order to apply these guidelines inter-alia the following questions may be asked and answers:

(a) Is there something uncommon about the crime which renders sentence of imprisonment for life inadequate and called for a death sentence?

(b) Are the circumstances of the crime such that there is no alternative but to impose death sentence even after according maximum weightage to the mitigating circumstances which speak in favor of the offender.

If upon taking an overall global view of all the circumstances in the light of the aforesaid proposition and taking into account the answers to the questions posed here in above, the circumstances of the case are such that death sentence is warranted, the court would proceed to do so.

10. Mokedatu

- Mokedatu is a deep gorge situated about 100 km away from Bengaluru city in Ramanagara district.
- Sangama is the place where Arkavati merges with Kaveri.

Context

- The Central Water Commission (CWC) has approved the feasibility report of the nearly ₹6,000 crore Mokedatu multi-purpose project across the Cauvery.

Details

- The State Cabinet in 2017, had decided to implement the project that involves building a balancing reservoir across the Cauvery near Kanakapura in Ramanagara district.

- It envisages supplying drinking water to Bengaluru and Ramanagara districts
- It is also expected to generate hydro-electricity to meet the power needs of the state.

Issue Area

- The project ran into a controversy after Tamil Nadu opposed it on the grounds that the project violates the Cauvery Water Disputes Tribunal award.

11. When judges legislate

Doctrine of Separation of Powers/ Trias Politica

- The earliest reference made to the concept of the Doctrine of Separation of Powers was in the 16th & 17th centuries by Aristotle & Plato.
- But it was Montesquieu, the French jurist, who conceived this principle through his book, “Espirited des Lois” – Spirit of Law that was published in 1748.
 - * He found that concentration of powers in one person or group of persons resulted in tyranny.
 - * To avoid this situation and with a view to checking the arbitrariness of the government he suggested that power of governance should be clearly divided between the three organs of the state i.e. Executive, Legislative and the Judiciary.
 - * The principle can be stated as follows:

Cases which quote the separation of Powers

- Ram Jawaya v. The State of Punjab (1955)
 - * The court observed: “Our Constitution does not contemplate assumption, by one organ or part of the state, of functions that essentially belong to another.”
 - * This implies that there should be a broad separation of powers in the Constitution among the three organs of the state, and that one organ should not encroach into the domain of another.
 - * If this happens, the delicate balance in the Constitution will be upset and there will be chaos.
- Union of India v. Deoki Nandan Aggarwal (1991)
 - * The power to legislate has not been conferred on the courts.
- Suresh Seth v. Commissioner, Indore Municipal Corporation (2005)
 - * Under our Constitutional scheme, Parliament and Legislative Assemblies exercise sovereign power to enact laws.

But in many recent judgments, the Supreme Court has become hyper-activist in making laws.

- First, in Arun Gopal v. Union of India (2017), the Supreme Court fixed timings for bursting Diwali fireworks and prohibited the use of non-green fireworks, although there are no laws to that effect.

- Second, in *Rajesh Sharma v. The State of Uttar Pradesh* (2017), the court felt that Section 498A of the Indian Penal Code was being misused.

* So it amended that Section by requiring complaints under that provision to be sent to a Family Welfare Committee constituted by the District Legal Services Authority, although there is no such requirement in Section 498A.

- Third, in *Subhash Kashinath Mahajan v. State of Maharashtra* (2018), the court amended the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989, by annulling Section 18 which said that no anticipatory bail will be granted to persons accused under the Act; by requiring a preliminary enquiry; and by prohibiting arrest under the Act except with permission in writing by the appropriate authority.
- Fourth, in *M.C. Mehta v. Union of India* (2018), the court annulled the statutory Rule 115(21) of the Central Motor Vehicle Rules, 1989, when it directed that no BS-4 vehicle should be sold after March 30, 2020, and that only BS-6 vehicles can be sold after that date.
- Finally, the National Green Tribunal (NGT) ordered that no 15-year-old petrol-driven or 10-year-old diesel-driven vehicle will ply in Delhi, and the Supreme Court has directed impounding such vehicles, though neither the NGT nor the Supreme Court are legislative bodies

Conclusion

- If judges are free to make laws of their choices, not only would that go against the principle of separation of powers, it could also lead to uncertainty in the law and chaos as every judge will start drafting his own laws according to his whims and fancies.

12. SC pulls up States for delay in recruitment of judges

Context

- Taking suo motu cognisance of more than 5,000 vacancies for subordinate judicial posts, the Supreme Court pulled up various State governments and the administrative side of the High Courts for delay in filling vacancies in subordinate judicial services.

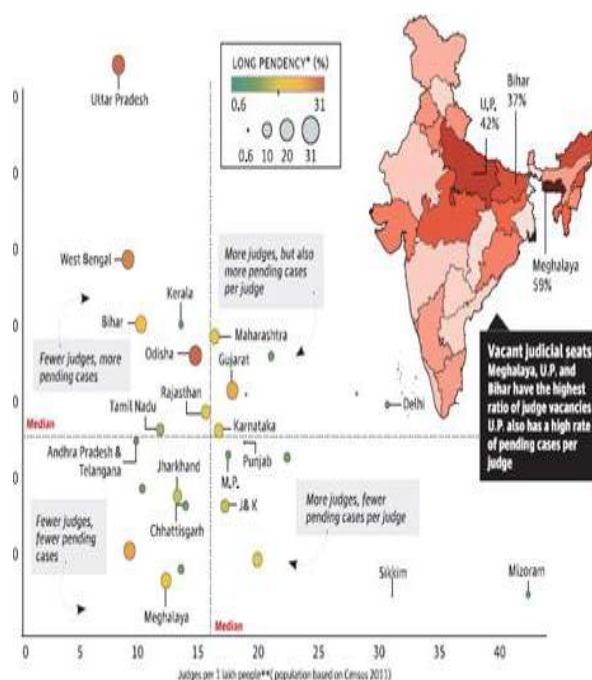
Concerns

- More than three crore cases are pending in the lower courts.
- The authorities are showing the lackadaisical approach of conduction by not providing the courtrooms to residences for Judges add to this is the poor infrastructure set up.
 - * Utter tardiness in the process of calling for applications, holding recruitment examinations and declaring the results, and, more significantly, finding the funds to pay and accommodate the newly appointed judges and magistrates.

* Besides, Public Service Commissions should recruit the staff to assist these judges, while State governments build courts or identify space for them.

- The Supreme Court had recorded that there were a total of 22,036 posts in the district and subordinate judiciary, ranging from district judges to junior civil judges, across the States.

* It said 5,133 out of the 22,036 posts were vacant.



Malik Mazhar v. Uttar Pradesh Public Service Commission (2008)

Supreme Court has tried to streamline the examination process for the lower judiciary.

- It highlighted the importance of a prescribed time-schedule for judicial service examinations and laid down stage-wise time lines for lower judicial appointments — for civil judges (junior division) and district judges (direct recruitment) in 321 days and 183 days, respectively.
- An examination cycle is calculated from the date of notification to the last date for joining.

This benchmark has three problems.

- First, the rationale behind arriving at this timeline is unclear.
- Second, it is an inaccurate benchmark to measure performance as it does not consider different sanctioned strengths and State resources in conducting such exams.
- Third, strict adherence to such timelines affects aspirants as there would be urgency to allocate.

- * If the timeline is strictly implemented, aspiring candidates will find it impossible to appear for examinations in multiple States, potentially harming the career opportunities of candidates who are otherwise eligible for judicial service in multiple States.

With no clear, scientific principle or methodology offered, it ends up being a 'one-size-fit-all' timeline, which forces a comparison of States that are not similarly placed

Measures that can be taken

- According to the Constitution, district judges are appointed by the Governor in consultation with the High Court.
- Other subordinate judicial officers are appointed as per rules framed by the Governor in consultation with the High Court and the State Public Service Commission.
- In effect, the High Courts have a significant role to play. A smooth and time-bound process of making appointments would, therefore, require close coordination between the High Courts and the State Public Service Commissions.
- There needs to be massive infusion of both manpower and resources.

Conclusion

- A clear timeline does ensure greater accountability, But the Malik Mazhar guidelines could have easily ensured this by prescribing a standard which could be subject to State modifications rather than making them fixed.
- Further the court needs to adopt a more data-driven, methodological basis for such a timeline to give due flexibility to the states conducting examination.
- Subordinate courts perform the most critical judicial functions that affect the life of the common man: conducting trials, settling civil disputes, and implementing the bare bones of the law. Any failure to allocate the required human and financial resources may lead to the crippling of judicial work in the subordinate courts. It will also amount to letting down poor litigants and undertrials, who stand to suffer the most due to judicial delay.

13. The ghosts of laws past: on the application of Section 66A of IT Act

Background

In 2015, the Supreme Court struck down Section 66A of the Information Technology (IT) Act, 2000, as unconstitutional. That decision, *Shreya Singhal v. Union of India*, was heaped with praise by domestic and foreign media alike.

Application of this section continues unabated

- The police in Muzaffarnagar, Uttar Pradesh, had arrested and detained 18-year-old Zakir Ali Tyagi in October 2017 under Section 66A — for posting some comments on Facebook.
- Media outlets have reported other instances where Section 66A has been invoked by the police

The question now strikes at principles of enforcement of laws, what is the point of that landmark decision if the police still jail persons under unconstitutional laws?

Similar instances in the past

- The SC had declared section 303 of IPC as unconstitutional (in whole or in part) in 1983 by striking down Section 303 of the Indian Penal Code in *Mithu v. State of Punjab*
 - * Sec. 303, IPC prescribed mandatory capital punishment for life convicts who commit murder
 - * Sec 303 was struck down as violative of Articles 14 & 21 in *Mithu Singh* [1983] on 3 grounds i.e.
- But in 2012, years after Section 303 had been struck down, the Rajasthan High Court had to intervene to save a person from being hanged for being convicted under that offence.

Why is the issue persisting even after SC Judgments?

- Supreme Court's work and its report are placed in public forum today. It also questions the states (Governments) and other litigants about the progress of implementation, compliance with its orders (an example being orders in mob lynching petitions).
- While this monitoring function is one that the court can perform while a litigation is pending, it cannot do so after finally deciding a case, even after directions for compliance are issued.
- Instead, it needs help from the legislature and executive to ensure its final decisions are enforced.
 - * This was one of the reasons why Alexander Hamilton famously labelled the judiciary as "the least dangerous branch".
- So, the primary reason for poor enforcement of judicial declarations of unconstitutionality is signal failures between different branches of government.

This ultimately means non-compliance which undermines the work of courts and there exists no official method for sharing information about such decisions.

Changes to be made

- For any bureaucratic structure to survive, it needs working communication channels for sharing information from higher level of hierarchy to lower channels of the field. The same analogy applies to judiciary.

- * The probability of decisions taken at the highest echelons of a system being faithfully applied at the lowest rungs greatly depends on how efficiently word gets to the ground.
- * So the court needs to work on passing information about its decisions to the lower courts which requires support from the system
- So, the Parliament has to remove the provision declared unconstitutional by the courts, amend laws and remove them for statute books.
 - * This is why both Sections 66A and 303 are still a part of both the official version of statutes published on India Code and commercially published copies.
 - * And while the commercially published versions at least put an asterisk to mention the court decision, no such information is provided in the official India Code version.
- Another way of notifying the officers about unconstitutionality of laws is through Notifications and circulars issued by relevant Ministries.
 - * These notifications are another official method to share information about judgments declaring a provision unconstitutional.
 - * But as nothing mandates issuance of these notifications, there is no means to ensure that they are issued. This needs to be deliberated.
- Similar thing happens in Judiciary too.
 - * There was no formal system on information sharing in the hierarchical set-up of the Indian judiciary.
 - * However, there were some High Courts and district judges for specific districts that did issue circulars bringing important decisions to the notice of other members in the judiciary. This needs modifications.

Conclusion

- So until this basic flaw within the system is addressed, certain persons will remain exposed to denial of their right to life and personal liberty in the worst possible way imaginable.
- They will suffer the indignity of lawless arrest and detention, for no reason other their poverty and ignorance, and inability to demand their rights.

14. Why gallows? Explain it to convicts: SC

Context

- Appeals against death penalty can be dismissed by the Supreme Court in limine (at the very preliminary stage) only after assigning reasons for the decision, the apex court has held.
- limine is a Latin term meaning "at the threshold,"

Details

- The Death sentences can be awarded by subordinate courts
 - * The session's judge has the power to impose any sentence including life imprisonment and capital punishment (death sentence).
 - * However, a capital punishment passed by him is subject to confirmation by the High Court, whether there is an appeal or not.
- With this acceptance of conviction by the high court, a special leave petition can be further filed in Supreme court
- This Special leave petitions accepted by SC, should not be dismissed without giving reasons when it involves capital punishment or death penalty
- The Bench said the apex court should provide the convict reasons for affirming his death sentence even if the apex court dismisses his appeal in limine, after concluding that his conviction by the lower courts have been based on evidence which is "impeccable, trustworthy, credible and proves the guilt of the accused beyond a shadow of doubt."
 - * Where conviction is followed by death sentence, and the special leave petition is filed against it, it should not be dismissed in limine and in case the Supreme Court still finds it fit to do so, some reasons need to be recorded
- The Bench said the case before the apex court is one of life and death. Right to life is a FR guaranteed under Art 21 and it becomes imperative to give reasons when the state is snatching the life of an individual.
 - * So when death sentence is rare, SC has emphasized time and again that there has to be an independent examination by this court also, 'unbound by the findings of the trial court and the High Court.' Such an approach is the 'time-honored practice of this court'

15. Criteria for the courts (The kind of judges that India needs)

What's in the news?

This opinion section focuses on the point that a discussion on the kind of judges that India needs should animate our public debates.

Historical Background

- In the year 1973, at the peak of Prime Minister Indira Gandhi's move towards securing a "committed judiciary", the then Minister of Steel and Mines, S. Mohan Kumaramangalam, offered a defence of the government.
- S. Mohan Kumaramangalam had made speeches both in Parliament and outside. He had also published a number of writings.
- Through this, Kumaramangalam asserted the virtues of what he thought was a legitimate policy.

- He wrote, invoking the words of the great U.S. judge Benjamin Cardozo, for any government, “to examine the ‘philosophy,’ the ‘outlook on life,’ and the ‘conception of social needs’ of a proposed appointee” to the higher judiciary.
- In choosing persons for the Supreme Court, in particular, he believed, it was necessary to assess a judge’s outlook on “broad matters of the State,” and “on the crucial socio-economic matters” that concerned the nation.
- Nani Palkhivala’s observations are also important to take note of.
- Nani Palkhivala described it, the policy was really an effort at creating a judiciary that would be “made to measure,” that would bend to accommodate the government’s whims and caprices

Editorial Analysis:

- It is important to note that the Constitution of India provides, in broad terms, that judges to the Supreme Court would be appointed by the President in consultation with the Chief Justice of India (CJI) and such other judges that he deems fit.
- However, through a series of rulings the Supreme Court replaced the consultative method prescribed by the Constitution with one that gave the CJI and his four senior-most colleagues (the “Collegium”) primacy in selecting candidates.
- But this system has proven to be opaque.

A note on what the critics say:

- Critics point out that the procedure adopted in appointing judges is seen as entirely divorced from the ordinary constraints of a democracy.
- They add that this wasn’t quite how the Constituent Assembly saw things. The framers believed that the judiciary was integral to the social revolution that the Constitution was meant to usher in.
- They, therefore, as Granville Austin wrote, “went to great lengths to ensure that the courts would be independent, devoting more hours of debate to this subject than to almost any other aspect of the provisions.”

A Look at Constitutional Safeguards towards the Judiciary:

- The Constitution comprises a number of special clauses.
- It provides for, among other things,
 - * 1. a fixed tenure for judges of the Supreme Court and the High Courts;
 - * 2. ensures that salaries and allowances of judges are charged directly to the Consolidated Fund of India;

- * 3. confers powers on the courts to punish for contempt of themselves;
- * 4. and, importantly, ensures that judges can only be removed through a process of parliamentary impeachment.

However, much as these provisions aim to ensure that the judiciary remains ensconced from governmental interference, the framers always believed that the power to appoint judges must vest with the executive

Supreme Court Advocates-on-Record Association v. Union of India (2015):

- It is important to note what the Supreme Court had observed in the Supreme Court Advocates-on-Record Association v. Union of India (2015).
- The primacy enjoyed by the collegium in making appointments to the higher judiciary, the court declared, was a part of the Constitution’s basic structure.
- Also, in this case, the court struck down the 99th constitutional amendment.

Situation Post the Supreme Court Advocates-on-Record Association v. Union of India (2015):

- Even after the Court’s ruling in the Supreme Court Advocates-on-Record Association v. Union of India (2015) case, the court nonetheless promised to look into the prevailing system and reform it from within.
- However, experts point out that even three years later, we’ve seen little in the way of tangible change.
- They point out that the problems inherent in the present system are evident even from a bare reading of the collegium’s decision, published on October 30, 2018.
- The collegium’s decision endorses the new designees to the Supreme Court. This reads as follows:

“While recommending the name of Mr. Justices Hemant Gupta, R. Subhash Reddy, Mukeshkumar Rasikbhai Shah, and Ajay Rastogi, the Collegium has taken into consideration combined seniority on all-India basis of Chief Justices and senior puisne Judges of High Courts, apart from their merit and integrity. The Collegium has also kept in mind, while recommending the above names, that the High Courts of Punjab & Haryana, Gujarat and Rajasthan have remained unrepresented in the Supreme Court since long.”

A Critical Look:

- The report does state the candidates’ merit was also considered.
- However, given that the criteria for selection is entirely unknown, what ‘merit’ means remains ambiguous, at best.
- In any event, the general constitutional values of a nominee have never been seen as a benchmark to review merit.

- Such discussions, on the other hand, are seen as offensive to judicial integrity, as a yardstick that ought to be extraneous to any selection made.
- All of this still begs the question: even assuming the collegium did, in fact, discuss the constitutional philosophies of the various choices before it, ought we to leave it to our judges to select their own colleagues and successors?
- Should not a discussion on the kind of judges that India needs animate our public and political debates?

Concluding Remarks:

- In conclusion, the NJAC may well have been hastily pushed through.
- However, critics point out that if the publication of the collegium's decisions has shown us anything, it is this: that the collegium's workings are mysterious and undemocratic.
- Experts argue that what we need today is a more sustained discussion on the nature and workings of a body that can potentially replace the collegium.
- Such a body must be independent from the executive, but, at the same time, must be subject to greater transparency and accountability.
- This commission must also partake within it a facility for its members to have forthright discussions over the constitutional philosophies that a judge must possess.
- Finally, if we fail to bring these issues to the forefront, the rigours of democracy will never permeate into the judiciary, and we will only be further undermining public trust in the credibility of judicial review.
- It is also important to note that judicial review gains its legitimacy from the Constitution. But given that judges are unelected officials, won't its continuing legitimacy be at stake if we deem it undemocratic to so much as wonder what the constitutional philosophy of a nominee might be? Should we dismiss all claims for democratic accountability in the appointment process by harking back to the dark days of the Emergency?

16. Yet another fiasco in J&K (Political Situation in J&K)

Context

- This analysis focuses on the larger issue of the recent dissolution of the Jammu and Kashmir State legislative assembly by Governor Satya Pal Malik.

Reasons cited by the Governor for dissolution:

- Experts have pointed out that the Governor's reasons for dissolution are not only disingenuous, they are downright dangerous.
- Further, the allegation that political parties with opposing ideologies should not come together can more plausibly be levelled against the coming together of the People's Conference (PC) and the BJP than against the PDP-NC-Congress grouping.

- Some experts have pointed out that the PDP, the NC and the Congress share several common positions, including on:
 - * confidence-building measures (CBMs),
 - * peace talks and
 - * Safeguarding constitutional rights.
- Experts point out that this latest episode also represents a return to the dark days of political meddling by the Centre in State politics, a practice that had been gradually relinquished between 2002 and 2014, a period which saw three of the freest and fairest elections in the State.
- Those years, of partial peace-building, have been forgotten in the Valley.

A Note on the SR Bommai Case and Article 356:

- It is important to note that a nine-judge bench of the Supreme Court in the SR Bommai (1994) case had observed that the power under Article 356 is extraordinary, must be used sparingly and should never be used for political gain for the party in power at the Centre.
- After the imposition of President's Rule on Republic Day in Arunachal Pradesh and invoking of Article 356 just a day prior to the trust vote in Uttarakhand, Governor of Jammu and Kashmir Satya Pal Malik within minutes of the claim of formation of government by the PDP, NC and Congress, dissolved the assembly.
- The reason cited by the governor is that political parties of opposing ideologies were coming together to form the government.

Flawed Reasoning by the Governor?

- Experts point out that the reasoning of the Governor is flawed for two reasons. These are as follows:
 - * 1. Firstly, the governor has no power to examine the ideologies of the political parties prior to inviting them to form government. No party that does not have faith in the Constitution of India can be registered by the Election Commission and therefore the option of doubting the credentials of registered political parties is not available to anyone.
 - * 2. Secondly, how can the governor oppose the coming together of parties of opposing ideologies when the BJP itself was in a coalition government with the PDP for more than two years? Or is the governor, by implication, admitting that the PDP and BJP are ideologically on the same page?

Questions arise: Why was the BJP-PDP alliance termed historic if the PDP was a "terror-friendly" organisation? If the BJP is serious in its allegations, it should seek de-registration of the PDP as a political party.

- Experts point out that there is more in common between the PDP, NC and Congress. The reasons cited are the following:
 - * The two are regional parties committed to the cause of Kashmir and reflect the aspirations of the people.
 - * All three favour autonomous status of Kashmir and retention of Article 370.
 - * All three are unanimous in their views on Article 35A.

Experts also point out another precedent: The BJP formed government with the BSP twice in UP, even though the two parties are ideologically poles apart.

A few more perspectives:

- It is important to note that even in pre-Independence times, the Hindu Mahasabha and Muslim League had formed a coalition government in a few provinces.
- Thus, parties that fight against each other can legitimately form government and the only responsibility the governor has is to satisfy himself that the new formation has the numbers.
- The governor himself, after taking over, had promised that he would not dissolve the House and would explore the formation of a popular government.
- Experts point out that it is an open secret that the BJP has been making efforts to break the PDP and form the first BJP-led government in Kashmir.
- Further, what raises questions is the speed with which the governor dissolved the House. Experts point out that this clearly shows mala fide intentions and now this dissolution will face judicial scrutiny.
- Further, it is important to note that no court has so far held any government accountable for violating the law laid down by the apex court and revived a dismissed state government.
- However, in the Bommai case, the court, following the Nawaz Sharif judgment of the Pakistan Supreme Court, did say that it has such a power and it may revive the dissolved House. If an assembly is revived, it will be a huge loss of face for the BJP. Of course, our courts do not decide such matters in a time-bound manner or interfere if the election process gets underway in the meanwhile.

A Political error of Judgement?

- Some experts argue that even politically, the BJP has made an error of judgment as now it would be seen as an anti-democratic party. It has unnecessarily made the Opposition a martyr. The abrupt dissolution was bad strategy.

- Experts add that the governor should have bought time by asking the Opposition to submit a signed list of legislators supporting it. He could have said that he is consulting Constitution experts and examining the issue of stability of the government. Ideally, he should have allowed the coalition government to collapse under its own weight. It would have been difficult for the three parties to agree to a common minimum programme.
- Dissolution of the assembly to prevent the formation of a popular government shows a lack of belief in parliamentary democracy, which is the basic structure of the Constitution.
- Dissolution of the assembly may be legal in strict terms if the court does not find it mala fide, but it is certainly contrary to constitutional morality. The governor has indeed gone against constitutional trust as there is nothing like absolute discretion. Absolute discretion is the anti-thesis of constitutionalism. Satya Pal Malik should have recalled that in quashing the imposition of President's Rule in Arunachal Pradesh, the apex court had criticised Governor Rajkhawa by describing the happenings in the state as "a thrashing given to the Constitution and a spanking to governance".

Concluding Remarks:

- It is important to note that the graph has been of rising violence since 2014 not only in the Valley, but in the border districts of Jammu as well.
- Experts have pointed out that in the backdrop of this volatile situation, the impact of the events of the past six months, starting from the BJP toppling its coalition government with the PDP, to the Governor thwarting the PDP-NC-Congress claim to forming a government, has been disastrous.
- It has driven even those who sought a peaceful and feasible resolution to the sidelines.
- Unfortunately, by his actions, Mr. Malik has joined a line of Governors appointed by the BJP-led government at the Centre who have skated far too close to constitutional red lines, violating the propriety of their office.
- Further, as numerous constitutional experts have pointed out in the past, this particular case appears fit for the Supreme Court to overturn a Governor's decision, but there are few Kashmiri parties which wish to go to court. The PC might have greatest reason, but it cannot go against the Governor. The NC, the PDP and the Congress all stand to gain from elections.
- In conclusion, an important question arises: will the Governor try to postpone elections again, on the pretext of security?
- It is important to note that Governor's (or President's) Rule is rarely more stable than under an elected government, even an unstable coalition as the PDP-BJP combine was.

- Further, a more coherent coalition – the most likely outcome of Assembly elections – will certainly provide better political conditions for reconciliation than a Governor can, since the latter will have neither the grassroots reach nor the experience of local conditions that the former does.

ECONOMY

1. Advanced Motor Fuels Technology Collaboration Programme

Context:

- The Union Cabinet has been apprised of India joining as Member of Advanced Motor Fuels Technology Collaboration Programme (AMF TCP) under International Energy Agency (IEA).
- The primary goal of joining AMF TCP by India to bring down emissions and achieve higher fuel efficiency in transport sector.

What is Advanced Motor Fuels Technology Collaboration Programme?

- AMF TCP is an international platform under the framework of International Energy Agency (IEA) for co-operation among countries to promote cleaner and more energy efficient fuels & vehicle technologies.
- The activities of AMF TCP are deployment and dissemination of Advanced Motor Fuels. It looks upon the transport fuel issues in a systemic way taking into account the production, distribution and end use related aspects.
- AMFTCP also provides an opportunity for fuel analysis, identifying new alternate fuels for deployment in transport sector and allied R&D activities for reduction in emissions in fuel intensive sectors.

India and Other Members:

- Ministry of Petroleum & Natural Gas has joined AMF TCP as its 16th member in May, 2018.
- The other member Countries of AMF TCP are USA, China, Japan, Canada, Chile, Israel, Germany, Austria, Sweden, Finland, Denmark, Spain, Republic of Korea, Switzerland and Thailand.

Benefits for India:

- India's association with AMFTCP will help in furthering its efforts in identification & deployment of suitable fuels for transport sector for higher efficiency and lesser emissions.
- The benefits of participation in AMF TCP are shared costs and pooled technical resources.
- The duplication of efforts is avoided and national Research and Development capabilities are strengthened.
- There is an information exchange about best practices, network of researchers and linking research with practical implementation.

- After becoming member, India will initiate R&D in other areas of its interest in advanced biofuels and other motor fuels in view of their crucial role in substituting fossil fuel imports.

2. Apple crop damage due to Snowfall in Kashmir

Context:

- Kashmir witnessed heavy snowfall in the plains in November, acting as an axe for the thousands of harvested and unharvested apple trees in south, central and north Kashmir.

Details

- Two major apple varieties, the tangy Ambri and sweet Golden, mainly harvested in November
- A preliminary report of the Horticulture Department suggests that fresh plantation in 6,000 out of 20,000 hectare has been damaged
- Fifteen lakh trees have been damaged due to the snowfall
- Apple growers have incurred losses due to the snowfall touching Rs 500 crore
- Several parts of the state plunged into darkness as 43,000 KV power supply line was also damaged due to the snow.

Measures taken by Govt

- "Special Natural Calamity" has been declared to provide relief to the affected orchard owners.
- It announced ₹36,000 per hectare as damage to perennial crops like apple.

Facts

- Apple (*Malus pumila*) is an important temperate fruit.
- In India, Apple is primarily cultivated in Jammu & Kashmir; Himachal Pradesh; hills of Uttar Pradesh and Uttarakhand.
- It is also cultivated to a small extent in Arunachal Pradesh; Nagaland; Punjab and Sikkim.

Varieties

- Jammu and Kashmir : Golden Delicious, Lal Ambri, Mollies Delicious, Starkrimson, Irish Peach, Benoni and Tydeman's
- Himachal Pradesh : Golden Delicious (Late Season), Red Delicious (Mid season), McIntosh
- Uttarakhand, Uttar Pradesh : McIntosh, Chaubattia Anupam

- Tamil Nadu : Irish Peach and Zouches Pipin (Early); KKL 1, Carrington and Winterstein (Mid -season); Rome Beauty and Parlin's Beauty (late)

Diseases:

- The main diseases reported are collar rot (*Phytophthora cactorum*), apple scab (*Venturia inaequalis*), sclerotium blight (*Sclerotium rolfsii*), crown gall (*Agrobacterium tumefaciens*), cankers, die-back diseases etc.
 - * Plants resistant to the diseases should be used for cultivation.
 - * The infected plant parts need to be destroyed.
 - * Application of copper oxychloride, carbendazim, mancozeb and other fungicides have been found to be effective in controlling the diseases.

3. Advancing BS-VI emission norms

Larger Background:

- Earlier this year, The Petroleum & Natural Gas Minister Dharmendra Pradhan said that the Government decided to proactively advance the roll-out of BS-VI fuel in Delhi from April 2018, instead of April 2020 after taking stock of the alarming pollution situation in Delhi in winters.
- It is believed that BS-VI fuel will bring down sulphur by 5 times from the current BS-IV levels – this is an 80 percent reduction which makes it extremely clean. Further, it will improve emissions from the existing fleet, even from the older vehicles on road.
- BS-VI is as clean as CNG or even cleaner than CNG in some respects.
- The Government plans to extend the availability of these fuels across the country by 1st April 2020.
- According to a Centre for Science & Environment study, air pollution takes 10,000-30,000 lives in Delhi every year. The Government believes that early migration to BS-VI fuels in the National Capital of Delhi will help in saving thousands of precious lives by bringing down vehicular pollution significantly.
- With the introduction of BSVI, India joins the small list of Asia – Pacific nations -Japan, South Korea, Hong Kong, Australia, New Zealand, Philippines and China. And China he said is using it only for heavy vehicles.

Brief History of Emission Standards in India:

- In India, the first stage of mass emission norms came into force for petrol vehicles in 1991 and for diesel vehicles in 1992.
- However, it was in 2000 that vehicles — both passenger and commercial — met the Euro-I standards.
- The BS-II (equivalent to Euro-II standards) norms came into force in 2001 and were implemented in a phased manner. Gradually, BS-III was introduced, paving the way for implementation of BS-IV by April 2017.

- It is important to note that according to an earlier road map by the government, BS-V emission norms were to come into effect by 2020-21, while BS-VI was to be implemented 2024 onwards.
- However, given the drastic increase in air pollution levels, particularly in the Delhi-NCR region, the government decided to leapfrog BS-V, while also advancing the introduction of BS-VI emission norms to 2020. The implementation of BS-VI norms will bring Indian emission regulations almost on a par with EU regulations.

Editorial Analysis:

- In an important development, on October 24, 2018, the Honourable Supreme Court of India banned the sale and registration of vehicles conforming to Bharat Stage (BS)-IV emission standards across the country, from April 1, 2020, citing “alarming and critical” pollution levels.
- With this decision, vehicle makers will only be able to sell BS-VI compliant vehicles from April 2020. However, BS-IV vehicles already sold will continue to ply.

What are the implications?

- In The Honourable Supreme Court of India order impacts both the industry and consumers.
- For example, for the industry, the decision brings clarity on the timelines for sale. However, the challenge will be to meet the new target date.
- The government had earlier proposed a grace period of three months for manufacturers to sell BS-IV compliant passenger vehicles and six months for buses and trucks that may remain unsold with the dealer or manufacturer post April 1, 2020.
- The industry had also argued in court that since they were allowed to manufacture BS-IV vehicles till March 31, 2020, they should be granted reasonable time to sell that stock.
- Further, an industry expert pointed out that manufacturers will need to start manufacturing BS-VI compliant vehicles by February 2020, while phasing out BS-IV compliant vehicles. The industry has pointed out that this advancement will lead to shorter time for vehicle-testing and validation.
- On the other hand, it is important to note that customers will get access to better technology and hopefully better air. However, BS-VI compliant vehicles will be more expensive.
- According to research agency ICRA, the price of diesel cars is expected to go up by about Rs. 75,000 compared to an increase of about Rs. 20,000 for petrol cars. The BS-VI fuel is also expected to cost more.

Concluding Remarks:

- In conclusion, experts believe that for BS-VI compliant vehicles to comply, it will be critical that the fuel of the desired specification be made available across the country before the deadline.

- Further, while it will be possible for BS-IV compliant cars to run smoothly on BS-VI fuel, BS-VI vehicles will not be able to operate optimally on lower-grade fuels.

4. **Baba Kalyani led Committee**

Context:

- The Baba Kalyani led committee constituted by the Ministry of Commerce & Industry to study the existing SEZ policy of India submitted its report to the Union Minister for Commerce & Industry and Civil Aviation.

Objective

- The objectives of the committee were to evaluate the SEZ policy and make it WTO compatible, suggest measures for maximizing utilisation of vacant land in SEZs, suggest changes in the SEZ policy based on international experience and merge the SEZ policy with other Government schemes like coastal economic zones, Delhi-Mumbai industrial corridor, national industrial manufacturing zones and food and textiles parks.

Suggestions

- The current environment of manufacturing competitiveness and services has to undergo a basic paradigm shift.
- The success seen by services sector like IT and ITES has to be promoted in other services sector like health care, financial services, legal, repair and design services.

5. **Bali Fintech Agenda**

- International Monetary Fund and the World Bank launched the Bali Fintech Agenda
- They are a set of 12 policy recommendations aimed at better harnessing the benefits and opportunities of rapid advances in financial technology.
- The Bali Agenda sets out a roadmap to be used by national authorities as a reference point for policy design and implementation.
- The Bali Fintech Agenda provides a framework to support the Sustainable Development Goals, particularly in low-income countries, where access to financial services is low

Significance

- Fintech has the potential to broaden the reach of formal financial services, sharply lower costs and spur efficiency gains.
- It has created wave of innovation in payments, clearing and settlement, offering both the banked and unbanked cheaper and faster services, besides powering e-commerce.
- Fintech providers are now beginning to offer saving, borrowing, insurance and other financial products and advisory services.

- Financial inclusion can fundamentally reshape the lives of people and have a hugely positive economic and social impact.
- Another positive spillover comes from governments benefitting from reduced leakages and better targeting of public services, while an expanding tax base through improved compliance allows greater resource-generation for public investment.

Concerns

- Fintech tends to be lightly regulated or unregulated in some jurisdictions and soundness and stability are concerns.
- Payments and e-money operators use essentially private money, which carries credit and settlement risks.
- Broader financial stability questions arise as fintech expands from a low base and linkages with banks grow. There are increasing concerns associated with data privacy, data security and money laundering.

6. **Bilateral Investment Treaties**

Background

- India is facing legal claims from international investors in as many as 23 arbitration cases, before various tribunals.
- These claims, worth billions of dollars, arise out of bilateral investment treaties between India and other states.
- One striking feature of such treaties is that they allow international investors (primarily MNCs) to initiate a dispute directly in an international tribunal, bypassing the state's own constitutional system and its courts.

Concerns

- Often, the disputes revolve around measures that were triggered by public health emergencies, economic crises or other matters directly involving public welfare — which would therefore be permissible under the Constitution, but which a corporation believes have negatively impacted its financial interests.
- This reveals an important truth about the contemporary, globalised world: issues that were earlier resolved within a sovereign state in accordance with its constitutional system have now acquired a transnational character.
- There are other contemporary examples: because of its attempts to make essential medicines affordable through amendments to its Patent Act, India has come under pressure from the U.S. and the European Union (at the behest of prominent pharmaceutical companies)

- India's battle to preserve affordable access to medicines is part of a larger struggle, where participation in the global intellectual property regime has severely constrained the ability of countries to respond to public health crises.
- The point is not only about who finally succeeds in litigation — rather, it is that the final decision is taken by a set of individuals who are beyond the structures of accountability that are established in democratic and constitutional states.

Gig Economy

A labour market characterized by the prevalence of short-term contracts or freelance work as opposed to permanent jobs.

- There are clashes between national regulatory authorities and the corporations that drive the new "gig economy", such as Uber.
 - * In October, Uber and Ola drivers in Mumbai called for an indefinite strike over low pay, after a similar strike in Delhi earlier.
 - * In the U.K., the EU and various States in the U.S., there has been protracted and bitter litigation over the legal obligations that Uber owes to its drivers. The conflict may take different forms in different countries, but each time there are striking similarities, stemming from Uber's business model, which is transnational in character.
- And, like in the case of investment treaties, it is often difficult for one country to tackle the problem alone – especially when the corporation is global in character, and can issue a credible threat of withdrawing substantial levels of investment.

DiEM25 (Democracy in Europe Movement 25)

- DiEM25 arose after the debt crisis in Greece had resulted in a wide-ranging "structural adjustment programme" imposed upon that country by the European Commission, the European Central Bank, and the International Monetary Fund (or "the troika").
- This included severe austerity measures (including cuts to public funding, resulting in mass unemployment) and widespread privatisation, in direct contravention of the publicly expressed will of the people, through both elections and a public referendum.
- Many of the fundamental decisions that shape national policy (with wide-ranging consequences) are simply beyond the ken of nation-states themselves.
- In its manifesto, DiEM25 returns these issues to democratic control, but also acknowledges that the solutions needed to achieve this can only come from transnational action.
 - * For example, what steps a country like India must take to ensure the availability of life-saving drugs (and not only during a public health crisis) is a decision that must be taken democratically and politically, within the constitutional framework.

* At present, however, it always remains ultimately subject to a "technical decision" (potentially taken by an international tribunal) about whether India has breached its obligations under an international intellectual property rights treaty regime.

- What needs to be done is to reshape that regime to make it more democratic, an effort that, by its very nature, cannot be undertaken by a single country.

Conclusion

- U.S. politician Bernie Sanders called for a "progressive international": "an international progressive movement that mobilizes behind a vision of shared prosperity, security and dignity for all people, and that addresses the massive global inequality that exists, not only in wealth but in political power."

7. Cement

Context

- Driven by increased demand from sectors such as roads, railways and housing, the cement industry in India is expecting a double-digit growth in the current financial year after a gap of nearly eight years.

Background

- In 1889 a Kolkata-based company started manufacturing cement from Argillaceous. Later the industry started getting the organized shape in the early 1900's.
- India Cement Company Ltd was established in 1914 in Porbandar with a capacity of 10 000 tons and production of 1000 tons installed. The first initial thrust to the cement industry in India was during the World War 1 and then the industry started growing at a fast rate in terms of production, manufacturing units, and installed capacity.
- It was in 1982 the cement industry in India recorded an exponential growth with the introduction of partial state decontrol of the commodity. A total decontrol happened in the year 1989. This attracted huge investments in the industry, from domestic as well as foreign investors.

Stats

- India is the second largest producer of cement in the world after China.
- The housing and real estate sector is the biggest demand driver of cement, accounting for about 65 per cent of the total consumption in India.
- The other major consumers of cement include public infrastructure at 20 per cent and industrial development at 15 per cent.
- India's total cement production capacity is nearly 455 million tonnes, as of 2017-18. Cement consumption is expected to grow by 4.5 per cent in FY19

Locational Factors and raw materials:

- Manufacturing of cement requires heavy, low value and weight losing materials and is primarily a raw material oriented industry.
- Limestone is the main raw material and comprises 60-65 per cent of the total product. On an average 1.5 tonnes of limestone are required to produce one tonne of cement. Hence, the location of a cement plant is based on the limestone deposits.
- The other raw materials used are sea shells, slag from steel plants and slag from fertilizer plants and these raw materials influence the localisation of cement industry in their own way.
- Silica (20-25%) and alumina (5-12%) are also important ingredients.
- Gypsum is necessary to regulate the setting time of cement.

Cement industries are major source of pollution in the country

- The cement industries have been categorized as highly polluting industries by the Central Pollution Control Board (CPCB).
- The main pollutants emitted from cement industries include Particulate Matter, Carbon Monoxide, Sulphur Dioxide (SO₂) and Nitrogen Dioxide (NO₂).

Preventing and control pollution from cement industries

- CPCB conducts surprise inspection of cement industries under its Environmental Surveillance Squad programme to assess the compliance status with respect to the prescribed emission/effluent norms.
- Directions under Section 5 of the Environment (Protection) Act (EPA), 1986 are issued to the non-compliant industries and
- under section 18(1)(b) of the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 to State Pollution Control Boards (SPCBs) to direct industries to comply with the stipulated norms.
- Further, the cement industries have also been directed to install on-line continuous (24x7) monitoring devices for better monitoring of compliance by CPCB and SPCBs.

How is the regulation in other Countries?

- Countries like South Africa, Australia, Germany and many other European countries have stipulated the emission limits for sulphur dioxide as low as 50 mg/Nm³.
- Similarly, countries like Colombia, Germany and other European countries have nitrogen oxides emission limit as low as are 200 mg/Nm³.
- Besides, many countries have stipulated limits for mercury, which India is yet to do.

Cement Industry has played its part in reducing Pollution

- As India's thermal power plants mushroomed, fly ash from the burning of coal in these power plants kept growing and their disposal became an increasing problem.
- Thermal power plants and the cement industry made mutually satisfactory arrangements for the cement plants nearby to take fly ash and use it as raw material for making cement.
- The fly ash was given free, through a policy directive of the power ministry and the cement plants bore the transportation cost.
- The thermal plants had savings in the disposal cost of fly ash, especially in terms of land required for it. This arrangement was a win-win for both sides.
- Within 20 years of the start of the process, as much as 25% of the total fly ash being generated in the country is now being used by the cement industry.
- The use of waste as an alternative fuel and raw material is the core of a circular economy.
 - * A circular economy means that waste from one part of the chain of economic activity becomes an input for some other productive economic activity.

Other Uses if used effectively

- Crop residue, which is burnt around this time in north India and aggravates air pollution, could be converted to briquettes and provided to cement plants.
- Used tires, rubber pieces, segregated municipal and industrial waste with enough calorific value could all be used. The need for additional space in landfill sites would get reduced.
- Air pollution would also be lowered as cement plants are usually away from urban centres and have state of the art emission control systems.

Conclusion

- As India urbanises, progresses towards housing for all, and develops its expressways, the cement industry would keep growing.

8. Credit Rating Agencies should follow new norms as released by SEBI

- The regulator has issued circular tightening disclosure norms for rating agencies when they rate companies and their debt. This is because Experts say rating agencies in India often failed to consider cash flows and ground conditions before assigning a rating

Details

- According to the new norms, credit rating agencies will have to inform investors about the liquidity situation of the companies they rate through parameters such as their cash balance, liquidity coverage ratio, access to emergency credit lines, asset-liability mismatch, etc.
- SEBI also said rating agencies must disclose their rating history and how the ratings have transitioned across categories.
- If the rating is assigned on the assumption of cash inflow, the agencies would need to disclose the source of the funding.

Significance

- Disclosures of a company's financial situation, cash flows, fund infusion and ability to meet debts will help certain investors and funds in making an informed decision and prevent over-reliance on ratings.
- A rating rationale will increase accountability as ratings assigned would need to be backed by strong reasons.
- Disclosure of ratings track record will help investors decide on the quality and trustworthiness of the rating
- Investors can also be more discerning in comparing ratings.

Concerns

The latest regulations can only help to a certain extent as a lot of the problems with the credit rating industry have to do with structural issues rather than the lack of formal rules.

- The primary one is the flawed "issuer-pays" model where the entity that issues the instrument also pays the ratings agency for its services. This often leads to a situation of conflict of interest, with tremendous potential for rating biases.
- Second, the credit rating market in India has high barriers to entry, which prevent competition that is vital to protecting the interests of investors.
 - * This is not very different from the case in many developed economies where rating agencies enjoy the benefits of an oligopoly.
 - * Better disclosures can increase the amount of information available to investors, but without a sufficient number of alternative credit rating providers, quality standards in ratings will not improve.
 - * It is thus no surprise that even after repeated ratings failures in their long history, credit rating agencies continue to remain and flourish in business.

- Too many disclosures and providing a complete rationale for the rating can put additional onus on the rating agency, prompting them to assign a conservative rating which may not be good for investor sentiment
- Structural reform should aim to solve another severe problem plaguing the industry, which has to do with rating shopping and the loyalty of credit rating agencies in general.
 - * Rating shopping occurs when an issuer chooses the rating agency that will assign the highest rating or that has the most lax criteria for achieving a desired rating.
 - * Rating shopping has a strong effect when one rating agency's criteria is much more lax than its competitors' criteria.
 - * Unless investors demand multiple ratings on deals, issuers will tend to use only ratings from the agency with the most lenient standards.

Way forward

- Rating agencies will have to come up with lucrative business models that put the interests of investors above those of borrowers.
- Such a change requires a policy framework that allows easier entry and innovation in the credit rating industry.

9. 'Creating and Sustaining Markets for Energy Efficiency' project

Context

- Energy Efficiency Services Limited (EESL), under Ministry of Power has launched \$454 million project in partnership with the Global Environment Facility (GEF)

Funding

- The project will receive a composite funding of \$454 million comprised of the GEF grant of \$20 million and co-financing of \$434 million in the form of loans and equity, including a \$200 million loan from the Asian Development Bank (ADB).
- EESL further proposes Energy Efficiency Revolving Fund (EERF) for sustainable funding mechanism of energy efficiency projects in the country.

What it intends to do?

- The EERF mechanism will support the 'proof of concept' investments for the new technologies of super-efficient ceiling fans, tri-generation technologies & smart grid-applications and ultimately scaling up energy efficiency financing and programme development to help cover initial investment costs of identified energy efficiency programmes like street lighting, domestic lighting, five-star rated ceiling fans and agricultural pumps, in the country.

Significance

- It will help in addressing the upfront risks of new technologies.
- The accrued savings from these technologies can then be used to finance additional projects, which would allow capital to revolve as a sustainable funding mechanism.

10. Ease of Doing Agri-Business Index**Context**

- The Centre expects to roll out a new Ease of Doing Agri-Business Index early next year

Details

- The center will rank the States on the basis of reforms with regard to marketing, land and governance reforms.
- It will also look into aspects of investment in agriculture, increased productivity, reduction of input costs, and risk mitigation measures.
- The Ministry may consider rewarding the higher performing States [both in absolute and incremental terms] by linking the performance with allocation from flexi funds made available in various flagship schemes of this Ministry
- The parameters are process-oriented, and are meant to evolve as and when new reforms or initiatives are proposed,
- As agriculture is a State subject, the success of policies and reform initiatives proposed at the Centre is dependent on implementation by the States.

Changes to be made

- NITI Aayog already brings out an Agricultural Marketing and Farm Friendly Reforms Index, rating States on their implementation of such reforms.
 - * In the initial edition of that Index in 2016, Maharashtra stood first in the rankings, followed by Gujarat.
- The proposed index has a wider ambit, but the focus is still on reforms, with
 - * Marketing reforms (25%)
 - * Governance and land reforms (20%) carrying almost half of the weight of the parameters in its scoring system.
 - * Another major parameter which States will be rated on is their success in reducing the cost of farm inputs (20%) by distributing soil health cards and encouraging organic farming and micro-irrigation.
 - * Risk mitigation measures such as crop and livestock insurance carry a 15% weightage,
 - * Increased productivity and investment in agriculture carry a 10% weight each.

11. Ease of Doing Business Index**Context**

- India jumped 23 ranks in the World Bank's Ease of Doing Business Index 2018 to 77. It ranked 100 in the 2017 report.

Details

- The World Bank Doing Business report was started in 2002.
- The Index ranks 190 countries across 10 indicators ranged across the lifecycle of a business from 'starting a business' to 'resolving insolvency'.
- India saw a similar improvement in the "trading across borders" section to 80th position from 146th a year ago. This improvement was made possible by reducing the time and cost to export and import through various initiatives, including the implementation of electronic sealing of containers, upgrading of port infrastructure and allowing electronic submission of supporting documents with digital signatures under its National Trade Facilitation Action Plan 2017-2020.
- India saw a massive jump in the parameter "dealing with construction permits" to 52th position from 181st a year ago by reducing time for processing permit applications, streamlining procedures, and improving transparency among other measures.
- Starting a business was made easier through consolidation of multiple application forms and introduction of a goods and services tax (GST), while getting electricity was made faster and cheaper. Other reforms in India included strengthening access to credit as well as making it easier and faster to pay taxes and trade across borders.

India climbs 23 places in World Bank's rankings

It's the only nation to have made it to the list of top 10 improvers for the second consecutive year.



12. Fitch keeps India rating unchanged at 'BBB'

Context

- Global rating firm Fitch retained its sovereign rating for the country at 'BBB-', the lowest investment grade with a stable outlook, saying a weak fiscal position continues to constrain the ratings and there were significant risks to macroeconomic outlook.
- Fitch had last upgraded India's sovereign rating from 'BB+' to 'BBB-' with a stable outlook over 12 years ago on August 1, 2006.

Extracts

- Growth has the potential to remain high for a substantial period of time, as convergence with more developed economies can be expected
- India's relatively strong external buffers and the comparatively closed nature of its economy make the country less vulnerable to external shocks than many of its peers
- The GST is an important reform, however, and is likely to support growth in the medium term once teething issues dissipate
- Fitch also listed the IL&FS defaults and the rising bad loans as risks. Fitch said a weak fiscal position continues to constrain India's sovereign ratings.

13. Fight against Hunger

Stats

- India has been ranked at 103 out of 119 countries, with hunger levels categorised as "serious", in the Global Hunger Index 2018.
- India's child malnourishment level is not only the highest in the world but varies considerably across States.
- As per the National Family Health Survey-2016, the proportion of stunted (low height for age) children under five is significantly higher (38.4%) than global (22.9%) averages.
- The underweight (low weight for age) children rate (35.7%) is a lot higher than the global average (13.5%) too.
- India is home to over 53.3 million stunted, 49.6 million underweight and 29.2 million wasted (low weight for height) children under five.

Economic growth and its link to reduction in Malnutrition

- India economy has very high growth and developmental, but this is not able to remove the impediments in addressing the issues of Malnutrition due to its over centric approach on growth-oriented development and less on human development outcomes.

- Faster economic growth has enormous benefits, but it is by no means sufficient and sustainable if millions of children remain undernourished, as it not only impacts early childhood health and imposes disease burden but also affects education, wages and productivity when they grow up, which will impact India's growth.

Examples from the states

- The low income and Empowered-Action-Group (EAG) States face major challenges to improve malnutrition, but, two EAG States, Chhattisgarh and Odisha, have performed better on this front compared to Gujarat and Maharashtra where per capita income is almost double.
- Odisha, which is a low income State, has a better network of Integrated Child Development Services (ICDS), public health facility/workforce per lakh population and educational attainment among women, which have translated into a better nutritional status when compared with Gujarat.
- There is also a notion that agriculture provides answers to most nutrition problems but this is proved wrong.
 - * Malnutrition in Agricultural surplus States like Haryana especially in high performing districts is higher than the average of Odisha.
 - * Again diversified food intake in states like Tamilnadu is more, leading to reduction in malnutrition but less intake of varied food is increasing malnutrition which is measured on Food intake index of 19 food items.
 - * The diversified food intake is very low in a majority of Indian districts; just 28% of children consumed over five items of the total 19 food items.

Steps to be taken

- An inclusive and holistic approach, including
 - * controlling/regulating food price,
 - * strengthening the public distribution system (PDS) and
 - * Income support policies for making food cheaper are important steps.
- The ICDS was a high impact nutrition intervention, but its universal availability and quality are questionable due to poor functioning.
 - * The government must broaden the ICDS programme by ensuring diversity in food items in worst-hit districts.
- The launch of the National Nutrition Mission as a strategy to fight maternal and child malnutrition is a welcome step towards achieving the targets of underweight and stunted children
 - * But this has to be sustained by budgetary commitment towards nutrition components

14. Global Digital Content Market

Context

- The Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, hosted a conference on Global Digital Content Market in Delhi.
- GDCM 2018 is the second edition of the conference. The first conference was held in Geneva 2016.

Why was India chosen?

- India has been chosen as a host nation for the conference by World Intellectual Property Organization (WIPO) due to the strong creative industry in the country in films, music and media.

Aim

- The aim of GDCM 2018 is to give industry stakeholders a platform to come together and discuss new avenues in the films, music, gaming and creative industry along with points of challenge that is presented due to the changing creative landscape because of the disruption brought about by digital technologies

Details

- The conference will feature sessions on music, film, broadcasting and publishing, as well as collective management, emerging models and the implications for the market and policy makers.
- The focus for this year's conference is the Asia Pacific region.
- The GDCM 2018 will see participation of professionals from various creative fields, the digital industry around the world and delegates of the diplomatic community from Missions to the United Nations.
- GDCM is a platform to discuss vital issues and enhance development of the digital and IP generating industries such as publishing, films, music, and gaming all of which are major contributors to the Indian GDP.

15. Global Annual Talent Ranking

Context

- In the ranking released by IMD Business School Switzerland, India has slipped two places to 53rd rank

Ranking

- Switzerland has topped the global ranking for the fifth year in a row, it is followed by Denmark, Norway, Austria and the Netherlands in the top-five.
 - * At 6th place, Canada is the only non-European nation in the top-ten, which also includes Finland (7th), Sweden (8th), Luxembourg (9th), and Germany (10th).
- Economies placed in the top-10 of the ranking generally share high levels of investments in public education and a high quality of life, which allow them both to develop local human capital and to attract highly-skilled professionals from abroad

- Within Asia, Singapore has topped the charts with a global 13th place on the list that ranks 63 countries in developing, attracting and retaining talent.
- China is ranked lower at 39th "because of its difficulties in attracting foreign skilled workers paired with a level of public expenditure in education that is below the average of other advanced economies".
- India's ranking has declined from 51st in 2017 to 53rd in 2018.
- Among BRICS nations, Brazil is ranked 58th, South African 50th and Russia 46th.

India's Performance

- The rankings are based on three factors: Investment and Development, Appeal and Readiness.
 - * These factors include indicators that capture the resources invested in developing local talent, the extent to which a country attracts and retains talent, and the quality of skills available in the talent pool.
- The country performs above the average in terms of the quality of its talent pool (Readiness factor, 30th position).
- On the other, the quality of its educational system and the lack of investments in public education heavily penalise the talent potential of the country (Investment and Development factor, 63rd)

16. Global Wage Report 2018-19

Context

- Workers in India got the highest average real wage growth (adjusted for inflation) in the last decade in southern Asia, according to the Global Wage Report 2018/19 published by International Labour Organisation (ILO).

Details

- Real wage growth is calculated using gross monthly wages, rather than hourly wage rates, which are less frequently available, and fluctuations, therefore, reflect both hourly wages and the average number of hours worked.
- During 2008-17, real wage growth in India stood at 5.5 per cent, highest among all the countries in southern Asia
- The rate of growth in wages in 2017 fell to its lowest level of 1.8 per cent since 2008. During the financial crisis in 2008, Global wage growth stood at 3.4 per cent.
- This growth rate would fall further to 1.1 per cent if China, which made a significant contribution to this growth, were to be excluded from the list.

Gender wage gap highest in India

- Women are paid the most unequally in India, compared to men, when it comes to hourly wages for labour

- On average, women are paid 34 per cent less than men,
- The trend holds true globally as well, but with lower levels of inequality among the sexes, where on average, hourly wages of women are 16 per cent less than those of men. Inequality is higher in monthly wages, with a gap of 22 per cent.
- With empirical evidence that gender wage gap is visible even with women with higher levels of education, the report advocated that “emphasis needs to be placed on ensuring equal pay for women and men”.

Stats with respect to other regions

- Among all regions, workers in Asia and the Pacific got the highest real wage growth over the period 2006-17 with countries like China, India, Thailand and Vietnam remaining on top
- According to the report, in the advanced G20 countries, real wage growth declined from 1.7 per cent in 2015 to 0.9 per cent in 2016 and 0.4 per cent in 2017.
- In Europe (excluding Eastern Europe), real wage growth declined from 1.6 per cent in 2015 to 1.3 per cent in 2016 and further declined to about zero in 2017, owing to lower wage growth in countries including France and Germany, and declining real wages in Italy and Spain
- Russia suffered a significant drop in wage growth in 2015, again owing to the decline in oil prices, but had since then bounced back with moderate, though positive, wage growth.

Measures taken in Countries

- The Global Wage Report 2018/19 also noted that a number of countries had recently undertaken measures to strengthen their minimum wage with a view to providing more adequate labour protection
- South Africa announced the introduction of a national minimum wage in 2018

17. Industrial Park Rating System

Context

- The Union Minister for Commerce & Industry and Civil Aviation, Suresh Prabhu, released the report prepared by the Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry, on Industrial Park Rating System.

Details

- This system is being developed by the ministry to assess industrial parks in the country based on four pillars — internal and external infrastructure, connectivity, environment and safety management, and business support services.
- There are over 3,000 industrial parks in the country in sectors including engineering, software, food processing and chemicals.

- Under the system, the ministry would assess 200 such parks on several parameters such as sewage effluent and treatment; and water treatment.
- The need of the system arises to see whether these parks are matching the global standards.

Significance

- This would help in improving infrastructure of industrial parks which are present in almost all the states.
- Development of industrial park rating system would help increase competitiveness of industries and promotion of the manufacturing sector
- The portal serves as a one-stop solution to the free and easy accessibility of all industrial information including availability of raw material – agriculture, horticulture, minerals, natural resources, distance from key logistic nodes, layers of terrain and urban infrastructure.

18. India to export sugar to China

Context

- India will start raw sugar exports to China in early 2019, and is in talks to finalise exports to Indonesia and Malaysia as well.

Details

- The first contract to export 50,000 tonnes of sugar had been entered into by the Indian Sugar Mills Association (ISMA) and Chinese public sector company COFCO.
- Raw sugar is the second product after non-basmati rice that China will import from India,
- It is a move to reduce the \$60 billion trade deficit that China has with India. India's exports to China in 2017-18 amounted to \$33 billion while imports from China stood at \$76.2 billion.

19. Jalyukt Shivar Abhiyan

- It is a scheme by Maharashtra government to make the state drought-free state by 2019.
- It involves storing of water at the village level and increasing ground water content.
- The programme aims to make 5000 villages free of water scarcity every year.
- The project involves deepening and widening of streams, construction of cement and earthen stop dams, work on nullahs and digging of farm ponds.

20. Jute Materials are mandatory for Packaging

Context:

- The Cabinet Committee on Economic Affairs, chaired by the Prime Minister Shri Narendra Modi has given its approval to expand the scope of mandatory packaging norms under the Jute Packaging Material (JPM) Act, 1987 as follows:

- * The CCEA approved that 100% of the food grains and 20% of the sugar shall be mandatorily packed in diversified jute bags. The decision to pack sugar in diversified jute bags will give an impetus to the diversification of the jute industry.
- * Initially 10% of the indents of jute bags for packing foodgrains would be placed through reverse auction on the Gem portal. This will gradually usher in a regime of price discovery.

Impact:

- The decision will give a fillip to the development of jute sector; increasing the quality and productivity of raw jute, diversification of jute sector and also boosting and sustaining demand for jute product.
- This is important considering the fact that nearly 3.7 lakh workers and several lakh farm families are dependent for their livelihood on the jute sectors, the government has been making concerted efforts.
- The jute industry is predominantly dependent on Government sector which purchases jute bags of value of more than Rs. 6,500 crore every year for packing foodgrains. This is done in order to sustain the core demand for the jute sector and to support the livelihood of the workers and farmers dependent on the sector.
- The decision will benefit farmers and workers located in the Eastern and North Eastern regions of the country particularly in the states of West Bengal, Bihar, Odisha, Assam, Andhra Pradesh, Meghalaya and Tripura.

Measures by the Government to support the Jute Sector:

- In order to improve the productivity and quality of raw jute through a carefully designed intervention, called the Jute ICARE, the Government has been supporting close to one lakh jute farmers by disseminating improved agronomic practices such as line sowing using seed drills, weed management by using wheel-hoeing and nail-weeders, distribution of quality certified seeds and also providing microbial assisted retting. These interventions have resulted in enhancing the quality and productivity of raw jute and increasing income of jute farmers by Rs. 10,000 per hectare.
- In this connection, to support jute farmers, Jute Corporation of India (JCI) has been given a grant of Rs. 100 crore for 2 years starting from 2018-19 to enable JCI to conduct MSP operations and ensure price stabilization in the jute sector.
- With a view to support diversification of jute sector, the National Jute Board has collaborated with National Institute of Design and a Jute Design Cell has been opened at Gandhinagar.
 - * Further, promotion of Jute Geo Textiles and Agro-Textiles has been taken up with the State Governments particularly those in the North Eastern region and also with departments such as Ministry of Road Transport and Ministry of Water Resources.
- With a view to boost demand in the jute sector, Government of India has imposed Definitive Anti-Dumping Duty on import of jute goods from Bangladesh and Nepal with effect from 5th January, 2017.
 - * As a result of these measures, 13 Twine mills in Andhra Pradesh had resumed operation, benefitting 20,000 workers. Further, imposition of Definitive Anti-Dumping Duty has provided scope for an additional demand of 2 lakh MT of jute goods in the domestic market for the Indian jute industry.
- With a view to promoting transparency in jute sector, Jute SMART
 - * It is an e-govt initiative that was launched in December, 2016, providing an integrated platform for procurement of B-Twill sacking by Government agencies.
 - * Further, the JCI is transferring 100% funds to jute farmers online for jute procurement under MSP and commercial operations.

21. Logix India

- Logix India 2019 is scheduled to take place in New Delhi from 31st January to 2nd February 2019.
- The mega logistics event is being organized by the Federation of Indian Export Organisations (FIEO).
- It is a major initiative to improve logistics cost effectiveness and operational efficiencies for India's global trade.
- Over 20 countries are sending delegations to explore logistics partnerships with India and FIEO is focusing on logistical solutions for difficult to reach markets
- FIEO will also focus on investment opportunities in infrastructure development, warehouse consolidation, technology integration and IT enablement and skilling of manpower at the three-day meet.

What was the need?

- Logistics cost in India is very high compared to developed countries.
- High logistics cost reduces the competitiveness of Indian goods both in domestic as well as export market.
- Logistics sector is expected to grow to USD 360 billion by 2032 from the current USD 115 billion. Increasing globalization of Indian economy, along with renewed manufacturing vigour attributed to Make in India Campaign and growth of e-commerce business all forecast rapid growth in Indian logistics sector.

22. Mastercard protests over Modi's Rupay nationalism

- Recently the Mastercard has complained against the central government's pitch to use the domestic payment gateway as a protectionist policy

- The central government has backed the indigenous "RuPay"
- More than half of one billion debit and credit cards in India go through the RuPay payment system
- It means that the global giants such as Visa and Master will face an uphill task to expand their market base in India
- About RuPay
 - * It is the first indigenously developed payment gateway system
 - * It has been developed and maintained by NPCI (National Payments Corporation of India)
 - * It was launched in 2012

23. Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)

- It is a Central Sector Scheme, a sub-mission under National Mission for Sustainable Agriculture (NMSA), launched by the Ministry of Agriculture and Farmers Welfare for implementation in the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura, during the 12th plan period.
- The scheme aims to development of certified organic production in a value chain mode to link growers with consumers and to support the development of entire value chain starting from inputs, seeds, certification, to the creation of facilities for collection, aggregation, processing, marketing and brand building initiative.
- The assistance is provided for cluster development, on/off farm input production, supply of seeds/planting materials, setting up of functional infrastructure, establishment of integrated processing unit, refrigerated transportation, pre-cooling/ cold stores chamber, branding, labelling and packaging, hiring of space, hand holdings, organic certification through third party, mobilization of farmers/processors etc.

24. Model Construction Workers Welfare Scheme

Background

- The model scheme was formulated in response to the Supreme Court's March 2018 order in a case filed by the National Campaign Committee for Central Legislation on Construction Labour (NCC-CL).
- This was a matter related to implementation of two laws meant for welfare of construction workers across the country –
 - * The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 (BOCW Act) and
 - * The Building and Other Construction Workers' Welfare Cess Act, 1996, (Cess Act)

- SC had earlier too lashed out at the Centre after an affidavit was filed by the Comptroller and Auditor General (CAG) saying that a chunk of the funds meant for the construction workers' welfare had been spent to buy laptops and washing machines and less than ten per cent spent for the actual purpose (old age security, health benefits and children's education).

Details

- There are no mandatory pension benefits in the final version of the Centre's model construction workers' welfare scheme despite earlier suggestions that 20% of the construction cess fund be set aside for retired workers.
- Considering that pension would constitute a permanent liability which the States may not be able to sustain in the long term, the State Welfare Boards may formulate pension schemes depending upon their financial capacity.
- Pension should be admissible to only those registered BOC workers who have remained registered for a minimum of 10 years.
- In this regard the State Welfare Board should issue a certificate to the effect that a BOC worker has remained registered for a period of 10 years.

Cess collection

- State cess collection and cess assessment authorities should, inter alia, ensure that cess is collected from the construction projects of Railways, Defence, NHAI, Border Road organization and that from those of Central and State Governments departments/undertakings.
- A uniform mechanism to calculate/ estimate the cost of construction at the time of collection of cess in advance should be followed.

25. N. Railway gears up to tackle fog

Context

- In order to ensure safety during foggy weather which usually impacts the visibility, Northern Railway has prepared an action plan, including using fog safe devices and detonators

Details

- Fog safety devices are GPS-based equipment that provide advance warning to loco pilot about an approaching signal.
- The railways will deploy fogmen for placing detonators – a device that will generate sound when wheel passes over it, on tracks.

- * Detonators are the small crackers that are installed 270 metres before the home signal, which is around 200 metres away from the station.
- * When the train runs over the detonator, it produces a loud hiss. This alerts the locomotive pilot that the station is about to arrive and the train is around 270 metres away from the home signal. Following the alarm, the drivers adjust the speed accordingly

How railways declare poor visibility due to fog?

- Railways is not dependent on the weather department to declare the poor visibility due to fog
- It follows Visibility Test Object (VTO), in which a railway official draws a yellow-coloured circle of one-metre diameter on the platform, 180 metres away from the home signal
- A competent railway official such as station superintendent, station master or any other authorised functionary then stands on that circle and sees the signal
- If he is able to see the signal clearly, then the conditions are normal. But if he cannot spot the signal, he declares poor visibility due to fog and then asks the fog-signal men to install detonators and it continues until the official doesn't see the signal properly from 180-metre distance

Issues of Fog to services

- Foggy season severely reduces mobility and speed of all trains due to impaired visibility.
- Many times, speed restrictions also have to be put in place in the fog-affected areas, which may lead to delays, rescheduling or cancellation
- Late running of trains during fog also leads to shortage of rake as well as crew due to longer working hours.

26. Network for Development of Agricultural Cooperatives in Asia and the Pacific (NEDAC)

- NEDAC was set up in 1991 by the United Nations' Food and Agriculture Organisation (FAO), the International Cooperative Alliance (ICA) and the International Labour Organisation (ILO).
- NEDAC sensitises Governments in the region on the role of agricultural cooperatives in promoting agricultural and rural development to ensure rural food and livelihood security for millions of people in Asia and Pacific.

Context

- General Assembly of NEDAC was held in New Delhi
- The general assembly of 22 prominent cooperative organizations from eight countries unanimously decided to focus on C2C and capacity development to meet challenges of climate change as transformative cooperatives.

- The ultimate aim would be to bring about an increase in farmers income and raise their economic standard by bringing cooperative trade in the mainstream and enhance cooperative professionalism.

27. Operation Greens

Context

- Ministry of Food Processing Industries (MoFPI) has approved the operationalisation strategy for Operation Greens.

About Operation Greens:

Operation Greens was announced in the Budget speech of 2018-19 with an outlay of Rs 500 crores to stabilize the supply of Tomato, Onion and Potato (TOP) crops and to ensure availability of TOP crops throughout the country round the year without price volatility.

Major objectives of "Operation Greens" are as under:

- Enhancing value realisation of TOP farmers by targeted interventions to strengthen TOP production clusters and their FPOs, and linking/connecting them with the market.
- Price stabilisation for producers and consumers by proper production planning in the TOP clusters and introduction of dual use varieties.
- Reduction in post-harvest losses by creation of farm gate infrastructure, development of suitable agro-logistics, creation of appropriate storage capacity linking consumption centres.
- Increase in food processing capacities and value addition in TOP value chain with firm linkages with production clusters.
- Setting up of a market intelligence network to collect and collate real time data on demand and supply and price of TOP crops.

Significance of Operation greens:

- Operation Green (OG) wants to replicate the success story of Operation Flood, in fruits and vegetables, starting with three basic vegetables—tomatoes, onions and potatoes (TOP).
- The main objective of OG is to reduce price volatility in these commodities, and thereby helping farmers augment incomes on a sustainable basis, as also provide these basic vegetables to consumers at affordable prices.

The Strategy announced will comprise of a series of measures as decided by the Ministry:

Short term Price Stabilisation Measures:

- NAFED will be the Nodal Agency to implement price stabilisation measures.
- MoFPI will provide 50 percent of the subsidy on transportation of Tomato Onion Potato (TOP) Crops from production to storage; and hiring of appropriate storage facilities for TOP Crops.

Long Term Integrated value chain development projects:

- Capacity Building of FPOs & their consortium.
- Quality production.
- Post-harvest processing facilities.
- Agri-Logistics.
- Marketing / Consumption Points.
- Creation and Management of e-platform for demand and supply management of TOP Crops.

28. Quadricycle

- Ministry of Road Transport and Highways has notified the insertion of the item 'Quadricycle' as a 'non transport' vehicle under the Motor Vehicles Act 1988

Details

- A Quadricycle is a vehicle of the size of a 3-wheeler but with 4 tyres and fully covered like a car. It has an engine like that of a 3-wheeler. This makes it a cheap and safe mode of transport for last mile connectivity.
- Quadricycles were only allowed for transport usage under the Act, but now has been made usable for non-transport also.
- Quadricycles will not be allowed for transporting cargo or luggage.

Significance

- The idea is to give another mobility option, especially to the middle class who want to upgrade from two-wheelers.
- The move will help them to upgrade to four-wheelers and move around with family,

Concerns

- Quadricycles should have been restricted only for commercial purposes since they don't meet the emission and safety norms of passenger cars.
- The regulators have been lenient and have diluted the norms for vehicles in this segment.

29. Rosogolla Day**Context**

- The West Bengal government has decided to observe 'Rosogolla Day' on November 14, to commemorate the first anniversary of the State's famous sweet getting Geographical Indication (GI) tag as 'Bengal's Rosogolla,'

Details

- Different varieties of rosogollas would be showcased in the stalls of the 'Mishti Hub' (sweetmeat hub), set up in one part of the Eco Park in New Town area
- The Eco Park is managed by the West Bengal Housing Infrastructure Development Corporation (HIDCO), a State PSU.

30. READY (Rural Entrepreneurship Awareness Development Yojana)

- Student READY (Rural Entrepreneurship Awareness Development Yojana) programme is a new initiative of Indian Council of Agricultural Research to reorient graduates of Agriculture and allied subjects for ensuring and assuring employability and develop entrepreneurs for emerging knowledge intensive agriculture.
- This envisages the introduction of the programme in all the Agricultural Universities as an essential prerequisite for the award of degree to ensure hands on experience and practical training depending on the requirements of respective discipline and local demands.

This programme includes five components:

- Experiential Learning,
- Rural Awareness Works Experience,
- In-Plant Training /Industrial attachment
- Hands-on training (HOT) / Skill development training
- Students Projects.

31. Section 7 of the RBI Act

The RBI is an entity independent of the government as it takes its own decisions. However, in certain instances, it has to listen to the government. Section 7 has two parts — consultation and then issuing a direction to the RBI for taking some action in public interest.

This provision in the RBI Act is contained in its Section 7 which says:

1. The Central Government may from time to time give such directions to the Bank as it may, after consultation with the Governor of the Bank, consider necessary in the public interest.
2. Subject to any such directions, the general superintendence and direction of the affairs and business of the Bank shall be entrusted to a Central Board of Directors which may exercise all powers and do all acts and things which may be exercised or done by the Bank.

* This Central Board of Directors, as per the Act, comprises

- * Governor and [not more than four] Deputy Governors to be appointed by the Centre,
- * four Directors to be nominated by the Centre
- * One government official nominated by the Centre.

* Giving control of the RBI to its Board of Directors effectively gives control to the Central Government.

3. Save as otherwise provided in regulations made by the Central Board, the Governor and in his absence the Deputy Governor nominated by him in this behalf, shall also have powers of general superintendence and direction of the affairs and the business of the Bank, and may exercise all powers and do all acts and things which may be exercised or done by the Bank.]

Clearly, the section empowers the government to issue directions in public interest to the central bank, which otherwise does not take orders from the government

Context

- Section 7 (1) of The Reserve Bank of India Act, 1934, became a contentious issue after the tension between the central bank and government
- Exercising powers under this section, the government has sent several letters to the RBI governor Urjit Patel on issues ranging from liquidity for non-banking financial companies (NBFCs), capital requirement for weak banks and lending to micro, small and medium enterprises (MSMEs).

Why is Section 7 seen as an extreme measure?

- This section has never been used in till now.
- It was not used even when the country was close to default in the dark days of 1991, nor in the aftermath of the 2008 global financial crisis.
- It is not clear how this Section operates since it has never been used.
- The aggressive move could scandalise a section of academia and experts, while raising questions about the government's intentions and the impact on RBI's autonomy.

What else is the RBI aggrieved about?

- One, the Reserve Bank of India wants more powers over regulating public sector banks (PSBs).
- Two, it feels that the government should not dictate the quantum of its surplus that can be paid as annual dividend.
- And three, it is miffed that the Centre has suggested a separate payments regulator.

Independence and accountability

As the RBI's autonomy is debated, experts believe that it needs to revisit its exclusive focus on inflation-targeting.

- Recently, we observe that the RBI suggests that its independence is being violated while the government rationalizes its intervention in terms of its concern for the economy. However, how does one make sense of these positions?

Understanding the idea of Autonomy:

- Experts point out that even at the time when the idea of central bank independence began to germinate some two decades ago, this was understood to mean a 'functional' independence.

- 'Functional Independence' suggests that the bank would be unconstrained by the government in its functioning, which includes both the instruments it uses and how it uses them.
- However, its autonomy was not to extend to 'goal' independence.
- Further, what the goals of the central bank should be were to be chosen by the government without reference to the bank.
- The main issue here was whether the bank should focus on inflation alone or also on the level of employment. Within a decade of this debate, it had been conceded that the focus would be exclusively on the former, and monetary policy came to be identified with 'inflation targeting'.
- Having said this, there are two important narratives that emerge.
 - * Firstly, the discourse was solely among interlocutors from Western democracies, ensuring the issues were those related to their economies.
 - * Secondly, even as the major central banks of the world shifted to inflation targeting, in yet another example of American exceptionalism, the U.S. did not revise the goals of the Federal Reserve.

Further, it was to continue focus on maximising employment while keeping prices stable, a sensible recognition of a possible trade-off between these goals.

However, in India where for close to a quarter century political parties of all hues appear to suggest 'what is good for America is the best for India', this has been missed. In 2015 the RBI was by law, in line with a "modern monetary policy", expected to target inflation. It was to remain the banking regulator though.

A Reflection on the Current Issues of Contention:

- The issues of contention happen to be the following:
 - * The corrective action to be taken for stressed banks,
 - * The prudential norms to be adopted by financial institutions,
 - * The easing of liquidity and
 - * The sharing of the surplus generated by the RBI.

It is important to note that, with the exception of the last, all others are in the RBI's sphere of operations.

- However, on the other hand, on the sharing of the surplus, it is understood that the Government of India, legally is the owner of the surplus generated by the country's public institutions.

- Experts have pointed out that even under this architecture, though, all care must be taken to ensure that the central bank's reserves are of a level commensurate with the extent of the financial sector and the potential degree of systemic risk from its malfunctioning, which can vary.
- Experts have also pointed out that apart from the issue of sharing the surplus, the RBI should be left alone by the government to decide on the right course of action. This derives not so much from a notion of central bank independence as it does from the point of view of a credible governance policy.
- The RBI is the banking regulator after all, and for the government to attempt to direct it would constitute micro-management.

The Issue of Stability of the Economy:

- Further, there is reason to believe that some of the actions being sought to be imposed on the RBI today could jeopardize the stability of the economy.
- It is important to note that while acting as the lender of last resort can be stabilizing, under no circumstances would it be advisable to lower prudential norms in the presence of stressed banks.
- Also, the government's concern for the health of the medium and small enterprises is well-founded. After all, the medium and small enterprises were among the most affected sections following the demonetization of 2016.
- If, in the spirit of contriteness as it were, the government wants to reach out to them, the right course would be to provide interest rate subvention, rather than to force the RBI to tweak its lending norms. There is a severe lack of judgment in loan melas promising online sanction in less than an hour. There is the suggestion in this of the political business cycle, a government trying to nudge the economy prior to an election. The resistance of the RBI top brass to this desperate action is understandable.
- Whatever may be the misfeasance of the government in its recent dealings with the RBI, however, it would yet be acceptable to review its own performance in the sphere in which it has an untrammelled independence, namely monetary policy. Under this arrangement it has control over the interest rate.
- Over 2013-2018 there has been a 5 percentage point swing in the real interest rate in India, moving from a negative to a positive level, making it among the highest in the world, much higher than that of China.
- This is clearly the consequence of an exclusive policy focus on inflation from even before inflation targeting was formally adopted by Parliament in India.
- It may well have contributed to slow industrial and export growth, due to a real appreciation of the rupee, and a rise in NPAs even after their existence had been recognised. If this is the monetary policy that central bank independence brings with it, we might just be a little sceptical of the value of the independence itself.

Enabling the objective of job creation:

- There is a certain populism inherent in privileging inflation control to justify extraordinarily high interest rates.
- It is important to note that the absence of inflation by itself only benefits those in employment, it does not assure jobs to the unemployed.
- Thus a monetary policy that ignores the impact of its actions on unemployment is not credible.
- Interestingly, the government and the RBI have always been on the same page as far as inflation targeting is concerned. The populist message that inflation erodes the income of the poor, conceals the possibility that in the implementation, such a policy could hold back job creation by restricting investment.

Concluding Remarks:

- In conclusion, the rising current account deficit, the slow growth of employment and the disappointing performance of manufacturing, the sector most closely affected by high interest rates, should prompt us to review how monetary policy is conducted in India.
- Further, experts believe that the latest tussle between the executive and the central bank will eventually end, in all probability with a compromise.
- However, its purpose would have been served if the debate leads to greater awareness on both sides of the other's compulsions.
- However, what if the Government and the RBI do have fundamental disagreements, as they seem to be having now, and are unable to arrive at a common ground?
- It is important to note that the option of Section 7 is certainly available to the more powerful side; but Section 7 is a deterrent never to be used.
- In conclusion, it is to avoid situations such as the one we are seeing now that former RBI Governor Raghuram Rajan argued for a clear enunciation of the RBI's responsibilities.
- In his book, "I Do What I Do", former RBI Governor Raghuram Rajan points out that the position of the RBI Governor in the government hierarchy is not defined.
- Lastly, the Governor has to be conscious of the limits to his autonomy at all times, and the government has to consider the advice coming from Mint Street in all seriousness, as indeed Dr. Reddy and Dr. Subbarao have also pointed out.

32. Side Pocket

- A 'side pocket' option allows a fund house to separate bad assets or risky ones from other liquid investments in a debt portfolio which could get impacted by the credit profile of underlying instruments.
- Using this accounting process, you can insulate small investors from being hit by sudden exits of large investors.
- Side-pocketing helps stabilise the net asset value (NAV) and reduces redemptions the scheme. In case the illiquidity event is sudden, side-pocketing provides a cushion to the liquid portfolio

What is the process?

- The process involves a fund segregating papers that are illiquid or in default category from all other instruments in the portfolio that are liquid.
- This creates two schemes —one containing the illiquid paper and the other holding the good ones

33. Tensiometers

- They are used to visually monitor soil moisture conditions in rice fields and irrigate the crops only when required.
- Irrigating the field based on this information will help conserve groundwater
- They measure the tension or suction that plant roots must exert in order to extract water from the soil
 - * This tension is a direct availability of water to the tree
- It has four parts
 - * hollow tube
 - * Porous ceramic tube
 - * a water reservoir
 - * a vacuum gauge that reads the water tension



How does it work?

- The tensiometer is 2–3 feet long and has a ceramic cup containing numerous tiny pores at the bottom. It is inserted up to 8 inches into the soil, which is beyond the root zone of rice.
- The water inside the tensiometers reaches equilibrium with soil moisture, and rises or falls depending on the amount of moisture in the soil.

- Farmers are advised not to irrigate the field when the water level in the tensiometer is in the green zone.
- When the soil gets dry the water level in the tensiometer drops and reaches the yellow zone in the device.
- Farmers should start irrigating the field at this time and never allow the water in the device to reach the red zone

Significance

- It helps farmers to save 10–36% groundwater.
- Using groundwater to irrigate the field only when necessary led to a reduction in electricity consumption and greenhouse emissions.

34. UTS on Mobile

- Indian Railways has introduced a new mobile application which will help travellers in booking and cancelling unreserved tickets
- It will be available free on the Android and Windows platforms.
- Passengers using the UTS mobile app can travel without taking a hard copy of the train ticket.
- During the train journey, when the ticket checking staff ask for the ticket, a passenger can simply use 'Show Ticket' option in the UTS app

Use of the app

- Mobile Ticketing shall promote 3C's- Cashless transactions, Contact less ticketing and Customer convenience.
- Seamless booking of unreserved tickets all over Indian Railways.
- Obviate the need for passengers to wait in queues for purchasing the tickets and enhance the experience for booking unreserved tickets – journey, season tickets, and platform tickets.
- Environment friendly.

35. When giants clash (Asia-Pacific Economic Cooperation)

Larger Background:

What is Asia-Pacific Economic Cooperation?

- The Asia-Pacific Economic Cooperation (APEC) is a regional economic forum established in 1989 to leverage the growing interdependence of the Asia-Pacific.
- APEC's 21 members aim to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration

What Does APEC Do?

- APEC ensures that goods, services, investment and people move easily across borders. Members facilitate this trade through faster customs procedures at borders; more favorable business climates behind the border; and aligning regulations and standards across the region.
- For example, APEC's initiatives to synchronize regulatory systems is a key step to integrating the Asia-Pacific economy. A product can be more easily exported with just one set of common standards across all economies.

What's in the news?

- The recently concluded Asia-Pacific Economic Cooperation (APEC) organisation wrapped up its summit with no joint communiqué issued.
- This marks a departure from tradition, breaking with more than a quarter-century of history.

Editorial Analysis:**Why wasn't the joint communiqué issued?**

- The APEC's leaders, principally led by the U.S. and China, clashed over the proposed wording of the document.
- Experts believe that the economic rivalry between Washington and Beijing appeared to fracture the 21-nation summit into two segments.
- Experts assert that the source of the friction stemmed from the Trump administration's "America First" policy, under which Washington led the charge on "unfair trade practices". This was an implicit accusation that China wasn't levelling the playing field in global trade.

A Closer Look:

- In recent times, the U.S. has been urging China to increase market access and grant intellectual property protections for American corporations, cut back on industrial subsidies and, at a broader level, bring down the \$375-billion trade gap.
- Vice President Mike Pence, who attended the APEC summit on the President's behalf, also hinted at strategic pushback when he called upon nations to avoid loans that could leave them in a debt trap with Beijing.
- The Chinese message at the plenary was a strategic one too: President Xi Jinping did not mince words in touting Beijing's Belt and Road Initiative. The BRI has worried smaller Asian nations and the U.S., particularly given that China views the Asia-Pacific landscape as a means to secure economic predominance worldwide.

Impact of the Clash:

- Before attempting to understand what this clash of the global economic titans means for the world trading system, it is instructive to examine the path of their mutual conflict thus far.

- The troubles began over the summer when both China and the U.S. started taxing \$50 billion worth of the other's imports.
- This was followed by the U.S. slapping \$200 billion of Chinese exports with a 10% tariff, to be ratcheted up to 25% by the year-end.
- China, unsurprisingly, retaliated with a promise to impose reciprocal taxes to the tune of \$60 billion.
- It is important to note that already, the tariff war has resulted in the IMF downgrading its global growth outlook for this year and the next to 3.7%, down 0.2 percentage points from an earlier forecast.
- If this continues, eventually global supply chains may be hit, and shrinking trade volumes may cause companies to seek out new trading routes and partners.

Concluding Remarks:

- As a consequence to the tariff war, from an institutional level, multilateral rule-making bodies such as the WTO may lose their authority, and an interlocking system of bilateral trade treaties and punitive sanctions networks may substitute the consensus-based approach that was forged so painstakingly after World War II.
- Experts point out that Asia will be at the heart of this war of attrition because strategic control of its high-value maritime trading routes is the key to China's dreams of global trade dominance. After the APEC summit the world is still poised on the edge of the trade war vortex.
- Experts point out that the forthcoming G20 meeting in Argentina offers an opportunity to pull back from the brink

36. Yuva Sahakar-Cooperative Enterprise Support and Innovation Scheme**Context**

- Union Agriculture Minister launches NCDC's new scheme to promote young entrepreneurs in cooperatives

Details

- The National Cooperative Development Corporation (NCDC) has come up with a youth-friendly scheme for attracting them to cooperative business ventures.
- The scheme will be linked to Rs 1000 crore 'Cooperative Start-up and Innovation Fund (CSIF)' created by the NCDC.
- It would have more incentives for cooperatives of North Eastern region, Aspirational Districts and cooperatives with women or SC or ST or PwD members.

- All types of cooperatives in operation for at least one year are eligible.

Funding

- The funding for the project will be up to 80% of the project cost for these special categories as against 70% for others.
- The scheme envisages 2% less than the applicable rate of interest on term loan for the project cost up to Rs 3 crore including 2 years moratorium on payment of principal.

National Cooperative Development Corporation (NCDC)

- It was established by an Act of Parliament in 1963 as a statutory Corporation under the Ministry of Agriculture & Farmers Welfare.
- Its core functions includes Planning, promoting and financing programmes for production, processing, marketing, storage, export and import of agricultural produce, food stuffs, certain other notified commodities e.g. fertilisers, insecticides, agricultural machinery, lac, soap, kerosene oil, textile, rubber etc., supply of consumer goods and collection, processing, marketing, storage and export of minor forest produce through cooperatives, besides income generating stream of activities such as poultry, dairy, fishery, sericulture, handloom etc.
- It is an ISO 9001:2015 compliant organisation and has a distinctive edge of competitive financing.

37. 12 Support Initiatives for MSME Sector announced by PM Modi

Context

- The government has launched a historic support and outreach programme for the Micro, Small and Medium Enterprises (MSME) sector.
- As part of this programme, the Prime Minister of India recently unveiled 12 key initiatives which will help the growth, expansion and facilitation of MSMEs across the country.

Significance:

- 1. 59 minute loan portal to enable easy access to credit for MSMEs. Loans up to Rs. 1 crore can be granted in-principle approval through this portal, in just 59 minutes.
- 2. A 2% interest subvention for all GST registered MSMEs, on fresh or incremental loans. For exporters who receive loans in the pre-shipment and post-shipment period, there will be an increase in interest rebate from 3% to 5%.
- 3. All companies with a turnover more than Rs. 500 crore, must now compulsorily be brought on the Trade Receivables e-Discounting System (TReDS). Joining this portal will enable entrepreneurs to access credit from banks, based on their upcoming receivables. This will resolve their problems of cash cycle.

- 4. Public sector companies have now been asked to compulsorily procure 25%, instead of 20% of their total purchases, from MSMEs.
- 5. Out of the 25% procurement mandated from MSMEs, 3% must now be reserved for women entrepreneurs.
- 6. All public sector undertakings of the Union Government must now compulsorily be a part of GeM. He said they should also get all their vendors registered on GeM.
- 7. 20 hubs will be formed across the country, and 100 spokes in the form of tool rooms will be established.
- 8. Clusters will be formed of pharma MSMEs. 70% cost of establishing these clusters will be borne by the Union Government.
- 9. The return under 8 labour laws and 10 Union regulations must now be filed only once a year.
- 10. Now the establishments to be visited by an Inspector will be decided through a computerised random allotment.
- 11. Under air pollution and water pollution laws, now both these have been merged as a single consent. The return will be accepted through self-certification.
- 12. An Ordinance has been brought, under which, for minor violations under the Companies Act, the entrepreneur will no longer have to approach the Courts, but can correct them through simple procedures.

Significance of MSMEs:

- Union Micro-, Small and Medium-sized Enterprises are the backbone of most economies worldwide and play a key role in developing countries.
- According to the data provided by the International Council for Small Business (ICSB), formal and informal Micro-, Small and Medium-sized Enterprises (MSMEs) make up over 90% of all firms and account on average for 60-70% of total employment and 50% of GDP.
- These types of enterprises are responsible for significant employment and income generation opportunities across the world and have been identified as a major driver of poverty alleviation and development.
- MSMEs tend to employ a larger share of the vulnerable sectors of the workforce, such as women, youth, and people from poorer households. MSMEs can even sometimes be the only source of employment in rural areas. As such, MSMEs as a group are the main income provider for the income distribution at the "base of the pyramid".

INTERNATIONAL RELATIONS

1. Birthright citizenship in the United States

- Birthright citizenship may be conferred by jus soli or jus sanguinis.
 - * Some 35 countries across the world, including Canada, guarantee some sort of birthright citizenship, known as "jus soli" (right of the soil).
 - * Others grant citizenship on the basis of jus sanguinis' (right of the blood) where children can only inherit citizenship from their parents, not their birthplace.
- Pursuant to the Fourteenth Amendment to the United States Constitution and the Immigration and Nationality Act (INA), U.S. citizenship is automatically granted to any person born within and subject to the jurisdiction of the United States
 - * The 14th Amendment is known as a Reconstruction amendment, because it was added to the Constitution after the Civil War in 1868.
 - * That places it at an important historical crossroads, when lingering wounds of divisiveness and animosity still plagued the nation and the reality of a post-slavery America begged contentious racial and social questions.
 - * It is an idea that anyone can be an American if they commit themselves to our Constitutional values

Context

- Trump vows executive order to end birthright citizenship

2. Consular access denied to Indian pilgrims in Pakistan

Context

- Pakistan had issued around 3,700 visas to Sikh pilgrims from India for the festivities that will cover Nankana Sahib and Sacha Sauda.
- During these festivities the Indian consulates were stopped from entering the gurdwaras by their administration. So the consular team was not able to meet the pilgrims for performing official duties, despite prior permission from the Ministry of Foreign Affairs (MoFA) of Pakistan.
- The MEA issued a note of protest saying that the consular team was harassed and prevented from contacting visiting Indian pilgrims in both Gurdwaras

Vienna Convention on Consular Relations of 1963.

- It is the right that is given to the citizens of one country in a foreign country to have communication with the diplomats and officers of their country while held in a foreign location.

- The appointed officer usually protects the interests of his countrymen while operating in a foreign location.
- He is also instrumental in strengthening the relations between his home country and the host country.

Norms Violated

- Pakistan has violated the international legal instruments and conventions like the Vienna Convention on Diplomatic Relations, 1961 and the Vienna Convention on Consular Relations, 1963
- This is in breach of the letter and spirit of 'Bilateral Protocol on Visits to Religious Shrines' signed in September 1974.
 - * Under the Protocol it is the obligation, compulsion and responsibility of the concerned country to ensure that the places of worship in the agreed list under the Protocol are properly maintained and their sanctity preserved.
- The Code of Conduct for the treatment of diplomatic/consular personnel in India and Pakistan, 1992
 - * According to the code of conduct, the two countries will ensure "smooth and unhindered functioning of their diplomatic and consular officials in conformity with recognised norms of international law and practice".
 - * The two governments will also ensure that there is "no violation of the privileges and immunities of their diplomatic and consular officials" and there should be "no offences against their dignity and person".
 - * It also states that intrusive and aggressive surveillance and actions such as verbal and physical harassment, disconnecting of telephone lines, threatening telephone calls, pursuit in cars and unauthorised entry into residences shall not be resorted to.
- New Delhi reminded Pakistan that this was in contrast to the treatment of the Pakistani High Commissioner and the Consular officials who were provided full access to meet the Pakistani pilgrims currently in India on a pilgrimage to Kalyar Sharif.

This incident comes in the wake of the Intelligence agencies stating that there are attempts on in Pakistan to brainwash some of the pilgrims into lending support for the Referendum 2020

Punjab Referendum 2020

- It is a campaign by few radicals which wants to liberate Punjab, as it feels it is currently occupied by India.
- The campaign aims to gauge the will of the Punjabi people with regards to reestablishing Punjab as a nation state.

- Once there is a consensus within the Punjabi people that independence from India is desired, the group shall then approach the UN and other international forms and bodies with the goal of reestablishing Punjab as a nation state.

Concerns

- The worry for the agencies is that the ISI would try and propagate among the pilgrims the need for a pro Khalistan movement.
- The ISI would also look to evoke sentiments, the agencies believe.
- The agencies also feel that the ISI and its agents would go all out to whip up passions.
- This becomes necessary for both the ISI and pro-Khalistan groups as the movement has failed to generate any great mass support.

Way forward

- So Pakistan must abide by its commitment not to allow its territory under its control to be used against India, as marked in Simla Agreement and Lahore Declaration and to respect the sanctity of the International Boundary and Line of Control.

3. Cope India 2019

- They are series of international Air Force exercises between the Indian Air Force and the United States Air Force conducted on and over Indian soil
- The first Cope India was held at the IAF station in Gwalior in February 2004. It included flight tests, practice and demonstrations as well as lectures on subjects related to aviation.
- The exercise showcases efforts and commitment of the two nations to a free and open Indo-Pacific region
- The Cope India exercise is being held after a gap of eight years, with the last one having taken place in 2010.

Context

- Air forces of the United States and India are scheduled to participate in a 12-day joint exercise 'Cope India 2019' at two air force stations in West Bengal

4. 13th East Asia Summit in Singapore

- The EAS consists of 10 ASEAN nations (Indonesia, Thailand, Singapore, Malaysia, the Philippines, Vietnam, Myanmar, Cambodia, Brunei and Laos), Australia, China, India, Japan, New Zealand, South Korea, Russia and the U.S.
- It was formed to further the objectives of regional peace, security and prosperity.

India-Singapore Hackathon

- It is a platform for the youth of the two countries to harness and showcase their innovations.

- The Nanyang Technological University (NTU) in Singapore and the All India Council for Technical Education (AICTE) conducted the hackathon that included solving eight problem statements.
- The eight 'Problems Statements' presented to the participants were in the areas of mapping, synchronized output of diverse social media, shared digital identity verification, effective number estimate, space management and allotment, effective learning and personal security.
- Twenty teams, each from both the countries comprising university and college students selected on nationwide basis, participated in the event to harness and showcase the innovation potential of the youth. Each of these teams had three students and one mentor.

Award

- The top six teams, three each from India and Singapore, participated in a 36-hour long Hackathon Grande Finale in Singapore.
- The winning teams from India were IIT Kharagpur, NIT, Trichy and MIT College of Engineering, Pune
- First prize of SGD 10000, second prize of SGD 6000 and third prize of SGD 4000 was announced for each of the three winners from India and Singapore.

5. Hazaras

- They are an ethnic group native to the region of Hazarajat in central Afghanistan, speaking the Hazaragi variant of Dari itself an eastern variety of Persian and one of the two official languages of Afghanistan
- They are overwhelmingly Twelver Shia Muslims and make up the third largest ethnic group in Afghanistan.
- The conventional theory is that the name Hazara derives from the Persian word for "thousand"
- It may be the translation of the Mongol word ming (or minggan), a military unit of 1,000 soldiers at the time of Genghis Khan

Context

- Hazaras fear violence as Taliban advances
- Most Hazaras belong to the Shia branch of Islam. The Taliban, which are Sunni and largely ethnic Pashtuns, have been accused of committing human rights violations against the group during their oppressive 1996-2001 rule.

6. Igla-S missile

- They are short-range air defence missile system
- Russian defence major Rosoboronexport has emerged as the lowest bidder in the Indian Army's tender
- The other contenders for the deal were Swedish firm SAAB and French military firm MBDA.

Background

- The process to procure Very Short Range Air Defence (Vshorad) missiles was initiated in 2010 under the previous government and went through several rounds of trials before the Igla-S qualified in January, along with two other competitors.
- The Vshorad programme to replace the Russian Igla-M systems that have been used by the Army since the 1980s is considered critical for defence against incoming helicopters, UAVs and ground attack aircraft.

7. Indian Ocean Naval Symposium (IONS)**Context**

- IONS 10th anniversary is being conducted with the theme "IONS as a Catalyst for SAGAR".
- 'SAGAR' is in consonance with India's 'Act East' policy and the nation's diplomatic, economic and military outreach in the region.

Details

- The seminar aims to discuss maritime issues pertaining to cooperative capacity-building to deal with common security concerns in the region.
- The IONS a regional forum of Indian Ocean littoral states, represented by their Navy chiefs, was initiated and launched by India in 2008
- The IONS initiative endeavors to generate a flow of information among naval professionals so as to enable a common understanding of regional maritime issues and in turn facilitate generation of mutually beneficial maritime security outcomes.

8. Kartarpur corridor**Context**

- India and Pakistan have announced plans to operationalize a visa-free corridor between Dera Baba Nanak in Indian Punjab and Kartarpur Sahib in Pakistan's Punjab to enable devotees to visit the gurdwara in Kartarpur on the 550th birth anniversary of Guru Nanak Dev.

* It is being observed in November 2019.

* Guru Nanak was born in the year 1469

Location

- It is located in tehsil Shakargarh, Narowal District, Punjab, Pakistan
- Kartarpur is located across the river Ravi at a distance of around 4 km from the International Border near Dera Baba Nanak in Gurdaspur district.

Significance

- Kartarpur was established by Guru Nanak Dev in 1522 and is the location of Gurdwara Kartarpur Sahib, the first Gurdwara ever built

- Guru Nanak Dev lived there for 18 years until his death in 1539.
- Leaders like Prime Ministers Atal Bihari Vajpayee and Benazir Bhutto, had pushed for it as this move has the potential to heal ties amongst their people, and promote dialogue between the two governments.
- This corridor can act as a meaningful confidence-building measure.
- The initiative can also become a template for cross-border exchanges based on faith, which could provide a balm for many communities such as
 - * Kashmiri Pandits, who have long asked for access to visit the Sharda Peeth in the Neelum Valley in Pakistan-occupied Kashmir;
 - * Sufis in Pakistan who wish to visit the dargah of Khwaja Moinuddin Chishti in Ajmer, Rajasthan; Sikhs in India and Pakistan wanting to visit important shrines on both sides of the border.
- This would further ensure development and infrastructural work for the celebrations at Sultanpur Lodhi, Dera Baba Nanak and Batala — holy places visited by Guru Nanak.

Way forward

- Going forward, it is important that issues related to the corridor are managed in a non-political manner and details left to diplomats and officials to sort out
- Given the bilateral freeze, the Kartarpur project will compel India and Pakistan to engage in a positive and purposeful manner, at a time when few other avenues for engagement exist.
- It is a reminder that dialogue and search for areas of concord are the only way forward for both countries.

9. Kimberley Process Certification Scheme (KPCS)

- It was launched in 2003 to remove conflict diamonds from the global supply chain, Initiated by joint government, industry and civil society
- Blood diamond, also called conflict diamond, as defined by the United Nations (UN), any diamond that is mined in areas controlled by forces opposed to the legitimate, internationally recognized government of a country and that is sold to fund military action against that government

Significance

- The Kimberley Process has contributed towards peace, security and prosperity.
- It has proven to be an effective multilateral tool for conflict prevention in stemming the flow of conflict diamonds.
- The Kimberley Process has made valuable developmental impact in improving the lives of most people dependent on the trade in diamonds.

Context

- The Kimberley Process Certification Scheme (KPCS) Plenary 2018, was held in Brussels, Belgium, from 12th-16th November 2018.
- EU handed over the Chairmanship of KPCS to India from 1st January, 2019.

Details

- India is the founding member of KPCS and is actively involved in KP activities to ensure that almost 99% of the diamond trade in the world is conflict free.
- India is committed to maintain KP as an efficient and effective process in order to ensure the conflict diamond free status.
- India is at the forefront in addressing the issue of differentiation between Natural Diamonds and Lab Grown Diamonds and ensure responsible business in this area.

10. KONKAN-18

- The Bilateral KONKAN exercise provides a platform for the two Navies of India and the United Kingdom to periodically exercise at sea and in harbour, so as to build interoperability and share best practices.
- The KONKAN series of exercises commenced in 2004, and since then has grown in scale
- The regular interaction over the years has resulted in an increase in the professional content of the bilateral exercise.
- The thrust of the exercise this year would be on Anti-Air warfare, Anti-Surface Warfare, Anti-Submarine Warfare, Visit Board Search and Seizure (VBSS) and Seamanship Evolutions. Besides exercises at sea, KONKAN-2018 also encompasses professional interactions and sports fixtures.

11. Moscow format of talks on the Afghan conflict**Context**

- In a significant departure from India's stand on engaging the Taliban, the government announced it would participate at a "non-official" level, sending two former senior diplomats to attend talks on the Afghanistan peace process in Russia
- Amar Sinha, India's former envoy to Kabul, and T.C.A. Raghavan, former Indian High Commissioner to Pakistan, will represent New Delhi at the Moscow talks.

Details

- The talks, known as the "Moscow format" will include a "high-level" delegation from the Taliban as well as a delegation of Afghanistan's "High Peace Council (HPC)", along with twelve countries.
 - * Kashmiri HPC is set up and supported by the government with the specific aim of furthering peace talks, though formally not part of government.

- * Apart from the Taliban political leadership based in Doha, and the HPC from Kabul, the Russian government has invited delegations from India, Pakistan, the U.S., China, Iran and five Central Asian Republics.
- This is the first time India will be attending any talks on Afghanistan in the presence of Taliban representatives.
- New Delhi has been opposed to any dialogue with the Taliban.
 - * It, however, decided to send observers after all stakeholders confirmed their participation.
 - * India's close ties with Russia which covers joint projects in Afghanistan was another reason.
 - * India supports all efforts at peace and reconciliation in Afghanistan that will preserve unity and plurality, and bring security, stability and prosperity to the country. India's consistent policy has been that such efforts should be Afghan-led, Afghan-owned, and Afghan-controlled and with participation of the Government of Afghanistan

Attempts in the past

- For the second time, Russia is attempting to bring regional powers together while discovering ways for establishing peace in war-torn Afghanistan.
- The first such meeting, proposed for September 4 2018, was called off at the last moment after the Afghan government pulled out, describing its involvement in the Moscow meeting as "unnecessary" as the Taliban had "disrespected internationally-sanctioned principles and rejected the message of peace and direct negotiations".

Searching for an elusive peace**A Historical Note on the involvement of the Taliban:**

- The idea of reconciliation with the Taliban has been around for over a decade.
- From a historical perspective, as the Taliban insurgency grew 2005 onwards, the British, deployed in Helmand, soon found merit in doing side deals with local Taliban commanders by turning a blind eye to opium production in the area.
- Further, with the help of the Germans and the Norwegians, they began to persuade the U.S. to work for a political outcome
- After being elected in 2008, President Barack Obama ordered a full-scale review of the U.S.'s Afghanistan policy.
- After extracting an assurance from the generals that the insurgency would be defeated in 18 months, Mr. Obama announced a shift to counter-insurgency mode with a surge of over 40,000 troops, but added that phased drawdown of troops would begin in end-2011.

- Operation Enduring Freedom formally ended in December 2014, handing over primary responsibility for combat operations to the Afghan security forces even as the insurgency gained ground.

A Note on Operation Enduring Freedom:

1. Operation Enduring Freedom (OEF) was the official name used by the U.S. government for the Global War on Terrorism. On October 7, 2001, in response to the September 11 attacks, President George W. Bush announced that airstrikes targeting Al Qaeda and the Taliban had begun in Afghanistan.

2. Operation Enduring Freedom primarily refers to the War in Afghanistan, but it is also affiliated with counterterrorism operations in other countries, such as OEF-Philippines and OEF-Trans Sahara.

3. After 13 years, on December 28, 2014, President Barack Obama announced the end of Operation Enduring Freedom in Afghanistan. Continued operations in Afghanistan by the United States' military forces, both non-combat and combat, now occur under the name Operation Freedom's Sentinel.

- Operation Later, the U.S. soon realised that insurgency could not be contained as long as sanctuaries existed in Pakistan. They also realised that its carrot and stick policy with Pakistan had cost the U.S. \$33 billion but failed to change Pakistan's policy.
- A total cut-off was not possible as long as U.S. troops in Afghanistan depended on supply lines through Pakistan.
- Crucially, in 12 years, the U.S. had lost 2,300 soldiers and spent \$105 billion in rebuilding Afghanistan, more than \$103 billion (in inflation-adjusted terms) spent under the Marshall Plan on rebuilding West Europe after World War II.
- Finally, war weariness demanded an exit and a political solution was unavoidable

Growing Visibility of the Taliban:

A Look at the sequence of events:

1. It is important to note that after prolonged negotiations, a Taliban office opened in Doha in June 2013 to promote talks and a peace process.

2. However, when the office started flying the Taliban flag, calling itself the political bureau of the Islamic Emirate of Afghanistan, it angered both the U.S. and Afghan governments.

3. The office was closed down though the Qatar authorities continue to host Taliban leaders.

- Further, coming to power in 2014 after a bitterly contested election, Afghan President Ashraf Ghani moved to improve relations with Pakistan.

- He had even called on the then Army Chief, Gen. Raheel Sharif, at the GHQ, to push for reconciliation.
- Preliminary talks were held in Murree but derailed in July 2015 when Mr. Ghani asked for a supportive audio/video (instead of a written statement) by Taliban leader Mullah Omar and learnt that he had died over two years earlier.
- It is also important to note that an internal power struggle within the Taliban erupted with Mullah Akhtar Mansour emerging as the leader.
- Insurgency grew with the Taliban briefly taking over Kunduz and Ghormach districts and threatening Ghazni. Mr. Ghani felt betrayed and lashed out, accusing Pakistan of "waging war".

Quadrilateral Coordination Group:

- The Quadrilateral Coordination Group is a new initiative involving the U.S., China, Pakistan and Afghanistan. This was launched in January 2016.
- After a couple of meetings, there was a roadmap; Pakistan was to use its influence to get the Taliban to the negotiating table.
- Hopes were dashed when the Taliban demanded exit of foreign troops, release of detainees from Guantanamo, and removal of its leaders from international blacklists. Frustrated with Pakistan's inability to get Mullah Mansour to fall in line, the U.S. eliminated him in a drone strike in May 2016 in Balochistan. Maulvi Haibatullah was appointed as his successor.

Concluding Remarks

- Mr. Ghani launched the Kabul Process for Peace and Security Cooperation, and in February, 2018 made an unconditional dialogue offer to the Taliban.
- The Taliban rejected his overture, declaring that they were ready to engage in direct talks only with the Americans.
- Mr. Ghani persisted, resulting in a three-day ceasefire during Eid.
- In conclusion, it is important to note that today, the Afghan government controls barely half the country, with one-sixth under Taliban control and the rest contested.
- However, most significant is the ongoing depletion in the Afghan security forces because of casualties, desertions and a growing reluctance to join.
- U.S. President Donald Trump's South Asia policy announced last August aimed at breaking the military stalemate by expanding the U.S. and NATO presence, putting Pakistan on notice and strengthening Afghan capabilities has clearly failed. Experts believe that it is because of this failure that multiple processes are underway.
- Finally, everyone agrees that the war has to end; the question for the U.S. is how to manage the optics of the exit while not conceding victory to the Taliban.

- Lastly, since, July 2011, when the former President and Chair of the HPC, Burhanuddin Rabbani, visited Delhi, India has supported an 'Afghan-led and Afghan-owned' peace process. Last month, during Russian President Vladimir Putin's India visit, both countries expressed their commitment to the Moscow Format.
- India doesn't have the leverage to play spoiler but its presence is recognition that its economic cooperation programmes make it the most widely accepted development partner.
- It is important to note that pragmatism dictates that India remains engaged with the multiple processes underway. Peace remains elusive but India's engagement demonstrates commitment to the idea of a stable, independent and peaceful Afghanistan.

12. Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP)

- It is the first regional government-to-government agreement to promote and enhance cooperation against piracy and armed robbery against ships in Asia.
- Information Sharing Centre (ISC), an initiative for facilitating the dissemination of piracy-related information
- Through this information sharing, the ReCAAP ISC can issue warnings and alerts to the shipping industry and facilitate the responses by the law enforcement agencies of littoral states.

Australia	Bangladesh	Brunei
Cambodia	China	Denmark
India	Japan	South Korea
Laos	Myanmar	Netherlands
Norway	Philippines	Singapore
Sri Lanka	Thailand	United Kingdom
United States	Vietnam	

13. Samudra Shakti

- It is a naval exercise between Indonesia and India
- The aim of the exercise is to strengthen bilateral relations, expand maritime co-operation, enhance interoperability and exchange best practices.
- The exercise would start with a Harbour Phase encompassing planning and briefing on various activities, professional interactions, cross deck visits, sports fixtures and social interactions.

- This would progress to a Sea Phase which would include operations such as Joint Manoeuvres, Helicopter Operations, Surface Warfare exercise, ASW exercise and Anti Piracy exercises.

First edition

- INS Rana of the Eastern Fleet based at Visakhapatnam under the Eastern Naval Command is on deployment to the South East Asia and will participate in the inaugural edition at Surabaya Port
- The visit of the ship seeks to promote India's solidarity with Indonesia towards ensuring good order in the maritime domain and to strengthen existing bonds between the navies of the two nations.

14. SIMBEX-2018 – 25 Glorious Years and Counting

- SIMBEX (Singapore India Maritime Bilateral Exercise) marked its 25th anniversary and is currently underway.
- This year, 2018 the exercises are being conducted in four phases, two each in harbour at Port Blair and Visakhapatnam and two sea phases in the Bay of Bengal.
- Since its inception in 1993, SIMBEX has grown in tactical and operational complexity. It has transcended the traditional emphasis on Anti-Submarine Warfare (ASW) to more complex maritime exercises, such as Air Defence, Air and Surface practice firing, Maritime Security, and Search and Rescue Operations.

The News:

- After an intense sea phase of SIMBEX, Singapore India Maritime Bilateral Exercise in the Andaman Sea and Bay of Bengal, ships of the Republic of Singapore Navy (RSN) arrived Visakhapatnam on 16 November, 2018.
- Experts term the level of interoperability between the two navies as unprecedented. In this maritime bilateral exercise, ships, submarines and aircraft of India and Singapore – undertook multi-dimensional exercises at sea with perhaps very high degree of complexity.
- After the initial harbour phase at Port Blair, the exercises witnessed action at sea and have now shifted gears to the second harbour phase at Visakhapatnam which is home to the Eastern Naval Command (ENC) of the Indian Navy.
- Phase 1 of the 25th edition of SIMBEX has already witnessed over a dozen ships and submarines and a never seen before number of weapon firings at sea. The action now shifts to the harbour activities at Visakhapatnam before they kick off the intensive Second Phase of the exercise.
- In a symbol of the growing trust and comfort levels between the two navies, the event will witness unveiling of the SIMBEX logo, and release of commemorative Indian Special Postage Cover and Singaporean Postage Stamp.

- Further, the simultaneous release of Postal Cover and Stamp by Indian and Singaporean Postal department respectively also highlights the significance of this historic occasion between the two nations.
- Earlier, in June 2018, the Prime Ministers of both – India and Singapore, on the sidelines of the Shangri La Dialogue held at Singapore had remarked that they looked forward to the 25th and enhanced edition of bilateral annual naval exercise SIMBEX.

15. Ssirum (North Korea) and Sssireum (South Korea) wrestling

Context

- North and South Korea marked a new step in their reconciliation efforts as UNESCO accepted their joint bid for Korean wrestling to be recognised as part of the world's cultural heritage.

Details

- This form of wrestling has been practised at village festivals for centuries.
- Nationwide competitions are held every Chuseok, the Korean harvest festival, on either side of the border.
- In the South, wrestlers are topless and only wear tight shorts,
 - * While in the North they don sleeveless jackets.
- Southern matches are held on sand,
 - * While the North uses a round mattress.
- The sport has some similarities to Japanese sumo but begins with two wrestlers facing each other on their knees in a pit, holding onto a cloth sash tied around the waist and using their strength and technique to knock their opponent to the ground.
- The two Koreas had originally filed separate applications for their traditional form of wrestling to be recognised on the UN cultural agency's world heritage list.

Previous Instances

- "Kimchi" a fermented cabbage dish widely enjoyed across the peninsula was added to cards in 2012
 - * Prompting the North to seek the same status for its own version, granted in 2015.
- "Arirang" the Korean folk song, has a similar story — the South's was recognised in 2012, followed by the North's two years later.
- For wrestling, the South applied in 2016, a year after the North.

Significance

- This inscription, through a joint application, constitutes a historic first step on the road to inter-Korean reconciliation'

16. Ukraine's Martial Law

Context

- Ukraine's government has agreed to impose thirty days of martial law, starting 28th November across ten regions bordering Russia to the east and the Black and Azov Seas to the south.
- The decision came in response to a Black Sea spat, where Russia fired upon and seized three Ukrainian vessels, and detained 23 Ukrainian sailors. Ukraine called the incident "an act of aggression," but Russia maintains Ukrainian ships had trespassed in its waters.

Ukraine's martial law

- Martial law is generally implemented when a country incurs civil unrest, is in a time of national crisis, or is in a state of war.
- However, Ukrainian President Petro Poroshenko has maintained that the introduction of martial law "does not mean a declaration of war."



- The Sea of Azov—a small sea linked to the Black Sea through the Kerch Strait



- Ukraine insists that the patrol of the Kerch Strait, where the vessels were impounded, was authorised under a bilateral agreement with Moscow.
- A new bridge over the strait that connects mainland Russia with Crimea has raised concerns about Moscow's greater control and influence in the region.

Russia's View of this issue

- A court in Russian-annexed Crimea, has ordered many of them to be held in pre-trial detention, charging them with illegally entering its territorial waters.

Has martial law been declared in the past?

- This is the first time Ukraine has declared martial law since 1945. It was not declared during the flare-up in tensions and subsequent war in the country's east in 2014.
- Many have questioned whether Poroshenko chose now to enact the martial law in a bid to postpone the upcoming presidential elections and increase his dwindling popularity.

Other Areas of Conflict

- The Ukraine-Russia conflict has also widened religious schisms. The independence granted to the Ukrainian Orthodox Church from the Russian entity was criticised by Moscow.
- In turn, the election of two breakaway enclaves of Kiev, with Moscow's endorsement, drew criticism from Ukraine, leading European powers and the U.S. as violations of the Minsk accords.

Implications

- Russia now regularly inspects Ukrainian ships in the Sea of Azov, imposing extra costs on Ukraine. The area is vital to the Ukrainian economy - steel, grain and other goods pass through it.
- The developments of the last few days have affected the Ukrainian currency as markets reacted to the tension.
- The risk is that the conflict in eastern Ukraine could intensify. The pro-Russian separatists there have Russian heavy weapons, while Ukraine has received help from the West. They have been fighting since April 2014.
- The latest incident coincides with the anniversary of the November 2013 Maidan Square protests in Ukraine demanding integration with Europe, which was the prelude to Russia's invasion of Ukraine's Crimea in 2014. The protracted conflict has so far claimed about 10,000 lives and displaced millions, and no lasting resolution is in sight.

International Negotiations to address the rising tussle

- There has been constant Western diplomatic pressure since this conflict has mushroomed, with the UN Security Council and NATO calling on Moscow and Kiev to de-escalate tensions.
- European powers are divided between those advocating greater diplomatic engagement with the Kremlin and others wanting to press with further sanctions to punish perceived Russian political interference. With this dilemma, lack of firm conviction to this issue it has achieved little by way of confidence-building in the region.

Conclusion

- With hawkish behavior emanating from the US administration and Provocation from NATO's continued expansion into the former Eastern Europe and the erstwhile USSR, it is time for greater engagement with Moscow
- So with the humanitarian situation arising from the continuing conflict brooks no delay in arriving at a speedy resolution

Minsk agreements

- The Minsk Protocol (later known as Minsk-1) with the Minsk Memorandum of September 2014 and the Package of Measures for the Implementation of the Minsk Agreements (Minsk-2) are agreements between Ukraine and Russia to resolve the conflict in eastern Ukraine.
- The Minsk Protocol (Minsk-1) failed. Four months later Minsk-2 was signed to revive the peace efforts featured by Minsk-1. Minsk-2 is basically a more detailed Minsk-1 agreement. Minsk-2 didn't replace the first agreement, but it was intended to revive the Minsk-1 after its collapse.
- The 2014-15 Minsk peace accords prohibited air strikes and heavy artillery firing.

17. Temporary relief for India as US exempts 8 countries from Iran sanctions**Background**

- Donald Trump pulled the U.S. out of the Joint Comprehensive Plan of Action (JCPOA) or "Iran Deal".
 - * More than 20 countries have decreased their imports of Iranian crude
 - * The European Union, which has stayed in the deal, has been frustrated by the America's efforts to stifle European business's activities with Iran.
 - * The Society for Worldwide Interbank Financial Telecommunication (SWIFT), the international financial messaging service headquartered in Belgium, has said it will comply with U.S. sanctions as have many other European companies, faced with the choice of being penalized by the U.S. or trading with Iran.
- This was done to curb Tehran's missile and nuclear programs and diminish the Islamic Republic's influence in the Middle East.

Details

- India, the world's third-biggest oil consumer, meets more than 80 per cent of its oil needs through imports.
 - * Iran is its third-largest supplier after Iraq and Saudi Arabia and meets about 10 per cent of total needs.

- Now, The United States has granted exemptions to eight countries allowing them to temporarily continue buying Iranian oil
- Some of the eight countries - China, India, Greece, Italy, Taiwan, Japan, Turkey and South Korea - include OPEC member Iran's top customers.

Iran Freedom and Counter-Proliferation Act of 2012 (IFCA)

- The Iran Freedom and Counter-Proliferation Act of 2012 (IFCA) was one of the laws under which sanctions on Iran were earlier imposed by former U.S. President Barack Obama, with implications for non-US companies working with Iran in various sectors including shipping, shipbuilding, energy and insurance.
- It involves sanctions cover Iran's banking and energy sectors and reinstate penalties for countries and companies in Europe, Asia and elsewhere that do not halt Iranian oil imports.
- In a statement released by USA, Activities related to the development of the Chabahar port in Iran will be exempt from U.S sanctions

Port Access

- India has committed \$500 million to the project and \$2 billion to build a railway line from Chabahar to Hajigak in Afghanistan.
- This waiver will bring some measure of relief to India, which had been discussing a sanctions exemption for Chabahar
- This exception relates to reconstruction assistance and economic development for Afghanistan. These activities are vital for the ongoing support of Afghanistan's growth and humanitarian relief
- The U.S. also wants a "close partnership" with India and the U.S seeks to maintain a close relationship with both countries as they pursue a "policy of maximum pressure" against Iran.

What does this mean for USA?

- The U.S. may have had a rethink on its sanctions, and the costs incurred in pushing around allies and partners such as India, Japan and South Korea to "zero out" oil purchases.
- This flexibility could be a sign that the U.S. is leaving space for leeway in resuming talks with Iran in the long term.

What it means for India?

- The fact that the waivers are temporary, and contingent on further reductions in oil trade with Iran, means that for now India will need to continue to find alternatives to its offtake from Iran

- Moreover, despite the waivers from the U.S., India will still face the impact of the U.S. sanctions, both on oil and on its investment in Chabahar, as very few international companies may be willing to undertake contracts.
- Above all, by seeking the waivers, instead of sticking to its earlier line that it accepted only UN and not "unilateral" sanctions, India has lost its moral leverage.
- Unlike China, it chose to reduce its oil intake from Iran, and entered into negotiations for alternative fuel supplies from Iran's rivals in the Gulf. This could, in turn, impact Delhi-Tehran ties in the long run.

Conclusion

- As a result, by securing the waiver the government has not exactly dodged the figurative bullet, but merely outpaced it. It will need to keep outrunning that bullet for the foreseeable future.

18. Vajra Prahar

- It is Indo-US joint military exercise
- The United States Special Forces will carry out rigorous joint training in semi-desert and rural terrain to enhance the interoperability of the two armed forces and further the military to military co-operation.
- The contingents will train on different aspects including hostage rescue, building intervention, desert survival, medical aid and combat firing.

19. Vietnam's relationship with India

Context

- President Ram Nath Kovind visited Vietnam.

In this pretext India has to increase its bonhomie and further its relationship with Vietnam.

This can be regrouped into three dimensions

How Vietnam Evolved?

IDoI Moi policy

- It is the name given to the economic reforms initiated in Vietnam in 1986 with the goal of creating a "socialist-oriented market economy".
 - * The main thrust of the Doi Moi (Open Door) is to promote a multi-sector economic system, emphasising the state sector while encouraging the private sector.
 - * What this means is that Agricultural products which were imported are now being exported.
- So this Agricultural competence has furthered Vietnam's entry into the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) due to its exports increasing to approximately \$240 billion for the year 2018.

- One of the core areas of Mr. Kovind's visit focussed on furthering cooperation in agriculture and innovation-based sectors, pushing the potential for increasing bilateral trade to \$15 billion by 2020.

Common ground of health

An area of potential convergence for both Vietnam and India is health care

- The 12th National Congress of the Communist Party of Vietnam, in 2016, highlighted the importance of linking economic growth to universal health care, whereby 80% population would be covered by health insurance.
- India too, since 2011, has been focussing on the need to deliver accessible and affordable health insurance to weaker sections of society.

Vietnam's Balancing Act

- Internationally, Vietnam's foreign policy is characterised by 'multidirectionalism', which addresses regional asymmetries of the power balance by engaging across a broad spectrum of states to achieve its interests.
- Increasingly, this asymmetrical power structure in the region, offset by the rise of China, is bringing regional and extra-regional states together to address the shifts in the normative order.
- Within this context, Vietnam even normalised relations with the U.S., its former opponent, credit for which is given to the late U.S. Senator, John McCain.
- there is increasing commonality of security concerns particularly in the areas of maritime security and adherence to the United Nations Convention on the Law of the Sea
- So the need of the hour is 'rules based order in the Indo-Pacific', as iterated by President Kovind while accounting for diverse approaches to maintaining regional stability.

Focus on sub-regionalism

- The India-Vietnam Joint Statement of March 2018 reiterates the focus given to sub-regionalism and the Mekong Ganga Cooperation framework.
- CLV, or Cambodia-Laos-Vietnam growth triangle sub-regional cooperation, bringing these three countries together.
- India and Vietnam can jointly explore the potential for enhancing capacity building and providing technical assistance and training within this sub-regional grouping.

Conclusion

- The major takeaway from Mr. Kovind's visit is the reference to the 'cooperation model'
 - * This model that India offers does not require its friends to make choices but rather expands choices and expands opportunities for all

- Both India and Vietnam have to find more compatibility in areas of defence cooperation and infrastructure simultaneously.
- The ties have progressed under the Look East and Act East Policies, going forward they need to factor in pragmatism, helping relations to move forward.

20. India and the U.S., oceans apart

Introduction

- The U.S. has sold nearly \$15 billion worth of arms to India over the last 10 years.
- So the Donald Trump administration's displeasure at India's recent decision to buy the S-400 missile system from Russia puts a question mark about the future of India-U.S. cooperation in the Indo-Pacific for three reasons.
 - * Washington perceives Russia as a security threat.
 - * It stresses interoperability with U.S. armed forces.
 - * And, believing that the U.S. makes 'the best military product in the world', Mr. Trump aims to help American defence firms compete successfully against Russian and Chinese arms manufacturers.

What does "Indo-Pacific" mean according to USA?

Some in New Delhi have interpreted Washington's use of the label "Indo-Pacific" to mean that the U.S. has made India the central point of the Indo-Pacific.

- But neither Mr. Trump nor the National Security Strategy (NSS) document of 2017, (which outlined America's top security concerns, have corroborated the Indian interpretation.
 - * The National Security Strategy (NSS) is a document prepared periodically by the executive branch of the government of the United States for Congress which outlines the major national security concerns of the United States and how the administration plans to deal with them.
- Mr. Trump first spoke about the Indo-Pacific at the Asia-Pacific Economic Cooperation (APEC) Summit in Da Nang, Vietnam, in November 2017, he hailed Vietnam as being at "the very heart of the Indo-Pacific".
- The NSS 2017 views the Association of Southeast Asian Nations (ASEAN) and APEC as "centerpieces of the Indo-Pacific's regional architecture".
 - * The Indo-Pacific, as described in the NSS, represents the most populous and economically dynamic part of the world and "stretches from the west coast of India to the western shores of the United States".

- * The NSS 2017 has omitted some of India's most vital interests, including the Bay of Bengal and the Arabian Sea. Also left out is the Strait of Malacca, which links the Indian and Pacific Oceans and is India's gateway to trade with Southeast Asia, Japan and South Korea.

India's Definition

- For India, defence cooperation is the most significant dimension of the India-U.S. strategic partnership but for Mr. Trump Business engagement is at the centre of a "free and open Indo-Pacific".
- India itself is unclear about what it means by the Indo-Pacific. New Delhi has tended to present the term "Indo-Pacific" as raising India's strategic stature.
 - * But at the Shangri-La Dialogue, Prime Minister Narendra Modi hailed ASEAN as the foundation of the Indo-Pacific and asserted that a geographical definition could not be a strategy to contain any country.

Countering China

- Mr. Trump's concept of the Indo-Pacific seeks to counter China's assertiveness in Asia.
 - * China is the main security threat to U.S. primacy in Asia. It also has a long-standing border dispute with India.
 - * That gives India and the U.S. a shared interest in countering China's growing military power and territorial revisionist tendencies.
- The NSS 2017 recognizes that China's military power rests on its economic progress and its focus is on blunting China's competitive edge.
- Mr. Trump's ideal of "America first" is about protecting American jobs, ensuring reciprocal bilateral trade practices, and the key role of the private sector — not the state — in directing investment

Comparison of numbers

- China's economy (\$14 trillion) is nearly five times bigger than India's
- Its defence spending (\$228 billion) is far more than India's \$63 billion.
- In 2016, two-way trade between India and ASEAN moved up to \$71.6 billion.
 - * In contrast, two-way trade between China and ASEAN stood at more than \$452 billion.
- At another level, maritime power is the key to international clout in the 21st century. About 90% of India's trade passes through the Indian Ocean.
 - * India has less than 20 submarines in service; China 78.
- In 2017, China successfully launched its second aircraft carrier, which was domestically built. But it will be many years before India's second home-built aircraft carrier becomes operational.

Concerns

- Mr. Trump wants India to offer more investment to Asian countries.
 - * But India needs Chinese investment to upgrade its own infrastructure and is nowhere near competing successfully against China as an investor in Southeast Asia.
- Moreover, Mr. Trump's contemptuous labelling of India as the "tariff king" points to strong differences over trade practices.

What needs to be done?

- The U.S. Navy and Marines get the lion's share of the U.S. military budget. Significantly, of India's three services, its Navy gets around 15% of the defence budget.
- So India would need intelligence-sharing and drones promised by the U.S. at the 2+2 Dialogue to detect Chinese submarines in the Indian Ocean.

Conclusion

- India is Dependent on the U.S. and Russia for most of its arms
- It depends on the U.S. and China for much of its trade —
- So India has to engage simultaneously to cultivate good relations with the U.S., Russia and China. As Nehru once said "Sovereignty is, above all, sovereignty in foreign policy".

21. A judgment and its aftermath (Pakistan: Blasphemy Law)

Larger Background:

- A Christian woman in Pakistan was accused of blasphemy.
- The woman, Asia Bibi, was convicted in 2010 on little evidence of violating Pakistan's law against blasphemy by insulting the Prophet Muhammad.
- She spent years on death row before she was acquitted on 31st October, 2018 by the country's Supreme Court.
- However, despite her legal victory, which was hailed worldwide by rights groups, Ms. Bibi's lawyers and her family have expressed fears for her safety because hard-line Islamist parties in Pakistan have called for her execution.
- Ms. Bibi, an illiterate berry picker, was convicted of defiling the name of the Prophet Mohammed.
- She was accused by her Muslim neighbours who objected to her drinking water from the same glass as them because she was Christian.
- Under Pakistan's blasphemy law, her alleged comment is punishable by death.
- In 2010, Ms. Bibi, at age 39, was sentenced to hang, but her final appeal remained pending until the Supreme Court decision on 31st October, 2018.

- In intervening years, Ms. Bibi's case became an international cause célèbre. Earlier this year, Rome's Colosseum was lit in red in support of persecuted Christians, including her, and Pope Francis described Ms. Bibi, alongside a Nigerian woman who was captured by Boko Haram, as "martyrs".
- The Pope's attention to Ms. Bibi's case paralleled efforts by the European Union's Special Envoy for the promotion of the freedom of religion or belief to secure her release by making it a condition for continued European market access for Pakistani products. The Pakistani government was informed that the future of Generalised System/Scheme of Preferences (GSP) status to Pakistan, which allows Pakistan duty-free access to EU markets, would be directly linked to the peaceful resolution of the blasphemy case.

Editorial Analysis:

- Experts have pointed out that the reaction by extremist Islamist groups to the Pakistan Supreme Court's decision to acquit a poor Christian woman, eight years after she was charged with blasphemy, highlights the country's deeper problem.
- Unfortunately, Pakistan usually finds itself at the mercy of hardline clerics and unscrupulous individuals seeking to exploit religion for political gain. The result is not only loss of individual liberty but also a state of permanent crisis.

Weaknesses within the Pakistan State:

- It is important to note that the Asia Bibi case has all the elements of Pakistan's inherent weaknesses.
- Firstly, the law allowed neighbours with a grudge to persecute Asia Noreen, usually referred to as Asia Bibi, and now, even belated judicial recognition of her innocence seems unacceptable to those rioting in the streets.
- They want to kill someone against whom the Supreme Court found no credible evidence and are threatening apex court judges as well senior military commanders while trying to force Pakistan to a halt.
- The reason the Supreme Court heard Ms. Bibi's appeal and acknowledged in its judgment what had been widely known — that witnesses against her had either retracted their testimony or contradicted each other — can be found in Pakistan's severe financial woes. Ms. Bibi got relief she should have been entitled to as a right just because the Chief Justice wanted to help a weak new government struggling to manage the country's external finances.

A Note on Pakistan's blasphemy laws:

- Pakistan's blasphemy laws date back to the military dictatorship of General Zia-ul-Haq.
- A series of changes were introduced in the 1980s, making derogatory remarks against any Islamic personage a crime under Section 295 of Pakistan's Penal Code and punishable by:

- * three years in prison;
- * prescribing life imprisonment for "wilful desecration of the Quran"; and
- * 3punishing blasphemy against Prophet Mohammed with "death, or imprisonment for life".

- Experts point out that Ms. Bibi's case illustrates how blasphemy laws are used to persecute the weakest of the weak among Pakistan's religious minorities.
- As a poor Christian from a low caste, she was among the most vulnerable and susceptible to discrimination.
- Further, the legal system — which, in theory, should be designed to protect the innocent — failed her in every way until political expediency necessitated otherwise.
- It is important to note that laws prohibiting blasphemy or harming religious feelings exist in many countries, although in some places they are rarely used even if they still exist on the statute books.
- However, Pakistan, has one of the highest numbers of blasphemy cases in the world. Here, the charge of blasphemy is used widely to settle grudges or property disputes.
- There is also political advantage to be gained by appealing to the religious sentiment of majority Muslims against Christians, Ahmadi Muslims, and members of other minority communities.
- What compounds matters is that the constant state of religious frenzy that Pakistan's machinery of state maintains as a guarantee of Pakistani nationhood heightens vigilante violence against alleged blasphemers and their alleged protectors.
- As with her previous trials and appeals, large crowds gathered outside the court in Islamabad on 31st October, 2018, demanding that Ms. Bibi's conviction be upheld, and the execution carried out.
- Further, in messages sent to the media, Tehreek-e-Labbaik Pakistan asked soldiers to rebel against the Army Chief, saying that the acquittal presumably had the military's backing.
- It is important to note that as Pakistan gets increasingly isolated internationally, the military may have sought Ms. Bibi's acquittal and reported departure to safety abroad to relieve some pressure on Pakistan's image around the world.
- She is reported to have left Pakistan and to have been reunited with her husband, daughters and grandchild.
- The Jamaat-e-Islami, which, like Tehreek-e-Labbaik, has a very strong street presence, has asked its members to come out in Islamabad to demand that the acquittal be reversed. Even the army's overt protégé, Hafiz Saeed of the Lashkar-e-Taiba, has joined the call for protests over the Supreme Court judgment.

- Amidst reports of violence, the national media, especially television channels, have gone totally silent about Mr. Bibi's release. They, too, are under threat from the baying mobs.

Concluding Remarks:

- Experts point out that in an effort to claim moral leadership, Pakistan Prime Minister Imran Khan attacked hardliners and appealed for calm in a televised address, taking a U-turn from his pre-election rhetoric that had projected him as a defender of the Prophet's honour and a crusader against blasphemers.
- According to Mr. Khan, the hardliners were "inciting [people] for their own political gain" and were "doing no service to Islam".
- However, ministers have also started negotiating with the extremist clerics, and it is only a matter of time before another U-turn is taken to fashion some compromise with the hardliners.
- Finally, the Supreme Court's decision in the Asia Bibi case is a small step in the right direction but a long journey awaits Pakistan in reversing the cumulative injustice it has meted out to its religious minorities over the decades

22. World's first sovereign Blue Bond by Seychelles

Context:

- The Republic of Seychelles has launched the world's first Sovereign Blue Bond, a financial instrument designed to support sustainable marine and fisheries projects. With this, Seychelles became the first nation to pioneer such a novel financing instrument.
- The bond raised USD 15 million from international investors. The bond demonstrates the potential for countries to harness capital markets for financing the sustainable use of marine resources.

Key features and uses of the Blue Bond:

- The Blue Bond is a part of an initiative that combines public and private investment to mobilise resources for empowering local communities and businesses. It will greatly assist Seychelles in achieving a transition to sustainable fisheries and safeguarding oceans.
- The Seychelles blue bond is partially guaranteed by a USD 5 million guarantee from the World Bank (IBRD) and is further supported by a USD 5 million concessional loan from the Global Environment Facility (GEF) which will partially cover interest payments for the bond.
- Proceeds from the bond will be utilised for the expansion of marine protected areas, improved governance of priority fisheries and the development of the Seychelles' blue economy.

- Proceeds from the bond will also contribute to the World Bank's South West Indian Ocean Fisheries Governance and Shared Growth Program, which supports countries in the region to sustainably manage their fisheries and increase economic benefits from their fisheries sectors.
- Grants will be provided through the Blue Grants Fund and will be managed by the Seychelles' Conservation and Climate Adaptation Trust (SeyCCAT).

23. India steps up agro-diplomacy with China

Context:

- As the trade war with the United States continues to bite — with only a slim chance that the world's two biggest economies can go past a possible truce — China appears to be opening up to non-U.S. imports.

New Opportunity for India

- Sensing that China would look first at its food security by diversifying imports in view of the trade war India finds an opportunity to export more to China.
- The focus so far has been on pushing agri-products into the Chinese market. Indian food and beverage producers have been conducting seminars and road shows in the Chinese capital over the past two months.
- Agri-imports likely to grow from India to Chinese Market

Soya bean

- After China imposed a 25% levy on U.S. imports, Indian soya bean exports are apparently a priority.
- Success in the huge Chinese soya bean market is yet to materialize, though some progress may have registered during talks.

Tea

- Recently an Indian Company signed a \$1-million black tea export contract with Chinese state-owned COFCO.
- China has been traditionally a green tea market. Assam tea, in particular, has good prospects in China as it blends well with milk-based tea drinks.

Sugar

- India's efforts to export sugar to China, which began in earnest in June, also appear to have paid dividends.
- The Indian Sugar Mills Association had signed its first sugar export contract of 50,000 tonnes with COFCO.
- India's proven capacity to meet China's sugar needs over the long haul was recently briefed to The Chinese Sugar Association.

Rice

- China is a lucrative \$1.5-\$2 billion market for Indian rice.
- China has opened up imports of non-Basmati rice from India in June on the sidelines of the Qingdao summit of the SCO.

Trade Imbalance with China

- Despite signs of incremental progress, India's \$63-billion trade imbalance with China is alarming.
- India had raised the red flag about its adverse trade balance during China's trade policy review at the WTO.
- It specifically cited hindrances that Indian exporters of rice, meat, pharmaceuticals and IT products were encountering to access the Chinese market.

24. MoU between India and Tajikistan**Context:**

- The Union Cabinet chaired by Prime Minister Shri Narendra Modi has given its ex-post facto approval to the Memorandum of Understanding (MoU) between India and Tajikistan on Cooperation on Youth Matters.

Objective:

- The objective of the MoU is to strengthen and encourage cooperation on youth matters with Tajikistan through participation in events and activities organized by either side, information and knowledge sharing, and youth exchanges.

Benefits:

- The Agreement will facilitate exchange programmes in the field of Youth Affairs, which will help in promoting exchange of ideas, values and culture amongst Youth and in consolidating friendly relations between India and Tajikistan.
- The benefits arising from such bilateral exchange programmes between both countries would be equally available to all youth irrespective of their caste, religion and gender.
- These will further help in developing international perspective among the Youth and expanding their knowledge and expertise in the areas of Youth Affairs

25. Maldivian reprieve (India- Maldives Relations; India and her Neighbourhood)**Note to Students:**

- This issue assumes importance not only because of the recent turn of events in Maldives- that of its newly elected President and the changes one can potentially witness in India-Maldives relations, but since the focus is on Maldives, students should also orient themselves with the historical narrative that successive Government's in India has had with that of Maldives.
- In the subsequent sections, we elaborate on the bilateral engagement that India has had with Maldives, giving a historical perspective to the ties.

What's in the news?

- This editorial section focuses on what the newly elected President of Maldives, Ibrahim Solih must do.
- It points out that Ibrahim Solih must hit the ground running to stabilise the economy.

Larger Background:

- India and Maldives enjoy close ties of friendship and cooperation and share a common destiny. Peace and stability in Maldives is of utmost importance to India and the region.
- Maldives is a nascent democracy and is in the process of strengthening its institutions and capacity building.
- India remains committed to assist the Government and people of Maldives in their endeavours to build a stable, democratic, peaceful and prosperous country.
- In this context, India is actively engaged with all stakeholders in the reconciliation process in the wake of recent developments, in order to ensure that they continue to take the democratic process forward.
- Both the countries share long cultural links and continuous efforts are underway to further strengthen these links.
- Indians are the second largest expatriate community in the Maldives with a total strength of around 28000. The Indian expatriate community consists of doctors, nurses and technicians, teachers, construction workers, tailors, etc. spread all over the country.

India's assistance to the Maldives:

- Following the tsunami waves that hit Maldives on the morning of 26 December 2004, India was the first country to rush relief and aid to the Maldives. Government of India had sent a few ships of the Indian Navy to provide assistance. The ships delivered foodstuff & medicines, treated patients in a field hospital set up by their medics, undertook repair of electricity generators & communication equipments and also evacuated patients in the shipborne helicopters when required.
- Government of India also sanctioned a budget support aid of Rs.10 crores to Maldives in 2005 in response to President Gayoom's request for financial help in view of the serious financial difficulties Maldives was facing on account of the tsunami and related factors.
- Again in 2007, following President Gayoom's appeal in the aftermath of tidal surges in Maldives, Government of India gave a cash assistance of Rs.10 crores.
- In the past, due to the severe foreign exchange crisis in Maldives, the Maldivian Monetary Authority (MMA) issued treasury bonds denominated in US dollars for the first time in December 2009. The entire lot of US \$ 100 million was subscribed to by the State Bank of India to help Maldives recover from the shortage of the currency.

Excerpts from the recently issued Joint Statement:

- Prime Minister Modi thanked President Solih for the special gesture of inviting him to the Inauguration Ceremony.
- The two leaders, expressed confidence in the renewal of the close bonds of cooperation and friendship with the election of Mr Solih as the President of the Maldives.

- Prime Minister Modi welcomed the expanding opportunities for Indian companies to invest in the Maldives in different sectors for the mutual benefit of both countries.
- Recognizing that nationals of both countries travel extensively between the two countries, the leaders also agreed on the need for facilitating easier visa procedures.
- President Solih also briefed Prime Minister Modi on the dire economic situation facing the country as he takes office. The two leaders discussed ways in which India can continue development partnership, particularly to help the new government in meeting its pledges to the people of the Maldives.
- In particular, President Solih highlighted the pressing need for increased housing and infrastructure development as well as for establishing water and sewerage systems in the outlying islands

Editorial Analysis:

- In a recent development, after five years, the Maldives has put a pro-people administration in power, swearing in Ibrahim Solih, representing the Maldivian Democratic Party, as President on November 17, 2018.
- It is important to note that the Solih government came to power on the back of a coalition of unlikely bedfellows.

An unlikely coalition:

- The MDP, the party of former President Mohamed Nasheed, has joined hands with the Jumhooree Party of business tycoon Qasim Ibrahim, the Islamic-based Adhaalath Party, and the support base of former President Maumoon Abdul Gayoom.
- Experts believe that they will have to ensure that ideological differences do not cause the coalition to split at the seams, and unravel the consequences of previous President Abdulla Yameen flinging open the doors to Chinese investment, allowing a cascade of financing that caused the national debt to balloon to nearly a quarter of GDP.
- However, a strategic return to India and its underlying democratic values could back-stop the economic pummelling that Male is sure to face if creditors in Beijing start calling in their dues.
- President Ibrahim Solih has announced a slew of populist policies, and vowed to end an era of "large-scale embezzlement and corruption".
- It is important to note that in the Maldives, untold millions have allegedly been paid to officials as kickbacks for various mega-construction projects.

Concluding Remarks:

- Experts point out that the new government is being cautious, but apparently firm, in unravelling this web of debt.

- The leadership has promised that what is owed will be paid, and not a penny more; and that wherever opacity cloaked the grant of land, lease rights, construction projects and more, the honouring of debts would be linked to whether a transparent and fair process was followed in the first place.
- Yet, there is little doubt that China is there to stay in the Maldives, and a balancing agreement will have to emerge through the plethora of commercial contracts the new government would ideally like to renegotiate.
- Experts point out that in this mission, the renewed bonhomie with India, reflected in the respect accorded to Prime Minister Narendra Modi and the Indian delegation at the inaugural ceremony, will play a crucial role.
- It is important to note that innumerable Indians work across the hospitality, education, and health-care sectors of the Maldives economy, and India contributes everything from helicopters to medical visas to Maldivians.
- The greatest threat to stability comes less from geo-strategic outcomes than from within the fabric of its polity
- Certain elements that backed the anti-democratic 2012 'coup' that unseated Mr. Nasheed and supported the dramatically centralised power of the previous presidency still abide within the ruling combine.
- Finally, experts point out that there is only one option for the fledgling coalition government: to strengthen Maldivian institutions and, by extension, democracy.

26. 21st round of Special Representatives' talks

Context

- National Security Advisor Ajit Doval and Chinese State Councillor and Foreign Minister Wang Yi met in Chengdu in southwestern Sichuan province for the 21st round of Special Representatives' talks.

Details

- India and China resolved to "intensify" their efforts to achieve a "fair, reasonable and mutually acceptable" solution to the vexed boundary question at an early date as the special representatives of the two countries held "constructive and forward-looking" talks
- The India-China border dispute covers 3,488-km-long Line of Actual Control or LAC.
- Mr Doval and Mr Wang "underlined the importance of approaching the boundary question from the strategic perspective of India-China relations and agreed that an early settlement of the boundary question serves the fundamental interests of both countries,"
- The Special Representatives held discussions on various confidence building measures to promote exchanges and communication between their border personnel.

Experts point out that National Security Adviser Ajit Doval's visit to China for the 21st edition of Special Representatives talks presents an opportunity to take stock of the dos and don'ts related to the resolution of the boundary dispute.

They cite the following:

- Firstly, China has resolved all its continental land borders, except with India and Bhutan
 - * In those instances, the U.S. was neither an ally nor a key defence partner of that counterpart country.
 - * It is also important to note that New Delhi's blossoming maritime ties with the U.S. implies that the India-China frontier will remain an expedient pressure point in China's playbook, to signal disaffection.
 - * Further, full resolution will have to await that as-yet distant day when India is willing to elevate its ties with Beijing at par with Washington.
 - * Experts point out that vigilance and patience are counselled in the interim.
- Secondly, the lack of a medium-term resolution does not prevent India and China from narrowing their boundary-related differences.
 - * It is important to note that each easing cycle in India-China ties, going back to the establishment of the Special Representatives mechanism in 2003, has witnessed an initial focus on repair and stabilisation on the ground followed by a successful effort at narrowing the underlying dispute at the table.
 - * Further, with the 'Wuhan spirit' as the backdrop, the recent effort to link up military headquarters and regional commands with hotlines bodes well for an intensive phase of settlement-related discussions after the general election next year.
- Thirdly, none of China's 12 territorial settlements has been concluded under duress or reflects an obsession with cartographic detail.
 - * Rather, an opportunity cost-based calculus tied to good neighbourliness has prevailed. The received wisdom that New Delhi can leverage its American relationship or the Dalai Lama to extract a stiffer bargain on the boundary is wrong.
 - * Both recent periods of effusive Indo-American warmth (2007-2010 and 2015-2017) witnessed more, not less, pressure on the boundary.
- Fourthly, experts point out that while India has been admirably flexible in accommodating a variety of dispute settlement modes, including third-party arbitration, a solitary principles-based package approach has characterised China's territorial settlements.
 - * Mr. Doval's preference for a bottom-up approach which clarifies specific points of contention along the Line of Actual Control is unlikely to find purchase with State Councilor Wang Yi.

- * That having been said, it is nowhere written in stone that a package-based settlement must extend across every inch of the frontier all at once.

Concluding Remarks:

- Experts point out that Mr. Doval should aim to realize an early harvest settlement that delimits a substantial portion of the boundary in the east and west, while shelving the most intractable points to a future date when India and China are more geopolitically supportive of each other's aspirations in Asia and the world.

SOCIAL ISSUES

1. Bonda

Context

- They are a tribal people who currently live in the hills of Odisha's Malkangiri district in India.
- There are two different Bonda tribes: the Upper Bonda and the Lower Bonda
- Among the men alcoholism is a major issue. They spend much time brewing and consuming liquor from rice, palm and the mahua flower.
- The barter system commonly known as 'Binnimoy Pratha', still exists in them.
- Bonda women usually don't grow their hair and are semi-clothed due to reasons associated from the times of Ramayana.
- Pangal festival: the Bonda men move into the forest for hunting purpose and won't return back without hunting anything

Details

- The Union Cabinet approved amendments as cases were facing long delays at the level of courts.
- Adoption process is set to get simple for prospective parents, who will now not be required to make several rounds to a court to seek an adoption order as the Union Cabinet authorized District Magistrates or District Collectors to do so.

2. Dangaria Kandha

- The Dangaria Kandha or Dongria Kondh people are members of the Kondhs, of the Munda ethnic group.
- They are located in the Niyamgiri hills in the state of Odisha
 - * Niyamgiri Hills is not only a sacred mountain to the Dongrias, but it also plays a major role in the region's ecology.
- The Dongrias have earned the status of PVTG (Particularly Vulnerable Tribal Group) from the Government of India.
- The Dongria Kondh derive their name from dongar, meaning 'agricultural land on hill slopes', and the name for themselves is Jharnia – "protector of streams".
- The people of Niyamgiri use Kui language. Kui language is not written, but it is spoken among the people of Kondh community

Context

- Amnesty India has urged the Odisha government to stop police atrocities on indigenous Dongria Kondh community by branding them as CPI (Maoist) cadres.

3. Emergency Response Support System (ERSS)

Context

- The Union Home Minister Shri Rajnath Singh launched Emergency Response Support System (ERSS) for Himachal Pradesh.

Details

- Himachal Pradesh is the first state to launch pan-India single emergency number '112' under ERSS.
- Under this project, one Emergency Response Centre (ERC) has been established in Shimla along with 12 District Command Centers (DCCs) covering entire State.
- Emergency Response Centre has been integrated with Police (100), Fire (101), Health (108) and Women helpline (1090) Services to provide emergency services via single emergency number - 112.

Women centric feature

- The service also includes a '112 India' mobile app integrated with Panic Button of smartphones and ERSS State website for ease of citizen in availing immediate assistance.
- To increase the effectiveness of Emergency Response, the ERC has also been integrated with Location Based Services provided by Telecom Service Providers.
- To ensure safety of women, a SHOUT feature has been introduced in '112 India' mobile app to seek immediate assistance from registered volunteers in the vicinity apart from the immediate assistance from Emergency Response Centre.
- The SHOUT feature is exclusively available to women.

4. Global IT Challenge for Youth with Disabilities 2018

Begins

- The Global IT Challenge for Youth with Disabilities, 2018 was inaugurated by the Minister of State for Social Justice & Empowerment, Shri Krishan Pal Gurjar.
- It is being organized by the Department of Empowerment of Persons with Disabilities (DEPwD), Ministry of Social Justice and Empowerment in association with Rehabilitation International Korea and their associated partner LG Electronics.

Objective:

- To leverage IT skills among youth with disabilities and also to spread awareness about the application of Information and Computer Technology (ICT) in enhancing the quality of life of persons with disabilities especially in Asia-Pacific region.

About:

- The Global ICT Challenge for Youth with Disabilities is a capacity building project that helps youth with disabilities to overcome their limitations and challenge themselves for a better future by providing them with access to ICT and related experiences, improving their ability to leverage information and social participation while setting ICT agendas for participant countries related to disabilities and boosting international cooperation and exchange.
- This year around 100 youth with disabilities (visual disability, hearing disability, locomotor disability and intellectual disability/developmental disorder) from 18 countries namely, India, Indonesia, China, Vietnam, Malaysia, Thailand, Sri Lanka, Bangladesh, Nepal, Mongolia, Cambodia, Laos, Philippines, Korea, Kazakhstan, Kyrgyzstan, UK and UAE are participating in this event.
- The competition is focused on strategies for strengthening IT skills of youth with disabilities as a critical requirement for enhancing their access to information and communication services on an equal basis with others.
- It is being held with a total of four events including e-Tool Challenge to evaluate the skills of using the MS Office programme and e-Life Map Challenge to evaluate the online information search ability in specific situations.

5. HAUSLA-2018

- It is a National Festival for Children of Child Care Institutions (CCIs)- "Hausla 2018" initiated by Ministry of Women and Child Development (MWCD)
- The inter-Child Care Institution festival is witnessing participation of more than 600 Children drawn from CCIs from 18 states in the various events like painting competition, athletics meet, football, chess competition and speech writing as part of the Festival.
- The theme for the event is "Child Safety".

Significance

- It will provide a national platform for the children from CCIs across India to showcase their talent, to make them realise the hidden talent they possess and to help take it forward in their life.
- It would instill confidence in them to achieve greater heights in life

6. Lambadas

- The Lambada tribe is one of the oldest tribes, also known as Banjara, Boipari, Sugali or Sukali, Vanjari, Brinjari, Labani, Labana, Lambani, etc. in different parts of India.
- The Banjaras are believed to have originated from the Marwar region of Rajasthan
- Banjara is said to be derived from the Sanskrit word vana chara (wanderers in jungle).

- The word Lambani or Lamani is derived from the Sanskrit word lavana (salt), which was the principal product they transported across the country
- Banjaras speak Gor Boli; also called Lambadi, it belongs to the Indo-Aryan group of languages. As Lambadi has no script, it is either written in Devnagri script or in the script of the local language such as Telugu or Kannada
- Banjara people celebrate the festival of Teej during Shravana (the month of August). In this festival young unmarried Banjara girls pray for a good groom
- They spread gradually into Kashmir, Bengal, Karnataka and Gujarat, and are now found all over India

7. Magnificent Mary

- M.C. Mary Kom recently enhanced her already legendary status when she defeated Ukraine's Hanna Okhota in the 48 kg segment of the Women's World Boxing Championship in Delhi on 24th November, 2018.
- This was her sixth gold across World Championships, drawing her level with Félix Savón, the Cuban great who ruled amateur boxing in the 1980s and 1990s.
- This was the latest of her six world titles and was secured after a gap of eight years. Kom had said that this latest accomplishment was the toughest of them all.
- It is important to note that this accomplishment has come at a time when the competition has raised manifold following the inclusion of women's boxing as an event in the Olympics in 2012.
- Kom got past other strong opponents before clinching the bout against Okhota. Further, Kom also had to bear the additional pressure of the expectations of home crowds.
- It is important to note that Mary Kom has always defied the odds. She has gone against gender stereotypes, and overcome the odds posed by the lack of resources and poor infrastructure that hold back so much athletic talent in India.
- In the process of doing so, she has firmed up Manipur's place on India's talent map, brought India on the world boxing landscape, and reinforced women's sport by winning consistently with exceptional determination and grace.

A Brief Note on Mary Kom:

- Kom, who is now 35 and a mother of three, has had a good 2018.
- She won her maiden Commonwealth Games gold medal earlier this year, 2018.
- She extended that form in Delhi and cemented her place in the history of the World Championships with an overall haul of seven medals, including silver on debut in 2001.

- She was a bronze medalist at the 2012 London Olympics.
- In the recently concluded event, the victory has fuelled further expectations from this late-career burst.
- Kom will switch to the 51 kg weight class in the pursuit of a medal at the 2020 Tokyo Olympics.

Impact as a Rajya Sabha member of Parliament:

- As a Rajya Sabha member of Parliament and idol for many upcoming women boxers, she has a full schedule, and will be aware that it will take all she has to fight with younger and stronger rivals in a higher weight category.
- She has been hailed as 'Magnificent Mary' by the International Boxing Association. Further, the International Boxing Association had chosen her as its representative in the International Olympic Committee athletes' forum.

Concluding Remarks:

- Kom has been an inspiration globally.
- Her rise from a humble background to be an international role model has inspired a book and a Hindi movie chronicling her life.
- Raffaele Bergamasco, the India coach, sums up Kom's legend with these words, "Mary in boxing is like Maradona in football."
- Experts also point out that the gender comparison is crucial too — at a time when the women's competition at diverse levels and different sporting events is being sought to be placed on a par with the men's, in terms of infrastructural support and remuneration, Mary Kom's record will indeed give heart to all women athletes.

8. Maternity leave: govt. for incentive scheme

Context:

The Ministry of Labour and Employment is, therefore, working on an incentive scheme whereby the government would bear the cost of maternity leave wages for seven weeks, subject to certain conditions.

Background:

Maternity Benefit Act:

- The Maternity Benefit Act, 1961, applies to establishments employing 10 or more than 10 persons in factories, mines, plantation, shops & establishments and other entities.
- The main purpose of this Act is to regulate the employment of women in certain establishments for certain period before and after child birth and to provide maternity benefit and certain other benefits.
- The Act was amended through the Maternity Benefit (Amendment) Act, 2017, which, inter alia, has increased the paid maternity leave to women employees from 12 weeks to 26 weeks.

Details:

Under the scheme, the employer will be refunded for seven weeks' worth of wages for women workers (on maternity leave) with a wage ceiling up to ₹ 15,000 per month.

The Ministry is in the process of getting budgetary approvals for the ₹400 crore incentive scheme.

The extension in maternity benefit would be from the government budget and NOT from any labour welfare cess (there exists no such cess under the ministry).

What is the need for such an incentive Scheme?

- The ministry noted that while the implementation of the provision (26 weeks' maternity leave) is good in public sector, there are reports that it is not good in private sector and in contract jobs.
- There is also a wide perception that private entities are not encouraging women employees because if they are employed, they may have to provide maternity benefit to them, particularly 26 weeks of paid holiday.
- The ministry is also getting complaints from various quarters that when the employers come to know that their woman employee is in the family way or applies for maternity leave, the contracts are terminated on some flimsy grounds.
- There have been several representations before the Labour Ministry on how the extended maternity leave has become a deterrent for female employees who are asked to quit or retrenched on various grounds before they go on maternity leave.

Benefits:

- It is a bid to encourage employers, especially in the private sector, to implement the extended 26-week maternity leave law.
- If the scheme is approved and implemented, it shall ensure the women in this country an equal access to employment and other benefits, along with adequate safety and secure environment.
- Also, the women shall continue to bear the major share of household work as well as child care.
- The workplaces will be more and more responsive to the family needs of the working women.

9. Odisha now has a lexicon for rare tribal languages

Context

- In a significant step to keep vanishing tribal languages in circulation, the Odisha government has come out with lexicons of 21 such languages.
- The bilingual tribal dictionaries for Multi Lingual Education (MLE) and trilingual tribal language proficiency modules in all the 21 tribal languages have been formulated by the Special Development Council.

Facts

- Odisha has a unique place on the tribal map of India for having the maximum number of Scheduled Tribe communities.
- The State is home to 62 different tribal communities, including 13 particularly vulnerable tribal groups.
- These tribes speak 21 languages and 74 dialects. Of the 21 tribal languages, seven have their own scripts.
- However, Odia is used as the medium of communication in the dictionaries.

Significance

- Adoption of more widely spoken competitors, such as Odia, Hindi, English and dominant tribal languages, has hastened the disappearance of rare dialects. Preparation of the dictionaries is a small step towards ensuring that they are preserved and promoted
- Very few States have attempted preparing dictionaries in all tribal languages. Going forward, it will help everybody, including students, researchers and government officials
- Although the dictionaries are not full-fledged, covering small details, we have laid the foundation for more exhaustive research
- The trilingual tribal language proficiency module is a radical step to bring government functionaries closer to tribal communities

10. Sentinelese

- They are the indigenous negrito tribe of North Sentinel Island in the Andaman Islands
- The Sentinelese is assumed to be direct descendants of the earliest humans who emerged from Africa.
- Genome studies indicate that the Andaman tribes could have been on the islands even 30,000 years ago.
- They are probably the world's only Paleolithic people surviving today without contact with any other group or community.
- They are considered as an off-shoot to the Onge Jarawa tribes which have acquired a different identity due to their habitation in an isolated and have lost contact with the main tribes.
- The Sentinelese are very hostile and never leave their Island. Very little is known about these hostile tribes.

Context

- An American tourist was killed on an island inhabited by a tribe known to resist outside contact in the Andaman and Nicobar Islands.

Laws for their Protection

- Access to North Sentinel Island and its buffer zone is strictly restricted under the Protection of Aboriginal Tribe (Regulation), 1956 and Regulations under Indian Forest Act, 1927.

- Even if a person wants to enter he would require a 'pass' for venturing into any of the restricted areas which can be granted by the Deputy Commissioner of the Andaman and Nicobar Islands.
- Even if someone holds the pass, they are barred by law from collecting or carrying any forest produce, books, maps, photographs, films religious or scientific artefacts to and from these areas.
- They are also not allowed to introduce substances of like weapons, drugs or any intoxicants into these areas.

How many are there?

- From 1901 to 1921 they were estimated to be 117 people. In 1931, the number dropped to 50, a figure used for the 1961 Census too. In 1991 their head count was put at 23.
- Census 2001 counted 39 inhabitants.

Related Concept – Tribal Panchsheel

Jawahar Lal Nehru gave his five fundamental principles for tribal development

- People should develop along the lines of their own genius, and the imposition of alien values should be avoided.
- Tribal rights in land and forest should be respected.
- Teams of tribal should be trained in the work of administration and development so that introducing too many outsiders into tribal territory should be avoided.
- Tribal areas should not be over administered or overwhelmed with a multiplicity of schemes.
- Results should be judged not by statistics or the amount of money spent, but by the human character that is evolved.

Lessons from a tragedy (The Sentinelese)

- The recent death of a young American, John Chau at the hands of the inhabitants of North Sentinel Island in the Andaman and Nicobar Islands has led to dangerous lines of debate.
- Some have called for the Sentinelese to be convicted and punished and others have urged that they be integrated into modern society.

Differing Narratives: The Question of Isolation

- Experts point out that what is of greater significance surrounding the issue is the commentary on the "hostility" of the Sentinel islanders and the many experiences of heroic "contact" by visiting anthropologists and government officials.
- The broader media interest is in the peculiar and almost brutal hostility displayed by the Sentinel islanders towards the outsider.

- Some observers see it as signs of a pathological “primitivity” and the result of “complete isolation” from “civilisation” while others interpret it as an effect of the historical memory of colonial brutality.
- It has also been pointed out that given the fact that we do not know the language of the Sentinelese, nor have we had any opportunity to understand their varied gestures of hostility, it’s hard to come to any definitive answer.

Grounds for questioning their isolation

- Importantly, experts point out that it is the question of “isolation” that demands more critical attention. Currently, we are not entirely sure if it can be established that the Sentinelese, or the “Sentinel Jarawas” as they were classified in colonial records, were or are completely isolated.
- Both colonial records and Census reports up to 1931 reveal that officials did set foot on the islands and were able to walk through it to collect information.
- Further, the Government of India’s own official “contact” photographs from the 1970s onwards reveal interesting signs that question the “complete isolation” thesis.
- If we carefully analyse this visual record, we can see how the shape of Sentinelese outrigger canoes has changed and how they continue to use large quantities of iron to make adze blades and arrowheads.
 - * We also notice small glass bead necklaces around their necks. Where are these glass beads, trinkets, large tarpaulin sheets and ready supplies of iron coming from?
 - * Further, out of the Anthropological Survey of India’s recorded 26 visits to the islands, it is stated that seven were met with overt hostility.
- Thus, stemming from this argument, the point put forward that the hostility of the Sentinelese is chronic or pathological needs to be seen in perspective.
- Experts point out that the Sentinel Islanders decide on what kind of visitations pose a threat to their survival or dignity and what are “safe” or “useful”. Further, their hostility towards the outsider is then to be regarded as “strategic” and deliberate and therefore key to their survival.
- Some experts have asked why the Indian state cannot devise a method by which the Sentinelese could be “pacified” and brought under the welfare net.

Sentinelese should be left to live life untouched by outside forces

- Experts suggest that both these demands are misguided, and can only result in the extinction of a people.

- It is important to note that John Chau’s killing was a tragedy but his attempt to make contact with the Sentinelese, who he seemed to know something about, was dangerous, not only to himself but to them.
- There is a reason why no one — whether missionary, scholar, adventurer, U.S. citizen or Indian — is allowed to venture near North Sentinel Island without permission, which is given only in the rarest of circumstances and with meticulous precautions in place to ensure that the Sentinelese are not disturbed.
- The Sentinelese have lived in isolation in an island in the Bay of Bengal for thousands of years. The Sentinelese have no immunity or resistance to even the commonest of infections.
- Various degrees of protection are in place for the indigenous people of A&N Islands, but it is complete in the case of the Sentinelese. The administration enforces “an ‘eyes-on and hands-off’ policy to ensure that no poachers enter the island”.
- A protocol of circumnavigation of the island is in place, and the buffer maintained around the island is enforced under various laws.
- Their language is so far understood by no other group and they have traditionally guarded their island fiercely, attacking most intruders with spears and arrows. Arrows were fired even at a government aircraft that flew over the island after the 2004 Tsunami.
- Chau knowingly broke the law, as did those who took him to the waters off North Sentinel Island.
 - * As a matter of fact, seven persons, including five fishermen, have been arrested for facilitating this misadventure.
- Finally, Chau’s death is a cautionary incident — for the danger of adventurism, and for the administration to step up oversight. But it is also an occasion for the country to embrace its human heritage in all its diversity, and to empathetically try to see the world from the eyes of its most vulnerable inhabitants.

A Perspective on the Policies of Protection:

- Experts point out that the Policies of “protection” demand strong surveillance infrastructures, empowered staff, coordination among police, forest and welfare agencies and, more importantly, investment in projects of sensitization.
- They further add that the settler population on the islands clearly remains conflicted.
 - * There is an understanding that the islands’ indigenous communities are sources of tourist interest and potential revenue churners, yet the fact that public monies are invested to sustain them in their habitats remain a source of discomfort.

- Further, apart from a small segment of progressive citizens, there are clear marks of stress in settler-indigen relations on the islands. Experts point out that it is tensions like these that allow collusive breaches of the law and the undermining of the protective cover for the Sentinelese and other Particularly Vulnerable Tribal Groups (PVTGs) like the Jarawas. Experts further add that what may aggravate such tensions are the skewed developmental priorities that mainland India may impose on these islands.
- The Andaman and Nicobar Islands have historically been treated as terra nullius, or empty space, wherein mainland governments could inscribe their authority and initiate projects of control.
- The British initiated these projects treating the islands first as a strategic outpost and then a penal colony.
- The Indian government gave it a free society but used it as a space to settle its "excess" population. Hence the refugee rehabilitation schemes in the post-Partition years.
- It is this resettlement of the islands in independent India that demanded a renegotiation of its relations with the Islands' indigenous communities. They had to be protected and cared for but moved out of their original forest habitats into newly designated "tribal reserves".
- Further, as a result of continuous settlement and often ill-conceived developmental projects on the islands over the past six decades, these reserves have become increasingly vulnerable to the intrusions of poachers, encroachers and tourists.
- The Sentinelese have been more fortunate than the Jarawas, though. The Andaman Trunk Road, among other projects, has cut into the heart of the Jarawa reserve, which has not only disturbed their ecological environment but has also changed their lifestyle and dietary habits and endangered them.
- There are four ancient Negrito tribal communities in the Andaman Islands (the Great Andamanese, Onge, Jarawa and Sentinelese) and two Mongoloid tribal communities in the Nicobar Islands (the Shompen and Nicobarese). Except the Nicobarese, the populations of the other tribes have reduced drastically over the decades.

International conventions

- International policy has changed over the decades. While the Indigenous and Tribal Populations Convention, 1957, of the International Labour Organisation (ILO) insisted on an integrationist approach towards tribal communities, the 1989 convention insisted on a policy of non-intervention, "recognising the aspirations of these peoples to exercise control over their own institutions, ways of life and economic development."

* Its primary focus is to recognize and protect the cultural, religious, civil and social rights of indigenous and tribal populations within an independent country, and to provide a standard framework for addressing the economic issues that many of these groups face

- India ratified the 1957 convention but has not ratified the 1989 convention.
- However, despite not signing it, India tried to tread the path of non-interference.

Concluding Remarks:

- It goes to the credit of the Indian government that unlike its colonial predecessors it has completely abjured all kinds of coercion against the indigenous communities of the Andaman and Nicobar Islands.
- Further, colonial punitive expeditions, kidnappings, forced confinements that devastated the Andamanese populations at large are a thing of the past. Tribal welfare policy in the islands remains committed to protection and clearly "pacification" via coercion is no option. The policy today is to ensure "protection" but also to accept their right to self-determination.
- Considering the significance of the indigenous tribes of the Andaman and Nicobar Islands, the government needs to reorient its priorities towards protecting them from outside influence. India needs to sign the 1989 convention of the ILO, and implement its various policies to protect the rights of the indigenous population. It should also make efforts to sensitise settlers and outsiders about them.
- In conclusion, one hopes that we can draw a few lessons from the unfortunate death of John Allen Chau and question the ways in which mainland India views the islands from its distant perch in New Delhi.

11. Survival International

- It is global Organisation that works for tribal peoples' rights
- They prevent the annihilation of tribal peoples and to give them a platform to speak to the world

Context

- Survival International, a movement for indigenous groups, urged the Indian government to terminate efforts to recover an American's man's body from the isolated North Sentinel island

12. No respite from poverty for Muslims

Context

- The National Sample Survey Office (NSSO) NSSO's 68th round (2011-12) provides estimates of education levels and job market indicators across major religious communities in India.

- This labour force survey reports that the economic condition of Muslims does not show any signs of improvement

Stats

The educational attainment of Muslims is the least among all these communities.

- In urban areas, the number of male Muslim postgraduates is as low as 15 per 1,000. This number is about four times lower than that of other communities, including Hindus, Christians and Sikhs. The situation is similar for Muslim women.
- The number of male graduates among Muslims is 71 per 1,000, less than even half the number of graduates (per 1,000) in other communities.
- Similarly, the number of Muslims educated up to the secondary and higher secondary levels is 162 and 90 per 1,000 persons, respectively, again the least among all the communities.
- Around half the Muslim population over 15 years is either illiterate or has only primary or middle school education.
- The number of illiterate people is highest among Muslims (190 per 1,000), followed by Hindus (84), Sikhs (79) and Christians (57).
- The number of persons (over 15 years) who have obtained just primary or middle school education among Muslims is 257 and 198 (per 1,000 persons), respectively. Thus, as compared to other communities, the distribution of the Muslim population is least at the higher levels of education and highest at the lower levels of

Attendance Rate

- The number of Muslim males of 5-14 years in urban areas attending educational institutions is 869 per 1,000 persons, which is the least among all religious groups.
 - * It is higher among Christians (981), followed by Sikhs (971), though it is lower among Hindus (955), possibly because Scheduled Castes and Scheduled Tribes have lower rates.
- According to the NSSO survey, the average per capita consumption expenditure (used as an indicator of income) among Muslims is just ₹32.66 per day, which is the least among all religious groups. It is highest among Sikhs (₹55.30), followed by Christians (₹51.43) and Hindus (₹37.50).

Concerns

- The high level of illiteracy among Muslims and the low levels of general education ensure that they are trapped in a vicious circle of poverty.
- The lack of higher education is adversely affecting their job indicators. The dynamics of labour markets are largely a function of the degrees of knowledge and skills.

- The Labour Force Participation Rate (LFPR), defined as the number of persons either employed or seeking jobs

- * The NSSO data show that LFPR among Muslims is 342 and 337 (per 1,000) in urban and rural areas, respectively, the least among all the religious communities. This implies that only 342 persons per 1,000 persons of working age among Muslims in urban areas are employed or available for work.
- * Similarly, the LFPR among Muslim women is worse than that among women of other communities.

- The Worker Population Ratio (WPR), defined as the number of persons employed per 1,000 persons, is lowest among Muslims, both in rural and urban areas.

- * Further, among urban males, the number of Muslims employed in regular jobs is only 288 per 1,000 employed persons, while the corresponding figure among urban Muslim females is merely 249, which is the lowest among all other communities.
- * The number of regular employees per 1,000 employed persons is higher among Christians (494 among urban males and 647 among urban females), followed by Hindus (463 and 439), and Sikhs (418 and 482).

Way forward

As per the 71st NSSO survey on education (2014), the average course fee for college degrees in technical courses in government and private unaided institutions was ₹25,783 and ₹64,442, respectively. That is too high for Muslims to afford, given their per capita income.

- One way to improve their situation is to provide a special incentive and subsidy system for higher education.
 - * That will ensure that school going students continue to higher levels of schooling and higher education.
- Similarly, students who don't wish to continue in general academic education must have access to vocational education from Class 9 onwards.
- The Govt has initiated schemes for development and empowerment of minorities, the reach and awareness has to be expanded
 - * Maulana Azad National Academy for Skills (MANAS)
 - * Garib Nawaz Skill Development Centres
 - * Nai Manzil
 - * Padho Pardesh

13. SC: live-in partner can seek maintenance

- A live-in partner can seek maintenance under the Domestic Violence Act, the Supreme Court has said

- The 2005 Act provides an “efficacious remedy” for maintenance even if the victim is not a legally wedded wife, a Bench of Chief Justice Ranjan Gogoi, Justices U.U. Lalit and K.M. Joseph observed.
- “In fact, under the provisions of the DVC Act, 2005 the victim i.e. estranged wife or live-in-partner would be entitled to more relief than what is contemplated under Section 125 of the Code of Criminal Procedure, 1973, namely, to a shared household also,” the court pointed
- What would be significant to note is that economic abuse also constitutes domestic violence under the 2005 Act, the Bench noted in the order.

SCIENCE AND TECHNOLOGY

1. Barnard's Star

Context

- Barnard's Star is a red dwarf about one-sixth as massive as Earth's sun and just 3 percent as luminous. Astronomers think Barnard's Star may be about 10 billion years old — twice as old as our sun.
 - * Red dwarfs are considered to be the best places to look for exoplanet candidates, which are planets outside our solar system.
- Barnard's Star lies in the constellation Ophiuchus (the serpent bearer) and is visible from both the Northern and Southern hemispheres with a small telescope.
- Because Barnard's Star is so dim, things get very cold out in the exoplanet's neighborhood. Astronomers estimate Barnard's Star b's surface temperature to be about minus 275 degrees Fahrenheit (minus 170 degrees Celsius).
- It is about 3.2 times more massive than our home planet, making it a "super-Earth" — a class of worlds significantly larger than Earth but smaller than ice giants such as Neptune.
- Super-Earths are among the most common planets in the Milky Way, but we don't have any in our solar system.
- Barnard's star b is the second closest known exoplanet to our Sun. The closest lies just over four light-years from Earth. That exoplanet, Proxima b, orbits around the red dwarf Proxima Centauri.
- At nearly six light-years away Barnard's star is the next closest star to the Sun after the Alpha Centauri triple system.

2. ClaRAN

Context

- An artificial intelligence (AI) programme which was used to recognize faces on Facebook can also identify galaxies in deep space say the researchers.

Details

- The AI bot named ClaRAN scans images taken by radio telescopes
- Its job is to spot radio galaxies — galaxies that emit powerful radio jets from supermassive black holes at their centres
- Black holes are found at the centre of most, if not all, galaxies.
- These supermassive black holes occasionally burp out jets that can be seen with a radio telescope

What is the expectation from this tool?

- ClaRAN grew out of an open source version of Microsoft and Facebook's object detection software.
- This programme was completely overhauled and trained to recognise galaxies instead of people.
- The traditional computer algorithms are able to correctly identify 90 per cent of the sources.
- That still leaves 10 per cent, or seven million 'difficult' galaxies that have to be eyeballed by a human due to the complexity of their extended structures
- If ClaRAN reduces the number of sources that require visual classification down to one per cent, this means more time for our citizen scientists to spend looking at new types of galaxies

3. Dust Moons/ Kordylewski Clouds

- Kordylewski clouds are large concentrations of dust that exist at the L4 and L5 Lagrangian points of the Earth-Moon system
- They were first reported by Polish astronomer Kazimierz Kordylewski in the 1960s, and confirmed to exist in October 2018
- They are spread over a space area that is almost nine times the width of Earth — about 65,000 by 45,000 miles in actual size
- The dust 'moons' are huge but they are made of tiny dust particles that barely measure one micrometre across
- When sunlight hits the dust particles, they glow very faintly, much like the zodiacal light we receive from the dust scattered in between planetary orbits

4. Global Relay of Observatories Watching Transients Happen (GROWTH)

- The 0.7 m GROWTH-India telescope at the Indian Astronomical Observatory has made its first science observation.
- This observation is a follow-up study of a nova explosion.
- The 0.7 m GROWTH-India telescope at the Indian Astronomical Observatory is located in Hanle, Ladakh.
- The GROWTH-India telescope was commissioned six months ago soon after which it saw first light, on the night of June 12.
- This recurrent nova, named M31N-2008, has been observed to erupt several times, the most recent eruption happening in November 2018. Recurrent nova systems are interesting because they are candidates for progenitors of Type Ia supernovae.

- It is important to note that Novae are explosive events involving violent eruptions on the surface of white dwarf stars, leading to temporary increase in brightness of the star.

Unlike a supernova, the star does not go on to die but returns to its earlier state after the explosion.

What Causes a Supernova?

- A supernova happens where there is a change in the core, or center, of a star. A change can occur in two different ways, with both resulting in a supernova.
 - The first type of supernova happens in binary star systems. Binary stars are two stars that orbit the same point. One of the stars, a carbon-oxygen white dwarf, steals matter from its companion star. Eventually, the white dwarf accumulates too much matter. Having too much matter causes the star to explode, resulting in a supernova.
 - The second type of supernova occurs at the end of a single star's lifetime. As the star runs out of nuclear fuel, some of its mass flows into its core. Eventually, the core is so heavy that it cannot withstand its own gravitational force. The core collapses, which results in the giant explosion of a supernova.

It is important to note that our sun is a single star, but it does not have enough mass to become a supernova.

A few specifics on the telescope:

- The telescope is potentially fully robotic and can operate on its own. However, the way the recent readings were taken has only partly used its potential for automation.
- Further, while a typical professional telescope has a field of about 0.1 square degrees, this telescope has a field that is five to six times larger. It can 'slew' or move its focus from one part of the sky to another in just about 10-15 seconds and its camera can view stellar objects that are thousands to millions of light years away.
- The GROWTH-India telescope is part of the Global Relay of Observatories Watching Transients Happen.
- Its goals are threefold:
 - Search for explosions in the optical regime whenever LIGO group detects a Binary Neutron Star merger
 - Study nearby young supernova explosions.
 - Study nearby asteroids.
- Transient phenomena such as supernovae are important parts of time-domain astronomy which is a less-explored frontier in astronomy. Experts point out that such an explosion is when the inner material of the star is thrown out. They assert that there is no other way we can actually see what is inside a star

5. GSAT-29

Context

- India's GSAT-29 communication satellite was successfully launched by the second developmental flight of Geosynchronous Satellite Launch Vehicle Mark III (GSLV MkIII-D2) from the Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota.

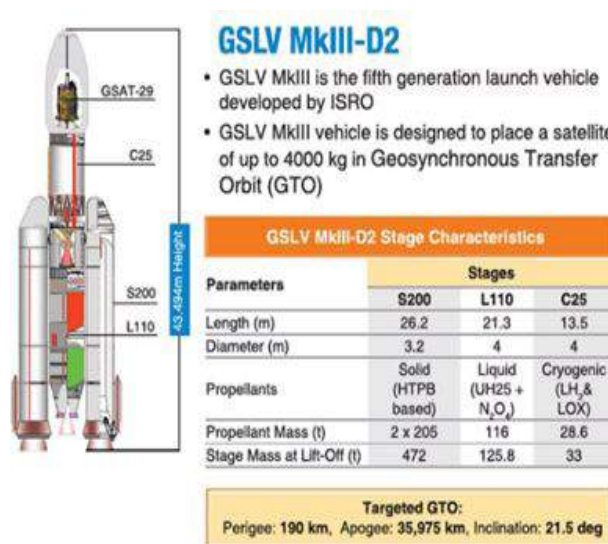
Details

- The satellite, which carries Ka and Ku band high communication transponders, is aimed at meeting the communication needs of people in remote areas in the northeast and Jammu and Kashmir.



GSLV Mk III

- GSLV Mk III is a three-stage heavy lift launch vehicle developed by ISRO.
 - Two massive boosters with solid propellant constitute the first stage,
 - The core with liquid propellant form the second stage and
 - The cryogenic engine completes the final stage.
- It is also the rocket designated for ISRO's second moon mission Chandrayaan 2



Previous launches

- The first successful mission of GSLV Mark III was an experimental suborbital flight in 2014.
- Subsequently, GSLV Mark III-D1 launched GSAT-19, a high throughput communication satellite, with a lift-off mass of 3150 kg, into GTO on June 5, 2017.

Significance

- The success of GSLV MkIII-D2 marks an important milestone in Indian space programme towards achieving self-reliance in launching heavier satellites.
- The success of this flight also signifies the completion of the experimental phase of GSLV Mark III.

6. Human Microbiome

- The human microbiota is the aggregate of microorganisms that resides on or within any of a number of human tissues and biofluids, including the skin, mammary glands, placenta, seminal fluid, uterus, ovarian follicles, lung, saliva, oral mucosa, conjunctiva, biliary and gastrointestinal tracts.
- They include bacteria, archaea, fungi, protists and viruses.
- Though micro-animals can also live on the human body, they are typically excluded from this definition. The human microbiome refers specifically to the collective genomes of resident microorganisms
- These organisms play a key role in many aspects of host physiology, ranging from metabolism of otherwise complex indigestible carbohydrates and fats to producing essential vitamins, maintaining immune systems and acting as a first line of defense against pathogens.

How does the study help?

- Research on the human microbiome has thrown light on various aspects — how different parts of the human body are occupied by characteristic microbial communities, and how various factors contribute in shaping the composition of the microbiome, including the genetics, dietary habits, age, geographic location and ethnicity.
- These studies laid a strong foundation to decipher the microbiome's implications on health and a wide range of diseases

Context

- From November 19 to 22, Pune hosted an international conference on microbiome research

7. Laboratory for Agnostic Biosignatures (LAB)**Context**

- The Laboratory for Agnostic Biosignatures (LAB) is a new interdisciplinary project that will develop new, non-Earth-like life detection approaches for use on Mars and on Jupiter and Saturn's icy moons.

- With nearly \$7M of funding from NASA over the next five years, the team of investigators will lay the groundwork for characterizing potential biosignatures, or signs of life, that do not presuppose any particular molecular framework, as well as design tools for their detection and strategies for interpretation.

Details

- The LAB is a consortium of 15 team members from universities and institutions around the world constituting of planetary scientists, biologists, chemists, computer scientists, mathematicians and veteran instrument scientists
- LAB's initial research focus is on four features of life that do not assume any specific biochemistry which include: patterns of chemical complexity, surface complexity, chemical disequilibrium with the surrounding environment, and evidence of energy transfer.

8. Lander Sensor Performance Test or LSPT**Context**

- The Chandrayaan-2 lunar lander's sensors are set to undergo a crucial test. The highly autonomous or pre-programmed mission uses a large number of sensors.

Details

- The lander is being developed and tested by the U.R. Rao Satellite Centre in Bengaluru.
- ISRO had started readying a part of the Challakere site to resemble lunar craters and had conducted a few preliminary sensor tests.
- For the test, a prototype module carrying the sensors will be flown on one of ISRO's two small aircraft.
- As the plane descends from around 7 km to about 1 km over the artificial terrain, the sensors must show how they will guide the soft landing of the lunar craft at the right spot, speed and position.

Functions

- It will help the lander to precisely assess its height from the landing spot;
- Decide its speed
- Help it to steer clear of any boulders or uneven surface.

9. Oumuamua

- It was discovered in 2017, by astronomers using the Panoramic Survey Telescope and Rapid Response System (Pan-STARRS) in Hawaii.
- The object's name means "messenger from afar" in Hawaiian.
- It is the first interstellar object known to enter our solar system

10. SpiNNaker Machine

Context

- The world's largest supercomputer designed to work in the same way as the human brain has been switched on for the first time.

Details

- The newly formed million-processor-core Spiking Neural Network Architecture (SpiNNaker) machine is capable of completing more than 200 million million actions per second, with each of its chips having 100 million transistors.
- SpiNNaker is unique because, unlike traditional computers, it does not communicate by sending large amounts of information from point A to B via a standard network.
- Instead it mimics the massively parallel communication architecture of the brain, sending billions of small amounts of information simultaneously to thousands of different destinations.

What are biological neurons?

- The SpiNNaker machine, designed and built in The University of Manchester in the UK, can model more biological neurons in real time than any other machine on the planet.
- Biological neurons are basic brain cells present in the nervous system that communicate primarily by emitting 'spikes' of pure electro-chemical energy.
- Neuromorphic computing uses large scale computer systems containing electronic circuits to mimic these spikes in a machine.

How it works

- Researchers eventually aim to model up to a billion biological neurons in real time and are now a step closer. To give an idea of scale, a mouse brain consists of around 100 million neurons and the human brain is 1,000 times bigger than that.
- One billion neurons is one per cent of the scale of the human brain, which consists of just under 100 billion brain cells, or neurons, which are all highly interconnected via approximately one quadrillion synapses.
- One of the fundamental uses for the supercomputer is to help neuroscientists better understand how our own brain works. It does this by running extremely large scale real-time simulations which simply aren't possible on other machines.
- For example, SpiNNaker has been used to simulate high-level real-time processing in a range of isolated brain networks. This includes an 80,000 neuron model of a segment of the cortex, the outer layer of the brain that receives and processes information from the senses.

Potential for neurological breakthroughs

- It also has simulated a region of the brain called the Basal Ganglia - an area affected in Parkinson's disease, meaning it has massive potential for neurological breakthroughs in science such as pharmaceutical testing.
- The power of SpiNNaker has even recently been harnessed to control a robot, the SpOmnibot. This robot uses the SpiNNaker system to interpret real-time visual information and navigate towards certain objects while ignoring others.

11. Synthetic Diamond

- A synthetic diamond (also known as an artificial diamond, cultured diamond, or cultivated diamond) is diamond produced in an artificial process, as opposed to natural diamonds, which are created by geological processes
- Synthetic diamond is also widely known as HPHT diamond or CVD diamond after the two common production methods (referring to the High-Pressure High-Temperature and Chemical Vapor Deposition crystal formation methods, respectively).
- The properties of synthetic diamond depend on the details of the manufacturing processes; however, some synthetic diamonds (whether formed by HPHT or CVD) have properties such as hardness, thermal conductivity and electron mobility that are superior to those of most naturally formed diamonds.
- The appearance of synthetic gems on the market created major concerns in the diamond trading business, as a result of which special spectroscopic devices and techniques have been developed to distinguish synthetic and natural diamonds.

The Uses

- Synthetic diamond is widely used in abrasives, in cutting and polishing tools and in heat sinks.
- Electronic applications of synthetic diamond are being developed, including high-power switches at power stations, high-frequency field-effect transistors and light-emitting diodes.
- Synthetic diamond detectors of ultraviolet (UV) light or high-energy particles are used at high-energy research facilities and are available commercially.

12. Tissue Chips or Organs-On-Chips

Context

- NASA is planning to send small devices containing human cells in a 3D matrix — known as tissue chips or organs-on-chips — to the International Space Station (ISS) to test how they respond to stress, drugs and genetic changes.

Details

- The “Tissue Chips in Space” initiative seeks to better understand the role of microgravity on human health
- Tissue chips have ports and channels to provide nutrients and oxygen to the cells inside them
- They are made of flexible plastic

13. Van Der Waals Materials

- Until six years ago, such materials did not exist but today, researchers believe that they hold the key to a ‘post silicon’ electronics.
- VdW materials are made of piles of ultrathin layers that are held together by weak van der Waals bonds, which arise when atoms are in close proximity.
- The success of graphene — a well-known vdW material — stimulated scientists to look for other 2D crystals, where layers can be changed, added or removed in order to introduce new physical properties such as magnetism.
- Controlling magnetism, as is typical of such materials, could replace the current hard drive assemblies in computers and even become the key to quantum computing.

Details

- In molecular physics, the van der Waals forces, named after Dutch scientist Johannes Diderik van der Waals, are distance-dependent interactions between atoms or molecules.
- Unlike ionic or covalent bonds, these attractions are not a result of any chemical electronic bond, and they are comparatively weak and more susceptible to being perturbed.
- Van der Waals forces quickly vanish at longer distances between interacting molecules.

14. Chinese academic claims to have gene-edited twinsContext

- Chinese health and medical ethics authorities started an investigation on Monday into claims by a scientist who released videos on YouTube, saying he had altered the genes of twins born earlier this month, creating the first gene edited babies.
- In the videos, the scientist defended his work: “I understand my work will be controversial, but I believe families need this technology. And I am willing to take the criticism for them.”
- Earlier, Mr. He said he was aiming to bestow on the gene edited babies “lifetime protection” against HIV, the virus that causes AIDS.

- He said he began his work in the second half of 2017 and enrolled eight couples. All of the potential fathers involved were HIV-positive. Five chose to implant embryos, including the parents of the twin girls, identified only by the pseudonyms Mark and Grace. The babies’ names are Lulu and Nana, He said in one video.
- “If true, this experiment is monstrous,” said Julian Savulescu, director of the Oxford Uehiro Centre for Practical Ethics at the University of Oxford.

Cutting-and-pasting DNA

- CRISPR-Cas9 is a technology that allows scientists to essentially cut-and-paste DNA, raising hope of genetic fixes for disease. However, there are also concerns about its safety and ethics.
- CRISPR is a dynamic, versatile tool that allows us to target nearly any genomic location and potentially repair broken genes. It can remove, add or alter specific DNA sequences in the genome of higher organisms.
- CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) are sections of DNA and are sections of genetic code containing short repetitions of base sequences followed by spacer DNA segments.
- CAS-9 (CRISPR-associated protein 9) is an enzyme. It uses a synthetic guide RNA to introduce a double strand break at a specific location within a strand of DNA. It is a system used by bacterial cells to recognize and destroy viral DNA as a form of adaptive immunity.

What are the pros of Gene editing?

- CRISPR could be used to modify disease-causing genes in embryos brought to term, removing the faulty script from the genetic code of that person’s future descendants as well. Genome editing (Gene editing) could potentially decrease, or even eliminate, the incidence of many serious genetic diseases, reducing human suffering worldwide.
- It might also be possible to install genes that offer lifelong protection against infection.

What are the cons of Gene editing?

- Making irreversible changes to every cell in the bodies of future children and all their descendants would constitute extraordinarily risky human experimentation.
- There are issues including off-target mutations (unintentional edits to the genome), persistent editing effects, genetic mechanisms in embryonic and fetal development, and longer-term health and safety consequences.

- Some argue that we do not understand the operations of the genome enough to make long-lasting changes to it. Altering one gene could have unforeseen and widespread effects on other parts of the genome, which would then be passed down to future generations.
- Many consider genome alterations to be unethical, advocating that we should let nature run its course.
- Few argue that after permitting human germline gene editing for any reason would likely lead to its ignorance of the regulatory limits, to the emergence of a market-based eugenics that would exacerbate already existing discrimination, inequality, and conflict.
- It will become a tool for selecting desired characteristics such as intelligence and attractiveness.

SECURITY AND DEFENSE RELATED

1. HAL HTT-40

- It is an Indian training aircraft, designed and built by Hindustan Aeronautics Limited (HAL).
- It will replace the Indian Air Force's retired HPT-32 Deepak as a basic trainer
- The HTT-40, when acquired, will join the 75 Swiss Pilatus PC-7 Mark II trainers that are already in service.

Context

- HTT-40, the indigenously-built basic trainer aircraft, cleared a challenging milestone — its first spin test
- The spin test is the most crucial phase in developing a safe and airworthy aircraft

2. Improvised Explosive Devices (IED) attacks by Maoists

- Commonly used as roadside bombs, IEDs is basically an explosive that is constructed and deployed in ways other than in conventional military action.
- They are frequently employed by guerrillas, insurgents, and other nonstate actors as a crude but effective weapon against a conventional military force.
- Insurgents have used a wide variety of initiating systems to trigger detonations. Such systems fall into two basic categories: command-initiated and autonomously initiated.
 - * Command-initiated IEDs are detonated through human interaction with the triggering mechanism.
 - * 1. Typically, a receiver on the explosive triggers detonation when an electronic impulse is sent over a wire circuit or via wireless signal.
 - * Autonomously initiated IEDs are detonated automatically without human intervention.
 - * 1. Common examples of those initiators are trip wires,
 - * 2. Pressure plates that activate the triggering mechanism when a certain amount of weight is placed on them,
 - * 3. Infrared Systems that activate the triggering mechanism when a vehicle breaks a beam's contact with its receiver,
 - * 4. Magnetic Detonators that are triggered by changes in a magnetic field (as when a vehicle passes by

Facts

- In fact, as per the figures of the Chhattisgarh police department, as many as 66 security personnel were killed and 205 injured in the IED blasts between June 2010 and June 2017.
- Over 1,200 IEDs have also been recovered by security forces in different pockets of Bastar in the same period.

Sources of Arms

- Maoists still prefer kill-and-take strikes for sourcing weapons.
 - * It's a reason why Maoists' inventories reflect whatever they can lay their hands on, from basic handguns and ancient Lee Enfield rifles to INSAS and various AK-series assault rifles.
- Explosives are looted from mining and infrastructure businesses
- These are supplemented by purchases using revenue from the Maoist parallel economy of extortion, "donation" for the cause, and the occasional outright robbery.
- India's Maoism is probably the only China product entirely made in India

Tactical Counter Offensive Campaign (TCOC)

- Conducted every year from March to June, this is an attempt by the rebel Maoists to inflict maximum damage on security personnel during this period.

Solutions

Directly countering the proliferation of IEDs

- Research by security agencies has found that an easily available 'detonating wire' (commonly used in mining operations) is the primary catalyst behind the numerous deadly IED blasts in the red corridors of the country.
- Called Cordtex, it is easily available and can trigger IEDs containing as many as 250-300 locally made bombs in one go — a phenomenon given the deceptive name of 'daisychain'.
- Keeping this information in mind, counter-insurgency authorities need to restrict/regulate the sale and usage of Cordtex wires.

Strategic research team dedicated to IEDs

- After insurgents used IED-driven tactics to cause disproportionate casualties in Iraq and Afghanistan, the United States Department of Defense set up the Joint IED Defeat Organization (JIEDDO) to specifically redress IED attacks.

- The organization was aimed at bringing together a range of ideas under a single umbrella, from procurement of good quality equipment to cutting-edge research into this critical area.
- Accordingly, JIEDDO's mission comprises of three principles: 'Attack the Network', 'Defeat the Device', and 'Train the Force'.
- Given the worrying magnitude of the problem, India's war on IEDs may require a similar effort, with the army, the various paramilitary forces, the intelligence network, DRDO and domestic industry working in sync.
 - * If India goes ahead with such an agency, it must keep in mind the lessons learnt by JIEDDO on its journey, such as rivalry between security agencies and duplication of effort.

Ramping up R&D on counter-IED equipment

- IED-destroying lasers to UAVs that detect buried explosives.
- Furthermore, there is a need for developing 'reactive' electronic equipment to counter radio and cellular mechanisms used for remotely triggering IEDs

3. Indian Army inducts K9 Vajra, M777 howitzers

M777 howitzers

- They were ordered under a government-to-government deal with the US, and the \$700 million mountain gun deal was signed in November 2016.
- One of the lightest guns that has seen active duty in Iraq and Afghanistan, the M 777 will be deployed on the high altitude borders with China and Pakistan and is especially useful with the Chinook helicopters that can transport them quickly.
- The 155mm, 39 Calibre Ultra-light Howitzers made of titanium and Aluminium Alloys, have been procured from USA under Government to Government Foreign Military Sales and will be assembled in India by BAE Systems in partnership with Mahindra Defence.

K9 VAJRA

- The gun is developed and built by Larsen and Toubro (L&T)
- The K9 VAJRA-T is a variant of the South Korean K9 Thunder which is considered by defence experts to be the world's best 155mm/52 calibre self-propelled howitzer in terms of the number of systems in active service.
- The K9 Thunder development programme started in 1989 and the first gun entered service with the South Korean Army in 1999.
- At present several armies across the world have the K9 Thunder in their arsenal. The gun has a proven track record of delivering devastating firepower in extreme weather conditions, jungles, barren deserts and severely cold areas.

- The Vajra offers a high rate of fire at a long range and is compatible with Indian and standard NATO ammunition

4. India's Nuclear Triad

Context

- India declared that its nuclear triad, stated in its nuclear doctrine, is operational after indigenous ballistic missile nuclear submarine INS Arihant achieved a milestone by conducting its first deterrence patrol.
- Nuclear warheads when delivered from ground, aerial or submarine based platforms is called Nuclear Triad.
 - * land-based arsenal includes the Prithvi-1 with a range of 150 to 600 kilometers, the Agni-1 with a range of 700 kilometers, the Agni-2 with a range of 2,000 kilometers, the Agni-3 with a range of 3,000, the Agni-4 with a range of 3,500 kilometers, and the Agni-5 with a range of 5,000 kilometers
 - * Mirage-2000s, Sukhoi Su-30 MKI air fighter jets have been converted to accommodate the cruise missile.

Merits of Nuclear Triad

- The reason for having such three branched capability is to significantly reduce the possibility of the destruction of the entire nuclear architecture of the state in the first nuclear strike by the enemy itself.
- The triad provides the potency to the country which has been under the nuclear attack to respond swiftly by nuclear means.
- Such system essentially increases the deterrence potential of the state's nuclear forces.

Details

- INS Arihant, a strategic asset, was developed for over two decades under the Advanced Technology Vessel (ATV) programme, which comes directly under the Nuclear Command Authority headed by the Prime Minister.
 - * The US, with 70+ nuclear submarines, leads the race with Russia at the second spot with approximately 30 nuclear submarines.
 - * At the third spot are the European powers, France and the UK, with 10 to 12 nuclear submarines each.
- Nuclear powered Ship Submersible Ballistic Nuclear (SSBN) is graded as the finest delivery platforms. SSBNs are less vulnerable to enemy attack.
 - * They can operate in vast ocean expanses with minimal exposure. Hence, SSBNs are extremely useful as retaliatory/second strike weapons.
 - * In relative terms they could be considered as safer option than bombers or ballistic missiles

- * It means that India can hide its ballistic missiles at sea for a long period of time and hit back at the enemy from sea, if its land and air-based delivery systems have been neutralised by the enemy in a nuclear strike.

Nuclear Submarines are Unnecessary, destabilising and expensive

Introduction

- A nuclear submarine is fuelled by an onboard nuclear reactor, which allows it to operate underwater for long periods of time.
- In contrast, a conventional diesel submarine uses batteries to operate underwater, but is forced to surface periodically to recharge its batteries using diesel-combustion engines that require oxygen.

Background

- SSBNs were first deployed during the Cold War and justified as a tool of last resort.
- If an adversary were to launch a devastating first-strike on a country, destroying its land-based missiles and paralysing its air force, the submarine — undetected at sea — could still deliver a counter-strike, assuring the “mutual destruction” of both countries

Threat from Neighbours

- The Pakistan government has threatened to use “tactical nuclear weapons” to counter India’s cold-start doctrine that envisions a limited invasion of Pakistan.
- However, these are relatively small nuclear weapons that could devastate a battlefield but would not affect the Indian military’s ability to launch a counter-strike using its existing land or air-based forces.
- China has consistently pledged, for more than 50 years, that it will never be the first to use nuclear weapons in a conflict. Even if China were to suddenly change its policy, any attempt to disable India’s nuclear weapons would be fraught with unacceptable risks regardless of whether India possesses SSBNs.
- Even the United States, which maintains such a large nuclear stockpile, is unwilling to militarily engage a limited nuclear power such as North Korea since it understands that it cannot reliably disable Pyongyang’s land-based deterrent.

Concerns

Nuclear-armed submarines increase the risks of an accidental conflict.

- Traditionally, nuclear weapons in India have been kept under civilian control, and separate from their delivery systems.
- However, the crew of a nuclear-armed submarine will have both the custody of nuclear weapons and the ability to launch them at short notice.

- Even though reports suggest that nuclear weapons on Indian SSBNs will be safeguarded by electronic switches, called “permissive action links”, such a setup can dangerously weaken the civilian command-and-control structure, as declassified documents from the Cuban missile crisis show.

Prohibitive costs

- Media reports suggest that the Indian Navy would eventually like about four SSBNs.
- International experience from UK and USA says that the cost of one submarine is about ₹70,000 crore
- The lifetime costs of operating such submarines are even larger than these initial costs; British and American estimates suggest that each SSBN requires between ₹2,000 crore and ₹5,000 crore in annual operational costs.
- Indian submarines will be smaller, and perhaps cheaper. However, even if their costs are only half as large as the lower end of the British and American estimates, the total cost of maintaining a fleet of four SSBNs, over a 40-year life cycle, will be at least ₹3 lakh crore.

Conclusion

- It is senseless to spend this money on nuclear submarines when thousands of lives are lost each year because the state pleads that it lacks resources for basic health care and nutrition.

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

Context

- India made a formal request to the U.S. for the purchase of 24 MH-60R Multi-Role Helicopters (MRH) for the Navy

What was the need?

- The Navy is presently facing a critical shortage of helicopters and several frontline warships are plying with empty helicopter decks.
- These helicopters are being procured as replacement for
 - * 15 Sea King ASW helicopters de-inducted from service in 1991 and
 - * One Sea King 42B MRH lost in accident.
- The current MRHs in service, Sea King 42Bs, were inducted in the 1980s.

6. Mission Raksha Gyan Shakti

Context

- Raksha Mantri Smt Nirmala Sitharaman launched ‘Mission Raksha Gyan Shakti’.
- This event showcased salient inventions and innovations achieved by Defence Research and Development Organisation (DRDO), Defence Public Sector Undertakings (DPSUs) and Ordnance Factories (OFs) which have resulted in successful filing of Intellectual Property Right (IPR) applications.

Details

- The objective of 'Mission Raksha Gyan Shakti' is to inculcate IP culture in Indian defence manufacturing ecosystem.
- As part of the ongoing initiatives to enhance self-reliance in defence, the Department of Defence Production has instituted a new framework titled 'Mission Raksha Gyan Shakti' which aims to provide a boost to the IPR culture in indigenous defence industry.
- The Directorate General of Quality Assurance (DGQA) has been entrusted with the responsibility of coordinating and implementing the programme.

7. Rafale

- The Rafale is a twin-engine fighter, multi-role fighter aircraft manufactured by French aviation company Dassault.
- These aircrafts are capable of carrying out all combat missions such as interception, air defence, in-depth strikes, ground support, reconnaissance, anti-ship strikes including nuclear deterrence
- It is a 4th generation Aircraft.

Sovereign guarantee v/s Letter of Comfort:

- Sovereign guarantee is a promise by a government to discharge the liability of a third person in case of his default.
- A Letter of Comfort (LoC) is merely a letter issued by the government acknowledging support of the attempt for deal by that company. A letter of comfort does not imply that the government guarantees discharge of the liability of the third person in case of his default. It merely gives reassurance that the government is aware of the deal, and supports its decision.

8. 26/11 Lessons for India**SURGICAL STRIKES**

India's policymakers debated and discarded a variety of options to deal with the Lashkar-e-Taiba that had carried out the November 26, 2008 attack on Mumbai.

OPTION	WHY IT WAS DISCARDED
 STRIKING LeT AND JUD LEADERSHIP IN MURIDKE	No covert assets in Pakistan. Risk of attack force being captured if sent from India.
 LIMITED AIRSTRIKES AGAINST TERRORIST TRAINING CAMPS IN PoK	Lacked precise locations of terrorist training camps. Possibility of civilian collateral damage.
 AIRSTRIKES BY IAF	Lacked precise locations of terrorist training camps. Possibility of civilian collateral damage.
 HELICOPTER GUNSHIP RAID BY INDIAN ARMY SPECIAL FORCES ON CAMPS AND LAUNCH PADS	Did not know precise location of terrorist training camps. Possibility of civilian collateral.
 LIMITED WAR CONFINED TO J&K, BACKED BY FULL MOBILISATION OF ARMY	Army lacked the conventional superiority to prevent conflict from escalating.

India cannot work on the lines of Israel

- Israel is known to indulge in targeted assassinations of militant leaders in the Gaza Strip or West Bank or in third countries but India's 'Most Wanted' are inside Pakistan, a nuclear armed and conventionally superior entity compared with the Hamas or Islamic Jihad.
- Israel mostly is land of Jews and India is a secular democracy and is home to the world's second largest population of Muslims and New Delhi cannot afford to undertake actions that might radicalize sections of this huge block, which will present internal security nightmares of its own.

Can India adopt Israeli Experience?

- Israeli resolve, training, high-tech security equipment are all worthy of emulation and need to be acquired
- Greater collaboration in intelligence matters among other cooperative endeavors is essential and is to be welcomed.

Way forward

Countries need to adopt each other's best practices to deal with the monster called terrorism, there cannot be a magic bullet or a single successful counter-terror tactic/strategy.

- So India can pursue to deal with such elements, including greater diplomatic pressure to bring them to justice, trade or economic sanctions of varying degrees, cultivation and impregnation of assets within enemy territory for greater monitoring, surveillance, or for undertaking possible punitive actions if required and approved by the political leadership, among other measures.
- Just as all politics is local, any successful counter-terror strategy needs to take into account the specificities of a given situation or incident and appropriate responses need to be chalked out, based on available capabilities.
- For instance, Audrey Kurth Cronin's monograph Ending Terrorism: Lessons for Defeating Al-Qaeda indicates six different pathways along which terror groups meet their end, including
 - * decapitation strikes,
 - * use of brute force,
 - * terror groups achieving their strategic objectives,
 - * negotiated settlements,
 - * disintegration, and
 - * Groups moving on to other malignant forms.
- Effective enmeshing of multiple options is crucial to ensure that the activities of terror groups waging war against India are curtailed and beaten back. Building up all-round capacities is vital, as is a vigilant security posture.

Conclusion

- The Mumbai attacks brought into stark focus the dangers of terrorism emanating from Pakistan, not just for India but for the whole world. 22 foreign nationals belonging to over 10 countries lost their lives in the attacks. The dubious distinction between 'good' and 'bad' terrorists was ultimately exposed

RD Pradhan committee recommendations

- The committee was appointed to look into the short comings of the Mumbai police during the attack of 26/11.
- The aim of the commission was to analyse how far the existing procedures, instruments and administrative culture are to be blamed for what are perceived as lapses.
- The committee noted that the failure of the Mumbai Police to react to the 26/11 terror attack was because of their lack of experience in dealing with a direct commando attack such as 2001 Parliament attack.

Recommendations and Status

- It was suggested that a small group of senior police officials should be formed to convey the information when an intelligence input is received.
 - * The group should also meet regularly and review the alert, and take action keeping the commissioner of police in the loop
- The committee recommended a creation of Specialised Combat Force on the line of the National Security Guard (NSG) to respond to such terror strikes.
 - * Taking a serious note of the suggestion, government made by the committee raised a commando force of over 200 men and women called 'Force One' armed with sophisticated weapons.
 - * They, however, seem to be non-performing due to absence of infrastructure.
- Sophisticated weapons and bulletproof jackets for the Mumbai police force.
 - * The government by large procured sophisticated weapons and ammunition.
 - * But the bulletproof jackets that were top priority got entangled in the web of corruption. Only 500 have been provided to the force, while the remaining are yet to be procured.
- The committee recommended transforming the existing Quick Response Team (QRT) into a small well equipped force of commandos which are at disposal of Mumbai police commissioner to be deployed at a short notice
 - * The QRT was trained but has hardly been visible on the streets of Mumbai.

- Emphasis was laid on strengthening the coastal security with creation of new coastal police stations and purchasing speed boats and amphibain vehicles for patrolling
 - * The police procured seven speed boats and four amphibian sea-legs vehicle. But most of them are defunct and are gathering dust
 - * The police have been able set up only two coastal police stations which operates from a dilapidated building in Mahim.
 - * The police station is under staff and no proper training has been imparted.

ENVIRONMENT AND ECOLOGY

1. Andaman & Nicobar Islands: home to a tenth of India's fauna species

- The Narcondam hornbill, its habitat restricted to a lone island; the Nicobar megapode, a bird that builds nests on the ground; the Nicobar treeshrew, a small mole-like mammal; the Long-tailed Nicobar macaque, and the Andaman day gecko, are among the 1,067 endemic faunal species found only on the Andaman and Nicobar Islands and nowhere else.
- Among the 46 terrestrial mammalian species found, three species have been categorised as Critically Endangered — Andaman shrew (*Crocidura andamanensis*), Jenkin's shrew (*C. jenkinsi*) and Nicobar shrew (*C. nicobarica*).
- A recent publication by the Zoological Survey of India (ZSI) titled Faunal Diversity of Biogeographic Zones: Islands of India has for the first time come up with a database of all faunal species found on the island, putting the number at 11,009.
- The presence of a large number of species in such a small area makes the Andaman and Nicobar Islands one of the richest ecosystems and biodiversity hot spots in India

Concerns

- The publication, however, also cautions that tourism, illegal construction and mining are posing a threat to the islands' biodiversity, which is already vulnerable to volatile climatic factors.
- In a recent development, the Government of India relaxed the Restricted Area Permit (RAP) norms for some foreign nationalities notified under the Foreigners (Restricted Areas) Order, 1963, to visit 29 of its inhabited islands, till December 31, 2022.
 - * This has triggered further concerns of increased anthropogenic pressures over the islands' ecosystem.
- The development paradigm such as tourism, construction and development of military, are not taking in account three factors — ecological fragility of the area (the endemism), geological volatility (earthquakes and tsunamis), and the impact they will have on local communities.
- Any stress can have a long-lasting impact on the islands' biodiversity, devastating the population size of any endemic fauna, followed by extinction within a limited span of time.

Nicobar Megapode

- Nicobar megapode or Nicobar scrubfowl (*Megapodius nicobariensis*) is a megapode found in some of the Nicobar Islands
- Megapodes are so named for their large feet
- This large-footed bird build nests on the ground

2. Asia Environment Enforcement Awards, 2018

Concerns

- United Nation Environment has awarded the Wildlife Crime Control Bureau (WCCB) of the Ministry of Environment, Forest and Climate Change, Government of India with Asia Environment Enforcement Awards, 2018 for excellent work done by the Bureau in combating transboundary environmental crime.

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.
- The Bureau has its headquarter in New Delhi
- 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

About:

- The Asia Environment Enforcement Awards publicly recognize and celebrate excellence in enforcement by government officials and institutions/teams combating Trans boundary environmental crime in Asia.
- The awards are given to outstanding individuals and/or government organizations/teams that demonstrate excellence and leadership in enforcement of national laws to combat transboundary environmental crime in one of the following eligibility criteria areas: collaboration; impact; innovation; integrity and gender leadership.
- WCCB has been conferred this award in Innovation category.

- * WCCB has adopted innovative enforcement techniques that have dramatically increased enforcement of transboundary environmental crimes in India.
- * Notably it has developed an online Wildlife Crime Database Management System to get real time data in order to help analyze trends in crime and devise effective measures to prevent and detect wildlife crimes across India.
- * This system has been successfully used to analyse trends, helping put in preventive measures as well as for successfully carrying out operations such as Operation SAVE KURMA, THUNDERBIRD, WILDNET, LESKNOW, BIRBIL, THUNDERSTORM, LESKNOW-II along with other enforcement agencies resulting in the arrest of 350 wildlife criminals and huge seizures of Tiger/Leopard Skin/bones and other trophies, Rhino Horn, Elephant Ivory, turtles/tortoises, Mongoose raw hairs as well as Mongoose hair brushes, protected birds, Marine products, live Pangolin as well as its scales, deer antlers etc. across all the states.
- In order to involve the public in the fight against wildlife crime, WCCB has also developed a scheme to enroll willing persons as WCCB Volunteers.
- The award was decided upon by a selection panel set up by the UN Environment and this is the second time in a row the awards are being given by UN Environment to India.

3. **Atmosphere & Climate Research-Modelling Observing Systems & Services (ACROSS)**

Context:

- The Cabinet Committee on Economic Affairs, chaired by the Prime Minister Shri Narendra Modi has approved continuation of the nine sub-schemes of the umbrella scheme ACROSS during 2017-2020 at an estimated cost of Rs. 1450 crore.

Details:

- It will be implemented by the Ministry of Earth Sciences through its institutes namely 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)
- 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.
- Each of these aspects is incorporated as nine sub-schemes under the umbrella scheme "ACROSS" and is implemented in an integrated manner through the aforesaid four institutes.

- 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 IMD, HIM, NCMRWF and INCOIS.
- As the objective of the ACROSS scheme is to provide a reliable weather and climate forecast for betterment of society, the scheme will aim at improving skill of weather and climate forecast through sustained observations, intensive R & D, and by adopting effective dissemination and communication strategies to ensure its timely reach to the end-user of all services like Argo-meteorological Services, Aviation service, Environmental monitoring services, Hydro-meteorological services, climate services, tourism, pilgrimage, mountaineering etc.,
- The CCEA also approved establishment of National Facility for Airborne Research (NFAR) with a financial commitment of Rs 130 crore during 2020-21 and beyond

Impact:

- The scheme will provide improved weather, climate and ocean forecast and services, thereby ensuring transfer of commensurate benefits to the various services like Public weather service, disaster management, Argo-meteorological Services, Aviation services, Environmental monitoring services, Hydro-meteorological services, climate services, tourism, pilgrimage, power generation, water management, Sports & adventure etc.

Generating employment opportunities:

- A sizable number of scientific and technical staff along with requisite administrative support, thereby generating employment.
- To ensure last-mile connectivity of the weather based services to the end -user, a large number of agencies like the Krishi Vigyana Kendras of Indian Council of Agricultural Research, Universities and local municipalities are roped in thus generating employment opportunities to many people.

4. **Bandhavgarh National Park**

- It is one of the popular national parks in India located in the Umaria district of Madhya Pradesh.
- The park derives its name from the most prominent hillock of the area, which was said to be given by Hindu Lord Rama to his brother Lakshmana to keep a watch on Lanka (Ceylon). Hence the name Bandhavgarh (Sanskrit: Brother's Fort).
- The density of the tiger population at Bandhavgarh is one of the highest known in India. The park has a large breeding population of leopards, and various species of deer.

5. BASIC Countries ministerial meet

Context:

- 27th BASIC Ministerial Meeting on Climate Change was hosted by MoEFCC in New Delhi on 20 November 2018. The BASIC countries are a bloc of four large newly industrialised countries -Brazil, South Africa, India and China.-formed by an agreement in 2009.

Significance of the ministerial meet:

- This Agreement is particularly significant as it represents the faith that countries, especially the developing countries, have placed in the multilateral processes knowing well that their actions towards addressing climate change will have a strong developmental impact.
- Although BASIC group of countries are the leading emerging economies, still they have significant percentage of the world's poorest people. Enabling the growth of the poor out of poverty trap, is an important part of our response to tackling climate change and It is known that the opportunities for the two efforts to complement each other are significant.
- To that effect, the efforts outlined in NDCs - increasing clean energy production and access, deploying new energy efficient technologies, and adapting to low carbon-intensive lifestyles – are targeted at creating opportunities for sustainable livelihoods, and sustainable development for the poor.
- In addition, anchoring the COP 24 outcomes in the vision of equity will help deliver climate justice not only to the present but also to our future generations

What the developed countries can do?

- Lack of ambition of developed countries and their unfulfilled promises should not place additional burden on developing countries to further enhance the level of ambition of their NDCs.
- It must be ensured that the progress on NDCs at COP 24 does not yield an outcome that is Mitigation-centric but it should address all elements including mitigation, adaptation, finance, technology development and transfer and capacity building.
- Barriers continue to impede the progress of Renewable Energy and Energy Efficiency deployment. High patent cost of such technologies and non-facilitative IPR regimes are barriers that the Financial Mechanism should address.

Way Forward:

- We need to explore possibilities to fund research and development of climate friendly technologies and shorten technology deployment cycle in absence of which transformative development would be delayed.

- Adaptation is a pressing issue for developing countries. They are highly vulnerable to climate change impacts as is also evident from the recent natural disasters and extreme events, which have caused extensive damage to life and property. Naturally, adaptation is an integral part of most developing country NDCs. Since the developing countries have played little role in the present climate change challenge and bearing the brunt of the historic greenhouse gas emissions by developed countries, adequate support must be provided to developing countries by developed countries to help them undertake adaptation actions.
- The reporting under the transparency framework should be based on the principle of differentiation, providing greater flexibility to developing countries, and should also provide relevant information on the support provided by developed countries to developing countries.
- A balanced approach towards development of Modalities, Procedures and Guidelines (MPGs) for the Enhanced Transparency Framework that enhances global action and financial support will serve us well in the negotiations at Katowice. In addition, adequate support should be provided to developing countries to participate in the enhanced transparency framework under the Paris Agreement

6. Dudhwa Tiger Reserve

- The Dudhwa Tiger Reserve is a protected area in Uttar Pradesh that comprises the Dudhwa National Park, Kishanpur Wildlife Sanctuary and Katarniaghat Wildlife Sanctuary.
- It shares the north-eastern boundary with Nepal, which is defined to a large extent by the Mohana River. The area is a vast alluvial floodplain traversed by numerous rivers and streams flowing in south-easterly direction.
- In 1987, the Dudhwa National Park and the Kishanpur Wildlife Sanctuary were brought under the purview of the 'Project Tiger' as Dudhwa Tiger Reserve. The Katarniaghat Wildlife Sanctuary was added in the year 2000.
- It is one of India's 47 Tiger Reserves
- The protected area is home for tigers, leopards, Asiatic black bears, sloth bears, Swamp deer, rhinoceros, elephants, cheetah, hog deer, barking deer, sambar, wild boar and hispid hare.

7. Fin Whale, Mountain Gorilla recovering thanks to conservation action

- Mountain Gorilla subspecies has moved from Critically Endangered to Endangered thanks to collaborative conservation efforts.
- Fin Whale has improved in status from Endangered to Vulnerable following bans on whaling,
- Gray Whale: least Concern

8. Gause's Law in Ecology

- Also known as the competitive exclusion principle, this refers to the proposition that the populations of two competing species cannot remain at stable levels over time.
- When two species compete for control over a limited amount of resources, the dominant species will take advantage over its weak competitor.
- This will cause the weaker species to get excluded from its previous territory and its population to drop over time.
- The law is named after Soviet biologist Georgii Gause although it was formulated first by American biologist Joseph Grinnell in his 1904 paper "The Origin and Distribution of the Chestnut-Backed Chickadee".

9. Global Cooling Innovation Summit

- The Summit is a first-of-its-kind solutions-focused event that will bring together leaders from around the world to explore concrete means and pathways to address the climate threat that comes from the growing demand from room air conditioners.
- The event is jointly organized by the Department of Science and Technology, Government of India, along with Rocky Mountain Institute, Alliance for An Energy Efficient Economy (AEEE), Conservation X Labs and CEPT University.

Stats

- There are currently 1.2 billion room air conditioning units in service around the world.
- It is estimated that the number of units will increase to at least 4.5 billion by 2050.
- India alone will see over 1 billion air conditioning deployed in the market by 2050.
- According to a report, by 2022, India is expected to have a fourth of the world's air conditioning units, and the risks to climate from this could be immense
- The energy consumption associated with comfort cooling represents one of the largest end-use risks to the climate, putting the most vulnerable populations at risk.

Global Cooling Prize

- It is a Mission Innovation challenge that aims to spur development of a residential cooling solution that has at least five times (5x) less climate impact than today's standard.
- Global Cooling Prize is a competition with global reach and participation to achieve dramatic breakthroughs in cooling technologies.
- The objective of this competition would be to develop a cooling technology that requires radically less energy to operate, utilizes refrigerants with no ozone depletion potential and with low global warming potential, and has the potential to be cost-effective at scale.

- The prize is supported by Mission Innovation, the Government of India through the Department of Science and Technology and its partner organizations namely Ministry of Power, Bureau of Energy Efficiency, and Ministry of Environment, Forests and Climate Change and will be administered by a coalition of leading research institutes—Rocky Mountain Institute (RMI), Conservation X Labs, the Alliance for an Energy Efficient Economy (AEEE), and CEPT University.

Significance

- This awards programme will call world-wide attention to the most promising ideas across the globe. This award will celebrate successes and facilitate endeavours of innovators through providing recognition, encouragement and support.
- The award will also be able to build a collaborative platform that can utilize the potential of researchers so that public research contributes towards fostering innovation and create impact which is of social and economic good.
- This recognition will not only recognise the eminent contributions to clean energy research development and demonstration, but would also motivate younger researchers to focus on innovations needed in clean energy domain to make world a better place to live.

10. Gomti River

- It is a tributary of the Ganges.
- It originates near Mainkot, from a lake- 'Fulhar Jheel' in Madhotanda
- The river is one of the major sources of water for Lucknow.

Concerns

- There was mass killing of fish that was reported in Gomati
- This was not caused by sewage; it is industrial effluents discharged by paper mills, sugar factories and distilleries in the upstream areas of Sitapur and Lakhimpur-Kheri that spelt doom for the aquatic life.
- This has a dissolved oxygen levels dipped to as low as one milligramme per litre (mg/l).
 - * A minimum level of four to six mg/l is considered essential to sustain aquatic life.

11. Greenhouse Gas Bulletin

- It is published annually by the UN World Meteorological Organization's (WMO) by the Atmospheric Environment and Research Division of WMO's Research Department
- Each year, these bulletins will report the latest trends and atmospheric burdens of the most influential, long-lived greenhouse gases; carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), as well as a summary of the contributions of the lesser gases.

- These three major gases alone contribute about 88% of the increase in radiative forcing of the atmosphere by changes in long-lived greenhouse gases occurring since the beginning of the industrial age (since 1750).

Significance

- The Greenhouse Gas Bulletin Published by WMO recently says, amounts of greenhouse gases in the atmosphere have hit yet another record high

Findings

- Carbon dioxide: Concentrations of the gas reached 405.5 parts per million in 2017, 146% of the pre-industrial era (before 1750).
- Methane: Atmospheric methane reached a new high of about 1859 parts per billion in 2017 and is now 257% of the pre-industrial level.
- Nitrous Oxide: Its atmospheric concentration in 2017 was 329.9 parts per billion. This is 122% of pre-industrial levels.

12. Green norms eased to aid builders

Context

- The Ministry of Environment, Forest and Climate Change (MoEFCC) issued a notification easing the green norms for the building and construction sector, wherein residential projects up to 1.5 lakh square metres (built-up area) will not require 'prior environmental clearance'.
- Urban local bodies such as municipalities will now have the power to grant building permission.

Details

- The notification has been plugged as a move to hasten the building construction permission process in urban areas in a bid to facilitate urban development across India.
- While the projects will have to use water-efficient appliances, rainwater harvesting, waste management systems, renewable power, energy-efficient systems and maintain air quality and noise standards besides other conditions, the onus of providing a completion certificate rests upon the respective municipal body.
- It is on the subjective satisfaction of the municipal body to issue the completion certificate to the builder or plot owner.

Concerns

- The changes are said to have been made to streamline permissions for building and construction sector to meet the target of building more affordable homes for weaker sections, it remains to be seen if the benefits of the relaxations trickle down to the weaker beneficiary or not.

- The move is said to directly benefit the ease of doing business ranking for the housing and construction sector, it's now going to be the municipality which will ascertain whether environmental norms are met by the builder. Considering the extent of corruption in municipalities across the nation, particularly among urban India, expecting clean and credible audits in the regard seems like a far cry.

13. Himalayan State Regional Council

Context

- NITI Aayog has constituted the 'Himalayan State Regional Council' to ensure sustainable development of the Indian Himalayan region.
- The Council has been constituted to review and implement identified action points based on the Reports of five Working Groups, which were established along thematic areas to prepare a roadmap for action.

These Working Groups were tasked with preparing a roadmap for action across five thematic areas namely,

- Inventory and Revival of Springs in Himalayas for Water Security,
- Sustainable Tourism in Indian Himalayan Region,
- Shifting Cultivation: Towards Transformation Approach,
- Strengthening Skill & Entrepreneurship (E&S) Landscape in Himalayas, and
- Data/Information for Informed Decision Making.

Composition

- The Himalayan State Regional Council will be chaired by the Dr VK Saraswat, Member, NITI Aayog and will consist of the Chief Secretaries of the Himalayan States as well as the Secretaries of key Central Ministries, senior officers of NITI Aayog as well as special invitees.

Terms of reference of the Council

- It states that it shall monitor the implementation of action points for Central Ministries, Institutions and 12 Himalayan State Governments in Indian Himalayan Region which include river basin development and regional cooperation, spring mapping and revival across Himalayas in phased manner for water security; develop, implement and monitor tourism sector standards as well as bring policy coherence, strengthen skill & entrepreneurship with focus on identified priority sectors, among other action points.

14. Indian Owl Festival

- It is the country's first owl fest at Pingori village in Purandar taluka of Pune

- The two-day festival, organised by Ela Foundation, an NGO working towards nature education and conservation, will give information on owl conservation and feature art forms like pictures, paintings, lanterns, lamp shades, posters, origami, stitched articles, poems and stories on owls.
- It is being organised with the intention of creating awareness about owl as a bird and debunking numerous superstitions associated with it

Importance of owls in ecosystem

- Owls eat rats, rodents, bandicoots, and mice.
- Most of the species that owls consume are harmful to agricultural croplands. So these birds are actually very beneficial to farmers

Concerns

- Of the 262 species of owls that are found in the world, 75 feature in the red data book — meaning they are threatened.
- Major causes behind this are superstitions and habitat loss — both are man-made.
- owls were found to be consumed and traded for a wide variety of purposes, including black magic, street performances, taxidermy, private aviaries/zoos, food and in folk medicines.

15. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

- It is an independent intergovernmental body, established by member States in 2012
- It provides policymakers with objective scientific assessments about the state of knowledge regarding the planet's biodiversity, ecosystems and the benefits they provide to people, as well as the tools and methods to protect and sustainably use these vital natural assets.
- Their mission is to strengthen knowledge foundations for better policy through science, for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.
- To some extent IPBES does for biodiversity what the IPCC does for climate change.

2015 Report

- In 2015, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) found that pollinators lead to huge agricultural economic gains.
- The report estimated pollinator contribution in India to be \$0.831-1.5 billion annually for just six vegetable crops

Concerns

- The decline of moths, bees, butterflies, hoverflies and other pollinators is undeniably linked to human activity: large tracts of natural habitats have been cleared for monoculture cultivation, while the use of pesticides and fertilisers is pushing out nature's little helpers.
- In a series of studies at the University of Calcutta, researchers have showed that native Indian bees, when exposed to multiple pesticides, suffer from memory and olfactory impairment, lower response rates, and oxidative stress which damages cells.

Steps taken around the world

- By 2014-15, the U.S. had established a Pollinator Health Task Force and a national strategy that focused on increasing the monarch butterfly population and planting native species and flowers in more than 28,000 sq km to attract pollinators.
- Around the same time, the U.K. developed 23 key policy actions under its National Pollinator Strategy.
- Meanwhile, after the IPBES report, almost 20 countries have joined the Coalition of the willing on Pollinators.

What can India do?

- Promoting organic farming and lowering pesticide usage
- India has millions of hectares of reserve forests, some of which have been converted to pulpwood plantations. Much of this can be restored to become thriving homes for pollinators.
- Fallow areas and government land can be used to plant flowering species for pollinators.

16. Indian Wind Turbine Certification Scheme

Context

- Ministry of New and Renewable Energy, in consultation with National Institute of Wind Energy Chennai, has prepared a draft of new Scheme called Indian Wind Turbine Certification Scheme (IWTCS) incorporating various guidelines

What is it?

- The IWTCS is a consolidation of relevant National and International Standards (IS/IEC/IEEE),
 - * Technical Regulations and requirements issued by Central Electricity Authority (CEA),
 - * Guidelines issued by MNRE and other international guidelines.
- It has also strived to incorporate various best practices from other countries to ensure the quality of the wind energy projects.

Significance

- The draft Scheme enlists the guidelines for the benefit of all the stakeholders from concept to lifetime of wind turbine
- The IWTCS is envisaged to assist and facilitate the following stakeholders; (i.) Original Equipment Manufacturers (OEMs) (ii.) End Users -Utilities, SNAs, Developers, IPPs, Owners, Authorities, Investors and Insurers (iii.) Certification Bodies (iv.) Testing Laboratories

17. Jumbo care! India gets its first dedicated elephant hospital**The News:**

- In a recent development, India's elephants now have their first dedicated hospital near the Taj Mahal. This facility is located near Agra
- This dedicated hospital comes complete with wireless digital X-Ray, laser treatment and dental X-ray facilities.
- Labelled as a 'jumbo' hospital, this is the result of a collaboration between the Uttar Pradesh Forest Department and conservation NGO Wildlife SOS.
- This veterinary hospital has modern medical facilities for the treatment of elephants in distress, including thermal imaging, ultrasonography, hydrotherapy, tranquillisation equipment and quarantine.

A few Specifics:

The Wildlife SOS Elephant Hospital is designed to treat injured, sick or geriatric elephants. The hospital is equipped with the following:

- A medical hoist for lifting elephants requiring critical care,
- A pathology laboratory,
- Digital weighing scale,
- Elephant Restraining Device (ERD) with a dedicated indoor treatment enclosure for longer medical procedures.
- Close circuit infra-red CCTV cameras. As a matter of fact, the hospital has an observation area for the overnight monitoring of elephants under treatment using close circuit infra-red CCTV cameras.

An observation deck will allow veterinary students and interns to observe and learn elephant treatment routines from a safe distance.

Concluding Remarks:

- Experts believe that this is a huge milestone for elephant protection in India.
- They assert that this hospital will help us take better care of injured elephants in distress.
- They also hope that this hospital will put India on the map as a scholarly destination for humane management of elephants, which will go a long way to address the protection and conservation of elephants in India.

18. Larval Restoration Project**Context**

- Scientists in Australia are attempting to restore the Great Barrier Reef by using IVF-style techniques on coral.

Details

- Rising sea temperatures linked to climate change, have damaged the 2,300km length of the reef, a World Heritage Area, leaving behind skeletal coral remains - known as mass bleaching. So the aim was to fix the damage done by the coral bleaching in 2016 and 2017
- The Larval Restoration Project's goal is to reestablish breeding populations in damaged reefs and make sure the reproductive life cycles of corals are healthy.
- Experts will try to capture millions of coral eggs and sperm during the annual coral spawning
- The tiny corals will then be grown in floating booms for around a week and when the larvae are ready they will be reintroduced to the most damaged parts of the reef.

19. National River Ganga (Rejuvenation, Conservation and Management) Bill, 2018

- The bill proposes to create a management structure that will supervise the health of the 2,500-kilometre long Ganga which, the draft Bill defines, as 'India's national river.'
- The Bill lays down a host of restrictions to ensure the "uninterrupted, ecological flow" of the river.
- Currently, a host of dams in the upper stretches of the river lead to the river's flow being obstructed, so government finally recognizing the need for proposed and existing hydropower projects to change their design plans to ensure minimum flows all through the year.
- It has proposed the setting up of an armed 'Ganga Protection Corps', with the powers to arrest offenders who pollute it, to keep the river clean and help in its rejuvenation
 - * The corps will be raised by the ministry of home affairs as demanded by the National Ganga Council, which is a panel of five experts with powers to issue directions on closure or regulation of industry and the construction of dams and other structures that affect continuous flow in the river, and to stop any activity causing pollution
- A contentious clause, section 54 of the bill on offences by companies, states that if an offence is committed by a company, every person who in charge of the company when the offence is committed and the company will be deemed guilty.

- * But if the in-charge is able to prove that the offence was committed without his or her knowledge or that they exercised due diligence to prevent the offence, they will not be punished under the act.

Concerns

- The major issues are building barrages and diverting flow of the river, dredging to make way for inland water ways, hydroelectric projects that impact the flow and massive deforestation destroying the overall ecology. The draft doesn't mention how these will be tackled
- The legislation looms even as the government is developing a National Waterways Project-1 (River Ganga) from Haldia to Varanasi (1,390 km), with the technical and financial assistance of the World Bank, at an estimated cost of ₹5,369 crore.

20. Narcondam Hornbill

- It is endemic to the Indian island of Narcondam in the Andamans.
 - * Narcondam Island is located 240 km northeast of Port Blair.
 - * Narcondam is a small volcanic island located in the Andaman Sea.
 - * The island's name is said to be derived from Tamil words Nara Kundram (Pit of Hell), which refers to its dormant volcano status.
- IUCN: Endangered
- It is a beautiful bird characterised by a long, down-curved bill, which is red and ivory. Plumage differs in male and female.
- The male has a rufous head and neck, and a glossy black body, while females are all black. They have bluish-white pouches and white tails.

21. Ortolan Bunting

- IUCN: Least Concern
- The ortolan is served in French cuisine, typically cooked and eaten whole. Traditionally diners cover their heads with their napkin, or a towel while eating the delicacy. The bird is so widely used that its French populations dropped dangerously low, leading to laws restricting its use in 1999. In September 2007, the French government announced its intent to enforce long ignored laws protecting the bird

Concerns

- Ortolan bunting spotted in Mangaluru

22. Owls Illegally Trapped

Context

- According to a report 'Imperilled Custodians of the Night' during Diwali celebrations the number of owls illegally trapped and sacrificed for tantric rituals and ceremonies during the festive season increase.

- Owls are caught in the wild using equipment such as bamboo poles, latex, hanging nets, noose traps, snares and fall traps.

Concerns

- The report stated that owls are used and traded for a wide variety of purposes, including black magic, street performances, taxidermy, private aviaries/ zoos, food, folk medicines and capturing other birds.
- Occult practitioners drive consumer demand by touting use of owl parts for purposes ranging from curing various illnesses to fighting the effects of evil spirits
- The birds are poached for their bones, talons, skull, feathers, meat and blood, which are then used as talismans, for black magic and in traditional medicine.
- Owls, especially those with "ears" (tufts), are thought to possess the "greatest magical powers" and Diwali is claimed to be the most auspicious time for sacrificing an owl.

Control Measures

- Of 30 species of owls found in India, 15 are traded illegally. The spotted owl (*Athene brama*), barn owl (*Tyto alba*) and rock eagle-owl (*Bubo bengalensis*) are the most commonly recorded species in the illegal trade.
 - * IUCN of all three is Least Concern
 - * Forest Owllet: Endangered
- TRAFFIC, the wildlife trade monitoring network, has issued an advisory to enforcement agencies calling for increased efforts to help curb trafficking and sacrifice of owls.
- Owls are protected under the Wildlife Protection Act, which prohibits hunting, trade or any other form of utilisation of the species or their body parts.
- Their international trade is restricted under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

TRAFFIC

- It is an International non-governmental organization
- It was founded in 1979 as a strategic alliance of the World Wide Fund for Nature (WWF) and the International Union for the Conservation of Nature (IUCN)
- Traffic's headquarters are located in Cambridge, United Kingdom, with offices located in strategically important locations in Africa, Asia, the Americas, Europe and Oceania.
- The organization's aim is to 'ensure that trade in wild plants and animals is not a threat to the conservation of nature.'
- Traffic's work involves research, publication of influential reports, projects, education, outreach and advocacy on the issue of wildlife trade

- Its other collaborators include NGOs, government agencies, inter-governmental organisations such as CITES and the World Customs Organisation, and key businesses and corporate leaders.

23. Palau becomes first country to ban sunscreen to save coral reefs

Context

- The Western Pacific nation of Palau has become the first country to ban many kinds of sunscreen, in a move to protect its coral reefs from chemicals that scientists say cause significant damage.

Details

- Under the ban, which will take effect in 2020, "reef-toxic" sunscreen — defined as containing one of 10 prohibited chemicals, a list that could grow later — can be confiscated from tourists when they enter the country, and retailers who sell it can be fined up to \$1,000.
- It has been estimated that 14,000 tonnes of sunscreen ends up in the world's oceans each year.
- Researchers found that even a low concentration of sunscreen in the water can hinder the development of young coral
- Studies have shown that chemicals in sunscreen can cause localized coral bleaching and can disrupt the reproduction of fish by interfering with their hormonal systems
- A 2015 study found that oxybenzone in sunscreen stunts coral growth and is toxic for the algae that live within reefs.

24. Point Calimere Wildlife and Bird Sanctuary

- It is a protected area in Tamil Nadu along the Palk Strait where it meets the Bay of Bengal at Point Calimere
- It is a protected area and a Ramsar site
- The sanctuary was created in 1967 for conservation of the near threatened blackbuck antelope, an endemic mammal species of India

Context

- A study by Researchers from Bharathidasan University, Tiruchirappalli notes water quality at the Point Calimere Wildlife Sanctuary might be unsafe for avifauna to feed and breed

Concern

- The pH and salinity of the waters exceeded permissible limits for ecologically sensitive zones
- They compared their results with the Central Pollution Control Board (CPCB) and the United States Environmental Protection Agency (USEPA) standards to reach this conclusion.

Causes

- The chemical companies and small-scale shrimp farms around the wetland have started to pose a threat to the biodiversity and ecosystem of the sanctuary.

- * There are many salt pans near the sanctuary. This could be increasing the salinity.

Impact

- Atmospheric temperature at a few stations exceeded 36-40 degrees Celsius.
- * This can affect the egg albumen during the pre-incubation period, thereby providing better growth conditions for harmful microorganisms in the eggs
- High acidic or high alkaline water can affect the metabolic and developmental activities of wild animals and birds.
- Microbial indicators such as coliform bacteria were also found to be very high
- * Drinking the contaminated water can lead to deformities in birds. Coliform infections in the birds have also been reported to cause a change in their natural behaviour and even affect their long distance migration.

Measure to be taken

- Strict environmental regulations should be imposed and salt pan and other aquaculture practices around the sanctuary should be prohibited.
- Eco-tourism is also causing disturbances in this area.



25. Pong Dam Lake

- It was created in 1975, by building the highest earthfill dam in India on the Beas River in the wetland zone of the Siwalik Hills of the Kangra district of the state of Himachal Pradesh
- It is named in the honour of Maharana Pratap
- The reservoir or the lake is a well-known wildlife sanctuary and one of the 26 international wetland sites declared in India by the Ramsar Convention

26. Project C.A.T

- Discovery Communications is working with World Wildlife Fund and others to support a worldwide effort to double the number of tigers in the wild by 2022.
- The aim of the project is to conserve nearly a million acres of protected land on the border of India and Bhutan, this collaboration aims to ensure a healthy habitat for future generations of tigers.
- This will allow rangers to more closely monitor tiger health and other key scientific data, take additional anti-poaching safeguards, and maintain land and corridors to improve movement of all wild animals.
- Discovery will create original public service announcements and in-program content tied to Project C.A.T. to drive awareness and encourage viewers around the globe to take action to support wild tigers.

Context

- Anushka Sharma Joins 'Project C.A.T' With Discovery Network To Save Tigers From Extinction

27. Project maps butterfly migration in South India**The News:**

- In a recent development, the Ferns Naturalists' Society (FNS), Wayanad, Travancore Natural History Society (TNHS), and the Malabar Natural History Society (MNHS) have joined hands to launch a citizen science project.
- This citizen science project would attempt at mapping the migratory path of butterflies in south India. This project would also be the first such initiative in the country.
- Usually butterfly migration starts during October-November with the onset of the northeast monsoon, from the plains to the ghats, and during April-May, just before the advent of the southwest monsoon, from the ghats to the plains.

A few Specifics:

A recent study had revealed that four species of milkweed butterflies are mainly involved in the migration. These four species include:

- The Dakhan Dark Blue Tiger,
- Oriental Blue Tiger,
- Double-branded Black Crow
- Indian Common Crow.
- Experts point out that the information on butterfly migration in India is still patchy.
- What is needed is a careful documentation of migration over a prolonged period from a given area. For this, a wide network and coordination among butterfly watchers from different localities are needed.

28. Ranganathittu Bird Sanctuary

- It is also known as Pakshi Kashi of Karnataka
- It is a bird sanctuary in the Mandya District of Karnataka
- It is on the banks of the Kaveri River.
- It is home to a myriad species of birds, both Indian and migratory, as well as marsh crocodiles, flying foxes and even monitor lizards

Context

- Ranganathittu to clamp down on those who carve names, vandalize sanctuary

Details

- Every year, nearly four lakh people visit the sanctuary to watch the birds at close quarters.
- The bamboo clumps have increasingly become easy targets for vandals who scratch not just their names, but also names of extended family, their addresses, names of towns, dates of their visit, even registration numbers of vehicles on the wood.

Concerns

- Etching on trees will disturb the birds
- It damages the beauty of the sanctuary

Measures

- The sanctuary authorities have now decided to file cases against visitors caught vandalising the trees and the bamboo grown along the walkways
- The department plans to install CCTV cameras to track such miscreants.

29. 'Robust' Corals**Context**

- Using advanced genomic techniques, a team of researchers of the ARC Centre of Excellence for Coral Reef Studies (Coral CoE) at James Cook University (JCU) have published a report.

Details

- They are group of corals classified as "robust," which includes a number of the brain corals and mushroom corals which have a key physiological advantage over "complex" corals, including common branching corals such as the staghorn coral.
- The research suggests that 'robust' corals are less choosy about which species of microalgae can take up residence in the coral's tissue.
- The ability to host a broader range of Symbiodinium types could facilitate more rapid acclimation to higher temperatures

Use of Amino Acids

- The report says that "robust" corals possess a unique capacity to generate an "essential" amino acid.

- Amino acids are crucial, for example, in repairing tissue or growing new tissue. But, generating amino acids is energetically costly for animals, so they usually only generate 11 of the 20 required for life. The remaining nine amino acids are called the 'essential' amino acids because they must be supplied by the animal's diet.
- Through a mutually-beneficial relationship with microalgae known as Symbiodinium, corals are supplied the energy needed to build their hard skeletons.
- Symbiodinium also supplies the coral with some of the 'essential' amino acids, making them less dependent on their diet than other animals
- when global warming causes corals to bleach, they expel their resident Symbiodinium and are therefore suddenly fully dependent on their diet to meet this nutritional requirement

30. Stratospheric Aerosol Injection (SAI)

Context

- According to a study by U.S. scientists, spraying sun-dimming chemicals high above the earth to slow global warming could be "remarkably inexpensive", costing about \$2.25 billion a year over a 15-year period,

Details

- Researchers say that the geo-engineering technique like the stratospheric aerosol injection (SAI) could limit rising temperatures that are causing climate change.
- As yet unproven and hypothetical, it would involve the use of huge hoses, cannons or specially designed aircraft to spray large quantities of sulphate particles into the upper layer of the atmosphere to act as a reflective barrier against sunlight.

Concerns

- Scientists have said SAI could cause droughts or extreme weather in other parts of the world, harm crop yields as well as potential public health and governance issues.
- It also does not address the issue of rising carbon dioxide emissions, the main greenhouse gas blamed for global warming.

31. Sri Lankan Frogmouth

Context:

- The sighting of a rare bird species in the Chinnar Wildlife Sanctuary has sparked much interest among ornithologists, since its presence was noticed on the eastern side of the Western Ghats for the first time.

Details

- IUCN status: Least Concern
- The Sri Lankan Frogmouth, *Batrachostomus moniliger*, which was sighted at the sanctuary is usually confined to its habitation in the western side of the Western Ghats forests.

- It is a relative of Nightjar, a crepuscular and nocturnal bird breeding in Europe and temperate Asia.
- Its preferred habitat is a dry and open area with some small trees or bushes.
- The Sri Lankan Frogmouth, like the Nightjar, eats insects and mainly seeks prey during night time.
- The main feature is that it lays only one egg a year after the mating season in April -May.
- The nest is made using moss or leaves of soft plants and the bark of the male bird destroys the nest and flies away with newborn bird.
- It is also found in Karnataka, Goa, and Maharashtra.
- It was believed that the species had gone extinct in the State after its presence was not noticed for a long period. An Ornithologist had found it at Thattekad in the Chinnar Wildlife Sanctuary is on a project to study its habitat and make a favourable environment for it.
- The Sri Lankan Frogmouth usually rests on small tree branches during daytime. Because of its silent presence, it is hardly noticed.

32. Star Tortoise

- IUCN: Vulnerable
- Habitat: India; Pakistan; Sri Lanka
- Star Tortoises are protected under Schedule IV of Wild Life Protection Act, 1972 and Convention on International Trade in Endangered Species of Wild Fauna and Flora

Threats

- Tortoises are traded for food, used in traditional medicines and also kept as exotic pets.
- They are in great demand in international market and command premium prices. Consumer demand is growing among middle-classes of countries like Malaysia, Thailand and Singapore.
- Malaysia is a major hub of growing illegal wildlife trade as the country's law does not allow effective implementation of the CITES.

Context

- Customs officials seized 490 Indian star tortoises when they were about to be smuggled out of Chennai Harbour

33. Stubble burners should be denied MSP says NGT

Context

- Failing to stop the stubble burning the National Green Tribunal (NGT) summoned the Chief Secretaries of Delhi, Punjab, Haryana and Uttar Pradesh, has asked them to come up with innovative steps, structure a framework by providing economic incentives and disincentives to farmers

Details

- The bench said existing Minimum Support Price (MSP) Scheme must be so interpreted as to enable the States concerned to wholly or partly deny the benefit of MSP to those who continue to burn the crop residue
- The problem is to be resolved by taking all measures as far as possible in the interest of public health and environment protection

34. New enemy of birds of prey: wind farmsContext

- A study published in Nature Ecology and Evolution says increase in wind farms has led to decrease of bird predators and increase in lizards in Maharashtra's Chalkewadi plateau.

Details

- Comparing raptor and lizard numbers in six areas with and without wind turbines, they found that wind farms had one-fourth the number of birds of prey (including eagles and kites) and showed lower predatory bird activity.
- The small, colourful reptiles that the birds prey on – increased in number and showed altered behaviour, physiology and even less-flamboyant body colours.
- With fewer predators, lizard numbers shot up to almost three times more in wind farms.

Effects on Lizards

- With lowered anti-predator responses, the reptiles let researchers approach to within 3 m before running away (normally, they flee if intruders approach to within 15 m).
- The lizards' stress (corticosterone) levels were also far lower than those in areas without wind turbines.
- But oddly enough, these lizards were not doing well: they were thinner, a sign of poor body condition. The usually brilliant blue and orange colours that male lizards sport were less vibrant in individuals at wind farms: not a good sign, because colour intensities aid lizards in social communication.

- * Increased competition for resources, now that lizards are at high densities, could be the cause

Implications

- There could be trophic cascade (the changes in an ecosystem when one component of a food chain is removed or added) due to the introduction of wind farms.
- The study is important for it shows that wind power projects — currently exempt from Environment Impact Assessments — have complex ecological consequences

- India's focus on renewable energy, policy-makers should start thinking deeply about the trade-offs between clean energy and environment protection

35. 461 elephants electrocuted in country in 8 years since 2009

- Between August and October 2018, more than a dozen elephants were electrocuted in the eastern and northeastern part of India, including seven elephants in Odisha's Dhenkanal district.
- While human-elephant conflict remains a major concern for policymakers and conservationists, electrocution of elephants is turning out to be a critical area in the management of India's elephant population.
- An analysis of data pertaining to elephant deaths in India due to electrocution between 2009 and November 2017 points out that, every year, about 50 elephants have died on average due to electrocution.
- Karnataka, which has the highest population of elephants, has recorded the highest casualties by electrocution, numbering 106. While 17 elephants died in Kerala, in Tamil Nadu, the number of deaths in the same period was 50.
- The data has been sourced from the Ministry of Environment, Forest and Climate Change (MOEFCC).
- Explaining why the east-central and northeastern parts of the country are witnessing greater number of incidents of human-elephant conflict, well-known elephant expert and Professor, Indian Institute of Science (IISc), Bengaluru, Raman Sukumar, said elephants are expanding base all across the country and moving out of forests towards agricultural areas.
- Along with taking measures to stop illegal electrical fencing, and having proper guidelines for maintaining the height of high tension electrical wires, Dr. Sukumar said, "We need to come up with a proper zone-wise management plan for different elephant landscapes — where to allow elephants and where to restrict their movement," he said.
- According to the all-India synchronised census of elephants in 2017, their population was 27,312. The States with the highest elephant population are Karnataka (6,049), followed by Assam (5,719) and Kerala (3,054).

Related Concept – Project Elephant

- It is a centrally sponsored scheme; launched in 1992

Objectives

- To protect elephants, their habitat & corridors
- To address issues of man-animal conflict
- Welfare of captive elephants

Main activities of the Project are as follows

- Ecological restoration of existing natural habitats and migratory routes of elephants;
- Development of scientific and planned management for conservation of elephant habitats and viable population of Wild Asiatic elephants in India
- Promotion of measures for mitigation of man elephant conflict in crucial habitats and moderating pressures of human and domestic stock activities in crucial elephant habitats
- Strengthening of measures for protection of Wild elephants from poachers and unnatural causes of death
- Eco-development and Veterinary care.

HEALTH ISSUES

1. Allied and Healthcare Professions Bill, 2018

Context

- The Union Cabinet chaired by Prime Minister Shri Narendra Modi has approved the Allied and Healthcare Professions Bill, 2018 for regulation and standardization of education and services by allied and healthcare professionals.

Objective

- The Bill provides for setting up of an Allied and Healthcare Council of India and corresponding State Allied and Healthcare Councils which will play the role of a standard-setter and facilitator for professions of Allied and Healthcare.
- The councils will be framing policies and standards, Regulation of professional conduct, Creation and maintenance of live Registers, provisions for common entry and exit examinations, etc.

Details:

- Establishment of a Central and corresponding State Allied and Healthcare Councils; 15 major professional categories including 53 professions in Allied and Healthcare streams.
- Professional Advisory Bodies under Central and State Councils will examine issues independently and provide recommendations relating to specific recognised categories.
- The Bill will also have an overriding effect on any other existing law for any of the covered professions.
- The State Council will undertake recognition of allied and healthcare institutions.
- Offences and Penalties clause have been included in the Bill to check mal-practices.
- The Bill also empowers the Central and State Governments to make rules.
- Central Govt. also has the power to issue directions to the Council, to make regulations and to add or amend the schedule.

Composition

- The Central Council will comprise 47 members, of which 14 members shall be ex-officio representing diverse and related roles and functions and remaining 33 shall be non-ex-officio members who mainly represent the 15 professional categories.
- The State Councils are also envisioned to mirror the Central Council, comprising 7 ex-officio and 21 non-ex-officio members and Chairperson to be elected from amongst the non-ex-officio members.

Targets:

- An Interim Council will be constituted within 6 months of passing of the Act holding charge for a period of two years until the establishment of the Central Council.
- The Council at the Centre and the States are to be established as body corporate with a provision to receive funds from various sources.
- Councils will also be supported by Central and State Governments respectively through Grant-in-aid as needed. However, if the State Government expresses inability, the Central Government may release some grant for initial years to the State Council.

Major Impact, including employment generation potential:

- Bring all existing allied and healthcare professionals on board during the first few of years from the date of establishment of the Council.
- Opportunity to create qualified, highly skilled and competent jobs in healthcare by enabling professionalism of the allied and healthcare workforce.
- High quality, multi-disciplinary care in line with the vision of Ayushman Bharat, moving away from a 'doctor led' model to a 'care accessible and team based' model.
- Opportunity to cater to the global demand (shortage) of healthcare workforce which is projected to be about 15 million by the year 2030, as per the WHO Global Workforce, 2030 report.

Number of beneficiaries:

- It is estimated that the Allied and Healthcare Professions Bill, 2018 will directly benefit around 8-9 Lakh existing Allied and Healthcare related professionals in the country and several other graduating professionals joining workforce annually and contributing to the health system
- However, since this Bill is directed to strengthen the healthcare delivery system at large, it may be said that the entire population of the country and the health sector as a whole will be benefited by this Bill.

2. Genes linked to kidney disease

- An international study led by a British team has discovered the identity of genes that predispose people to chronic kidney disease.
- The discovery of 35 kidney genes is an important step forward to the future development of new diagnostic tests and treatments for the disease.

- The findings were made possible by using a state-of-the-art technology known as “next-generation RNA sequencing” applied to one of the largest ever collections of human kidneys.

Mucin-1

- It is one of the genes which makes a sticky protein called mucin that coats urinary tubes inside the kidney.
- Mutations of this gene have already been found in rare families with inherited kidney failure.

3. Hantaviruses

- First identified in 1993, Hantaviruses cause severe and sometimes fatal respiratory infections and are known to infect lung cells.
- Though relatively rare, infections caused by them are expected to increase in the coming decades as temperatures across the globe rise due to climate change.
- Hantavirus is transmitted to humans who inhale the virus from the urine, faeces, or saliva of infected rodents.
- Infection with Hantavirus can progress to Hantavirus Pulmonary Syndrome (HPS).
- No treatments or vaccines are available.

Symptoms

- Early HPS symptoms include fatigue, fever and muscle aches, followed after a week or so by coughing and shortness of breath.
- HPS has a mortality rate of around 40%, according to the U.S. Centers for Disease Control and Prevention.

4. Health System for a New India: Building Blocks

Context

- The NITI Aayog organized a dialogue on “Health System for A New India: Building Blocks”, with national and international academia, practitioners, Indian policymakers and other stakeholders of the healthcare ecosystem.

Details

- The dialogue was the first in the series of NITI Aayog’s “Development Dialogues” that aims to facilitate multisectoral conversations on India’s developmental issues, which constitute a part of the country’s 15 Year Vision document.
- The dialogue focused on strengthening and further building on the existing blocks for Health Systems for a New India and prioritized four critical health systems issues for discussion and debate.
- These included expanding resources for health through pooling existing funds; expanding the role of the government as a strategic purchaser from both public and private providers to improve quality of healthcare services; provision of equitable and integrated services; and leveraging technology as an enabler and aggregator.

- The dialogue also deliberated convergence of fragmented building blocks of financing and service provision, with each reinforcing the other, and moving from programmatic or schematic approaches to a systems approach to healthcare.

5. Heli-Clinics

Context

- Union Minister Dr Jitendra Singh has mooted “Heli-Clinics” / Helicopter Clinics for remote areas, which could particularly be of great help to provide specialized medical care to people living in inaccessible hilly terrains of the States like Jammu & Kashmir and Northeast.

Reasons for such a proposal

- Corporate Hospitals and the leading private sector medical practitioners had mostly got concentrated in Tier-1 or big cities, while the rural and sub-rural areas, more so the remote areas, had been left deprived.
- The cities at the same time are reaching their saturation point with overwhelming number of private practitioners and therefore, from the point of view of a profitable private practice also, it will be good for the private sector doctors to turn to rural and remote areas.

6. Hookah bars permanently banned in Punjab

Context

- Hookah bars have been permanently banned in Punjab as President Ram Nath Kovind has given assent to a Bill from the state to check use of tobacco.
- The youth, including girls, were using hard and soft drugs in hookah and ‘sheesha’ bars

Details

- The objective of bringing the law is to check the use of tobacco in various forms and prevent diseases caused by the use of the tobacco products.
- Punjab is the third state in the country after Gujarat and Maharashtra where hookah bars or lounges were banned through law.

Health Concerns

- Smoking of hookah increases health risks includes exposure to toxic chemicals that are not filtered out by the water, and also the risk of infectious disease like tuberculosis resulting from sharing a hookah
- The most harmful ingredient in hookah is nicotine, which is known to be carcinogenic

7. Integrated Disease Surveillance Programme (IDSP)

Context

- The Union ministry of health and family welfare has launched the Integrated Disease Surveillance Programme (IDSP), which will help in early detection of disease outbreaks, and reducing the associated morbidity and deaths.

Background

- The National Centre for Disease Control (NCDC) under the Union health ministry investigates and recommends control measures for the outbreak of various communicable diseases in the states and Union Territories as well as some neighboring countries.
- The NCDC also undertakes monitoring of an outbreak throughout the country, especially during its early rising phase, by collecting information from states.

Details

- The IDSP is a segment of Integrated Health Information Platform (IHIP) that has been initially launched in seven states i.e. Andhra Pradesh, Himachal Pradesh, Karnataka, Kerala, Odisha, Telangana and Uttar Pradesh
 - * In these states, surveillance data will be recorded for 33 diseases, up from the current number of 18. This data will help officials on the ground plan better
- The path-breaking initiative will provide near real-time data to policy makers for detecting outbreak, reducing morbidity and mortality, and lessening disease burden in the populations and better health systems

Significance

- With IDSP, district and state officials will have ready data on a map on a dashboard that will immediately inform them which particular districts are affected. This will allow them to plan their response better
- This technology will be particularly helpful in the case of deadly outbreaks where the virus spreads fast
- Currently, the data is being collected in silos, both in terms of the different diseases, and geographies, and is spread across different systems that require officials at the Centre to crunch numbers to get the overall picture.
 - * IDSP will allow aggregation of real time data that is being generated at the primary level—with the help of tablets and desktops—and allow experts to monitor and analyse this data.
- Currently, there are issues such as the veracity of data being collected.
 - * The new IT system will ensure that whatever is being recorded is reliable and accurate

8. Marijuana-Derived Drugs study to be undertaken

Context

- Three major science administrators in India — The Council of Scientific and Industrial Research, the Indian Council for Medical Research and the Department of Biotechnology — are getting together to promote research in herbal drugs, some of which involve deriving new drugs from marijuana.

- It is believed that marihuana gives a high and induces a state of bliss. The doctors would now want to explore if this effect on brain can also bring some changes in cancerous cell by understanding its medical value and if the same could change the cancerous cell profile.

Details

- The organisations will seek formal permission from the Drug Control General of India for conduction of experiments.
- The researchers will test whether strains and contents of marijuana could be effective in the treatment of breast cancer, sickle-cell anaemia as well as be “bio-equivalent” (similar in make-up and effect) to marijuana-derived drugs already approved by the United States Food and Drug Administration (U.S. FDA).
- The U.S. FDA this year approved Epidiolex (cannabidiol) [CBD] oral solution for the treatment of seizures associated with two rare and severe forms of epilepsy, Lennox-Gastaut syndrome and Dravet syndrome.
- THC stimulates cells in the brain to release dopamine, creating euphoria
- THC can induce hallucinations, change thinking and cause delusions
- In some cases, reported side effects of THC include elation, anxiety, tachycardia, short-term memory recall issues, sedation, relaxation, pain-relief and many more.



Cultivation

- It is illegal for commercial cultivation though it grows as weed in several parts of the country.
- Uttarakhand, Jammu and Uttar Pradesh — have allowed restricted cultivation of the plant for medical research.

9. Monogenic Diabetes

Context

- A National Monogenic Diabetes Study Group has been formed to identify cases of monogenic diabetes across the country.
- Supported by the Indian Council of Medical Research (ICMR), the Madras Diabetes Research Foundation (MDRF) and Dr. Mohan's Diabetes Specialities Centre (DMDSC) will be the national coordinating centre for the study group.

Monogenic Diabetes

- Monogenic diabetes is a rare condition resulting from mutations (changes) in a single gene.
 - * Most cases of monogenic diabetes are inherited.
- In contrast, the most common types of diabetes—type 1 and type 2—are caused by multiple genes (and in type 2 diabetes, lifestyle factors such as obesity).

Two main forms of monogenic diabetes

- Maturity-Onset Diabetes of the Young (MODY)
 - * MODY is the most common form of monogenic diabetes.
 - * It usually first occurs in children or teenagers but sometimes is not found until adulthood
- This rare condition occurs in the first 6 months of life.
- Many infants with neonatal diabetes don't grow well before birth and are born small for their age.
- The two types are
 - * Permanent neonatal diabetes, a lifelong condition
 - * Transient neonatal diabetes, which goes away during infancy but can return later in life

What will the body do?

- Under this initiative, MDRF would provide guidelines to the collaborators for identifying monogenic diabetes.
- Blood samples will be sent if tested positive treatment protocols will be advised.

10. National Seminar on Entrepreneurship and Business Development in Ayurveda

- This seminar is being organised by Ministry of AYUSH in association with NITI Aayog at Dr. Ambedkar International centre, New Delhi.
- It has the aim of encouraging entrepreneurs and Ayurveda stakeholders towards businesses opportunities in the sector.

Details

- The seminar is expected to develop awareness among stakeholders about the business opportunities, encouraging young entrepreneurs to use of modern technologies and modern innovations in business development in the sector and to highlight opportunities at global level.
- The experts in marketing, finance management, innovation, telemedicine, the policy makers, experts in start-up as well as experienced entrepreneurs in Ayurveda pharmaceuticals and hospital industry will guide and share their experiences with the participants.

- The deliberations in the seminar are expected to educate the young entrepreneurs about the various possibilities of business development in Ayurveda sector, how to use the technology and the ease of business being facilitated by the Government for promoting their business in the field of Ayurveda.

11. Cause to remain alert (Zika-associated birth defects)**Zika-associated birth defects could be a serious public health crisis in India.**

- There have been recent announcements that suggest that the Jaipur Zika virus strains cannot cause foetal microcephaly. However, it is important to note that despite these announcements, all possible measures to control transmission and monitor pregnancies should be taken.
- Further, to the best of our knowledge, there is not a specific Zika virus strain — or mutation — linked to microcephaly. All Zika virus strains could possibly cause birth defects.
- Having said this, it is important to note that while the science on the Zika virus has rapidly progressed, there is still much that we do not know about how it causes birth defects.
- For example:
 - * We do not know the long-term effects of children who were infected with the Zika virus in the womb.
 - * We do not know why some lead to stillbirths and miscarriages, some lead to neurological complications, and others seem perfectly healthy.
 - * We do not understand why we only noticed microcephaly and other severe forms of disease during the epidemic in the Americas, and not before.

Having said this, it is important to note that there could be biological answers to these- for example, certain Zika virus strains are more likely to cause birth defects than others.

But at this point, we do not know.

Some Important Observations Made:

- It is important to note that the Indian Council of Medical Research (ICMR) recently announced that the Zika virus strains causing the outbreak in Jaipur, Rajasthan, cannot cause microcephaly.
- This conclusion was based on a genetic sequencing of viruses isolated from the outbreak.
- Further, in these sequences, the ICMR did not find a Zika virus mutation linked to microcephaly that was suggested in a Science magazine study, in 2017.
- However, the problem with this conclusion is that the research was based on infection in mouse brains, not humans and contains no epidemiological or clinical support.

- Also, numerous other studies suggest that all Zika virus strains may have the capacity to infect foetuses and cause neurological disease.
- Currently, much more research is needed to determine if some strains are associated with a higher risk.
- Next, it is also difficult to determine how extensive Zika virus outbreaks will be in India.

For example: If the Zika virus has been silently spreading in the country, as it did throughout most of Asia for the last 50 years, then enough people may be immune to the virus to prevent large outbreaks.

For According to the most recent updates, 159 people in Jaipur had confirmed Zika virus infections. Considering that most infections do not cause noticeable disease, and thus most infected individuals do not seek medical attention, the true number of cases may be more than 10,000. At least 50 of the infected individuals are pregnant women, but again, the true number is likely to be much higher.

Lastly, according to the Centers for Disease Control and Prevention in the U.S., only 5-10% of Zika virus infections during pregnancies lead to Zika-associated birth defects, and the rates of microcephaly are much lower.

Thus, while the chances for the Zika virus to cause harm to an individual baby are low, there is still a chance, regardless of the Zika virus strain in circulation.

Concluding Remarks:

- In conclusion, Pregnant women and their families, including those planning to get pregnant, should take great caution to avoid mosquitoes — wear long sleeves and trousers, stay indoors when possible, use DEET/insect repellent, and remove standing water that mosquitoes use for breeding.
- Further, the Zika virus infection is not guaranteed upon mosquito bite, but the chances for infection rise with each new bite.
- Next, Zika-associated birth defects could be a serious public health crisis in India, and, without a vaccine, all possible measures to control transmission and monitor pregnancies should be taken.
- Since Zika infection during pregnancy can cause severe birth defects, particularly microcephaly (small size of the head), all the 22 pregnant women infected must be monitored.
- Also, as there is no cure for microcephaly at birth, there should be campaigns to educate people living in the outbreak area to avoid sex, particularly with the intent of getting pregnant, till the outbreak is under control.
- The long winter ahead in north India and the imminent onset of the northeast monsoon in the eastern coast of India is conducive for the mosquito to multiply and spread. This calls for a high level of alert.

12. Novel strategy to treat diabetic wound infection

The News:

- Researchers from Panjab University have successfully treated multidrug-resistant bacterial infection in diabetic mouse model.
- They have done so by using virus that infects bacteria (bacteriophages).
- It is important to note that people with diabetes are more prone to fungal and bacterial infections and the emergence of multidrug-resistant organisms has worsened the situation. Researchers have been searching for alternative treatment approaches such as phytochemicals, metal ions, antibacterial nanoparticles, antibacterial enzymes. The phage therapy has shown promising results among various alternative treatments studied.

A few Specifics:

- In order to protect the phage and help in its slow release into the body, the researchers encapsulated the phage in a natural lipid casing called liposome.
- The liposome entrapped phage was injected into diabetic female mice to treat methicillin resistant *Staphylococcus aureus*-infected wound and the healing was studied for 20 days.
- The healing was studied in four different groups of mice. One was not given phage or clarithromycin, one was given phage cocktail but not encapsulated, other was given liposome-loaded cocktail of bacteriophages and the last was treated with clarithromycin only.
- The group treated with the liposome-entrapped phage showed a significant decrease in the wound size on day five itself and complete closure of wound was seen by day nine. The study showed liposome-loaded phage eradicated bacterial infection in 10 days whereas untreated mice showed high bacterial burden.
- The researchers also studied the inflammatory markers (myeloperoxidase) produced by neutrophils at the wound site. These are the first cells that reach the site of infection or inflammation.

Phage Therapy- A Historical Note:

- Phage therapy or use of a specific virus to target particular bacteria was in use in many countries before the popularization of antibiotics.
- Even now it is used in Russia, Georgia, Poland and other countries. Though it is currently not used in India, experts believe that it is an option we should choose as there is an increase in the number of drug-resistant pathogens in our country.

Concluding Remarks:

- Phage therapy can be used as a personalized therapy where the patient is first tested for bacterial infection and then treated with the appropriate phage.

- Also, it is very effective compared with antibiotics as it requires only a single dose, and its concentration does not decrease as long as it has the bacterial host.
- In conclusion it is important to note that Phages are very safe and non-toxic. They are in our system, we encounter them each day in our food and water. Phages have no effect on humans as their host is bacteria, not us.

13. Kerala plans to enforce cut in trans fatty acids in food

Context:

- The Kerala Health Department and the Food Safety wing are joining hands to enforce dietary guidelines, involving the reduction of trans fatty acids (TFAs), salt and sugar in commercially available foods in the State.
- The initiative, with technical support from the World Bank, WHO and the Food Safety and Standards
- Authority of India (FSSAI), is being launched as an unhealthy diet is pushing up metabolic syndrome and premature deaths due to non-communicable diseases (NCDs).

Metabolic abnormalities

- Metabolic Syndrome (MS) is a cluster of metabolic abnormalities —increased blood pressure, high blood sugar, abdominal obesity, abnormal cholesterol or triglyceride levels — that occur together, increasing one's risk of heart disease, stroke and diabetes.
- WHO recommends that trans-fat intake be limited to less than 1% of total energy intake and has called for the total elimination of TFAs in global food supply by 2023.

Non-communicable diseases (NCDs)

- Non-infectious are non-communicable diseases and caused by a variety of reasons. Some of the reasons for the non-infectious disease are genetics, nutritional deficiency, age and sex of the individual and so on. Examples include cancer, diabetes, and hypertension.
- There are various disease-causing agents ranging from bacteria and viruses to protozoa and worms. These are collectively known as pathogens. These agents enter the body directly or through some vector/agents like mosquitoes. They cause infectious chronic disease. Then, there are prions, these are basically proteins that are folded the wrong way and tend to cause some very serious illness. These are not infectious in the usual way, but can be spread by consumption of meat tainted by these proteins. Creutzfeldt-Jakob disease is such a disease caused by prions and is almost always fatal.
- Some diseases are transmitted through some sources like contaminated food, water, and air. The chronic disease like AIDS is transmitted through blood transfusions, sexual intercourse, by sharing injection needles, even from mother to child by breastfeeding. Based on transmitting agents, a disease can either be air-borne or water-borne or food-borne.

- Whether the disease is acute or chronic, contagious or non-contagious, viral or bacterial in nature. They always induce an uncomfortable feeling in the body. And our daily routine gets disturbed as well. Hence, it is said that- "Prevention is better than cure".

14. Multiple reasons behind premature births in India

Context

- A recent study that analysed nearly 8,000 women in India who gave birth between 2004 and 2005 and 2011 and 2012 (India Human Development Survey) has pointed out that there is a strong association between adverse birth outcomes and sanitation access, gender-based harassment and physical labour.

Details of the study

- About 14.9% and 15.5% of the study group experienced preterm birth and low infant birth weight respectively.
- The researchers found that spending more than two hours per day fetching water was associated with low birth weight while open defecation or sharing latrine within the building was associated with greater chances of low birth weight or preterm birth.
- Another shocking find of the study was that harassment of women and girls in the community was also associated with both preterm birth and low infant birth weight.
- Though there were limitations due to self-reported behaviours and small sample size, the study was able to contribute to the limited evidence related to sanitation infrastructure and other social factors that play a role in preterm birth and low infant birth weight.

EDUCATION

1. IIT-Bombay tops in QS ranking of Indian institutions

Context

- Indian Institute of Technology, Bombay, has topped the first-ever standalone ranking of Indian higher education institutions by QS, a think tank that is famous for bringing out world rankings of institutions.

Ranking

- Indian Institute of Science, Bengaluru, which tops Indian institutions in almost all rankings, stands second.
- The top 10 Indian institutions include seven IITs, with the IITs at Madras, Delhi, Kharagpur and Kanpur standing third, fourth, fifth and sixth, respectively, in the rankings.
- The University of Hyderabad stands seventh, the University of Delhi stands eighth in the rankings.

Criteria

Institutions have been scored on academic reputation (30 per cent), employer reputation (20 per cent), faculty-student ratio (20 per cent), proportion of staff with PhD (10 per cent), papers per faculty from Scopus database (10 per cent), citations per paper from Scopus database (5 per cent), proportion of international students (2.5 per cent) and proportion of international faculty (2.5 per cent).

Measures taken by Govt to improve ranking

- To improve global rankings of Indian institutions, the Centre is trying to facilitate more foreign faculty and foreign students' intake in Indian institutions.
 - * It is working to permit the hiring of regular foreign faculty in Indian institutions.
- In institutions of eminence, it is permitting the admission of foreign students to the tune of 30% of the student strength and foreign faculty to the tune of 25% of the faculty strength.
- Within the framework of graded autonomy — allowing higher autonomy for the best institutions — too, the Centre is granting more autonomy to top institutions to hire foreign faculty and admit foreign students.

2. Institution's Innovation Council (IIC) Program

Context:

- Union HRD Minister Shri Prakash Javadekar through video conferencing launched the 'Institution's Innovation Council (IIC)' program under Innovation cell of MHRD in New Delhi.
- Ministry of Human Resource Development has established an "Innovation cell" at AICTE with a purpose to systematically foster the culture of Innovation in all Higher Education Institutions (HEIs) across the country.

Details

- It is a significant step in institutionalizing innovation and developing a scientific temperament in the country.
- The purpose of formation of network of Institution's Innovation Councils (IICs) is to encourage, inspire and nurture young students by exposing them to new ideas and processes resulting in innovative activities in their formative years.
- More than 1000 Higher Education Institutions (HEIs) have already formed IICs in their campuses and enrolled for the IIC network managed by MHRD's Innovation cell to promote innovation through multitudinous modes leading to an innovation promotion eco-system in their campuses.

What was the need of the Program?

- Universities are the main research centers of developed countries and because of their research they are at the top in global innovation ranking
- So setting up of research centers through 'Institution's Innovation Council (IIC) program, India is expecting to improve its ranking on the Global scale.
- So in order to give boost to it the educational advancement in higher education can only be achieved by encouraging best practices in innovation and advance research and Innovation Cell has undertaken many initiatives in this direction such as implementing programs like Atal Ranking of Institutions on Innovation Achievement (ARIIA), Smart India Hackathon (SIH)- 2019, etc.

3. Impactful Policy Research in Social Science (IMPRESS)

- Under the Scheme, 1500 research projects will be awarded for 2 years to support the social science research in the higher educational institutions and to enable research to guide policy making.

The broad objectives of the scheme are:

- To identify and fund research proposals in social sciences with maximum impact on the governance and society.
- To focus research on (11) broad thematic areas such as : State and Democracy, Urban transformation, Media, Culture and Society, Employment, Skills and Rural transformation, Governance, Innovation and Public Policy, Growth, Macro-trade and Economic Policy, Agriculture and Rural Development, Health and Environment, Science and Education, Social Media and Technology, Politics, Law and Economics. The Sub-Theme areas will be decided on the basis of Expert Groups' advice before notifying the scheme and calling for applications.

- To ensure selection of projects through a transparent, competitive process on online mode.
- To provide opportunity for social science researchers in any institution in the country, including all Universities (Central and State), private institutions with 12(B) status conferred by UGC.
- ICSSR funded/recognized research institutes will also be eligible to submit research proposals on the given themes and sub-themes.

4. **NASI- Scopus Young Scientist Awards 2018.**

Context:

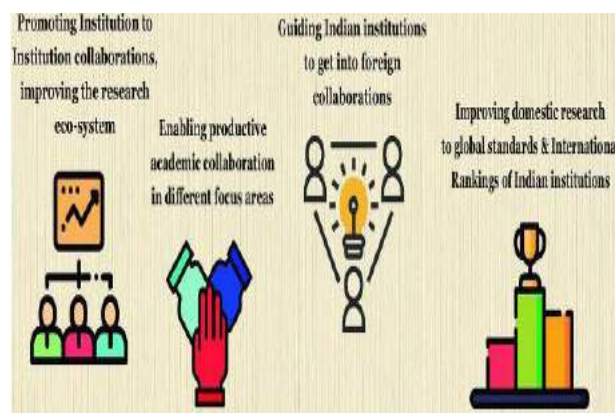
- Vice President of India, Shri M Venkaiah Naidu presented the National Academy of Sciences, India (NASI) and Elsevier awards 2018 aimed at promoting scientific excellence among youngsters, at Vigyan Bhawan in New Delhi.

About:

- The Scopus Young Scientist Awards, first launched by Elsevier in 2006, is part of an Elsevier's global initiative to support early career researchers in their quest to advance the frontiers of science across a broad range of disciplines. In 2009, India officially adopted the program within its scientific community through Elsevier's collaboration with The National Academy of Sciences, India
- The program honours outstanding young researchers in India who are building their careers in academic research, helping them gain recognition for their work. As of 2017, 101 winners across nine scientific disciplines have been announced.
- This year NASI Scopus Awards has introduced 5 multi-disciplinary categories that are aligned with national missions of Make in India, Digital India, Healthy India and Clean India.
- These awards are given in five categories - Women in Science, agriculture, Plant Sciences and Rural Development, Environmentally Sound Sustainable Development, Biomedical Research and Healthcare and Innovation in Engineering and Physical Sciences.

5. **Scheme for Promotion of Academic and Research Collaboration (SPARC)**

- It is a scheme that aims at improving the research ecosystem of India's higher educational institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world.
- Under this Scheme, 600 joint research proposals will be awarded for 2 years to facilitate strong research collaboration between Indian research groups with the best in class faculty and renowned research groups in the leading universities of the world, in areas that are at the cutting edge of science or with direct social relevance to the mankind, specifically India.



Significance

- This Scheme is expected to have a major impact in providing the best international expertise to address major national problems, expose Indian academicians to the best collaborators abroad, enable international faculty to stay in India for a longer duration, provide Indian students an opportunity to work in the world class laboratories, to develop strong bilateral relationships in research, and improve the international ranking of Indian Institutes.

6. **Young Champions Awards**

Context:

- NITI Aayog's Atal Innovation Mission (AIM) and UNICEF India, have come together on Children's Day 2018, to provide an open platform to young children of India, to contribute towards sustainable development.
- The awards were presented to the top six most innovative solutions from across the country, which were shortlisted through the Atal Tinkering Marathon.

Atal Tinkering Marathon

- The Marathon will be open to all ATL schools across the country who aspires to make a difference and contribute to the school's success in becoming an Innovation Hub.
- The Marathon's focus is on identifying a problem and developing innovative solutions that align with the National Agenda of creating a New India by 2022.
- The innovative solutions should ideally focus on the 6 focus areas in alignment with National Agenda namely, clean energy, water resources, waste management, healthcare, smart mobility and agri-technology.
- The objective was to encourage students to observe community problems and develop innovative solutions.

7. UNESCO global education monitoring report 2019

Context:

- Literacy levels in rural households of India dip with seasonal migration, the UNESCO global education monitoring report 2019 has observed, bringing out the educational challenges thrown up by migration.

Stats

- In India, 10.7 million children aged 6 to 14 lived in rural households with a seasonal migrant in 2013.
- About 28% of youth aged 15 to 19 in these households were illiterate or had not completed primary school, compared to 18% of the cohort overall
- About 80% of seasonal migrant children in seven cities lacked access to education near work sites, and 40% are likely to end up in work rather than education, experiencing abuse and exploitation

Details

- The report says that the construction sector absorbs the majority of short-term migrants.
- Inter-State migration rates have doubled between 2001 and 2011. "An estimated 9 million migrated between States annually from 2011 to 2016," the report says.
- It also warns of the negative impact on education for children who are left behind as their parents migrate: "Test scores were lower among left-behind children aged 5-8."

Measures taken

- The Right to Education Act in 2009 made it mandatory for local authorities to admit migrant children.
- National-level guidelines were issued, allowing for flexible admission of children, providing transport and volunteers to support with mobile education, create seasonal hostels and aiming to improve coordination between sending and receiving districts and states
- State governments have also taken steps for migrant children's education. It, however, observes that most interventions are focused on keeping children in home communities instead of actively addressing the challenges faced by those who are already on the move.

ART AND CULTURE

1. Aipan

- It is traditional terracotta and white motifs drawn on floors and walls on ceremonial occasions in Uttarakhand.
- It is a traditional art form associated with fortune and fertility, is akin to making an offering to god.
- The background is prepared with red clay, called geru, and the designs are created with a white paste made from rice flour.
- Traditionally, aipan making is the domain of women, who use it to decorate places of worship, house entrances and front yards.

2. Atala Mosque

- It is a 15th-century mosque in Jaunpur, Uttar Pradesh
- The style of Atala Masjid's architecture is known as Sharqi Style.
 - * The main feature of Sharqi mosques is the huge rectangular pylon (gateway) with arches.
 - * The use of minars has been avoided in Atala Masjid
- A unique feature of this building is use of bold and forceful characters painted on the huge screen in the centre and side bays of the prayer hall.

3. Dhokra sculptures

- Dhokra is a folk art that involves the casting of non-ferrous metal like copper or bronze using the lost wax technique.
- It gets its name from its main practitioners, the Dhokra Damar tribes who are traditionally metalsmiths.
- Spread over the eastern part of India, including West Bengal, Orissa, Jharkhand, Dhokra tribals are also found in some parts of Chhattisgarh.
- The oldest specimen using it is the famous dancing girl of Mohenjodaro.
- No two Dhokra artworks are alike, and every single sculpture is painstakingly crafted to be one of a kind.
- The artisans take inspiration from mythology, the environment and simple rituals, and showcase these through their works
- The main hallmark of the Dhokra ornamental sculptures and goods is simplicity, charming folk motifs, a rustic beauty and imaginative, intricate designs and patterns.
- The new tax regime GST has cut down their sales of the sculptors by at least half.

- Over the years, market forces have altered the traditional technique.
 - * Beeswax, which was one of the primary inputs, is not used any more, since it is far more expensive and no longer easy to procure.
- The traditional animal figurines — horses, elephants, camels and so on — are slowly being replaced by more functional things such as paperweights, pen holders, candle holders, bottle openers and so on.

4. Hemis Monastery

- It is situated about 45 km from Leh
- The Hemis monastery belongs to the Drukpa sect of Mahayana Buddhism.
- It was built in the 11th century, and was re-established by King Sengge Namgyal (1590–1620) in the 17th century.
- The local word for a monastery is gumpa, and as per Buddhist precepts, a monastery should be built in a solitary place far away from the people.
- The monastery is divided into two parts: there is an assembly hall known as Dukhang and a temple called Tshogkhang.
- There are huge statues of the Buddha and Guru Rimpoche. There is a huge copper statue of a seated Buddha on the opposite hill which overlooks Hemis.

Hemis festival

- It is the annual festival is celebrated on Guru Padmasambhav's birth anniversary.
- The festival has been a draw for locals and tourists alike for centuries.
- As it showcases masked dancers, it is a popular fixture in the Ladakh calendar.
- It takes place on the ninth and tenth days of the fifth month of the Tibetan calendar, which usually falls in the months of June or July.

5. Kumbh Mela

- It is a Hindu festival
 - * The congregation includes ascetics, saints, sadhus, aspirants-kalpavasis and visitors.
- The Kumbh Mela is held in Haridwar, Allahabad (Prayagraj), Ujjain and Nashik.
- The Kumbh Mela is held once in 12 years.
 - * Kumbh Mela is held every third year at one of the four places by rotation

- Devotees believe that by bathing in the Ganges one is freed from sins liberating her/him from the cycle of birth and death.
- It has been listed as an Intangible Cultural Heritage under UNESCO in 2017
 - * The Ministry of Culture has appointed the Sangeet Natak Akademi, an autonomous organisation under the Ministry of Culture, as nodal office for matters relating to the intangible cultural heritage including for preparation of the nomination dossiers for the Representative List of UNESCO.
 - * A total of 13 Intangible cultural heritage (ICH) elements from India have been inscribed on the UNESCO's Representative List of the Intangible Cultural Heritage of Humanity.

1	Tradition of Vedic chanting	2008
2	Ramlila, the traditional performance of the Ramayana	2008
3	Kutiyattam, Sanskrit theatre	2008
4	Ramman, religious festival and ritual theatre of the Garhwal Himalayas, India	2009
5	Mudiyettu, ritual theatre and dance drama of Kerala	2010
6	Kalbelia folk songs and dances of Rajasthan	2010
7	Chhau dance	2010
8	Buddhist chanting of Ladakh: recitation of sacred Buddhist texts in the trans-Himalayan Ladakh region, Jammu and Kashmir, India	2012
9	Sankirtana, ritual singing, drumming and dancing of Manipur	2013
10	Traditional brass and copper craft of utensil making among the Thatheras of Jandiala Guru, Punjab, India	2014
11	Yoga	2016
12	Nawrouz, Novruz, Nowrouz, Nowrouz, Nawrouz, Nauruz, Nooruz, Nowruz, Navruz, Nevruz, Nowruz, Navruz	2016
13	Kumbh Mela	2017

6. International Film Festival of India (IFFI)

- The 49th International Film Festival of India (IFFI) 2018 was held in Goa
- 49th edition of the festival will showcase 212 films from over 68 countries which reflects diversity of ——— taste.

Background:

- The International Film Festival of India (IFFI), founded in 1952, is one of the most significant film festivals in Asia.
- It is held annually, currently in the state of Goa, on the western coast of the country.
- The festival aims at providing a common platform for the cinemas of the world to project the excellence of the film art; contributing to the understanding and appreciation of film cultures of different nations in the context of their social and cultural ethos; and promoting friendship and cooperation among people of the world.

- The festival is conducted jointly by the Ministry of Information and Broadcasting, Directorate of Film Festivals and the Government of Goa.

7. International Tourism Mart

Context:

- The Ministry of Tourism, Government of India, in association with the Department of Tourism, Government of Tripura and the North Eastern States is organizing the "International Tourism Mart" in Agartala, Tripura

About:

- This is the 7th edition of the International Tourism Mart, an annual event organised in the North Eastern region with the objective of highlighting the tourism potential of the region in the domestic and international markets.
- It brings together the tourism business fraternity and entrepreneurs from the eight North Eastern States. The event has been planned and scheduled to facilitate interaction between buyers, sellers, media, Government agencies and other stakeholders.
- A total of 41 foreign delegates from 18 countries namely Australia, Canada, China, France, Indonesia, Japan, Kenya, Malaysia, Myanmar, Netherlands, New Zealand, Russia, South Africa, South Korea, Spain, Thailand, UAE and USA will be in Tripura for the Mart

Why Northeast?

- The North East Region of India comprising the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim, is endowed with diverse tourist attractions and products.
- The varied topography of the region, its flora and fauna, the ethnic communities with their rich heritage of ancient traditions and lifestyles, its festivals, arts and crafts, make it a holiday destination waiting to be explored.

8. Kambala

- Kambala is an annual Buffalo Race held traditionally under the auspices of local land lords and households or Patel of village, in coastal Karnataka.
- The Kambala season generally starts in November and lasts until March.
- The contest generally takes place between two pairs of buffaloes, controlled by a whip-lashing farmer. The 'track' used for Kambala is a paddy field filled with slush and mud.
- People place massive bets on the buffaloes to win and one can witness more than 20,000 spectators in a well-organised Kambala, egging on and cheering the buffaloes to complete the race.
 - * The buffaloes developed for the race are carefully fed and some owners of the buffaloes have even built separate swimming pool for competing buffaloes.

- In traditional form of Kambala, racing is non-competitive
 - * It was a ritualistic approach where some agriculturists race their buffaloes for thanks giving (to god) for protecting their animals from diseases.

9. **Kothin Chibor Dan**

- It is a religious festival of Buddhists
- The Buddhist Monks accept 'chibor' or cloth to wear which the Buddhists believe as the best of all gifts.
- Chibor, the cloth that monks wear, may be of any six colors: those of a tree's roots, trunk, bark, dry leaves, fruit or flower.
- Through history, it is known that, during the time of Gautama Buddha, a pious, a devotee woman named Vishakha, created a Chibor within a day for the Buddha. And as a result of this, the present "Kothin Chibor Dan" program is going on which is accepted from the disciple.

10. **South Asia Regional Youth Peace Conference**

Context:

- Gandhi Smriti and Darshan Samiti (GSDS), functioning under Ministry of Culture, Government of India organised a 3 day 'South Asia Regional Youth Peace Conference' in partnership with UNESCO- MGIEP and Standing Together to Enable Peace from November 28-30, 2018.
- The conference was held at Gandhi Darshan, Rajghat, Delhi

Details

- The conference is being organized to mark the beginning of celebration of 150th birth anniversary of Mahatma Gandhi.
- The objective of the conference is to eliminate stereotypes, prejudices across all borders, to understand micro-macro aspect of the issues, identify common challenges and develop plan of action, to build a network of youth leaders.
- Amongst the objectives include the aim to equip young leaders with skills and knowledge based on peace education, critical enquiry and socio-emotional learning as a tool to engage with their peers.
- The aim is also to build a network of youth leaders and change-makers across South Asia who will join hands to address common challenging issues together.
- The thematic thrust areas include Gender; Interfaith issues; Food Security in the context of Gandhian vision of village economy; Digital Media; Arts, Democracy and Dialogue.

11. **Tawang Monastery**

- It is located in Tawang city of Tawang district in the Indian state of Arunachal Pradesh, is the largest monastery in India and second largest in the world after the Potala Palace in Lhasa, Tibet.
- The full name of the monastery is Tawang Galdan Namgye Lhatse. The full meaning of the 'Tawang Galdan Namgye Lhatse' is the "site chosen by the horse is the celestial divine paradise"
 - * 'Ta' means "horse", 'wang' means "chosen", which together forms the word 'Tawang', meaning "the location selected by horse".
 - * 'Gadan' means "paradise",
 - * 'Namgyal' means "celestial"
 - * 'Lhatse' means "divine".
- The Tawang Monastery was indeed built according to the wishes of the 5th Dalai Lama, Ngawang Lobsang Gyatso.
- But it was founded in 1680-81 by a monk named Merag Lodre Gyatso of the Gelug sect after the 4th Dalai Lama gave him a painting of goddess Palden Lhamo to be kept in the monastery. An eight-metre high gilded statue of Lord Buddha dominates the sanctum of the monastery.

Context:

- The Incredible India campaign has goofed up on Tawang Monastery in Arunachal Pradesh, suggesting the ancient structure was built just three decades ago.

Previous examples of error in presentation of facts

- An international tourism campaign by the government since 2002, Incredible India had erred a decade ago by passing off a black African rhino as the great Indian rhinoceros, the bulk of whose population is in Assam's Kaziranga National Park.
- The rhinos in Assam are one-horned, unlike their African cousins that sport two horns.

12. **'Tall ships sail together' expedition**

Context:

- Chief of the Naval Staff Admiral Sunil Lanba will flag off a 'tall ships sail together' expedition that will cover a distance of 1,200 nautical miles from Kochi to Muscat
- The event is held as part of the 10th anniversary celebrations of the Indian Ocean Naval Symposium (IONS).

Details

- It seeks to retrace the maritime trade route of yesteryears between the Malabar Coast and the Persian Gulf.

- The event carries with it the memories of a glorious maritime past and the ancient cultural exchange that opened long-distance political and economic relations between the great civilizations of India and those in Persia and Arabia.
- The special cover carries a map of the Indian Ocean and littoral countries of the IOR, signifying the geopolitical importance of the region.

13. My Son temple complex

- It is a cluster of abandoned and partially ruined Hindu temples in Vietnam, constructed between the 4th and the 14th century AD by the kings of Champa.
- The complex is located near the village of Duy Phu in Quang Nam Province in Central Vietnam.
- It was the political and cultural capital of Champa Kingdom.
- Mỹ Sơn has been recognized by UNESCO as a world heritage site.

Context

- President Ram Nath Kovind visited My Son temple complex in Vietnam which has Indian influence and houses Hindu deities like Krishna, Vishnu and Shiva.
- The temples are dedicated to the worship of the god Shiva, known under various local names, the most important of which is Bhadresvara.

14. Pushkar Camel Fair

- It is locally known as Kartik Mela or Pushkar ka Mela
 - * The fair starts with the Hindu calendar month of Kartik
- It is an annual multi-day livestock fair in the town of Pushkar, Rajasthan
 - * It is one of India's largest camel, horse and cattle fairs.
- It is an important pilgrimage season for Hindus to the Pushkar lake.
- Cultural events and competitions include dances, tug of war between women teams as well as men teams, the "matka phod", "longest moustache" competition, "bridal competition", camel races and others

15. Ukai Festival

- It is a 1300 year old summer tradition in which fires are lit to attract fish to the surface and cormorants with ropes tied to their necks are used to catch the fish.
- The Imperial Household Agency employs cormorant masters to live with and train the birds from birth, with the masters passing their skills on to their eldest sons.

- During the festival, crowds gather along the banks of the Tajima River in Toyama for picnics & to watch as fishermen and women prepare for the evening's events.
- Baskets of wood are attached to poles on the fishing boats & lit on fire, calling the fish to the surface with their heat.
- The birds are then released into the river, where they enthusiastically go about their business of catching fish. Whenever they manage to snag one, the fisherman reels in the bird & trades its fish for a treat.

DISASTER MANAGEMENT

1. Central Emergency Response Fund (CERF)

- It is a humanitarian fund established by the United Nations General Assembly in 2005 and launched in March 2006
- The fund is replenished annually through contributions from governments, the private sector, foundations and individuals.
- CERF was created by all nations, for all potential victims of disasters. It represents a real chance to provide predictable and equitable funding to those affected by natural disasters and other humanitarian emergencies.
- CERF is intended to complement – not to substitute – existing humanitarian funding mechanisms

Objectives:

- Promote early action and response to reduce loss of life
- Enhance response to time-critical requirements
- Strengthen core elements of humanitarian response in underfunded crises

Context

- U.N. approves \$9 million in aid for crisis-stricken Venezuela, where Funding from the U.N.'s Central Emergency Response Fund (CERF) will go toward providing food, medicine and other help to Venezuelans.
- CERF will support projects to provide nutritional support to children under five years old, pregnant women and lactating mothers at risk, and emergency health care for the vulnerable

2. Cyclone Gaja

- The severe cyclonic storm that made a midnight landfall near Vedaranyam in Nagapattinam district
- Cyclone Gaja packed winds of up to 120 kilometres (75 miles)
- Gaja is the second major storm to hit India's east coast in recent weeks after Cyclone Titli

Naming

- The cyclone Gaja means elephant in Sanskrit language.
- Gaja was named by Sri Lanka and Titli by Pakistan
- Cyclones are named by various warning centres to provide ease of communication between forecasters and the general public.

- The names are intended to reduce confusion in the event of concurrent storms in the same basin.

Disaster Management

Stats

- The World Health Organisation (WHO) says that every year, natural disasters claim around 90,000 lives and affect close to 160 million people worldwide. In their aftermath, there have been instances of disease outbreaks.
- For example, there was a cholera outbreak after a massive earthquake struck Haiti in 2010, and a leptospirosis spike after a cyclone in Odisha in 1999.

Health concerns

- The commonest diseases in a post-flood situation includes cholera, typhoid, jaundice and leptospirosis.
- There is also a likelihood of an outbreak of dengue and malaria.
- Children are likely to develop measles, as was seen during the tsunami in Tamil Nadu. This is primarily due to overcrowding in relief centres. So, vaccination against measles should be given.

Disaster Management

- WHO wants the focus of health emergency and disaster risk management to be broadened "from that of response and recovery to a more proactive approach which emphasises prevention and mitigation, and the development of community and country capacities to provide timely and effective response and recovery."

A. REHABILITATION

Rehabilitation and reconstruction are at the heart of disaster recovery phase. The rehabilitation and reconstruction activities, which follow the disaster response stage, aim at achieving long-term recovery.

Rehabilitation involves restoring local services related to the provision of immediate needs.

- It refers to actions taken in the aftermath of a disaster to enable basic services to resume functioning, assist victims' self-help efforts to repair physical damage, restore community facilities, revive economic activities and provide support for the psychological and social well-being of the survivors.

Measures that needs to be taken

- For public health officials, providing access to safe drinking water, food and sanitation are the formula; any lacuna could increase the risk of health hazards.

- Hence, chlorinated water should be supplied and food served to them should be hot and fresh
- Post-cyclone, public health measures are targeted towards providing medical care, prevention and control of infectious diseases, providing safe drinking water, sanitation in temporary shelters and mosquito/fly control activities.

Reconstruction, on the other hand, represents long-term development assistance, which could help people in the affected areas to rebuild their lives and meet their present and future needs.

- It takes into account reduction of future disaster risks.

B. TYPES OF REHABILITATION

Social Rehabilitation

Social rehabilitation is an important part of disaster recovery, but this dimension is often assumed to be a community function and neglected in most post-disaster programmes.

- As we are all aware, disasters can render some groups such as the elderly, orphans, single parents with young children, etc., much more vulnerable to disaster aftermath due to lack of adequate support.
- In the post-disaster phase, family support systems can break down due to physical and mental trauma resulting from losses of life and property, physical dislocation, and migration of some members of disaster affected communities.
- These vulnerable groups would need special social support to survive the impact of disaster. Thus, construction of infrastructure such as community centres, day care centres, anganwadis, balwadis, old age homes, etc., is a vital part of social rehabilitation.

Psychological Rehabilitation

- The psychological trauma of losing relatives and friends, and the scars of overall shock of the disaster event can take much longer to heal than the stakeholders (planners, governmental agencies, NGOs, international agencies, self-help groups, community) in disaster management often assume.
- No recovery plan can be successful if it does not take cognizance of the psycho-cultural milieu of the affected site. This means that it must give due respect to the tradition, values, norms, beliefs and practices of the disaster-affected people. The cultural dimension of recovery plan is most wanting in the area of housing and shelter.
- It is, therefore, essential, that social welfare and psychological support programmes be considered immediately after a disaster event so that they could be made a vital part of recovery programmes.

- The recovery plan is often drafted and executed with utter disregard to basic issues such as availability of water, access to toilets, health and hygiene, privacy of women folk, etc. Housing designs are imposed on the victims without taking into consideration their lifestyles, cultural mores and preferences. A good recovery plan must make a note of these factors

Treating Communities as Heterogeneous: A systematic rehabilitation plan must not regard the affected communities as a homogenous group. The needs and requirements of disaster affected community would vary from one group to the other within the community, and also from one individual to the other within the group.

Physical Rehabilitation

Physical rehabilitation is a very important facet of rehabilitation.

- It includes reconstruction of physical infrastructure, such as, houses, buildings, railways, roads, communication network, water supply, electricity etc.
- This type of rehabilitation is economic in nature and is geared towards an alternative livelihood approach that can enable the communities to withstand the disaster aftermath.
- It involves policies for agricultural rehabilitation, rehabilitation of artisans, small businessmen, job creation, and employment generation as well as rehabilitation of animal husbandry.

Striking a Balance between Economic, Social and Psychological Needs becomes imperative during disaster management

3. Titli is a rarest of rare cyclone

Context

- The Regional Integrated Multi-Hazard Early Warning System (RIMES) for Africa and Asia, a 45-nation international organisation on disaster warning, has termed 'Titli', the severe cyclonic storm that devastated Odisha in October, as 'rarest cyclone'.

Rarest of Rare were based on following Parameters

- These were based on characteristics such as recurvature after landfall
- Retaining its destructive potential after landfall
 - * Cyclonic storms generally lose strength after landfall.
 - * So far, only two cyclones in 200 years of recorded history that struck the Odisha coast retained strength after landfall: the 1999 Super Cyclone and Titli.
- Recurvature away from the coastal areas for more than two days
 - * Titli made a landfall in the Andhra Pradesh coast, entered Gajapati district of Odisha, made a surprise turn towards adjoining districts and continued as a severe cyclonic storm and deep depression for more than 48 hour

Odisha Govt's Preparedness needs to be appreciated

- Despite the unprecedented nature of Titli, the coastal districts achieved zero-casualty.
- The Odisha State Disaster Management Authority (OSDMA) evacuated around 300,000 people to safe places well before the Titli's landfall.

Fatality

- Excess end-season September rains enhanced the risk of landslides and flash floods due to the near saturation of soil.
- Previously, public awareness and early warning information communication experience were confined to coastal zones; and remote inhabitants of non-coastal zones were unfamiliar with cyclone risks.
- There were lot of casualties and damage in the interior districts because there was no experience managing a cyclone-associated secondary hazards of such kind

4. Lancet Countdown on health and climate**Context**

- A report released by the Lancet says Indian policy makers must take a series of initiatives to mitigate the increased risks to health, and the loss of labour hours due to a surge in exposure to heatwave events in the country over the 2012-2016.

Stats

- From 2014-2017, the average length of heatwaves in India ranged from 3-4 days compared to the global average of 0.8-1.8 days
- Indians were exposed to almost 60 million heatwave exposure events in 2016, a jump of about 40 million from 2012
- Almost 153 billion hours of labour were lost globally in 2017 due to heat, an increase of 62 billion hours from the year 2000

Health Concerns

- Heatwaves are associated with increased rates of heat stress and heat stroke, worsening heart failure and acute kidney injury from dehydration.
- Children, the elderly and those with pre-existing morbidities are particularly vulnerable.
- The report sounds a warning that rising temperatures will enable the dengue and malaria to spread farther and faster. This is also true of some other infections.
- It places India amongst the countries who most experience high social and economic costs from climate change
- If the average global temperature rose by more than one degree Celsius from the present, India could "annually" expect conditions like the 2015 heat wave that killed at least 2,000, according to the 'Special Report on Global Warming of 1.5°C', commissioned by the Intergovernmental Panel on Climate Change (IPCC)

Economic Issues

- The agriculture sector was more vulnerable compared to the industrial and service sectors because workers there were more likely to be exposed to heat.
 - * The findings are significant for India as agriculture makes up 18% of the country's GDP and employs almost half the population.
 - * This has worrying implications for rural employment and the well-being of a large section of the population
- A World Bank report on South Asia's hotspots predicted a 2.8% erosion of the country's GDP by 2050, accompanied by a fall in living standards due to changes in temperature, rainfall and precipitation patterns.

Recommendations

- Identify "heat hot-spots" through appropriate tracking of meteorological data and promoting "timely development and implementation of local Heat Action Plans with strategic inter-agency co-ordination, and a response which targets the most vulnerable groups."
- The report prepared jointly with the Public Health Foundation of India also urges a review of existing occupational health standards, labour laws and sectoral regulations for worker safety in relation to climatic conditions.

Steps that India can take

- India can cut back on carbon emissions
- It can reduce the share of coal in the energy mix through sustained support for renewable energy, particularly solar photovoltaics, must form the cornerstone of national policy.
- This must be matched by a shift away from use of fossil fuels for transport, and the induction of more electric vehicles.
- Such a policy would yield the parallel benefit of improving air quality; ambient air pollution led to the premature death of an estimated half a million people in India in 2015.

GEOGRAPHY

1. Apep

- It is named Apep after the serpentine Egyptian god of chaos
- It comprises of two hot, luminous stars - known to astronomers as Wolf-Rayets.
 - * Wolf-Rayet stars are extremely massive bluish stars, containing the mass of 10 to 15 suns.
 - * The blue-white color of the star indicates that its surface temperature is approximately 50,000 C.
 - * They orbit each other every hundred years or so
- These stars could explode into supernovae at any time and could result in a cataclysmic gamma-ray Burst

Context

- Scientists believe one of the stars – about 8,000 light years from Earth – is the first known candidate in the Milky Way that could produce a dangerous gamma-ray burst, among the most energetic events in the universe, when it explodes and dies.
- This is the first such system to be discovered in our own galaxy

Gamma-Ray Bursts (GRBs)

- They are short-lived bursts of gamma-ray light, the most energetic form of light.
- GRBs shine hundreds of times brighter than a typical supernova and about a million trillion times as bright as the Sun.
- When a GRB erupts, it is briefly the brightest source of cosmic gamma-ray photons in the observable Universe.

Types of GRBs

When astronomers looked at the number of bursts versus how long they lasted, they found two different classes of bursts: long-duration and short-duration.

These two classes are likely created by different processes, but the end result in both cases is a brand new black hole.

- Long-duration bursts last anywhere from two seconds to a few hundreds of seconds (several minutes), with an average time of about 30 seconds.
 - * They are associated with the deaths of massive stars in supernovas; though not every supernova produces a gamma-ray burst.
- Short duration bursts are those that last less than two seconds; lasting anywhere from a few milliseconds to two seconds with an average duration of about 0.3 seconds (or 300 milliseconds).

These bursts appear to be associated with the merger of two neutron stars into a new black hole or a neutron star with a black hole to form a larger black hole.

2. Hiawatha Glacier

- Hiawatha Glacier is a glacier in northwest Greenland, near Inglefield Land
- Recently there was discovery of an impact crater beneath the surface of the ice sheet in the area.
 - * An impact crater is an approximately circular depression in the surface of a planet, moon, or other solid body in the Solar System or elsewhere, formed by the hypervelocity impact of a smaller body
- The crater measures more than 31 km in diameter, placing it among the 25 largest impact craters on Earth
- It was formed when a kilometre-wide iron meteorite smashed into northern Greenland.

3. Panchganga River

- The Panchganga River is one of the important rivers in Maharashtra.
- It is a major tributary of Krishna River, with which it joins at Narsobawadi.

HISTORY

1. **Kamaladevi Chattopadhyay**

- She was an Indian social reformer and freedom fighter.
- She was most remembered for her contribution to the Indian independence movement; for being the driving force behind the renaissance of Indian handicrafts, hand looms, and theater in independent India; and for upliftment of the socio-economic standard of Indian women by pioneering the co-operation.
 - * She stressed the significant role which handicrafts and cooperative grassroot movements play in the social and economic upliftment of the Indian people.
- Several cultural institutions in India today exist because of her vision, including the National School of Drama, Sangeet Natak Akademi, Central Cottage Industries Emporium, and the Crafts Council of India.
- She was conferred with Padma Bhushan and Padma Vibhushan by Government of India in 1955 and 1987 respectively.

Freedom Movement

- She was greatly inspired by Gandhian ideas and the concept of non-violence.
- By 1923, Kamaladevi, following the footsteps of Gandhi, enrolled herself in the nationalist struggle as a member of the Congress party. Three years later, she had the unique distinction of being the first woman in India to run for political office. Kamaladevi competed for a seat in the Madras Legislative Assembly and lost by a mere 55 votes.
- Even though she was a strong advocate of Salt Satyagraha, she differed with Gandhi's decision to exclude women in the march

Her role post-Independence

- At the International Session of the League against Imperialism in Frankfurt, she found a platform to discuss the common problems of subjugated people.
- Chattopadhyay continued to forge networks over the course of three decades, facilitating India's emergence as one of the leaders of the Non-Aligned Movement and the crafting of the Bandung Declaration of 1955 which was a clarion call for a fundamental reordering of the world order
- This interest in creating solidarity among the colonised people is what makes her an especially inspirational figure.

Fight for women rights

- She was one of the earliest proponents of women's rights in India

- She had attended the International Alliance of Women in Berlin in 1929, only to become aware of how race and national boundaries might become obstacles to the solidarity of women.

On world order

- Chattopadhyay's writings on Asia, Africa and the Global South in the 1940s point to different facets of her interest in the people of Asia and Africa and their histories.
- Chattopadhyay was never seduced by the idea that the European Left stood for progressive policies with respect to the question of empire, and her piece is clear in its critique of the failure of the Left in France to ally itself with Vietnamese nationalists agitating for independence
- She was equally unsparing towards the Japanese. 'The Awakening of Asia' (1947, At the Crossroads) warns against Japan's attempts to position itself as the vanguard of pan-Asianism.

2. **Temple Entry Proclamation**

- The Temple Entry Proclamation was issued by Maharaja Chithira Thirunal Balarama Varma in 1936 and abolished the ban on the so called 'low caste people' or avarnas from entering Hindu temples in the Princely State of Travancore
- Temple Entry Proclamation Day is considered to be a social reformation day by the Government of Kerala
- Vaikom Satyagraha (1924–25) was a satyagraha (movement) in Travancore against untouchability in Hindu society. The movement was centered at the Shiva temple at Vaikom, near (present district) Kottayam. The Satyagraha aimed at securing freedom to all sections of society through the public roads leading to the Sri Mahadeva Temple at Vaikom.

3. **Veer Surendra Sai Airport, Jharsuguda**

Context

- The Union Cabinet chaired by Prime Minister Shri Narendra Modi has approved renaming of Jharsuguda Airport, Odisha as "Veer Surendra Sai Airport, Jharsuguda"

Details

- Surendra Sai was an Indian freedom fighter and tribal leader who sacrificed his life fighting against the British East India Company
- He along with few others resisted the British and successfully protected most parts of Western Odisha region for some time from the British rule.

- Sai espoused the cause of the downtrodden tribal people in Sambalpur by promoting their language and culture in response to the higher castes and the British trying to exploit them to establish their political power in Sambalpur region.

Significance

- Renaming of the Jharsuguda airport in his name will fulfill long-pending demand of the Odisha Government, which reflects the sentiments of the local public of the respective area.
- It will also be a befitting tribute to the contribution of the revered personality associated with the State.

4. India's role in World War I

Context

- 100th anniversary of the end of the First World War.
- First World War or the Great War, was a global war originating in Europe that lasted from 28 July 1914 to 11 November 1918.

Background

- World War I officially began on July 28, 1914, after the assassination of Archduke Franz Ferdinand, and lasted until 1918.
- During the World War I, the Central Powers made up of Germany, Austria-Hungary, Bulgaria and the Ottoman Empire fought against the Allied Powers which consisted of Great Britain, France, Russia, Italy, Romania, Japan and the United States

Details

- Over one million Indians served overseas during the First World War who rushed to the Western Front, Indian soldiers fought tenaciously to stop a German breakthrough
- Being a British colony, the Indian Army contributed a large number of soldiers to the European, Mediterranean and the Middle East conflicts of war in World War I.
- The Indian Army fought against the German Empire in East Africa and also on the Western Front
- They served in places as diverse as France and Belgium, Mesopotamia, Egypt, Gallipoli, Palestine and Sinai.
- The Indians who volunteered, just like their British counterparts, believed profoundly that the cause they fought for was just.

Indian Animals and Services

- Apart from soldiers and money, India provided Britishers with 1.7 lakh animals, mostly horses.
- An estimated 12 lakh horses and mules in total were used by Britain during World War I. It is believed, the animals India provided were the finest and this proved to be the game changer during the war.

- As much as 37 lakh tonnes of supplies and jute for sandbags were sourced by the British from India. India supplied all sorts of material for the war, including clothing, weaponry including tanks, armored cars, guns etc.
- The New York Times in 1918 wrote "The world must pay India in whatever India wants, for without Indian products, there would be greater difficulty in winning the war."

Victoria Cross

- The Victoria Cross is the highest award for gallantry that a British and Commonwealth serviceman can achieve.
- A total of 11 Victoria Crosses were won by Indian soldiers.
- Khudadad Khan became the first Indian to be awarded a Victoria Cross. He was a machine gunner with the 129th Baluchi Regiment.
 - * Darwan Singh Negi was among the earliest Indian recipients of the Victoria Cross (VC)
 - * He was awarded the medal on the same day as Khudadad Khan VC; but the latter's VC action was of earlier date, so that he is regarded as the first Indian recipient.
- Others are Mir Dast, Shahamad Khan, Lala, Gabbar Negi, Karanbahadur Rana, Badlu Singh, Chatta Singh, Gobind Singh and Kulbir Thapa who won Victoria Cross for their role in World War I.

India Gate

- In 1931 British commemorated the war by constructing the arch known as India Gate.
- India Gate was designed by Sir Edwin Lutyens and is at New Delhi's Raj Path.
- The India Gate was originally named All-India War Memorial and it was built to pay homage to the soldiers of the Indian Army who lost their lives fighting for the British Empire in World War I and the Third Anglo-Afghan War.

Marigold- Symbol of Remembrance

- It will be the symbol of remembrance for Indian soldiers martyred in World War I
- The 'India Remembers' project initiated by the USI proposed that the marigold flower join the poppy as a uniquely Indian symbol of remembrance.
 - * The India Remembers project is a joint endeavour of the USI and the Commonwealth War Graves Commission (CWGC) and a part of the 'India and the Great War' Centenary Commemoration project initiated by the USI in 2014 with the support of the Ministry of External Affairs and in close association with the British High Commission.

- The marigold was chosen because it is easily and widely available and also because saffron is often seen as a colour of sacrifice
- The proposal was put up in 2016 and since then, the marigold has been widely promoted in all India-related commemorative events around the world.
- Since then, the marigold has also been used across the UK, along with the poppy, as part of community engagement projects that seek to highlight India's contribution in the First World War
 - * The First World War ended with the signing of the armistice on November 11, 1918.
 - * Since then, poppy was adopted as the symbol of remembrance as it grew widely in the Flanders fields in Europe where some of the major battles were fought.

GOVERNANCE

1. Beyond Fake News Project

- The British Broadcasting Corporation (BBC) has devised a new campaign that is aimed at fighting back against disinformation and fake news.
- It lays a major focus on global media literacy, including workshops and debates in countries like India.

2. 'Bhudaar' portal

Context

- Andhra Pradesh launched a web portal which makes land records available to people with unique identification numbers just like Aadhar number.
- The "Bhudaar" is an 11-digit unique identification code assigned to each agriculture land holding and rural and urban properties in the state.

Details

- Two types of Bhudaar cards are available including e-Bhudaar and M-Bhudaar. Under Mobile Bhudaar, one has to download the application. One can get the Bhudaar card from Mee Seva centres
- All the 8 departments dealing with land records are participating in Bhuseva including Revenue, Panchayat Raj, Municipal Administration, Registration, Survey and Settlement, Forest, Endowments and Wakf.
- Bhuseva portal will provide information related to all transactions of a particular land or property in a single source. The history of transactions will be available initially for the last 12 years then for the last 15 years which is authentic information which is authorised by the competent authority

Significance

- IT will put an end to the inconvenience people face as they have to make numerous rounds to revenue offices to check their land records
- Transparency in maintaining land records will be achieved through Bhudaar

3. National Conference on Public Procurement & Competition Law

- It is being organized by the Competition Commission of India (CCI)
- The National Conference is being organised in association with Indian Institute of Corporate Affairs (IICA), a think tank under the aegis of Ministry of Corporate Affairs.
- It is a unique initiative of the Commission which provides a platform to various stakeholders to engage in an active discussion with the policymakers and the industry on various aspects of competition law and public procurement.
- The National Conference will be attended by senior

policy makers from Central Government, various State Governments, participants from the public sector enterprises, industry, legal and finance professionals, corporate lawyers, academics, and other relevant stakeholders.

- The event will focus on public procurement, bid rigging, cartels and leniency.

4. Mission Shakti programme

- To make women digitally empowered in Odisha, the state government will provide free smartphones to all the women self-help groups under Mission Shakti programme
- This will further accelerate the socio-political and economic empowerment of women

5. Paisa – Portal for Affordable Credit & Interest Subvention Access

Context

- A centralized electronic platform for processing interest subvention on bank loans to beneficiaries under Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (DAY-NULM) named PAiSA was launched.
- The web platform has been designed and developed by Allahabad Bank which is the Nodal bank.

Significance

- It is an effort by the government to connect directly with the beneficiaries, ensuring that there is greater transparency and efficiency in delivery of services.
- DBT of subvention on monthly basis under DAY-NULM will give the necessary financial support to small entrepreneurs in a timely manner.

6. #Power Of 18

- It is an initiative from Twitter aimed at getting the youth to vote in the next general election
- The platform aims to engage more young people in India to contribute to public debate and work with like-minded partners that share the same objective of encouraging civic engagement among the youth.

MISCELLANEOUS

1. Compassion fatigue

- Also known as secondary traumatic stress, this refers to a state of psychological fatigue that is experienced by people who invest a lot of time and effort into charity and social rescue activities.
- Compassion fatigue can cause victims to slowly lose any feeling of compassion towards people who may be in need of their assistance.
- This happens because of repeated exposure to people in need of help, leading them to develop a feeling of numbness.
- Compassion fatigue is said to affect professional assistance providers like doctors, nurses, firefighters and other emergency service personnel who are constantly exposed to people who need help.

2. Contact Hypothesis

- Also known as the inter-group contact theory, this refers to the hypothesis that people-to-people contact may be a good way to resolve conflict between groups.
- It was proposed by American psychologist Gordon W. Allport.
- The contact hypothesis is based on the idea that peaceful and friendly interpersonal contact can help in reducing prejudices between groups and foster better cooperation and friendly relationships.
- Some believe that such interpersonal contact between people can help reduce conflict by increasing interdependence between the groups.
- If one has the opportunity to communicate with others, they are able to understand and appreciate different points of views involving their way of life
- Contact situations need to be long enough to allow this anxiety to decrease and for the members of the conflicting groups to feel comfortable with one another.

Some of the criteria are as follows:

- Equal status: Both groups must engage equally in the relationship. Members of the group should have similar backgrounds, qualities, and characteristics.
- Common goals: Both groups must work on a problem/task and share this as a common goal, sometimes called a superordinate goal, a goal that can only be attained if the members of two or more groups work together by pooling their efforts and resources.

- Support of authorities, law, or customs. Both groups must acknowledge some authority that supports the contact and interactions between the groups. The contact should encourage friendly, helpful, egalitarian attitudes and condemn ingroup-outgroup comparisons

3. Indira Gandhi Prize awarded to CSE

Context

- Delhi-based environment think-tank Centre for Science and Environment (CSE), will be honored with the Indira Gandhi Prize for Peace, Disarmament and Development in 2018 for its work in environmental education and protection.

Details

- According to the Indira Gandhi Memorial Trust, the Centre for Science and Environment (CSE) has been awarded the prize for its steady fast advocacy of measures to combat environmental deterioration and for its success in influencing public policies and programmes that have benefitted social and economic development in India.
- The award is accorded annually by the Trust to individuals or organisations in recognition of creative efforts toward promoting international peace, development and a new international economic order, ensuring that scientific discoveries are used for the larger good of humanity, and enlarging the scope of freedom.

CSE

- Established in 1980 under the leadership of late Anil Aggarwal and presently headed by Sunita Narain CSE has been working for the last four decades to incorporate environmental sustainability into development policies.
- It has worked on extending awareness and education about environmental issues, on air and water pollution, waste water management and industrial pollution, food safety and energy, climate change and above all in influencing official policy and public actions for sustainable development, the statement said.
- Its programmes have achieved important public health outcomes in several areas of vital impact, including air pollution, sustainable industrialization programme, sustainable water management and sanitation, climate change and food and toxins programme

4. **NIPUN e-learning portal**

Context

- Delhi Police has launched an e-learning portal NIPUN to impart training and provide up to date information to police officers.

Details

- NIPUN is an e-learning portal aiming to give online training and information to police personnel through specialized courses designed by experts in the field.
- Through NIPUN, Delhi Police officers can now access information by just logging on the portal. They can take course from anywhere at any time.
- The resources such as law, standing orders, investigation checklists, forms for case files, latest High Court and Supreme Court rulings being made available online through the e-learning portal, it is envisioned that the investigating officers will be able to take the benefit of this information during the course of their duty.

5. **Scully effect**

(Note to the students – This concept can be used as a part of Social influence and persuasion)

- This refers to a social phenomenon wherein movie characters can surprisingly inspire behavioral changes in people in the real world.
- It is named after Dana Scully, a woman character in the American television series The X-Files which was aired mostly in the 1990s.
- Studies have found that the character, portrayed as a medical doctor and a special agent successfully working for the Federal Bureau of Investigation, inspired many women who watched the series to take up education and careers in the fields of science, technology, engineering and mathematics and with various law enforcement agencies.

6. **Vetiver – ‘the wonder grass’ of Tamil Nadu**

- It is a type of grass, which grows up to five feet and its fragrant root reaches up to 10 feet
- It has huge global demand in the aromatic industry.

Significance

- It has wide range of applications in the pharma and cosmetic industries
- It can absorb carbon dioxide, thus erasing carbon footprints
- The grass can be used to purify polluted water bodies, especially temple tanks
- Its moisture retention property makes vetiver a natural choice for soil conservation and replenishment of ground water. It is ideal for dry land cultivation using organic farming practices
- It is also used in ethanol extraction, as cattle feed and for making handicrafts. Another quality of vetiver is that it is an anti-depressant.

PRACTICE QUESTIONS

1. With reference to the Krishna River, which of the following statement(s) is/are correct?

- i. Krishna River originates near Mahabaleshwar (Satara) in Maharashtra.
- ii. It flows only through the Maharashtra, Andhra Pradesh, and Telangana.
- 3. It is the biggest river in peninsular India.

Select the correct answer using the code given below:

- A. i and ii only
- B. i only
- C. i and iii only
- D. ii and iii only

2. Consider the following statements with reference to **Jatropha oil**:

- i. Jatropha oil has high viscosity.
- ii. India for the first time used bio jet fuel-powered flight between Dehradun and Delhi.

Which of the statements given above is/ are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

3. With reference to "Indus Water Treaty", which of the following statement(s) is/are correct?

- i. The Indus Water Treaty is a water distribution treaty between India and Bangladesh.
- ii. It was brokered by the World Bank (International Bank for Reconstruction and Development).

Which of the statements given above is/ are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

4. Consider the following statements regarding **Bathukamma festival**:

- i. It is the floral festival celebrated predominantly by the Hindu women of Kerala.
- ii. Bathukamma means Mother Goddess come alive.

- A. i only
- B. ii Only
- C. Both i and ii
- D. Neither i and ii

5. Which of the followings pollutants are included to measure Air Quality Index?

- i. PM10
- ii. PM2.5
- iii. N2O
- iv. SO2
- v. CO2
- vi. O3
- vii. NH3
- viii. Pb

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

- A. i, ii, iii, iv, vi, vii
- B. i, ii, iv, v, vi, vii, viii
- C. i, ii, iii, iv, v, vi, vii, viii
- D. i, ii, iv, vi, vii, viii

6. 'Shah Bano Case' is related to which of the following?

- A. Talaq-e-biddat
- B. Polygamy
- C. Nikah halala
- D. All of the above

7. e-Shakti initiative, recently seem in the news, is:

- A. Online portal to file complaints related to women
- B. Digitisation of Self Help Group Accounts by NABARD
- C. Online marketing platform for women by Government
- D. Digitisation of Women cells by Delhi Police

8. Consider the following statements regarding **National Crime Records Bureau**:

- i. National Crime Records Bureau functions under the Ministry of Home Affairs.
- ii. NCRB figures merely reflect the number of crimes registered by the police and may not reflect the actual situation on the ground.

Which of the above is/are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i and ii

9. Consider the following statements regarding National Commission for Protection of Child Rights (NCPCR):

- i. NCPCR is neither a constitutional body nor a statutory body.
- ii. National Commission can inquire into any matter which is pending before a State Commission for Protection of Child Rights or any other Statutory Commission.

Which of the above is/are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i and ii

10. Consider the following statements about NSG:

- i. Nuclear Suppliers Group (NSG) is a group of nuclear supplier countries that seek to prevent nuclear proliferation by controlling the export of materials, equipment, and technology that can be used to manufacture nuclear weapons.
- ii. It is a formal organization, and its guidelines are binding.

Which of the above statements are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. None of the above

11. Consider the following statements:

- i. Its member states include Afghanistan, Bangladesh, Bhutan, India, Nepal, the Maldives, Pakistan and Sri Lanka.
- ii. SAARC maintains permanent diplomatic relations at the United Nation as an observer.

Which of the above statements are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i and ii

12. Consider the following statements:

- i. CCIT is a proposed treaty which provides a legal framework which makes it binding on all signatories to deny funds and safe havens to terrorist groups.
- ii. CCIT provides a legal framework which makes it binding on all signatories to deny funds and safe havens to terrorist groups.

Which of the above is/are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i and ii

13. Following statements are given regarding BIMSTEC, please choose the correct one:

- i. BIMSTEC is the sub-regional group of seven countries in South Asia and Southeast Asia lying in littoral and adjacent areas of Indian Ocean.
- ii. BIMSTEC has 14 sector-driven objectives, however, environment and climate change is not included into it.

Options:

- A. i) only
- B. ii) only
- C. Both i and ii
- D. None of the above

14. Bangkok Declaration has led to establishment of:

- A. SAARC
- B. BIMSTEC
- C. G-20
- D. BRICS

15. "Public Affair Index 2018", recently seen in news, is released by which of the following?

- A. Public Affairs Centre
- B. Ministry of Urban Development
- C. NITI Aayog
- D. Indian Institute of Public Administration

16. Which of the following State recently became the first State in India to implement the national policy on biofuels?.

- A. Karnataka
- B. Rajasthan
- C. Andhra Pradesh
- D. Kerala

17. With reference to "90:90:90 Strategy", which of the following statement(s) is/are incorrect?

- i. It is a new HIV treatment narrative of UNAIDS programme
- ii. 90 % of all people living with HIV will receive sustained antiretroviral therapy (90% on HIV treatment).
- iii. 90 % of all people with diagnosed HIV therapy will have viral suppression (90% suppressed)

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

- A. i and ii only
- B. ii and iii only
- C. i and iii only
- D. i, ii and iii

18. "Police" and "Public order" are the Subject under which of following list?

- i. Union List
- ii. State List
- iii. Concurrent List

Select the correct answer using the codes given below:

- A. iii only
- B. ii only
- C. ii and iii only
- D. i and iii only

19. Which of the following is/are listed as critically endangered in the IUCN Red List?

- i. Nilgiri Langur
- ii. Bengal Florican (Bengal Bustard)
- iii. Pink-headed duck

Choose the right option:

- A. i and ii only
- B. ii and iii only
- C. i and iii only
- D. i, ii and iii

20. What is NavIC?

- A. It is a long-range ballistic missile of the Indian Army.
- B. It is a positioning system developed by ISRO.
- C. It is a new herbal fertilizer developed by the Indian Agricultural Research Institute.
- D. It is a new remote sensing satellite developed by ISRO.

21. The term 'Gross Non-Performing Assets (NPA)' includes such assets as those of

- i. Foreign Banks
- ii. Regional Rural Banks
- iii. Non-Banking Financial Companies

Options:

- A. i only
- B. i and iii only
- C. iii only
- D. i, ii and iii

22. Burning biomass for energy does not release

- i. Sulphur
- ii. Mercury
- iii. Nitrogen

Which of the above statements are correct?

- A. i and ii only
- B. ii only
- C. ii and iii only
- D. i, ii and iii

23. Extra Vehicular Activity (EVA) is related to

- A. Racing and sports car driving.
- B. Manoeuvre outside military aircrafts.
- C. Works done outside spacecraft
- D. Underwater maintenance work of large ships.

24. The cell wall is present in

- i. Bacteria
- ii. Blue-green Algae
- iii. Plants

Choose the right option:

- A. i and iii only
- B. ii and iii only
- C. iii only
- D. i, ii and iii

25. Consider the following statements related to Socio-economic Caste Census (SECC), please choose the correct one.

- i. SECC 2011 is the first paperless census in India.
- ii. SECC takes caste into account for the first time since 2011.

Choose the right option:

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

26. Consider the following statement regarding the Law commission of India.

- i. Law Commission of India is a statutory body.
- ii. India's first Law Commission was constituted via Charter Act of 1813.

Choose the right option:

- A. i only
- B. ii only
- C. Both i and ii
- D. None of the above

27. Consider the following the statement regarding Rafale Fighters.

- i. Rafale is a twin-engine, multi-role fighter aircraft manufactured by Israel.
- ii. These aircrafts is capable of carrying out all combat missions such as interception, air defence, in-depth strikes, ground support, reconnaissance, anti-ship strikes including nuclear deterrence

Choose the right option:

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

28. Consider the following statements about CBI:

- i. The investigation of offences under the Prevention of Corruption Act, 1988, lies with the CBI.
- ii. Formatters other than corruption, the superintendence over CBI lies with the Department of Personnel & Training (DOPT) in the Ministry of Personnel, Pension & Grievances of the Government of India.

Which of the above statements are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

29. Consider the statements:

- i. India-Singapore bilateral naval exercise is known as SIMBEX.
- ii. The 25th edition of SIMBEX is held in Sentosa Islands, Singapore.

Which of the above statements are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

30. Consider the following statements about Madden-Julian oscillation (MJO):

- i. The Madden-Julian Oscillation (MJO) is the element of the intrapersonal variability in the tropical atmosphere.
- ii. Madden-Julian Oscillation is a standing pattern with no movement.

Which of the above statements are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

31. Consider the following statements about Madden-Julian oscillation (MJO):

- i. It is a large-scale coupling between atmospheric circulation and tropical deep convection.
- ii. The Madden-Julian oscillation is characterized by an eastward progression of large regions of tropical rainfall, observed mainly over the Indian and Pacific Ocean.

Which of the above statements are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

32. Consider the following statements about High throughput satellites (HTS):

- i. HTS reuses satellite 'beams' several times over smaller areas.
- ii. HTSs provide Internet connectivity many times faster, smoother, easier and cheaper than now.

Which of the above statements are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

33. Man causes soil erosion through

- i. Use of improper ploughing methods
- ii. Leaving roots of crop in the field after harvest
- iii. Practicing trash farming
- iv. Use of heavy machines

Select the correct answer using the codes given below:

- A. i, ii and iii only
- B. i and iv only
- C. i, iii and iv only
- D. i, ii, iii and iv only

34. Biofuels are fuels extracted from plants and crops and these have various advantages.

- i. Increasing agricultural diversity
- ii. Reduced use of fertilizers
- iii. Renewable source of energy

Select the correct answer using the codes given below:

- A. i and iii only
- B. iii only
- C. ii and iii only
- D. i, ii and iii

35. A balanced ecosystem is one in which the

- i. Number of organisms at all levels is equal
- ii. Amount of biomass at all trophic levels are equal
- iii. Organisms are interdependent on each other

Select the correct answer using the codes given below:

- A. i and ii only
- B. ii only
- C. iii only
- D. None

36. Consider the following statements regarding the Swarajists:

- i. Number of organisms at all levels is equal
- ii. They wanted the nationalists to boycott the Legislative councils.
- iii. They formed the Congress-Khilafat Swarajya Party.
- iv. They rejected the idea of working as a group within Congress

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

- A. i, ii and iii only
- B. i and iii only
- C. iii only
- D. iii and iv only

37. Which of the following pairs is/are correctly matched?

Spacecraft	Planet
i. Juno	Saturn
ii. Cassini	Jupiter
iii. Mangalyaan	Mars

Select the correct answer using the codes given below:

- A. i and ii only
- B. iii only
- C. i, ii and iii
- D. None of the above

38. With reference to 'Internet of Things (IoT)', sometimes seen in the news, which of the following statements is/are correct?

- i. IoT generally refers to scenarios where network connectivity and computing capability extends to objects, sensors and everyday items.
- ii. IoT devices and services can serve as potential entry points for cyber-attack and expose user data to theft.
- iii. IoT amplifies concerns about the potential for increased surveillance and tracking

Select the correct answer using the codes given below:

- A. i and ii only
- B. ii and iii only
- C. iii only
- D. i, ii and iii

39. Consider the following statements:

- i. Surcharge is tax on tax
- ii. Cess in charge on the tax

Which of the following is/are NOT correct?

- A. Only i
- B. Only II
- C. Both i and ii
- D. None of the above

40. Consider the following about Call Money Market:

- i. It is an inter-bank money market where funds are borrowed and lent for one day.
- ii. Collateral is required to borrow money from this market.

Select the correct answer using the code given below:

- A. Only i
- B. Only ii
- C. All of the above
- D. None of the above

41. With reference to 'Geosynchronous Satellite Launch Vehicle Mark III (GSLV Mk III)', which of the following statements is/are correct?

- i. It is India's most powerful launch vehicle yet built.
- ii. It can lift satellites weighing 6 tonnes to space.
- iii. It is powered by cryogenic engines.

Select the correct answer using the codes given below:

- A. i only
- B. ii and iii only
- C. i and iii only
- D. i, ii and iii

42. Consider the following statements:

- i. During the first session of INC in Bombay, the training and organization of public opinion in the country was declared to be its only aim.
- ii. Initially, Congress delegates were elected by different local organizations and groups.
- iii. To persuade British government, a British Committee of the INC was started in Britain.

Select the correct answer using the codes given below:

- A. i and ii only
- B. ii and iii only
- C. i and iii only
- D. All of the above

43. With reference to the European Organization for Nuclear Research (CERN), which of the following statements is/are correct?

- i. At CERN, physicists and engineers are probing the fundamental structure of the universe.
- ii. The CERN laboratory sits astride the Austria-Germany border near Vienna.
- iii. India became an associate member of the CERN in 2016.

Select the correct answer using the codes given below.

- A. I only
- B. II and III only
- C. I and III only
- D. I, II and III

44. With reference to the Anti-microbial resistance, consider the following statements:

- i. Antimicrobial resistance, which is also referred to as drug resistance, results in formation of Super bugs.
- ii. It happens when microorganisms change when they are exposed to antimicrobial drugs used to treat the infections they cause.
- iii. India is home to several drug-resistant bugs which are spreading fast and have been noticed even in the operation theatres and intensive care units (ICUs) of several well-regarded hospitals

Select the correct answer using the code given below:

- A. Only I and II
- B. Only II and III
- C. Only I and III
- D. I, II and III

45. Consider the following statements:

- i. Devaluation and Depreciation refer to reduction in the value of domestic currency.
- ii. Both are performed by the Government or Central Bank.

Select the correct answer using the codes given below:

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

46. Consider the following statements with regard to Biosphere:

- i. Biosphere includes both biotic and abiotic components that are present in the lithosphere, hydrosphere and the atmosphere.
- ii. In a biosphere there are established pathways for movement of energy and matter.

Select the correct answer using the codes given below:

- A. I only
- B. II only
- C. Both I and II
- D. None of the above

47. According to the wetland distribution map of India, which of the following regions is considered as the largest wetland system in India?

- A. Himalayan wetlands
- B. Indo-Gangetic wetlands
- C. Coastal wetlands
- D. Deccan wetlands

48. Which is the country to have launched the world's first Sovereign Blue Bond?

- A. Seychelles
- B. United Kingdom
- C. Mauritius
- D. Japan

49. Who is the chairperson of the Financial Stability and Development Council (FSDC)?

- A. SEBI Chairman
- B. RBI Governor
- C. Prime Minister
- D. Finance Minister

50. Which of the following is NOT a Bio-Magnifier?

- A. Mercury
- B. Cyanide
- C. Cadmium
- D. Lithium

51. Which of the following global biodiversity hot spots are located in India either partly/completely?

- i. Eastern Himalayas
- ii. Indo-Burma Region
- iii. Western Ghats
- iv. Sundaland

- A. i and iii only
- B. ii, iii and iv
- C. i, iii and iv
- D. i, ii, iii and iv

52. With reference to "GROWTH-India telescope" recently in news, which of the following statement(s) is/are correct?

- i. The 0.7 m GROWTH-India telescope at the Indian Astronomical Observatory is located in Hanle, Ladakh.
- ii. The telescope is potentially fully robotic and can operate on its own.

Select the correct answer using the code given below.

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

53. Which of the following pair(s) of military exercises is/are correctly matched?

- i. SIMBEX : Singapore India Maritime Bilateral Exercise
- ii. INDRA: Joint naval exercise with France
- iii. VARUNA: Joint military exercise between India and Russia

Select the correct answer using the code given below.

- A. i only
- B. i and iii only
- C. i and ii only
- D. i, ii and iii

54. Consider the following statements regarding "Phage therapy":

- i. Phage therapy involves the use of a specific virus to target particular bacteria.
- ii. Phages are very safe and non-toxic. They are in our system, we encounter them each day in our food and water.
- iii. Phages have no effect on humans as their host is bacteria, not us.

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

- A. i and ii only
- B. ii and iii only
- C. All i, ii and iii
- D. i only
- E.

55. Consider the following statements relating to some terms recently in the news:

- i. "Wood density" of forest trees indicates their capacity to store carbon.
- ii. A "paleolake" is a lake that existed in the past when hydrological conditions were different.

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

- A. I only
- B. ii Only
- C. Both i and ii
- D. Neither i nor ii

56. Which of the following pair(s) is/are correctly matched?

- i. National Waterway No. 1 : Ganga-Bhagirathi-Hooghly river system from Allahabad to Haldia
- ii. National Waterway No. 2: Sadiya-Dhubri stretch of the Brahmaputra river
- iii. National Waterway No. 3: Kollam-Kottapuram stretch of West Coast Canal and Champakara and Udyogmandal Canals

Select the correct answer using the code given below.

- A. I only
- B. I and III only
- C. I and II only
- D. All i, ii and iii

57. Consider the following statements:

- i. Recently sighted in Chinnar wildlife sanctuary.
- ii. IUCN status is least concerned.
- iii. Preferred habitat is a dry and open area and mostly found in Sri Lanka.
- iv. Relative of Nightjar, crepuscular and nocturnal bird.

Which of these is/are incorrect about the Sri Lankan Frogmouth.

- A. i only
- B. ii and iii only
- C. i, ii, iii and iv
- D. None of the above

58. Which agri-imports likely to grow from India to Chinese market?

- i. Soya Bean
- ii. Tea
- iii. Rice
- iv. Oilseeds

Select the correct answer using the code given below.

- A. i only
- B. i, ii and iii only
- C. ii and iv only
- D. i, ii, iii and iv

59. Consider the following statements:

- i. Article 356, commonly known as President's rule deals with "Failure of constitutional machinery in the State".
- ii. It empowers the Central government to deal with such a situation.
- iii. It is also sometimes called State Emergency or Constitutional Emergency even though the constitution doesn't call it by any of that name.

- A. i only
- B. i, ii and iii
- C. ii and iii only
- D. None of the above

60. Consider the following statements:

- i. Section 7 of RBI Act empowers the government to issue directions to the central bank.
- ii. It has been invoked earlier.

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

- A. i Only
- B. ii Only
- C. Both i and ii
- D. Neither i nor ii

61. Which of these are Non-Communicable Diseases?

- i. Diabetes
- ii. Rubella
- iii. Hepatitis
- iv. Diphtheria

Select the correct answer using the code given below.

- A. i only
- B. i and ii only
- C. i, ii, iii and iv
- D. i, iii and iv only

62. The Government enacted the Panchayat Extension to Scheduled Areas (PESA) Act in 1996. Which one of the following is not identified as its objective?

- A. To provide self-governance
- B. To create autonomous regions in tribal areas
- C. To recognize traditional rights
- D. To free tribal people from exploitation

63. Which of the following is/are incorrect regarding the Swadesh Darshan Scheme?

- i. It is completely funded by the Central Government.
- ii. The Ministry of Tourism is the implementing agency.
- iii. It has two components – PRASAD and Swadeshi Darshan under its ambit.

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

- A. i and iii only
- B. ii and iii only
- C. i and ii only
- D. None of the above

64. Consider the following statements with reference to Financial Stability and Development Council (FSDC):

- i. RBI governor is the Chairperson of FSDC.
- ii. FSDC is a statutory body.

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

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

65. Consider the following statement regarding Calamity Relief Funds:

- i. Calamity Relief Funds are dedicated funds used by the central governments to meet the expenditure for disaster relief.
- ii. The fund is maintained in the public account of the center.

Options:

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

66. With reference to the Law Commission of India, consider the following statements:

- i. It is established by the President of India every year.
- ii. It is not constitutional but a statutory body.
- iii. Its recommendations are not binding upon the government.

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

- A. i and ii only
- B. i and iii only
- C. iii only
- D. i, ii and iii

67. With reference to Uniform Civil Code, consider the following statements:

- i. It is a part of the basic structure of the Indian Constitution.
- ii. It is a directive principle under Article 44.

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

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

68. Consider the following statements regarding the drug Bedaquiline:

- i. This drug is used to treat dengue.
- ii. It is an orally administered drug.

Which of the above statements are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

69. Which of the following are the Micronutrients needed for plant development in the oil?

- A. Boron, Molybdenum, Nickel, Nitrogen, Potassium
- B. Sulphur, Magnesium, Chlorine, Copper, Nickel, Phosphorus
- C. Boron, Molybdenum, Iron, Manganese, Chlorine, Zinc, copper
- D. Nitrogen, Potassium, Phosphorus, Nitrogen, Nickel

70. Which of the following are the immediate impacts of floods on soil?

- i. Huge loss of soil productivity.
- ii. Leaching of soil nutrients.
- iii. Salinization of soil.
- iv. Replenishment of flood plains with fertile soil.

Select the correct answer from the codes given below:

- A. i only
- B. ii and iii only
- C. i, ii and iv only
- D. iv only

71. Which of the followings is/are regarded as illegal behaviour?

- i. Marriage within the same sex.
- ii. Freedom to not be identified as any gender.
- iii. Sexual intercourse with the person of any age.

Select the correct answer from the codes given below:

- A. iii only
- B. i and ii only
- C. ii and iii only
- D. i, ii and iii

72. The Supreme Court in the judgement on homosexuality has overturned its judgement of

- A. National Legal Service Authority of India (NALSA) case, 2014
- B. Puttaswamy case, 2017
- C. Suresh Kumar Kaushal case, 2013
- D. Kasturilal case, 2009

73. Consider the following statements regarding Nari Shakti Puraskar and choose the correct one:

- i. Nari Shakti Puraskar, the Highest Civilian Honour for Women in India.
- ii. The Ministry of Women and Child Development announces this national level award for eminent women, organisations and institutions as well.

Options:

- A. i only
- B. ii only
- C. Both i and ii only
- D. Neither i nor ii

74. In the event of the non-implementation of solid waste management rules by State authorities. If a PIL is filed in the Supreme court, which seeks the restoration of the fundamental right to live in clean environment.

Which of the following writs may be issued by the Court in this case?

- A. Mandamus
- B. Certiorari
- C. Quo-Warranto
- D. Prohibition

75. With reference to TB, consider the following statements:

- i. India is the country with the highest burden of both TB and MDR TB.
- ii. The government of India aims for the elimination of TB by 2030.

Which of the statements given above is/are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

76. Where does Point Calimere Wildlife Sanctuary located?

- A. Himachal Pradesh
- B. Arunachal Pradesh
- C. Arunachal Pradesh
- D. Tamil Nadu

77. Consider the following statements about Chandrayaan-2 mission:

- i. It is a totally indigenous mission.
- ii. It is comprised of an orbiter and lander only.

Choose the right option:

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

78. Umang app has been launched for which of the following purposes?

- A. Bidding for coal allocation
- B. E-governance for citizens
- C. Missing Children portal
- D. Controlling Drug addiction

79. Consider the following statements about 'Vetiver':

- i. It is a grass, which grows up to five feet and whose fragrant root reaches up to 10 feet.
- ii. It is used in ethanol extraction.
- iii. It can be used to purify polluted water bodies.

Which of the above is/are correct?

- A. Only i
- B. Only ii and iii
- C. Only ii
- D. i, ii and iii

80. Where is Dudhwa Tiger Reserve located?

- A. Madhya Pradesh
- B. Uttar Pradesh
- C. Uttarakhand
- D. Himachal Pradesh

81. Consider the following about appointment of judges:

- i. The judges of the Supreme Court are appointed by the president.
- ii. The other judges of the Supreme Court are appointed by the president on the recommendation of CJI.

Which of the above is/are incorrect?

- A. Only i
- B. Only ii
- C. Only i and ii
- D. None of the above

82. Which of the following are found exclusively in Andaman and Nicobar islands?

- i. Narcondam hornbill
- ii. Nicobar megapode
- iii. Andaman shrew
- iv. Nicobar shrew

- A. Only i
- B. Only ii and iii
- C. Only i, ii and iv
- D. Only i and iv

83. Which of the following are caused by virus?

- i. Dysentery
- ii. Measles
- iii. Typhoid

iv. Rabies

- A. Only i
- B. Only ii and iii
- C. Only ii and iv
- D. Only i and iv

84. Consider the following statements about Bioremediation Technology:

- i. Bioremediation is the use of living microorganisms to degrade the environmental contaminants into less toxic forms.
- ii. One of the advantages of Bioremediation is that it is effective in all environmental conditions.
- iii. Genetic engineering can be used to create microorganisms specifically designed for bioremediation.
- iv. Any contaminant with heavy metals such as cadmium and lead cannot be completely treated by bioremediation using microorganisms.

Which of the above is/are correct?

- A. i, ii and iii
- B. i and iii
- C. i, iii and iv
- D. i, ii, iii and iv

85. Environmental Performance Index is released by

- A. WWF
- B. UNEP
- C. Yale and Columbia Universities
- D. Society for Conservation of Nature

86. Parali I island sometimes seen in news is located in:

- A. Lakshadweep
- B. South China Sea
- C. Andaman and Nicobar
- D. Sea of Japan

87. Recently, "Operation All-Out" was in the news. It is related to?

- A. To counter the militant violent attacks in Kashmir
- B. To evacuate Indian citizens and other foreign nationals from South Sudan
- C. Rescue operations to evacuate civilians affected by Cyclone Ockhi
- D. None of the above

88. Tropical Storm "Mangkhut" is associated with which of the following regions?

- A. Gulf of Aden
- B. Central America
- C. Indo-china
- D. Northwest Australia

89. Consider the following statements in respect of Trade Related Analysis of Fauna and Flora in Commerce (TRAFFIC):

- i. The mission of TRAFFIC is to ensure that trade in wild plants and animals is not a threat to the conservation of nature.
- ii. TRAFFIC's 2020 goal is to help reduce the pressure of illegal and unsustainable wildlife trade on biodiversity.

Which of the above statements is/are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

90. Plants take nutrients from soil by the process called

- A. Osmosis
- B. Diffusion
- C. Transpiration
- D. Absorption

91. Consider the following statements:

- i. An interim Budget is a complete set of accounts, including both expenditure and receipts.
- ii. It made by the government just before the election.

Select the correct ones:

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

92. Exercise KAZIND-2018, a joint military exercise is conducted between

- A. India and Kazakhstan
- B. India and Pakistan
- C. India and Afghanistan
- D. India and Kyrgyzstan

93. Consider the following statements about Ethanol Blended Petrol (EBP) Programme of government:

- i. It aims at reducing excess sugar in the country.
- ii. It focuses on reducing import bill.

Options:

- A. i only
- B. II only
- C. Both I and II
- D. Neither i nor ii

94. Consider the following statements regarding Bad Banks:

- i. It is a bank containing significant non-performing assets (NPAs).
- ii. It buys these NPAs at discounted prices from other banks.

Which of the statements given above are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

95. Consider the following statements:

- i. Brownfield Airport is modified or upgraded airports.
- ii. Land Availability is a major hurdle in Brownfield Airport.
- iii. Brownfield projects under FDI have been a cause of concern as they increase foreign monopoly without adding to capital formation.

Choose the correct code:

- A. i only
- B. ii only
- C. i, ii and iii
- D. ii and iii only

96. Non-Cooperation movement, 1920-21 included:

- i. Surrender of titles
- ii. Boycott of Government affiliated schools and colleges
- iii. Boycott of foreign goods
- iv. Defiance of forest laws
- v. Strikes and Hartals
- vi. No-tax Movement

Choose the correct option:

- A. I, II, III and V only
- B. I, II, III, V and VI only
- C. I, II, III, IV and V only
- D. All of the above

97. Public Accounts Committee was established as per the recommendations of:

- A. Hunter commission
- B. Montagu-Chelmsford Reforms
- C. Morley-Minto Reforms
- D. Simon Commission

98. Which of the following statement/s is/are incorrect with respect to the Black Rhino?

- A. It is native to the eastern and southern Africa including Botswana and Kenya
- B. Although the rhinoceros is referred to as black, its colours vary from brown to grey
- C. The species is classified as Extinct in Wild by IUCN
- D. Both a and c

99. Which of the following factors can contribute to Attention-deficit/hyperactivity disorder (ADHD)?

- i. Genes
- ii. Cigarette smoking, alcohol use, or drug use during pregnancy
- iii. Exposure to environmental toxins during pregnancy
- iv. Exposure to environmental toxins, such as high levels of lead, at a young age
- v. Low birth weight
- vi. Brain injuries

Options:

- a) i, ii, and iv only
- b) i, ii, iii and v only
- c) i, ii, iii, iv and v only
- d) All of the above

100. Consider the following statements regarding the President of India.

- 1. All executive actions of the Government of India are formally taken in his name
- 2. He can make rules for more convenient transaction of business of Union Govt

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

- A. Only i
- B. Only ii
- C. Both i and ii
- D. Neither i nor ii

ANSWER KEYS

Question No	Answer Keys
1.	B
2.	C
3.	B
4.	B
5.	D
6.	A
7.	B
8.	C
9.	D
10.	A
11.	C
12.	C
13.	D
14.	B
15.	A
16.	B
17.	B
18.	B
19.	B
20.	B
21.	D
22.	A
23.	C
24.	D
25.	A

Question No	Answer Keys
26.	D
27.	B
28.	B
29.	A
30.	A
31.	C
32.	C
33.	B
34.	B
35.	D
36.	C
37.	B
38.	D
39.	C
40.	A
41.	C
42.	B
43.	C
44.	D
45.	C
46.	C
47.	B
48.	A
49.	D
50.	D

Question No	Answer Keys
51.	D
52.	C
53.	A
54.	C
55.	C
56.	D
57.	D
58.	B
59.	B
60.	B
61.	A
62.	B
63.	D
64.	D
65.	D
66.	C
67.	A
68.	B
69.	C
70.	D
71.	A
72.	C
73.	C
74.	A
75.	A

Question No	D Answer Keys
76.	D
77.	A
78.	B
79.	D
80.	B
81.	B
82.	C
83.	C
84.	C
85.	C
86.	A
87.	A
88.	C
89.	C
90.	A
91.	C
92.	A
93.	C
94.	A
95.	C
96.	C
97.	C
98.	D
99.	D
100.	B

MAINS PRACTICE QUESTIONS

1. Evaluate the need for AFSPA in disturbed areas in the present context.
2. Air pollution is choking several cities in the northern States once again, as changes in temperature and slowing winds trap soot, dust and fine particulate matter. In this context, write a note on the seriousness, reasons and solutions for the Delhi pollution problem.
3. In the light of recent controversy regarding the use of Electronic Voting Machines (EVM), what are the challenges before the Election Commission of India to ensure the trustworthiness of elections in India?
4. Whether National Commission for Scheduled Castes (NCSC) can enforce the implementation of constitutional reservation for the Scheduled Castes in the religious minority institutions? Examine.
5. Under what circumstances can the Financial Emergency be proclaimed by the President of India? What consequences follow when such a declaration remains in force?
6. Why do you think the committees are considered to be useful for parliamentary work? Discuss, in this context, the role of the Estimates Committee.
7. Reserves are an important part of financial health of the system. Discuss the recent controversy over the need for control over these reserves between RBI and Central government.
8. The recent killings in Assam bring back the days of political divide over immigration. Critically examine.
9. "The Comptroller and Auditor General (CAG) has a very vital role to play." Explain how this is reflected in the method and terms of his appointment as well as the range of powers he can exercise.
10. "Policy contradictions among various competing sectors and stakeholders have resulted in inadequate 'protection and prevention of degradation to environment.'" Comment with relevant illustrations.
11. Appropriate local community level healthcare intervention is a prerequisite to achieve 'Health for All' in India. Explain.
12. E-governance is not only about utilization of the power of new technology, but also much about critical importance of the 'use value' of information. Explain.
13. In the light of the National River Ganga (Rejuvenation, Conservation and Management) Bill, 2018, discuss the advantages and challenges of waterways.
14. "Supreme Court ending the Sabarimala ban is a victory of constitutional morality over regressive social and religious practices. Critically examine.
15. E-governance has its own inherent limitations. Analyze in the context of India.
16. What are the factors responsible for criminalization of politics in India?
17. Zika-associated birth defects could be a serious public health crisis in India. Discuss.
18. The RBI suggests that its independence is being violated while the government rationalises its intervention in terms of its concern for the economy. What is your opinion on this?
19. Should the government take control over the reserves in RBI? Discuss this issue from public finance perspective and from the perspective of accounting theory. Discuss.
20. Although EODB rankings have some drawbacks, these rankings serve as the most trusted ready-reckoner for foreign investors looking to invest in a country. For that reason, this is an achievement for India to celebrate. Critically analyse.
21. Discuss the menace of fake news and challenges of countering it.
22. There has been an uptick in attacks by Maoists, indicating that their ability to strike remains strong. In this context, analyse the challenges in dealing with Maoism.

23. Fake news is a growing threat to peaceful Society. What are the possible implications? Also, suggest measures taken by MNC's to help address the issue.
24. The Look East policy of India existed implicitly even before it was made explicit, by its cultural and Trade relations. Analyze.
25. SEBI has enhanced the quantum of disclosures by introducing additional norms while performing rating actions, but the need of the hour is the structural changes in the Credit Rating Agencies. Critically comment.
26. Increase in the GDP numbers should have commensurate increase in budget allocation to reduce malnutrition. Draw a holistic plan to solve stunting and underweight issue prevalent in India.
27. The existence of a large number of pending cases hampers the ability of judges to deal with fresh cases. Suggest some measures to deal with the pendency of cases in the judiciary.
28. Discuss the role played by India in the peace process of Afghanistan. How different is India's contribution from other countries involved in the peace process?
29. What significance does alternate dispute resolution hold in India? Explain by taking suitable examples.
30. A changing climate leads to changes in the frequency, intensity, spatial extent and duration of extreme weather and climate events. Explain in the context of recent extreme weather and climate events in India.
31. Joint military exercises are critical in fostering stronger strategic ties between India and countries in her neighbourhood, while also countering emerging security and humanitarian challenges. Examine.
32. Examine some of the challenges India faces in the successful implementation of her "Neighbourhood First" policy.
33. Discuss in the present context how section 7 of RBI act empowers central government to intervene in matters of Central bank of India?
34. Emerging space industry is filled with opportunities as well as challenges. Examine critically.
35. Literacy levels in rural households of India dip with seasonal migration, the UNESCO global education monitoring report 2019 has observed. In this context examine the educational challenges thrown up by migration.
36. The National Green Tribunal (NGT) has asked the Ministry of Environment, Forests and Climate Change (MoEF&CC) to consider declaring all elephant corridors in India as eco-sensitive zones. In this context, write a note on the elephant conservation in India.
37. India has recently achieved universal electrification after electrifying the last unelectrified village of India. Now our policy needs to shift focus from universal electricity connections to upgradation of quality of supply and services. Discuss.
38. The scheduled Tribes form an important component of India's population who are settled in areas where minerals are present, deep forests which are used for commercial purposes, etc. Discuss the impact of India's developmental journey on its tribal population?
39. There has been a rearrangement of the roles of and relationships between governments and central banks around the world including India. Discuss the issue.
40. The Industrial revolution somehow bypassed India, but we still have a unique opportunity to catch the wave of the manufacturing revolution. Discuss
41. An American national was killed allegedly by the Sentinelese tribe in the Andaman and Nicobar Islands after he illegally entered the protected zone recently. In this context, analyse the relevance of Tribal Panchasheel in the present context.
42. What are the major challenges related to employment in India? Suggest some measures to overcome the challenge of jobless growth.
43. The Ministry of Women and Child Development has linked SHe-Box, the online portal to report complaints of Sexual Harassment at Workplace, to all the Central Ministries, Departments and 653 districts across 33 States/Union Territories. In this context, write a note on the objectives and significance of She-box?

44. The Ministry of Women and Child Development has linked SHe-Box, the online portal to report complaints of Sexual Harassment at Workplace, to all the Central Ministries, Departments and 653 districts across 33 States/Union Territories. In this context, write a note on the objectives and significance of She-box?
45. Electoral reforms are much needed in India, given the importance of the elections in democracy and also given that our electoral processes are abound with many problems and ills. In this context write a note on the Electoral reforms in India.
46. Maharashtra government has cleared reservation for the Maratha community in education and government jobs. The constant tussle between the judiciary and executive regarding reservation policy, and the demand for reservation by several groups has risen in the recent times. In this context critically analyse the reservation policy of India.
47. Justice is a fundamental right and it should not be denied to the people in a democracy. Critically analyse in context of the low judge-population ratio in the country.
48. Examine the impact of GST on unorganised sector.
49. CBI has been caught in a den of controversies with allegations and counter allegations being thrown left, right and centre. In this context, explain in detail the issues faced by CBI and the role played by judiciary in reforming CBI and the impact of such measures.
50. Vietnam is an important regional player in SE Asia and its growing economic clout demands increased engagement with the country. There are several common concerns among India and Vietnam which need to be used as foundations to build the bilateral relationship. Discuss
51. India and Germany share several values and objectives. They are among the world's largest economies and share a long history of a bilateral relationship. In this context, discuss the contemporary relationship between these two countries in detail.
52. Explain how technology can be helpful in better fulfilling the objectives of the National Health Protection Mission?
53. Indian constitution is the lengthiest constitution in the world. The constitution is inclusive and it is framed by ransacking all the known constitutions, which is why it includes the best features available and modified to suit the Indian needs. Discuss
54. Preamble is the key to open the mind of framers of the constitution. Explain
55. While the government is focusing severely on toilet provision in tandem with Swacch Bharat Abhiyan, the focus on behavioural change towards sanitation and a moral change towards sanitation workers is what is lagging behind. Discuss.
56. The landing of InSight on Mars is a significant development in the field of space technology. In this context, write a note on the InSight mission with emphasis on its objectives and its significance.

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