

### **Economic Capital Framework Panel**

Addressing the issues of RBI reserves



#### Witness Protection Scheme

Concealing the identity of the witness faced with threats

#### Extradition case of Vijay Mallya

Westminster Magistrates Court order on extradition

#### Katowice Climate Change Conference

Rule book and its implementation

### GSAT-7A

India's Advanced Military Communications Satellite

## RESULTS

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## POLITY

#### 1. <u>All India Judicial Service-Addressing issues of</u> vacancy in Lower Judiciary

#### <u>Context</u>

 The NITI Aayog in its report 'Strategy for New India@75', mooted the creation of an All India Judicial Service (AIJS) for making appointments to the lower judiciary through an all India judicial services examination conducted by the Union Public Service Commission (UPSC) in order to maintain "high standards" in the judiciary.

#### Why the idea of central recruitment by UPSC is faulty?

- The argument that the creation of the AIJS and a centralized recruitment process will help the lower judicial services is based on the assumption that the current federal structure, that vests the recruitment and appointment for the lower judiciary in the hands of State Governors, High Courts and State Public Service Commissions, is broken and inefficient.
- There are states which are working efficiently in recruitment process, while there are other states which lack the effectiveness it is here that the Govts needs to work on.
  - \* In Maharashtra, of the 2,280 sanctioned posts, only 64 were vacant. In West Bengal, of the 1,013 sanctioned posts, only 80 were vacant. This means they are acceptable numbers.
  - \* However, there are States such as Uttar Pradesh where the situation is shocking. Of the 3,204 sanctioned posts, 1,348 are vacant, i.e. 42% vacancies.
- These numbers show that the problem of vacancies is not uniform across different States. The solution is to pressure poorly performing States into performing more efficiently.
- Further, the argument that the centralisation of recruitment processes through the UPSC automatically leads to a more efficient recruitment process is flawed and not a guarantee of a solution.
  - \* For example, the Indian Administrative Service — its recruitments are through the UPSC reportedly has a vacancy rate of 22%,
  - \* The Indian Army's officer cadre, also under a centralised recruitment mechanism, is short of nearly 7,298 officers.

#### Examples from the states

- Several States currently provide for reservations in their lower judicial service.
  - \* For example, at least 12 States, which include Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Rajasthan and Kerala, provide for caste-based reservation in the direct recruitment examination for district judges from the bar.

- In addition, U.P., Karnataka, Rajasthan and Chhattisgarh provide women with special reservations.
- \* Karnataka also recognizes two additional categories of reservation within caste-based reservation for those from a rural background and those from Kannada medium backgrounds.

#### <u>AIJS leads to more representation from marginalized</u> <u>communities and women is flawed</u>

AUS it is said promotes provisions of reservations for the marginalized communities and women, will lead to a better represented lower judiciary but the facts say otherwise

- Unlike States, the Centre almost never provides reservation for women in the all India services.
- On the issue of caste, an AIJS may provide for SC/ ST reservation along with reservation for the Other Backward Classes (OBC) but it should be noted that a recent Supreme Court ruling has held that SC/STs can avail the benefit of reservation in State government jobs only in their home States and not when they have migrated. The same principle is usually followed even for OBC reservations.
- Thus, instituting an AIJS would mean that nationally dominant SC, ST and OBC groups would be at an advantage as they can compete for posts across the country, which they would otherwise be disqualified from because of the domicile requirement. Thus an AIJS will have consequences for State-level politics.

#### **Constitutionality**

- As originally enacted, Articles 233 and 234 of the Constitution vested all powers of recruitment and appointment with the State Public Service Commission and High Courts.
- During the Emergency, Parliament amended Article 312 of the Constitution to allow for the Rajya Sabha to pass a resolution, by two-thirds majority, in order to kick-start the process of creating an all India judicial service for the posts of district judge.
- Once the resolution is passed, Parliament can amend Articles 233 and 234 through a simple law (passed by a simple majority), which law will strip States of their appointment powers.
- This is unlike a constitutional amendment under Article 368 that would have required ratification by State legislatures. In other words, if Parliament decides to go ahead with the creation of the AIJS, State legislatures can do nothing to stop the process.



#### **Conclusion**

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

#### 2. Andhra Pradesh gets new high court

#### <u>Context</u>

 Andhra Pradesh will have a separate high court which will function from Amravati, the new capital of the state, as President Ram Nath Kovind issued orders to this effect.

#### <u>Details</u>

- Sixteen HC judges, including Justice Ramesh Ranganathan, who is now the Chief Justice of the Uttarakhand High Court, shall become judges of the Andhra Pradesh High Court from January 1.
- The new Telangana High Court will have a sanctioned strength of 10 judges.
- The presidential notification quoted Article 214 of the Constitution, which provides for a High Court for each State.

#### **Constitutionality**

- The judiciary in the states consists of a High Court and a system of subordinate courts below it.
- The High Court is at the apex of the judiciary in the state.
- Article 214 provides for High Court for each state but there can be common High Courts for two or more states established by Parliament under Article 231.
- Under Article 230 the jurisdiction of High Court can be extended to the Union Territories also.
- A High Court may also have one or more benches of itself within the area of its territorial jurisdiction.

#### 3. Puducherry Legislative Assembly

- It is the unicameral legislature which comprises four districts: Puducherry, Karaikal, Mahé and Yanam.
- The legislative assembly has 30 seats + 3 nominated Members, of which 5 are reserved for candidates from scheduled castes.

#### **Context**

• The Supreme Court upheld the Central government's nomination of three BJP members as MLAs in Puducherry Legislative Assembly.

#### **Background**

• The BJP appointed three MLA's to the offices of Puducherry state Assembly under the powers given to it under Section 3(3) in the Government of Union Territories Act, 1963

- \* (3) The Central Government may nominate not more than three persons, not being persons in the service of Government, to be members of the Legislative Assembly of the Union territory].
- Speaker of the Puducherry Legislative Assembly barred the three members from being recognized as MLAs.
- The speaker felt it violated federalism and the unique status accorded to Puducherry while also placing reliance on precedents when consultation with the elected government of the UT was held.
- Aggrieved by this communication, each of the three members had challenged this decision before the Madras High Court.

#### Judgments passed by Courts

- The Madras High Court had upheld the decision of the Central Govt.
- In SC, Attorney General argued that according to Article 239 of the Constitution, the President administers a Union territory through an administrator in Lieutenant Governor and added that neither the Act nor the Constitution provides for consultation with the Legislative government for making nominations.
- Accepting the argument by Attorney General, the SC held that it is indeed the President that administers Union Territories and the Centre is empowered to nominate members to the Legislative Assembly.
- The Court also made it clear that the nominated members have the right to vote on all questions including with respect to budget and no-confidence against the government.

#### 4. Witness Protection Scheme

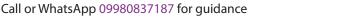
#### <u>Context</u>

• The Supreme Court approved India's first Witness Protection Scheme, noting that one of the main reasons for witnesses to turn hostile is that they are not provided appropriate protection by the State.

#### What is the Witness Protection Scheme?

The question of witness protection had come up in a PIL that sought protection for witnesses in cases against self-styled Godman Asaram Bapu.

- The scheme was drawn up by the central government with inputs from 8 states/Union Territories, legal services authorities of five states and open sources including civil society, three high courts as well as from police personnel.
- The scheme was finalised in consultation with National Legal Services Authority (NALSA).
- The important features of the Witness Protection Scheme, 2018 include
  - \* identifying categories of threat perceptions,
  - \* preparation of a 'Threat Analysis Report' by the head of the police,





- protective measures like ensuring that the witness and accused do not come face to face during probe,
- \* Protection of identity, change of identity, relocation of witness, witnesses to be apprised of the scheme, confidentiality and preservation of records, recovery of expenses etc.

### The programme identifies "three categories of witnesses as per threat perception":

- Category A: Those cases where threat extends to life of witness or family members during investigation, trial or even thereafter.
- Category B: Those cases where the threat extends to safety, reputation or property of the witness or family members during the investigation or trial.
- Category C: Cases where the threat is moderate and extends to harassment or intimidation of the witness or his family members, reputation or property during the investigation, trial or thereafter.

#### **Concerns**

The need to protect witnesses has been emphasised by Law Commission reports and court judgments for years.

- Witnesses turning hostile is a major reason for most acquittals. In the current system, there is little incentive for witnesses to turn up in court and testify against criminals.
- Besides threats to their lives, they experience hostility and harassment while attending courts.
- The tardy judicial process seldom takes into account the distance they have travelled or the time they have lost in attending court, only to be told they have to return another day.
- As Justice A.K. Sikri points out, the condition of witnesses in the Indian legal system is "pathetic", as it takes them for granted.

#### What else did the bench say?

- The bench asked all states and Union Territories to set up Vulnerable Witness Deposition Complexes, as required by the Scheme, by the end of 2019.
  - \* The scheme is to be funded by budgetary support from State governments and donations.
  - \* This is at variance with the Law Commission's recommendation in 2006 that the Centre and the States share the cost equally.
- These rooms will be equipped with facilities to prevent the accused and witness coming face to face.
- The expenses for the programme will be met from a Witness Protection Fund to be established by states and Union Territories.

#### **Conclusion**

• The introduction of the scheme marks a leap forward. Until now, there have been ad hoc steps such as those outlined for concealing the identity of witnesses in anti-terrorism and child-centric laws.

- A few dedicated courtrooms for vulnerable witnesses, mostly child victims, are also functional.
- However, expanding such facilities and implementing a comprehensive and credible witness protection programme will pose logistical and financial challenges.
- It will be well worth the effort, as the scheme could help strengthen India's tottering criminal justice system.

#### **Unimplementable Orders (Judiciary)**

- Recently, the Honourable Supreme Court of India passed two orders which some experts fear, will remain on paper.
- In the first, the court had asked each High Court to designate as many sessions and magistrate courts in the concerned States to try criminal cases against sitting and former MPs and MLAs.
- The government informed the court that there are 4,122 criminal cases pending against MPs and MLAs in 440 districts across the country.

#### A Critical Perspective:

- It is important to note that a case takes time to decide. For example: The cumbersome Code of Criminal Procedure must be followed. Charges must be framed, witnesses must be examined and crossexamined, documents must be adduced in evidence, and arguments must be heard. Only then can a wellconsidered judgment be delivered. Moreover, the witnesses and even the investigating authorities may turn hostile.
- Experts also suggest that the existing number of courts in India is already overburdened with 33 million pending cases.
- Questions arise: Should a section of them give up dealing with the cases before them and only deal with these cases relating to MPs and MLAs? Then their cases will have to be handed over to other judges, who are similarly overburdened.

#### Views on the Witness Protection Scheme of 2018:

- The second order in question is for implementing the Witness Protection Scheme of 2018.
- It is well known that nowadays it is nearly impossible to get independent witnesses in criminal cases.
- For example, if someone sees a crime, the tendency is to avoid getting into trouble by deposing about it to the police or the court, which may invite reprisal by the party against whom the witness gives evidence.
- Consequently, a judge is rarely sure that the witness is being truthful.
- To mitigate this outcome the government has framed a Witness Protection Scheme, but how practicable is it?





- The scheme proposes giving witnesses a new identity. There are over 28.4 million cases pending in subordinate courts in India, of which perhaps 70% are criminal cases. If on an average there are half a dozen witnesses in each case, this may require change of identity for millions of people. Is this feasible, financially or logistically?
- Finally, other proposals also appear unrealistic. The scheme mentions providing police escort to the courtroom, temporary safe houses and relocation of the witness. But how simple is it to relocate an individual whose job requires him to be at a fixed location? For how long and to how many will the police provide protection?

#### 5. Don't reveal identity of rape victims says SC

#### <u>Context</u>

 The Supreme Court prohibited the media from publishing or airing the names or any material which may even remotely reveal the identity of victims of sexual crimes.

#### What did the SC say?

- "No person can print or publish in print, electronic, social media, etc. the name of the victim or even in a remote manner disclose any facts which can lead to the victim being identified and which should make her identity known to the public at large. The bar extends to anything which can even remotely be used to identify the victim,"
- The court further held that the name and identity of a victim who was either dead or of unsound mind should also not be disclosed even under the authorisation of the next of kin.
  - \* Any exception to this rule should be decided by the competent authority, the session's judge.
- It barred the police from putting in public domain FIRs under Sections 376 to 376E (the range of sexual offences under IPC) and those under the Protection of Children from Sexual Offences (POCSO) Act.
- The documents disclosing identity of a victim should be kept in a sealed cover. Authorities to which a victim's identity was disclosed by an investigating agency or the court are duty bound to keep it a secret.
- A victim need not reveal her identity while filing an appeal in a criminal court, the SC said.

### <u>S. 228 A: Disclosure of identity of the victim of certain offences, etc</u>

Whoever prints or publishes the name or any matter which may make known the identity of any person against whom an offence under section 376, section 376A, section 376AB, section 376B, section 376C, section 376D, section 376DA, section 376DB, section 376E is alleged or found to have been committed (hereafter in this section referred to as the victim) shall be punished with imprisonment of either description for a term which may extend to two years and shall also be liable to fine. So SC said that the intention of the law makers here was that the victim of such offences should not be identifiable so that they do not face any hostile discrimination or harassment in the future.

#### 6. <u>An invitation to corruption? (The Electoral Bond</u> Scheme)

#### What are Electoral Bonds?

1. Before understanding the electoral bond let's define what a bond is. Bond is a debt instrument which generally has following instrument

2. Although the term "bond" is used the "Electoral Bonds", these instruments will not have all the features of the bond (no interest rate, returns will go to the political parties-having said so, all of this will be clear when the government in consultation with RBI will come out with a policy)

3. These Electoral bonds are instruments/securities which will be used henceforth to donate funds to the political parties. These bonds will be on the lines of bearer bonds or promissory notes wherein the issuer (bank) will be the custodian and will pay the one who holds the bonds (political party). The features of electoral bonds and the process involved is:

- These bonds will be issued by notified banks.
- The donor to the political party may approach these banks and purchase the bonds.
- The donor will be allowed to purchase the bonds through cheque/digital payment. Hence the identity of the donors will be protected (if the donors are identified, they may get caught up in political rivalryespecially if the donor is a businessman)
- The donor will donate these bonds to the political party.
- The political party has to encash it into the account which is registered with the Election Commission of India.
- As per the information provided so far, these bonds will have a short tenure (in terms of few days)
- These bonds will not provide any kind of tax benefits.
- The deadline for implementation of this was 1st April 2018.
- The parties will be asked to file returns of donations under the IT Act.

#### A More Detailed Look:

- A donor can purchase electoral bonds from a specified bank only by a banking instrument. He would have to disclose in his accounts the amount of political bonds that he has purchased.
- The life of the bond would be only 15 days. A bond can only be encashed in a pre-declared account of a political party.



- Every political party in its returns will have to disclose the amount of donations it has received through electoral bonds to the Election Commission.
- The entire transactions would be through banking instruments. As against a total non-transparency in the present system of cash donations where the donor, the donee, the quantum of donations and the nature of expenditure are all undisclosed, some element of transparency would be introduced in as much as all donors declare in their accounts the amount of bonds that they have purchased and all parties declare the quantum of bonds that they have received.
- How much each donor has distributed to a political party would be known only to the donor. This is necessary because once this disclosure is made, past experience has shown, donors would not find the scheme attractive and would go back to the lessdesirable option of donating by cash.
- In fact the choice has now to be consciously made between the existing system of substantial cash donations which involves total unclean money and is non-transparent and the new scheme which gives the option to the donors to donate through entirely a transparent method of cheque, online transaction or through electoral bonds.
- While all three methods involve clean money, the first two are totally transparent and the electoral bonds scheme is a substantial improvement in transparency over the present system of no-transparency.

### In the whole process there are three important stakeholders:

- Donor the policy/framework which will be announced in the coming days will dictate the eligibility provisions related to the donors (generally the citizens and non-resident Indians are allowed to invest in the bonds issued by RBI)
- Notified Banks The introduction of such securities will require the amendment of RBI act.

#### <u>Brief Note on the the in-built security features of the</u> <u>Electoral Bonds:</u>

- The Purchaser is allowed to buy electoral bond (s) only on due fulfillment of all the extant KYC norms and by making payment from a bank account.
  - \* The Bond does not carry the name of payee or any other details by which the buyer can be identified. Likewise no detail of political party depositing the bonds is noted on the electoral bonds. Thus, any particular bond cannot be identified or associated with any particular buyer or political party deposits it.
  - \* Further, the Electoral Bonds have some built in security features to eliminate chances of forgery or presentation of fake bonds.

- These include a random serial number invisible to the naked eye. This number is not noted by the SBI in any record associated with buyer or political party depositing a particular electoral bond. It is, thus not linked to any party transaction when the Bank issues a bond to the buyer. As such the number is not being used or can be used to track the donation or the buyer.
- SBI does not share the serial number with anybody, including the Government and users.
- Importance of the Electoral Bonds
- The ensure that the funds being collected by the political parties is accounted money or clean money.
- It will also boost digital transactions.

#### Editorial Analysis:

- Early this year, 2018, the government introduced an Electoral Bond Scheme purportedly with a view to cleansing the prevailing culture of political sponsorship.
- But the programme's failings have been so blindingly obvious, and its consequences so utterly devastating to rectitude and transparency in government, that even O.P. Rawat, who just retired Chief Election Commissioner, thought it fit to deliver a damning indictment of the scheme.
- "There are many grey areas in this because when there is no ceiling on party expenditure and the EC (Election Commission) cannot monitor it, how can you be sure that what is coming in is not black money as there is a secrecy of the donor," Mr. Rawat told The Economic Times in an interview last week. "Even foreign money can come and even a dying company can give money now... So, prima facie it appears the scheme cannot really deliver whatever it was intended to."

#### Electoral Bond Scheme: Too opaque?

- Some experts have opined that in its present form, the scheme permits not only individuals and body corporates, but also "every artificial juridical person," to purchase bonds, issued by the State Bank of India, in denominations of ₹1,000, ₹10,000, ₹1akh, ₹10 lakh and ₹1 crore, during specified periods of the year.
- Issued in the form of promissory notes, once a bond is purchased the buyer can donate it to any political party, which can then encash it on demand.
- Currently, the government claims that since these bonds are purchased through banking channels the scheme will eliminate the infusion of black money into electoral funding.
- However, critics of the scheme have pointed out that not only is this argument palpably false, as a simple reading of the scheme's terms shows us, the programme also virtually endorses corruption in political funding, as Milan Vaishnav has argued.





#### A Case In Point:

- Consider, for example, the fact that the scheme allows for complete anonymity of the donor. Neither the purchaser of the bond nor the political party receiving the donation is mandated to disclose the donor's identity. Therefore, not only will, say, the shareholders of a corporation be unaware of the company's contributions, but the voters too will have no idea of how, and through whom, a political party has been funded.
- Further, critics have also pointed out that just as damaging to the most basic democratic ideals is the elimination of a slew of other barriers that were in place to check the excesses of corporate political sponsoring.
- For instance, the programme removes an existing condition that had prohibited companies from donating anything more than 7.5% of their average net-profit over the previous three years.
- This now means that even loss-making entities can make unlimited contributions.
- Additionally, the requirement that a corporation ought to have been in existence for at least three years before it could make donations — a system that was meant to stop shell concerns from being created with a view purely to syphoning money into politics — has also been removed.

#### Two Important Judgments: A Close Look

- The dangers inherent in unregulated funding of political parties, especially by corporations, have been apparent for many years.
- It is important to point out that even as early as in 1957, in a pair of judgments outstanding in their lucidity and prescience, the Bombay and the Calcutta High Courts warned Parliament of the perils in allowing companies to freely add to party coffers.
- It's a threat, wrote Chief Justice M.C. Chagla, of the Bombay High Court, which is likely to "grow apace and which may ultimately overwhelm and even throttle democracy in the country".
- The court was conscious that, given the circumscriptions of the law, it could scarcely deny, in the case before it, permission sought by Tata Iron and Steel Co. Ltd. to amend its memorandum of association, to allow the company to make contributions to different political interests. But this did not stop the court from drawing Parliament's attention to the problem.

- Another point that is worth mentioning here is that of H.M. Seervai, who was representing Tata. The court noted, conceded that the least the company could do was to disclose clearly in its yearly balance sheet the list of donations made by it. But, to Chief Justice Chagla, such a condition was grossly insufficient. It was imperative, he ruled, that not only the company's shareholders, but electors too must know how a party is being financed. For democracy, he believed, couldn't function unless the voters had free and complete access to information about the parties for which they were going to vote.
- As a matter of fact, only months earlier, faced with a similar petition, the Calcutta High Court had made an almost identical appeal. "To the cynic it appears to be a plea of the company to have a legal sanction to bribe the Government of the day, to induce policies that will help the company in its business," wrote Justice P.B. Mukharji.
- If amendments of this kind were allowed, and if joint stock companies serve as adjuncts to political parties, he added, the "man who pays the piper will then call the tune".
- The judgments were recognising a bedrock principle of democracy: that public action ought to be guided by transparency and fairness.
- Unfortunately, however, in the years since, critics point out that every effort has been made to endorse opacity in political funding. Critics point out that the electoral bonds scheme, unless immediately withdrawn, may well irredeemably damage India's democratic edifice.
- Further, as petitions filed in the Supreme Court point out, the scheme suffers from at least two foundational defects.
- These defects are as follows:

1. It is important to note that Article 110 of the Constitution allows the Speaker to classify a proposed legislation as a money bill, only when the draft law deals with all or any of the subjects enlisted in the provision.

- These subjects comprise a set of seven features, including items such as the imposition of a tax, the regulation of the borrowing of money by the government, the custody of the Consolidated Fund of India, the appropriation of money out of the consolidated fund, and any matter incidental to the subjects explicitly mentioned in Article 110.
- However, as hard as we might try, though, it's impossible to see how the provisions pertaining to the electoral bond scheme could possibly fall within any of these categories.
- Critics point out that the Finance Act, through which these amendments were introduced, therefore did not deal with only those matters contained in Article 110





- 2. Perspective on Fundamental rights
  - Critics point out that the scheme is equally destructive in its subversion of the fundamental rights to equality and freedom of expression.
  - They add that there's no doubt that the Constitution does not contain an explicitly enforceable right to vote. But implicit in its guarantees of equality and free speech is a right to knowledge and information.
  - Also, it is important to note that our courts have nearly consistently seen "freedom of voting" as distinct from the right to vote, as a facet of the right to freedom of expression and as an essential condition of political equality. In the absence of complete knowledge about the identities of those funding the various different parties, it's difficult to conceive how a citizen can meaningfully participate in political and public life. As Ornit Shani's wonderful book, How India Became Democratic, shows us, the institutionalizing of equality through the principle of one person one vote, and through the creation of the universal adult franchise, was critical to building India's republican structure.

#### 7. J&K law to stop 'sextortion' of women

#### <u>Context</u>

- Governor Satya Pal Malik's administration in Jammu & Kashmir approved an amendment to the Ranbir Penal Code (RPC), to insert a section to provide for the offence of "sextortion."
  - \* Jammu and Kashmir State Ranbir Penal Code or RPC the main criminal code applicable in the Indian state of Jammu and Kashmir.

#### <u>Details</u>

- The State Administrative Council (SAC) headed by Governor Satya Pal Malik approved the Prevention of Corruption (Amendment) Bill, 2018 and the Jammu and Kashmir Criminal Laws (Amendment) Bill, 2018.
- The Bill seeks to amend the state Ranbir Penal Code (RPC) whereby specific offence under Section 354E is being inserted to provide for the offence of sextortion' (the practice of extorting money or sexual favours from someone by threatening to reveal evidence of their sexual activity).

#### What was the need?

- The existing legislative provisions have been found deficient to curb this menace.
- Therefore, a need was felt to introduce such provisions in the relevant laws that would prevent occurrence of such instances and deter the persons in authority to abuse their authority, influence or position to obtain sexual favours from the weaker sex

#### 8. <u>Benefit of the doubt must go to accused: Supreme</u> Court

#### **Context**

• The benefit of the doubt in cases based on a flawed police investigation must favour the accused irrespective of the gravity of the crime says the Supreme Court

#### What did the SC say?

- The accused cannot be expected to relinquish his innocence at the hands of an inefficacious prosecution, which is ridden with investigative deficiencies
- Another golden thread which runs through the web of the administration of justice in criminal cases is that if two views are possible on the evidence adduced in the case, one pointing to the guilt of the accused and the other to his innocence, the view which is favourable to the accused should be adopted...
- However, the rule regarding the benefit of doubt does not warrant acquittal of the accused by resorting to surmises, conjectures or fanciful considerations

#### 9. The fear of executive courts (Judiciary)

#### **Background**

- Justice S.R. Sen of the Meghalaya High Court observed in a judgment that "anybody opposing... Indian laws and the Constitution cannot be considered... citizens of the country." The case involved the denial of a domicile certificate.
- Justice Sen thought it fit to further note that in 1947 India "should ... have been declared... a Hindu country", and that "our beloved Prime Minister" ought to legislate to grant automatic citizenship to (non-Muslim) religious minorities "who have come from Pakistan, Bangladesh and Afghanistan".
- He also noted that "our political leaders" in 1947 "were too much in a hurry to get the independence... thus, creating all the problems today", and that "nobody should try to make India as another Islamic country".

#### Editorial Analysis:

- With regards to the observations made by Justice Sen, it is important to make a note of some of the observations made by certain experts in the field.
- Experts have remarked that Justice Sen's ill-advised and ill-judged verbal attack is only the latest in a series of instances where judges have inserted themselves into fraught political controversies. What compounds matters is that they have deployed the prestige of judicial office to lend weight to one side of the controversy. As a consequence, this marks an alarming trend.
- As a matter of fact, there have been instances in the past as well where the judiciary has come under controversy- such as with Justice Mahesh Chandra Sharma of the Rajasthan High Court who had observed that peacocks don't have sex.



 We normally think about judicial independence as independence from the government. Our Constitution is designed to ensure that judges can do their work "independent" of government influence: fixed salaries, security of tenure, and an appointments process that — through the Supreme Court's judgments — is insulated from executive control.

#### A Perspective on Judicial independence

- Experts point out a broader perspective to the idea of Independence.
- Further, it also requires that judges perform their constitutional role independent of personal biases, political and moral beliefs, and partisan ideologies.
- It is important to note that of course, adjudication is a political task, and there is no doubt that a judge's political vision will inform her work. That, however, does not authorise the judge to turn into a politician.

#### Crucial Checks on Judicial Power:

- At all times, judges are bound to maintain primary fidelity to the law and the Constitution: to the text of legal instruments, to the canons of legal interpretation, and to the body of judicial precedent that holds the field.
- These are crucial checks on judicial power.
  - \* Therefore, judicial independence, depends on judges recognising that law, while being influenced by politics, is not reducible to it. It is important to note that Law and adjudication must remain autonomous from partisan politics in important ways.
  - \* Further, the more we strengthen judicial independence in its first sense independence from the government the more attention we must pay to independence in this second sense.
  - \* This is because control brings with it accountability. Politicians, for example, remain "accountable" to the people in at least some sense, because they depend upon them in order to continue in office after five years.
- Critics point out that judges who are insulated from any external control are accountable only to themselves, and their own sense of the limits of their constitutional role.
  - \* It is important to note that accountability only to oneself, however, is a very weak form of constraint. The temptation to overstep is always immense, more so when such immense power has been placed in one's own hands. It is here that legal culture plays a critical role in establishing judicial accountability.
  - \* By legal culture, experts refer to a set of unwritten, but clearly established, norms that determine what is or is not acceptable in the process of adjudication.

• Further, a legal culture does not spring up out of a vacuum: it must be created and nurtured by judges, lawyers, legal academics, the press and the citizenry.

#### The causative factors of the crisis:

- Certain important questions arise: Where, then, has the legal culture failed us?
- Experts point out that the answer takes us back a few decades.
- In the 1980s for example, there was a rapid expansion of judicial power. This expansion was motivated by a sense that the judiciary had long been a conservative institution, taking the side of landed interests against "the people". This needed to change.
- In order to accomplish this, the Supreme Court began to dispense with procedural checks upon its power.
   Some of these steps were important and necessary, such as allowing "public interest" cases to be filed on behalf of those who were unable to access the courts.
- Others, however, were double-edged swords, such as diluting the evidentiary standards required to prove disputed facts, and vastly expanding the courts' discretion to shape and fashion remedies.

#### A Brief Timeline:

- By the 1990s and the 2000s, under the misleading label of "judicial activism", the court was beginning to engage in a host of administrative activities, from managing welfare schemes to "beautifying cities" to overseeing anti-corruption initiatives.
- As a matter of fact, the constitutional court had become a Supreme 'Administrative' Court.
- It is important to note that this, too, was justified on the altar of necessity: politicians were corrupt, bureaucrats were inefficient, and things didn't move.
   Someone had to come and clean it all up.
- It is important to note that a combination of viewing the judiciary as an infallible solution to all social problems, and viewing procedure — that would otherwise constrain judicial power — as an irritant that stands in the way of a truer, purer justice has created the perfect storm that we see these days.

#### Concluding Remarks:

- In conclusion, the record of the courts in protecting civil rights has been a mixed one. In far too many cases, courts have tended to defer to the executive and the government.
- However, experts point out that judgments like the national anthem order, the Tirukkural order, the NRC process, and Justice Sen's recent foray raise an altogether more frightening prospect: that of an "executive court".
- By an executive court, experts imply a court whose moral and political compass finds itself in alignment with the government of the day, and one that has no compunctions in navigating only according to that compass.



- Instead of checking and limiting government power, an executive court finds itself marching in lockstep with the government, and being used to set the seal of its prestige upon more controversial parts of the government's agenda.
- What we currently need on an urgent basis is the return of a thriving legal culture, one that uncompromisingly calls out political posturing of the kind we have recently seen.
- Only a principled consistency in requiring that judges must always give reasons for their judgment can halt the transformation of the constitutional court into an executive court.

#### 10. Make planning fashionable again (Planning)

- India under Nehru's leadership inaugurated a strategy for industrialisation of the country in the early 1950s.
- This involved the setting up of public sector units (PSUs) in diverse areas of manufacturing; research institutions in cutting-edge technologies of the time such as space and atomic energy; and centres of higher learning, including the Indian Institutes of Technologies (IITs). It is important to note that all of these initiatives were taken by a poor country, which was still struggling to find its feet amidst the multiple blows it had to endure during the early years after Independence.

#### Challenging the Status-Quo:

- It is important to note that by consciously entering into sectors such as machine building and nuclear research, which needed capital and technology more critically than labour, India was also challenging a deeply held orthodoxy in economic theory.
- It has been long argued that countries should develop industries based on their comparative advantage. According to this theory, a labour-surplus country like India should be limiting its industrial development ambitions to labour-intensive sectors, such as garments or leather.
- After all, the theory would ask, why should a country like India produce machines or pharmaceuticals domestically, when such products can easily be imported from advanced countries?

#### Perspective from the Colonial Period:

- Experts point out that during the colonial period, the British government in India had indeed been putting the theory of comparative advantage into practice to the disadvantage of most Indians.
- For example, in his book, The Discovery of India, Nehru described how the colonial government systematically strangulated Indian entrepreneurship.
- As a matter of fact, writing from his prison cell in Ahmednagar Fort in the early 1940s, Nehru argued that the fundamental requirements for a modern India included "a heavy engineering and machinemaking industry, scientific research institutes, and electric power."

- It is important to note that the programmes launched in India from the 1950s onwards to build indigenous capabilities in capital- and technology-intensive sectors, despite the general poverty of the country, became a model for other developing and Third World nations.
- Next, the debates around Indian planning provided a fertile launching pad for the evolution of development economics as an important sub-discipline.

#### A Look at a few Specifics:

- The foundations for India's diversified economic base had been laid during the planning years.
- Further, the successes that India enjoys today in the information technology and knowledge-intensive sectors owe much to the research and educational institutions that were built during the early decades.
- At the same time, however, planning did very little to remove the hurdles to the growth of agriculture and small-scale industries. India's record during the post-Independence period in implementing land reforms and ensuring primary education for all has been rather unimpressive.
- As a consequence, the benefits from state-led development have so far reached only a minority of Indians.
- It is also important to note that India's commitment towards development through planning had begun to diminish from the early 1990s itself — much before the Planning Commission was formally dismantled in 2014.
- Further, after the introduction of economic reforms in 1991, public investment, especially on agriculture and industry, has been on a decline in the country.
- PSUs have begun to be valued only for the returns they bring as commercial entities. There has been little recognition of the important role that PSUs can play as creators of new technologies and knowledge, particularly in fields in which the private sector may have little interest or capabilities.
- Some experts opine that the disregard for planning and the general withdrawal of the state from economic decision-making have had important consequences on Indian industry. India is today one of the largest markets in the world for a wide range of goods, whether passenger cars, mobile phones or food products. Despite the emergence of such a large domestic market, the record of Indian manufacturing in absorbing the large labour reserves in the country remains abysmal.
- The imports of machinery, transport equipment, electronic goods and all their components have been rising continuously in India from the 2000s onwards. This trend has not been reversed after the introduction of the 'Make in India' initiative.



#### Planning in a Globalised Economy

- Planning is not incompatible with markets and globalisation. On the contrary, a developing country trying hard to stay afloat amidst the turbulence of a global economy requires more, and not less, guidance thorough industrial policies.
- The successes achieved by East Asian countries such as South Korea in manufacturing are, to a great extent, the result of strategic planning over several decades by their governments.
- It is important to note that China is gradually shifting its economic base from low-wage industries, and is now emerging as a global leader, even ahead of the U.S., in several new technologies, including artificial intelligence and renewable energy.
- Experts point out that these Chinese achievements owe much to the careful planning and investments made by its government, particularly in the area of science and technology.

#### **Concluding Remarks:**

- Experts point out that the employment challenge that India faces close to 15 million waiting to be absorbed in the industrial and services sectors every year is possibly bigger than that faced by any other country (except China) in the world.
- Further, this challenge cannot be resolved with the technologies that foreign companies bring into India, which tend to be labour saving.
- What India requires, on the other hand, are technological advances that create new economic opportunities and absorb — not displace — labour. For instance, breakthroughs in biotechnology that may find new commercial applications for our agricultural products, or electric vehicles and renewable energy solutions that depend less on imported material.
- It is important to note that India's research institutions and PSUs should engage in the creation and dissemination of such technologies.
- Lastly, the country's industrial policies should be able to enthuse young and educated entrepreneurs from rural areas to make use of these technologies to create new jobs. And, for all these, planning should be brought back to the centre of our economic discussions.

#### 11. Implementing NOTA in the right spirit

Larger Background:

- The main objective of the 'NOTA' option is to enable electors who do not wish to vote for any of the candidates to exercise their right not to vote for any candidate without violation of the secrecy of their decision.
- The symbol for 'None of the Above (NOTA)' option has been designed by National Institute of Design (NID) Ahmedabad.



#### The NOTA symbol

#### A Closer Perspective:

- Experts have opined that ever since voters have been provided the 'None of the Above' (NOTA) option if they do not want to vote for any of the candidates in the fray, political parties now cite many voters having chosen NOTA as a reason for losing an election.
- This may be true in very close contest, when voters are in small numbers and the margin of victory and defeat is rather small. However, overall, there has hardly been any election in India where NOTA has been instrumental in altering an electoral verdict.

#### <u>A Look at the numbers:</u>

 It is important to note that in the recent round of elections to five State Assemblies (Telangana, Rajasthan, Madhya Pradesh, Mizoram and Chhattisgarh), where the margin of votes between the main contenders, the Congress and the Bharatiya Janata Party (BJP) was narrow —for example only 0.1% in Madhya Pradesh and about 0.5% in Rajasthan — the BJP cited NOTA voting as among the main reason for its defeat. However, had the Congress been in the BJP's position, it too would have blamed NOTA. Thus NOTA is a convenient political scapegoat.

#### <u>Even voters have started to believe that NOTA has become</u> <u>a very important factor in Indian elections.</u>

- As a matter of fact, in the recent State Assembly elections, the results indicate a decline in NOTA votes in four States, Telangana being the only exception. The decline was from 1.9% to 1.4% in Madhya Pradesh; 1.9% to 1.3% in Rajasthan; 3.0% to 1.9% in Chhattisgarh; and 0.6% to 0.4% in Mizoram. In Telangana, there was a marginal increase from 0.7% to 1.0%. The data show no bigger attraction for NOTA in these five States in the last five years. It is the same in States other than these five which have gone to the polls in recent years.
- In the 2014 Lok Sabha elections, only 1.08% voters



opted for NOTA nationally. Further, there was hardly any significant NOTA vote except in Puducherry where 3% voters opted for it and 2.8% in Meghalaya. In a number of States, the NOTA votes were in the range of 1-1.5% of the total votes polled. When the average size of a Lok Sabha constituency is about 27 lakh voters, it is difficult to imagine that a small percentage of votes could alter electoral outcomes in a large number of constituencies.

#### It is widely believed, and true to some extent, that NOTA could be a useful tool (such as in a local body election) if constituencies are smaller in size, with fewer voters.

• But this is still not seen as a viable option among voters even in a State Assembly election. The preference for NOTA in Assembly constituencies reflects the trend of the 2014 Lok Sabha elections.

#### NOTA and Electoral Outcomes:

- It is important to note that an average Assembly constituency in a State in the Hindi heartland has about 4-5 lakh voters; a small number of voters opting for NOTA will hardly affect the overall electoral outcome.
- It is important to note that there may be instances of a significant number of constituencies where NOTA votes may be higher than the margin of victory, but, normally, such seats are also divided between various political parties in proportion to their share of victories.
- As a matter of fact, there was such a situation in these Assembly elections.
- For example, in Madhya Pradesh, there were at least 23 Assembly constituencies where NOTA votes were more than the margin of victory. Of these, 10 were won by the BJP while 12 went to the Congress. The Burhanpur Assembly seat was won by an independent. In Rajasthan, in the close contest between the Congress and the BJP in 16 Assembly seats, NOTA votes were higher than the victory margin, but these seats were evenly distributed between both parties. Of these 16 Assembly seats, eight went to the BJP and seven to the Congress. An independent candidate won the Marwar Junction seat by 251 votes. In Chhattisgarh, there were eight such Assembly seats, with three going to the BJP, two to the Congress and three to the Janta Congress Chhattisgarh.

#### A Look at the numbers from the Previous election:

• It is important to factor in the 2013 Assembly elections in Rajasthan as well. Here, even when the BJP led the Congress by 12% votes there were 11 Assembly seats where NOTA votes were more than the victory margin (six went to the BJP, three to the Congress and two by National People's Party). It was not different in Madhya Pradesh in the same year when the BJP led the Congress by 8% votes.

- Of the 26 Assembly seats where NOTA votes were higher than the victory margin, 14 went to the BJP, 10 to the Congress, one to the Bahujan Samaj Party while the Sehore seat was won by an independent. Even in Chhattisgarh, that year, of the 15 Assembly seats where NOTA votes were more than the victory margin, eight went to the BJP and seven to the Congress.
- Thus an important question arises: Can we say that NOTA is more important in these elections compared to the past?

#### Editorial Analysis:

- It is important to note that in People's Union For Civil Liberties v. Union Of India (September 27, 2013), the Supreme Court had ruled that a None of the Above (NOTA) option "may be provided in EVMs" so that voters are able to exercise their "right not to vote while maintaining their right of secrecy".
- Further, on October 29, 2013, the Election Commission of India (ECI) said that if a situation arose where the number of NOTA votes exceeded the number of votes polled by any of the candidates, the candidate with the highest number of votes would be declared winner. This, it said, was in accordance with Rule 64 of the Conduct of Elections Rules, 1961.
- Experts opine that this provision made the NOTA option almost redundant.
- While it ensured confidentiality for a voter who did not want to choose any of the candidates and yet wished to exercise her franchise, the provision clarified that a NOTA vote would not have any impact on the election result, which is what interests candidates, political parties, and voters.
- Soon after this, candidates began campaigning against NOTA, telling voters that choosing the option meant wasting a vote.

#### Encapsulating the spirit of the judgment:

- "For democracy to survive, it is essential that the best available men should be chosen as people's representatives... This can be best achieved through men of high moral and ethical values, who win the elections on a positive vote. Thus, in a vibrant democracy, the voter must be given an opportunity to choose NOTA..., which will... compel the political parties to nominate a sound candidate"
- "Democracy is all about choice. This choice can be better expressed by giving the voters an opportunity to verbalize themselves unreservedly and by imposing least restrictions on their ability to make such a choice. By providing NOTA button in the EVMs, it will accelerate the effective political participation in the present state of democratic system and the voters... will be empowered. We are of the... view that in bringing out this right to cast negative vote at a time when electioneering is in full swing, it will foster the purity of the electoral process and also fulfil one of its objectives, namely, wide participation of people"



 "When the political parties will realize that a large number of people are expressing their disapproval with the candidates... there will be a systemic change and the political parties will be forced to accept the will of the people and field candidates who are known for their integrity."

#### Two reasoned orders

1. The State Election Commission (SEC) of Maharashtra was the first to understand the spirit of the judgment. It issued a reasoned order saying,

"If it is noticed while counting, that NOTA has received highest number of valid votes, then the said election for that particular seat shall be countermanded and fresh elections shall be held for such post."

Experts have pointed out that this was commendable, but it stopped short of giving NOTA the teeth that the court wanted. It meant that the same candidates could contest the new election, which meant that the result could be the same as earlier.

- However, it was not long before the final correction came forth. The SEC of Haryana, stated that if "all the contesting candidates individually receive lesser votes than... NOTA," then not only would "none of the contesting candidates be declared as elected," but "all such contesting candidates who secured less votes than NOTA shall not be eligible to re-file the nomination/contest the re-election."

2. It is important to note that the two SECs are within the ambit of the Constitution and various Supreme Court judgments to issue these orders for various reasons: they have powers identical to the ECI for elections that take place in their jurisdictions; they have plenary powers to issue directions in areas related to the conduct of elections where there is no specific legislation, till such time as Parliament or the State Assembly enacts such legislation; and there is no specific legislation pertaining to NOTA.

**Concluding Remarks:** 

 Experts have opined that with two SECs showing the way, the remaining SECs and the ECI should follow suit so that political parties are compelled to nominate sound candidates, and are forced to accept the will of the people, as desired by the highest court in the land.



## ECONOMY

#### 1. Agriculture Export Policy

#### Context:

• The Union Cabinet approved the Agriculture Export Policy, aimed at increasing India's exports to \$60 billion by 2022 from the current \$37 billion.

#### <u>Agenda</u>

- The policy aims to boost exports of agriculture commodities such as tea, coffee and rice and increase the country's share in global agri-trade.
- The policy would focus on all aspects of agricultural exports including modernizing infrastructure, standardization of products, streamlining regulations, curtailing knee-jerk decisions, and focusing on research and development activities.

#### <u>Details</u>

- The objectives of the policy are, apart from doubling farmers' income, to diversify the export basket and destinations, and to boost high-value and value-added exports, with a focus on perishables.
- The objective also is to provide an institutional mechanism for market access, tackling barriers, and dealing with sanitary and phytosanitary issues.
  - \* It sets out the basic rules for food safety and animal and plant health standards.
  - \* India had restricted various American agricultural products, including poultry meat, eggs, and live pigs, to prevent entry of avian influenza into India, for a period of about seven years. The US argued that such an Indian policy was discriminatory and violated WTO's Sanitary and Phytosanitary (SPS) agreement.
- The policy also aims to promote the export of "novel, indigenous, organic, ethnic, traditional and non-traditional" products
- In order to do this, the Centre will work with the State governments to create clusters that can focus on particular crops.

#### 2. Angel Tax Issue

#### **Background**

• India is the third largest Startup ecosystem in the world. Between 2014 to 2018 there have been more than 50000 ventures launched in India, which have created value of more than \$130 bn. The startups will continue to play a pivotal role in India's ambition to become a developed economy

#### Angel Investors

• They are a class of investors who invest in the startups, in the early stage of businesses. Since these are in the initial stages of take-off the institutional investors such as venture capital funds or private equity funds do not want to take the risk by investing in them. In such scenarios, it is the angel investors who invest. The angel funds are regulated by SEBI

#### But the sad part of it is that

- There are only 26 unicorns (Startup with a valuation of at least \$1 bn)
- There are only 30 soonicorns (soon to be unicorns)
- More than a third of these are headquartered outside india (though value generation will happen in India, value accretion will happen to foreign nationals as majority of them are headquartered outside India and financed by foreign investors)
- Only 10% of the investment in these is the domestic capital

#### Introduction

- · Was introduced in the 2012 finance bill
- Angel tax is imposed on the start-up companies which have received investment from the angel investor over the fair market value
- Objective was to counter money laundering (i.e. illegal money/black money being routed into the startups)
- Section 56(ii) of IT Act deems that money raised by the unlisted companies through equity investments, family, friends etc is taxable (VCs and AIFs registered under SEBI are exempt)
- Angel tax is levied at 30.9%

#### How the angel tax is calculated?

- The government/tax department calculates the fair market value of a Startup
- The private investor/equity fund etc will invest/ purchase the company based on their own valuation
- If the valuation of the investor is higher than the one made by the tax department, the government will deem the difference as an earning and will impose and collect 30.9% tax on such earnings
- The startups valuation is done under three methodologies - Discounted Cash Flows, Net Asset Value and their own methodology. The parameters looked into while calculating the valuation of the company (by the private investors/mutual funds/ equity funds/merchant bankers etc)



- \* Risk appetite of the company
- \* Earnings of the company
- \* Net present value of the company
- \* Business model, supply and demand forces related to this sector etc

#### Is it applicable to all the startups?

- The government has exempted the application of angel tax if
  - \* The total amount of investment/funds raised does not exceed ₹ 10 Cr but experts are of the opinion that this value is very less
  - \* These companies are certified as startups by the government and the net worth of the angel investor should be at least ₹ 2 Cr or the angel investor should have had ₹ 25 lakh average income in the preceding three years

#### Issues/concerns

- \* The government is asking the tax even before any tangible earnings are made (because the angel investors invest in Startup ideas or the founders). Whereas in developed economies such as US, investors to smaller companies incentivised in the form of tax benefits
- \* The government on one side is promoting Startup India, Stand Up India, Make In India etc, imposing tax on the angel funds is counterproductive
- \* 300 to 400 startups funded by angels each year. If these investments are taxed in such a way, then it may lead to capital flight
- \* The start-ups on one side are unable to raise capital from the financial institutions etc because of lack of credit history, risk involved in business model etc. on the other hand introduction of angel tax will dent their prospect of raising the angel funds
- \* Arriving at valuation is not easy because there are so many intangibles such as 'goodwill, market potential, IPs etc' whose exact value is difficult to be determined
- \* Various entrepreneurs have criticised the methodologies taken by the tax department to do the evaluation of the company. It is said that the tax officials in some cases have arrived at the valuation based on the book value (in simple terms it is the difference between the assets and liabilities of a company and this value is a historic one. Whereas the investors value and invest on the future of the company)
- \* In many of the cases, the investments were done back in 2015-16, the notices for which are being issued now. The issue is that it looks like a retrospective tax and moreover the companies have long used up this amount and have funds in the follow-on rounds

- \* Goes against the idea of promoting ease of doing business
- \* The Angel funding ecosystem is the danger of drying up. The angel investors have declined by more than 48% between 2016 to 2018 in India (i.e. from 653 to 343)
- The government exempted the tax if the total amount of investment did not exceed ₹ 10 Cr but experts are of the opinion that this value is very less
- The funds sourced from NRIs and VCs is not taxable hence there is need of giving an exemption to this funding too
- The government has announced that a panel consisting experts from IIM and IIT to look into taxation issues faced by the startups and till the issue is resolved, no angel taxes will be collected forcefully

#### 3. APIX (Application Programming Interface Exchange)

- APIX is a banking technology platform which is designed to reach two billion people all across the world who are still living without bank accounts.
- The technology platform has been designed by software experts based out of Hyderabad, Colombo and London
- The technology platform is designed to assist banking institutions to reach out the people without bank accounts in 23 nations such as 10 ASEAN members as well as major markets such as India, and small nations including Fiji

#### 4. Aviation Industry Crisis

#### What is the crisis?

The three main publicly listed airlines in the country

 IndiGo, SpiceJet and Jet Airways
 Slipped from profitability to steep losses in the first nine months of the calendar year 2018. These airlines together account for 70% of the domestic market share.

#### Why are they in trouble?

- There has been 40% increase in the cost of Aviation Turbine Fuel in the last one year. Fuel accounts for the biggest expenditure for an airline — anywhere between 30 and 40% of the total expenditure incurred.
- At the same time, the rupee has seen a consistent fall and even breached 74 to a dollar in early October 2018, though it has stabilised to a degree now.
  - \* This meant that fuel costs apart, airlines were spending more on payments made in foreign currency for engine lease rentals, and maintenance and purchase of spare parts.
- Despite this rise in operational costs, the airlines have been unable to raise fares because of stiff competition among them.



• With the constant upsurge in domestic flights, airlines have embarked on a massive fleet expansion, which means there are more seats to fill than ever before, as many of these airplanes are pressed into service on the already popular routes.

#### Losses

- As a result, by the end of September, market-leader IndiGo posted a loss of ₹6,52.1 crore — its first loss since being listed.
- The airline saw a nearly 60% rise in its expenses to ₹7,502.2 crore compared to the previous year.
- Of this, fuel expenses at ₹3,035.4 crore accounted for an almost 50% increase and the remainder was because of rupee depreciation and an inability to raise fares.
- Importantly, the cost incurred on fuel in the second quarter was double that in the same period last year.

#### What does it mean for passengers?

- An airline shutting down could impact connectivity and compress capacity on important routes and drive up airfares.
- · Air travel is no more a luxury, but a necessity, and impacts the economy. So, possible airline failures will impact the public directly and indirectly.
- However, experts say that an airline closing down is unlikely, though there could be a merger or a consolidation.

#### What lies ahead?

- According to the International Air Transport Association, the global aviation body, India will be the third biggest aviation market by 2024 after China and the U.S.
- · India is the aviation market of the 21st century and experts see a profitable future for most Indian carriers, if infrastructure, policy and regulatory framework improve.
- · So, Short-term cyclical issues are unlikely to impact the long-term strategic outlook.

#### Bogibeel

- The Bogibeel rail / road bridge is being built across the River Brahmaputra in the Dibrugarh district, in the state of Assam in north-east India.
- The 4.94km bridge is one of the longest river bridges in the country.
- The Bogibeel rail-road bridge is a double-deck bridge with a two-line railway track

### Engineering marvel

The 4.94 km Bogibeel rail-cum-road bridge is the first fully welded steel bridge of the Railways, much stronger than bolted or riveted structures, Prime Minister Narendra Modi will flag off the first train on the bridge on December 25

**UNIQUE STRUCTURE** Not a single nut or bolt has been used in constructing the steel super structure

A double-decker

of the structure structure, it will have two railway tracks on the low-120 engineers er deck and a three-lane and 300 Euroroad on the upper deck, certified welders were employed

ARC WELDING

Electric arc

welding technology

was used during the

construction process

to ensure longevity

#### EARTHQUAKE-PROOF

The bridge has seismic restrainers that can withstand earthquakes of 7 magnitude

2,000 MT of steel was used over and above the original estimate for additional strength

#### KEY BENEFIT

The bridge will help reduce the distance between Assam and Arunachal Pradesh by around 600 km

#### Significance

flanked by footpaths

- The 4.94-km-long structure, India's longest railcum-road bridge across the Brahmaputra, will help the Indian armed forces move men and material to Arunachal Pradesh in a faster manner.
- It will also benefit the Indian Railways, as it will help reduce the distance between Assam and Arunachal Pradesh by 600 km.
- The design of bridge is such that, unlike a normal steel bridge, it did not require the use of a single nut or bolt.
  - \* Bolts and rivets that are normally used in a steel bridge require periodic replacement due to shear failure over traffic loads.
- · In the Bogibeel bridge, construction of trusses using welding has made the connection between components a permanent one, eliminating the above failures
  - \* A TRUSS is basically an arrangement or framework consisting of beams, rods capable of withstanding loads
- The structure is India's first fully-welded bridge, which will protect it from harsh weather.



#### 5. E-Drishti Software

- It is an interface that has been unveiled by Ministry of Railways
- This software includes an interface which provides summary information on punctuality of trains for the previous day.
- There is also an interface which provides information on current train running on the Indian Railway network.
- In addition, there are interfaces providing details of freight earning, freight loading and passenger earnings for the previous day & month and cumulative for the year, in comparison to the corresponding period of the previous year.

#### **Significance**

- Punctuality of passenger carrying trains is being also monitored rigorously to improve punctuality performance on a daily basis
- In addition, Zonal Railways have also been advised to have better coordination with Civil and Police authorities of states to deal with situations arising out of law and order problems.

#### 6. ECO Niwas Samhita 2018

#### <u>Context</u>

• Ministry of Power has launched the ECO Niwas Samhita 2018, an Energy Conservation Building Code for Residential Buildings (ECBC-R).

#### **Details**

- It aims to benefit the occupants and the environment by promoting energy efficiency in design and construction of homes, apartments and townships.
- This Code has been prepared after extensive consultations with all stakeholders, consisting of architects & experts including building material suppliers and developers.
- The parameters listed in the Code have been developed based on large number of parameters using climate and energy related data.

#### Significance

- The Code is expected to assist large number of architects and builders who are involved in design and construction of new residential complexes in different parts of the country.
- Implementation of this Code will have potential for energy savings to the tune of 125 Billion Units of electricity per year by 2030, which is equivalent to about 100 million ton of Co2 emission.

#### National Energy Conservation Awards

• National Energy Conservation Day is celebrated every year on 14th December by Ministry of Power in association with Bureau of Energy Efficiency.

 In order to recognize the efforts of industry and other establishments towards promoting energy efficiency, on this Day, Ministry of Power organizes National Energy Conservation Awards event every year.

#### 7. Economic Capital Framework Panel by RBI

#### Context

• The RBI named former governor Bimal Jalan as the head of the expert panel that will decide on the appropriate size of reserves that the central bank should maintain and the dividend it should give to the government.

#### Economic Capital Framework

- The economic capital framework reflects the capital that an institution requires or needs to hold as a counter against unforeseen risks or events or losses in the future.
- So this basically refers to the risk capital required by the central bank while taking into account different risks. These involve
  - \* Credit Risk when there could be a potential default by an entity in which there has been an investment or exposure.
  - \* Interest Rate Risk when interest rates either move up or slide, depending on the price of which securities or bonds held by a central bank or banks can be impacted. Besides, there is
  - \* Operational Risk when there is a failure of internal processes. To measure these risks, both quantitative and qualitative methods are typically used.

#### **Background**

- The government and the RBI under the previous governor Urjit Patel had been at loggerheads over the Rs. 9.6 lakh crore surplus capital with the central bank.
- The Finance Ministry was of the view that the buffer of 28 per cent of gross assets maintained RBI is well above the global norm which is around 14 per cent.
  - \* The government believes that RBI is sitting on much higher reserves than it actually needs to tide over financial emergencies that India may face.
  - \* Some central banks around the world like US and UK keep 13% to 14% of their assets as a reserve, compared to RBI's 27% and some (like Russia) more than that.
  - \* Each central bank assesses its risk and reserve requirements according to its past experience and future likelihood of the scale and kind of crisis.



Economists in the past have argued for RBI releasing 'extra' capital that can be put to productive use by the government.

- Former chief economic adviser Arvind Subramanian had argued for it (he had mentioned Rs 4 lakh crore).
- The Malegam Committee estimated the excess (in 2013) at Rs 1.49 lakh crore.

#### Current Scenario

- The panel has been asked to study global practices and suggest if the central bank was holding reserves and buffer capital in surplus of the required
- The panel will propose a suitable profits distribution policy taking into account all the likely situations of the RBI, including the situations of holding more provisions than required.
- The RBI has also entrusted the panel to suggest an adequate level of risk provisioning that the RBI needs to maintain.

#### Examples of similar approach in the past

In the past, the issue of the ideal size of RBI's reserves was examined by three committees -- V Subrahmanyam (1997), Usha Thorat (2004) and Y H Malegam (2013).

- The Subrahmanyam committee recommended that contingency reserve should be built up to 12 per cent,
- The Thorat committee had said the reserve adequacy should be maintained at 18 per cent of the total assets.
  - \* The RBI board did not accept the recommendation of the Thorat committee and decided to continue with the recommendation of the Subrahmanyam panel.
- The Malegam committee recommended that adequate amount of profits should continue to be transferred each year to contingency reserves.

#### **RBI income and expenditure**

The RBI is a "full service" central bank — not only is it mandated to keep inflation or prices in check, it is also supposed to manage the borrowings of the Government of India and of state governments; supervise or regulate banks and non-banking finance companies; and manage the currency and payment systems. While carrying out these functions or operations, it makes profits.

- Income accrues to the RBI from
  - \* interest on its holdings of government securities,
  - \* its overnight lending to commercial banks and
  - \* The returns on its foreign currency assets.
  - \* It claims a management commission on handling the borrowings of state governments and the central government.
- Under the expenditures head, its main outgo tends to be
  - \* towards the cost of printing currency,

- \* agency commission paid to commercial banks to act on its behalf for government transactions, and
- \* The cost of employing over 17,000 staff.

#### What does the law State?

- The government nationalized RBI in January 1949, making the sovereign its "owner".
- the central bank therefore transfers the "surplus" that is, the excess of income over expenditure — to the government, in accordance with Section 47 (Allocation of Surplus Profits) of the Reserve Bank of India Act, 1934:

Out of the surplus, the RBI makes allocations to various statutory reserve funds. The controversy pertains to the policy for determining how much the RBI must maintain as statutory reserves.

- The first reserve fund is meant mainly to absorb losses from its operations in money, securities and forex markets, and to absorb shocks arising out of variations in exchange rates and gold prices
- The second reserve fund is for meeting the RBI's internal capital expenditure and investments in its subsidiaries and associated institutions.
- The surplus after allocations to the reserves as per predefined formulae is transferred every year to the government.

#### Does the RBI pay tax on these earnings or profits?

- No. Its statute provides exemption from paying income-tax or any other tax, including wealth tax.
- Section 48 (Exemption of Bank from income-tax and super-tax) of the RBI Act, 1934, says: "Notwithstanding anything contained in [the Income-Tax Act, 1961], or any other enactment for the time being in force relating to income-tax or super-tax, the Bank shall not be liable to pay income-tax or super-tax on any of its income, profits or gains.

#### Why is the transfer of surplus significant to the government?

- The quantum of surplus transferred over the past few years has been large.
- In 2015-16, the RBI passed on Rs 65,876 crore, which formed a sizeable chunk of the revenue which the government earns under the head of 'non-tax', which is mainly dividends.
- The quantum of RBI transfers has in fact, been rising progressively, and has helped the government narrow its deficit or borrowings.

## How do other central banks manage the transfer of surplus?

- Like in India, central banks in both the UK and US decide after consultations with the government.
- But in Japan, it is the government that decides.



• By and large, with a few exceptions, the quantum of surplus transfer averages around 0.5% of the GDP.

#### 8. ENSURE

#### <u>Context</u>

 Union Minister of Agriculture and Farmers launched a portal ENSURE- National Livestock Mission-EDEG developed by NABARD and operated under the Department of Animal Husbandry, Dairying & Fisheries

#### **Details**

- Under the Mission's component called Entrepreneurship Development and Employment Generation (EDEG), subsidy payment for activities related to poultry, small ruminants, pigs etc. through Direct Benefit Transfer (DBT) goes directly to the beneficiary's account.
- In order to make it better, simpler and transparent, the NABARD has developed an online portal "ENSURE" (https://ensure.nabard.org) so that the information related to beneficiary and processing of application can be made readily available.

#### Significance

- Through this process, the flow of information/funds will also be quicker and more accountable.
- The burden of extra interest due to delay in the disbursal of the subsidy would now be reduced after the launch of the portal.
- Access from the portal will also be on real-time basis and list of beneficiaries can be easily prepared.

#### 9. Farmer woes

#### **Background**

- Farmers from different parts of the country are knocking at the doors of Parliament in Delhi.
- This was led by opposition leaders and activists, nearly one lakh farmers reached Delhi. All India Kisan Sangharsh Coordination Committee, an alliance of various farmer bodies, had organised the protest called Kisan Mukti March.
- They have drawn their inspiration to protest from the Kisan Long March that took place from Nashik to Mumbai

#### What do they want?

Their sole aim was to get their demands heard, to reclaim their rural means of support, their fundamental rights, and Parliament itself. Their voice was to be heard by the legislators.

Protesting farmers demand a special session of Parliament on agrarian crisis to pass two Bills:

- One, pertaining to one-time full loan waiver,
- Two, long-term institutional measures to ensure farmers are not pushed into debt again.

• They also demand implementation of Swaminathan Commission recommendations that say the minimum support price should be fixed at 50% above the comprehensive cost of production.

Taken a step further, their mass action reflects a desire to reset the economic and political agenda of the country.

#### Coming together of diverse local issues

- Farmers from U.P. and Haryana participated as they were affected by the non-payment of dues to their Sugarcane production
- Farmers from Maharashtra and Karnataka who are facing crop failure due to an acute water crisis
- Farmers from parts of U.P. who are facing water contamination due to industrial emissions,
- farmers from Tamil Nadu who are facing crop destruction due to stray animals, climate change and rising input costs, and farmers facing indebtedness.
- · There were Dalit farmers, who are facing landlessness,
- Women farm workers who brought up the issue of unequal pay and
- Adivasi farmers who spoke about land dispossession despite having cultivated indigenously for thousands of years.

Many of these concerns were linked to corporatization of the farm sector processes.

#### **Conclusion**

- Will the urban Working class empathize and offer deeper alliances and solidarities with the rural distressed community?
- Will there be backing and assistance from the urban and middle classes if there are sensitized about plight of the farmers?
- Will it only be a short term political game or a broader picture of reassuring farmers about their sustainability?

These are questions that need an answer. The country is in the midst of a massive agrarian crisis and it is undeniable. The images of starvation and stories of farmer suicides are heart-wrenching. Gunnar Myrdal had written in his seminal work The Asian Drama, that Indian agriculture is a gamble on monsoons. That was in 1968. Sadly, even after 50 years, it is still as dependent on the vagaries of the climate.

Any movement like this which seeks answers should not be addressed by placebo governance which is evolved around doles and subsidies, but will require pondering deep into root cause and addressal of the social and economic menace.

#### 10. Flight and Maritime Connectivity Rules, 2018

 These rules will allow airlines to enter into commercial deals with telecom players to offer in-flight telecom services.



- \* The In-Flight and Maritime Connectivity (IFMC) can be provided using telecom networks on ground as well as using satellites.
- \* The services can be provided by a valid telecom licence holder in India through domestic and foreign satellites having permission of the Department of Space.
- \* The IFMC services will be activated once the aircraft attains a minimum height of 3,000 metres in Indian airspace to avoid interference with terrestrial mobile networks.
- \* The IFMC licences will be granted against annual fee of Re 1 for a period of 10 years and the permit holder will have to pay licence fees and spectrum charges based on revenue earned from providing services.
- The rules are also applicable to ships in Indian territorial waters.
- So People will soon be able to make calls and access internet through their phones during air travel and ship voyage

#### 11. Food Sustainability Index

- The Food Sustainability Index is a global study on nutrition, sustainable agriculture and food waste which collects data from 67 countries across the world to highlight best practices and key areas for improvement in relation to the food paradoxes and the main Sustainable Development Goals
- It was developed in collaboration between the BCFN Foundation and the Economist Intelligence Unit, with one common objective: to promote knowledge on food sustainability.

#### <u>The Food Sustainability Index is based on three broad</u> <u>categories:</u>

- food loss & waste,
- sustainable agriculture and
- Nutritional challenges.

It contains 38 indicators and 90 individual metrics.

- All parameters are scored on 100.
- Lower the score, less sustainable the practices are.

#### India's position among 67 countries

India's foodgrain production has been increasing steadily over the years, reaching a record level in 2018.

- Despite the increase in food production, the Food Sustainability Index ranks India 33rd among 67 countries in 2018. China does better than India, while other BRICS partners are rated poorly.
- A comparison with the global scenario indicates that India does well on preventing food loss and wastage, but is below average in sustainable agriculture and is one of the worst while tackling nutritional challenges.

India does badly on parameters like quality of life and land use patterns

#### 12. Germany rolls out world's first hydrogen train

#### <u>Context</u>

• Germany rolled out the world's first hydrogenpowered train, signaling the start of a push to challenge the might of polluting diesel trains with costlier but eco-friendly technology.

#### <u>Details</u>

- Hydrogen trains are equipped with fuel cells that produce electricity through a combination of hydrogen and oxygen, a process that leaves steam and water as the only emissions.
- Excess energy is stored in ion lithium batteries on board the train

#### **Significance**

- This makes the cells a promising energy source that produces zero emissions and very little noise.
- Though they remain pricey than the diesel train, hydrogen fuel cells have advantages over batteries. Instead of recharging, it can easily be refueled like a gas or diesel engine

#### 13. <u>ICAT Certification Launched with High Security</u> <u>Features</u>

**Context:** International Centre for Automotive Technology (ICAT) launched the Certification with high security features in order to prevent use of forged certificates.

- This is a first of its kind initiative taken by any automotive certification agency in India for enhancing the security of the CMVR certificates which includes Type Approval Certificates (TAC) and Conformity of Production (COP) Certificates for vehicles, engines and components.
- The new ICAT certificate format consists of nine new and unique security features incorporated in the certificate. Which are –
  - \* High security paper
  - \* Printing using the ultraviolet ink
  - \* Troymark
  - \* Microprint
  - \* Pantograph
  - \* Reverse Pantograph
  - \* Secure code
  - \* Print code
  - \* Digitally printed stamp and seal of ICAT

With the new high security features it will become difficult to forge or counterfeit the ICAT certificate.

ICAT is the premier certification agency authorized by Ministry of Road Transport and Highways (MORTH) for providing testing and certification services to the vehicle and component manufacturers situated within India and abroad.

## 14. Integrated Management of Public Distribution System (IM-PDS)

- It is an initiative by Ministry of Consumer Affairs, Food & Public Distribution
- The key objectives of the scheme are to integrate PDS system/portals of States/UTs with Central System/ portals, introduction of National Portability, and deduplication of ration cards/beneficiary, etc.
- The new scheme will bring more transparency and efficiency in distribution offoodgrains as it will improve the mechanism to identify fake/duplicate ration cards and provide the option to PDS beneficiaries to lift their entitled foodgrains from the Fair Price Shops of their choice at the national level.

#### 15. India's 1st Railway University

#### <u>Context</u>

 Railway Minister Piyush Goyal has dedicated India's very first Railway University at Vadodara in Gujarat to the nation

#### <u>Details</u>

- It is India's first railway university and only third such in the whole world after Russia and China.
- The university will help in creating a resource pool of skilled manpower and leverage state-of-the-art technology to provide better safety, speed and service in Indian Railways.
- The university plans to use latest pedagogy and technology applications such as satellite based tracking, Radio Frequency Identification and Artificial Intelligence to improve on-the-job performance and productivity
- The proposed university funding will entirely come from Ministry of Railways.

#### 16. <u>Kandhamal Haldi</u>

- Odisha's Kandhamal Haldi (turmeric), famous for its healing properties, will be receiving GI tag
- The golden yellow spice, named after the district where it is produced, has been cultivated since time immemorial and is known for its medicinal value.
- Apart from domestic use, turmeric is also used for cosmetic
- Turmeric is the main cash crop of tribal people in Kandhamal.

- \* More than 60,000 families (nearly 50% of Kandhamal population) are engaged in growing the variety.
- \* The crop is sustainable in adverse climatic conditions

#### 17. <u>Kisan Suvidha Mobile App</u>

- The Department of Agriculture, Cooperation and Farmers Welfare has developed Kisan Suvidha mobile application which is an omnibus mobile app developed to help farmers by providing relevant information to them quickly.
- The app has a simple interface and provides information on five critical parameters—weather (of current day and next 5 days), input dealers, market price, plant protection and expert advisories.
- An additional tab directly connects the farmer with the Kisan call centre where technical graduates answer their queries.
- To begin with, a farmer has to register the mobile number, choose a language—at present limited to Hindi and English—and enter details of the state, district and block or sub-district.

#### Weather Conditions

 A tap on the weather button shows details of temperature, humidity, wind and rainfall for the current day and the forecast for the next five days. Additionally, a farmer can get extreme weather alerts like hailstorms or unseasonal rains—a useful tool for farmers. For instance, after harvesting, farmers often leave their cereal crops in the field to dry. Prior information on freak rains can help them save their crop.

#### 18. <u>M.S. Swaminathan calls GM crops a failure; Centre's</u> adviser faults paper

#### <u>Context</u>

- The paper, 'Modern Technologies for Sustainable Food and Nutrition Security' authored by P.C. Kesavan and Prof. Swaminathan, senior functionaries of the M.S. Swaminathan Research Foundation (MSSRF describes Bt cotton as a 'failure'.
- The article is a review of crop development in India and transgenic crops — particularly Bt cotton, the stalled Bt brinjal as well as DMH-11, a transgenic mustard hybrid
- This was criticised by India's Principal Scientific Adviser (PSA), K. VijayRaghavan as 'deeply flawed'.

#### What does Mr. Swaminathan say about GM crops?

 GE (Genetically Engineered) Bt cotton has failed in India. It has failed as a sustainable agriculture technology and has, therefore, also failed to provide livelihood security for cotton farmers who are mainly resource-poor, small and marginal farmers



#### DECEMBER-2018

- The precautionary principle (PP) which needs to be applied is done away with and no science-based and rigorous biosafety protocols and evaluation of GM crops are in place.
- Swaminathan emphasised that genetic engineering technology is supplementary and must be needbased.
   Only in very rare circumstance (less than 1%) may there arise a need for the use of this technology,

THE CONTEXT

Not sustainable Arguments raised by P.C. Kesavan and M. S. Swaminathan in their paper:

 Mutations and natural selection are the predominant evolutionary mechanisms to induce variations in flowering plants

 In r-DNA technology (Genetic Engineering or GE) all the molecular and cellular events which are triggered with the insertion of texogenous DNA, are not precisely understood

 Since cost of GE seeds and inputs as in Bt Cotton are exorbitant, small farmers are unable to withstand crop losses

 The site of a gene's insertion is not controllable, and health concerns from unintended effects



 Bt cotton in India sinsertion failed to live up to and health promises in 10 years, ended effects on high yields from

### GM crops have added value to agriculture

 Genetic engineering technology has opened up new avenues of molecular breeding.

of Boligard II cotton

- However, their potential undesirable impacts will have to be kept in view. What is important is not to condemn or praise any technology, but choose the one which can take us to the desired goal sustainably, safely and economically.
- Bt in maize and cotton from 1996 to 2015 contributed to a reduction in the gap between actual yield and potential yield under circumstances in which targeted pests caused substantial damage to non-GE varieties and synthetic chemicals could not provide practical control.
- Data from a large number of peer-reviewed publications have shown that, on average, GM technology adoption has reduced pesticide use by 37%, increased crop yield by 22%, and increased farmer profits by 68%
- Data from a billion animals fed on GM corn have not indicated any health hazards. Those in the Americas and elsewhere consuming Bt corn or soybean for over 15 years have not reported any health issues.

#### **Bt Cotton Yield has increased**

- Bt cotton is not a failure in India. The yields hovering around 300 kg/ha at the time of introduction of Bt cotton (2002) have increased to an average of over 500 kg/ha, converting India from a cotton-importing country to the largest exporter of raw cotton.
- There was a small dip for a couple of years and the yield has now increased to over 550 kg/ha. The question to be asked is, what would have the yield been if Bt cotton had not been introduced in 2002

It is unfortunate that farmer distress is being wrongly attributed to Bt cotton failure. Farmers continue to grow Bt cotton. The development of resistance can be tackled through practices like Integrated Pest Management and by stacking Bt genes to fight secondary pests.

#### **Conclusion**

- India has one of the strongest regulatory protocols for field trials of GM crops.
- Many scientists have been part of the monitoring processes, and it is an insult to the integrity of our scientists to indict them.
- It needs to be evaluated on a case-by-case basis. There is definitely scope for improvement in terms of technology and regulatory protocols.

#### **Genetically Modified Brinjal**

- The genetically modified brinjal is a suite of transgenic brinjals (also known as an eggplant or aubergine) created by inserting a crystal protein gene (Cry1Ac) from the soil bacterium Bacillus thuringiensis into the genome of various brinjal cultivars.
- The insertion of the gene, along with other genetic elements such as promoters, terminators and an antibiotic resistance marker gene into the brinjal plant is accomplished using Agrobacterium-mediated genetic transformation.
- he Bt brinjal has been developed to give resistance against lepidopteron insects, in particular the Brinjal Fruit and Shoot Borer (Leucinodes orbonalis)(FSB).
- Mahyco, an Indian seed company based in Jalna, Maharashtra, has developed the Bt brinjal.

#### 19. National Consumer Day

- Every Year 24th December is observed as National Consumer Day
- Theme: "Timely Disposal of Consumer Complaints"
- On this day the Consumer Protection Act, 1986 had received the assent of the president. The enactment of this Act is considered as a historic milestone in the consumer movement in the country.

#### 20. <u>Nine Point Agenda Suggested By India to G-20 for</u> Action against Fugitive Economic Offences and Asset <u>Recovery</u>

- Strong and active cooperation across G-20 countries to deal comprehensively and efficiently with the menace fugitive economic offenders.
- Joint effort by G-20 countries to form a mechanism that denies entry and safe havens to all fugitive economic offenders.
- Cooperation in the legal processes such as effective freezing of the proceeds of crime; early return of the offenders and efficient repatriation of the proceeds of crime should be enhanced and streamlined.



Call or WhatsApp 09980837187 for guidance

#### DECEMBER-2018

- Principles of United Nations Convention against Corruption (UNCAC), United Nations Convention against Transnational Organized Crime (UNOTC), especially related to "International Cooperation" should be fully and effectively implemented.
- FATF should be tasked to formulate a standard definition of fugitive economic offenders.
- FATF should also develop a set of commonly agreed and standardized procedures related to identification, extradition and judicial proceedings for dealing with fugitive economic offenders to provide guidance and assistance to G-20 countries, subject to their domestic law.
- FATF should be called upon to assign priority and focus to establishing international co-operation that leads to timely and comprehensive exchange of information between the competent authorities and FIUs.
- Common platform should be set up for sharing experiences and best practices including successful cases of extradition, gaps in existing systems of extradition and legal assistance, etc.
- G-20 Forum should consider initiating work on locating properties of economic offenders who have a tax debt in the country of their residence for its recovery.

#### 21. Okun's law

- This refers to an empirical relationship between an economy's growth rate and its unemployment rate.
- Okun's law states that when an economy grows at an annual rate of over 3%, its unemployment rate will fall at a rate that is equal to half the number of percentage points by which the growth rate exceeds 3%.
  - \* For instance, if an economy grows by 5%, its unemployment rate will drop by 1%.
  - \* By the same logic, the unemployment rate will rise proportionately if an economy's growth rate falls below the threshold of 3%.
- It is named after American economist Arthur Melvin Okun.
- Okun's law may more accurately be called "Okun's rule of thumb" because it is an approximation based on empirical observation rather than a result derived from theory.
- The law has been criticised for its strict mathematical view of complex economies.

#### 22. Pokkali Paddy

- It is a saltwater-tolerant paddy grown in the coastal fields of Alappuzha, Ernakulam and Thrissur districts.
- It is known for its taste and high protein content
- It has been awarded with GI tag
- Many medicinal properties are also attributed to this rice.

#### Cropping Season

- Paddy is grown during June to October (120 days maturity period) followed by shrimp farming during November to April.
  - \* After the harvest, the paddy stubble in the fields acts as food and shelter for shrimp and small fish.
  - \* Fish excreta and scales, along with the decomposed stubble, provide excellent natural manure for another season of Pokkali.
- So Pokkali farming is a system in which paddy and shrimp are grown alternately in the same field.

#### Concerns

- The variety is now grown in only over 5,000 hectares, a drop from over 25,000 hectares a few decades ago, due to high labour cost and poor returns.
- Large amount of manual labour is required since no specialised equipment or machinery is available for this
- Various reasons such as lack of labour, costly manpower, pollution from nearby industries contaminating the pokkali fields, widespread attack of viral infection to the shrimps are some of the problems

#### 23. <u>PCS 1x</u>

#### <u>Context</u>

 Indian Ports Association (IPA), under the guidance of Ministry of Shipping launched the Port Community System 'PCS1x'.

#### <u>Details</u>

- 'PCS 1x' is a cloud based new generation technology, with user-friendly interface. This system seamlessly integrates 8 new stakeholders besides the 19 existing stakeholders from the maritime trade on a single platform
- The platform offers value added services such as notification engine, workflow, mobile application, track and trace, better user interface, better security features, improved inclusion by offering dashboard for those with no IT capability.
- A unique feature of 'PCS1x' is that it can latch on to third party software which provides services to the maritime industry thereby enabling the stakeholders to access wide network of services.
- The system enables single sign on facility to provide one stop interface to all the functionalities across all stakeholders. Another major feature is the deployment of a world class state of the art payment aggregator solution which removes dependency on bank specific payment eco system



#### <u>Significance</u>

- This system will enable trade to have an improved communication with the customs as they have also embarked on Application Programming Interface (API) based architecture, thereby enabling real time interaction.
- This System offers a database that acts as a single data point to all transactions. It captures and stores data on its first occurrence thereby reducing manual intervention, the need to enter transaction data at various points and thereby reducing errors in the process

#### 24. Punganur Cow

#### <u>Context</u>

 The Punganur cow which is considered to be one of the world's smallest breeds of cattle is said to be on the verge of extinction due to cross-breeding being conducted by farmers, according to livestock journals.

#### **Details**

- The first to highlight the breed's vulnerable status was in 1936 by R.W. Littlewood in the book 'Livestock of South India'
- The Food and Agriculture Organisation (FAO) and the Animal Genetic Resources also list the breed as facing extinction.

#### **Features**

- The Punganur cow is diminutive, with a height of 70 cm to 90 cm and weighing around 115 to 200 kg.
- In comparison, the famous Ongole bull stands tall at 1.70 metres and weighs 500 kg.
- Both breeds trace their origins to Andhra Pradesh.
- The TTD also has several Punganur cows, whose milk is used to prepare ghee which is offered as 'archana' to Lord Venkateswara.

#### Conservation efforts

- The Livestock Research Station (LRS) at Palamaner in Chittoor district is said to be the last bastion of the breed. LRS has instituted a programme to conserve the breed.
- Animal genetics and breeding scientists from the NTR University of Veterinary Sciences in Gannavaram are now engaged in efforts to save the unique breed from extinction.

#### 25. Qatar quits OPEC

#### <u>Context</u>

 Qatar — among the world's smallest countries by area and the richest in terms of per capita gross national income (\$128,000 or Rs 90 lakh, according to World Bank figures) — announced it was walking away from OPEC, a cartel of 15 countries that produce about 45% of the world's oil and contain over 80% of its "proven" reserves.

#### Organisation of the Petroleum Exporting Countries (OPEC)

- OPEC an intergovernmental organisation was founded in 1960 by Saudi Arabia, Iraq, Iran, Kuwait, and Venezuela. Qatar joined in 1961.
- Some of the world's biggest oil producers do not belong to OPEC. Among them: Canada, China, Mexico, Norway, Russia, and the United States itself.
  - \* And although not a single European nation is an OPEC member, the organization maintains its headquarters in Vienna, Austria.
- OPEC's World Oil Outlook (WOO) is part of the Organization's commitment to market stability.
  - \* The publication is a means to highlight and further the understanding of the many possible future challenges and opportunities that lie ahead for the oil industry
- The stated mission of the organisation is to "coordinate and unify the petroleum policies of its member countries and ensure the stabilization of oil markets, in order to secure an efficient, economic and regular supply of petroleum to consumers, a steady income to producers, and a fair return on capital for those investing in the petroleum industry."
- The formation of OPEC marked a turning point toward national sovereignty over natural resources,
- The OPEC members are the following: Algeria, Angola, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Republic of the Congo, Saudi Arabia (the de facto leader), United Arab Emirates, Ecuador and Venezuela (From South America)
- Saudi Arabia dominates the cartel. OPEC has a very big influence on global oil prices, which play a crucial role in determining the economic health of many countries, including India.
- Indonesia is a former member, and Qatar will no longer be the member of OPEC starting on 1 January 2019





#### Why has Qatar left OPEC?

- Qatar denied there were political reasons for leaving OPEC
- Qatar wanted to focus on its gas industry rather than on oil, in which it was in any case a small player. Qatar's riches are due to its natural gas reserves, and it is the world's largest exporter of liquefied natural gas (LNG).
- Qatar wants to focus on gas production because Australia is threatening to dethrone Qatar as the world's biggest LNG seller as it ramps up production of the gas that is cooled to liquid to be transported by ships.
- Qatar plans to boost its LNG output to 110 million tonnes per year from its current 77 million tonne annual output.

#### Is Qatar the first country to leave OPEC?

- Qatar is the first Middle Eastern country to leave OPEC, but other countries have come and gone.
- Indonesia, which first joined the organisation in 1962, suspended its membership in January 2009, then reactivated it in January 2016, only to leave again in November 2016. Dwindling production from the Asian state contributed to its decision.
- Ecuador, which became a member in 1973, suspended its membership in December 1992 but then joined again in October 2007. Gabon, which entered the organisation in 1975, terminated its membership in January 1995 but came back in July 2016.

#### What is Saudi's problem with Qatar?

- Qatar has long showed an independent mind in foreign policy that does not always align with the priorities of its regional Arab neighbours. This includes having a close economic and diplomatic relationship with Shia Iran, Sunni Saudi's great regional rival.
- In 2017, Saudi Arabia, UAE, and Bahrain cut ties with Qatar, directed Qatari citizens to leave within 14 days, and forbade their citizens from going to or staying in Qatar.
- Egypt too severed diplomatic contact with Doha, and all of them shut their airspace to Qatari aircraft, and told foreign airlines to seek permission if flying to and from Qatar.
- Saudi sealed Qatar's only land border, and closed its ports to Qatari-flagged ships.
- Riyadh claimed Qatar had refused to end ties with "terrorists", after Doha declined to fulfil 13 demands that were presented to it, including cutting diplomatic relations with Tehran and military ties with Turkey, shutting down the TV station Al Jazeera, and aligning with other Arab countries "militarily, politically, socially and economically".

- \* Qatar said the demands amounted to "surrendering our sovereignty", which it would "never" do.
- Doha has backed the Muslim Brotherhood and Hamas, but it is also part of the US-led war on the Islamic State, and has assisted the rebels fighting Bashar al-Assad's regime in Syria

#### Will Qatar leaving OPEC impact global oil prices?

- Not quite. Qatar is a tiny player that pumped 609,000 barrels a day in October, only 2% of OPEC's total output of 32.9 million barrels per day.
- However, over the last many decades, it has played a role mediating internal rivalries in OPEC and striking production-cut deals with producers like Russia. This is where its absence may hurt OPEC a bit.

#### Will India be impacted by the departure in any way?

- Qatar has limited influence on OPEC's pricing decisions.
- From India's perspective, its position as the world's top LNG exporter (annual production of 77 million tonnes per year) and an influential player in the global LNG market is more pertinent.
- Qatar is one of India's oldest LNG suppliers, with Petronet LNG among the companies that have contracted to buy LNG from Qatar.
- But LNG pricing is not in OPEC's domain, so Qatar's decision is unlikely to impact these trends.

#### 26. Rat-Hole Mining

#### <u>Context</u>

- The collapse of a coal mine in Meghalaya's East Jaintia Hills, trapping at least 15 workers and killing few has thrown the spotlight on a procedure known as "rathole mining".
- The miners were trapped after water from the nearby Lytein river gushed into the horizontal manholes

#### What is it?

- Rat-hole mining involves digging pits ranging from 5 to 100 metres deep vertically into the ground, mostly on a hill side, like a narrow well, to reach the coal seam. These pits are so narrow that only one miner can enter at a time. A small room-sized area is dug out at the bottom. From this area, miners dig tunnels sideways to reach the coal seam and extract it.
- The coal from the tunnel or pit is taken out and dumped on nearby un-mined area from where it is carried to the larger dumping places near highways for its trade and transportation.
- These rat-hole mines are spread throughout Meghalaya, but are mostly concentrated in the Jaintia Hills, the South Garo Hills around the towns of Baghamara and Nangalbibra, and the area around Nongjri and Shallang in the West Khasi Hills.



#### Rat-hole mining is broadly of two types

- In side-cutting procedure, narrow tunnels are dug on the hill slopes and workers go inside until they find the coal seam. The coal seam in hills of Meghalaya is very thin, less than 2 m in most cases
- In the other type of rat-hole mining, called boxcutting, a rectangular opening is made, varying from 10 to 100 sq m, and through that is dug a vertical pit, 100 to 400 feet deep. Once the coal seam is found, rat-hole-sized tunnels are dug horizontally through which workers can extract the coal.

#### When was it banned, and why?

- The National Green Tribunal (NGT) banned it in 2014, and retained the ban in 2015, on grounds of it being unscientific and unsafe for workers.
- The state government has appealed the order in the Supreme Court.

#### **Concerns**

- Rat-hole mining in Meghalaya had caused the water in the Kopili river (it flows through Meghalaya and Assam) to turn acidic.
  - \* The water is severely affected by acid mine drainage originating from mines and spoils, leaching of heavy metals, organic enrichment and silting by coal and sand particles.
  - \* The water also has high concentration of sulphates, iron and toxic heavy metals, low dissolved oxygen (DO) and high BOD, showing its degraded quality
- Entire roadsides in and around mining areas are used for piling of coal which is a major source of air, water and soil pollution.
- Off road movement of trucks and other vehicles in the area causes further damage to the ecology of the area
- It is also informed that there are umpteen number of cases where by virtue of rat-hole mining, during the rainy season, water flooded into the mining areas resulting in death of many... individuals including employees/workers

#### Violation of Laws

- The state government has been mum about the fact that mine workers work in the most inhumane conditions.
- The NGT found that mine owners don't implement the rules of safe mineral exploration in rat-hole mining, despite the increase in the number of reported deaths of labourers.
- Also, non-implementation of the mineral policy and relevant labour laws has enabled mine owners to completely ignore miners' safety, all to make a quick buck.

#### 27. SDG index

#### <u>Context</u>

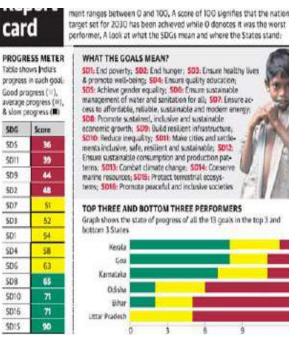
 According to the report released by NITI Aayog, which says Himachal Pradesh, Kerala, and Tamil Nadu have been ranked highest in terms of being on track to achieve the United Nations' Sustainable Development Goals (SDG).

#### <u>Aim</u>

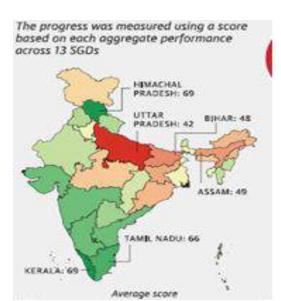
• The aim of the index is to instill competition among States to improve their performance across social indices as the States' progress will determine India's progress towards achieving the set goals by 2030

#### <u>Details</u>

- The index comprises a composite score for each State and Union Territory based on their aggregate performance across 13 of the 17 SDGs.
  - \* Four goals, including climate action and sustainable use of marine resources, were left out because of lack of data at the state level.
- The score, ranging between 0 and 100, denotes the average performance of the State/UT towards achieving the 13 SDGs and their respective targets. The average Indian score was 57.
- The SDG Index Score for Sustainable Development Goals 2030 ranges between 42 and 69 for States and between 57 and 68 for UTs







#### 28. Soil Health Card Scheme

- Soil Health Card (SHC) is a Government of India's scheme promoted by the Department of Agriculture & Co-operation under the Ministry of Agriculture and Farmers' Welfare.
- A SHC is meant to give each farmer soil nutrient status of his/her holding and advice him/her on the dosage of fertilizers and also the needed soil amendments, that s/he should apply to maintain soil health in the long run.

#### What is a Soil Health Card?

- SHC is a printed report that a farmer will be handed over for each of his holdings.
- It will contain the status of his soil with respect to 12 parameters, namely
  - \* N,P,K (Macro-nutrients);
  - \* S (Secondary- nutrient) ; Zn, Fe, Cu, Mn, Bo
  - \* (Micro nutrients) ; and pH, EC, OC (Physical parameters).
- Based on this, the SHC will also indicate fertilizer recommendations and soil amendment required for the farm.

#### Will the farmer get a card every year and for every crop?

- It will be made available once in a cycle of 3 years, which will indicate the status of soil health of a farmer's holding for that particular period.
- The SHC given in the next cycle of 3 years will be able to record the changes in the soil health for that subsequent period.

#### 29. Startup India Venture Capital Summit

#### <u>Context</u>

• The Department of Industrial Policy and Promotion (DIPP) in the Ministry of Commerce and Industry and the Government of Goa, is hosting the annual Startup India Venture Capital Summit

#### <u>Details</u>

- The theme of the Summit is 'Mobilizing Global Capital for Innovation in India.'
- The event will showcase the Indian startup opportunity for funds from around the world. The summit aims to attract more global capital into the country.
- The event will enable a dialogue between Government and experienced Venture Capital fund managers on ways to further promote the startup ecosystem in India.
- The focus of the Summit is on the huge returngenerating potential of India's vast and diverse market monetized through cutting-edge technologies and supported by investor-friendly regulations.
- The key objectives of the Summit will be to showcase the India opportunity, increase capital flow for Indian startups and further promote ease of doing business.

#### 30. State startup Ranking Report, 2018

#### <u>Context</u>

 The Department of Industrial Policy and Promotion (DIPP) has announced results of the first ever States' Start-up Ranking 2018

#### **Details**

- The key objective of the exercise was to encourage States and Union Territories to take proactive steps towards strengthening the Start-up ecosystems in their states.
- The methodology has been aimed at creating a healthy competition among States to further learn, share and adopt good practices.
- The entire exercise was conducted for capacity development and to further the spirit of cooperative federalism
- States have been identified as leaders across various categories such as Start-up policy leaders, incubation hubs, seeding innovation, scaling innovation, regulatory change champions, procurement leaders, communication champions, North-Eastern leader, and hill state leader.

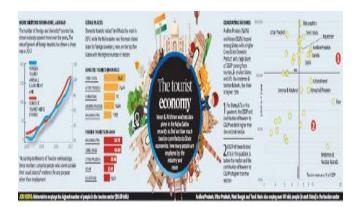


On the basis of performance, the States have been recognised as the Best Performer, Top Performers, Leaders, Aspiring Leaders, Emerging States and Beginners, as follows:

Best performer	States Gujarat	Percentile
Top performers	Karnataka, Kerala, Odisha and Rajasthan	85 to 100
Leaders	Andhra Pradesh, Bihar, Chhattisgarh, Madhya Pradesh and Telangana	70 to 85
Aspiring leaders	Haryana, Himachal Pradesh, Jharkhand, Uttar Pradesh and West Bengal	50 to 70
Emerging states	Assam, Delhi, Goa, Jammu & Kashmir, <b>Maharashtra</b> , Punjab, Tamil Nadu and Uttarakhand	25 to 50
Beginners	Chandigarh, Manipur, Mizoram, Nagaland, Puducherry, Sikkim and Tripura	More or less equal to 25

SOURCE: STATE STARTUP RANKING REPORT, 2018 RELEASED BY DIPP

#### 31. Tourism Economy



#### 32. Urjit Patel Resigns as RBI Governor

#### <u>Context</u>

• Reserve Bank of India Governor Urjit Patel has resigned from his post, making him the first governor since 1990 to step down before his term ends. Patel's three-year term was to end in September 2019.

#### Structure of RBI

- The RBI has four deputy governors and typically two are from the outside, of which traditionally one is a commercial banker and the other an economist.
- The two others are promoted from within the central bank's ranks.
- A central bank Deputy Governor can be appointed for a term with a maximum of five years or till the age of 62, whichever is earlier.

#### **Background**

• The Centre and the RBI were engaged in an unseemly tussle over a clutch of issues that had a bearing on the RBI's autonomy, something that Mr. Patel had sought to preserve and that which was never sorted.

#### Flurry of resignations

 It is bound to raise questions about the Centre's ability to work with independent-minded economists, coming as it does following the departures of former RBI Governor Raghuram Rajan, who was at odds with the Centre on many issues, and the sudden resignations of Niti Aayog Vice-Chairman Arvind Panagariya and Chief Economic Adviser Arvind Subramanian.

#### Implications

- Patel's resignation is disturbing also because it can have a negative impact on the top RBI team, particularly Deputy Governor Viral Acharya, who was Patel's choice and who had made the speech warning the government of adverse consequences if the central bank's autonomy were to be undermined.
- Raghuram Rajan pointed out, when a public servant resigns, it is a sign of protest and calls for suitable working environment and independence for working.
- The incoming Governor is bound to be judged, among other things, by perceptions about his independence.
  - \* Global investors and the markets are already on edge, and they will be keenly watching, how the Centre handles this self-created crisis.
- Moody's credit rating agency has said independence of central bank is an important consideration of its assessment of a country's institutional strength.
  - \* The independence of a country's central bank is an important consideration in our assessment of a sovereign's institutional strength
- Most market participants are of the view that investors, especially institutional, would look at the development as a corroboration of the growing rift between the central bank and the government — a sign not healthy to the financial markets.
- When governments are in charge of monetary policy, they're tempted to take chances with inflation to spur short-term growth.
  - \* An independent central bank can more readily gain investors' trust that inflation will be kept under control

#### Examples from the past

- Urjit Patel is the fifth RBI Governor in independent India to have resigned from his post before his term was over.
- The first RBI Governor to do so was Benegal Rama Rau who was Governor from 1949 to 1957 because of his differences with then Finance Minister T.T. Krishnamachari.



- The next such incident was KR Puri, who served as Governor for only a little more than a year and a half between 1975 and 1977. Puri was appointed by Prime Minister Indira Gandhi and subsequently removed when the Janata government took over.
- RN Malhotra was appointed as Governor in 1985 and in 1988 was given a three- year extension. Under normal circumstances, his term would have ended in 1991, but he resigned in 1990 after it was conveyed to him that the government wanted him out.
- Bimal Jalan, who was Governor from November 1997 to September 2003, also cut short his extended term as he took over a Rajya Sabha seat at the time.
- However, the precedent for an RBI Governor resigning was set before Independence, when the first Governor, Sir Osborn Smith resigned in 1937 due to differences with the Finance Member of the Viceroy's Council.

#### **Conclusion**

- The RBI cannot be treated as if it is just another government department.
- The Centre will now need to demonstrate that a post-Patel central bank will continue to enjoy operational autonomy. Anything less will not go down well with both investors and the markets.

#### 33. World Customs Organization (WCO)

- It is an intergovernmental organization headquartered in Brussels, Belgium
- It was established in 1952 as the Customs Co-operation Council (CCC) is an independent intergovernmental body whose mission is to enhance the effectiveness and efficiency of Customs administrations.
- As the global centre of Customs expertise, the WCO is the only international organization with competence in Customs matters and can rightly call itself the voice of the international Customs community.
- The WCO is noted for its work in areas covering the development of international conventions, instruments, and tools on topics such as commodity classification, valuation, rules of origin, collection of customs revenue, supply chain security, international trade facilitation, customs enforcement activities, combating counterfeiting in support of Intellectual Property Rights (IPR), drugs enforcement, illegal weapons trading, integrity promotion, and delivering sustainable capacity building to assist with customs reforms and modernization.
- The 'Revised Kyoto Convention' (RKC) is the legal instrument of the WCO that aims to simplify and harmonize international customs procedures globally, in order to achieve faster, more predictable and efficient customs clearances.

#### <u>Structure</u>

- The WCO has divided its Membership into six Regions. Each of the six Regions is represented by a regionally elected Vice-Chairperson to the WCO Council
- The supreme body is the Council of WCO and its Council Session is held annually at Brussels which is attended by the Heads of Customs/Directors General of all the member administrations.
- The second highest body is the Policy Commission, which meets twice a year, once at the WCO headquarters at Brussels just before the Council Session and once in December, hosted by a member administration.
- The work being done by various Committees, Working Groups and Directorates in WCO is monitored and approved by the Policy Commission, which comprises countries from the six regions of WCO, which are nominated for two years.

#### <u>Context</u>

 The 80th Session of the Policy Commission of the World Customs Organization (WCO) meeting is being organized by the WCO and hosted by the Central Board of Indirect Taxes and Customs (CBIC), India in Mumbai

#### 34. World's tallest railway bridge at Noney in Manipur.

- The Northeast Frontier Railway Construction Organisation has put in place the pier near Manipur's Noney for the tallest railway bridge in the world.
- The bridge, across the valley of river Ijai, is part of the 111-km Jiribam-Tupul-Imphal project. Once completed, it will have a pier height of 141 metres which is set to be completed by 2022.
  - \* There are total 45 tunnels in the project, the longest tunnel being 10.280 km long, which will be the longest railway tunnel in the northeast.
  - \* The piers of the bridge are constructed using hydraulic augers, the tall piers needed specially designed "slip-form technique" to ensure efficient and continual construction.
  - \* Self-erecting electric lifts at each pier cater to the safe and speedy conveyance of men and materials to the top. The steel girders are pre-fabricated in a workshop, transported in segments and erected at site by cantilever launching scheme.
- The record for the tallest railway bridge is now held by the 139-m Mala Rijeka viaduct, Montenegro.



Categories	India score	World avg.
1) Food loss	72.7	71.4
2) End-user waste	98	63.8
3) Water	72.1	74.9
4) Land (land use, biodiversity, human capital)	57.2	55.7
5) Air (GHG emissions)	71.3	78,4
6) Life quality*	32.3	71.7
7) Life expectancy	72.3	61.4
8) Dietary patterns	59.7	51.7

#### 35. Shaktikanta Das appointed RBI Governor

<u>Context</u>

 With the resignation of Urijit Patel the Appointments Committee of the Cabinet has approved the appointment of Shri Shaktikanta Das, IAS Retd., former Secretary, Department of Economic Affairs, as Governor, Reserve Bank of India, for a period of three years

#### <u>Profile</u>

- Das, a 1980 officer of the Indian Administrative Service from Odisha, belongs to the Tamil Nadu cadre and successfully led the industrialization of the state as its industry secretary.
- He has served as Secretary Revenue and subsequently Economic Affairs in the Ministry of Finance, Mr. Das is currently a member of the Fifteenth Finance Commission

#### 36. Amenities on National Highways

- NHAI is constructing Highway Nests (Mini) at toll plazas for convenience of highway users for their safe and comfortable journey.
- It has provision of kiosks for sale of dry snacks, tea and coffee vending machine and water ATM etc.
- In addition, there is a provision of Ladies and Gents toilets at Toll plazas of NHAI for convenience of Highway users.

- NHAI has issued directions to all its Regional Officers that the construction/operation & maintenance of Highway Nests (Mini) may be awarded to State Government managed State Co-operative Societies interested in running these facilities for road users.
- As part of incident management under operation and maintenance of the NH stretches, Highway ambulances are deployed in their respective service area to extend assistance in case of any emergency on National Highways.

#### 37. Coffee growers hit by sharp decline in prices

#### <u>Context</u>

• A steep fall in the price of Robusta coffee has been reported during the harvest season

#### **Reasons behind the fall**

- There was bumper coffee production in Brazil which is a major coffee-producing country
- Vietnam has increased its production this year owing to favourable climate in coffee growing areas
- Sharp decline in coffee production is also due to rain and flood-related calamities in Kerala and Karnataka have also put growers in distress.
  - \* Heavy rains triggered spread of diseases such as black rot disease, heavy berry dropping due to fungal infections and melee bugs, adversely affecting production.

#### 38. RBI mulls cooling-off period for its retired top officials

#### <u>Context</u>

• The Reserve Bank of India (RBI) has come up with a new norm for its top officials who want to take up the job of a chairman or chief executive of any other entity, post retirement.

#### <u>Details</u>

- The RBI has mandated a three-year cooling-off period for retired officials before they can take over as chairman or chief executive of any other entity
- However, to join as a director of any company's board, the one-year cooling period mandate continues.
- This new rule was taken up citing global best practices

#### **Examples**

- G. Padmanabhan, who retired as RBI's Executive Director in 2015 joined as the non-executive chairman of Bank of India
- Shyamala Gopinath, who retired from the RBI as Deputy Governor in 2011, became the non-executive chairman of HDFC Bank in 2015.
- Bandhan Bank's board has recently cleared the appointment of former RBI Deputy Governor H.R. Khan as its non-executive chairman. Mr. Khan had retired as Deputy Governor in July 2016.



#### 39. Farmers need more than loan waivers

#### <u>Context</u>

- During the recent assembly elections, farm loan waivers became a populist way of appeasing the voters and the new governments in Rajasthan, Madhya Pradesh and Chhattisgarh have announced massive farm loan waivers.
- Last year, Uttar Pradesh, Maharashtra, Karnataka and Tamil Nadu announced waivers as a stop-gap measure to address agrarian distress. Andhra Pradesh, Odisha and Haryana are likely to announce similar sops ahead of elections.
- Such populist measures alone cannot be a permanent solution to mounting agrarian distress which is an outcome of structural problems in the agriculture sector.
- Post the economic reforms of 1991, Indian agriculture has been facing multiple crises. The rising pressure of population and fragmentation of land holdings, failure to shift the workforce away from agriculture, rising input costs, poor logistics etc. have adversely affected small and marginal farmers.

#### Why do farmers want more?

- Rising input costs, fluctuation in prices, drop in income and increasing cases of indebtedness among small and marginal farmers has resulted in a spate of farmers committing suicides over the years.
- The current market system imposes a doubly squeeze on a large number of small and marginal farmers as they are suffering from high input costs and low income.
- Some experts believe it is the responsibility of the government to waive farm loans, but insist that it can only be a "stopgap" arrangement.
- They argue that until the structural problems related to production, weather related disasters, price, credit and market are addressed, loan waivers are to be used as an instrument for offering temporary relief to distressed farmers.

#### What is the stand of the government?

- NITI Aayog has pointed out that writing off loans is not a lasting solution to the problem of agrarian distress as this step only helps a small number of farmers.
- According to the NITI Aayog the number of farmers, especially the small and marginal who avail themselves of institutional loans, are very few and this is the reason that even after spending huge sums of money on loan waivers not even half the farmers are benefiting.
- In some of the States, not even 25% of farmers get loans from institutional sources.

 A NITI Aayog study has established that the farmers use the waiver to reduce household debt and it only helps in sustaining the distressed family with no measurable improvement in agricultural productivity. Thus the core problems plaguing agriculture are not addressed.

#### Way Forward

- As an interim measure, farmers need to be freed of their abuse by middlemen and money lenders by reforming the rent seeking, anti-farmer commission agent system.
- The interlocking of the credit and the output markets is a major factor for the crises of indebtedness.
- The system of making payments through the commission agent needs to be dismantled to break the credit-crop nexus.
- As a permanent solution to agrarian distress, the government should provide agro-processing industry a policy push to pull rural people out of agriculture.
- In the long run, there's an urgent need for integration of agriculture with thee industry, and that too with the involvement of the local manpower in such a manner that surpluses should be invested locally.
- The subsidies and tax benefits given to the corporate sector should be given to rural entrepreneurs who are willing to setup food processing and agro-processing firms that will process local raw materials and employ rural manpower. The transformation is achievable if primary producers are integrated with both manufacturing and marketing activities for reaping the surpluses generated by them.

#### 40. <u>Strange Deal</u>

#### <u>Context</u>

 The Department of Industrial Policy & Promotion issued a clarification to the existing rules pertaining to Foreign Direct Investment in e-commerce companies.

#### <u>Before we go into the details, let us we understand some</u> basic

- E-commerce companies can operate under two different models in India.
- The first is the marketplace model where the e-commerce firm simply acts as a platform that connects buyers and sellers. FDI is allowed in e-commerce companies in this model.
- The second model is inventory-based where the inventory of goods sold on the portal is owned or controlled by the e-commerce company. FDI is not allowed under this model.
- What has been happening is that large e-commerce companies such as Amazon and Flipkart, while not owning inventory themselves, have been providing a platform for their group companies such as CloudTail and WS Retail respectively.



 Some see this as skewing the playing field, especially if these vendors enjoyed special incentives from the e-commerce firm, over others. These controlled or owned vendors may then be able to offer discounts to customers that competitors may not be able to match.

#### Clarifications by DIPP

- Vendors that have any stake owned by an e-commerce company cannot sell their products on that e-commerce company's portal.
- Vendor who purchases 25% or more of its inventory from an e-commerce group company will be considered to be controlled by that e-commerce company, and thereby barred from selling on its portal.
- This provision aims to ensure that vendors in which marketplaces, such as Amazon, have a stake do not sell the bulk of their items to a third-party vendor who then goes on to sell those items on the e-commerce marketplace.
- In other words, the provision seeks to deny control by the marketplace entity over vendors. The third major provision says the e-commerce firm will not be allowed to influence the price of a product sold on its portal by giving incentives to particular vendors.

#### Who benefits?

- The thrust of the DIPP policy is directed at protecting small vendors on e-commerce websites.
- It seeks to ensure small players selling on the portals are not discriminated against in favour of vendors in which e-commerce companies have a stake.
- The Confederation of All India Traders welcomed this move as it feels the new set up will ensure a level playing field for all vendors looking to sell on the e-commerce portals. Smaller marketplaces that do not have stake in any vendors will also be able to now compete with the big daddies.

#### Who else will be affected?

- The main players to be affected will be group companies and affiliates of the biggest e-commerce platforms, Amazon and Flipkart. These include CloudTail, WS Retail, Myntra and private label brands such as Amazon Basics and Flipkart's MarQ and to some extent the private label business of online marketplace operator ShopClues.
- The provision that bars companies in which e-commerce firms have a stake — from selling on their portals will hurt start-ups as well, since many of these will be barred from selling due to minor equity stakes being held by the e-commerce companies.

#### Where will Amazon now sell its own products such as Kindle and Amazon Echo?

 The verdict on this is unclear. FDI in single-brand retail is allowed in India, so if Amazon has a licence for single-brand retail, it can sell its own products on its portal. Or vendors like Tata Croma, for example, may buy these products from Amazon and sell them on its portal.

#### Is it the end of discounts?

- Discounts will not go away. Earlier, Amazon used to give discounts through CloudTail, but now it would have to give discounts through other sellers as well.
- That is, e-commerce firms will have to ensure a level playing-field among their vendors. They can still promote their own portals by offering cashback offers and vouchers, but these will have to apply to purchases from all vendors.

### Will a vendor be unable to sell on a marketplace, if the latter holds any stake in the vendor?

• Experts agree that this provision will likely be amended, with a benchmark equity percentage being set. That is, the rules may be changed such that a vendor with more than a certain stake owned by an e-commerce firm cannot sell on that portal, rather than the current wording that says 'any stake'.

#### Analysis of the issue

- The Centre's curiously timed attempt to 'clarify' foreign direct investment norms for e-commerce players could end up scuttling investor interest in the sector that has attracted large foreign players and generated thousands of jobs.
- The fresh restrictions and the clarifications on certain operational aspects could reinforce investor complaints about India being unpredictable in terms of policies.
- The policy, to kick in from February 1, 2019, could require a major overhaul in the business model and shareholding structures of such players. For instance, earlier a single vendor or its group firms couldn't account for over 25% of sales in a marketplace; now the rules bar sales by any entities where the e-com firm has an equity stake.
- A vendor's inventory will be deemed to be controlled by the e-com player if more than 25% of its purchases are from the latter or related firms. It's not clear how this change will help meet the principle enunciated in the policy note — fairness and the creation of a nondiscriminatory, level playing field.
- Separately, any specialised back-end support for some sellers must now be extended to all vendors, while discounts, cash-backs and preferential subscription services have been made far trickier to implement.



• An e-commerce marketplace entity will not mandate any seller to offer a product exclusively on its platform under the new rules. But this doesn't explain what to do when a seller voluntarily opts to sell exclusively on one e-commerce portal over another.

#### **Conclusion**

- The government is clearly keen to quell the longbrewing disquiet among offline retailers over big discount sales and the surge in e-commerce. Yet, it could have waited for the recommendations of a national e-commerce policy task force set up this April.
- That task force could trigger more policy shifts. India's retail FDI policy remains muddled — with the debate now focusing on online vs offline trade as opposed to big vs small, or a single brand vs multi-brand retail FDI regime.
- Globally, India has been taking on protectionism, and this month the Finance Minister said free trade is essential so consumers get the best deal everywhere. The same consumer focus and non-protectionist tenets must be applied for internal trade.

# INTERNATIONAL RELATIONS

#### 1. Elum Valley

#### <u>Context</u>

 Pakistan's Khyber Pakthunkhwa (KP) province plans to construct a heritage park in Elum Valley, which carries a historical significance to both the Hindus and the Buddhists, to promote religious tourism

#### <u>Details</u>

- It is Located between the Swat and Buner districts in the KP province
- Elum Valley has been a site of divinity and pilgrimage for both the Hindu and the Buddhist communities
  - \* According to Hindu belief, Lord Ram spent time meditating there during his 14 years of exile,
  - \* Buddhists believe it to be the site where a previous incarnation of Lord Buddha gave up his life.

#### 2. Extradition

- As defined by Hon'ble Supreme Court of India, 'Extradition is the delivery on the part of one State to another, to deal with for crimes of which they have been accused or convicted and are justifiable in the Courts of the other State'.
- An Extradition request for an accused can be initiated in the case of under-investigation, under-trial and convicted criminals.
  - \* In cases under investigation, abundant precautions have to be exercised by the law enforcement agency to ensure that it is in possession of prima facie evidence to sustain the allegation before the Courts of Law in the Foreign State.

#### What is the Legislative Basis for Extradition in India?

- The Extradition Act 1962 provides India's legislative basis for extradition.
- CPV Division, Ministry of External Affairs, is the Central/ Nodal Authority that administers the Extradition Act and it processes incoming and outgoing Extradition Requests.

#### Who can make an extradition request from India's side?

- Requests for extradition on behalf of the Republic of India can only be made by the Ministry of External Affairs, which formally submits the request for Extradition to the requested State through diplomatic channels.
- Extradition is not available at the request of members of the public.

#### Which countries can India make an extradition request to?

- India is able to make an extradition request to any country.
  - \* India's treaty partners have obligations to consider India's requests.
  - \* In the absence of a treaty, it is a matter for the foreign country, in accordance with its domestic laws and procedures, to determine whether the country can agree to India's extradition request on the basis of assurance of reciprocity.
- Similarly, any country can make an extradition request to India. Extradition is possible from the non-Treaty States as Section 3(4) of the Indian Extradition Act, 1962 provides for the process of extradition with non-Treaty foreign States.

### What are the internationally accepted conditions for extradition?

- The crime done by the accused should fall in the category of dual criminality. This means that it should be a punishable offence according to the laws of both countries the one where the accused has taken refuge, and the one that seeks extradition.
- Persons charged for political reasons are generally not extradited.
- There are countries where capital punishment is banned. If a fugitive has taken refuge in such a country, and if the establishment of that country thinks that, if extradited, the accused might get capital punishment, the country most likely refuses to extradite. For instance Australia, Canada, Macao, Mexico, and most European nations refuse to extradite a criminal if the person in question might get capital punishment after his extradition.
- The government can also stop the process if it feels that the person will be charged with an offence not mentioned in the extradition treaty.

#### **Options left with Mallya**

- According to legal experts, it may be months before Mr Mallya is extradited to India. He now has 14 days to approach the Court of Appeal -- a period for which he will remain on bail. As this judicial forum is known to get clogged with cases, the process could take up to five or six months. Also, it is not uncommon for the Court of Appeal to overturn the verdict of a lower court.
- Even if the Crown Prosecution Service (which is fighting the case on India's behalf) were to win there, the fugitive tycoon can still apply for the right to appeal before the country's Supreme Court a process that will take at least six weeks. If granted, the appeal will be taken up in the country's top court, giving him nearly a year to fashion his defences against the extradition suit.



 The Crown Prosecution Service could alternatively apply for an expedited appeal process, but such a request is not usually granted in the absence of a specific need for urgency.

#### 3. Information Fusion Centre (IFC)

#### <u>Context</u>

 The Navy will formally inaugurate the Information Fusion Centre (IFC) for the Indian Ocean Region (IOR)

#### <u>Details</u>

- This center will provide information on "white shipping", or commercial shipping, which will be exchanged with countries in the region to improve maritime domain awareness in the Indian Ocean.
  - \* White-shipping refers to commercial shipping information about movement of cargo ships.
- The IFC has been established at the Navy's Information Management and Analysis Centre (IMAC) in Gurugram, which is the single point centre linking all the coastal radar chains to generate a seamless real-time picture of the nearly 7,500-km coastline.
- All countries that have signed white shipping information exchange agreements with india, about 21 of them, are IFC partners.

#### **Significance**

- The IFC-IOR is established with the vision of strengthening maritime security in the region and beyond, by building a common coherent maritime situation picture and acting as a maritime information hub for the region
- Establishment of the IFR-IRO would ensure that the entire region is benefited by mutual collaboration and exchange of information and understanding the concerns and threats which are prevalent in the region.
- This will help in addressing issues related to Piracy by mutual coordination with other countries.
- This will also help in tackling the growing influence of china in the region

#### Trans Regional Maritime Network (T-RMN)

- India has signed the ascension agreement to join the Trans Regional Maritime Network (T-RMN)
- The pact will give India the access to information on ships which pass through the Indian Ocean region that will greatly help the security forces in keeping a tab on any suspicious activity
- The multilateral construct comprises of 30 countries and is steered by Italy.

#### 4. International Religious Freedom Act of 1998

#### <u>Context</u>

• USA has designated Pakistan and nine other countries as 'Countries of Particular Concern (CPC)' under the International Religious Freedom Act of 1998

#### <u>Details</u>

- The nations China, Eritrea, Iran, Myanmar (also known as Burma), North Korea, Pakistan, Sudan, Saudi Arabia, Tajikistan and Turkmenistan — were categorized "Countries of Particular Concern"
  - \* Pakistan's blasphemy laws, specifically the case of Asia Bibi,
  - \* Myanmar's mass violence against the Rohingya population
  - \* China's imprisonment of the Uyghurs and its treatment of Christians and Buddhists.
- They were found to have engaged or tolerated "systematic, ongoing, (and) egregious violations of religious freedom."
  - \* Individuals go thorough torture, degrading treatment or punishment, prolonged detention without charges, abduction or clandestine detention, or other flagrant denial of the right to life, liberty, or the security of persons
  - \* The US said individuals continue to face harassment, arrests, or even death for simply living their lives in accordance with their beliefs.
- The United States says it will not stand by as spectators in the face of such oppression as Protecting and promoting international religious freedom is a top foreign policy priority.

#### Special Watch List

 In addition to the Countries of Particular Concern designation, US placed Comoros, Russia, and Uzbekistan on a Special Watch List for governments that have engaged in or tolerated 'severe violations of religious freedom

#### Entities of Particular Concern

• It also designated al Nusra Front, al Qaeda in the Arabian Peninsula, al Qaeda, Al-Shabaab, Boko Haram, the Houthis, ISIS, ISIS-Khorasan and the Taliban as "Entities of Particular Concern,"

#### **Implications**

- Countries that are severe violators of religious freedom are categorized as CPC's under Sec 402 of the Act and this subjects them to punitive sanctions which are listed in Sec. 405.
- Under this section, the president must either enter into a binding agreement with the concerned country to end the religious persecution, or to choose from remedies outlined in Sec. 405 of the Act.





- the delay or cancellation of scientific or cultural exchanges;
- the denial, delay, or cancellation of working, official or state visits;
- \* the withdrawing, limitation, or suspension of some forms of U.S. aid;
- \* direction to public and private international institutions to deny assistance;
- \* and sanctions prohibiting the US government from entering into import or export agreements with the designated governments

#### Why was the decision taken?

- These designations are aimed at improving the lives of individuals and the broader success of their societies.
- It would help the designated countries are working to improve their respect for religious freedom

#### Pakistan rejects this as politically motivated

- It has rejected the US State Department's unilateral and politically motivated pronouncement released in the context of its annual religious freedom report,
- It questions the credentials and impartiality of the selfproclaimed jury involved in this unwarranted exercise
- Pakistan is a multi-religious and pluralistic society where people of diverse faiths and denominations live together, including around 4 per cent of Christians, Hindus, Buddhists and Sikhs
- Ensuring equal treatment of minorities and their enjoyment of human rights without any discrimination is the cardinal principle of the Constitution of Pakistan
- The Foreign Office also called for an honest selfintrospection to know the causes of exponential rise in Islamophobia and anti-Semitism in the US

#### 5. Mangdechhu Hydropower Project

- It is a 720MW run-of-river power plant being built on the Mangdechhu River in Trongsa Dzongkhag District of central Bhutan
- Mangdechhu Hydroelectric Project Authority (MHPA), which is constituted by the Indian Government and the Royal Government of Bhutan, is developing the project.
- An agreement was signed between the two governments for the execution of Mangdechhu HEPP in April 2010.
- Most of the electricity generated by the Mangdechhu hydropower project will be used to meet the energy requirements of Bhutan and the surplus electricity will be exported to India.

#### 6. Nasib Border Crossing

- It is an international border crossing between Syria and Jordan
- It is one of the busiest border crossings in Syria and is situated on the Damascus-Amman international highway near Nasib, Syria.
- It is the main crossing for Syrian exports to Jordan and the GCC countries



#### 7. Waziristan Accord

- The Waziristan Accord (or North Waziristan Accord) was an agreement between the government of Pakistan and tribals resident in the Waziristan area to mutually cease hostilities in North Waziristan (a district in the Federally Administered Tribal Areas of Pakistan).
- The agreement effectively ended the Waziristan War, fought between the Pakistani military and rebels in the border region with ties to the Taliban and Al-Qaeda.

#### 8. <u>Yellow Vest/ Mouvement Des Gilets Jaunes/ Yellow</u> Jacket Movement

- It Started as a movement among a few people in lower middle-class rural France protesting a new eco-tax on fuel they felt would push their budgets over the edge.
- The movement was Galvanized by rising fuel prices, the high cost of living and claims that a disproportionate burden of the government's tax reforms were falling on the working and middle classes (especially those in rural and peri-urban areas)





- So protesters have called for reductions in fuel taxes, the reintroduction of the solidarity tax on wealth, the raising of the minimum wage, and the resignation of the President of France, Emmanuel Macron.
- It is named after the yellow high-visibility jackets French motorists must carry in their vehicles

#### Other groups posting their demands

- The demands have also expanded, with even students taking part, calling for changes to the French high school examinations and university entrance procedures.
- Also among the protesters are anarchists, elements of the anti-immigration populists

#### 9. Together in an uncertain world (India- EU Relations)

- The month of November, 2018 saw the European Union releasing its strategy on India after 14 years.
- Launching the strategy document, the European Union (EU) Ambassador to India, Tomasz Kozlowski, underlined that "India is on the top of the agenda of the EU in the field of external relations... this strategy paper reflects that EU has taken India's priorities very seriously. We are ready for a joint leap."
- It is important to note that the 2004 EU-India declaration on building bilateral strategic partnership, which this road map replaces, has not had much of a success in reconfiguring the relationship as was expected.

#### A Transformative shift?

- The new document is sweeping in its scope and lays out a road map for strengthening the EU-India partnership, which has been adrift for a while in the absence of a clearly articulated strategy.
- The new strategy underscores a transformative shift in Brussels vis-à-vis India and talks of key focus areas such as the need to conclude a broader Strategic Partnership Agreement, intensifying dialogue on Afghanistan and Central Asia, strengthening technical cooperation on fighting terrorism, and countering radicalisation, violent extremism and terrorist financing.
- Further, what is more significant from the perspective of the EU, which has been traditionally shy of using its hard power tools, is a recognition of the need to develop defence and security cooperation with India.
- Despite sharing a congruence of values and democratic ideals, India and the EU have both struggled to build a partnership that can be instrumental in shaping the geopolitics and geoeconomics of the 21st century.
- Critics point out that both India and the EU complain of the other's ignorance, and often arrogance, and both have their own litany of grievances.
- However, experts point out that where India's relations with individual EU nations have progressed dramatically over the last few years and the EU's focus on India has grown, it has become imperative for the two to give each other a serious look.

 From a global perspective, we are in an age when U.S. President Donald Trump is turning the global liberal order that is so dear to the Europeans upside down; also China's rise is challenging the very values which Brussels likes to showcase as the ones underpinning global stability, a substantive engagement with India is a natural corollary.

#### What experts suggest?

- Experts suggest that the Government of India too has shed India's diffidence of the past in engaging with the West.
- However, India has found the bureaucratic maze of Brussels rather difficult to navigate and in the process, ignored the EU as a collective. At times, India also objected to the high moralistic tone emanating from Brussels.

Where individual nations of the EU started becoming more pragmatic in their engagement with India, Brussels continued to be big-brotherly in its attitude on political issues and ignorant of the geostrategic imperatives of

#### Indian foreign and security policies.

- As a consequence, what followed was a limited partnership which largely remained confined to economics and trade. Further, even as the EU emerged as India's largest trading partner and biggest foreign investor, the relationship remained devoid of any strategic content.
- Critics point out that though the Modi government did initially make a push for reviving the talks on EU-India bilateral trade and investment agreement, nothing much of substance has happened on the bilateral front.
- However, as the wider EU political landscape evolves after Brexit, and India seeks to manage the turbulent geopolitics in Eurasia and the Indo-Pacific, both recognise the importance of engaging each other.

#### Concluding Remarks:

- There is a new push in Brussels to emerge as a geopolitical actor of some significance and India is a natural partner in many respects.
- Also, it is important to note that there is widespread disappointment with the trajectory of China's evolution and the Trump administration's disdain for its Western allies is highly disruptive.
- At a time when India's horizons are widening beyond South Asia and the Indian Ocean region, Brussels is also being forced to look beyond its periphery.
- The EU will be part of the International Solar Alliance, and has invited India to escort World Food Programme vessels to transport food to Somalia. The two have been coordinating closely on regional issues.
- The new India strategy document unveiled by the EU, therefore, comes at an appropriate time when both have to seriously recalibrate their partnership.



- Merely reiterating that India and the EU are "natural partners" is not enough, and the areas outlined in the document, from security sector cooperation to countering terrorism and regional security, need to be focussed on.
- · India needs resources and expertise from the EU for its various priority areas, such as cybersecurity, urbanisation, environmental regeneration, and skill development.
- · As the EU shifts its focus to India, New Delhi should heartily reciprocate this outreach.
- In the past, India had complained that Brussels does not take India seriously and that despite the two not having any ideological affinity, the EU-China relations carried greater traction. Now all that might change.

#### 10. Israel and Saudi Arabia increasing intimacy

#### Introduction

- · There is growing show of bonhomie between the Israel and Saudi. This can be explained in large part with reference to the old adage, "my enemy's enemy is my friend" with respect to Iran. Both the countries perceive Iran as the primary threat to their strategic interests in West Asia.
- Saudi Arabia is engaged in a fierce competition with Iran for influence in the Persian Gulf and wider West Asia.
- · Iran is a potential challenger to Israel's nuclear monopoly in West Asia and uses its influence in the Levant to impede Israeli dominance of the region.

#### Reason for Israel getting closer to Saudi

- First, Saudi Arabia's lead in establishing relations with Israel, even if covert, is likely to induce other Arab states, especially the oil rich monarchies of the Gulf, to open their economies to Israeli investment and technical expertise, thus bringing Israel substantial economic benefits. Israel's success in achieving this objective is critically dependent upon developing a significant, even if unacknowledged, relationship with Saudi Arabia.
- Second, the Israeli government estimates that improved relations with the Saudi regime, the "guardian" of Islam's two holiest sites, will help resolve the Israeli-Palestinian conflict to Tel Aviv's satisfaction. This means Israel continuing to control the entire territory between the River Jordan and the Mediterranean Sea without giving the Palestinians any civil or political rights.
- Third, Israel and Saudi Arabia have a common interest in preventing the democratisation of Arab countries.
  - Authoritarian governments in the Arab world allow Israel to parade itself as the only democracy in West Asia.

\* Saudi Arabia is mortally afraid of a democratic wave in the Arab world since it would further highlight the despotic nature of its regime. This apprehension drove its opposition to the democracy movements, especially in Egypt and Bahrain, during the short-lived Arab Spring.

#### U.S. Approval

- The Saudi-Israeli rapprochement has been actively supported by the Trump administration.
- The United States is extremely interested in the formation of a joint front between Saudi Arabia and Israel against Iran, America's principal adversary in West Asia.

However Yemeni misadventure and Khashoggi murder has temporarily suspsended this active engagement with Israel as Saudi cannot take greater political risks at this moment

#### Conclusion

- · One can, therefore, conclude that their common hostility towards Iran and their close security relationship with the U.S. will eventually prompt Saudi Arabia and Israel to resume their covert relationship and eventually make it public.
- However, their contacts are likely to remain frozen for some time until the Khashoggi murder recedes from public memory.

#### 11. The bilateral transformation (India- Bangladesh **Relations**)

#### Editorial Analysis:

- · Recently, in Bangladesh, the Grand Alliance led by the Awami League (AL), headed by incumbent Prime Minister Sheikh Hasina won Bangladesh's 11th general election.
- This development has delighted her supporters.
- Experts point out that this election is also a milestone for the coming of age of a new generation which is aspirational and is tired of the old political discourse that had deeply divided politics in Bangladesh.
- Experts point out that the electorate have voted for economic progress and a secular polity.
- It is important to note that the margin of victory has shocked and dismayed the Opposition parties that had coalesced into the National Unity Front (NUF), a coalition at whose core is the Bangladesh Nationalist Party (BNP), the AL's bitter political rival.
- Former AL stalwart and famous jurist Kamal Hossain provided the leadership glue for the Opposition coalition.
- The BNP's guiding force is U.K.-based acting-Chairman Tarique Rahman. The BNP is also nominally led by its Chairperson, former Prime Minister Khaleda Zia, who is currently in jail for corruption.



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• It is also important to note that acting-Chairman Tarique Rahman is former Prime Minister Khaleda Zia's controversial son who fled from the country in 2008 and lives in exile. He is convicted of money laundering and conspiracy to murder.

#### Brute majority

- It is important to note that the AL has obtained a brute majority of 288 seats in a unicameral Parliament which has 300 directly-elected seats and 50 seats reserved for women. The latter are elected by the electoral college of directly-elected MPs, with proportional representation to parties elected to the Parliament.
- Further, Mr. Hossain's monumental failure to deliver has left him and other Opposition leaders hurling allegations that the elections were "farcical" and asking that new elections be held under a nonpartisan caretaker administration.
- The NUF managed to win just seven seats. The Election Commission, while taking note of some electoral malpractices and promising investigation, has declared the results valid and rejected the demand for new elections.
- The margin of victory has lent some traction to persistent allegations of electoral malpractices, hounding of the Opposition, large-scale arrests of Opposition workers and intimidation of voters.
- Election-related violence on polling day claimed 17 lives. Several Opposition candidates withdrew from the fray, citing violent obstruction by AL workers, kidnapping of their election agents and voters being obstructed from casting their votes. Yet international observers have concluded that the elections were largely peaceful, fair and credible.
- Though dogged by two consecutive controversial elections and increasing perceptions of authoritarian behaviour, Ms. Hasina is set for another five-year term in office.
- Experts point out that Ms. Hasina has an enviable record of delivering record economic growth. Bangladesh's GDP grew at a rate of 7.6% in the last quarter, making it one of the fastest growing economies in the world.

#### <u>A Bipartisan consensus</u>

- It is important to note that during the last decade of Ms. Hasina's tenure as Prime Minister, high-level Bangladesh-India engagement has intensified.
- Further, experts point out that there is an irrevocable and irreversible bipartisan political consensus in India for upgrading relations across a comprehensive interface of ties.
- Also, experts point out that India's 'neighbourhood policy' has focussed on Bangladesh, which has emerged as a key interlocutor in India's 'Act East Policy' and sub-regional groupings like BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) and the BBIN (Bangladesh, Bhutan, India, Nepal) Initiative.

- In Bangladesh too, a growing domestic political consensus, overriding fractious politics, has emerged in favour of close ties with India.
- Denial of support to Indian insurgent groups, with insurgent leaders handed over to India, has progressively built trust and confidence between the two countries. Bangladesh is India's largest trading partner in South Asia with an annual turnover of around \$9 billion plus an estimated informal trade of around \$8-9 billion, across the 4,100-km-long porous border. Cooperation in connectivity, energy, security and intelligence matters has intensified.
- Experts point out that the Padma multipurpose bridge and the Akhaura-Agartala rail link will dramatically change connectivity within Bangladesh and with India. Waterways are also being revived to reduce the cost of trade.
- Improvement in bilateral ties has led to newer areas of cooperation such as cyberspace. Bangladesh has provided cyber connectivity between the international gateway at Cox's Bazar to Agartala for faster Internet connectivity in India's northeastern States.
- India has also become a partner in Bangladesh's nuclear power programme, with the beginning of construction at the Rooppur nuclear power plant. India is poised to export around 1100 MW of power to meet the energy deficit in Bangladesh. Power projects totalling more than 3600 MW are under implementation by Indian companies.
- The adverse balance of trade has been a bilateral issue. The asymmetry in the economies of India and Bangladesh is the major factor. To enable more Bangladeshi exports to flow into India, duty free entry was granted in 2011 under the South Asian Free Trade Area. This has led to an increase in exports from Bangladesh from around \$350 million to the current level of around \$900 million. Bangladeshi exports have plateaued because of demand constraints in India and also because of limited items in the Bangladeshi export basket.
- An SEZ in Bangladesh for Indian manufacturing companies has been mooted and notified. When operational it will encourage Indian companies to manufacture there and export to India. Indian investment in Bangladesh has reached \$3 billion. In 2017, 13 agreements worth around \$10 billion were signed in the power and energy sectors.
- To offset the economic asymmetry, India has granted Bangladesh generous lines of credit (LOCs) and grants, with commitments reaching \$8 billion. While LOCs mainly cover infrastructure and connectivity projects, grants flow into social sector development.
- Capacity building under the Indian Technical and Economic Cooperation programme is an important strand in bilateral ties and people-to-people interaction. Bangladeshis are among the largest groups of tourists into India.



- The visa regime has been liberalised and over a million visas are issued to Bangladeshi citizens annually.
- With the rise of religious radicalism and terrorism, defence and security issues will require greater cooperation.
- Bangladesh has taken strong and effective steps against those who have been inspired by the Islamic State and involved in terrorist strikes. Islamist organisations have been breeding grounds for religious radicals and extremist views.
- Experts point out that these forces will pose a considerable challenge for governance in Bangladesh in the future. With the massive loss, the NUF is likely to boycott the Parliament and take to street agitation, sullying Bangladesh's reputation as a democracy.

#### Certain Challenges that lie ahead

- There will be setbacks in India-Bangladesh ties, like the current Rohingya issue, which has imposed a huge economic and security burden on Bangladesh. Bilaterally, the issue of the illegal migration has already acquired a high profile in India with the publication of the draft National Register of Citizens in Assam. This will require deft handling of bilateral ties. Sharing of river waters will remain a challenge, but not an insurmountable one.
- China's security and economic footprint has grown in South Asia and managing this will remain a challenge for both countries. While Bangladesh is overwhelmingly dependent on military hardware from China, India has provided a \$500 million LOC for procurement of defence-related goods from India. This momentum must be maintained and intensified.
- India has welcomed the election results and Prime Minister Narendra Modi was the first leader to telephone and congratulate Ms. Hasina. Bangladesh-India relations have reached a stage of maturity and with further upgrading and integration of infrastructure, bilateral ties can be expected to grow stronger in the future.

#### 12. Island hopping (India- Maldives Relations)

#### What's in the news?

- Maldivian President Ibrahim Mohamed Solih was on a three-day visit to India this month of December, 2018.
- Experts opine that this development seems to have brought a tumultuous phase in India-Maldives ties to a close.

#### Backdrop of the Visit:

- It is important to note that this was Mr. Solih's first overseas visit after becoming the President of the Indian Ocean nation of 400,000 people.
- Experts point out that Mr. Solih defeated Abdulla Yameen in a surprise victory in the Maldivian presidential elections in September 2018 and, since then, has recalibrated his country's ties with India.

- It is believed that while Mr. Yameen had drawn the Maldives closer to China and brutally crushed the Opposition, Mr. Solih's victory has been a shot in the arm for those who favour strengthening democratic forces in the island nation.
- Also it is important to note that Prime Minister Narendra Modi had attended the swearing-in ceremony of Mr. Solih as the President of Maldives in November, 2018.
- This was Prime Minister Narendra Modi's first visit to the Maldives as Prime Minister and the first by an Indian head of state since 2011.
- Critics point out that even as Mr. Modi enthusiastically reached out to all of India's neighbours after his election in 2014, he remained reluctant to engage with Mr. Yameen. They further point out that Prime Minister Modi's planned visit to the Maldives, in March 2015, was cancelled as the political environment deteriorated under Mr. Yameen.
- It is important to note that in a strong endorsement of Mr. Solih's victory, Mr. Modi underscored that the recent elections in the Maldives represented the collective aspirations of the people for democracy, the rule of law and a prosperous future.
- As a matter of fact, Mr. Modi made it clear that India desired "to see a stable, democratic, prosperous and peaceful Republic of Maldives".

#### Points of engagement between the two countries:

- Experts point out that Mr. Solih's India visit has seen the two sides emphasise their traditionally close bond. He called India the island nation's "closest friend" and "reaffirmed his government's 'India-First' Policy", committing to working together closely with India.
- India, for its part, announced a financial assistance package of \$1.4 billion for the Maldives in the form of budgetary support, currency swap agreements and concessional lines of credit.
- Both India and the Maldives have agreed to ensure that they would keep other's security interests in mind as they consolidate cooperation in the Indian Ocean Region (IOR). Further, they have agreed to strengthen maritime security cooperation in the IOR through coordinated patrol and aerial surveillance.
- Also, in an attempt to boost trade ties, Mr. Modi "welcomed the expanding opportunities for Indian companies to invest in the Maldives". Areas such fisheries development, tourism, transportation, connectivity, health, education, information technology, new and renewable energy and communications were earmarked for enhancing bilateral cooperation.





#### Perspective on China

- Experts point out that it is important from India's perspective that Mr. Solih succeeds in the Maldives. Also, under Mr. Yameen, the Maldives had veered too close to China for India's comfort, welcoming Chinese money for major infrastructure projects and signing a controversial free trade agreement (FTA).
- India's entreaties for political moderation and closer security ties were summarily ignored.
- China's role in the Maldivian economy is under the scanner today amid growing concerns about the money the Maldives owes to China for infrastructure projects undertaken by Chinese construction companies.
- These infrastructure projects include the China-Maldives Friendship Bridge, which connects Malé's eastern edge to the western corner of the island of Hulhulé. It is now estimated that China's loans to the Maldives total at least \$1.3 billion, or a quarter of the island nation's gross domestic product.
- Further, faced with this crisis, the new Maldivian government is looking to India for more budgetary support to help meet its development goals and is also planning to revise the FTA with China.
- Currently, the Modi government is also trying to ensure help reaches Male in time so that India regains some of its lost space in the Maldives' foreign policy and politics.
- It is important to note that the Maldives has also made it clear that while the neighbourhood will clearly be a priority for the Solih government, China will continue to play an important role as an economic partner.
- Thus, experts point out that China is not going to disappear from the Maldivian foreign policy matrix and nor should India expect it to.
- However, the logic of geography dictates that India's role will be critical in determining the trajectory of political developments in the Maldives.

#### Editorial Analysis:

- Experts point out that Mr. Solih's government has adopted a different vision as compared to the previous dispensation.
- It is an approach anchored in decentralised and people-centric governance.
- Further, India seems to enjoy a special place in his worldview.
- Mr. Solih stressed that India is "our closest neighbour".
- President Ram Nath Kovind reciprocated by tweeting: "India attaches the highest importance to its relationship with Maldives."
- It is important to note that Prime Minister Narendra Modi was the only head of government present at Mr. Solih's inauguration, on November 17, 2018.

• The joint statement issued during Mr. Solih's visit reflects a fine balance between the interests of both countries.

#### India's assistance to the Maldives:

1. To help the Maldives address its budget deficit and development challenges, India has worked out a generous \$1.4 billion assistance package. Its break-up and the period for which it is available have not been revealed yet. However, it is learnt reliably that much of the funding may be utilised for people-friendly projects in four domains: health care, education, water and sanitation.

2. Besides this, India has offered visa facilitation that will allow Maldivians to visit India easily (with reciprocal facilities for Indian visitors to the Maldives); 1,000 "additional" training slots for the next five years; close cooperation on political and diplomatic issues; and support to the Maldives as it seeks to rejoin the Commonwealth and its entry into the Indian Ocean Rim Association (IORA).

3. The visit resulted in the conclusion of four agreements relating to cooperation for information technology, culture, agri-business, and visa arrangements.

- The new government in Male has also given assurances to be fully sensitive to India's security and strategic concerns, in the light of reports that China has gained access to one or more islands for military purposes.
- On the valid ground that the security interests of both countries are "interlinked", India and the Maldives have agreed to be mindful of "each other's concerns and aspirations for the stability of the region".
- As a matter of fact, both India and the Maldives, now plan "to enhance maritime security" in the Indian Ocean Region.
- The expectation in India is that the Indian Navy and Coast Guard will now be able to secure better cooperation from the Maldives for coordinated patrolling, aerial surveillance and capacity building.
- Besides, intelligence agencies hope to revert to nurturing better collaboration in combating terrorism and other non-traditional security challenges. This is significant, considering that radicalisation is a live issue there. A sizeable number of Maldivian young men are reported to have left to join the Islamic State in Syria.
- The trade and investment facet of the bilateral relationship is of a modest nature, given the country's small population.
- The annual value of bilateral trade is \$200 million. India Inc., therefore, needs to be energised to increase its presence in the Maldivian market, despite the setback suffered by a private Indian firm when its contract was cancelled unceremoniously in December 2012.
- Experts point out that Mr. Solih did well by participating in a business event, hosted jointly by India's three apex industry chambers. Mr. Solih's message was clear: the Maldives is open for business again.



#### The Stakes in the Indian Ocean:

- The deliberations in Delhi took place as China's footprint in South Asia has increased in recent years. There is a growing realisation that, owing to China's strategic objectives, economic capability and assertive diplomacy, it is not feasible for India to supplant China in neighbouring countries.
- However, India has its own advantages, assets and friends. The intention is to leverage them fully, deriving benefit from the neighbours' essential thirst for maintaining balance in their external relations.
- It is also important to note that the change in the Maldives has been followed by a re-assertion of democratic impulses in Sri Lanka, as symbolised by the return of Ranil Wickremesinghe as the Prime Minister. India enjoys close relations with Mauritius and the Seychelles.
- Experts point out that a new grouping of India, the Maldives, Sri Lanka, Mauritius and the Seychelles, focussed on maritime security and economic development, looks attainable in the short term.

#### Concluding Remarks:

- In devising a smart action plan to implement the SAGAR, or Security and Growth for All in the Region, strategy, that was announced by Mr. Modi in March 2015, New Delhi should accord equal importance to its two key goals: address its neighbours' concerns on security challenges; and harness enticing opportunities for the Blue Economy. Even others such as South Africa, whose President is due to visit India in January 2019, and Kenya, much enthused from having hosted recently the first global conference on the sustainable Blue Economy, may be happy to join.
- In conclusion, India's patient handling of the Maldives crisis over the last few years has positioned it well.
- Also, by coordinating its response with other like-minded regional and extra-regional players, India increased the costs for Mr. Yameen and also underscored that there are options available to the Maldives should it decide to move away from China. After a meeting of the 'Quad' countries in Singapore in November 2018, the U.S., for example, released a statement expressing support for the new Maldivian government.
- Going forward, experts point out that the Maldives would need the support of India as its challenges remain acute.
- Lastly, it is important to note that the institutional fabric of the country has been battered under Mr. Yameen's assault even as the threat of Islamist extremism has grown in potency.
- It is believed that governance will continue to be challenging as the forces which came together to bring down Mr. Yameen may not be cohesive enough in running the nation and strengthening its democratic foundations.

- Finally, it is believed that India should not be deterred by temporary setbacks. Instead of perpetually viewing the dynamics from a China-centric perspective, it must keep its eyes firmly on the long term.
- It is important to note that the more invested India is in strengthening democratic institutions in its neighbourhood, the better returns it will get in its foreign policy.

#### 13. Chabahar tidings (India- Iran Relations)

#### What's in the news?

- Recently, the first office of Indian Ports Global Limited at Iran's Chabahar was opened. Also, India has taken over operations of the Shahid Beheshti port.
- Experts believe that this is a milestone in India's regional connectivity and trade game plan.

#### Larger Background and Strategic Importance of Chabahar:

- The development of the Chabahar port was first proposed in 1973 by the last Shah of Iran, though development was delayed by the 1979 Iranian Revolution.
- As a matter of fact, the first phase of the port was opened in 1983 during the Iran–Iraq War as Iran began shifting seaborne trade east towards the Pakistani border in order to decrease its dependency on ports in the Persian Gulf which were vulnerable to attack by the Iraqi Air Force.
- India and Iran first agreed to further develop the Shahid Beheshti port, one of the two ports in Chabahar, in 2003, but did not make much progress on account of sanctions against Iran.
- India's access to Chabahar is predominantly seen as a counter-balance to the port of Gwadar, on the south-western coast of Pakistan's restive Balochistan province, run almost entirely by China as a part of its expansive China-Pakistan Economic Corridor (CPEC).
- The Chabahar port opens up a permanent alternative route for trade with Afghanistan and Central Asia, given the hurdles in the direct route through Pakistan.

#### Editorial Analysis:

- The opening of the first office of Indian Ports Global Limited at Iran's Chabahar and the takeover of operations of the Shahid Beheshti port is a milestone in India's regional connectivity and trade game plan.
- It is important to note that the Chabahar port opens up a permanent alternative route for trade with Afghanistan and Central Asia, given the hurdles in the direct route through Pakistan.
- The port also facilitates India's role in Afghanistan's development through infrastructure and education projects.



- The port also gives India's bilateral ties with Iran, a major oil supplier and potential trade market for India, a big fillip.
- It is important to note that India has helped develop the Shahid Beheshti port with these outcomes in mind, and has been given the contract to manage it for 18 months.

#### Next Suggested Course of Action:

- Experts point out that it will be important to operationalise the port quickly and smoothen the route to Afghanistan.
- The decision by India, Afghanistan and Iran to hold an international event in February 2019 to promote Chabahar and to study ways to make the route more attractive and decrease logistic costs is timely.
- Further, about 500 companies have registered with the Free Trade Zone authority there. While keeping timelines and delivery of New Delhi's commitments will be key to the port becoming a regional hub for transit trade, steel and petrochemicals, it will be necessary to encourage Afghan companies to use the route more, in line with President Ashraf Ghani's desire to have a commercial fleet under the Afghan flag setting sail from Chabahar.

#### **Concluding Remarks:**

- Visions of Chabahar's immense potential as a gamechanger for prosperity and stability in the region must, however, necessarily be tempered by the reality of geopolitical challenges.
- The Chabahar port has received a waiver from the U.S. sanctions on Iran for the moment, but these concessions could be withdrawn any time, given the constant upheaval in the administration.
- Further, the possibility of the withdrawal of U.S. troops from Afghanistan, after the pullout from Syria, will add to security concerns for Afghanistan and impact on the Chabahar route as well.
- Meanwhile, the reconciliation process with the Afghan Taliban is likely to see the regional powers, the U.S. and Russia engaging Pakistan more. As a matter of fact, this could give Islamabad space to play spoiler in Chabahar, which is seen as a rival warm water port to Pakistan's Gwadar.
- Finally, given the fact that the Afghanistan government is hedging its bets on trade via Chabahar too is clear: in recent months, special cargo corridors have been opened with China, Kazakhstan, Turkey, Europe, Russia, the UAE, and Saudi Arabia, with more trade diverted through them than with traditional partners Pakistan and India.
- With Chabahar, India has done well to keep a place in the intricate connectivity network of the region.
- Finally, given all the competing interests that crisscross over Chabahar, it will require sustained and nuanced diplomacy to stay ahead in this game.

## SOCIAL ISSUES

#### 1. Centre drafts child protection policy

#### <u>Context</u>

- The Ministry of Women and Child Development has drafted a policy after nudging from the Supreme Court to ensure the safety of children.
- This provides a code of conduct for employees of all organisations and a declaration to be signed to protect the children

#### **Background**

- The Supreme Court had earlier directed the CBI to investigate allegations involving 17 shelter homes for children, destitute women, beggars and senior citizens in Bihar following the case of sexual abuse of more than 30 girls in a shelter home in Muzaffarpur in the State.
- The apex court had also asked the Centre to consider framing a national policy on protection of children.

#### **Details**

- The policy will apply to all institutions, and organisations (including corporate and media houses), government or private sector
- It must have zero tolerance of child abuse and exploitation
- It requires organisations to lay down that employees don't use language or behaviour that is "inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate".
- Institutions should also designate a staff member to ensure that procedures are in place to ensure the protection of children as well as to report any abuse.
- Any individual who suspects physical, sexual or emotional abuse must report it to the helpline number 1098, police or a child welfare committee.

#### Grey Area

- The document needs to define what child protection is as well as what it means by institutions or organisations
- Unlike the National Child Policy, 2013, the latest document doesn't talk about children who may need additional special protection measures: including those affected by migration, communal or sectarian violence, children forced into begging or in conflict with the law, and those infected with HIV/AIDS.
- It also doesn't talk about the role of the state for ensuring the protection of child rights or addressing local grievances.

#### 2. Central guidelines for crèches at workplaces

#### <u>Context</u>

• The Centre has prepared guidelines for setting up of crèches at workplaces, which prescribe trained personnel to man the facility as well as infrastructure requirements and safety norms.

#### Maternity Benefit Amendment Act, 2017

- Parliament passed the Maternity Benefit Amendment Act, 2017, enhancing paid maternity leave from a period of 12 weeks to 26 weeks. So, the main aim of the Act is to regulate the employment of women during the period of child birth.
  - \* However for those women who are expecting after having 2 children, the duration of the leave remains unaltered at 12 weeks.
  - \* The law is applicable to all institutions with 10 or more employees.

#### What does the law say about crèches?

- It also makes it mandatory for every organisation with 50 or more employees to have a crèche.
  - \* This section specifically mentions the term 'employees', therefore, the obligation to have a creche applies to all establishments with 50 or more employees, inclusive of males and females.
  - \* The term 'employees' has been used to make the provision gender neutral, because though a woman is biologically endowed to give birth, however, the responsibility to take care of a child lies with both the father and the mother.
  - \* Therefore, even if an establishment consists of only males, such establishment should have a creche facility so as to enable fathers to bring their children to the creche.
- Further, Section 11A of the Maternity Act safeguards the intent of Section 48 of the Factories Act, 1948, which requires factories with more than 30 female workers to have a creche.
  - \* Therefore, even if a factory has less than 50 employees but has at least 30 females, such factory will be under the obligation to have a creche under the Factories Act, 1948.
- The guidelines recommend that a crèche be either at the workplace or within 500 metres of it.
  - \* Alternatively, it could also be in the beneficiaries' neighbourhood.



#### **Guidelines**

- The facility should be open for eight to 10 hours and if the employees have a shift system, then the crèche should also be run accordingly.
- A crèche must have a minimum space of 10 to 12 square feet per child to ensure that she or he can play, rest and learn.
- There should be no unsafe places such as open drains, pits, garbage bins near the centre.
- The crèches should have at least one guard, who should have undergone police verification.
- There should also be at least one supervisor per crèche and a trained worker for every 10 children under three years of age or for every 20 children above the age of three, along with a helper.
- The government has also recommended that no outsiders such as plumbers, drivers, and electricians be allowed inside the crèche when children are present.

#### Crèche Monitoring Committee

- A crèche monitoring committee with representations from among crèche workers, parents and administration should be formed.
- There should also be a grievance redressal committee for inquiring into instances of sexual abuse.

The guidelines are not mandatory but are a yardstick for NGOs and organisations for setting up of creches.

#### **Risks under the Maternity Act**

- There could be apprehension in the minds of employers to employ women owing to financial constraints consequent to providing the benefits.
- Though existing laws such as provisions of equality and non-discrimination under the Indian Constitution and the Equal Remuneration Act, 1960 prohibit discrimination of males and females at workplace

#### 3. Data City Programme

#### **Context**

• The Karnataka government has entered into a partnership with NUMA, an international innovation and learning hub, and SUEZ, a France based utility company, to launch Data City programme in Bengaluru.

#### **Details**

- Data City project aims at solving burning issues of the city using innovative solutions developed by startups from a pool of applications.
- It is a seven month long programme where the corporates, startups, government agencies and citizens will work closely to find solutions to city's growing issues like mobility, water, waste management, energy, buildings, transparency and security.

- It is the first Data City programme launched in Asia.
- The government agencies including IT & BT Department, Bangalore Water Supply and Sewerage Board, Directorate of Urban Land Transport, Bangalore Metropolitan Transport Corporation have signed MoU with private partners to provide a framework to the programme.

#### 4. Mahila Police Volunteer Scheme

- It is a joint initiative of Ministry of Women & Child Development and Ministry of Home Affairs.
- It envisages creation of a link between the police authorities and the local communities in villages through police volunteers
- Their primary job will be to keep an eye on situations where women in the village are harassed or their rights and entitlements are denied or their development is prevented.
- Under the scheme, the Mahila Police volunteer is required to mobilize community to form Mahila and Shishu Rakshak Dals (MASRD) to act as community watch groups.
- Haryana is the first state to adopt this scheme
- The Chief Secretaries/UT Administrators have been requested by the WCD Ministry to adopt the scheme in their respective States/UTs.

#### **Significance**

- The gap between Police and Civil society will be bridged by Mahila Police Volunteers initiative.
- It will supplement the ongoing efforts towards gender equality

#### <u>Context</u>

• Proposals of Andhra Pradesh, Gujarat, Mizoram, Chhattisgarh, Karnataka and Madhya Pradesh have also been approved for implementation of MPVs.

#### 5. No rise in working women despite high literacy levels

#### <u>Context</u>

 According to a new research by the Indian Council for Research on International Economic Relations (ICRIER), the study says that the rise in literacy levels among women has failed to translate into an increase in the number of working women due to a combination of socio-economic factors such as the importance of education for improving marital prospects as well as higher prestige attached to households which keep women out of labour force

#### **Details**

- It has cited the Labour Bureau's employment figures to show that there is a rise in the percentage of women out of labour force between 2011-2012 and 2015-2016 across all levels of education and age-cohorts.
- The percentage of women with graduate degrees and above who are not in the labour force has increased from 62.7% to 65.2%.

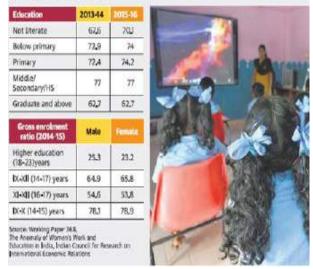




- The percentage of illiterate women out of the labour force too increased from 67.6% to 70.1%.
- This is an indicator that despite one's educational attainment there has been a decline in the incentive for women to participate in the labour force.

#### Laborious task

Rise in literacy has not translated into jobs for women. The tables show percentage of women out of the labour force in various education levels in the age group of 30 and above; and the gross enrolment ratio



#### Reasons behind this drop

The paper attributes the trend to four major factors: the role education plays in marriage markets, social norms, poor condition for educated women and quality of education.

• For many the incentive behind ensuring better education for their daughters is not so much the lure of a better paying job but the promise of a better marriage prospect.

• Social norms also ensure that higher prestige or social status is associated with families which keep their women out of the workforce.

• The growth in formal sector jobs has not kept pace with the supply of educated women, which may have led to "crowding out of females" from the workforce.

#### **Recommendation**

- The study recommends that government policies should focus on behavioral changes that make female employment more acceptable in the society
- Communication programmes on gender equality in secondary education needs to be developed to help students imbibe equitable gender norms
- Programmes that acknowledge child care as the responsibility of both parents requires attention.

#### 6. POCSO Act made stringent

#### <u>Context</u>

- The Union Cabinet approved amendments to strengthen the Protection of Children from Sexual Offences (POCSO) Act, 2012, and included the death penalty for aggravated sexual assault on children, besides providing stringent punishments for other crimes against those below 18 years of age.
- These amendments are aimed at discouraging the trend of child sexual abuse by acting as a deterrent.

#### <u>Details</u>

- The law brings punishments for sexual assaults on boys on a par with those against girls.
  - \* The minimum punishment for penetrative sexual assault has been increased from seven years in jail to 10 years.
  - \* Provision of death penalty when the child is under 12 years is included when a penetrative sexual assault is committed by a relative.
  - \* The government has also amended the definition of aggravated penetrative sexual assault to include an offence that causes the death of a child.
- Section 4 of POCSO on 'Penetrative sexual assault' also has been amended to extend the punishment from the existing seven years to ten years if the child is 16-17 years old and to a minimum of 20 years if the child is below the age of 16. The maximum sentence in these cases remains life imprisonment.
- The amendments are also proposed to the section 9 of the Act to protect children from sexual offences in times of natural calamities and disasters and in cases where children are administered, in any way, any hormone or any chemical substance, to attain early sexual maturity for the purpose of penetrative sexual assault

#### What constitutes aggravated penetrative sexual assault?

- The 21 categories under aggravated penetrative sexual assault, in addition to the death penalty for sexually assaulting children below the age of 12, cover child victims under the age of 18 years, who have been subject to penetrative sexual assault by a police officer or a member of the armed forces or security forces, by a public servant, a relative, the staff of a jail or remand home or protection home, staff of a hospital, educational institution, or religious institution among others.
- It also includes the gangrape of a child or use of deadly weapons during penetrative sexual assault, a sexual assault that incapacitates the child physically or mentally, makes a girl child pregnant, inflicts the child with HIV or any life-threatening disease.



• The maximum punishment of death will also be applicable when sexual assault victims are children with mental or physical disabilities, in cases of repeat offenders, rape and attempt to murder, and rape during communal violence.

#### Child Pornography

- Sections 14 and 15 of the POCSO Act, 2012 are also proposed to be amended to address the menace of the child pornography.
- It is proposed to levy fine for not destroying or deleting or reporting the pornographic material involving a child
- The offender can be further penalized with jail term or fine or both for transmitting propagating administrating such material in any manner except for the purpose of reporting as may be prescribed and for use as evidence in court.
- Penal provisions have been made more stringent for storing/possessing any pornographic material in any form involving a child for commercial purpose

#### 7. Saharia

- They are ethnic group in the state of Madhya Pradesh and Rajasthan
- They may also be located in the hills of the Ganjam district of southern Orissa, as well as in the states of Andhra Pradesh, Bihar, Tamil Nadu, West Bengal, and the Plains division of Assam
- They speak a Munda language that belongs to the Austro-Asiatic language family.
- The Sahariyas are one of the 75 scheduled tribes in the country are classified as Particularly Vulnerable Tribal Groups
- The Saharia farmers use the "slash and burn" method of cultivation along the hill slopes. This has brought them into tremendous conflict with the Forestry Department.

#### <u>Issues</u>

- The Sahariya tribal community of the Shahbad region in Baran district, which recorded 47 starvation deaths during the 2001 drought, suffers from extreme poverty, unemployment and malnutrition.
- The benefits of additional days of work under the Mahatma Gandhi National Rural Employment Guarantee Scheme and the supply of essential items under the Antyodaya Yojana are not fully available to them.
- Daily wage labour and agriculture are the main sources of livelihood in the region.

#### 8. <u>Disabilities Act: States going slow on roll-out, says</u> study

#### **Context**

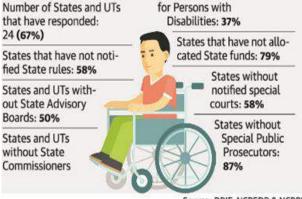
 A study conducted by the Disability Rights India Foundation (DRIF) on the implementation of the Rights of Persons with Disabilities (RPWD) Act, across 24 States, has revealed that more than half have not notified the State rules, despite a significant lapse of time.

#### Details of the Study

- Ten States, including Bihar, Manipur, Meghalaya, Odisha, Telengana, Tamil Nadu and West Bengal, have notified the State rules, the survey said.
- The study, conducted in collaboration with the National Centre for Promotion of Employment for Disabled People (NCPEDP) and National Committee on the Rights of Persons with Disabilities (NCRPD), said the Act, passed in December 2016, should have been notified by all States within six months.
- The study, which concentrated on the States' administrative machinery with respect to the Act, found that nearly 80% of the States had not constituted the funds for implementation of the RPWD Act.
- Among the five States to have constituted the funds, Tamil Nadu has allocated ₹10 crore, while Himachal Pradesh has allocated ₹5 crore. "Only Tamil Nadu has taken some action with regard to providing an increased quantum of assistance for people with disabilities in social security schemes," the report said.
- Though 62% of the States have appointed Commissioners for Persons with Disabilities, "the progress has not been substantial. Only three States have constituted Advisory Committees, comprising of experts, to assist the State Commissioners" the study noted.

#### Report card

A look at the status of implementation of the Rights of Persons with Disabilities (RWPD) Act, 2016, two years after it came into force:



Source: DRIF, NCPEDP & NCRPD



Rights of Persons with Disabilities Act, 2016

- It replaced the 1995 Act. It brought the Indian law in line with the United National Convention on the Rights of Persons with Disabilities (UNCRPD), to which India is a signatory.
- The types of disabilities have been increased from existing 7 to 21 and the Central Government will have the power to add more types of disabilities.
- Speech and Language Disability and Specific Learning Disability have been added for the first time. Acid Attack Victims have been included. Dwarfism, muscular dystrophy has been indicated as separate class of specified disability.
- The New categories of disabilities also included three blood disorders, Thalassemia, Haemophilia and Sickle Cell disease. In addition, the Government has been authorized to notify any other category of specified disability.
- Responsibility has been cast upon the appropriate governments to take effective measures to ensure that the persons with disabilities enjoy their rights equally with others.
- Additional benefits such as reservation in higher education, government jobs, reservation in allocation of land, poverty alleviation schemes etc. have been provided for persons with benchmark disabilities and those with high support needs.
- Every child with benchmark disability between the age group of 6 and 18 years shall have the right to free education.
- Government funded educational institutions as well as the government recognized institutions will have to provide inclusive education to the children with disabilities.
- It provides for penalties for offences committed against persons with disabilities and also violation of the provisions of the new law.

#### 9. End this long trauma (Habitual Offenders Act)

#### Larger Background:

- The term, 'De-notified and Nomadic Tribes', can be traced to the Criminal Tribes Act (CTA) of 1871.
- The colonial government notified nearly 200 tribal communities to be hereditary criminals, cementing their societal identity as outcasts and subjecting them to constant harassment by the administration.
- After India gained Independence, these tribes were 'de-notified' from the list of Criminal Tribes, and, hence, the term.

#### Editorial Analysis:

 Experts point out that several reasons can be ascribed to the state-sanctioned stigmatization of the DNTs in India under British rule, including the strategy to identify their allies and at the same time, subdue and monitor activities of rebellious tribal communities in India.

#### A Look at the Draconian Criminal Tribes Act (CTA) of 1871

- It is important to note that the Criminal Tribes Act (CTA) of 1871 allowed for close supervision and control over the mobility of the tribes which were notified by the provincial governments.
- The Act was amended in 1897, 1908 and 1911 to give sweeping powers to the authorities, some as draconian as allowing the state to remove any child of the age of six and above from its 'criminal' parents. By 1924, certain provisions were amended, and the Act was finally applicable to the whole of British India. Along with the introduction of laws such as the Forest Acts and the Salt Tax Act, the British threw a noose around the the lives of DNTs using stringent regulations.
- It is only in independent India that the need was felt to shift the collective burden of criminality to the individual, which led to the CTA being repealed and the Habitual Offenders Act (HOA) being enacted in various States. However, not all States enacted it.

#### A Look at the Present Situation

- Currently, a variant of the HOA Model Bill as proposed by the Union Government then stands enforced in 10 States across the country, having been enacted in many more.
- However, critics point out that the HOA functioned as a mere extension of the CTA. Nomadic and seminomadic communities continued to face harassment at the hands of law enforcement agencies.
- Critics add that the mere repeal of the CTA could not change the mindset of government officials or members of society. The fact is that even in the 21st century, DNTs continue to face ostracisation by society at large.
- Also, given their centuries-old tradition of constant movement, they often do not possess any residential proof, which leaves them out of the majority of the government's developmental schemes. Those deemed eligible for such schemes were randomly grouped under the Scheduled Castes, Scheduled Tribes or Other Backward Classes categories. As a result, most members of the DNTs continue to be out of the orbit of steps being taken to end discrimination (picture shows DNTs staging a demonstration in Madurai, Tamil Nadu).

#### The Way Forward

 To address these issues, the first National Commission for Denotified, Nomadic and Semi-nomadic Tribes (NCDNT) was constituted in 2003, and reconstituted two years later under the chairpersonship of Balkrishna Renke, which submitted its report in 2008.



- The recommendations put forward found an echo in the Idate Commission, constituted with the similar mandate in 2015, and currently withholding public release of its report. However, denied funding by the Ministry of Social Justice and Empowerment in fulfilling its mandate of carrying out survey and field validation work, some experts have pointed out that the Idate Commission Report lacks the scientific data necessary to introduce reforms to address the plight of DNTs.
- It is important to note that the NCDNT report clearly recommends repealing the various HOAs. This has also been the constant refrain of community leaders, representatives and civil society organisations
   — as the Act still casts its shadow of the state on communities.
- Experts have pointed out that the onus is thus upon the lawmakers, who are at the helm of democratic institutions that govern the country, to finally bring down the curtains on this age-old, state-sanctioned stigmatisation, and act upon the demands put forth by the DNTs.
- However, it is important to learn from previous mistakes. A mere repeal of the law will not address their need for establishing society-wide changes to gain access to political-social-economic welfare. Thus, the repeal of the HOA has to be accompanied by a slew of legal reforms to address the multitude of issues DNT communities face.
- It is important to note that their unique lifestyle requires positive affirmation and development policies that cater to their long-standing and overlooked needs.
- Further, it should be the duty of the government to be proactive and reach out to the DNTs since the latter would understandably refrain from seeking state help.

#### 10. <u>Rights, revised (The Transgender Persons (Protection</u> of Rights) Bill, 2018)

#### What's in the news?

- Recently, a Bill in the Lok Sabha to secure the rights of transgender persons was passed.
- Experts point out that this is a progressive step aimed towards extending constitutional protection to this highly marginalised community.

#### **Reaction to the Bill**

- It is important to note that less than an hour after the passing of the Transgender Persons (Protection of Rights) Bill by the Lok Sabha, Grace Banu, a trans activist from Tamil Nadu and the founder of the Trans Rights Now Collective, took to Facebook that stated that the day was a "black day for us".
- Grace adds that representatives from the community previously met the Standing Committee in charge of drafting this Bill and several MPs to give their suggestions to improve the Bill. The Bill has been witnessing several protests from the community since it was made public in 2016.

#### Editorial Analysis:

- It is important to note that the Transgender Persons (Protection of Rights) Bill, 2018, as passed, is an improved version of the legislation introduced two years ago (in 2016).
- The earlier draft was widely perceived as falling short of the expectations of stakeholders and not adequately rights-based, as envisaged by the Supreme Court in its landmark decision on transgender rights in 2014.
- Experts, as well as the Standing Committee of Parliament on Social Justice and Empowerment, had criticised the original definition of 'transgender persons' for violating the right to self-determined identity.

#### The Original definition of transgender

 The original definition in the Bill stated that a transgender person was one was "neither wholly female nor wholly male; or a combination of female or male; or neither female nor male; and whose sense of gender does not match with the gender assigned to that person at the time of birth, and includes trans men and trans women, persons with intersex variations and gender-queers."

#### The revised definition of 'transgender persons':

- As a matter of fact, after outrage from the community over this problematic definition, the definition was amended to "a person whose gender does not match with the gender assigned to that person at birth and includes trans-man or trans-woman (whether or not such person has undergone Sex Reassignment Surgery or hormone therapy or laser therapy or such other therapy), person with intersex variations, gender- queer and person having such socio-cultural identities as kinner, hijra, aravani and jogta."
- The revised definition omits the reference to a 'neither male nor female' formulation, and covers any person whose gender does not match the gender assigned at birth, as well as transmen, transwomen, those with intersex variations, the gender-queer, and those who designate themselves based on socio-cultural identities such as hijra, aravani, kinner and jogta.
- As pointed out in a statement issued by Lawyers Collective, while this revised definition is better than the original one, a still clearer and more precise way to frame it would have been "a person whose sense of gender does not match the gender assigned at birth." As it stands, the statement reads, this current definition is "prone to ambiguous and illiberal interpretation".

#### Some specifics regarding the revised bill:

 The requirement that a district screening committee must recommend the issue of a certificate to each transgender may be necessary to prevent misuse, however, such a process goes against the principle of self-identification, which is a key right the Supreme Court had protected.



- It is important to note that the government had omitted the need to go through the same screening committee to get a revised certificate after a transgender has sex reassignment surgery, but the medical certification requirement remains.
- Transgender persons may question the need for such external gate-keeping.

#### Legitimate Concerns:

- There are other legitimate concerns in the revised Bill, which will now go to the Rajya Sabha.
- One refers to the bar on forcible separation of transgender persons from their families, except through court orders. It has been revised to cover transgender children.
- Earlier it covered adults as well, but the committee had noted that it was within the family that many transgender persons faced harassment and abuse, and often felt driven to flee their homes.
- Another concern is that the Bill criminalises begging by making it an offence for someone to compel or entice a transgender person into seeking alms.
- When begging itself is no more seen as an offence, it may harm the community if such a means of livelihood

   in the absence of employment – is criminalised.
- Further, the Bill, unfortunately, does not give effect to the far-reaching directive of the Supreme Court to grant backward class reservation to the transgender community. Nor have the Standing Committee's concerns about recognising civil rights in marriage, divorce and adoption among them been addressed.

#### **Concluding Remarks:**

- There is much good intention behind the welfare provisions, but social legislation is much more than high-minded clauses.
- Experts opine that it needs to be followed up with zealous implementation and framing of deadlines to achieve specific objectives.

### SCIENCE AND TECHNOLOGY

#### 1. <u>Akari</u>

- Akari means light in Japanese
- Previously known as ASTRO-F or IRIS InfraRed Imaging Surveyor
- It is an infrared astronomy satellite developed by Japan Aerospace Exploration Agency
- It was worked out in cooperation with institutes of Europe and Korea.
- It was launched in 2006, by M-V rocket into Earth sunsynchronous orbit.
- It ended operations in 2011, was equipped with the Infrared Camera (IRC) that allowed the researchers to obtain spectra at near-infrared wavelengths from two to five micrometres.

#### **Objectives**

- Explore primeval galaxies using highly sensitive infrared observation to study the evolution of galaxies.
- Observe a variety of star-formation regions with infrared to study the birth of stars.
- Explore the evolution of stars and cycling of matter in the Universe.
- Explore radiation from proto-planetary disks outside the solar system.
- Hunt for new comets.

#### **Context**

 Japanese scientists have detected evidence of water in 17 asteroids for the first time using data from the infrared satellite AKARI.

#### <u>Details</u>

- Researchers from Japan Aerospace Exploration Agency (JAXA) and University of Tokyo found that water is retained in asteroids as hydrated minerals, which were produced by chemical reactions of water and anhydrous rocks that occurred inside the asteroids
- Hydrated minerals are stable even above the sublimation temperature of water ice, so by looking for hydrated minerals, scientists can investigate whether asteroids have water.

#### **Significance**

- This discovery will contribute to understanding of the distribution of water in our solar system, the evolution of asteroids, and the origin of water on Earth.
- Infrared wavelengths contain characteristic spectral features of various substances, such as molecules, ice, and minerals, which cannot be observed at visible wavelengths. Therefore, it is indispensable to observe at infrared wavelengths for the study of solar system objects.

- \* Using this unique function of IRC, spectroscopic observations of 66 asteroids were carried out and their near-infrared spectra were obtained. This provided the first opportunity to study the features of hydrated minerals in asteroids at around the wavelength of 2.7 micrometres.
- The observations detected absorption, which were attributed to hydrated minerals for 17 C-type asteroids.

#### **C-type asteroid**

- C-type (carbonaceous) asteroids are the most common variety, forming around 75% of known asteroids
- They are distinguished by a very low albedo because their composition includes a large amount of carbon, in addition to rocks and minerals.
- They occur most frequently at the outer edge of the asteroid belt
- The proportion of C-types may actually be greater than this, because C-types are much darker (and therefore less detectable) than most other asteroid types except for D-types and others that are mostly at the extreme outer edge of the asteroid belt.

#### How has Akari helped?

- C-type asteroids, which appear dark at visible wavelengths, were believed to be rich in water and organic material, but the present observations with AKARI are the first to directly confirm the presence of hydrated minerals in these asteroids.
- The heating energy could be supplied by the solar wind plasma, micrometeorite impacts, or the decay heat from radioactive isotopes in the rocks. This trend had been predicted by meteorite measurements, but this is the first time that it has been confirmed in asteroids.
- Many C-type asteroids display this trend, suggesting that C-type asteroids were formed by the agglomeration of rocks and water ice, then aqueous alteration occurred in the interior of asteroids to form hydrated minerals, and finally C-type asteroids were heated and dehydrated.

#### 2. Beresheet (Genesis in Hebrew)

#### <u>Context</u>

 An Israeli spacecraft is gearing up for a 2019 Moon mission that features unique partnerships and investigation of the Moon's origin

#### <u>Details</u>

• SpaceIL a privately funded, designed and built a four-legged lander that will touch down in Mare Serenitatis, one of the dark, lunar basins visible to the naked eye from Earth.



- It will measure the magnetic field as part of efforts to investigate how the moon was formed. The data will be shared with US space agency NASA.
- The craft, which weighs less than 200 kilograms without fuel, will send home high-definition pictures and video before hopping to a new landing spot
- If successful, the mission will make Israel the fourth country to soft-land on the Moon, following Russia, the United States, and China.
- The project began as part of the Google Lunar XPrize, which in 2010 offered \$30 million in awards to encourage scientists and entrepreneurs to come up with relatively low-cost moon missions.

#### 3. ExseedSAT1

- It is a 'Made in India' micro satellite built by a small startup which will be the first built in the private sector to go into space and launched through the Falcon 9 rocket of SpaceX.
- This satellite is freely available for all radio amateurs across the world. It is an open radio transponder that works on ham radio frequencies.
  - \* One has to pay just Rs 100 license from the WPC to communicate through this satellite.
- Exseed Space aims to develop small satellite platforms with a primary focus on assembly, integration, testing and operation of satellites
- The satellites of this form are called Cubesats as they are 10 cm across and 1kg weight.

#### 4. GSAT-7A

- It is a Military communication satellite
- Although all Indian communication satellites offer capacity to the armed forces, GSAT-7A will be the first one built primarily for the Indian Air Force (IAF) to qualitatively unify its assets and improve combined, common intelligence during operations.
- This new space-based dimension adds color to the way the Indian Air Force interlinks, operates and communicates with its aircraft as they fly and with command centres on ground
- This satellite using Ku band will enable superior real time aircraft-to-aircraft communication; and between planes that are in flight and their commanders on the ground.
- It will also support aerial activities of the Army and the Navy when required.
- The GSAT-7A incorporates Chemical Propulsion System to provide an operational mission life of a minimum of eight years.
  - \* Chemical propulsion will be used for orbit raising as well as for on orbit attitude correction operations.
  - \* Sufficient redundancy is built into the Spacecraft for continued service.

#### <u>Context</u>

- The Geosynchronous Satellite Launch Vehicle F11 (GSLV-F11), will undertake its 13th flight carrying the 35th Indian Communication satellite GSAT-7A built by the ISRO.
- It will place the 2,250-kg GSAT-7A communication satellite into a geosynchronous transfer orbit.

#### <u>GSLV – F11</u>

It is ISRO's fourth generation launch vehicle with three stages.

- The four liquid strap-ons and a solid rocket motor at the core form the first stage.
- The second stage is equipped with high thrust engine using liquid fuel.
- The Cryogenic Upper Stage forms the third and final stage of the vehicle.

#### **Significance**

- It would enhance by many times the coverage now provided by ground communication systems such as radars and stations of the Army.
- Out-of-sight and remote areas where ground infrastructure and signals are difficult would get into the critical information loop.
- The satellite is expected to help the IAF interconnect with various ground radar stations, airbases and AWACS (Airborne Warning And Control System) aircraft.
- Pilots can communicate much better with headquarters while they fly. Headquarters can receive data in real time.

#### 5. <u>National Mission on Interdisciplinary Cyber-Physical</u> <u>Systems (NM-ICPS)</u>

#### <u>Context</u>

- The Union Cabinet has approved the launching of National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) to be implemented by Department of Science & Technology at a total outlay of Rs. 3660 crore for a period of five years.
- NM-ICPS is a Pan India Mission and covers entire gamut of India that includes Central Ministries, State Governments, Industry and Academia.

#### Details:

The Mission addresses the ever increasing technological requirements of the society, and takes into account the international trends and road maps of leading countries for the next generation technologies. The mission implementation would develop and bring:

- Cyber Physical Systems (CPS) and associated technologies within reach in the country,
- adoption of CPS technologies to address India specific National / Regional issues,



- · produce Next Generation skilled manpower in CPS,
- catalyze Translational Research,
- accelerate entrepreneurship and start-up ecosystem development in CPS,
- give impetus to advanced research in CPS, Technology development and higher education in Science, Technology and Engineering disciplines, and
- Place India at par with other advanced countries and derive several direct and indirect benefits.

#### Implementation strategy:

- The Mission aims at establishment of 15 numbers of Technology Innovation Hubs (TIH), six numbers of Application Innovation Hubs (AIH) and four numbers of Technology Translation Research Parks (TTRP).
- These Hubs & TTRPs will connect to Academics, Industry, Central Ministries and State Government in developing solutions at reputed academic, R&D and other organizations across the country in a hub and spoke model.
- A strategic approach involving a suitable mix of Academic, Industry and Government is proposed to be adopted.

#### **Benefits**

- The Mission will feed the Central Ministries/ Departments and State Govts and also the Industry to effectively use the CPS technologies in their projects and schemes for the benefit of the society.
- CPS technologies provide a cutting edge to a Nation's scientific, engineering, and technological innovative capabilities; support other missions of the government, provide industrial and economic competitiveness
- The proposed Mission would act as an engine of growth that would benefit national initiatives in health, education, energy, environment, agriculture, strategic cum security, and industrial sectors, Industry 4.0, SMART Cities, Sustainable Development Goals (SDGs) etc.
- CPS will indeed bring a paradigm shift in entire skill sets requirement. The job opportunities will be enhanced through the Mission by imparting advanced skills and generating skilled manpower as per the requirement of the industry/ society.
- As Innovation, Entrepreneurship and Start-up Ecosystem is an integral part of the proposed NM-ICPS, the start-ups will also create a number of technology driven job opportunities in CPS and allied areas. Accordingly, it is estimated that, about 40,000 jobs will be created in the short term and about 2,00,000 in long term.

#### Background:

- CPS and its associated technologies, like Artificial Intelligence (AI), Internet of Things (IoT), Machine Learning (ML), Deep Learning (DP), Big Data Analytics, Robotics, Quantum Computing, Quantum Communication, Quantum encryption (Quantum Key Distribution), Data Science & Predictive analytics, Cyber Security for physical infrastructure and other infrastructure, have pervaded and is playing a transformative role in almost every field of human endeavour all most in all sectors.
- It has become imperative for government and industries to be prepared to adopt these emerging and disruptive technologies in order to remain competitive, drive societal progress, generate employment, foster economic growth and to improve the overall quality of life and sustainability of the environment.

#### 6. NovaSAR and S1-4

#### <u>Context</u>

• India has successfully put into orbit two British earth observation satellites, NovaSAR and S1-4

#### <u>Details</u>

- According to ISRO, the two earth observation satellites were launched into a 583 km Sun Synchronous Orbit.
- NovaSAR is S-Band Synthetic Aperture Radar satellite intended for forest mapping, land use and ice cover monitoring, flood and disaster monitoring.
- S1-4 is a high resolution Optical Earth Observation Satellite, used for surveying resources, environment monitoring, urban management and for disaster monitoring.

#### 7. Shakti Microprocessor

#### <u>Context</u>

• Researchers at Indian Institute of Technology Madras (IIT-M) have designed and booted up India's first microprocessor, Shakti, which could be used in mobile computing and other devices.

#### <u>Details</u>

- The project is funded by Union Ministry of Electronics and Information Technology.
- RISC-V ISA (Instruction Set Architecture) delivers a new level of free, extensible software and hardware freedom on architecture, paving the way for the next 50 years of computing design and innovation.
  - \* The ISA is basically the programming or machine language and provides commands to the processor instructing it on the its functions to be executed

#### <u>Significance</u>

• The Shakti microprocessor can be used in low-power wireless systems and networking systems besides reducing reliance on imported microprocessors in communication and defence sectors.





- The other crucial aspect of such an indigenous design, development and fabricating approach is reducing the risk of deploying systems that may be infected with back-doors and hardware Trojans.
- The impact of this completely indigenous fabrication is that India has now attained independence in designing, developing and fabricating end-to-end systems within the country, leading to self-sufficiency

#### 8. Water traces found on asteroid Bennu

#### <u>Context</u>

- NASA's OSIRIS-REx spacecraft discovered evidence of water on a relatively nearby skyscraper-sized asteroid, Bennu, a rocky acorn-shaped object
- This may hold clues to the origins of life on Earth

#### <u>Details</u>

- Data obtained from the spacecraft's two spectrometers, the OSIRIS-REx Visible and Infrared Spectrometer (OVIRS) and the OSIRIS-REx Thermal Emission Spectrometer (OTES) reveal the presence of molecules that contain oxygen and hydrogen atoms bonded together, known as "hydroxyls".
- These hydroxyl groups exist globally across the asteroid in water-bearing clay minerals, meaning that at some point Bennu's rocky material interacted with water.
- Asteroids are among the leftover debris from the solar system's formation some 4.5 billion years ago.
- Scientists believe asteroids and comets crashing into early Earth may have delivered organic compounds and water that seeded the planet for life, and atomiclevel analysis of samples from Bennu could provide key evidence to support that hypothesis.
- Scientists are still trying to understand the role that these carbon-rich asteroids played in delivering water to the early Earth and making it habitable

#### **Background**

- Launched in September 2016, the Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer (OSIRIS-REx) mission is to help scientists investigate how planets formed and how life began, as well as improve our understanding of asteroids that could impact Earth.
- OSIRIS-REx will remain in orbit until mid-February 2019 when it will exit to initiate another series of flybys for the next survey phase.

#### 9. VISIONS-2 mission of NASA

- Visualizing Ion Outflow via Neutral Atom Sensing-2
- VISIONS-2 is a sounding rocket mission, a type of suborbital rocket that makes brief, targeted flights into space before falling back to Earth just a few minutes later

- Sounding rockets are unique among scientific spacecraft for their superior dexterity: They can be carted to remote locations, where they are aimed and shot into short-lived events -- like the sudden formation of the aurora borealis -- at a moment's notice.
- VISIONS-1, the current mission's precursor, launched from the Poker Flat Research Range in Alaska in 2013, where they studied oxygen outflow from aurora that form on Earth's night side, the part of the planet that is temporarily pointed away from the Sun.
  - \* For the VISIONS-2 mission, the team will travel to a unique part of the globe where dayside aurora can be found.
- VISIONS-2 will fly two rockets into the northern polar cusp, where it will use an imaging technique to map oxygen outflow from the aurora.
  - \* Using this technique, VISIONS-2 takes a different approach from many other missions, which attempt to combine data from many outflow events. Instead, VISIONS-2 hopes to acquire a great deal of data about a single oxygen outflow event.
- VISIONS-2 is all about checking whether and how the process for the heating and energizing of oxygen on the dayside aurora -- within the polar cusp -- is the same as those discovered on the night side

#### Aurora Borealis

- The aurora borealis is of keen interest to the VISIONS-2 team, but not just for its otherworldly glow.
- The aurora are formed when energetic electrons, accelerated in the electric and magnetic fields in near-Earth space, crash into and excite atmospheric gases, which emit bright hues of red, green, and yellow as they relax back to a lower energy state.
- But these unruly electrons also create a cascade of havoc in the process, including driving electric currents that heat the upper atmosphere in splotchy patches.
- In some cases, that heating is sufficient to give stray oxygen atoms enough energy to escape.

#### Leaky atmosphere

- Scientists had long thought that oxygen, weighing in at 16 times the mass of hydrogen, was too heavy to escape Earth's gravity.
- To escape Earth, oxygen would require something like 100 times the energy that it typically has
- The aurora play are fundamental drivers in the process of atmospheric escape, whereby planets, including Earth, gradually leak their atmosphere into space.

#### **Significance**

• Understanding atmospheric escape on Earth has applications all over the Universe -- from predicting which far off planets might be habitable,



• It will help to piecing together how Mars became the desolate, exposed landscape it is today.

#### 10. World's first floating nuclear power plant

#### <u>Context</u>

 Russia's state-run Atomic Energy Corporation, ROSATOM developed the 'Akademik Lomonosov' world's first Floating Nuclear Power Plant (FNPP).

#### **Details**

- The FNPP was designed to make it possible to supply electricity to hard-to-reach areas, regardless of transport infrastructure, landscape, and cost of fuel delivery
- The reactor has the potential to work particularly well in regions with extended coastlines, power supply shortages, and limited access to electrical grids.

#### <u>Stats</u>

- The vessel is 144 metres long and 30 metres wide
- It has a displacement of 21,000 tonnes
- The lifecycle of the FNPP is 40 years with the possibility of being extended to up to 50 years

#### Why a nuclear power plant needs to be floating on water?

- For fossil fuel-based electricity generation, up to 40 per cent of the cost is attributed to the price of coal, oil or gas, as well as to the cost of their delivery. This figure is even higher for especially remote locations.
- The small size, lightweight, and fixed cost of the FNPP eliminate many such challenges. The small nuclear reactor can operate non-stop without the need for refuelling for three to five years, thereby considerably reducing the cost of electricity generation.

### **SECURITY AND DEFENSE**

#### 1. Admiral Grigorovich-class frigates

#### <u>Context</u>

- India and Russia had entered an agreement for the construction of four Admiral Grigorovich-class (Project 11356) guided-missile frigates destined for service in the Indian Navy
- Rear Admiral Dinesh K Tripathi, Flag Officer Commanding, Eastern Fleet said one of the four is likely to be inducted into the Indian Navy in the next three years.

#### **Details**

- Two of the frigates that are advanced version of the Indian Talwar-class guided missile frigates, will be built in Russia's Baltic Coast Yantar Shipyard and the remaining two will be built at Goa Shipyard on technology transfer.
- The Admiral Grigorovich-class frigates will have an array of weapon system that include artillery guns, strike missile and radar-controlled air defence systems with provisions for torpedo tubes.
- The 4,000-odd tonne frigates can be armed with Brahmos cruise missile system.

#### 2. Asymmetric Warfare

- Also known as Asymmetric Engagement, this refers to a form of unconventional warfare where there is a significant difference in the powers of the warring sides.
- The term is generally used to refer to conflicts between the armed forces of large nation-states and significantly smaller insurgent groups that possess relatively little firepower.
- Insurgent groups which cannot match the power of larger armies generally try to employ guerrilla tactics to frustrate and cause significant damage to their adversaries rather than try to completely eliminate them.
  - \* A relatively small and lightly equipped force attacks points of weakness of a stronger opponent by unorthodox means.
- They thus force the opponent to fight on their own terms by utilizing
  - \* human bombs against important personalities,
  - \* petrol bombs against tanks,
  - \* civil aircraft against skyscrapers,
  - \* Improvised Explosive Devices (IED) against vehicles and military convoys,
  - \* crude bombs on railway tracks and inside coaches, and

- \* Indiscriminate shooting of people in crowded public places. This new form of fighting is commonly known as asymmetric warfare.
- The term was coined by Andrew J.R. Mack in his 1975 article "Why Big Nations Lose Small Wars".

#### **Examples**

• The 26/11 type of attack in Mumbai, the attack on the Indian Parliament in 2001, the 9/11 attack on the World Trade Centre in the United States, the bomb blast near the Indian Embassy in Kabul, the bomb blast in the German Bakery in Pune in February 2010, are some examples of asymmetric warfare.

#### 3. Avangard

#### <u>Context</u>

 Russia successfully carried out the launch of a liquidfueled intercontinental-range ballistic missile (ICBM) carrying the Avangard hypersonic glide vehicle payload

#### <u>Details</u>

- Avangard is a hypersonic glide vehicle developed by Russia
- Avangard, also known as "Objekt 4202," is a hypersonic boost-glide missile system that is supposed to combine a high-performance ballistic missile with an unmanned glider vehicle for significant improvements in maneuverability and sustained top speed.
- This technology allows Avangard missiles to travel at up to 20 Mach or approximately 24,700 km per hour, a speed made possible by the use of "new composite materials" to stay within a stable range of 1,600 to 2,000 degrees celsius.
- It can be used to deliver nuclear and conventional payloads

#### 4. CROSS BOW-18

- It was exercise code-named CROSS BOW-18, where the Indian Air Force successfully conducted combined guided weapons firing of Surface-to-Air Missiles from the Air Force Station at Suryalanka in Andhra Pradesh.
- It saw the successful firing of four different classes of missiles like Akash, Spyder, OSA-AK-M and IGLA.
- It will help in strengthening the country's air defence preparedness.
- It will improve professional skills and would further enhance the IAF's combat capability



#### 5. Deep Submergence Rescue Vehicle (DSRV)

#### <u>Context</u>

• The Indian Navy inducted its first Deep Submergence Rescue Vehicle (DSRV) System at the Naval Dockyard in Mumbai.

#### <u>Details</u>

- DSRV is used to rescue crew members stranded in submarines that get disabled
- The state of the art system is also equipped with a decompression chamber that can accommodate submariners and a Remotely Operated Vehicle (ROV), which can be used to beam images and provide immediate assistance.
- The DSRV can also be transported by air, enabling it to conduct rescue operations across the globe.

#### Rough and tough

The flyaway Deep Sea Submarine Rescue System can be operated in very rough conditions with wave height of 4 to 6 metres Maximum operating depth-

650 metres

12-18 hours Endurance time

17 Total

passenger capacity

3 No. of crew members

14 No, of persons that can be rescued at a time

₹1,000 crore cost of one system

#### strength Indian Navy has five classes of submarines now and more are in the process of being inducted

on Wednesday. +re

Submarine

6. Differential Global Positioning System (DGPS)

- They are enhancements to the Global Positioning System (GPS) which provide improved location accuracy, in the range of operations of each system, from the 15-meter nominal GPS accuracy to about 10 cm in case of the best implementations
- DGPS uses a fixed, known position to adjust real time GPS signals to eliminate pseudorange errors.

#### 7. Ex Shinyuu Maitri-2018

#### <u>Context</u>

• The Japanese Air Self Defence Force (JASDF) is in India for a bilateral air exercise SHINYUU Maitri-18 with Indian Air Force from 03-07 Dec 18 at A F Station Agra.

#### <u>Theme</u>

 The theme of the exercise is joint Mobility/ Humanitarian Assistance & Disaster Relief (HADR) on Transport aircraft.  The focus of the exercise is set for the IAF and JASDF crews to undertake Joint Mobility/ HADR operations. Display of heavy loading/ offloading are also planned to be practiced during this exercise.

#### 8. IN Operational Exercises

- In order to remain combat ready at all the time IN conducted Command level operational exercises ENCORE-18 (Eastern Naval Command), XPL-18 (Western Naval Command) and SHIKSHA-18 (Operational level war gaming exercise).
- These exercises also saw participation from the Army, Air Force and Coast Guard.
- The exercises facilitate refining of IN war plans, address Op Logistics issues and provide platform for smooth transition from peace to conflict.

#### 9. Information Technology [Intermediaries Guidelines (Amendment) Rules] 2018

#### <u>Context</u>

- The Government is introducing changes in the Information Technology (Intermediary Guidelines [Amendment] Rules), 2018, where social media platforms will soon have to end the complete encryption system and remove any 'unlawful content' for the sake of the country's security.
- The government has sought public comments on the proposed amendments in the draft

#### <u>Details</u>

- The Government seeks to make it mandatory for platforms such as WhatsApp, Facebook and Twitter to trace "originator" of "unlawful" information, while also removing such content within 24 hours after being notified.
  - \* The proposed amendments to rules under Section 79 of the Information Technology (IT) Act make it mandatory for online platforms to "proactively" deploy technology, which would enable searching of content seen as "unlawful".
  - \* They also require end-to-end encryption to be broken so that the origin of messages can be traced.
  - \* The intermediary will be any platform that has more than "50 lakh users in India or is in the list of intermediary specified notified by the government".
- The decision was taken due to increase in the number of lynching incidents in 2018 mostly owing to fake news being circulated through WhatsApp and other social media sites.
- The content needs to be removed if Government notifies the online platforms for the following domains like "interests of the sovereignty and integrity of India, the security of the state, friendly relations with foreign states, public order, decency or morality, or in relation to contempt of court, defamation or incitement to an offence, on its computer resource without vitiating the evidence in any manner"



Deep dive: The Submarine Rescue System being Launched in Mumba

Scorpene

Russian Kilo

Class-1

Class - 9

German

HDW-4

Nuclear attack

submarine from

Russia - 1

Indigenous

nuclear ballistic

INS Arihant - 1

missile submarine

- The intermediary is also expected to preserve such information and associated records for at least 180 days for investigation purposes as against 90 days now.
- The Centre's draft SOP include setting up of proactive monitoring tools for auto deletion of unlawful content by deploying Al-based tools, deployment of trusted flaggers for identifying and deletion, setting up of a 24/7 mechanism for requisitions of law enforcement agencies, appointment of India-based contact officers, (with name, designation, email, mobile number), and prompt disposal of requisitions of law enforcement agencies to remove unlawful content.



#### 10. Innovations for Defence Excellence (iDEX)

- iDEX is aimed at creating an ecosystem which fosters innovation and encourages technology development in Defence by engaging R&D institutes, academia, industries, Startups and even individual innovators.
- iDEX shall function under the aegis of Defence Innovation Organisation (DIO) (formed as a 'Not For Profit' Company Under Section 8 of Companies Act,2013), as its executive arm.

#### The main functions of DIO are:

- Receive periodic reports from iDEX team on the projects.
- Provide high level policy guidance.

#### 11. <u>Tejas</u>

• A team of scientists from the Fatigue and Fracture Laboratory and the Advanced Seismic Testing and Research Laboratory, CSIR-Structural Engineering Research Centre (SERC), Chennai, conducted a crucial qualification test of the fuel drop tank of the Tejas Light Combat Aircraft (LCA).

#### LCA-TEJAS

- The LCA Tejas is an Indian single-seat, singlejet engine, multi-role light fighter developed by Hindustan Aeronautics Limited (HAL).
- Its design is highly manoeuvrable, with a tailless, compound delta wing configuration. It came from the Light Combat Aircraft (LCA) programme, which began in the 1980s to replace India's ageing MiG-21 fighters.

- Later, the LCA was officially named "Tejas", meaning "Radiant" by the then Prime Minister.
- In 1969, the Indian government accepted the recommendation by its Aeronautics Committee that Hindustan Aeronautics Limited (HAL) should design and develop a fighter aircraft around a proven engine.

#### 12. <u>Tu-160</u>

- The Tupolev Tu-160 is also known as "White Swans"
- It is a supersonic, variable-sweep wing heavy strategic bomber
- The Tu-160 is capable of carrying conventional or nuclear-tipped cruise missiles with a range of 5,500km.
- Code-named Blackjack by NATO, the massive warplane is capable of flying at twice the speed of sound.

#### <u>Context</u>

• Two Russian bombers capable of carrying nuclear weapons landed in Venezuela in a show of support for the government. The TU160 supersonic bombers landed at Maiquetia airport.

#### 13. <u>USHUS – 2</u>

- It is indigenously developed by Naval Physical and Oceanographic Laboratory (NPOL) of DRDO
- USHUS-2 is an integrated submarine sonar suite, which is a state-of-the-art upgrade of the existing sonar USHUS fitted on the Russian-origin Kilo class submarines operated by the Navy.
- USHUS-2 will replace the remaining Russian sonars on Kilo class, also called Sindhughosh class, of submarines.
- The constituent sonars in the suite include passive sonar, active sonar, intercept sonar, obstacle avoidance sonar and underwater telephony. The sonar suite incorporates advanced signal processing techniques and state-of-the-art hardware platforms. The system provides advanced classification features, contact motion analysis and automatic torpedo detection capabilities.

#### Significance

- The primary purpose of the sonar is to detect, localise and attack enemy warships and submarines. It is also essential for safe navigation.
- USHUS-2 is essentially a suite of multiple sensors for passive and active detection, which collates different characteristics of the same target and provides data for engaging the target.

#### 14. Social media sites told to filter content using AI

#### <u>Context</u>

• The Union government has asked social media platforms to emulate the practices they follow in the U.K. in using tools based on Artificial Intelligence to identify and take down content that incites people to commit violence





#### **Details**

- The Centre has stepped up its interactions with social media platforms to arrest the spread of rumours, and messages inciting unrest, cybercrimes and other activities that could be detrimental to national security.
- WhatsApp has been asked to keep the complete trail of forwarding of unlawful content and share "meta data" with law enforcement agencies to identify the user who "originated the content."
- Twitter has been asked to produce telephone numbers and other identifiable sources that could help track suspicious accounts, whenever asked for by law enforcement agencies.
  - \* The Home Ministry has asked Twitter to engage "flaggers" and "voluntary organisations" to identify, detect and take down objectionable content in real time.
- Google has agreed to deploy pro-active tools to voluntarily identify and remove such content.
- Social media platforms have been asked to engage NGOs working in the field, and appoint a grievance redressal cell, for prompt action

#### 15. Border Forces lack basic amenities

#### <u>Context</u>

 In a report submitted by Parliamentary panel on Working Conditions in Border of the Guarding Forces has revealed major chinks in the country's security armor

#### <u>Stats</u>

- Nearly 82% of Border Outposts (BOPs) of the Indo-Tibetan Border Police (ITBP), deployed along the inhospitable and rugged China border, do not have access to clean drinking water.
- Over 40% are unconnected by road
- The Committee observed that there was a large number of vacancies in the medical and this has adversely impacted the forces.
  - ITBP personnel are at risk of several high-altitude health hazards. In the past three years alone, over 500 were said to be suffering from High Altitude Pulmonary Edema (HAPO), Acute Cerebral Edema and loss of memory.
  - \* There were over 400 personnel suffering from snow blindness and trench foot.
- There are 177 BOPs of the ITBP, of which only 24% have a regular supply of electricity. The rest (76%) are dependent on generators.
- They have not been equipped with basic training gadgets and facilities, viz., modern equipment like eight-lane firing simulator and interactive touch display.

#### **Recommendation**

- Wherever feasible, the possibility of supplying piped regular drinking water to BOPs must be explored. This must be done immediately.
- The Committee feels that the modernisation of the force must be given utmost priority as this force not only has to face any enemy from across the border but also vagaries of nature

#### 16. <u>End IPS hegemony in Central Armed Police Forces,</u> says parliamentary panel

#### <u>Context</u>

• A parliamentary panel has recommended that the post of Director-General and other senior positions in Central Armed Police Forces (CAPF) should not be reserved for Indian Police Service officers.

#### <u>Details</u>

- The panel has suggested that the nature of duty of CAPF are more similar to that of the Armed Forces and it would make more sense to bring more officers from the Armed Forces on deputation.
- The Committee recommends that the Government may re-examine the Rule 6 (1) of the IPS Cadre Rules, 1954 for fixing a limited percentage of deputation of IPS officers in the CAPFs keeping in view the interest of CAPF personnel...
  - not more than 25% posts should be reserved for Officers coming on deputation, either from IPS or from the Armed forces, in any rank,
  - \* there should be no reservation for the posts of DG in any CAPF and
  - \* The officers of the CAPF cadres should be given equal opportunity to reach the topmost ranks. ....it will go a long way to boost the morale of the CAPFs but will also provide a bigger pool of qualified officers,

#### Current Status

- The DG rank in CAPFs like the CRPF, CISF, BSF, ITBP, SSB and NSG is "100% reserved for IPS officers."
- Other positions Additional DG, Inspector General and Deputy IG — are also mostly reserved for IPS officers.

#### On CRPF workload

- CRPF personnel are deployed for the toughest internal security assignments among paramilitary forces but they have to work overtime every day without any compensation.
- On an average, CRPF personnel have to work for 12-14 hours a day without any compensation for working beyond the standard limit of eight hours.
- More than 80% of CRPF personnel cannot avail holidays and Sundays



- \* With no scope for holidays and Sundays would bring in "psychological and physical" consequences on the personnel and would affect their work.
- \* It recommended that one-sixth of a battalion should be, at any given time, mandatory training or rest or in peace stations.

#### Ministry of Home Affairs

- The exposure, training and grooming of an IPS officer matches with the job requirements for the senior posts of CAPFs
- The inter-departmental coordination between various CAPFS and State Police becomes smooth and seamless with the presence of IPS officers in every CAPF ...
- Therefore IPS officers are best suited to lead and provide supervisory directions to any CAPFs in an effective, efficient and impartial manner at these ranks

## **ENVIRONMENT AND ECOLOGY**

#### 1. Air pollution cause of 1 in 8 deaths

#### <u>Context</u>

 According to study published by the India State-Level Disease Burden Initiative, a venture of the Indian Council of Medical Research (ICMR), the Public Health Foundation of India (PHFI) and the Institute for Health Metrics and Evaluation (IHME), in collaboration with the Ministry of Health and Family Welfare, along with experts and stakeholders associated with over 100 Indian institutions, it said 26% of global premature death and disease burden by air pollution occurs in India

#### <u>Stats</u>

- The key findings from the paper include the fact that 12.4 lakh deaths in India in 2017 were due to air pollution, which included
  - \* 6.7 lakh deaths due to outdoor particulate matter air pollution and
  - \* 4.8 lakh deaths due to household air pollution.
- Over half of the deaths due to air pollution were in persons less than 70 years of age.
- In 2017, 77% population of India was exposed to ambient particulate matter PM2.5 above the recommended limit by the National Ambient Air Quality Standards.
- The report states that the highest PM2.5 exposure level was in Delhi, followed by the other north Indian States of Uttar Pradesh, Bihar and Haryana.
- The study states that the Disability-Adjusted Life Years (DALYs), attributable to air pollution in India in 2017 for major non-communicable diseases were at least as high as those attributable to tobacco use.

#### Disability-Adjusted Life Year

- It is a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death.
- It was developed in the 1990s as a way of comparing the overall health and life expectancy of different countries.
- One DALY can be thought of as one lost year of "healthy" life.
- The sum of these DALYs across the population, or the burden of disease, can be thought of as a measurement of the gap between current health status and an ideal health situation where the entire population lives to an advanced age, free of disease and disability.

#### 2. Anchar Lake

- It is a lake in Jammu and Kashmir
- The lake is connected with the famous Dal Lake via a channel "Amir Khan Nallah"
  - \* Dal is called 'Srinagar's jewel' or 'jewel in the crown of Kashmir'
- This lake with time has seen an increase in pollution due to discharge of untreated effluents
- The water here has contaminated due to direct dumping of sewage and waste material in the lake from human settlements and constant encroachments.
- The flora and fauna that was thrived in the Anchar Lake have been destroyed and it is now infested with weeds.

#### 3. Andaman's Sea Krait

- They are species of venomous sea-snake
- IUCN: Least Concern
- It is found in the Indian and Western Pacific Oceans
- It spends much of its time underwater in order for it to hunt, but returns to land to digest, rest, and reproduce.

#### <u>Issues</u>

- Sea kraits used the gradual slopes of sandy beaches to move from the sea to uprooted trees
- However, authorities have removed the uprooted treesclear the beach for tourism purposes.

#### Measures to be taken

 Giving legal protection to sandy beaches and implementing the ban on certain activities (including sand mining and tourism) can help conserve neglected fauna

#### 4. Asiatic Lion Conservation Project

#### <u>Context</u>

• The Ministry of Environment, Forest and Climate Change launched the 'Asiatic Lion Conservation Project' with an aim to protect and conserve the world's last ranging free population of Asiatic Lion.

#### <u>Details</u>

• The Asiatic Lion Conservation Project will strengthen the ongoing measures for conservation and recovery of Asiatic Lion with the help of state-of-the-art techniques, regular scientific research studies, disease management, modern surveillance techniques



• The total budget of the project for the next three years will be funded through a centrally sponsored scheme, the Development of Wildlife Habitat, with the contributing ratio of 60:40 for central and state share

#### 5. Bahuda Rookery

<u>Context</u>

• The Odisha forest department is making arrangements for new site for olive ridley mass nesting by preparing the beach at the Bahuda river mouth in Ganjam district

#### <u>Details</u>

- Around 3-km stretch of the beach from Sunapur to Anantpur at Bahuda rookery is being developed as a possible olive ridley mass nesting site.
- The Bahuda rookery is located around 20 km to the south of Rushikulya rookery coast, a major mass nesting site of olive ridleys on the Indian coastline.

#### 6. Beach Pollution

#### <u>Context</u>

 According to a study by the National Centre of Coastal Research (NCCR) apart from Air and water pollution increase in tourists in the coastal cities has led to beach pollution

#### National Center of Coastal Research (NCCR)

- It comes under the Ministry of Earth Sciences (MoES)
- It aims to apply scientific tools and techniques in addressing problems like erosion and ecosystem changes and Coastal Ocean Monitoring and Prediction System (COMAPS) programme aiming to monitor the levels of marine pollutants in the seas around India.

#### The major projects are as follows:

- Monitoring and prediction of health of estuarine and coastal waters.
- Habitat specific water quality criteria
- Ecosystem modelling

#### **Details**

- The NCCR conducted a qualitative analysis of the litter on six different beaches on the eastern and western coasts. It found that plastic litter from tourism alone accounted for 40%-96% of all beach litter.
  - \* most of the litter consisted of plastic bottles, cutlery, and thermocol
- After tourism, fishing was the next biggest source of litter. While fishing nets were a major contributor, the processing of fish on the beach also produced a lot of litter.
- Also, the proportion of biomedical litter was high in urban areas, such as Elliot's Beach and Fort Kochi Beach.

• Other than the plastic litter dropped by tourists, similar waste from creeks and inlets made its way into the sea in the monsoon

#### Cast away

The maximum amount of plastic waste across beaches in India is contributed by tourists

Fort K	ochi Beach,	Kerala		-	<u> </u>	-
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Elliot's	Beach, Ch	ennai				
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	1000	40	1.11	60	80	100

#### **Recommendations**

- India needed a National Marine Litter Policy to control and manage waste on land and prevent its entry into the marine environment.
- Experts suggest installation of debris booms and fin deflectors upstream as measures to reduce the quantity of floating solid waste entering coastal waters.
- India needed to start blue-flagging its beaches.

#### **Blue Flag for the Beaches**

- It is a certification by the Foundation for Environmental Education (FEE) which is a not-for-profit nongovernmental organisation
- In order to qualify for the Blue Flag, a series of stringent environmental, educational, safety, and accessibility criteria must be met and maintained.
- The Chandrabhaga beach on the Konark coast of Odisha will be the first in Asia to get the Blue Flag certification

#### Impact

- The beaches will be clean and well-maintained.
  - \* Waste disposal bins will be available in adequate numbers and will be regularly emptied and cleaned.
  - \* There will also be adequate recycling facilities, on or near the beach.
  - \* Good sanitary facilities, with controlled sewage disposal.
- There will be a safe access area to the beach, and the beach area will be constantly patrolled, to ensure safety and enforce the rules.
- Unauthorised camping, driving or dumping will not be allowed. There will be a sustainable means of transportation, promoted around the beach area.



 All Blue Flag beaches will have a map, that will show the different facilities available, and there will be adequate facilities in place, to prevent conflicts and accidents.

#### 7. Black Partridge

#### <u>Context</u>

 Punjab Minister Navjot Singh Sidhu has been named in a police complaint for gifting a stuffed bird, a black partridge, to Chief Minister Amarinder Singh after his return from Pakistan

#### <u>Details</u>

- IUCN: Vulnerable
- Black partridge is one of the unique species of birds that are found in interior Sindh in Pakistan. According to reports, the bird is now vanishing fast from its habitat due to natural and manmade reasons.
- Under the 1972 Wildlife Protection Act's Schedule 4, it's illegal to keep an animal or a bird or their body parts without any permission.
- The punishment could be a jail term up to three years or Rs. 25,000 fine or both

#### 8. Coastal Regulation Zone (CRZ) Notification 2018

#### <u>Context</u>

- The Union Cabinet has approved the Coastal Regulation Zone (CRZ) Notification, 2018 which was last reviewed and issued in 2011
- This is aimed at enhancing activities in the coastal regions and promoting economic growth while keeping in mind conservation principles of coastal regions.

#### Salient Features

- Allowing FSI as per current norms in CRZ areas:
  - \* As per CRZ, 2011 Notification, for CRZ-II (Urban) areas, Floor Space Index (FSI) or the Floor Area Ratio (FAR) had been frozen as per 1991 Development Control Regulation (DCR) levels.
  - \* In the CRZ, 2018 Notification, it has been decided to de-freeze the same and permit FSI for construction projects, as prevailing on the date of the new Notification. This will enable redevelopment of these areas to meet the emerging needs.
- The procedure for CRZ clearances has been streamlined.
  - \* Only such projects/activities, which are located in the CRZ-I (Ecologically Sensitive Areas) and CRZ IV (area covered between Low Tide Line and 12 Nautical Miles seaward) shall be dealt with for CRZ clearance by the Ministry of Environment, Forest and Climate Change.
  - \* The powers for clearances with respect to CRZ-II and III have been delegated at the State level with necessary guidance.

- A No Development Zone (NDZ) of 20 meters has been stipulated for all Islands: For islands close to the main land coast and for all Backwater Islands in the main land, in wake of space limitations and unique geography of such regions, bringing uniformity in treatment of such regions, NDZ of 20 m has been stipulated.
- Temporary tourism facilities such as shacks, toilet blocks, change rooms, drinking water facilities etc. have now been permitted in Beaches.
  - \* Such temporary tourism facilities are also now permissible in the "No Development Zone" (NDZ) of the CRZ-III areas as per the Notification.
  - \* However, a minimum distance of 10 m from HTL should be maintained for setting up of such facilities.
- Defence and strategic projects have been accorded necessary dispensation.
- Pollution abatement has been accorded special focus: In order to address pollution in Coastal areas treatment facilities have been made permissible activities in CRZ-I B area subject to necessary safeguards.

#### <u>Densely populated rural areas to be afforded greater</u> <u>opportunity for development:</u>

For CRZ-III (Rural) areas, two separate categories have now been stipulated as below:

a). CRZ-III A - These are densely populated rural areas with a population density of 2161 per square kilometre as per 2011 Census.

 Such areas shall have a No Development Zone (NDZ) of 50 meters from the HTL as against 200 meters from the High Tide Line stipulated in the CRZ Notification, 2011 since such areas have similar characteristics as urban areas.

b). CRZ-III B - Rural areas with population density of below 2161 per square kilometre as per 2011 Census.

• Such areas shall continue to have an NDZ of 200 meters from the HTL

#### **Benefits**

- The proposed CRZ Notification, 2018 will lead to enhanced activities in the coastal regions thereby promoting economic growth while also respecting the conservation principles of coastal regions.
- It will not only result in significant employment generation but also to better life and add value to the economy of India.
- The new notification is expected to rejuvenate the coastal areas while reducing their vulnerabilities.



## 9. Dolphins go missing in Sunderbans as water salinity rises

#### <u>Context</u>

- A recent study covering 100 km of rivers and channels around the Sunderbans have revealed that the Ganges River Dolphins is no longer sighted in the central and eastern parts of the archipelago due to rise in salinity in the water system
- They were only found in the western part of Sunderbans where the salinity is lower

#### **Details**

- This increase in salinity may be due to natural changes including the phenomenon of climate change and human interventions in the Indian Sundarbans, which are having an adverse impact on the habitat of the species
  - \* The rise in sea level, triggered by climate change, is one of the reasons for the increase in salinity of waters of rivers and channels
- Freshwater flow to the Sunderbans is crucial for the subsistence of these species. However areas such as Raidighi and Patharpratima, have lost connectivity with the upstream freshwater flow
- Hydrological modifications like water diversion and commission of large barrages upstream have had a great impact on the salinity profile of the rivers downstream in the Sunderbans,

#### 10. Florianopolis Declaration

- Florianópolis is a city in Brazil
- International Whaling Commission met in Florianópolis in September 2018 where they discussed and rejected a proposal by Japan to renew commercial whaling
- Through the "Florianopolis Declaration", it was concluded that the purpose of the IWC is the conservation of whales and that they would now safeguard the marine mammals in perpetuity and would allow the recovery of all whale populations to pre-industrial whaling levels
- Under this resolution, limited hunts by some indigenous communities are still permitted.

#### 11. Global Climate Risk Index (CRI)

- The Germanwatch Global Climate Risk Index (CRI) is an analysis based on reliable data sets available on the impacts of extreme weather events and associated socio-economic data.
- The annually published Index analyses to what extent countries have been affected by the impacts of weather-related loss events (storms, floods, heat waves etc.)
- Its aim is to contextualize ongoing climate policy debates – especially the international climate negotiations – with real-world impacts during the last 20 years.

- The CRI indicates a level of exposure and vulnerability to extreme events. The Germanwatch comes out with the CRI by analysing
  - \* number of deaths per 1,00,000 inhabitants,
  - \* extent of financial losses and
  - \* Loss per unit of Gross Domestic Product (GDP) of countries.
- In the present analysis, only weather related events storms, floods and temperature extremes (heat and cold waves) - are incorporated.
  - \* Geological incidents like earthquakes, volcanic eruptions or tsunamis, for which data is also available, are not relevant in this context as they do not depend on the weather and therefore are not possibly related to climate change

#### What does the report say?

- India is placed at 14th among countries most affected by extreme weather events in the last 20 years
  - \* India reported 2,736 extreme weather-related deaths in 2017.
  - \* However, India improved its overall tally to become 14th most vulnerable country to climate risk, from 6th in 2016 and 4th in 2015.
  - \* In the last 20 years, India had reported losses of over 73,000 human lives from extreme weather.
- Puerto Rico came in first, with 2,978 fatalities.
- India's neighbours are placed even higher. Myanmar is at rank 3, Bangladesh at 7, Pakistan at 8 and Nepal at 11 in the report

COUNTRY RANK		DEATHS/YEAR	LOSSES/YEAR (Smn PPP)	
Puerto Rico	1	150.05	5,033.16	
Honduras	2	302.45	556,56	
Myanmar	3	7,048.85	1,275.96	
Bangladesh	7	635.50	2,403.84	
Pakistan	8	512.40	3,826.60	
Nepal	11	235.30	230.83	
India	14	3,660.60	12,822.71	
Sri Lanka	31	60.75	491.05	
China	37	1,240.80	36,601.70	
Bhutan	105	1.65	4.99	

### THE 3 WORST HIT, AND INDIA & NEIGHBOURS

Source: Germanwatch data for 1998-2017



#### 12. Global Stocktake

- Global stocktake' refers to a proposed five-yearly review of the impact of countries' climate change actions.
- Under the Paris Agreement, every country must present a climate action plan in five-yearly cycles. It is supposed to be similar to the plan countries submitted in the run-up to the talks
- Under the Paris Agreement, the first global stocktake will happen in 2023. It will assess whether the net result of the climate actions being taken was consistent with the goal of keeping the increase in global average temperature from pre-industrial times to within 2 degree Celsius. The stocktake will help the world determine whether it needs to do more — and how much more.
- Every country is required to participate in the global stocktake, the exercise will not assess whether actions of any individual country are adequate or not. It will only make an assessment of the "collective" efforts of the world.
- That is because the climate actions are supposed to be "nationally determined", and nations have problems over being told by others what they should do. The stocktake will not go into who should do how much — and will rather focus on what needs to be done.

#### How does it work?

- In accordance with the demands of developing countries, the stocktake will cover not only the results of actions to reduce greenhouse gas emissions but of actions being taken to adapt to the effects of climate change as well.
- It will also include an assessment of whether developed countries are offering adequate help to developing countries by providing money and technology, as mandated by the Paris Agreement.

#### 13. Great Indian bustard

- It is a bustard found in the Indian subcontinent.
- The body is brownish and the wings are marked with black, brown and grey. Males and females generally grow to the same height and weight but males have larger black crowns and a black band across the breast.

#### <u>Status</u>

- Listed in Schedule I of the Indian Wildlife (Protection) Act, 1972
- · CMS Convention and in Appendix I of CITES,
- Critically Endangered on the IUCN Red List

#### **Threats**

- The biggest threat to this species is hunting
- collisions with high tension electric wires

- The untamed, arid grasslands that bustards thrive in are categorised as 'wastelands', like most grassland habitats in India. The push to make these areas more 'productive' has seen an increase in water availability in these parts, resulting in the spillover of agricultural land into bustard habitats.
  - \* These birds are predominantly insect-eaters, bustards "relished" arugula plants and ate cultivated Bengal gram and Ziziphus or ber berries.
  - \* But, Intensification of agriculture including more pesticides, barbed-wire fences and new crops could endanger the birds' survival.

#### <u>Measures</u>

- A landscape-level approach that will incentivise people to take up less intensive agriculture is required
- Talks for a bustard conservation breeding centre in Rajasthan are ongoing, and land will soon be allotted

#### 14. Himalayan griffon vultures visit habitat in Telangana

#### <u>Context</u>

 In a rare occurrence, two Himalayan griffons (Gyps Himalayensis), categorized as Old World Vulture, were sighted at the colony of long-billed vultures (Gyps Indicus) conservation project situated at Palarapu cliff in the forests of Nandigoan village in Penchikalpet mandal.

#### Himalayan vulture

- The Himalayan vulture or Himalayan griffon vulture is an Old World vulture in the family Accipitridae.
- It is one of the two largest Old World vultures and true raptors.
- Himalayan griffons do not breed in the first three years, and hence juvenile birds of the species do not remain in breeding grounds to avoid competition.
- The species has been listed as Near Threatened by the IUCN.
- It is also found in Kazakhstan, China, Afghanistan, Bhutan, Thailand, Burma, Singapore and Cambodia.

#### 15. <u>International Centre for Integrated Mountain</u> <u>Development (ICIMOD)</u>

- It is a regional intergovernmental learning and knowledge sharing centre serving the eight regional member countries of the Hindu Kush Himalaya

   Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan – and based in Kathmandu, Nepal.
- Globalization and climate change have an increasing influence on the stability of fragile mountain ecosystems and the livelihoods of mountain people.
- ICIMOD aims to assist mountain people to understand these changes, adapt to them, and make the most of new opportunities, while addressing upstreamdownstream issues.



#### **Significance**

- It supports regional transboundary programmes through partnerships with regional partner institutions, facilitate the exchange of experience, and serve as a regional knowledge hub.
- It strengthens networking among regional and global centres of excellence.
- They are working to develop an economically and environmentally sound mountain ecosystem to improve the living standards of mountain populations and to sustain vital ecosystem services for the billions of people living downstream, now and for the future.

#### 16. International Conference on Sustainable Water Management

#### <u>Context</u>

- The first International Conference under the aegis of National Hydrology Project, Union Ministry of Water Resources, River Development and Ganga Rejuvenation is being organized by Bhakra Beas Management Board (BBMB) at Indian School of Business (ISB), Mohali on the theme 'Sustainable Water Management'.
- The theme of the Conference deals with promoting integrated and sustainable development and management of Water Resources.

#### <u>Details</u>

 The aim of the Conference is to foster the participation of and dialogue between various stakeholders, including governments, the scientific and academic communities, so as to promote sustainable policies for water management, to create awareness of water-related problems, motivate commitment at the highest level for their solution and thus promote better management of water resources at local, regional, national and international levels.

#### 17. Indian Pangolin/ Thick-Tailed Pangolin/ Scaly Anteater

- IUCN: Endangered
- It is a pangolin found on the Indian subcontinent
- It is an insectivore, feeding on ants and termites, digging them out of mounds and logs using its long claws
- It is nocturnal and rests in deep burrows during the day.

#### **Unique Attributes**

- Its overlapping scales on its body act as armour.
- It can also curl itself into a ball as self-defence against predators such as the tiger.
- The colour of its scales varies depending on the colour of the earth in its surroundings.

#### **Threats**

- The Indian pangolin is threatened by hunting for its meat and for various body parts used in traditional medicine
- In traditional Chinese medicine, pangolin scales are also believed to treat a wide variety of conditions including psoriasis and poor circulation.

#### 18. India Water Impact Summit

- It is an annual event where stakeholders get together to discuss, debate and develop model solutions for some of the biggest water related problems in the country.
- It is jointly organized by the National Mission for Clean Ganga (NMCG) and the Centre for Ganga River Basin Management and Studies (cGanga)
- The discussion in 2018 is on rejuvenation of the Ganga River Basin. There will be multi-country dialogue on the subject, with showcasing of technological innovations, research, policy frameworks and funding models from India and abroad.

#### The Summit will focus on three key aspects:

- Spotlight on 5 states: Uttarakhand, Uttar Pradesh, West Bengal, Delhi and Bihar.
  - \* The objective is to showcase the efforts and works going on within the respective states.
- Ganga Financing Forum: The 2018 Summit also introduces the inaugural Ganga Financing Forum that will bring a number of institutions to a common knowledge, information and partnership platform.
  - \* The Hybrid Annuity Model has redefined the economic landscape of water and waste-water treatment in India.
  - \* All tenders have been successfully bid out and financial closures being achieved. Additionally, the Government is also now encouraging development of smaller decentralised waste water treatment projects.
  - \* The Financing Forum will bring together financial institutions and investors interested in Namami Gange programmes.
- Technology and Innovation: Implementation of the pilot/demonstration programme known as the Environment Technology Verification (ETV) process.
  - \* This will provide an opportunity to technology and innovation companies from around the world to showcase their solutions for addressing the problems prevalent in the river basin.

#### <u>Context</u>

• Shri Nitin Gadkari was speaking at the three-day long India Water Impact Summit 2018



#### Green Ganga App

- It was developed by Remote Sensing Centre of ISRO
- Green Ganga App is used for geo-tagging of saplings and delineation of plantation boundaries under ongoing afforestation activities of Namami Gange programme.

#### 19. Katarniaghat Wildlife Sanctuary

- It is a protected area in the Upper Gangetic plain in Uttar Pradesh
- In 1987, it was brought under the purview of the 'Project Tiger', and together with the Kishanpur Wildlife Sanctuary and the Dudhwa National Park it forms the Dudhwa Tiger Reserve
- The Katerniaghat Forest provides strategic connectivity between tiger habitats of Dudhwa and Kishanpur in India and the Bardia National Park in Nepal.

#### <u>Context</u>

- Golfer Jyoti Randhawa was arrested for allegedly poaching in a forest range in Bahraich district of Uttar Pradesh. They were arrested in Motipur range of Katerniaghat
- A dead fowl and hides of Sambhar deer and boar were seized

#### 20. Katowice Climate Change Conference- COP24

#### <u>Context</u>

• The 2018 UN climate change conference (COP24) was held from 2nd to 14th December in Katowice, Poland.

#### **Katowice**

- It is a city in southern Poland.
- It has rich coal reserves in the area



#### <u>Agenda</u>

- The purpose of the meeting was to set guidelines, and processes or agree on a rulebook, to implement pledges that were made by various countries at the Paris Climate Conference in 2015 that seeks to keep the global average temperatures from rising above 2 degree Celsius from the pre-industrial times.
- These include such things as agreeing on accounting standards to measure emissions, processes for Monitoring, Reporting and Verification (commonly referred to as MRV in climate negotiation circles) of actions being taken by individual countries, mechanisms to raise financial resources and ensure the flow of funds for climate projects, and institutions to facilitate the diffusion of appropriate technologies to countries and regions that need them.
- The rulebook is a dynamic document, meaning new rules can be added, or existing rules amended.

#### **Background**

- The world is reeling under the effects of climate disasters. From Kerala to California, extreme weather events are killing people, destroying properties and businesses. This, when the global temperature has only increased by 1.0°C from preindustrial levels.
- The Intergovernmental Panel on Climate Change's Special Report on Global Warming of 1.5°C makes it clear that the impacts are going to be substantially higher at 1.5°C warming and catastrophic at 2.0°C. The worst part is that most countries, including the US and the European Union, are not even on track to meet their meagre commitments to curb emissions.

#### Paris Agreement was weak

The reason is the architecture of the Paris Agreement itself.

- The Paris Agreement is a voluntary agreement in which countries are free to choose their own climate targets, called Nationally Determined Contributions (NDCs).
  - \* Developed countries and rich developing countries were expected to take higher emission reduction targets than poor developing countries.
  - \* But if a rich country doesn't commit to a higher emissions cut, no one can demand a revision of targets.
- Worse, if a country fails to meet its NDCs, there is no penalty. The agreement, therefore, based on the goodwill of countries.
- Since the beginning, climate negotiations have been viewed as an economic negotiation and not as an environmental negotiation. So, instead of cooperation, competition is the foundation of these negotiations.
- The fact is every country is looking for its own narrow interest and not the larger interest of the whole world. They are, therefore, committing to as little climate targets as possible.



#### What was agreed at COP24 in Poland?

Katowice summit was primarily about the rulebook.

- First, the summit seeks to instill discipline in a process governed by "national determination".
  - \* Under the Paris Agreement, states have complete autonomy on the nature and type of climate actions they choose to take, subject to the expectation that they represent a progression on past actions.
  - \* However, the rules now require them to provide detailed information of their actions. If states have absolute economy-wide targets, they need to provide quantifiable information on their reference points for measurements, the gases covered their planning processes, assumptions and methodological approaches, how they consider their contribution as fair and ambitious, and how it contributes to the objective of the regime.
- Second, the rules flesh out the obligations of states identified in the Paris Agreement, and make them meaningful.
  - \* For instance, the Paris Agreement contained a general obligation for developed countries to report biennially on their provision and mobilization of climate finance.
  - \* The rules identify 15 specific pieces of information that states should submit in these reports, including "projected levels of public financial resources to be provided to developing countries".
- Third, the rules operationalize the key processes established by the Paris Agreement — a transparency framework, a "global stocktake" and a compliance regime — that seek to impose accountability and facilitate implementation.
  - \* The transparency framework requires states to report on indicators for measuring progress in achieving their targets, which is significant as the Paris Agreement does not impose a binding obligation on states to achieve their targets.
- Fourth, International spirit is still alive as many countries came up together, negotiated, worked out differences and were ready to work as a global unit
- Finally, the conference also saw the rise of energized young generation in greater numbers who were more active than the older generation which had even questioned the changes of Global warming

#### Issues over carbon credit

Article 6 of Paris Agreement talks about setting up the market mechanism for trading of carbon emissions.

• There was a row over carbon credits, which are awarded to countries for their emissions-cutting efforts and their carbon sinks, such as forests, which absorb carbon.

- A carbon market allows countries, or industries, to earn carbon credits for the emission reductions they make in excess of what is required of them.
  - \* These carbon credits can be traded to the highest bidder in exchange of money.
  - \* The buyers of carbon credits can show the emission reductions as their own and use them to meet their own reduction targets. These credits count towards countries' emissions-cutting targets.
- In the last few years, as several countries walked out of the Kyoto Protocol, and no country was feeling compelled to meet its 2020 emission reduction targets, there has been virtually no demand for carbon credits.
  - \* As a result, developing countries like China, India and Brazil have accumulated huge amounts of unused carbon credits. Together, China and Brazil are estimated to account for about 70% of global unused carbon credits.
  - \* When the rulebook was being discussed in Katowice, these countries argued that their unused carbon credits should be considered valid in the new market mechanism that was being created, something that the developed countries opposed strongly.
- Brazil, which hopes to benefit from its large rainforest cover, insisted on a new form of wording that critics said would allow double counting of credits, undermining the integrity of the system.
- This issue has been put off until 2019.

#### COP 24 had questionable areas which were unaddressed

- The very first impediment was the event itself which was hosted by coal-reliant Poland, which has sought to protect its mining industry.
  - \* President Andrzej Duda even said he would not allow Poland's coal mining industry to be eliminated. These words had a negative vibe as coal industry is one of the major contributors of pollution
- Some countries and green groups criticized the outcome as there was more words and less of ambition as emissions to curb rising temperatures fell short of intended objective.
- Poorer nations vulnerable to climate change also wanted more clarity on how an already agreed \$100 billion a year of climate finance by 2020 will be provided
  - \* Funds for finance, better terms for new technologies to be transferred to developing and vulnerable countries, and economic and non-economic support for loss and damage and their equitable moorings in the text have been eliminated, minimised or footnoted



- The special report on the impacts of 1.5C global warming, published by the International Panel on Climate Change (IPCC) in October 2018, became a major source of tension at the talks.
  - \* Four countries the US, Saudi Arabia, Russia and Kuwait – delayed the conclusion of a technical plenary by refusing to "welcome" the report. Instead, they only wanted to "note" it, which led furious climate-vulnerable countries to trigger a clause which means the resolution has been postponed until the next session in 2019
  - \* But the EU, a handful of other developed countries and scores of developing nations including the poorest and most vulnerable affirmed that they would strive to meet the IPCC's advice on limiting warming to no more than 1.5C.

#### What was India's response?

- India reaffirmed its commitment to meeting the goals under the Paris Agreement and engaged in all the negotiations while protecting its key interests, including climate justice.
- It expressed strong reservation over the lack of equity in the global stock-take decision, a proposed five-yearly review of the impact of countries' climate change actions.
- India had expected that decisions would be in consonance with the principles of the United Nations Framework Convention on Climate Change and the Paris pact.

#### What should India do?

- At an estimated 1.2 tonnes of CO2 per capita, India emits far below the global average of 4.2 tonnes.
- Yet, cumulative emissions determine the impact on climate, and India's emissions grew at an estimated 6.3% in 2018.
- The prospect of increased frequency and intensity of extreme weather events and sea level rise in a warming world affecting small island states allows little room for complacency.
- The task now is to achieve a paradigm shift that will slow down the addition of new sources of carbon emissions. As a party to the global climate compact, India has to systematically assess its emissions and measure mitigation actions for reporting to the UNFCCC at stock-taking meetings.
- This is an opportunity to bring major sectors such as energy production, building, agriculture and transport on board, and make changes to regulations that favour environment-friendly alternatives.
- China has taken the lead in advancing electric mobility, while individual States and cities are ahead of national governments, as in the U.S., in reducing their carbon footprint. A clean-up in India will help meet emissions commitments and remove the blanket of air pollution that is suffocating entire cities.

#### Way forward

- The Katowice rules detailed, complex and sciencebased — seeks to instill discipline and accountability in the climate regime. While far from perfect, they strike a fine balance between competing interests, create hooks for all parties to operationalize equity, and privilege the flow of information within the system. It's now time to take the pressure off the international negotiations to set the rules, and begin the arduous process of following them. With new rules in hand, it's finally time to begin implementing the Paris Agreement and delivering action on the ground.
- The UN will meet again in 2019 in Chile to thrash out the final elements of the Paris rulebook and begin work on future emissions targets.
- But the crunch conference will come in 2020, when countries must meet the deadline for their current emissions commitments and produce new targets for 2030 and beyond that go further towards meeting scientific advice.

#### 21. Mangalajodi

 It is a village located on the northern banks of Chilika Lake in Odisha



Pacific black ducks at the Mangalajodi bird sanctuary on the banks of the Chilika Lake in Odisha. • BEBWARANDAR

- Pacific black duck (Anas superciliosa)
- IUCN: Least Concern

#### 22. Markermeer

- It is one of Europe's largest freshwater lakes.
- The lake was once part of the Zuiderzee, an engineering wonder of the world completed in 1932, which closed off a huge expanse of water to keep out the North Sea and combat flooding.
- Vital in a country where 26% of the land is below sea level, the scheme created an inland lake and polders, land reclaimed from the sea, but at a cost to the environment.



- Over the subsequent decades, sediment used to create a dyke separating the Markermeer from a neighbouring body of water, the ljsselmeer, washed away and sunk to the bottom of the lake.
- That turned the water cloudy, negatively impacting fish and bird populations, plants and molluscs.
- This lake once was teeming with fish, But this vast 700-square-km expanse of water, is currently devoid of aquatic life.

#### <u>Context</u>

- Dutch engineers build artificial islands to bring wildlife back.
- The Marker Wadden is an artificial archipelago in development located in the Markermeer

#### **Details**

- The project, initiated by Natuurmonumenten, a Dutch non-governmental organisation, cost €60 million (\$68 million) much of it donated by individuals.
- The main aims was to create breeding grounds, islands and coast line and to improve the water ecology of the Markermeer. The project creates a wetland, comparable with the Wadden Sea
- The Dutch used an innovative technique, forming the islets with silt, a sedimentary formation halfway between clay and sand.
- So the uniqueness of the project is use of silt while sand is used world over

#### **Significance**

- There is increase in plankton activity that guarantees a large amount of food for the birds.
- Greylag goose, common tern, several species of waders such as the great egret and the night heron have also returned, testifying to the islands' success.

#### 23. Munroe Island

- Munroe Island or Mundrothuruthu is an inland island in Kollam district, Kerala
- Munroe Thuruthu is a string of eight islets at the confluence of the Ashtamudi Lake and the Kallada River.
- The place is named in honor of Resident Colonel John Munro of the former Princely State of Travancore.

#### **Concerns**

- The sinking island has become a cause of worry for future generation as their houses are inundated with water.
  - \* Another problem on the island is the scarcity of drinking water. During high tide, the public water supply system stops functioning and water has to be transported in canoes.
  - \* As water enters their houses this could result into unhygienic conditions, this has also resulted in skin diseases previously

- Connectivity is a major problem for the residents
  - \* Two islets in Munroe, which include Pattamthuruthu and Peringalam, do not have motorable roads.
  - \* Elders, pregnant women, and people with serious health issues suffer a lot
- Many farmers then turned to aquaculture
  - \* The floods caused a sudden change in the chemical parameters of the water, making it a less suitable environment for many species.
  - \* Then the change in the salinity level led to the vanishing of plankton which, in turn, will affect fish production in future

#### Thenmala dam

- The dam was begun in 1961 under the Kallada Irrigation and Tree Crop improvement venture in Kerala
- It is now a centre of attraction at Thenmala and an ecotourism destination, with boating available on the reservoir, which is bordered on both sides by the Shendurney Wildlife Sanctuary

#### <u>Issue Area</u>

- The dam blocked the flow of fresh water as a result of sediments from the Kallada river the main determinant of the land's fertility.
- Today the whole area has turned saline.
  - \* This saline intrusion has stripped the soil of its fertility. Now the coconut trees on the island are mostly barren stumps.
  - \* The local coir industry too collapsed due to a shortage of the raw material.

#### **Probable Solution**

- This will require the concept of disaster-proof amphibious houses that can either be floating type or built on stilts.
- They use low-weight and water-resistant material and the units will have chemical toilets.
- At a later stage, we can focus on the possibilities of reviving agriculture and tapping the tourism potential of the place.
- The island can also be marketed as a model showcasing the terrifying consequences of global warming.

#### 24. Natal homing, or Natal Philopatry

- It is the homing process by which some adult animals return to their birthplace to reproduce.
- This process is primarily used by aquatic animals, such as sea turtles and Pacific salmon\
  - \* Olive Ridley turtles on the Gahirmatha seashore of Odisha
- Scientists believe that the main cues used by the animals are geomagnetic imprinting and olfactory cues.



• The benefits of returning to the precise location of an animal's birth may be largely associated with its safety and suitability as a breeding ground.

#### 25. Project Tsang-da

- 'Tsangda' or 'Stangda' means cleanliness in the local Bothi (Ladakhi) language.
- It is an initiative towards sustainable waste management in rural and semi-rural areas of the Leh District
- The project turned the waste into revenue-generating goods, such as curtains, toys and cushion covers
- Wine or beer bottles and other broken glasses were also reused in construction of roads and buildings by local construction companies

#### 26. Rat Kangaroo

#### <u>Context</u>

• A truffle-eating Australian marsupial known as the rat kangaroo has suffered a dramatic population decline and could become extinct without urgent action to save the species.

#### **Details**

- World Wildlife Fund said only two populations of the northern bettong remained in the wet coastal tropics of northern Queensland State, numbering at most 2,500 individuals, down 70 per cent in the past 30 years.
- It plays a really unique role in maintaining ecological function in the vegetation. So if we lose it and other species like it we could be looking at ecological collapse

#### **Threats**

 The nocturnal, rabbit-sized bettongs are at risk from feral cats, land-clearing and wildfires, which have become more frequent and fierce in Queensland due to climate change.

#### 27. Sariska Reserve

#### <u>Context</u>

 The National Green Tribunal (NGT) has directed all mining activities within 10 km radius of the Sariska Tiger Reserve be stopped immediately till mining leases are cleared by the standing committee of the National Board of Wildlife (NBWL),

#### NGT decision are on the following grounds:

- Supreme Court had in 2006, prohibited any mining activity within 1 km of national parks and sanctuaries.
- Following the apex court order, the Union environment ministry had also stipulated in their memorandum dated December 2, 2009 that all cases where environmental clearance had been given to mining projects around national parks be placed before the Standing Committee of the NBWL for evaluation.

• Rajasthan is yet declare an eco-sensitive zone (ESZ) for Sariska Tiger Reserve.

#### <u>Concerns</u>

- Mining activities in proximity of wildlife habitats have negative impacts on the wild animals.
- Those activities fragment habitats and movement corridors.
- Therefore, it is important to add adequate buffer to the wildlife habitats which can be in the form of ESZ

#### **Background**

 The state-level environment impact assessment authority (SEAC), Rajasthan and district-level environment impact assessment authority (DEIAA), Alwar had together issued 70 mining clearances in 2016 out of which 24 were in the 10 km radius of Sariska reserve.

#### 28. Storheia Wind Park

#### <u>Context</u>

- The Petroleum and Energy Ministry of Norway has given permission to proceed with the 288 megawatt (MW) Storheia wind park, which is part of Europe's largest onshore wind power project being developed by the Fosen Vind consortium.
- This wind park would come up in an area used for reindeer grazing

#### <u>Concerns</u>

- UN Committee on the Elimination of Racial Discrimination asked Norway to suspend the project so that it could examine a complaint that the project would disturb reindeer herding, a traditional activity of the Sami people.
- The turbines in the park could frighten the animals.

#### 29. Tiger Deaths

#### <u>Context</u>

- According to the National Tiger Conservation Authority's (NTCA) records till December 15, 2018, there were 95 cases of tiger deaths in the country. Of this, 41 cases of tiger deaths outside tiger reserves have been reported.
- The NTCA maintains the official database of tiger mortality in the country, and compiles figures from reports sent by different States on the basis of recovery of bodies or seizure of body parts.





#### Causes of Death

- One of the major reason why tigers are dying in Maharashtra is because many of the tigers are living outside tiger reserves
- In several areas, tigers are not only living outside reserve areas, but are venturing into human dominated landscapes, which increases the probability of human-animal conflict and results in deaths

#### 30. Water Conservation Fee (WCF)

#### <u>Context</u>

- In order to comply with various directions of the Hon'ble NGT and to address various shortcomings in the existing guidelines of ground water extraction, the Central Ground Water Authority, Ministry of Water Resources, River Development and Ganga Rejuvenation notified revised guidelines for ground water extraction.
- The revised guidelines aim to ensure a more robust ground water regulatory mechanism in the country.

#### <u>Stats</u>

- Ground water extraction in India is primarily for irrigation in agricultural activities, accounting for nearly 228 BCM (Billion Cubic Meter), which amounts to 90% of the annual ground water extraction.
- The remaining 10% of extraction (25 BCM) is for drinking & domestic as well as industrial uses.
- Industrial use is estimated to account for only about 5% of the annual ground water extraction in the country.
- India is the largest user of ground water in the world, extracting ground water to the tune of 253 bcm per year, which is about 25% of the global ground water extraction.

#### **Details**

- The WCF payable varies with the category of the area, type of industry and the quantum of ground water extraction and is designed to progressively increase from safe to over-exploited areas and from low to high water consuming industries as well as with increasing quantum of ground water extraction.
- The high rates of WCF are expected to discourage setting up of new industries in over-exploited and critical areas as well as act as a deterrent to large scale ground water extraction by industries, especially in over-exploited and critical areas.
- The WCF would also compel industries to adopt measures relating to water use efficiency and discourage the growth of packaged drinking water units, particularly in over-exploited and critical areas.

#### Other salient features of the revised guidelines

- They are encouraged to use recycled and treated sewage water by industries, provision of action against polluting industries, mandatory requirement of digital flow meters, piezometers and digital water level recorders (with or without telemetry depending upon quantum of extraction), mandatory water audit by industries abstracting ground water 500 m3/day or more in safe and semi-critical and 200 m3/day or more in critical and over-exploited assessment units, mandatory roof top rain water harvesting except for specified industries and measures to be adopted to ensure prevention of ground water contamination in premises of polluting industries/ projects.
- As per the revised guidelines, exemption from requirement of NOC has been given to
  - \* Agricultural users, users employing nonenergised means to extract water,
  - \* Individual households (using less than 1 inch diameter delivery pipe) and
  - \* Armed Forces Establishments during operational deployment or during mobilization in forward locations.
- Other exemptions (with certain requirements) have been granted to strategic and operational infrastructure projects for Armed Forces, Defense and Paramilitary Forces Establishments and Government water supply agencies.

#### Who is authorized to regulate this sector?

- Central Ground Water Authority (CGWA), constituted under the Environment (Protection) Act of 1986 has the mandate of regulating ground water development and management in the country.
- CGWA has been regulating ground water development for its sustainable management in the country through measures such as issue of advisories, public notices, grant of No Objection Certificates (NOC) for ground water withdrawal.



#### 31. 'India third largest contributor to carbon emission'

#### <u>Context</u>

• According to researchers at the University of East Anglia (UEA) and the Global Carbon Project, Global carbon emissions are set to hit an all-time high of 37.1 billion tonnes of CO2 in 2018

#### Global Carbon Project

- The Global Carbon Project was established in 2001 by a shared partnership between the International Geosphere-Biosphere Programme (IGBP), the International Human Dimensions Programme on Global Environmental Change (IHDP), the World Climate Research Programme (WCRP) and Diversitas.
- The organisation seeks to quantify global carbon emissions and their causes.
- The project has brought together emissions experts and economists to tackle the problem of rising concentrations of greenhouse gases.

#### What does it say?

- India is the third-highest contributor and it is projected to see emissions rise by 6.3% from 2017.
  - \* The 2.7% projected global rise in 2018 has been driven by appreciable growth in coal use for the second year in a row, and sustained growth in oil and gas use

#### World over

- The 10 biggest emitters in 2018 are China, U.S., India, Russia, Japan, Germany, Iran, Saudi Arabia, South Korea, and Canada.
- The EU as a region of countries ranks third.
- China's emissions accounted for 27% of the global total, having grown an estimated 4.7% in 2018 and reaching a new all-time high.
- Emissions in the U.S., which has withdrawn from its commitment to the Paris Agreement, account for 15% of the global total, and look set to have grown about 2.5% in 2018 after several years of decline.

Southern Asian countries do not today face existential national security threats from abroad but real threats to national security today are internal

#### 32. <u>SC directs Centre to declare 10 km area around</u> national parks as eco-sensitive

#### <u>Context</u>

- The Supreme Court directed the Union Environment Ministry to declare 10 km area around 21 national parks and wildlife sanctuaries across the country as 'eco-sensitive zones'.
- This was because the State governments have taken no effort to protect the area around the sanctuaries and parks.

#### Sanctuaries in Picture

The parks and sanctuaries are the Pobitora sanctuary in Assam; Hemis High Altitude and Kishtewar national parks, Changthang, Hokersar, Trikuta sanctuaries in Jammu and Kashmir; Jogimatti, Thimlapura and Yadahalli Chinkara sanctuaries in Karnataka; Deolgaon Rehekuri and Thane Creek Flamingo sanctuaries and the Malvan marine sanctuary in Maharashtra; Siroi National Park and Khongjaingamba Ching sanctuary in Manipur; Baghmara Pitcher Plant sanctuary in Meghalaya; Fakim and Puliebadze and Rangapahar sanctuaries in Nagaland; Dr. Bhimrao Ambedkar bird sanctuary and Pilibhit sanctuary in Uttar Pradesh and the Jorepokhri sanctuary in West Bengal.

#### 33. <u>Himalayas may face water crisis due to Global</u> <u>Warming</u>

#### <u>Context</u>

• A study by Ohio State University in the U.S. showed that climate change could have devastating effects on vulnerable residents in the Andes Mountains and the Tibetan plateau.

#### <u>Details</u>

- Climate change is driving glaciers in the Himalayas to melt more rapidly than at any point in the last 10,000 years, and could soon cause water supply shortage in parts of India, Pakistan, and Nepal.
  - \* Melting glaciers can trigger such hazards as avalanches and floods. They also can have longlasting effects on a region's water supply.
  - \* As the glaciers melt, initially those regions will have more water. However, over time, as the glaciers shrink, the water those glaciers typically supply will dwindle
- By 2100, the best case scenario is that half of the ice will disappear. Worst-case scenario: two-thirds of it will.
- The glaciers in Peru supply critically needed water for people, crops and livestock.
  - \* The effects in Peru, too, could be far-reaching, particularly on Peruvian agriculture and on the water supply in Lima, the Peruvian capital.
- Water supply is declining, demand is rising because of growing populations.
- Researchers are hoping that by studying the glaciers in both areas, they will find answers to slow glacial retreat -- or to provide new water sources to at-risk areas.

#### 34. <u>N-E varsity researchers patent process to treat</u> industrial waste

#### <u>Context</u>

• Researchers from the North-Eastern Hill University (NEHU) based in Meghalaya capital Shillong have patented a fast, energy-efficient and low-cost process for treatment and bio-detoxification of industrial effluents contaminated with harmful azo-dye.





#### <u>Background</u>

- The traditional treatment of environmentally damaging waste-water effluents with appropriate chemicals processes such as chemical precipitation, coagulation and electrocoagulation only transfers the contaminating chemical entities and chemical groups of the waste-water to other media, thereby producing secondary wastes.
- In some cases, these secondary wastes, intermediates and by-products formed by the second process of chemical remediation or detoxification may produce equally or more toxic chemical entities than the original toxicants and pollutants

#### <u>Concerns</u>

- Most strains of E. coli, a common kind of bacteria that lives in the intestines of animals and people, are harmless. Their survival is crucial for bio-flora and fauna
- The release of such effluents into the environment could adversely affect the survival of aquatic microorganisms, flora and fauna, thereby disturbing the entire ecosystem and ecological balance.

#### Current Scenario

- The so-called waste-water is not really suitable for release directly into streams, rivers and other water bodies. So the reserchers recognised this serious shortcoming of the existing technologies in the domain, and came up with the innovative technology
- The 'green process' developed for treating wastewater from industries such as textile, leather and paint is 25% faster, 40% more energy-efficient and more sustainable than the existing technology.
- This process has also been found to leave the discharge environmentally benign and thus likely to be equally non-toxic to other bio-flora and fauna.

#### 35. 1,000 fine for 'nailing' trees

#### <u>Context</u>

 Odisha's Berhampur Municipal Corporation (BeMC) has decided to slap a ₹1,000 fine on persons or advertising agencies hammering nails to put up publicity materials on trees of the city.

#### **Details**

- The decision was taken to save the trees from internal injuries that lead to their premature death.
  - \* Metal nails, wires and publicity materials are being removed from the trunks as they are major cause of slow death of trees.
  - \* A herbal concoction comprising pastes of neem leaves, turmeric, cow dung and clay from the base of ponds is being used to heal the wounds of trees
- It has also been resolved to remove metal protectors that constrict the trunks of grown up trees.

- \* The protectors were installed to protect the saplings when they were planted but were not removed even after the trees grew up.
- Super cyclone of 1999, Phailin of 2013, Hudhud in 2014 and the Titli cyclone have uprooted most big trees in Berhampur. So efforts are on to save the existing large trees and provide them longevity

#### 36. The plastic question is hard to crack

#### <u>Context</u>

- Plastics are detrimental to human health because of the chemicals used in their production. These chemicals are used to change the properties of plastics. Humans are exposed to such toxins through air and water, through food such as fish, or direct contact with plastic products.
- Last year December, 193 nations signed pledge to tackle 'global crisis' of plastic in the oceans.

#### <u> Plastic – Can we live without it?</u>

- Synthetic polymer is embedded in daily life, from clothing to furniture and medical care to your smartphone. It's integral to a globalised food supply chain.
- Plastic is a great material for that application because it's a water barrier, it's an oxygen barrier, it's lightweight and it helps preserve food

#### **Concerns with the Plastic**

- Globally, one million plastic bottles are purchased every minute. A report produced by the World Economic Forum (2018) found that by 2050, there will be more plastic than fish in the world's oceans due to 13 million tonnes of plastic ending up in the ocean each year. Managing plastic waste is increasingly becoming a global environmental and economic challenge.
- Most used plastic materials are non-biodegradable and decompose at different rates – they threaten marine life and the well-being of people, as microplastics are now found even in drinking water.
- Plastic waste is a risk to public health as it enters our food chain, creates congestion problems in drains, causing flooding, ends up in river beds and oceans, depleting ecosystems and marine biodiversity, and makes solid waste management more expensive as landfills and open incineration do not provide an acceptable solution for disposal.
- The production process for plastic produces greenhouse gas, thus contributing to climate change.

#### Are other countries worried?

- Jurisdictions around the world, including the European Union, are moving to restrict disposable items such as plates and straws.
- At least 33 countries ban plastic bags, but enforcement is spotty. Kenya has one of the most stringent bans

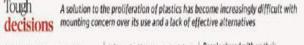
   five manufacturers and 70 distributors were prosecuted there in the first half of 2018.

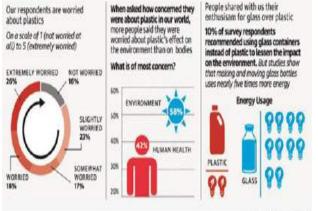


• But banned disposable bags have been replaced with thicker, ostensibly-reusable, bags of polypropylene fibre — in other words, more plastic.

#### What are the solutions?

- Local actions are required for mitigating plastic pollution, using mechanisms such as bans on plastic bags, maximum daily limits for emissions into watersheds, and incentives for fishing gear retrieval.
- Countries should come together to establish measurable reduction targets for plastic waste. A meaningful international agreement—one with clearly defined waste reduction targets is the need of the hour.
- Effective policies must take into account all stages of the lifecycle of plastic—connecting producers to users and ultimately to waste managers.
- Fossil fuel subsidies incentivise the plastic market. Hence, Countries should end fossil fuel subsidies. Annually, 4–8% of oil is used to produce raw plastic.
- India has a major problem dealing with plastics, particularly single-use shopping bags that reach dumping sites, rivers and wetlands along with other waste.
- The most efficient way to deal with the pollution is to control the production and distribution of plastics.
- Banning single-use bags and making consumers pay a significant amount for the more durable ones is a feasible solution.
- Enforcing the Solid Waste Management Rules, 2016, which require segregation of waste will retrieve materials and greatly reduce the burden on the environment.
- Waste separation can be achieved in partnership with the community, and presents a major employment opportunity.





SOURCE) ORE DRUNE SURVEY

#### 37. A river running dry (Clean Ganga)

#### What's in the news?

- From aiming for Aviral Dhara (uninterrupted flow) of the Ganga to Nirmal Dhara (unpolluted flow), the government is now simply focussing on a Swachh Ganga (Clean Ganga).
- Experts point out that while the whole focus of the Clean Ganga project has been on setting up sewage treatment plants and cleaning ghats and banks, the main issue, which is that the river does not have adequate flow of water, has been ignored.
- It is important to note that with severe pollution destroying the river, and developmental projects critically affecting its flow, the Ganga is in dire straits.

#### Fragility of the Region:

- Experts point out that several hydropower projects are mushrooming at the source of the river, which is the Garhwal range of the Himalayas.
- Certain Specifics of the Garhwal Himalayas:
- Unlike other ranges, the Garhwal is narrow.
- It is from the Garhwal ranges that that many rivers and tributaries of the Ganga basin emerge.
- It is important to note that these spring-fed or glacierfed rivers join one another at different points to form an intricate riverine ecosystem in the Himalayas.
- Further, the entire basin falls in the seismic zone 4-5, and is highly prone to landslides and land subsidence.

#### What are the solutions?

- Experts point out that the understanding that hydropower projects mean development needs to change.
- Further, it is important to note that in order to construct a hydropower project, large sections of land are cleared of forests.
- An important question arises: What happens when such deforestation takes place in an already fragile mountain area? It is important to note that many studies have been conducted near the existing dams along the course of the Ganga.
- The immediate impacts of these projects have been:
  - \* loss of agriculture,
  - drying of water sources, and
  - \* landslips.

#### Muck Dumping

- Further, it is important to note that as construction in such projects progresses, there is also dumping of muck, which can pose severe threats. For example, muck dumping during construction of the Alaknanda hydropower project caused devastation downstream in Srinagar in the 2013 flash floods.
- Such muck is dumped either into the river or in forest areas.





#### 4. Effects of Muck Dumping

- After all the massive deforestation, muck dumping, blasting and tunnelling, the hydropower projects thus constructed eventually dry up the river bed as the water is diverted into tunnels. This causes severe distress to aquatic life, and the river bed is no longer even wet in certain stretches. As the Ganga is diverted into long tunnels, de-silted, and directed to powerhouses to churn turbines and generate power, the barren landscape, dried water sources and the obscene muck slopes narrate a story of destruction. This is a far cry from the promise of development.
- However, the irony is that even after all this devastation, electricity is not generated as per the intended capacity. For example, the installed capacity of the Maneri dam is 90 MW but it only works at below 40% of its capacity.
- This is because there is too much silt during the monsoon and reduced flow of water in winters. As glaciers continue to retreat, the silt in the rivers is only going to increase. As the reason for diminished output is natural and not technical, and therefore cannot be remedied, this is only going to cause more problems for future projects. For example, the flow of debris was stopped by barrages in the Alaknanda hydropower project. This escalated the impact of the 2013 disaster, according to the expert committee of the Supreme Court.
- In the case of the Ganga, these projects also prevent sediments from going downstream. This affects the fertility of the delta downstream and also destroys the unique self-purifying properties of the Ganga.

#### Perspectives on Reports of committees:

- Twenty government committees and reports warn about the anthropogenic activities in these fragile areas and recommend conservation of these areas for food and water security.
- As a matter offact, when the late G.D. Agarwal, crusader of the Ganga, fasted to invoke the government to act against these projects, the government proposed an e-flow notification for the Upper Ganga River Basin.

#### e-flow notification for the Upper Ganga River Basin:

- The e-flow notification for the Upper Ganga River Basin specified that during the dry season (November-March), 20% of monthly average flow has to be maintained, and during the monsoon season, 30% has to be maintained.
- The notification stated that existing hydel projects that do not meet e-flow norms must comply within three years. The 20% recommendation is less than the scientific recommendation of 50% (only for existing projects). If the government intended to rejuvenate the river, it would have specified that e-flows are only for existing projects. Instead it has opened the floodgates for several such projects as long as the compromised e-flows are maintained.

- Experts point out that the result of such a relentless push for hydropower projects is that only 80 km of a 2,500 km-long river now remains in the Aviral-Nirmal state.
- In conclusion, unless we question these projects now, we will not be able to save the Ganga, the lifeline of millions of people.



# **HEALTH ISSUES**

#### 1. Institute of High Altitude Medicinal Plants (IHAMP)

#### <u>Context</u>

• The Union Minister of State (Independent Charge) for AYUSH laid the foundation stone of Institute of High Altitude Medicinal Plants (IHAMP) at Bhaderwah in District Doda in J&K.

#### <u>Details</u>

- The institute will be a pioneer in research about medicinal plants found at high altitude
- This project shall become a major source of income for the farmers in cultivation of medicinal plants.
- The estimated cost of this prestigious project is Rs. 100
   crore

#### 2. Measles

• Measles is a highly contagious viral disease

#### <u>The symptoms of measles always include fever and at least</u> one of the three Cs:

- cough
- coryza, or runny nose
- conjunctivitis

#### Infection spreads through:

- physical contact with an infected person
- being near infected people if they cough or sneeze
- touching a surface that has infected droplets of mucus and then putting fingers into the mouth, or rubbing the nose or eyes

#### <u>Context</u>

• It is a joint publication of the WHO and the Centers for Disease Control and Prevention in the United States.

#### Increase in number of cases

- Reported cases of measles worldwide surged by nearly a third in 2017, partly because parents did not vaccinate their children
- The measles increase in Latin America is partly attributable to an economic calamity afflicting Venezuela, where many public health services have stopped or are mired in dysfunction.
- Measles outbreaks have affected nearly all regions, the report says, with the biggest surges in the Americas, the Eastern Mediterranean region and Europe.
- WHO for Europe, which showed that measles had reached the highest levels in two decades across the continent.

#### Health complications

- The disease can cause debilitating and sometimes fatal complications, severe diarrhoea, dehydration, pneumonia and vision loss.
- Babies and young children with weakened immune systems are particularly susceptible.

#### 3. Monocrotophos

- It is an organophosphate insecticide.
- It is acutely toxic to birds and humans, so it has been banned in the U.S., the E.U. and many other countries; however it is still available in India.
- Monocrotophos is principally used in agriculture, as a relatively cheap pesticide.
- Monocrotophos was believed to be responsible for the death of 23 school children in Saran district of Bihar in July 2013.

#### <u>Context</u>

- Bengaluru Laboratory tests conducted on samples of the 'prasad' distributed at the Kichugutti Maramma temple at Sulwadi village in Chamrajnagar district of Karnataka have indicated the presence of Monocrotophos.
- The consumption of the prasad (sanctified food) had resulted in the death of 14 people,
- 4. <u>National Commission for Indian Systems of Medicine</u> (NCIM) Bill, 2018

#### <u>Context</u>

 The Union Cabinet approved the draft National Commission for Indian Systems of Medicine (NCIM) Bill, 2018, which seeks to replace the existing regulator, the Central Council for Indian Medicine (CCIM), with a new body to ensure transparency and accountability

#### <u>Details</u>

- It is aimed at bringing reforms in the medical education of Indian medicine sector in lines with the National Medical Commission proposed for setting up for Allopathy system of medicine.
- The draft bill provides for the constitution of a National Commission with four autonomous boards entrusted with conducting overall education
  - \* Board of Ayurveda
  - \* Board of Unaini, Siddha and Sowarigpa.
  - \* Board of assessment and rating to assess and grant permission to educational institutions of Indian systems of Medicine



- \* Board of ethics and registration of practitioners of Indian systems of medicine to maintain National Register and ethical issues relating to practice under the National Commission for Indian Medicine
- The bill proposes a common entrance exam and an exit exam, which all graduates will have to clear to get practising licenses
- Further, a teacher's eligibility test has been proposed in the Bill to assess the standard of teachers before appointment and promotions

#### 5. National Medical Devices Promotion Council

- This will be coming under the Department of Industrial Policy and Promotion (DIPP) in the Ministry of Commerce & Industry.
- The Council will be headed by Secretary, DIPP

#### **Objectives**

- Act as a facilitating and promotion & developmental body for the Indian MDI.
- Hold periodic seminars, workshops and all related networking activities to garner views of the industry and understand best global practices in the sector and deliberate on various parameters for inclusion in the industrial and trade policies in medical devices.
- Identify redundant processes and render technical assistance to the agencies and departments concerned to simplify the approval processes involved in medical device industry promotion & development.
- Enable entry of emerging interventions and support certifications for manufacturers to reach levels of global trade norms and lead India to an export driven market in the sector.
- Support dissemination and documentation of international norms and standards for medical devices, by capturing the best practices in the global market and facilitate domestic manufacturers to rise to international level of understanding of regulatory and non-regulatory needs of the industry.
- Drive a robust and dynamic Preferential Market Access (PMA) policy, by identifying the strengths of the Indian manufacturers and discouraging unfair trade practices in imports; while ensuring pro-active monitoring of public procurement notices across India to ensure compliance with PMA guidelines of DIPP and DoP.
- Undertake validation of Limited Liability Partnerships (LLPs) and other such entities within MDI sector, which add value to the industry strength in manufacturing to gain foothold for new entrants.
- Make recommendations to government based on industry feedback and global practices on policy and process interventions to strengthen the medical technology sector, including trade interventions for related markets.

#### 6. 4th WHO Global Forum on Medical Devices

#### <u>Context</u>

• This was held from 13 to 15 December, 2018 in Visakhapatnam

#### **Background**

• 1st Global Forum was held in Bangkok in 2010, the 2nd in Geneva in 2013, and the 3rd also in Geneva in 2017.

#### **Objectives of the Forum**

- To define methods of increasing and measuring access to essential and priority medical devices under Universal Health Coverage in compliance with the Sustainable Development Goals
- To share country evidence of best practices in regulating, assessment and management of medical devices
- To demonstrate development and use of innovative appropriate affordable technologies to respond to global health priorities
- To share WHO tools and guidelines on medical devices for better implementation

#### **Biomedical Engineering**

- Biomedical engineering, or bioengineering, is the application of engineering principles to the fields of biology and health care.
- A rare combination of medicine and engineering, biomedical engineers collaborate with doctors and researchers to develop innovative technological solutions, evolve health systems, and ensure the correct deployment of medical equipment or devices.
- Using engineering principles, they create solutions for health care and are involved in the development and design of a medical product and its safety.
- The role of biomedical engineers ranges from national policy, regulations, technical standards and specifications, research and development, design, prototyping, clinical research, assessments, contracting, supply chain, deployment, integration with IT and business systems, monitoring, reengineering, maintenance, adverse event management, inventory management and more.

It goes without saying that their role is imperative in any modern health-care innovator, manufacturer, planner, care provider or government agency.

#### <u>Concerns</u>

• The Global Health Observatory data repository notes that the density of biomedical engineers and technicians in India per thousand of population decreased from 0.32 (2014) to 0.31 (2015) to 0.23 (2017).



• The numbers highlight the need for more such engineers, who affirm the safety of a medical device by ensuring that they are safe, have quality and effective for the intended purpose.

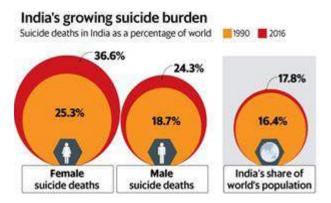
#### **Conclusion**

- The Government of India, through its programme called the Biomedical Equipment Management and Maintenance Programme, aims to improve the functionality of medical equipment in public health facilities. However, the dearth of biomedical engineers is still a major challenge, which is what the WHO global forum attempted to address.
- As we walk into the future of medical innovations, and bring them to India, we must also invest in our medical professionals like biomedical engineers, who are at the core of all patient safety.

#### 7. SNEHA suicide prevention centre

 It is a suicide prevention organisation which offers unconditional emotional support for the depressed, desperate and suicidal

#### <u>Facts</u>



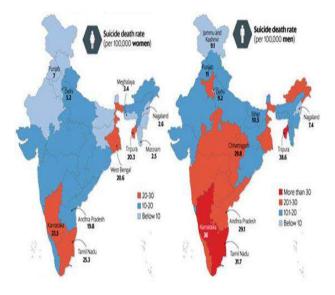
#### The big bad female suicide problem

 Across the world, men commit suicide at a higher rate than women, and India is no different. But India's female suicide problem is particularly bad. India has the sixth highest female suicide death rate in the world.

# Countries with the highest rates of female suicides

#### Developed states have higher suicide rates

- India's southern states are more developed, but also more suicide-prone. This follows a global pattern, with more developed states having higher suicide rates.
- However, in the medical literature, instead of "more developed" and "less developed" countries or states are classed by their stage in the "epidemiological transition"—moving from high rates of fertility to lower rates as incomes grow, health improves and women become educated.



#### There are a number of measures that can be taken at population, sub-population and individual levels to prevent suicide and suicide attempts. These include:

- India's Reducing access to the means of suicide (e.g. pesticides, firearms, certain medications).
- Reporting by media in a responsible way.
- Introducing alcohol policies to reduce the harmful use of alcohol.
- Early identification, treatment, and care of people with mental and substance use disorders, chronic pain and acute emotional distress.
- Training of non-specialized health workers in the assessment and management of suicidal behaviour.
- Follow-up care for people who attempted suicide and provision of community support.

#### 8. Talcum Powder poses health risks?

#### <u>Context</u>

- A risk assessment draft on talc published by Health Canada, the country's public health department, voices some serious health concerns
- This would be confirmed in a final assessment that would entail Canada adding talc to a list of toxic substances if the proposed conclusions are confirmed

#### <u>Talc</u>

- Talc is a hydrous magnesium silicate mineral
- It is a translucent mineral with a pearly luster.



- Talc is a mineral that is most often found in the metamorphic rocks of convergent plate boundaries.
- It can be crushed into a white powder that is widely known as "talcum powder."
  - \* This powder has the ability to absorb moisture, absorb oils, absorb odor, serve as a lubricant, and produce an astringent effect with human skin.
  - \* These properties make talcum powder an important ingredient in many baby powders, foot powders, first aid powders, and a variety of cosmetics.
- Uses of Talc: Talc is used as a filler, coating, pigment, dusting agent and extender in plastics, ceramics, paint, paper, cosmetics, roofing, rubber and many other products.

#### Health Concerns

- It states that talcum powder is harmful to the lungs when inhaled during breathing causing decreased lung function, scarring of the lung tissue
  - \* It can also lead to coughing
- It could possibly cause ovarian cancer when used by women in the genital area.
- Talcum Powder is used to get rid of sweat and the odour by blocking the Pores.
  - \* But the pores are supposed to remain open.
  - \* This is the main cause of local infections like folliculitis, boils, skin eruptions.
- It can result into allergies in children after inhaling the particles

#### Some recommendations from Doctors for newborns

The American Academy of Pediatrics warns against the use of baby powder due to the risk of serious respiratory problems.

 Newborn babies don't need powders. They don't even need daily soap baths. Just warm water works fine for their hygiene.

#### Indian market

- In India, talcum powder is among the most widely known talc-based self-care products.
- From fighting perspiration and odour, to helping lend the user a 'fairer' skin tone,
- A large number of Indian consumers rely on talcum powder and the market is estimated to be worth about ₹700 crore.

#### 9. <u>Direct benefit transfer scheme for TB patients makes</u> slow progress

#### **Context**

 The direct benefit transfer (DBT) scheme for nutritional support to Tuberculosis (TB) patients — Nikshay Poshan Yojana (NPY) has recorded slow progress in the last eight months

#### <u>Details</u>

- Of the 18 lakh registered TB patients across the country, only 4.69 lakh, barely 26% of the beneficiary pool, have received cash transfer so far.
- This is because many of the rural poor either do not have a bank account or are migrant patients, whose bank accounts are difficult to be captured.

#### Transfer to blood relative

- In case the beneficiary does not have an account in his/ her own name, but a family member (spouse, parents, brother/sister /blood relatives) has a bank account, the health staff/treatment supporter can transfer the benefits of NPY to the account of a family member by obtaining an undertaking from the beneficiary
- Also for beneficiaries who do not have a bank account even in his family member's name, provision of opening zero balance bank account is available under the Pradhan Mantri Jan Dhan Yojana (PMJDY) and Indian Postal Bank.
- The District Magistrates/Collectors should ensure that zero balance bank accounts for the TB patients are opened expeditiously. The District TB officers should coordinate with the Lead Bank manager, nodal officer for PMJDY and Postal Bank in the district



# **EDUCATION**

#### 1. App for Odia-medium school students

#### **Context**

• The Ganjam district administration is developing a free mobile app to help students of Odia medium schools enhance their knowledge via tutorials in their first language.

#### <u>Details</u>

- Recording of videos of best teachers of the district explain important chapters in Odia has already started.
- These videos will be uploaded to 'YouTube' and their links will be provided on the app.
- Besides the videos, the app will also provide detailed study materials and interactive practice tests.

#### **Significance**

- This will help the Odia medium school students on par with those studying in English medium private schools
- The school education app is also expected to help teachers share their best teaching practices.
- Using it, parents will also able to understand and keep track of what is being taught to their children in schools

#### 2. Ideate for India- Creative Solutions using Technology

#### <u>Context</u>

- The Hon'ble Minister for Electronics & IT, Law & Justice launched a National Challenge for Youths, "Ideate for India - Creative Solutions using Technology", at New Delhi
- The Challenge has been designed and launched by the National e-Governance Division, Ministry of Electronics & IT in collaboration with Intel India, with support from the Department of School Education and Literacy (DoSE&L), Ministry of Human Resource Development.

#### <u>Details</u>

- The aim of this National Challenge is to give school students across the country a platform and opportunity to become solution creators for the problems they see around them and their communities.
- "Ideate for India" will empower and enable these students to transition from being 'users' of technology to become 'creators' of new indigenous technologies to solve local problems in their community by reimagining solutions to work out critical local issues.
- The National Challenge is open to students of classes
   6 12 all across the country all 29 States and 7 Union Territories

- There are 11 core theme areas on which students can share their ideas- healthcare services, education services, digital services, environment, women safety, traffic, infrastructure, agriculture, social welfare, disability and tourism.
- The Challenge requires students to access online videos and understand how to identify problems and share a 90 second video explaining the problem and their proposed solution.
- "Ideate for India" National Challenge will help inculcate innovation skills in youth and equip all students to utilise technology for the betterment of their communities and the society at large. Simultaneously, this will prepare them to contribute towards the realization of Digital India goals.



# **ART AND CULTURE**

#### 1. Bhitargaon

- It is a town in Kanpur district, Uttar Pradesh
  - \* Bhitargaon had been part of an ancient city called Phulpur.
  - \* The temple was simply known as Dewal, or temple, by the locals.
- It is known for its ancient Hindu temple, the largest Indian brick temple to survive from the time of the Gupta Empire.
- It is the oldest remaining brick/terracotta Hindu shrine with a roof and a high Shikhara
  - \* This shikhara became the standard feature of the Nagara temple architecture of India.
- They are decorated with terracotta sculptures like Shiva and Parvati seated together, Ganesha, an eightarmed Vishnu, a Mahishasura Mardini and many animal figures, flora and foliage.
  - \* According to Cunningham, because of the Varaha incarnation at the back of the temple, it was probably a Vishnu temple.
- In 1861, Lord Canning appointed Sir Alexander Cunningham as the Archaeological Surveyor to the Government of India. It is he who discovered this Shrine.
  - \* He was responsible for excavations in Sarnath in 1837 and Sanchi in 1841.

#### Importance of studying architecture

- It documents the progress of man and civilisation
- It is testimony to the skill of artisans and workers and the resources of the rulers and richer sections of society.
- It bears significance of the tools and techniques employed
- As man progressed, rock-cut temples gave way to stone temples and as stone was not easily available everywhere, to brick temples.

#### 2. Brihadisvara Temple

- Rajarajesvaram or Peruvudaiyar Koyil, is a Hindu temple dedicated to Shiva located in Thanjavur, Tamil Nadu
- It follows Dravidian architecture
- It is called as Dhakshina Meru (Meru of south).
- Built by Raja Raja Chola I between 1003 and 1010 AD, the temple is a part of the UNESCO World Heritage Site known as the "Great Living Chola Temples", along with the Chola dynasty era Gangaikonda Cholapuram temple and Airavatesvara temple that are about 70 kilometres

• Built out of granite, the vimana tower above the sanctum is one of the tallest in South India

#### <u>Context</u>

• The Madurai Bench of the Madras High Court granted an interim injunction against a meditation event organised by Art of Living foundation at the Sri Brihadeeswarar temple in Thanjavur, a UNESCO World Heritage site.

#### 3. Dwijing Festival

- The Dwijing Festival is an annual river festival in Assam
- It started on the banks of Aye River at Chirang district of Assam.
- The festival is aimed at promoting state tourism by harnessing potential of river and make it one of most popular tourist attractions of State
- The festival also provides livelihood opportunities for the local and focuses on the business activities for better economic generation through rural tourism.

#### 4. Golconda Fort

- Gol konda ("Round shaped hill"), or Golla konda, (Shepherd's Hill)
- It is in Hyderabad, Telangana
- It was originally known as Mankal, and built on a hilltop in the year 1143.
- Golkonda Fort was first built by the Kakatiyas as part of their western defenses along the lines of the Kondapalli Fort. The fort was built on top of a granite hill.
- The fort was rebuilt and strengthened by Rani Rudrama Devi and her successor Prataparudra
- Later it was fortified between 14th and 17th centuries by the Bahmani Sultans and then the ruling Qutub Shahi dynasty
- It was the capital of Qutb Shahi dynasty

#### 5. Kaliyattam

- It is a sacred dance form which projects the avatar of Kali in the state of Kerala
- Performers wear heavy make-up and adorn flamboyant costumes

#### 6. Lalitgiri Museum

#### <u>Context</u>

• Prime Minister Narendra Modi will inaugurate the Lalitgiri museum through video conference from Bhubaneswar.



 Lalitgiri was one of the earliest Buddhist settlements in Odisha

#### <u>Details</u>

- Excavations at Lalitgiri have yielded the remains of four monasteries, showing cultural continuity from the post-Mauryan period till the 13th century CE.
- This region has many stupas and Viharas
- Together with the Ratnagiri and Udayagiri sites, Lalitagiri is part of Puspagiri University located on top of hills
- The three complexes are known as the "Diamond Triangle"

#### 7. Nongkrem Dance Festival

- It is held annually in November in Meghalaya
- It is a five day festival which is celebrated for the harvest thanksgiving by the Khasi tribe.
- The Nongkrem word means "Goat Killing Ceremony"
- The dance performed by the man is known as "Ka Shad Mastieh". The men dance by holding the sword in their right hand and whisks in their left. The sword is used to symbolize a man's defense of himself and his family.

#### 8. Putul Parampara/ India Puppetry Festival

- This was organised by Sangeet Natak Akademi to showcase the significance of the country's traditional folk culture.
- The Academy aims at presenting all forms of puppetry

   String, Rod, Glove, Banraku and Shadow puppetry
   during the five-day long festival.

#### 9. Sarangkheda Chetak Festival

- The Chetak Festival is a 300-year-old horse fair held on the banks of the Tapi.
- It is Organised by the Maharashtra Tourism Development Corporation (MTDC) in association with the Sarangkheda Committee
  - \* Located in the Nandurbar district, Sarangkheda was the center of horse trading for centuries
  - \* The village of Sarangkheda is also known for its Datta Mandir that is almost 100 years old.
- The festival hosts more than 2,500 horses and people from all over the State come in large numbers to witness world-class equestrian spectacle.

#### 10. Tansen Samman

#### <u>Context</u>

 Noted sitar player Manju Mehta has been conferred with the 'Tansen Samman' for 2018 by the Madhya Pradesh government for her contribution in the field of music.

#### **Details**

- The prestigious 'National Tansen Samman' is a musical award conferred to the exponents of Hindustani music.
- The Tansen Music Festival is organised every year by the MP culture department in the memory of Tansen
- It is held in Gwalior

#### <u>Tansen</u>

- He was born as Ramatanu and later came to be known as Tanna.
- Tansen was the title given to him by Raja Vikramjit of Gwalior. Tansen was a court musician in the darbar of Raja Ramachandra of Bandavagarh (Rewa).
- His reputation brought him to the attention of the Mughal Emperor Akbar, who sent messengers to Raja Ramchandra Singh
  - \* Akbar made him one of the Navaratnas in his court. He gave him the title of 'Mian'.
- Tansen is also known as the 'Sangit Samrat', according to Musical Heritage of India by Lalita Ramakrishna.

#### His work

- Tansen is remembered for his epic Dhrupad compositions, creating several new ragas, as well as for writing two classic books on music Sri Ganesh Stotra and Sangita Sara
- Kalpadruma is a compliation of 300 of his dhrupads that were in Gauhar Bani. Tansen composed in his favourite ragas Multani, Bhairavi and Todi .
- He invented the night raga Darbari Kanhra, morning raga Mian Ki Todi, mid-day raga, Mian ki Sarang, seasonal raga Mian ki Malhar.
- His descendants and disciples are called Seniyas.

#### 11. Tibetan Buddhism and Bön

- Buddhism became a major presence in Tibet towards the end of the 8th century CE.
  - \* It was brought from India at the invitation of the Tibetan king, Trisong Detsen, who invited two Buddhist masters to Tibet and had important Buddhist texts translated into Tibetan.
- Tibetan Buddhism combines the essential teachings of Mahayana Buddhism with application of Tantric practices
  - \* Tibetan Buddhist practice features a number of rituals, and spiritual practices such as the use of mantras and yogic techniques.
  - \* Supernatural beings are prominent in Tibetzn Buddhism.
- Tibetan Buddhism is present in the regions surrounding the Himalayas and spread across Asia.



- \* With the Mongol invasion of Tibet in the 13th century and the establishment of the Mongol Yuan dynasty, Tibetan Buddhism spread beyond
- Tibetan Buddhism in Tibet has four major schools, named after the lands of Tibet namely

Tibet to Mongolia and China.

- \* Nyingma: Founded by Padmasambhava, this is oldest sect
- \* Kagyu: Founded by Tilopa, the Kagyupa tradition is headed by the Karmapa Lama. Important Kagyupa teachers include Naropa, Marpa, and Milarepa.
- \* Sakya : Created by Gonchok Gyelpo and his son Gunga Nyingpo
- \* Gelug: Founded by Tsong Khapa Lobsang Drakpa (also called Je Rinpoche), this tradition is headed by the Dalai Lama.

#### <u>Bon</u>

- t is a Tibetan religion.
  - \* Its teachings and practices are applicable to all parts of life, including our relationship with the elemental qualities of nature; our ethical and moral behavior; the development of love, compassion, joy and equanimity
- Followers of Bön receive oral teachings and transmissions from teachers in a lineage unbroken from ancient times until the present day.
- In addition, most of the scriptural texts also have been preserved. While much in modern Bön is similar to Tibetan Buddhism, Bön retains the richness and flavor of its pre-Buddhist roots.

#### <u>Context</u>

 13th Religious Conference of the Schools of Tibetan Buddhism and Bon Tradition, has been postponed indefinitely Due to sudden demise of the supreme head of the Nyingma tradition, Kathok Getse Rinpoche and to respect the sentiments of the followers of Nyingma tradition

#### Some important Details

- Green Book acts as an identity card of being registered as a Tibetan refugee in India
- Yellow Book acts as a passport.
  - \* Getting this permission from MEA is after a lot of scrutiny and this causes a lot of delay
  - \* They face harassment at the embassies of different countries while getting visa for travel

#### 12. Vrischikolsavam

- It is the annual festival of Sree Poornathrayeesa Temple at Tripunithura, Kochi in Kerala
- It is conducted every year in the month of Vrishchikam (November–December)
- The deity in this temple is Lord Vishnu who is in the form of Santhanagopala Murthy.

#### 13. India's first music museum to be set up in Thiruvaiyaru

#### <u>Context</u>

- The country's first music museum will be set up with assistance from the Central Government in Thiruvaiyaru, Tamilnadu, which is the birth place of Saint Tyagaraja, one of the Trinity of Carnatic music.
- The other two of the Trinity are Muthuswami Dikshitar and Syama Sastri.

#### Saint Tyagaraja

- He is also known as Tygayya in Telugu, was a renowned composer of Carnatic music, a form of Indian classical music. He was prolific and highly influential in the development of the classical music tradition.
- Tyagaraja saw the reigns of four kings of Maratha dynasty Tulaja II (17631787), Amarasimha (17871798), Serfoji II (17981832) and Sivaji II (18321855), although he served none of them.

#### Saint Muthuswami Dikshitar

- Muthuswami Dikshita was a South Indian poet and composer and is one of the musical trinity of Carnatic music.
- His compositions, of which around 500 are commonly known, are noted for their elaborate and poetic descriptions of Hindu gods and temples and for capturing the essence of the raga forms through the vainika (veena) style that emphasises gamakas.

#### <u>Saint Syama Sastri</u>

- Although Syma Sastri did not compose as so many kritis as his two prolific contemporaries, his compositions are still well known due to the literary, melodic and rhythmic proficiency observed in them.
- It is said that he composed about three hundred pieces in all



# **DISASTER MANAGEMENT**

#### 1. Hospital Fire

Disasters have an uncanny ability to bring to the forefront vulnerabilities of systems, structures, processes and people which in turn cause large scale damages; and hospitals are no exception to this rule.

#### **Expected Disaster Scenarios for Hospitals**

Hospitals may face both internal and external disasters.

- The impact of internal disasters such as fire, exposure to hazardous material, utility failures, etc., is typically limited to the hospital/ healthcare facility while
- External disasters include scenarios such as earthquakes, mass casualty events or epidemics where the hospital itself may or may not be affected but is a critical part of the larger response.

#### <u>Causes</u>

- Inadequate or non- compliance of structural elements of hospitals to building codes and other safety norms which result in the failure of hospital structures and their component non-structural elements;
- Absence of an operational Hospital Disaster Management Plan;
- Lack of planning and preparedness to respond to disasters;
- Inadequate or complete lack of internal and external communication;
- Lack of networking amongst hospitals.

#### Safe Hospitals

The Pan American Health Organization (PAHO) and the World Health Organisation (WHO) have defined: "a Safe Hospital as one that:

- will not collapse in disasters, killing patients and staff;
- can continue to function and provide its services as a critical community facility when it is most needed; and,
- Is organized, with contingency plans in place and health workforce trained to keep the network operational."

#### Institutional Mechanisms

 Both Health and Disaster Management being state subjects, it implies that the respective state health departments and state disaster management authorities, along with the state public works department, will play a crucial role in implementing these guidelines on the ground.

- However, the Ministry of Health and Family Welfare, the Central Public Works Department and other licensing agencies at the Central or State levels will also undertake the necessary actions to implement these guidelines for effective compliance.
- Wherever necessary, the National Disaster Management Authority, the Bureau of Indian Standards, technical institutions like IITs and other relevant agencies shall extend their support to further the agenda of Hospital Safety in our country.

#### Solutions

- The National Accreditation Board for Hospitals and Healthcare Providers (NABH) goes by the National Building Code and its specific norms for hospitals, which include minimum requirements for multistoreyed structures, such as alarms, sprinkler systems, specified-width staircases, smoke barrier enclosures and checks against storage of combustible materials in areas where patients are kept.
- Certification of facilities through third-party audit should be made compulsory to eliminate conflicts of interest involving official agencies.
- Each and every building should have at least a minimum of 4 emergency exits and a maximum of 6
- · Large buildings should be easily accessible by road
- Inspection of Hospitals should be carried out every 6 months and it should be videographed
- Air ambulances a must as it may help in rescuing large no of people in a short time.
- Each and every room in the hospital should have a map of where they are located and where are the emergency escape routes
- · Sprinklers should be installed to prevent fire accidents
- Hospital Main Entrance should be more than 30 metre in length (A Size of a bus)
- Hospitals should be earthquake proof.
- Walls of the hospital should have fire-resistant coatings.

#### 2. Polarimetry Doppler Weather Radar

- The Indian Space Research Organisation (ISRO) had inaugurated the Polarimetry Doppler Weather Radar at Sriharikota
- The S–Band Polarimetry Doppler Weather Radar facility was launched at Satish Dhawan Space Centre



- The radar has been developed by Bharat Electronics Ltd, Bengaluru under ToT (Training of Trainers) from ISRO.
- The Doppler Weather Radar (DWR) provides advanced information, enhances the lead-time essential for saving lives and property in the event of a natural disaster associated with severe weather.
- While conventional radars are able to track and predict cyclones, the DWR provides detailed information on a storm's internal wind flow and structure.



# GOVERNANCE

#### 1. Data interception order by Home Ministry

#### <u>Context</u>

 The home ministry issued a notification which authorized 10 intelligence and security agencies to intercept data on computers, mobile devices and servers used by Indians for the purpose of security of the country, which led to unrest and furor in Parliament, where the opposition catcalled the Govt as a police state and Surveillance state.

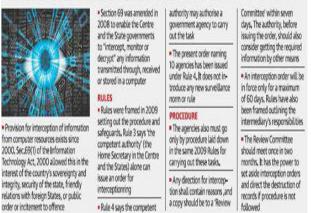
#### **Agencies**

#### Eye Of The Storm THE LOAUTHORISEO AGENCIES Intelligence Bureau, Narcotics Control Bureau, Enforcement Directorate, central Board of Direct Taxes, Directorate of Revenue Intelligence, central Bureau of Investigation, National Investigation Agency, Research and Analysis Wing, Directorate of Signal Intelligence (In service areas of J&K, North-East and Assamil and Deline Police

• They can intercept, monitor and de-crypt "any information" generated, transmitted, received or stored in "any computer resource".

#### What does Govt Say?

A look at what the fuss over the Home Ministry's order authorising 10 agencies to intercept computer-based information is all about



- It also said every case of interception would continue to require permission from the home secretary and review by a panel headed by the cabinet secretary.
- It added that while seeking permission, the agency concerned would have to specify one of the five grounds on which they could decrypt messages on electronic devices.

#### Current Framework

The existing surveillance framework is complex and confusing with two statutes controlling the field:

- Telephone surveillance is sanctioned under the 1885 Telegraph Act (and its rules), while
- Electronic surveillance is authorised under the 2000 Information Technology Act (and its rules).
- The procedural structure in both cases is broadly similar, and flows from a 1997 Supreme Court judgment: surveillance requests have to be signed off by an official who is at least at the level of a Joint Secretary.

#### **Concerns Voiced**

- First, it is bureaucratised.
  - \* Decisions about surveillance are taken by the executive branch (including the review process), with no parliamentary or judicial supervision; indeed, the fact that an individual will almost never know that she is being surveilled means that finding out about surveillance, and then challenging it before a court, is a near-impossibility.
- Second, the surveillance regime is vague and ambiguous.
  - \* Under Section 69 of the IT Act, the grounds of surveillance have been simply lifted from Article 19(2) of the Constitution, and pasted into the law.
  - \* They include very wide phrases such as "friendly relations with foreign States" or "sovereignty and integrity of India".
- Third, and flowing from the first two features, the regime is opaque.
  - \* There is almost no information available about the bases on which surveillance decisions are taken, and how the legal standards are applied.
  - \* Indeed, evidence seems to suggest that there are none: a 2014 RTI request revealed that, on an average, 250 surveillance requests are approved every day.
  - \* It stands to reason that in a situation like this, approval resembles a rubber stamp more than an independent application of mind.



#### **Privacy Experts**

- After the Supreme Court's 2017 judgment in K.S. Puttaswamy v. Union of India ('the right to privacy case'), the constitutional contours within which the questions of 'how, when, and what kind' have to be answered have been made clear. Any impingement upon the right to privacy must be proportionate.
  - \* The apex court had asked the government to always carefully and sensitively balance individual privacy and the legitimate concerns of the state, even if national security was at stake.
  - \* In other words, if the same goal i.e., protecting national security — can be achieved by a smaller infringement upon fundamental rights, then the government is constitutionally bound to adopt the method that does, indeed, involve minimal infringement.
- The order does not provide the procedure or the object for such an exercise or the quantum of period for which a person's private data could be intercepted, will it be deleted or it will be held by investigating agencies?
- the notification is silent about due procedure if there is breach of information

#### <u>Conclusion</u>

Under these parameters, there is little doubt that on its bureaucratic character, its vagueness, and its opacity the existing surveillance framework is unconstitutional, and must be reconsidered.

- Consequently, given the seriousness of the issue, a surveillance regime cannot have the executive sitting in judgment over the executive: there must be parliamentary oversight over the agencies that conduct surveillance. They cannot simply be authorised to do so through executive notifications.
- And equally important, all surveillance requests must necessarily go before a judicial authority, which can apply an independent legal mind to the merits of the request, in light of the proportionality standards
  - \* Every surveillance request must mandatorily specify a probable cause for suspicion, and also set out, in reasonably concrete terms, what it is that the proposed target of surveillance is suspected of doing

So with the Supreme Court's privacy judgment which has taken a firm stand on the side of rights, it is right time to come up with the comprehensive reform of the surveillance framework in India and the parliament needs to step up the process.

#### 2. Strategy for New India @ 75 by Niti Aayog

#### <u>Context</u>

 The NITI Aayog unveiled its comprehensive national Strategy for New India, which defines clear objectives for 2022-23.  It is a detailed exposition across forty-one crucial areas that recognizes the progress already made, identifies binding constraints, and suggests the way forward for achieving the clearly stated objectives.

#### **Details**

- It is an attempt by Niti Aayog to bring innovation, technology, enterprise and efficient management together, at the core of policy formulation and implementation.
- It will encourage discussion and debate, and invite feedback for further refining our policy approach. We believe that economic transformation cannot happen without public participation. Development must become a Jan Andolan.
- The forty-one chapters in the document have been disaggregated under four sections: Drivers, Infrastructure, Inclusion and Governance.

#### <u>Drivers</u>

The first section on Drivers focuses on the engines of economic performance with chapters on growth and employment, doubling of farmers' incomes; upgrading the science, technology and innovation eco-system; and promoting sunrise sectors like fintech and tourism.

- Steadily accelerate the economy to achieve a GDP growth rate of about 8% on average during 2018-23. This will raisethe economy's size in real terms from USD 2.7trillion in 2017-18 to nearly USD 4 trillion by2022-23. Increase the investment rate as measured by gross fixed capital formation (GFCF) from the present 29% to 36% of GDP by 2022.
- In agriculture, shift the emphasis to converting farmers to 'agripreneurs' by further expanding e-National Agriculture Markets and replacing the Agricultural Produce Marketing Committee Act with the Agricultural Produce and Livestock Marketing Act.
- Give a strong push to 'Zero Budget Natural Farming' techniques that reduce costs, improve land quality and increase farmers' incomes. This has emerged as a tested method for putting environment carbon back into the land.
- To ensure maximum employment creation, complete codification of labor laws and a massiveeffort must be made to upscale and expand apprenticeships.
- Launch a mission "Explore in India" by revamping minerals exploration and licensing policy.

#### **Infrastructure**

- Expedite the establishment of the Rail Development Authority (RDA), which is already approved. RDA will advise or make informed decisions on an integrated, transparent and dynamic pricing mechanism for the railways.
- Double the share of freight transported by coastal shipping and inland waterways. Initially, viability gap funding will be provided until the infrastructure is fully developed.



- Develop an IT-enabled platform for integrating different modes of transport and promoting multi-modal and digitized mobility.
- With the completion of the Bharat Net programme in 2019, all 2.5 lakh gram panchayats will be digitally connected. Aim to deliver all government services at the state, district, and gram panchayat level digitally by2022-23.

#### Inclusion

The three themes in this section revolve around the dimensions of health, education and mainstreaming of traditionally marginalized sections of the population.

- Successfully implementing the Ayushman Bharat programme including the establishment of 150,000 health and wellness centres across the country, and rolling out the Pradhan Mantri Jan Arogya Abhiyaan (PM-JAY).
- Create a focal point for public health at the central level with state counterparts. Promote integrative medicine curriculum.
- Upgrade the quality of the school education system and skills, including the creation of a new innovation ecosystem at the ground level by establishing at least 10,000 Atal Tinkering Labs by 2020.
- Conceptualize an electronic national educational registry for tracking each child's learning outcomes.
- As already done in rural areas, give a huge push to affordable housing in urban areas to improve workers' living conditions and ensure equity while providing a strong impetus to economic growth.

#### **Governance**

- Implement the recommendations of the Second Administrative Reforms Commission as a prelude to appointing a successor for designing reforms in the changing context of emerging technologies and growing complexity of the economy.
- Set up a new autonomous body, viz., the Arbitration Council of India to grade arbitral institutions and accredit arbitrators to make the arbitration process cost effective and speedy, and to preempt the need for court intervention.
- Address the backlog of pending cases shift part of workload out of regular court system.
- Expand the scope of Swachh Bharat Mission to cover initiatives for landfills, plastic waste and municipal waste and generating wealth from waste.

#### How did Niti Aayog prepare the document?

- NITI Aayog followed an extremely participative approach in preparing the strategy.
- Each area vertical in NITI Aayog had in-depth consultations with all three groups of stakeholders, viz., business persons, academics including scientists, and government officials.

- This was followed by consultations at the level of the Vice Chairman with a diverse group of eminent persons from seven sets of stakeholders that included scientists and innovators, farmers, civil society organizations, think-tanks, labor representatives and trade unions, and industry representatives.
- Central Ministries were brought on board for inputs, suggestions and comments, with each draft of individual chapters being circulated for consultations.
- The draft document was also circulated to all the States and Union Territories from whom valuable suggestions were received and incorporated.

#### 3. How jails pay and deduct prisoner's wages?

#### <u>Context</u>

- Delhi high court stayed the practice of deduction of wages earned by inmates from manual labour inside Delhi prisons. The money was deposited in a fund for welfare of victims.
- The court was informed by Delhi State Legal Services Authority (DSLSA) that Tihar Jail till March 2018 accumulated a corpus of Rs 15 crores, out of which it could only spend a little over Rs 80 lakh on 194 eligible victims.

## Money from convicts wage to be used as compensation to the Victims

- In 1998, the Supreme Court asked all states to devise a mechanism so that victims of the offence could be compensated (State of Gujarat & Anr vs Gujarat High Court).
- Then in 2008, the CrPC was amended with a new Section, 357A, which stipulated that every state should prepare a scheme for compensating crime victims and their dependents.

#### Laws were accordingly legislated

Delhi government made separate provisions for compensation after both the Supreme Court order as well as the CrPC amendment.

- After the 1998 order, Delhi Prisons Rules were amended in 2006 with Rule 39A allowing for 25% of prisoners' wages to be deducted and deposited in a Victim Welfare Fund.
- Then after the CrPC amendment, the state government notified the Delhi Victims' Compensation Scheme in 2011, replaced with the Delhi Victims' Compensation Scheme, 2015

Del So DSLSA has recommended that the scheme of deducting wages earned by inmates who do manual labour inside jail should be discontinued, more so as since 2015 a revised Victim Compensation Scheme has been prevalent in Delhi. It suggested that the corpus can be transferred to the fund maintained by the authority under the aegis of Delhi government, out of which money is given to victims. It also underlined that the wages are even lower than the minimum wages fixed by the Delhi government. HC saw merit in the submissions of DSLSA that came on a petition challenging a 2006 notification of Delhi Prison Rules of 1988, which had first introduced the deduction from wages.

#### How are wages paid?

- Convicted prisoners get paid for doing work inside the jail, which can be voluntarily or part of their punishment. These wages are fixed on the basis of their classification — skilled, semi-skilled and unskilled — and the rates are revised periodically.
- Remuneration and wages differ from one state to another.

#### Examples from the states

As per 2015 prison statistics released by the National Crime Records Bureau (NCRB) in 2017,

- Puducherry provided the highest wages Rs 180, Rs 160 and Rs 150 per day to skilled convicts, semi-skilled convicts and unskilled convicts respectively. This was followed by
- Delhi's Tihar, which gave Rs 171, Rs 138 and Rs 107 respectively.
- Bihar (Rs 156, Rs 112, Rs 103) and Rajasthan (Rs 150, nil and Rs 130).

#### At the lower ends are

- Manipur and Mizoram, which paid convicts as little as Rs 12 to Rs 15 per day.
- West Bengal paid Rs 35 (skilled convicts), Rs 30 (semiskilled) and Rs 26 (unskilled), while
- Chhattisgarh paid Rs 30 (skilled) and Rs 26 (unskilled)

Prisons in various states made their own rules, with the amount of compensation varying from state to state.



# GEOGRAPHY

#### 1. Anak Krakatoa Volcano

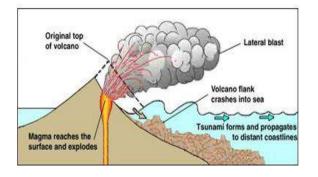
- The name "Anak Krakatau" means "Child of Krakatau"
  - \* Anak Krakatoa emerged around 1928 in the caldera of Krakatoa, a volcanic island that violently erupted in 1883.
  - \* It has been in a "state of semi-continuous eruptive activity", growing bigger as it experiences eruptions every two to three years with the cone now standing at an altitude of around 300 metre
  - \* The island is part of the Ujung Kulon National Park, "demonstrating on-going evolution of geological processes", since the Krakatoa eruption, UNESCO says on its World Heritage site listing for the area.
- Krakatau was a classic cone-shaped stratovolcano (meaning it was made of layers and layers of erupted material) that appeared to be intact and large.
  - \* It is situated in the Sunda Strait between the islands of Java and Sumatra in the Indonesian province of Lampung.

## Geography SUMATRA Bandar Lampung Sunda Strait Serang Jakarta Tanjung Lesung Pandeglang

#### <u>Context</u>

 At least 222 people have been killed and 843 injured after a tsunami hit coastal towns on Indonesia's Sunda Strait

#### What caused the tsunami?



- The tsunami, which happened between Java and Sumatra islands, was caused by the Anak Krakatau, an active volcano that has been erupting. This could have generated large waves leading to displacement of a large volume of water having set off underwater landslide.
  - \* slope failure leads to landslide , which exposed vent & rising magma to water & created phreatic explosion, which released violent steam & large plume
  - \* underwater topography & strong sea current made western slope more steeper than eastern
- It can also be due to spewing of molten lava which may have caused the displacement.
  - Because of Anak Krakatau's proximity to shore, tsunami likely struck 20 to 30 minutes after some sort of volcanic activity,
- High seas as a result of the full moon might have contributed to the strength of the waves
- The worst-affected area was the Pandeglang region of Java's Banten province, which encompasses Ujung Kulon National Park and popular beaches

#### Similar such events from the past

Major volcanic events			Year of disasters	
Date	Volcano	Death toll due to eruption Tsunami and associated events	This is the latest in a series of disasters to hit the island nation this year. These are some of the others:	
Oct, 2010	Merapi	367	Lombok earthquake	Sulawesi and Sumatra ferry disasters
Feb.1990		32	More than 500 people	At least 31 people died when a ferry
March 1963		1,028	died when an earthquake devastated the tourist island	travelling from Sulawesi to Selayar island sank in July, Another ferry sinking
Nov. 1930		1,369	of Lombok near Bali in August	incident in June had killed 164 people
May 1919		5,110	Sulawesi quake and tsunami	Lion Air crash
June 1892	Awa	1,532 💿	In September, an earthquake	At least 189 people died in
Aug.1883	Krakatoa	36,417 🕲	hit the area	October when
April 1872	Merapi	200	around Palu on the	a Lion Air flight crashed into
March 1856	Awu	2,806 💿	island of Sulawesi B.O.G. C.	the sea, a few minutes after
Oct. 1822	Galunggung	4,011	in northern	leaving Jakarta.
April 1815	Mount Tambora	60,000 💮	Indonesia, The official	An examination of the black box showed that the
INFORMATION I	Contraction in the local	2 957	death toll is more than 2,000	plane had experienced problems with





Why Indonesia is most Vulnerable for natural disasters?

- Largest archipelago
- Greatest number & density of active volcano (129 in Indonesia)
- Many micro plates, jostled around by motion of Australian, sunda, pacific & Philippine plate, forming strike slip
- Coastline are accentuated, narrow, deep & long beaches, perfectly designed to make tsunami more intensive & due to deadly Subduction zone
- Several fragments of plate converge to form multiple subduction zone
- Indonesia is sandwiched between two major seismic zones one is powerful earthquake belt called as ALPIDE belt(Alpine Himalayan Belt) and pacific ring of fire (powerful volcanic eruption)
  - \* ALPIDE belt is formed due to collision of African, Arabian and Indian Plate with Eurasia.

#### 2. Farout

- Astronomers have discovered the most distant object in the solar system.
- It's about 11 billion miles from the sun
- Its official name of is VG18 with the nickname of Farout.
- The object, which will likely be classified as a dwarf planet, is about 300 miles in diameter and has "a pinkish hue"
- It is 100 times farther from the sun than Earth is and almost four times more distant than Pluto.

#### 3. HD219134

#### <u>Context</u>

 Researchers have discovered a new exotic planet outside our solar system in the constellation Cassiopeia.

#### <u>Details</u>

- Located 21 light years away from earth, this planet, dubbed HD219134 b, has a mass almost five times that of Earth, which is considered a so-called "super-Earth".
- Unlike the Earth, however, it most likely does not have a massive core of iron, but is rich in calcium and aluminium alongside magnesium and silicon.
  - \* This is why such planets cannot, have a magnetic field like the Earth
- It shines red to blue like rubies and sapphires, because these gemstones are aluminium oxides which are common on the exoplanet
- HD219134 b is one of three candidates likely to belong to a new exotic class of exoplanets, the other two exoplanets studied, 55 Cancri e and WASP-47 e

#### 4. Mount Etna

- It is on the island of Sicily in the Mediterranean Sea.
- It is the highest active volcano in Europe outside the Caucasus
- In June 2013, it was added to the list of UNESCO World Heritage Sites
- Due to its history of recent activity and nearby population, Mount Etna has been designated a Decade Volcano by the United Nations



#### 5. Mount Soputan

- Mount Soputan on the northern part of Sulawesi Island is a volcanic mountain which erupted twice recently.
- Soputan, which stands 5,853 feet tall, is one of Indonesia's more than 120 active volcanoes.
- Indonesia, an archipelago of more than 260 million people, is prone to earthquakes and volcanic eruptions due to its location on the Pacific "Ring of Fire."





#### 6. Timber Line/ Tree Line

- Trees grow all over the world, in many different types of weather. But above certain elevations, trees just can't grow. Think of it like this: someone draws a horizontal line on a mountainside; above that line, there are no trees. This imaginary line on the Earth is called the timberline, or the tree line.
  - \* The timberline is usually a point where there isnt enough air, heat, or water to keep trees alive.
- Although the timberline often seems abrupt from a distance, on the ground you can observe a gradual change from big, tall trees to stumpy ones. For example, trees at the timberline start to look more like low bushes than trees. Small trees need less moisture and less oxygen. The trees will get shorter and shorter until the weather is too harsh for any trees, large or small, to grow.

#### **Context**

- The cold climes on high-altitude mountain tops make it usually difficult for trees to grow above the timberline (the last canopy forests on the mountains).
- Though global warming is changing this in many of the world's high mountains and causing timberlines to move upward, the eastern Himalaya may be an exception
- The zone of uppermost canopy forests here are unlikely to shift upwards but will get denser says a study
- The zone contained high numbers of seedlings and saplings.

#### 7. <u>3 Andaman-Nicobar islands renamed as 'tribute to</u> <u>Netaji'</u>

**Context** 

 Prime Minister Narendra Modi renamed three islands of Andaman and Nicobar as a tribute to Netaji Subhas Chandra Bose. The three islands — Ross Island, Neil Island and Havelock Island — will now be called Netaji Subhash Chandra Bose Island, Shaheed Dweep and Swaraj Dweep, respectively



#### <u>Details</u>

- In 1943, Bose had suggested that Andaman and Nicobar Islands be renamed as Shahid and Swaraj Dweep respectively. During the World War II, the Japanese had captured the Andaman and Nicobar Islands, and Netaji came here as the Azad Hind Fauz led by him was an ally of the Japanese force.
- The historical event of December 30, 1943 has been completed today after 75 years



# HISTORY

#### 1. Chinnaswami Subramania Bharati/ Bharathiyar

- He was a Tamil writer, poet, journalist, Indian independence activist and a social reformer from Tamil Nadu
- Popularly known as "Mahakavi Bharati", he was a pioneer of modern Tamil poetry and is considered one of the greatest Tamil literary figures of all time
- His numerous works included fiery songs kindling patriotism during the Indian Independence movement.
- In 1908, an arrest warrant was issued against Bharati by the government of British India for his revolutionary writings, forcing him to flee to Pondicherry
- Bharati also fought against the caste system in Hindu society.

#### On Women Rights

- Bharati is considered to have advocated and campaigned for women's participation in politics. He advocated greater rights for women and their education.
- He visualised a modern Indian woman at the vanguard of society.
- He was of the strong opinion that the world will prosper in knowledge and intellect if both men and women are deemed equal.

#### 2. Goa Liberation Day

- Goa Liberation Day is celebrated every year on 19 December as Goa was liberated from Portuguese rule on that day in 1961.
- Goa was a Portuguese colony for 451 years.

#### <u>Background</u>

- After India gained its independence from the British in 1947, India requested that Portuguese colonies on the Indian subcontinent be ceded to India. Portugal refused to negotiate on the sovereignty of its Indian territories.
- The Portuguese argued that India had no rights to this territory because the Republic of India did not exist at the time when Goa came under Portuguese rule
- On 19 December 1961, the Indian Army invaded with Operation Vijay. The operation took 36 hours and ended with the surrender of the Portuguese Governor General Vassalo da Silva and the annexation of Goa, and of Daman and Diu islands into the Indian union.
- Goa, along with Daman and Diu, was organised as a centrally administered union territory of India.

#### 3. <u>Amendment of the Jallianwala Bagh National</u> <u>Memorial Act, 1951</u>

#### <u>Context</u>

• The Union Cabinet has approved the Amendment of the Jallianwala Bagh National Memorial Act, 1951.

#### <u>Details</u>

- This will secure representation as Trustees, "the Leader of Opposition recognized as such in the House of the People, or where there is no such Leader of Opposition, then the Leader of the single largest Opposition Party in the House".
- In the existing Act, there is a provision for representation of a single national political party.

#### <u>Benefits</u>

- Deletion of the party specific member from the Trust will make it apolitical.
- The proposed amendment ensures representation of the Opposition Party in the Trust.
- The proposed Amendment will empower the Government to terminate and replace a Trustee to participate in functioning of the Trust or for any other reason.

#### 4. Suheldev

- Suhaldev is a semi-legendary Indian king from Shravasti, who is said to have defeated and killed the Ghaznavid general Ghazi Saiyyad Salar Masud at Bahraich, in the early 11th century
- The legend of Salar Masud and Suhaldev is found in the Persian language Mirat-i-Masudi.
- It is a historical romance and a biography of Salar Masud, with a "gossipy feel"
- Ghazi Saiyyad Salar Masud, a nephew of Mahmud of Ghazni

#### <u>Context</u>

· PM Modi to release stamp on Suheldev

#### 5. Vijay Diwas

- It is commemorated every year on 16th of December in India as it marks its military victory over Pakistan in 1971 during the war for the independence of Bangladesh from Pakistan.
- On this date in 1971, Pakistan's General Amir Abdullah Khan Niazi along with 93,000 Pakistani troops surrendered to the allied forces of Indian Army and Mukti Bahini led by General Jagjit Singh Aurora in Bangladesh.



• After winning the War of Liberation, East Pakistan became Bangladesh

#### <u>Details</u>

- The backdrop to the War of 1971 was the state of politics in Pakistan where the Bengali Muslims of East Pakistan were clearly resistant to the idea of being subjugated by the dominant Punjabi and Mohajir influence.
- Besides language, it was the sharing of resources between East Pakistan and West Pakistan which created the cleavage.
- Sheikh Mujibur Rahman, father of the current prime minister of Bangladesh Sheikh Hasina Wajed, was illegally denied his electoral victory in 1970 by Pakistan's ruling military coterie greatly influenced by Zulfiqar Bhutto, the hugely anti-India ex-foreign minister under Ayub Khan.
- The crisis spilled into the streets of East Pakistan and became a point of no return in March 1971. The Pakistan army launched a reign of terror on the Bengalis, exacerbating the situation with an initial displacement of a million refugees who spilled across the border into India.
- In a path-breaking set of strategic decisions under advice from the iconic Field Marshal (then General) Sam Manekshaw, Prime Minister Indira Gandhi awaited the right moment, prepared the nation and the armed forces, cultivated international opinion and signed the Indo-Soviet Treaty of Friendship and Cooperation, before launching India into a show of arms instigated by Pakistan.
- In 14 days of conventional war fighting aided by the Mukti Bahini (the nationalist guerilla force of Bengali Muslims), Pakistan was roundly defeated resulting in the creation of Bangladesh as a free and independent nation.

#### Introspection

- Vijay Diwas should be more appropriately used to self-examination on the state of national security; at different levels and with diverse understanding of the term "security".
- Professional military advice in national security and especially emergent situations is something a political leader can ignore only at the cost of the nation's peril.
- If the armed forces have to deliver, then they need to be at optimum preparedness levels at all time, especially now, when wars can be triggered on the basis of public anger and pressure instigated by major acts of terror on Indian soil.

So alongside celebration there should be introspection about the state of preparedness, should we ever be threatened again.



# **MISCELLANEOUS**

#### 1. Atang Ane

- Atang Ane (Ficus elastica) means 'mother rubber tree' in the Adi dialect.
- This is in Kallek Village a remote village under Pangin forest division in Siang district in Arunachal Pradesh
- This region accommodates the Adi community
- It attracts variety of birds so people are also popularizing trekking in this region so that they can bank on tourism
  - \* Birds in the area include the great hornbill (the State bird), sunbird, white-tailed robin, barwing, collared treepie, parrotbill, and shrike babbler.

#### 2. International Youth Exchange Programme

- It is conducted by Department of Youth Affairs, Ministry of Youth Affairs and Sports
- The objective of this programme is to create an International perspective in the youth and to involve them in promoting peace and understanding.
- Youth from India are sent to a few friendly countries and vice-versa under the "International Youth Exchange Programme" for promoting exchange of ideas, values and culture amongst the youth of different countries and also to develop International understanding.

#### 3. Nabin Chandra Das

#### <u>Context</u>

• A postage stamp and special cover were released to mark 150 years of the invention of 'Bengal's Rossogolla' by Nabin Chandra Das.

#### **Details**

- He was notable Bengali confectioner, entrepreneur, businessman and Bengali cultural icon
- He is widely known as the creator of the iconic Bengali sweet "Rossogolla"
- The fest, Bagbazar-O-Rasogolla Utsob is being celebrated organised at Bagbazar Gourimata Udyan to remember him.

#### 4. National Integration Tour

- The National Integration Tours are educational and motivational tours for youth of Jammu & Kashmir and North Eastern States, with an aim to provide an insight into the rich heritage of the country as well as various developmental and industry initiatives that are underway.
- This initiative will expose them to various career options and enable them to interact with renowned personalities.

#### 5. Skoch Award

- SKOCH Award, instituted in 2003, salutes people, projects and institution for making nation better
- The SKOCH Award covers the best of efforts in the area of digital, financial and social inclusion.
- It encompasses the best of governance, inclusive growth, excellence in technology and applications, change management, corporate leadership, corporate governance, citizen services delivery, capacity building, empowerment and other such softer issues that get normally lost in the glamour

#### <u>Context</u>

• Ministry of New and Renewable Energy, Government of India has been conferred the Skoch Award for National Significance

#### <u>Details</u>

- The award has been conferred on the Ministry considering its purpose and critical role played in installing about 73 GW renewable energy capacity in the country.
- With 21 per cent of total installed capacity, within the year renewable energy grossed a magic figure of providing one billion units of electricity in the country.
- India ranks 4 in the world in wind energy capacity and 5th in solar & total renewable energy capacity installed in the world.

#### 6. Watan ko Jano

- It was organized by the Department of J&K Affairs, Ministry of Home Affairs, in association with J&K State Rehabilitation Council, Social Welfare Department, to give exposure to the youth and children of Jammu and Kashmir about the cultural and socio-economic development taking place in other parts of the country.
- Youth and children hit by militancy and from weaker sections of the society have been identified for the purpose.
- Around 200 youth from the state visited different places of the country as part of the programme

#### 7. Madhya Pradesh to get 'spiritual department'

#### <u>Context</u>

• Madhya Pradesh Government is going to create an Adhyatmik Vibhag (spiritual department) by merging several existing departments.



#### <u>Details</u>

- The 'Anand Vibhag' (Department of Happiness) set up by the previous BJP government, a first in the country, would be incorporated into the new department.
- The proposed Adhyatmik Vibhag (Spiritual Department) going to be formed by merging Dharmik Nyas Evam Dharmasv Department (Religious Trust and Endowment Department), Anand Vibhag (Happiness Department) in addition to the Directorate of Religious Trust and Endowment, Madhya Pradesh Teerth Evam Mela Pradhikaran and Rajya Anand Sansthan.

#### DECEMBER-2018

## **PRACTICE QUESTIONS**

#### 1. NovaSAR and S1-4 are

- A. Asteroids recently fallen on earth
- B. Newly discovered galaxies
- C. Satellites launched by ISRO
- D. Recently found asteroids
- 2. Which country launched world's first hydrogenpowered passenger train?
  - A. United States of America
  - B. India
  - C. Switzerland
  - D. Germany
- 3. Which of the following diseases are considered to be Lifestyle Diseases?
  - i. Diabetes
  - ii. Chronic liver disease
  - iii. Cancer
  - iv. AIDS
  - v. Atherosclerosis

#### Choose the correct options:

- A. i, ii, iii, iv, v
- B. ii, iv, v
- C. i, ii, iii, v
- D. i, ii, iii, iv,

## 4. 'Pradhan Mantri Jan Dhan Yojana' has been launched for

- A. Providing housing loan to poor people at cheaper interest rates
- B. Promoting women's self-help groups in backward areas
- C. Promoting financial inclusion in the country
- D. None of the above
- 5. In the 'Index of Eight Core Industries', which one of the following is given the highest weight?
  - A. Electricity generation
  - B. Coal production
  - C. Fertilizer production
  - D. Steel Production

- 6. Which of the following is/are correct regarding the Global Economic Prospects Report?
  - i. It is published by the World Bank Group.

ii. It examines global economic developments and prospects, with a special focus on emerging market and developing countries, on a semiannual basis.

Choose the correct option:

- A. 1 only
- B. 2 only
- C. Both are correct
- D. Both are incorrect
- 7. Consider the following regarding G20 countries:

i. The G20 membership comprises a mix of the world's largest advanced and emerging economies, representing about two-thirds of the world's population.

ii. The G20 (or Group of Twenty) is an international forum for the governments and private sector organisations.

iii. G20 summit 2022 will be held in Mexico.

Which of the above is/are correct?

- A. Only 1
- B. Only 2 and 3
- C. 1, 2, 3
- D. None

#### 8. Consider the following regarding Sahariyas:

i. Sahariya are an ethnic group in the state of Madhya Pradesh, are classified as PVTG.

ii. Sahariyas is a traditional painting called Mandana painting.

iii. Sahariya is a form of Tribal Dance in the state of Rajasthan.

Which of the above is/are correct?

- A. Only 1
- B. Only 2 and 3
- C. 1, 2, 3
- D. None



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#### 9. What is SDR?

i. Special drawing rights (SDR) refer to an international type of monetary reserve currency.

ii. Renminbi is an SDR.

iii. SDRs are allocated by the IMF to its member countries.

Which of the above is/are correct?

A. i only

- B. ii iii only
- C. i ii and ii
- D. None

#### 10. Consider the following regarding '90-90-90':

i. Central Government has envisioned to achieve '90-90-90' target by 2020,

ii. It will result in controlling HIV infection to sustainable state by 2030.

iii. As per the '90-90-90' target, 90% of all HIV infected persons should get diagnosed and know their HIV positive status. Ninety %of these diagnosed HIV positive persons are to be provided regular Antiretroviral Therapy (ART). Ninety% of persons taking ART should show signs of viral suppression

Which of the above is/are correct?

- A. i only
- B. ii and iii only
- C. i ii and iii
- D. None

#### 11. Consider the following regarding Sunset Industries:

i. Older industry that continues to be important to an economy but is losing favor with investors due to its steadily falling employment generation capacity and profits, and comparatively higher environmental costs.

ii. Oil and gas is not a sunset industry.

Which of the above is/are incorrect?

- A. i only
- B. ii only
- C. Both i and ii
- D. None

# 12. With reference to Indian history, who among the following is a future Buddha, yet to come to save the world?

- A. Avalokiteshvara
- B. Lokesvara
- C. Maitreya
- D. Padmapani
- 13. "Rule of Law Index" is released by which of the following?
  - A. Amnesty International
  - B. International Court of Justice
  - C. The Office of UN Commissioner for Human Rights
  - D. World Justice Project

#### 14. Which one of the following links all the ATMs in India?

- A. Indian Banks' Association
- B. National Securities Depository Limit
- C. National Payments Corporation of India
- D. Reserve Bank of India

#### 15. Consider the following pairs:

- Craft Heritage of Region
- 1. Puthukkuli shawls Tamil Nadu
- 2. Sujni embroidery Maharashtra
- 3. Uppada Jamdani saris Karnataka

#### Select the correct answer using the codes below:

- A. i only
- B. i and ii
- C. iii only
- D. ii and iii only
- 16. "Momentum for Change: Climate Neutral Now" is an initiative launched by
  - A. The Intergovernmental Panel on Climate Change
  - B. The UNEP Secretariat
  - C. The UNFCCC Secretariat
  - D. The World Meteorological Organization
- 17. The term "Two state Solution" is sometimes mentioned in the new in the context of the affairs of
  - A. China
  - B. Israel
  - C. Iraq
  - D. Yemen



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### 18. Public expenditure on social services in last few years has consistently

- A. Increased
- B. Decreased
- C. Almost constant
- D. No definite conclusion can be made

#### 19. Right to Education Act 2009 stipulates

i. Physical infrastructure of schools

ii. Both school-wise and class-wise learning outcomes

#### Select from the codes below:

- A. i only
- B. ii only
- C. Both i and ii
- D. None
- 20. Which of the following states has the highest indirect tax base under GST?
  - A. Maharashtra
  - B. Madhya Pardesh
  - C. Uttar Pardesh
  - D. Tamil Nadu

## 21. In which one of the following States is Pakhui Wildlife Sanctuary located?

- A. Arunachal Pradesh
- B. Manipur
- C. Meghalaya
- D. Nagaland

#### 22. The well-known painting "BaniThani" belongs to the

- A. Bundi school
- B. Jaipur school
- C. Kangra school
- D. Kishangarh school

## 23. What is "Terminal High Altitude Area Defense (THAAD)", sometimes seen in the news?

- A. An Israeli radar system
- B. India's indigenous anti-missile programme
- C. An American anti-missile system
- D. A defence collaboration between Japan and South Korea

- A. Banking sector
- B. Agricultural sector
- C. Education sector
- D. Industrial sector

## 25. Consider the statements regarding the India Cooling Action Plan (ICAP):

i. India is the first country in the world to develop a document on ICAP

ii. Ministry of Environment and Forest Climate Change (MoEFCC) has released the draft on ICAP.

Choose the correct option:

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i and ii
- 26. Consider the following statements regarding 'e-Sahaj' portal:

i. It has been made to grant security clearance to private business individuals

ii. It comes under the Ministry of Commerce and Industry

#### Choose the right code:

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii
- 27. Aviaindra 18 is a joint airforce military exercise between India and
  - A. USA
  - B. Russia
  - C. Germany
  - D. Australia

#### 28. Where is Tipeshwar Wildlife Sanctuary located?

- A. Madhya Pradesh
- B. Maharashtra
- C. West Bengal
- D. Bihar



#### 29. Consider the following statements regarding International Atomic Energy Agency (IAEA):

i. It reports to both United Nations General Assembly (UNGA) and Security Council (UNSC).

ii. Its headquarters is in Vienna, Austria.

Choose the right code:

- A. i only
- B. ii only
- C. Both i and ii
- D. Neither i nor ii

#### 30. Consider the following statements about Citizenship:

i. Part II of the Constitution of India (Articles 5-11) deals with the Citizenship of India.

ii. Article 11 gives powers to the Parliament of India to regulate the right of citizenship by law.

iii. Article 7 deals with the citizenship rights of certain migrants to Pakistan.

iv. Article 9 of Indian Constitution says that a person who voluntarily acquires citizenship of any other country can retain Indian citizenship.

Which of the following is/are correct?

- A. i only
- B. i, ii only
- C. i, ii, iii, iv
- D. i, ii, iii only

#### 31. Consider the following about bioplastics:

i. Bioplastics are in principle climate-neutral since they are based on renewable raw materials such as maize, wheat and sugarcane.

ii. The production of bioplastics in large amounts would change land use globally.

iii. Producing bioplastics consumes CO2.

iv. Could potentially lead to an increase in the conversion of forest areas to arable land.

Which of the following is/are correct?

- A. i only
- B. i, ii only
- C. i, ii, iii, iv
- D. i, ii, iii only

#### 32. Consider the following tiger reserves are

- i. Dampa
- ii. Simlipal
- iii. Kanha
- iv. Sariska

Which of the following tiger reserves are included under the Tiger Project?

- A. i only
- B. i, ii only
- C. i, ii, iii, iv
- D. i, ii, iii only

#### 33. Consider the following about Qatar:

i. Saudi Arabia

- ii. UAE
- iii. Kuwait

iv. Iran

Which of the following countries do not share a boundary with Qatar?

- A. i only
- B. i, ii only
- C. ii, iii, iv
- D. i, ii, iii only

#### 34. Consider the following about NBFC's:

i. NBFC's do not have a banking license.

ii. These institutions are not allowed to take deposits from the public.

iii. They are outside the scope of banking regulations.

iv. NBFCs can offer banking services such as loans and credit facilities, retirement planning, money markets, underwriting and merger activities.

Which of these is/are incorrect?

- A. i only
- B. iii only
- C. iii and iv
- D. None
- 35. Recently Law Commission of India suggested government for regulating gambling in sports.

Which of the following statements is/are correct with respect to the Law Commission of India?

i. It is a statutory body.

ii. The First Law Commission was established in 1834 by the British Government under the Chairmanship of Lord Macaulay.

Select the correct code:

- A. Only i
- B. Only ii
- C. ii and ii only
- D. None of the abov



### 36. With reference to Prevention of Corruption Act 1988, which of the following statements is/are correct?

i. The act extends to the whole of India.

ii. MPs and MLAs have been kept out of this act.

Select the correct code:

- A. i only
- B. ii only
- C. Both i, ii only
- D. None

#### 37. Consider the following:

i. Section 295A of IPC- deliberate and malicious acts intended to outrage religious feelings.

ii. Section 124A of IPC- defamation.

Which of the above pair(s) is/are correctly matched?

- A. i, onlt
- B. ii only
- C. i, ii only
- D. None of the above

#### 38. Pobitora Sanctuary is in the state of

- A. Meghalaya
- B. Assam
- C. Arunachal Pradesh
- D. Mizoram
- 39. Consider the following statements about MLA nomination in Puducherry:

i. The central Government can nominate 4 MLA's to assembly.

ii. The Concurrence of CM is must.

iii. The MLA's have the right to vote with respect to budget and no-confidence against the government.

Which of the above is/are incorrect?

- A. i and ii only
- B. ii and iii only
- C. i, iii only
- D. i, ii and iii

## 40. Which of the following genetically modified (GM) crop/crops is/are legally allowed to be cultivated in India?

- i. GM Mustard
- ii. Bt Cotton
- iii. Bt Brinjal
- Select the correct answer using the code given below:
- A. Only ii
- B. ii, iii only
- C. i and iii only
- D. i, ii and iii
- 41. Which Indian airport is set to become first in Asia to use face recognition as boarding pass?
  - A. Beijing
  - B. Tokyo
  - C. Delhi
  - D. Bengaluru
- 42. Which are the qualitative techniques used in monetary policy?
  - i. Open market operations
  - ii. Credit Rationing
  - iii. Moral Suasion
  - Which of the techniques given above are correct?
  - A. i and ii only
  - B. ii and iii only
  - C. i and iii only
  - D. All of the above
- 43. Recently Supreme Court upheld the validity of the Aadhaar. In which of the following cases Aadhaar is required?
  - i. Linking to PAN card
  - ii. Welfare schemes
  - iii. Banks accounts
  - Select the correct code:
  - A. i and ii only
  - B. iii only
  - C. i only
  - D. None of the above



i. The Parliament can amend all fundamental rights.

ii. All Constitutional Amendment Bills require ratification of at least half of the states.

iii. The President cannot withhold his assent to the constitutional amendment bill

Which of the above is/are correct?

- A. I and III only
- B. III only
- C. II and III only
- D. All of the above
- 45. Which of the following provisions in the constitutions are outside the scope of Article 368 and can be amended by simple majority of the two houses?

i. Abolition or creation of legislative councils in states.

ii. Delimitation of constituencies.

iii. Extent of executive power of the union and the states

Select the correct answer using the code given below:

- A. Only II
- B. Only I and III
- C. Only I and II
- D. All of the above

#### 46. Consider the following statements:

i. The Constitution of India prescribes a one-month time frame within which the state legislatures should ratify or reject an amendment submitted to them.

ii. There is no provision for holding a joint sitting of both the houses of parliament if there is a dead lock over the passage of constitutional amendment bill.

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

- A. i only
- B. ii only
- C. Both i and ii
- D. None of the above

47. Who among the following constitutes in the Selection Committee for appointment of the members of CVC (Central Vigilance Commission) & CIC (Central Information Commission) both?

i. Prime Minister

ii. Speaker of Lok Sabha

iii Chief Justice of India

#### Select the correct code:

- A. I only
- B. I, II only
- C. Both II and III
- D. All of the above

### 48. Which of the following is/are features of parliamentary form of government?

- i. Separation of Power
- ii. Written Constitution
- iii. Collective Responsibility
- iv. Majority Party Rule

Select the correct answer using the codes given below:

- A. Only i, iii and iv
- B. Only ii, iii and iv
- C. All of the above
- D. Only iii and iv

### 49. With reference to "Oxytocin", recently in news, which of the following statement(s) is/are incorrect?

i. Oxytocin is naturally secreted by the pituitary glands of mammals during sex, childbirth, lactation or social bonding, and is sometimes called "love hormone".

ii. Males usually have this hormone in higher levels than females.

Options:

- A. i and ii only
- B. Neither i nor ii
- C. i only
- D. ii only

- Selection Committee consisting of
- i. Prime Minister
- ii. Speaker Legislative Assembly
- iii. The Chief Justice of India
- 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. All of the above
- 51. The National Human Rights Commission consist of four ex-officio members.

These members belong to

- A. The Constitutional Bodies only
- B. The Statutory Bodies only
- C. Constitutional and Statutory Bodies both
- D. None of the above
- 52. At present, which of the following states has/have a bicameral system of state legislature?
  - i. Uttar Pradesh
  - ii. Telangana
  - iii. Andhra Pradesh
  - Select the correct answer using the code given below:
  - A. Only i
  - B. Only i and iii
  - C. Only ii and iii
  - D. All of the above
- 53. Which one of the following statements with reference to the Chief Minister (CM) of a state is incorrect?
  - A. A sitting Member of Parliament can be appointed as a CM
  - B. A person who is not a member of a state legislature can be appointed as CM for six months, within which time, he should be elected to the State Legislature
  - C. According to the Constitution, the CM must be a member of the State Legislative Assembly
  - D. The CM is the de facto executive of the state

## 54. The 97th Constitutional Amendment Act of 2011, related to co-operative societies, made changes to which of the following parts of the Constitution?

- i. Fundamental Rights
- ii. Directive Principles of State Policy
- iii. Part IX
- Select the correct answer using the code given below:
- A. i and ii only
- B. iii only
- C. Only ii and iii
- D. All of the above
- 55. With respect to the Puggie Community, consider the following statements:
  - i. Puggies are people with traditional knowledge of reading camel footprints.
  - ii. They are present in Kutch and Banaskantha in Rajasthan.
  - Select the correct answer using the code given below:
  - A. i only
  - B. ii only
  - C. All of the above
  - D. None of the above

#### 56. Which of the security groups is not correctly matched?

- i. Border Security Force (BSF) Pakistan and Myanmar
- ii. Central Reserve Police Force (CRPF) Riots and Naxals
- iii. Indo-Tibetan Border Police (ITBP) China
- iv. Sashastra Seema Bal (SSB) Nepal only
- Options:
- A. i only
- B. iii and iv only
- C. i and iv only
- D. ii and iii
- 57. Read the following statements carefully and choose the incorrect answer by using the codes given below:

i. Air Defence Identification Zone (ADIZ) is airspace over land or water in which the identification, location, and control of civil aircraft is performed

ii. The concept of an ADIZ is defined in Tokyo Convention.

- iii. It covers only that country's territory
- Which of the above statement(s) is/are correct?
- A. i and ii only
- B. ii and iii only
- C. All i, and iii
- D. All of the above



### 58. The Speaker of a State Legislative Assembly can vacate his office if he resigns by writing to the:

- A. Governor
- B. Chief Minister
- C. Leader of the House
- D. Deputy Speaker
- 59. 'Advance Healthcare Directive', was in the news, is
  - A. A fundamental right to choose one's medical treatment
  - B. A form of euthanasia
  - C. Both (a) and (b)
  - D. None of the above
- 60. An ordinary bill in the Parliament must pass through some stages before it finds a place in the statute book. Which one of the following steps is not among them, after a bill passed by one house of the Parliament has been transmitted to the second house?
  - A. The bill may be referred to a joint committee of the two Houses of Parliament
  - B. The bill is published in the Gazette of India
  - C. The House considers provisions of the bill clause by clause, each of which are voted upon separately
  - D. If a deadlock is deemed to have taken place, a joint sitting of the two houses can be summoned by the Prime Minister

### 61. As a court of record, the Supreme Court has two powers. Which of the following is/are these powers?

i. The judgements, proceedings and acts of the Supreme Court are recorded for perpetual memory and testimony.

ii. It has the power to review its own judgement or order.

Select the correct answer using the code given below:

A. i only

B. ii only

C. Both i and ii

D. None of the above

#### 62. An adjournment motion that can be introduced in the Parliament

- A. Concerns with the breach of parliamentary privileges by a minister
- B. Is an Indian innovation in parliamentary procedure and is not mentioned in the Rules of Procedure
- C. Is a device of parliamentary proceedings which cannot be used by the Rajya Sabha
- D. Seeks to terminate a sitting of the Parliament for a specified time

63. With reference to the Chairman of Rajya Sabha, consider the following statements:

i. He cannot preside over a joint sitting of the two houses of the Parliament.

ii. He is a member of the house but cannot vote in the first instance.

iii. When a resolution for his removal is under consideration he can speak and take part in the proceedings, without voting.

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. Only iii
- 64. As per the directions given by the Supreme Court in S. R. Bommai case, which of the following situations is/are not considered as ground/s for proclamation of President's rule in a state?

i. A situation of maladministration in a state persists where duly constituted ministry enjoys support of the assembly.

ii. In case of serious allegations of corruption against the ministry of the state.

Select the correct code:

- A. i only
- B. ii only
- C. Both i, ii,
- D. None of the above

### 65. Which of the following is/are the Constitutional Bodies?

i. National Commission for Minorities

ii. Finance Commission

iii. Attorney Journal of India

Select the correct code:

- A. Only i
- B. Only ii
- C. Only ii and iii
- D. All of the above

### 66. Which of the following was/were the implications of the 73rd Constitutional Amendment Act?

i. Constituting Panchayats became mandatory for states.

ii. Fixing tenure of five years for Panchayats at all levels was made mandatory.

Select the correct answer using the code given below.

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. None of the above

### 67. With reference to Central Council of Ministers, consider the following statements:

i. Council of Ministers are collectively responsible to the President.

ii. Council of Ministers are collectively responsible to the House of the people.

iii. Resignation or death of an incumbent Prime Minister dissolves the Council of Ministers.

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

- A. i and iiionly
- B. ii only
- C. Only ii and iii
- D. Only iii

#### 68. With reference to the provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996, consider the following statements:

i. In the Scheduled areas, at least one-half of the seats in every panchayat are reserved for members of the scheduled tribes.

ii. The Gram Sabha shall be responsible for the coordination of planning and implementation of development projects in the scheduled areas involving acquisition of land.

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

- A. i only
- B. ii only
- C. Both i and ii
- D. None of the above

### 69. With reference to the power of judicial review of high courts, consider the following statements:

i. High court can review the laws enacted by state legislatures only and not the ones enacted by the Centre.

ii. High court cannot interpret the Constitution while reviewing any law or order passed by the government, as Supreme Court is the sole interpreter of Constitution.

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

- A. i only
- B. ii only
- C. Both i and ii
- D. None of the above

### 70. With reference to National emergency, consider the following statements:

i. It can be declared even if security of India is not under threat, but there is a case of imminent danger.

ii. If once proclaimed, it is applicable to the whole of Indian Territory.

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

A. i only

- B. ii only
- C. Both i and ii
- D. None of the above
- 71. With reference to Vice-President, consider the following statements:

i. In order to be eligible for election, a person should be qualified for election as a member of the Rajya Sabha.

ii. There is no specific provision in the Indian Constitution regarding re-election of Vice- President.

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

- A. i and iii only
- B. ii only
- C. Both i and ii
- D. None of the above

### 72. With reference to Constituent Assembly, which of the following statements is/are correct?

i. The Assembly included members from chief commissioners' provinces.

ii. The representatives were partly nominated and partly elected.

iii. The representatives of the princely states were elected by the method of proportional representation by means of single transferable vote.

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

- A. Only i and iii
- B. Only ii
- C. Only i and iii
- D. Only iii

#### 73. The Constituent Assembly comprised representatives of sections of Indian Society including:

i. Christians

ii. Sikhs

iii. Parsis

iv. Anglo-Indians

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

- A. i and ii only
- B. Only i ii and ii
- C. Only i iii and iv
- D. All of the above

#### Consider the following statements regarding threetier panchayati raj system

i. The Panchayat Samiti is the executive body while the Zila Parishad is advisory, coordinating and supervisory body.

ii. The three-tier panchayati raj system was recommended by the Ashok Mehta Committee.

iii. Balwant Rai Mehta Committee had recommended that the three-tier system of panchayati raj should be replaced by the two-tier system.

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

- A. Only i
- B. Only i and ii
- C. Only iii
- D. All of the above

### 75. With reference to the Fundamental Duties which of the following statements is incorrect?

- A. Originally the Constitution did not contain the Fundamental Duties
- B. The Fundamental Duties in Indian Constitution are inspired by the Constitution of erstwhile USSR.
- C. All the Fundamental Duties were added in the Constitution by 42nd amendment act, 1976.
- D. None of the above

### 76. Consider the following statements regarding nai manzil

i. The scheme will address educational and livelihood needs of minority communities in general and Muslims in particular

ii. The scheme aims at providing educational intervention by giving the bridge courses to the trainees and getting them Certificates for Class XII only from distance medium educational system and at the same time also provide them trade basis skill training in 6 courses

Which of the statements given above are correct?

- A. i only
- B. ii only
- C. All of the above
- D. None of the above Call or WhatsApp 09980837187 for guidance

### 77. Which of the following statements are correct with reference to SECURE Himalaya?

i. It is to ensure conservation of locally and globally significant biodiversity, land and forest resources in the high Himalayan ecosystem

ii. It is launched by the Union environment ministry in association with WWF

iii. Protection of snow leopard and other endangered species and their habitats is one of the key components of the project

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

- A. All of the above
- B. Only ii
- C. Only i and iii
- D. Only ii and iii

#### 78. Yatri Mitra seva in news is:

- A. Construction of roads by ministry of road for bumpy free travelling
- B. It is a program by ministry of aviation to provide affordable ticketing to remote areas
- C. Introduced by Ministry of railways to support old and differently abled
- D. Safety provided by ministry of home to people travelling to Amarnath.
- 79. Consider the following statements about Tax Terrorism

i. It is the practice adopted by the Government to impose large unjustified taxes.

ii. Retrospective taxation is also considered as Tax terrorism.

#### Which of the statements given above are correct?

- A. i only
- B. ii only
- C. Both i and ii
- D. None of the above

### 80. Read the following statements carefully and choose the incorrect answers by using the codes given below:

i. Sampoorna Bima Gram (SBG) Yojana provides affordable life insurance services to people, particularly those living in rural areas of the country

ii. Ministry of Rural development launched the scheme

iii. The benefits of Postal life Insurance will be confined to government and semi-government employees only

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

- A. Only i and ii
- B. Only ii and iii
- C. Only i and iii
- D. All of the above



### 81. Consider the following statements regarding state legislative council:

i. The maximum strength of the council is fixed at onethird of the total strength of the assembly and the minimum strength is fixed at 40, with some exceptions.

ii. 2/3rd members of legislative council are elected by the members of local bodies in the state like municipalities, district boards etc.

iii. Constitution has fixed the maximum and the minimum limits of strength of legislative council.

Select the correct answer using the code given below:

- A. i and ii only
- B. ii iii only
- C. Only i
- D. All of the above

### 82. Consider the following statements regarding High Court:

i. The institution of high court originated in India in 1862.

ii. The President can extend the jurisdiction of a high court to any union territory or exclude the jurisdiction of a high court from any union territory.

iii. The judges of a high court are appointed by the Governor.

Select the correct answer using the code given below:

- A. Only i
- B. Only ii
- C. Only i and iii
- D. All of the above

### 83. Consider the following statements regarding state legislative assemblies:

i. In assembly, the governor can nominate two members from the Anglo-Indian community, if the community is not adequately represented in the assembly.

ii. The Constitution has provided for the reservation of seats for scheduled castes and scheduled tribes in the assembly of each state.

iii. 87th Amendment Act of 2003 provided for the delimitation of constituencies on the basis of 2001 census.

Which of the above is/are correct?

- A. Only i
- B. Only ii
- C. Only ii and iii
- D. All of the above

#### 84. Consider the following statements regarding Inter-State Council:

i. It was set up in 1990 on the recommendations of Sarkaria Commission.

ii. The council promotes cooperative federalism.

iii. Union Home Minister is the chairman of council.

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

- A. Only i and ii
- B. Only i and iii
- C. Only ii
- D. Only ii and iii
- 85. Which one of the following subjects is under the Union List in the Seventh Schedule of the Constitution of India?
  - A. Regulation of labour and safety in mines and oilfields
  - B. Agriculture
  - C. Fisheries
  - D. Public health

#### 86. Consider the following statements:

i. A person who has held office as a permanent Judge of a High Court cannot plead or act in any court or before any authority in India except the Supreme Court.

ii. A person is not qualified for appointment as a Judge of a High Court in India unless he has held a judicial office in the territory of India for at least five years.

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

- A. Only i
- B. Only ii
- C. Both i, ii
- D. None of the above

#### 87. Consider the following statements:

i. The Chairman of the Committee on Public Accounts is appointed by the PM.

ii. The Committee on Public Accounts comprises members of Lok Sabha, members of Rajya Sabha and a few eminent persons of industry and trade.

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

- A. Only i
- B. Only ii
- C. Both ii and iv
- D. None of the above



# 88. Which of the following provisions of the Constitution can be amended by a simple majority in the Parliament?

i. Salaries and allowances of the members of Parliament

- ii. Admission or establishment of new states
- iii. Citizenship—acquisition and termination
- iv. Directive Principles of State Policy
- Correct answer code is:
- A. i, ii and iii
- B. i, iii, iv
- C. ii, iii and iv
- D. None of the above

### 89. Which of the following is/are indicative of the federal system of Indian Constitution?

- i. Written Constitution
- ii. Independent Judiciary
- iii. All India Services
- iv. Integrated Judiciary
- Select the correct code:
- A. Only i and ii
- B. Only iii and iv
- C. Only i, ii and iii
- D. All of the above

### 90. With reference to 'whip', which of the following statements is/are correct?

i. The Office of the 'whip' is mentioned neither in the Constitution of India nor in the rules of the house nor in a Parliamentary Statute.

ii. Every political party has its own 'whip' in the Parliament.

Select the correct code:

- A. Only i
- B. Only ii
- C. Both i and ii
- D. None of the above

### 91. Which of the following is part of the Electoral College for the Presidential election in India?

i. The elected members of both the Houses of Parliament

ii. All the member of the Parliament

iii. The elected members of the legislative assemblies of the Union Territories of Delhi and Puducherry

iv. All the members of the State legislative assemblies

Correct answer code is:

- A. Only i and ii
- B. Only i and iii
- C. Only ii and iv
- D. Only i iii and iv
- 92. Consider the following statements with reference to the President of India:

i. He should be qualified for election as a member of the Lok Sabha.

ii. Nomination of a candidate for election to the office of President must be subscribed by atleast100 electors as proposers and 50 electors as seconders.

iii. President is obliged to preserve the Constitution and the law by his oath.

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

- A. Only i
- B. Only i and ii
- C. Only ii and iii
- D. Only i and iii
- 93. Perhaps the best summary of the principles that the nationalist movement brought to the Constituent Assembly is the Objectives Resolution. In light of these objectives which of the followings statement(s) is/are correct?

i. All powers and authority of sovereign and independent India and its constitution shall flow from the people.

ii. Cosmopolitan identity was one of the fundamental commitments.

iii. It was the moral commitment to establish a government that will fulfill the promises made during nationalist movement.

Select the correct code:

- A. i only
- B. i, ii only
- C. Only i and iii
- D. All of the above

### 94. Match the correct pairs of constitutional provisions and nations from where it was borrowed:

i. Parliamentary form of government	A. Canada
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ii. Fundamental rights	B. Ireland
iii. Residual power	C. USA
iv. Directive principles	D. Britain

Correct answer code is:

A. 1 A, 2 B, 3 D, 4 C

- B. 1 D, 2 C, 3 A, 4 B
- C. 1 D, 2 C, 3 B, 4 A
- D. 1 A, 2 B, 3 C, 4 D

### 95. Who among the following functionaries take an 'oath of secrecy'?

- i. President
- ii. Ministers

iii. MPs

iv. Supreme Court judge

Select the correct answer using the codes given below:

- A. i and ii only
- B. ii only
- C. Only ii and iii
- D. Only ii and iv

### 96. Which of the following cities lies to the south of the equator?

- A. Yangon
- B. Kuala Lumpur
- C. Bandung
- D. Bangkok

### 97. Consider the following statements about geostationary satellites:

i. A geostationary satellite is an earth-orbiting satellite, placed directly over the equator.

ii. It follows an inclined orbit with respect to the equatorial plane.

iii. It revolves in the same direction the earth rotates.

iv. Every geostationary satellite is a geosynchronous satellite

Which of the above statements is/are incorrect?

- A. II only
- B. II AND III only
- C. II III and IV
- D. I, II, III, IV

### 98. Consider the following statements about Enforcement Directorate:

i. It is a specialized financial agency, under the Department of Revenue, Ministry of Finance.

ii. It is a statutory body formed under the FERA Act, 1947.

iii. It enforces FEMA, 1999 and PMLA, 2002.

iv. It has quasi-judicial powers.

Which of the following is/are correct?

- A. i only
- B. i, iii only
- C. i ii and iii
- D. i iii, and iv
- 99. Which of the following has been included as a World UNESCO Heritage site in 2018?
  - A. The Architectural Work of Le Corbusier, Capital Complex of Chandigarh
  - B. Victorian Gothic and Art Deco Ensembles of Mumbai
  - C. The walled city of Ahmedabad
  - D. Archaeological Site of Nalanda Mahavihara at Nalanda, Bihar

### 100. The recently launched postal stamps in Port Blair were inspired by which famous freedom fighter?

- A. Veer Savarkar
- B. Netaji Subhash Chandra Bose
- C. Mahatma Gandhi
- D. Bal Gangadhar Tilak





## **ANSWER KEYS**

Question No	Answer Keys
1.	С
2.	D
3.	С
4.	С
5.	А
6.	С
7.	А
8.	А
9.	С
10.	А
11.	D
12.	С
13.	D
14.	С
15.	А
16.	С
17.	В
18.	D
19.	С
20.	А
21.	А
22.	D
23.	С
24.	А
25.	С

Question No	Answer Keys
26.	С
27.	В
28.	В
29.	С
30.	D
31.	С
32.	С
33.	С
34.	D
35.	В
36.	В
37.	A
38.	В
39.	А
40.	А
41.	D
42.	В
43.	A
44.	А
45.	С
46.	В
47.	A
48.	D
49.	D
50.	С



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Question No	Answer Keys
51.	С
52.	D
53.	С
54.	A
55.	A
56.	С
57.	В
58.	D
59.	С
60.	D
61.	A
62.	С
63.	С
64.	A
65.	С
66.	С
67.	С
68.	A
69.	D
70.	A
71.	с
72.	A
73.	D
74.	A
75.	С

Question No	Answer Keys
76.	A
77.	С
78.	С
79.	С
80.	В
81.	В
82.	A
83.	С
84.	A
85.	A
86.	D
87.	D
88.	А
89.	А
90.	С
91.	В
92.	D
93.	D
94.	В
95.	В
96.	С
97.	A
98.	D
99.	В
100.	В



### MAINS PRACTICE QUESTIONS

1. Pune has recently hosted an international conference on microbiome research — a field of study that is still in its infancy in India. What do you understand by human microbiome? Why is it important to study human microbiome?

2. The UN's World Meteorological Organization (WMO) has predicted that there is a 75-80% chance of a weak El Niño weather pattern forming by February and a slightly lower likelihood that it will continue through the northern hemisphere winter of 2018-19. In this context write a note El Nino by highlighting its causes and effects.

3. The quantity of heroin seized in Mizoram has increased steadily since 2014 when the State government replaced total prohibition with controlled prohibition. In this context, analyse the relation between alcohol and drugs. Write a note on India's Experiment with the Alcohol ban.

4. Rotavirus infection is one of the leading causes of gastroenteritis in children under five years worldwide. What do know about Rotavirus? Critically analyse the efforts of Indian government to address the rotavirus infection.

5. As global temperatures continue to rise, climate action is lagging and the window of opportunity is closing. Critically examine.

6. There is much interest in introducing local currencies for trade and they have been central elements in many countries. Highlight the advantages and disadvantages of using local currencies for trans boundary trade.

7. A hardline woman Maoist, Ide Madi alias Jiwani, who had a reward of ₹1 lakh on her head, surrendered before the police in Odisha's Malkangiri district recently. In this context critically evaluate India's efforts in dealing with naxalism.

8. What do you understand by Mob justice? What are the causes and consequences of Mob justice?

9. Odisha Chief Minister Naveen Patnaik recently wrote a letter to Prime Minister Narendra Modi urging him to initiate necessary steps for passing the Bill for reservation of one-third seats in Parliament and State Legislatures for women. In this context, critically evaluate the need for reservation for women in Parliament and State Legislatures

10. A study conducted by the Disability Rights India Foundation (DRIF) on the implementation of the Rights of Persons with Disabilities (RPWD) Act, across 24 States, has revealed that more than half have not notified the State rules, despite a significant lapse of time. In this context, write a note on the Rights of Persons with Disabilities (RPWD) Act 2016

11. Vice-President M. Venkaiah Naidu recently stressed on the need for an amendment to the Anti-Defection Law. In this context write a note on Anti-defection law.

12. A large-sized organisation in India incurs an average of \$10.3 million in economic losses due to cyberattacks, according to a Frost and Sullivan study commissioned by Microsoft. What do you understand by Cyber Attacks? Critically evaluate the India's approach in dealing with the issue.

13. Common Cause, an NGO, has filed a curative petition in the Supreme Court for setting aside its earlier decision upholding the appointment of Rakesh Asthana, a senior IPS officer of the Gujarat cadre, as a Special Director of the CBI. In this context, write a note on Curative Petition.

14. The Union Cabinet recently approved the Agriculture Export Policy, aimed at increasing India's exports to \$60 billion by 2022 from the current \$37 billion. In this context critically evaluate the India's effort towards the doubling the farmers income by 2022.

15. A research paper co-authored by leading agriculture scientist M.S. Swaminathan, which describes Bt cotton as a 'failure.' In this context critically evaluate the role of GM technology in the sustainable development of agriculture

16. The Union government has asked social media platforms to emulate their practices in the U.K. in using Artificial Intelligence tools to identify and take down content inciting violence. In this context, write a note on the role of artificial intelligence in curbing the violent activities in the society

17. The life imprisonment is the rule and death penalty is the exception and even when the crime is heinous or brutal, it may not still fall under the category of rarest of rare. Discuss this statement in the context of India



18. Eighteen people were arrested in Delhi recently for allegedly violating the National Green Tribunal's orders on checking air pollution. In this context, write a note on the causes and solutions to the Delhi's Air Pollution problem.

19. Bioplastics are often consumed as an environmental friendly alternative. Examine the relevance of this statement.

20. The Citizenship (Amendment) Bill 2016 violates the right to equality guaranteed under Article 14 of the Constitution. Critically analyse.

21. The CBI, CVC, CIC and the Lokpal had all been limited in their functioning and interfered with by virtue of overwhelming governmental control. Critically evaluate the statement.

22. The Supreme Court has recently decided to examine a plea challenging the legality of amendments brought in by Tamil Nadu and four other States, which allow authorities to bypass the need to take farmers' consent before their land is acquired for large infrastructure projects. In this context, analyse the challenges associated with land acquisition in India.

23. The Indian Martial Arts has drawn its inspiration from nature, spread across the world and can be used to increase the agility in sports. Substantiate.

24. Ayushman Bharat is an important step in the direction of achieving the goal of Universal Health Coverage. Examine.

25. An independent central bank is as important as a progressive Government for a healthy economy. Critically Analyze.

26. The Meghalaya High Court has recently asked the Centre to bring in a law to let people of religious and ethnic minority communities from Afghanistan, Bangladesh and Pakistan be given citizenship without any cut-off year or any questions asked. In this context critically analyse the Citizenship (Amendment) Bill, 2016.

27. The farm loan waiver undermines honest credit culture and discipline. It endangers moral hazard and entails transfer from taxpayers. Hence alternative to blanket waivers need to be explored and adapted. Discuss.

28. "The Right to Information Act is not all about citizens' empowerment alone, it essentially redefines the concept of accountability. Discuss.

30. In a bid to promote conservation of groundwater, the Central Ground Water Authority (CGWA) has notified a water conservation fee (WCF) that industries will need to pay on groundwater extraction starting from June 2019. In this context, write a note on the importance of sustainable use of groundwater.

31. The Delhi High Court recently quashed the Centre's decision to ban the manufacture and sale of oxytocin, a drug which induces labour and controls bleeding during child birth, by private firms. Critically analyse the decision of the High court.

32. Try to go a day without touching plastic. Synthetic polymer is embedded in daily life, from clothing to furniture and medical care to your smartphone. It's integral to a globalised food supply chain. In this context discuss the problems associated with the plastic ban and suggest some alternate measures.

33. India and France are moving fast towards operationalising the nuclear power project at Jaitapur. In this context critically analyse the need for nuclear energy in India.

34. Graphene, a form of carbon and a super-strong, ultra-light material discovered in 2004, enables flexible electronic components, enhances solar cell capacity, and promises to revolutionise batteries. Explain.

35. The parliamentary panel report about dearth in basic amenities for the security personnel needs immediate assistance and needs more financial support. Examine.

36. Gene editing is a revolution in science but it advancements is marred with safety and ethical dimensions. Critically comment.

37. From the touch of soil while playing, nature's breeze and friendship we have walked miles into quod of technological arrest. Analyse the statement and give suitable measures to avoid alienation.

38. 1984 Anti-Sikh riots are considered as "crimes against humanity," which were "engineered by political actors with the assistance of the law enforcement agencies." In this context, write a note on the role of law enforcement agencies in the preventing and controlling communal riots.



39. To ensure quality education, 'sukhi man shikshak' (happy teachers), 'tanaav-mukt vidyarthi' (tension-free students), 'gunvattaparak shiksha' (quality education) and 'nakal-viheen pariksha' (cheating-free examination)" are very crucial. Explain the statement.

40. Four decades after China's late paramount leader Deng Xiaoping masterminded the "reform and opening up" policy, the Asian giant has become an economic superpower, behind only the United States. Explain the statement

41. Climate change is driving glaciers in the Himalayas to melt more rapidly than at any point in the last 10,000 years, and could soon cause water supply shortage in parts of India, Pakistan, and Nepal. In this context, critically evaluate the global efforts to address to issue of climate change with special emphasis on India

42. A growth rate of 9% is essential to generate enough jobs and achieve universal prosperity, according to a vision document released by NITI Aayog. In this context, write a note on the strategies required to achieve the 9% growth rate.

43. The Lok Sabha recently passed a Bill banning commercial surrogacy with penal provisions of jail term of up to 10 years and fine of up to ₹10 lakh. Critically evaluate the bill.

44. Elections are an essential democratic exercise which expresses the will of the people, as well as the authority, decided to be the driver of the society for a specified period of time. In this context, analyse the various issues plaguing the electoral process in India.

45. The Transgender Persons (Protection of Rights) Bill, 2016 seeks to empower the transgender community. Discuss.

46. The Parliament has recently passed the Consumer Protection bill. In this context, discuss how the Consumer Protection bill, 2018 aims to enforce consumer rights and provide a mechanism for complaint redressal.

47. What are the reforms carried out for farming sector in the recent years? How impactful they have been in terms of alleviating issues faced by the sector

48. Coral reefs are the sensitive ecosystem which has been put to huge stress in the face of climate change. The recent IPCC report highlights the danger posed by the climate change to the corals. In this context, discuss the role of coral reefs in the ecosystem

49. The recent order allowing 10 different Central agencies to snoop on people is seen as a challenge to the nine-judge Constitution Bench judgment of the Supreme Court, which directed the government to protect informational privacy of every individual. In this context, critically analyse the recent government decision.

50. The intellect has sharp eye for methods and tools, but is blind to ends and values. Explain

51. In law a man is guilty when he violates the rights of others. In ethics he is guilty if he only thinks of doing so. Analyze the statement

52. Contemporary China is rife with contradictions. Its ruling party espouses a communist, egalitarian ideology while presiding over the emergence of a hugely unequal, capitalism-driven society. Explain.

53. The formation of Government by a new Political Party at the center and state sets the stage for Mass transfer of officers marking a wrong beginning. Critically Analyze.

54. The government has recently brought out a notification which authorizes several government agencies to intercept, monitor, and decrypt online communications and data. In this context analyze the surveillance framework in India.

55. The NITI aayog has recently put forward the idea of a centralised recruitment for judicial posts under the aegis of UPSC. In this context discuss the role of centralised judicial recruitment in solving the problems in the lower judiciary.

56. The debate for a separate time zone for the northeast has been in existence for as long as the history of modern India goes. In this context, analyse the pros and cons of having two time zones for the country.

57. Recently, Chairman of India's largest lender State Bank of India (SBI), Rajnish Kumar, said that loan waivers are not a permanent solution; instead, he argued for an investment scheme to increase the income of farmers on similar lines of Telangana's Rythu Bandhu. Discuss the statement.

58. India has formally taken over operations of Iran's strategic Chabahar Port. In this context discuss the possibilities and challenges provided by Chabahar port for India.



59. E-waste generation across the world has increased significantly on account of growing adoption of technology and electronic products. The e-waste can be recycled to collect valuable metals but the process in India has been associated with a lot of environmental and health problems. In this context write a note on e-waste recycle process in India.

60. Impact investing refers to investments made into companies, organizations, and funds with the intention to generate a measurable, beneficial social or environmental impact alongside a financial return. Explain the concept of impact investment with relevant examples.

61. The issue of loan waivers comes in news repeatedly because most of the state governments see it as a low hanging fruit but waiving off farmers loans may not be the best idea in helping them. Discuss.

62. Online shopping has witnessed a very high growth rate in India and is bound to further increase in future. Indian government has recently issued some new rules for e-commerce. In this context, discuss how the recently released e-commerce rules will impact the marketplace and the consumers.

63. The government has recently brought out a notification which authorizes several government agencies to intercept, monitor, and decrypt online communications and data. In this context analyze the surveillance framework in India in detail.

64. Discuss the impact of e-waste recycle micro factories on our environment.

65. Critically analyse the growing influence of artificial intelligence worldwide.





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