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PAPER - I

1. INDIAN HISTORY**1.1 The Sufi Movement****Why in news?**

- The death anniversary of Sufi Saint Nizamuddin Auliya was recently observed.

What is Sufi Movement?

- The 10th century A.D marks the important changes in the realm of ideas and beliefs in the Islamic religion - the rise of the Sufi mystic orders.
- The core concept of Sufi Movement is Darikh-i-Duniya / Wahad-ul-wahjud, meaning “Universal Brotherhood”. It outwardly rejected the religion and emphasized love and devotion to God and compassion towards all fellow human beings.
- Mystics, who are called Sufis, were persons of deep devotion who were disgusted by the display of wealth and degeneration of morals following the establishment of the Islamic empire.
- The Sufis were organized in 12 orders or Silsilahs. A Silsilah was generally led by a prominent mystic who lived in a Khanqah or hospice along with his disciples.
- The Sufi orders are broadly divided into two: Ba-shara – Those who followed the Islamic Law and Be-shara – Those who were not bound by the Islamic Law.
- The Sufi saints made themselves popular by adopting musical recitations called “Sama”, to create a mood of nearness to God.
- Qawwali is the form of sufi devotional music popular in South Asia and ghazal is a form of Qawwali.

What are the major Silsilahs followed in India?

- The four main Sufi orders – Chisti, Qadiriyya, Suhrawardiyya and Naqshbandi order were practiced in India.

Chisti Order

- The Saints of Chisti Order were lived in poverty and lead a hermit life. They did not accept State service. This order is primarily followed in Afghanistan and Indian Subcontinent.
- The Chisti order in India was established in India by Khwaja Muinuddin Chisti in 1192, shortly after the death of Prithvi Raj Chauhan.
- He died in 1236 and his tomb in Ajmer was constructed by Ghiasuddin Khalji of Malwa. Mohammed Bin Tuqlaq visited the tomb and later it came under State Management during Mughal Ruler Akbar’s reign.
- One of the other notable Sufi saints was Khwaja Qutbuddin Bakhtiyar Kaki who organized work in Delhi and the contemporary Delhi Sultanate Ruler was Illtutmish who was deeply devoted to Chisti Order.
- Another famous Sufi saint was Nizamuddin Auliya and he adopted yogic breathing exercises, so much so that the yogis called him sidh or ‘perfect.’
- Auliya’s famous disciple was Amir Khusrow who is called as “father of Qawwali” and “Parrot of India” and introduced the Ghazal Style to India.
- After the death of Nasruddin Chiragh-i-Delhi in the 14th century, the chishtis order declined.

Suharwardi Order

- It entered India at the same time as the Chishtis and its activities were confined to the Punjab and Multan.
- This order was established in India by Bahauddin Zakanya.
- The Most well-known saints were Shaikh shihabuddin Suharwadi and Hamid-ud-din Nagori.
- Another Saint Shaikh Fakhruddin Ibrahim Iraqi composed a treatise called Hamat which is a commentary on the Unity of Being (Wahdat-al-Wujud) and he was highly respected by the Delhi Sultans from Alauddin Khilji to Muhammad Bin Tughluq.
- Unlike the Chishtis, the suharwardi saints did not believe in leading a life of Poverty. They accepted the service of the state and held important posts mainly under Delhi Sultanate ruler Iltutmish.

Qadri Order

- This order was established in India by Niyammad-ulla-Qadiri and was introduced in India over Babur period.
- A great follower of Qadri Order was Dara Shiko, who was the eldest son of the Mughal emperor Shah jahan.
- During Aurangazeb's reign, the Qadri order lost its patronage.

Nasqabhandi Order

- This order was founded by Bahibillah and the followers were very orthodox compared to all other orders.
- This order was popularized in India by Babur who was deeply devoted to Naqshbandiyya leader Khwaja Ubaidullah Ahrar.

- One of the disciples of Khwaja was Shaikh Ahmad Sirhindi who opposed all those practices and beliefs of Akbar and demanded re-imposition of Jizyah.
- Later he was imprisoned by Jahangir for claiming a status beyond that of the Prophet.

1.2 History of ten Sikh Gurus

Why in news?

- Recently, Prakash Parva – The holy day commemorating the 350th birth anniversary of Guru Gobind Singh was celebrated.

Sikh Gurus

- The era of the ten gurus of Sikhism spans from the birth of Nanak Dev in 1469, through the life of Guru Gobind Singh.
- At the time of Guru Gobind Singh's death in 1708, he passed the title of Guru to the Sikh scripture, Guru Granth.

1. Guru Nanak Dev - Guru from 1469 to 1539

- Guru Nanak Dev, first of the 10 gurus, founded the Sikh faith, introducing the concept of one God.
- He started the institution of Guru Ka Langar. Langar is the term in the Sikh religion refers to the common kitchen where food is served to everyone without any discrimination.
- He emphasized the equality of women and rejected the path of renunciation and he rejected the authority of the Vedas.

- He was the contemporary of Mughal emperor - Babur.

2. Guru Angad Dev - Guru from 1539 to 1552

- Guru Angad Dev, second of the 10 gurus, invented and introduced the Gurmukhi (written form of Punjabi) script.

- He compiled the writings of Nanak Dev in Guru Granth Sahib in Gurmukhi Script.
- Popularized and expanded the institution of Guru ka Langar which was started by Guru Nanak Dev.
- He founded the town of Tarn Taran Sahib near Goindwal Sahib.
- He became the first great martyr in Sikh history when Emperor Jahangir ordered his execution. Thus, he was hailed as Shaheedan-de-Sartaj (The crown of martyrs).

3. Guru Amardas Sahib - Guru from 1552 to 1574

- Guru Amardas introduced the Anand Karaj marriage ceremony for the Sikhs, replacing the Hindu form.
- He established Manji & Piri system of religious missions for men and women respectively.
- He strengthened the tradition of Guru Ka Langar.
- He also completely abolished amongst the Sikhs, the custom of Sati and purdah system.
- He was the contemporary of Mughal emperor - Akbar.

4. Guru Ram Das - Guru from 1574 to 1581

- Guru Ram Das, fourth of the 10 gurus, founded the city of Amritsar.
- He started the construction of the famous Golden Temple at Amritsar, the holy city of the Sikhs.
- He requested the Muslim Sufi, Mian Mir to lay the cornerstone of the Harmandir Sahib.

5. Guru Arjan Dev - Guru from 1581 to 1606

- He compiled the Adi Granth, the scriptures of the Sikhs.
- He completed construction of Sri Darbar Sahib also known as Golden Temple in Amritsar.

6. Guru Har Gobind Sahib - Guru from 1606 to 1644

- He was the son of Guru Arjan Dev and was known as a "soldier saint".
- He organised a small army and became the first Guru to take up arms to defend the faith.
- He waged wars against Mughal rulers Jahangir and Shah Jahan.

7. Guru Har Rai Sahib - Guru from 1644 to 1661

- Though he was a man of peace, he never disbanded the armed sikh warriors who were earlier maintained by Guru Har Gobind.
- He gave shelter to Dara Shikoh, the eldest son of Mughal Ruler Shah Jahan, who was later persecuted by Aurangazeb.

- He cautiously avoided conflict with Emperor Aurangzeb and devoted his efforts to missionary work.

8. Guru Har Krishan Sahib - Guru from 1661 to 1664

- Guru Har Krishan was the youngest of the Gurus. He was installed as Guru at the age of five.
- He was contemporary of Aurangazeb and summoned to Delhi by him under framed charges of anti-Islamic blasphemy.

9. Guru Tegh Bahadur Sahib - Guru from 1665 to 1675

- He established the town of Anandpur.

- He opposed the forced conversion of the Hindu Kashmiri Pandits by Mughal ruler Aurangzeb and he was consequently persecuted for this.

10. Guru Gobind Singh Sahib - Guru from 1675 to 1708

- He became Guru after the martyrdom of his father Guru Tegh Bahadur.
- He created the Khalsa in 1699, changing the Sikhs into a saint-soldier order for protecting themselves.
- Last Sikh Guru in human form and he passed the Guruship of the Sikhs to the Guru Granth Sahib.

11. Guru Granth Sahib

- Guru Granth Sahib (also known as the Adi Granth) is the scripture of the Sikhs.
- The Granth was written in Gurmukhi script and it contains the actual words and verses as uttered by the Sikh Gurus.
- It is considered the Supreme Spiritual Authority and Head of the Sikh religion, rather than any living person.

1.3 Deendayal Upadhyaya

Who is Deendayal Upadhyaya?

- Deendayal Upadhyaya was born in a poor family in Nagla Chandrabhaan village near Mathura, UP, on 25 September, 1916.
- As a child, Deendayal had to face the profound grief of several deaths in the family. Deendayal moved from place to place and completed his masters degree. He was introduced to RSS and became a full timer in the late 1930s.
- Deendayal was a prolific writer and a successful editor. He wrote a number of

books including Samrat Chandragupt and Jagatguru Shankaracharya, and an analysis of the Five Year plans in India.

- He was deputed to work in the Jana Sangh by Shri Golwalkar when the party was founded in 1951 by Dr Syama Prasad Mukherjee. From then till 1967 he remained the Jana Sangh All India General Secretary.
- It was during this time that he propounded the political philosophy of Integral Humanism. It is now 50 years since the Jana Sangh adopted Integral Humanism as its political-economic manifesto.
- Deendayal Upadhyaya died on February 11, 1968 under mysterious circumstances at the age 52. The murder of Pandit Deendayal still remains unresolved.

What are some of his ideals?

- The concept of Integral Humanism he propounded envisages remedies for the post-globalisation maladies of the world.
- Upadhyaya conceived a classless, casteless and conflict-free social order. He stressed on the ancient Indian wisdom of oneness of the human kind.
- For him, the brotherhood of a shared, common heritage was central to political activism. He emphasised on coexistence and harmony with nature.
- He conceptualized an alternative approach which was free from the dialectics of competition and envy, a third way from the inertia of Capitalism and Communism.
- He was a pioneer of many political experiments. He was the architect of the first coalition phase in Indian politics.
- Deen Dayal Upadhyaya was an advocate of less government and more governance.

- He believed in self-sustaining autonomous units, more power to states and decentralized and competitive federalism, solidly cemented on the cultural mosaic of our tradition, heritage and experience of the past.
- She was determined to study and was one of the very few indigenous literate women in her era.
- Savitribai, along with her husband Jyotirao Phule, stood up for the rights of women and fought against the injustice faced by them.
- They were the pioneers of women education in India and started the first girls' school in 1848 in Pune.
- Their work extended to many fields including eradication of untouchability and the caste system, women's emancipation and the reform of Hindu family life.
- Savitribai Phule started Mahila Seva Mandal in 1852, which worked for raising women's consciousness about their human rights, dignity of life and other social issues.
- First ever infanticide prohibition home of India was started by Savitribai Phule in 1853.
- They championed widow remarriage and started a home for lower and upper caste widows in 1854.
- In September 1873, Phule, along with the followers, formed the Satyashodhak Samaj (Society of Seekers of Truth) to attain equal rights for peasants and people from lower castes.
- Savitribai Phule was the first Dalit woman, in-fact the first woman whose poems got noticed in the British Empire.
- The prestigious University of Pune was renamed to Savitribai Phule Pune University in 2014.
- The Government of Maharashtra has instituted an award in her name to recognize women social reformers.
- The Centre government's schemes like Jan Dhan Yojana, Mudra Yojana, Ujjwala Yojana, to give free LPG connection to five crore BPL families, Gram Jyoti Yojana, to electrify the last of the 75,000 villages, toilet for all and house for all are all inspired by this vision.
- To mention a few, Deen Dayal Upadhyaya Gram Jyoti Yojana strives to provide continuous power supply to rural India.
- Deen Dayal Upadhyaya Grameen Kaushalya Yojana is the skilling and placement initiative to cater to the occupational aspirations of rural youth and enhancing their skills for wage employment.
- Deendayal Upadhyay Shramev Jayate Karyakram works towards a conducive environment for industrial development and doing business with ease, also to impart skill training for workers.
- As the nation celebrates the birth centenary of Pandit Deen Dayal Upadhyaya this year, the ideals, he stood for have become more relevant in modern India.

1.4 Savitribai Phule

Why in news?

- Commemorating the 186th birth anniversary of social reformer and poet Savitribai Phule, Google has dedicated a special doodle on the day.

Who is Savitribai Phule?

- Savitribai Phule was the wife of Jyotirao Phule, an Indian activist, thinker, social reformer and writer from Maharashtra.

Legacy of Jyotirao Phule:

- He opened the first native library for low-caste students.
- In 1854, Jyotirao joined the Scottish Mission School as a teacher.
- He was against Sati and child marriages. He was in favor of Western education and demanded free and compulsory primary education—up to the age of 12.
- He advocated technical education for the lower classes.
- He always agitated for better living conditions for the workers in the mills in Bombay as well as for the farmers, a majority of whom were untouchables.
- Phule was bestowed with the title of Mahatma on 11 May 1888 by another social reformer from Bombay, Vithalrao Krishnaji Vandekar.
- His Published works include Tiritiya Ratna (1855), Gulamgiri (1873), Ishara (1885).



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PAPER - II

2. INDIAN CONSTITUTION**2.1 LG of Puducherry & Delhi*****Why in news?***

- Lt Governor (LG) of Puducherry, Kiran Bedi, claimed that she has powers to overlook the Legislature based on circumstances and can correct mistakes in the Budget.

What are the powers of LG of Puducherry?

- Government of Union Territories Act, 1963 provides for a Legislative Assembly of Pondicherry, with a Council of Ministers to govern the Union Territory of Pondicherry.
- It states that the UT will be administered by the President of India through an Administrator (LG). It also has following provisions.
- Extent of legislative power - MLAs “may make laws for the whole or any part of the Union Territory with respect to any of the matters enumerated in the State List or the Concurrent List”.
- Council of Ministers – The CoM headed by a CM will aid and advise the Administrator in the exercise of his functions.
- LG – It also allows the LG to “act in his discretion” in the matter of lawmaking, even though the CoM has the task of aiding and advising him.
- In case of a difference of opinion the Administrator is bound to refer it to the President for a decision and act accordingly.
- However, the Administrator can also claim that the matter is urgent, and take immediate action as he deems necessary.

- Prior permission - A prior sanction of the Administrator is required for certain legislative proposals. They include Bills or amendments that deal with the “constitution, jurisdiction, powers and organisation of the court of the Judicial Commissioner”.
- Once the Assembly has passed a Bill, the LG can either grant or withhold his assent; or reserve it for the consideration of the President. He can also send it back to the Assembly for reconsideration.
- The manner in which the LG functions vis-à-vis the elected government (Council of Ministers) is also spelt out in the Rules of Business of the Government of Pondicherry, 1963.
- The Administrator exercises powers regulating the conditions of service of persons serving in the UT government, in consultation with the CM.

How it is different from Delhi?

- Both Delhi and Puducherry has an elected legislature and government but the powers of the LG of Puducherry are different from the ones of the LG of Delhi.
- The LG of Delhi has “Executive Functions” that allow him to exercise his powers in matters connected to public order, police and land “in consultation with the Chief Minister, if it is so provided under any order issued by the President under Article 239 of the Constitution”.
- LG of Delhi is also guided by the Government of NCT of Delhi Act, 1991 and the Transaction of Business of the Government of NCT of Delhi Rules, 1993.
- But the LG of Puducherry is guided mostly by the Government of Union Territories Act, 1963.

- Under the constitutional scheme, the Delhi Assembly does not have the power to legislate on law and order and land.
- However, the Puducherry Assembly can legislate on any issue under the Concurrent and State Lists.
- Simply put, the LG of Delhi enjoys greater powers than the LG of Puducherry.
- The need to overcome standoff in the legislature caused by the Opposition.

What was SC's recent judgement?

2.2 Clamping Down On Ordinance Raj

Why in news?

- The Supreme Court, in Krishna Kumar Singh v. State of Bihar clarified that ordinances are not immune from judicial challenge.

What are the Constitutional Provisions?

- Article 123 defines the ordinance-making power of the Union executive.
- It states that when both Houses of Parliament are not in session and if the President is satisfied of the emergency circumstances, he may promulgate an ordinance.
- Any such ordinance shall have the same force and effect as a statute of Parliament, provided it is laid before both Houses.
- The ordinance so made will cease to operate at the expiration of six weeks from the reassembly of Parliament, or if Parliament passes resolutions disapproving of the ordinance.
- Similarly Article 213 gives ordinance power to the Governor on subjects of State authority.

Why ordinance route is preferred?

- Reluctance to face the legislature on particular issues.
- Fear of defeat in the Upper House where the government may lack majority.

- The Supreme Court had already declared in 1986, in D.C. Wadhwa, that repeated re-promulgation of ordinances was unconstitutional.

- Now, in Krishna Kumar Singh v. State of Bihar, it goes deeper and concludes that the failure to place an ordinance before the legislature constitutes abuse of power and a fraud on the Constitution.

- Therefore judgment widens the scope of judicial review of ordinances.

- The court can go into whether the President or Governor had any material to arrive at the satisfaction that an ordinance was necessary and to examine whether there was any tilted motive.

What are the other dimensions of the problem?

- The legislative debate and deliberation can be inconvenient but the legislature constitutes a critical foundation of our democracy and cannot be circumvented.

- But ordinance is not always a cynical move to treat political convenience over parliamentary accountability.

- It is equally important to understand that disruption as a parliamentary tactic plays a significant role.

- A dysfunctional House sometimes constitutes a compelling circumstance in itself.

- In recent times the reason for issue of ordinance is the combination of Opposition obstructionism and government's inflexibility.

- Therefore it is to be understood that the courts can only define the boundaries between the use and abuse of power, but it is up to parties in the legislature to observe the limits of constitutional propriety.

2.3 PAC – Controversies and Challenges

Why in news?

- PAC Chairman stated that the panel could call even PM to explain the demonetisation issue if it was not satisfied with the reply of RBI Governor. One member of the panel wrote to the Speaker expressing resentment over these remarks.

What is PAC?

- The Committee on Public Accounts was first set up in 1921 in the wake of the Montague-Chelmsford Reforms.
- With the Constitution coming into force on January, 26, 1950, the Committee became a Parliamentary Committee.
- The Public Accounts Committee (PAC) is a committee of selected members of Parliament, constituted by the Parliament of India, for the auditing of the revenue and the expenditure of the Government of India.
- The term of office of the members is one year.
- The PAC is formed every year with a strength of not more than 22 members- 15 from Lok Sabha & 7 from Rajya Sabha.
- None of the 22 members shall be a minister in the government.
- The Chairman is appointed by the Speaker of Lok Sabha.
- Since 1967, the chairman of the committee is selected from the opposition.

What is the role of PAC?

- Its function is to examine the audit report of CAG after it is laid in the Parliament.
- CAG assists the committee during the course of investigation.
- It holds the Executive to account for its use of public money.

Why controversy occurs?

- While the Chairman stated a fact about the considerable powers of the PAC, it is also a fact that no PM has ever appeared before it in the past.
- While the PAC cannot finalise any report without consensus, the lack of consensus has frequently seen controversy over the role of the Chairman.
- The lack of technical expertise hinders the PAC's examinations.
- Officers are sometimes able to dodge PAC summons, which has prompted suggestions that it should have the power to hand out harsher punishments.
- They do not have suo motu powers of investigation.

What is the way ahead?

- It is felt that since each PAC operates in a specific political context and faces issues unique to the legislature it serves, its major focus should be on the administration of policy rather than policy itself, to avoid political strife.
- The PAC should be consulted on the appointment of the CAG, and that it should have powers to examine Public-Private Partnership projects.
- The services of experts should be availed on technical matters, among other suggestions.

3. UNION AND STATE LEGISLATURES, EXECUTIVE AND JUDICIARY

3.1 Water in Concurrent List

Why in news?

- The Centre recently held discussions with states on the issue of bringing water into the Concurrent List of the Constitution.

What is the current situation?

- In India, water is a State subject, but the provisions are quite complicated.
- The primary entry in the Constitution relating to water Entry 17 in the State List.
- It brings water including water supplies, irrigation and canals, drainage and embankments, water storage and water power under state list.
- But it also enables the Union to deal with Inter-State rivers if Parliament legislates in public interest, via Entry 56 in the Union List.
- This provision has not been used by Parliament.
- Under Entry 56, Parliament enact the River Boards Act 1956 to the establish River Boards for inter-State rivers.
- But no such board has been established under the Act.
- It is because of the strong resistance by State governments to any enhancement of the role of the Central government.
- Therefore each riparian state has an unrestrained hold over the portion of the river that runs through its territory.
- The Centre cannot intervene unless asked by the contending parties or directed by the judiciary to do so.

What will happen due to the change?

- If a subject is added to the concurrent list, both the state and the centre can make laws on that subject.
- In case of conflict between the central and state law on the subject, the central law prevails.
- But if the state law is reserved for the consideration of the President and he gave his accent, then the state law will prevail in that state.

What is the need?

- Principle - The current provision disregards the principle of equitable sharing of common property.
- Countless inter-state water disputes of the present days are due to this.
- Resource depletion - The extravagant and wasteful usage of river water one state deprives other states to meet even their essential needs.
- Same is the case of over-exploitation of ground water at one spot can have detrimental effects in neighbouring areas.
- Non Compliance - The states most often reject pleas by the Centre or awards of tribunals appointed by it to arbitrate on these matters.
- The court judgments also remain unimplemented. e.g Verdict on Cauvery waters and Sutlej-Yamuna Link Canal.
- Constitutional Error - Moreover, the Constitution-makers could not have anticipated the water scarcity and crisis of present times. Neither they could have a foreseen the climate change and its impact on water resources.

What should be done?

- In 2011 Ashok Chawla Committee underscored the need for a comprehensive national legislation on water either by bringing water in the Concurrent List or through a legal framework for treating water as a unified common resource.
- The parliamentary standing committee on water resources and Parliament's Public Accounts Committee also have favoured the shift.
- The states should co-operate with centre on this.

- If the states refuse, the Centre should explore other options effectively using Entry 56 in the Union List.
- But at the same time enough safeguards should be taken to avoid centralisation which deprives states of their rights.
- However there is a provision for revision and the detention period can be extended to one year and two years respectively.
- Police prepare a case file against the accused and submit it to the deputy commissioner, detailing why a person needs to be detained under the Act.

3.2 Public Safety Act in J & K

Why in news?

- The J&K Assembly witnessed disruption in the assembly over a detention made under the state's Public Safety Act.

What is the issue?

- A boy was detained on September 2016, for protests over the Burhan Wani killing.
- The government insists the age of the detainee, is 20-25 years. but the opposition protested showed school documents saying he is 14.
- A medical panel set up by the government has put his age at 19 to 21.

What is the Public Safety Act?

- The Act was first promulgated in J&K in 1978 for administrative detention.
- It was aimed at containing the timber smugglers.
- Originally, it allowed the government to detain any person above the age of 16 without trial for a period of two years.
- The amendments made in 2011 raised the minimum age of a person from 16 to 18 years.
- It also reduced the maximum detention period from one year to three months in case of public disorder, and from two years to six months in cases where the security of the State is involved.

- Then the detention order under the PSA is issued by the district magistrate/deputy commissioner.

What are the criticisms?

- **Discretionary power** - It is up to discretion of the deputy commissioner to accept or reject the recommendations. But in most cases, district magistrates pass detention orders without questioning the police.
- **Revolving detention** - A person detained under the PSA can approach the high court to get relief.
- But usually the government resorts to what is called "revolving door detention" i.e the moment the high court releases the person, the government uses the PSA against him again in another case.
- **Political Intentions** - The government has frequently used the Act against political opponents.
- Rights group Amnesty International has called the PSA a "lawless law". It states that the state uses the law to keep people that the government can't convict through proper legal channels.
- **Number of detainees** - During the protests over the killing of Hizbul Mujahideen commander Burhan Muzaffar Wani more than 550 persons were detained under the PSA. It is the highest number in a year.
- **Age** - The government was accused of using it against people irrespective of age, from minors to 80-year-olds. While school certificates show many of the arrested

children as minors, police maintain they are adults.

- In at least two cases, the J&K High Court declared the arrested boys as minors and ordered their release.

3.3 Supreme Court on Religion

Why in news?

- The Supreme Court ruled that “religion, race, caste, community or language would not be allowed to play any role in the electoral process”.

What is Section 123 of RPA?

- Section 123(3) of the Act defines “corrupt practices” .
- It includes appeals made by a candidate or his agents to vote or refrain from voting for any person on the ground of “his” religion, race, caste, community or language.
- What came up for interpretation before the Constitution Bench was the meaning of the term “his” since that would define whose religion it has to be when an appeal is made.
- Previous judgments handed out conflicting views and hence the question came up before the seven judges.

What was the judgment?

- In *Abhiram Singh v C.D. Commachen* by a 4-3 majority ruling, a seven-judge Constitution Bench held that election of a candidate would be declared null and void if an appeal is made to seek votes on religion, race, caste, community or language.
- The majority view interpreted Section 123(3) of the RPA to mean that this provision was laid down with intent “to clearly proscribe appeals based on sectarian, linguistic or caste considerations”.
- The majority view stated that “his” would mean religion of candidate, his agents, voters

as well as any other person who brings up religion in an appeal for votes.

- It will include religious and spiritual leaders, often engaged by candidates to mobilise their followers.

What was the dissenting view?

- Three judges dissented with the majority view stating the word “his” is in reference to the candidate or that of a rival candidate only and not the voter or anybody else.
- They stated that to hold that a person who seeks to contest an election is prohibited from speaking of the legitimate concerns of citizens that the injustices faced by them on the basis of basis of origin in religion, race, caste, community or language would be remedied is to reduce democracy to an abstraction.

What is the majority view?

- The elections to the State legislature or to the Parliament or any other body in the State is a secular exercise.
- The State being secular in character will not identify itself with any one of the religions or religious denominations.
- The concerns under Section 123(3) of the Act have increased with the tremendous reach already available to a candidate through the print and electronic media none of which were seriously contemplated till about fifteen years ago.
- Therefore now it is necessary to ensure that the provisions of sub-section (3) of Section 123 of the Act are not exploited by a candidate or anyone on his behalf by making an appeal on the ground of religion.
- So Section 123(3) has to be interpreted in a manner that leaves no scope for any sectarian caste or language-based appeal.

What was the shortcoming?

- The bench, however, refrained from revisiting its 1995 judgment on “Hindutva”.
- According to this three-judge bench judgment of 1995, an appeal in the name of ‘Hindutva’ to seek votes was not a corrupt practice warranting disqualification of a candidate as it was ‘a way of life’ and not a religion.

3.4 Supreme Court on BCCI

Why in news?

- The Supreme Court removed the president of BCCI, Anurag Thakur, and the secretary, Ajay Shirke, from their respective positions.

What was the order?

- Accepting the Justice Lodha Committee’s concerns the court signalled the end of the current form of cricket administration.
- Effective immediately, any BCCI and State associations’ official must be eligible as per the Lodha Committee’s eligibility criteria.
- The senior-most eligible vice-president will be the interim president of the BCCI.
- The joint secretary will be the interim secretary for the next two weeks.
- It appointed a four-member Committee of Administrators to implement the Justice Lodha Committee recommendations.
- The court also appointed two senior advocates to propose names for a committee of administrators that will essentially govern cricket and simultaneously ensure implementation of the Lodha Committee recommendations.
- This will officially commence the transition to the court-appointed administration era.
- Eligible officials must provide a declaration that they will be in compliance with the Lodha Committee’s directives.

- The court also implied that Mr. Thakur could face contempt and perjury charges. But a more likely outcome is the court requiring a written or oral apology.

What are the shortcomings?

- The names that were mentioned in the sealed envelope submitted by the Justice Mudgal Committee in its report on the spot-fixing scandal that triggered this entire stand-off are still kept secret.
- There is a growing buzz that some State associations may yet file appeals and that might be complicated with the change of leadership in Supreme Court.
- The IPL is in serious limbo.
- There is no telling if there’s been an adverse impact on the media rights value.

What is the significance of the verdict?

- BCCI failed to notice the changing perception of governance in sport and not just in India. e.g FIFA has seen an invasive overhaul recently, and in India, the Sports Ministry’s vocal chastising of the Indian Olympic Association’s controversial appointments.
- An interim committee tasked solely with the implementation of the court’s verdict and to oversee a transparent and fair election would have been ideal. Perhaps that is what will actually happen.
- An overhaul of this nature has never been attempted before, at least not successfully. This could turn out to be a template for sports governance globally, or just the opposite.
- Perceived arrogance and insularity aside, the Board has done what it is tasked to do unlike any other sports federation in the world i.e develop and promote the sport itself.

- Therefore the real challenges and work towards ensuring not just a successful governance regimen but an equally successful on- and off-pitch tenure for the new leadership has just begun.

What are the functions of COA?

- The COA will be led by former Comptroller and Auditor General of India Vinod Rai.
- The other members include historian Ramachandra Guha, MD of Infrastructure Development Finance Company (IDFC) Vikram Limaye and former India women's captain Diana Edulji
- They will function as the new interim bosses of the BCCI.
- They will run the day-to-day administrations of the cricket body till Lodha reforms are fully implemented and elections held.
- The purpose of COA is to implement the terms of the Justice Lodha Committee report and the Supreme Court judgement.
- The Board will have to adopt the MoA and Rules and Regulations as specified in the Lodha panel's report.
- The State and member associations will need to amend their Constitutions/By-laws suitably.
- The current BCCI CEO Rahul Johri was ordered to submit a report to the new committee detailing the level of compliance achieved by the BCCI and its members in adopting the Lodha recommendations.
- The full members are against a number of aspects of the recommendations like the term and tenure of elected office bearers, restrictions on eligibility, the formation of player associations, replacing the working committee with an apex council, reconstituting the selection committee and empowering the CEO.

4. GOVERNMENT POLICIES AND INTERVENTIONS

4.1 Bill on statutory powers for IIMs

Why in news?

- A bill to grant statutory powers to the Indian Institutes of Managements (IIMs) is to be presented shortly to the Union Cabinet for approval.

What is the need for the bill?

- The Indian Institutes of Management (IIMs) are autonomous institutes of management, education and research and are presently registered as societies under the Indian Societies Registration Act.
- It is governed by a Board of Governors.
- The government has been looking to grant more autonomy to these institutes and more powers have been granted to their Governing Boards.
- It also decided to lay down a clear rule on the line of succession in case the post of director falls vacant.

What are the provisions of the bill?

- It seeks to declare existing IIMs as institutes of national importance.
- Powers of the IIM - The IIMs will have powers to regulate admission, management and fees.
- Currently, these institutes can offer diplomas and not degrees. The bill enables IIMs to grant degrees, diplomas and other academic distinctions.
- It also allows IIMs to conduct examinations and establish and maintain necessary infrastructure.
- Authorities - The Board of Governors shall be the principal executive body of each institute,

responsible for policy decisions, approving the annual budget estimates, etc.

- It grants powers to the Board of Governors to get an inquiry conducted by a person not below the rank of a High Court judge against a director in case it is felt that an institute has not performed as per the provisions of the proposed Act.
- The Board may even remove the director of the institute after proper enquiry.
- The Boards of Governors of IIMs would evaluate the performance of the institutes after every few years.
- A coordination forum with an eminent person as the chairperson will take up matters common to all the IIMs.
- The Academic Council shall be the principal academic body of each institute and will specify the academic content of programmes and the criteria and process for admission to courses.
- **Powers of the central government** - Any regulations made by the Board are subject to prior approval of the central government in matters relating to
 1. Admission and specifying fees,
 2. Determining posts and emoluments of faculty and staff,
 3. Establishment and maintenance of buildings,
 4. Conferring degrees and
 5. Determining powers of the Academic Council, Chief Administrative Officer and the Board, etc.
- **Funding** - The IIMs will discharge their functions on the basis of grants received from the central government.
- The new IIMs proposed by the central government will be situated in

Vishakhapatnam, Bodh Gaya, Sirmaur, Nagpur, Sambalpur and Amritsar.

- Each institute will offer post graduate programme courses.

4.2 Aadhaar is a must for MGNREGS work

Why in news?

- Aadhaar has been made mandatory for several government schemes.

What is Section 7 of the Aadhaar Act?

- Section 7 mandates that when the government gives subsidy, benefit or service from the Consolidated Fund of India, an individual can be asked to undergo authentication or furnish proof of possession of Aadhaar.

What are the schemes?

- From April 2017, workers in rural areas enrolled under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), must have an Aadhaar card.
- The expenditure for the MGNREGS is met from the Consolidated Fund of India and hence can mandate Aadhaar.
- The EPFO has also made it mandatory for 50 lakh pensioners and four crore subscribers to provide the Aadhaar number.
- Those who have registered under the scheme will be required to give furnish proof of possession of Aadhaar or undergo the enrolment process till March 31.
- However, till an Aadhaar card is obtained, ration card, driving licence, voter identity card, Kisan passbook with photo, job card issued under the MGNREGS and a certificate issued by a gazetted officer or a tehsildar will be admissible as proof of identity.
- Those who have applied for Aadhaar can produce their enrolment slip or a copy of the

application for getting the 12-digit unique identification number.

- This move was to prevent leakages of subsidies and ensure that the beneficiaries get their due.

5. SOCIAL JUSTICE

5.1 Mass Molestation

Why in news?

- The mass molestation during the events of New Year's-eve in Bengaluru once again holds a mirror up to Indian society.

What happened during New Year's Eve at Bengaluru?

- Thousands of celebrators had gathered in and around Mahatma Gandhi Road and Brigade Road to ring in 2017 on New Year's Eve to celebrate.
- According to reports a large number of women were sexually assaulted around midnight.
- While no complaint had been filed, Bengaluru police have taken up an investigation based on the reports of women being groped and physically attacked.
- Another similar incident has come into the public domain, with CCTV footage showing a woman being grabbed as she makes her way home in a residential street before she pulls herself free and escapes.

How a minister responded?

- Karnataka Home Minister blamed the violence on "western culture".
- This concurs with the prevalent thought of the society that for women to wear "western" dress and be out and about having a good time is to invite sexual harassment.
- This shows why women are hesitant to come forth and register an offence, as they themselves are held responsible.

What society should do?

- The Criminal Law (Amendment) Act, 2013 had sought to simplify procedures for women to bring sexual offences to the attention of the police.
- To truly convince women that the state is on the same page, every crime against a woman must be regarded as a horror.
- But without an administrative ethos that does not flip an accusation on a woman and instead asserts a woman's right to bodily integrity no matter where she is and what she is doing, no amount of law-making can significantly change things.
- Apart from these change in mind-set it should also be discussed by administration failed to prevent these incidents.

Why police couldn't stop?

- There is a factor of inadequacies of police leadership.
- They look up to the Chief Minister or Home Minister for approval of even minor and routine field decisions.
- The police were also outnumbered in a few places, where the gathering of revellers was more than usual.
- The local police stations could have possibly made an assessment late in the afternoon so that extra policemen could have been directed to localities where the crowds were pouring in.
- There was therefore an element of failure on the part of city police intelligence.
- The police were reluctant to use force against the antisocial elements. They wait for orders from the top most hierarchy.
- This unfortunate situation has developed over the years because of many complaints of police excesses and the judicial enquiries ordered as a sequel.

- Many belonging to the Opposition lose no time accusing the police of overreaction, only to embarrass the ruling party even where there is consensus that the situation on the ground did warrant police opening fire or using batons.
- Unless this situation changes, one will continue to hear complaints of police failures.
- Furthermore, they resume working soon after childbirth impeding their ability to exclusively breastfeed their young infant in the first six months.

What changes have to be done?

- New institutions within the police so as to draw benefit from public inputs should be formed
- Reliance should be more on institutional wisdom and memory rather than on individual experiences.
- In specific terms, what is required now is to restructure existing police arrangements for special occasions such as New Year celebrations.
- The police sensitivity to the task of protecting our women should be enhanced.
- The law on sexual assaults on women should also be made more stringent.
- New methods of training will certainly help, but only moderately. Imaginative day-to-day interaction on the subject between the higher ranks and policemen at the grass-roots level will alone help.
- To address the above issues, in accordance with the provisions of Section 4(b) of National Food Security Act, Maternity Benefit Programme was formulated by the MWCD.
- It is a conditional cash transfer scheme.
- It provides cash incentives to Pregnant Women and Lactating Mothers (PW&LM).
 1. for the wage loss so that the woman can take adequate rest before and after delivery;
 2. to improve her health and nutrition during the period of pregnancy and lactation;
 3. to breastfeed the child during the first six months of the birth, which is very vital for the development of the child.
- All PW&LM, excluding those in regular employment with the Government or PSUs are eligible.
- The cash incentive of Rs.6,000/- is payable in three instalments for the first two live births in three stages.
- The cash transfer would be Aadhaar linked through the individual bank/post office account etc. in DBT mode.
- It is expected that annually about 51.70 lakh beneficiaries would avail of the benefit.

5.2 Pan-India expansion of Maternity Benefit Programme

Why in news?

- PM has announced pan-India expansion of MBP in all the districts with effect from January 2017.

Why MBP is needed?

- An under-nourished mother almost inevitably gives birth to a low birth weight baby.
- Owing to economic and social distress many women continue to work to earn a living right upto the last days of their pregnancy.

Why the expansion of MBP matters?

- Expansion of MBP will have huge impact on the PW&LM as it will not only provide them compensation for the wage loss but will also provide them adequate nutrition and rest before and after delivery.

- Mothers will have sufficient time to breastfeed the child during first six months of the birth.
- Resultantly, it is expected that it will reduce mother mortality rate, IMR, under-nutrition and its adverse effects.
- It is a Centrally Sponsored Scheme and the cost sharing between Centre and States is 60:40 for all the States and UTs (with legislature), 90:10 for NER and Himalayan States and 100% GoI share for UTs without legislatures.
- Higher Education in India

What is the present condition?

- Around 45 million Indian undergraduate students are too poor to pursue higher education, according to data from the National Sample Survey, 2014.
- Around 35 million students were enrolled in institutions of higher education in 2014-15 out of which around 60% are enrolled in private institutions.
- Private sector accounts for 76% of total institutions of higher education.

What the status of Indian GER?

- Low gross enrolment ratio (GER) in higher education has been another concern in India.
- The GER of higher education has increased from 10 per cent in 2004 to 23.6 per cent in 2014, according to MHRD data.
- Despite the increase, India's GER is the lowest among major emerging economies such as Brazil, China, Russia according to World Bank data.
- More than half the students aged between 16 and 17 years did not enroll for higher education after completing schooling.

What are the hurdles in increasing enrolment?

- Successive governments have argued that allowing private sector in higher education would lead to higher enrolment.
- This allowed expansion of private educational institutions.
- While it is true that GER in higher education has recorded growth during this period, the increased cost of higher education due to privatisation has deprived millions of aspirants from education.
- Higher per capita expenditure on higher education in some states has resulted in better GER. For example, the per capita expenditure of Goa is Rs 14,634 and the GER is 33.2 per cent.
- Global experience also suggests that higher public investment in education yields positive results, according to the mission document of RUSA.

Are students forced to enroll in private institutions?

- The first decade of the 21st century witnessed expansion of higher educational institutions, according to National Higher Education Mission (known as Rashtriya Uchchatar Shiksha Abhiyan — RUSA).
- While government-owned institutions for higher education increased 49%, private sector institutions recorded a 63% growth in the same period (2006-12).
- Around 53% college students are enrolled in private institutions because there are not enough public higher educational institutions. Many of them would rather be in government-run institutions.
- So, while there is high demand for public higher educational institutions, successive

- governments have failed to meet the demand, pushing students towards private education.
- Private expenditure on education for general courses has increased 175.8% (during 2008-14).
 - The TSR Subramanian Committee report on New Education Policy, admitted that uncontrolled privatisation of higher education has resulted in the proliferation of private institutions for higher education.
 - While there are a few institutions which can be identified as 'Centres of Excellence', there are a large number, which could well be described as 'degree shops'.

5.3 Report on SSA and Mid-Day-Meal Scheme

Why in news?

- The Standing Committee on Human Resource Development submitted its report on the implementation of SarvaShikshaAbhiyan (SSA) and Mid-Day-Meal Scheme (MDMS).

What is SSA?

- SSA was launched in 2000.
- It seeks to achieve universal access to education and retention of students in schools.
- MDMS, launched in 1995, seeks to address the issues of hunger and education in schools by serving hot cooked meals and improving the nutritional status of children, enrolment, attendance and retention rates.

What are the findings?

- The enrolment is now near universal.
- But the learning outcomes are still far from satisfactory. e.g Only about half the children in standard V could do a two-digit subtraction problem with borrowing.
- The educational development has been better in economically developed areas with strong infrastructural support as compared to the backward regions of the country.

- The State Institutes of Educational Management and Trainings, which act on state specific issues and innovations, are absent.
- There are wide variations in the nature and effectiveness of the District Institutes of Education and Training.
- There are a large number of teacher vacancies under SSA, which adversely affects the implementation of the scheme.
- MDMS led to more attendance of pupils but did not significantly aid fresh enrolments into schools.
- MDMS has diverted the attention of teachers and students on activities related to it, rather than towards teaching and learning activities.
- There is also a shortfall in the infrastructure required for the implementation of MDMS. e.g Lack of pucca buildings, separate toilet facilities for boys & girls, unavailability and poor functional condition of kitchen sheds, etc.
- The states did not follow the central government's guidelines on delivering food grains at the school by Public Distribution System dealers.
- There were also instances where due to the long supply chain, the supplied food grains got adulterated and pilfered.
- The states have not earmarked funds for priority areas in education out of the increased fund devolution to states, as a part of recommendations of the 14th Finance Commission.

What are the recommendations?

- Therefore the states should undertake measures at their own level to improve learning outcomes.
- The policy should shift its approach from input-based expenditure to outcome-focused achievement.

- The funding should focus on progress towards goals, such as improving learning outcomes of children in elementary schools.
- The government should introduce programmes to minimise the gap between states with regard to educational status.
- The discrepancies between national and state systems (such as the norms for age of entry) should be removed.
- The vacancies created under SSA must remain as sanctioned posts and the states can recruit fresh teachers against these vacancies.
- The district nodal authorities must strictly demand utilisation certificates from the implementing authority and the schools so that delivery of funds/food grains are not delayed.
- The states must proportionately adjust the increased devolution of funds for education.
- The pilot project of establishing Smart Classes in government schools must be initiated to make the teaching-learning process more effective through computer enabled techniques.

5.4 Swachh Bharat Mission – Progress and Problems

What is SBM?

- On 2 October 2014, Prime Minister announced the Swachh Bharat Mission (SBM), which targets eradicating open defecation in India by 2019.
- SBM is a much-needed endeavour to improve sanitation standards in India.
- Globally, India had a worse record than even poorer regions such as Sub-Saharan Africa, Haiti, Ghana, etc. in terms of open defecation.

What has been the progress?

- Between October 2014 and February 2016, the share of rural households defecating in the open went down by just over seven percentage points.
- The figure was still above the halfway mark.
- Both the extent of open defecation and their progress in eradicating it varies greatly across states.

What are the problems?

- **Toilet Coverage** - The states which recorded better toilet coverage also had a lower share of households contributing to open defecation.
- Sikkim, Kerala, Himachal Pradesh and Haryana, which had higher individual toilet coverage, fared best in terms of rural sanitation.
- Odisha, Bihar, Jammu & Kashmir, Jharkhand and Telangana with less coverage were among the laggards.
- **Usage** - 6% of households in India reported open defecation despite having toilets.
- **Access to Water** - It is important in determining toilet use. 63% of the households that defecated in the open reported having toilets without running water.
- States with poor access to water in toilets have a higher share of households contributing to open defecation. e.g Jharkhand, Odisha, Madhya Pradesh, Chhattisgarh and Bihar
- **Budget** - The government set aside Rs 9,000 crore for rural sanitation in the 2016-17 Union budget but this has been accompanied by declining funds for the National Rural Drinking Water Programme.
- This is unlikely to help eradicate open defecation.

- Caste-based discrimination in the provision of water also seems to be responsible for low toilet usage.
- Out of the 102 hand-pumps constructed in village in Rajasthan in the last 10 years, only two could be located in areas inhabited by lower-caste people.
- With a regular toilet requiring at least 20-30 litres of water in a day for smooth functioning, even obtaining a few litres every day is a struggle in these areas.
- Maintenance of toilets - It is critical to ensure usage.

What should be done?

- It is essential to meet all the above shortcomings to achieve Swachh Bharat.
- But it is to be remembered that eradicating open defecation would require much more than just meeting toilet construction targets.
- Spending on toilet construction has steadily grown but the spending on the expenditure for behaviour change campaign activities is much less. In October, it constituted just 0.8% of the spending on construction of toilets.
- Even that is limited to big billboards and advertisements.
- But it has more to do with person to person engagement.
- It is to be noted that the demand for toilets that will eliminate open defecation.
- Therefore demand for toilets has to be created at local level and then people need to be made aware of sanitation.

5.5 Urban poor out of affordable housing benefits

Why in news?

- The poor in urban India might stay untouched by the initiatives announced by the Prime Minister on the last day of 2016.

What is PMAY?

- The objective of PMAY is to provide shelter to homeless individuals, especially those who belong to lower income groups.
- The implementation will be carried out in three phases.
- Under PMAY, the government aims to cover around two million non-slum urban poor households.
- The mission is being implemented over 2015-2022, providing central assistance to urban local bodies and other implementing agencies, through states and Union Territories.

What is the major issue?

- Experts agree the affordable housing segment will get a needed boost but not in big cities.
- Effects of the new schemes launched under the Pradhan Mantri Awas Yojana (PMAY) would be felt more in tier-II and tier-III cities.
- The initial fillip would be visible in rural and semi-urban areas.
- The effect would not be much visible in cities, as the land prices are higher.

5.6 Slums and Urban Housing

What is the issue?

- A last year report states that, though only limited housing were built, there is a 23% vacancy in urban housing built under the PMAY.

What are the problems in slums?

- A slum is a heavily populated urban informal settlement characterized by substandard housing and lack of hygiene.
- The global urban population is about to be doubled by 2050.
- In most of the developing countries, the first residence for a migrant in the city is in the slum.

- Slums comprise of significant health risks.
- They lack basic facilities like road and drinking water.
- The illegal nature of housing makes slum dwellers susceptible to extortion.
- They are also more prone to disasters like urban floods.
- Some of them do not move to the relocated areas as their livelihood is deeply rooted in these slums and the new areas have poor accessibility and livelihood options are limited.
- Intrinsic skills like zari making are related to specific markets. Relocation renders these skills redundant.

What has been done?

- The agenda of “Make cities inclusive, safe, resilient and sustainable” was enshrined in the UN’s Sustainable Development Goal.
- It was complemented in the Habitat III summit in Ecuador by a “New Urban Agenda” of giving slum dwellers upgraded housing with basic services by 2030.
- A common approach is to build higher quality, affordable housing for the poor on the city’s periphery.
- Same is the case with the PradhanMantriAwasYojana (PMAY), which aims to achieve Housing for all by 2022.
- Yet there is 23% vacancy in urban housing built under the PMAY.
- Slums in the core areas have better access to education and medical facilities.
- The benefits of relocation only materialise among those relocated at an early age.

What is the solution?

- The link between shelter and livelihood options should be understood.
- The slum development should also promote affordable social infrastructure and mobility options to livelihoods.
- The services and lives of the slum people need to be acknowledged and included in designing solutions, through participatory negotiations and institutions.
- Policies can be designed and tested to allow people to preserve their social networks even as they are relocated.
- Greater investment should be made in collecting data on the preferences of poor migrants not just on interest subsidies.
- Also slums can be viewed as partial solutions to a bigger problem.
- They represent a survival strategy in the face of insufficient affordable housing and lack of tenure security.
- They blend production and distribution spaces along with living quarters. e.g Beedi work is done at home.
- They demonstrate innovative shelters and efficient livelihood strategies, which form an important part of the urban ecosystem.

Why slum dwellers reject new housing?

- There is a pattern where people are willing to give up better living conditions like more space and toilets on premises for better opportunities in the core areas.
- The main reason is a lack of affordable housing finance.
- Social Networks – The new housing distances the one who relocates, from the family members who don’t.
- The credit ecosystem that existed based on trust, social relationship and nurtured for generations is also lost.
- Slum dwellers give each other material and psychological support along with informal insurance that the state does not provide.

5.7 India to ratify ILO's convention

Why in news?

- The Government of India decided to ratify the International Labour Organisation (ILO) Convention 182 on the worst forms of child labour and Convention 138 on Minimum Age of Employment.

What is the necessity?

- About 4.3 million children are subjected to child labour.
- Another 10 million are officially out-of-school.
- Child labour perpetuates illiteracy and poverty. It is the root cause of organised crimes such as human trafficking, terror and drug mafia.
- This decision will have a path-breaking impact on the lives of those who are forced to remain on the margins of society and subject to exploitative conditions.
- Moreover, our failure to ratify the two conventions, which are two of the eight core labour conventions, despite being a founder-member of the ILO, reflected poorly on us as a nation.

What was the delay?

- ILO Convention 138 says that the minimum age for employment should not be less than the age of completion of compulsory schooling (14 years of age in India's case).
- The ILO Convention 182 calls for the need to formulate legislation for prohibition and elimination of the worst forms of child labour.
- We were not able to ratify these ILO conventions primarily because we had not banned all kinds of occupations for kids below 14 years of age.

- Since the Child Labour (Prohibition and Regulation) Amendment Bill 2016 has been passed by Parliament and prohibits employment of children up to 14 years of age, the ILO conventions can now be ratified.
- Consequently, the Government of India decided to ratify the International Labour Organisation (ILO) .
- As a matter of urgency, the government will take immediate and effective measures to prohibit and eliminate the worst forms of child labour, child slavery, child prostitution and their use in pornography, use of children for illicit activities such as drug trafficking, and exposure to any hazardous work which is likely to harm the health, safety or morals of children.
- India will not adhere to a fixed deadline by which the worst forms of child labour must be eliminated.
- It will ultimately depend on the level of moral courage, public concern, social empathy, political will and the implementation of resources invested in the development and protection of children.

6. GOVERNANCE, TRANSPARENCY AND ACCOUNTABILITY

6.1 Corporate Social Responsibility

What is CSR?

- Corporate Social Responsibility (CSR) is referred as a corporate initiative to assess and take responsibility for the company's effects on the environment and impact on social welfare and to promote positive social and environmental change.
- It efforts that go beyond what may be required by regulators.

- The income is earned only from the society and therefore it should be given back.
- Boosts employee morale - CSR practices have a significant impact on employee morale, as it reinforces his confidence on Company's empathy.

What is the legal mandate?

- Under Companies Act, 2013 any company with a
 1. net worth of the company to be Rs 500 crore or more or
 2. turnover of the company to be Rs 1000 crore or more or
 3. net profit of the company to be Rs 5 crore or more.

has to spend at least 2% of last 3 years average net profits on CSR activities as specified in Schedule VII and as amended from time to time. The rules came into effect from 1 April 2014.

- Further as per the CSR Rules, the provisions of CSR are not only applicable to Indian companies, but also applicable to branch and project offices of a foreign company in India.
- Further, the qualifying company will be required to constitute a CSR Committee consisting of 3 or more directors.
- The CSR Committee shall formulate and recommend to the Board, a policy which indicates the activities to be undertaken, allocate resources and monitor the CSR Policy of the company.
- India is the first country in the world to enshrine corporate giving into law.

How is it beneficial to companies?

- Consumers are socially conscious - Many consumers actively seek out companies that support charitable causes. Therefore CSR attracts customers.
- Competitive advantage - Businesses that show how they are more socially responsible than their competitors tend to stand out.

What is the effect of legislation?

- **More spending** - The private sector's combined charitable spend increased from 33.67bn rupees in 2013 to around 250bn rupees after the law's enactment.
- **Mainstreaming Charity** - It has brought CSR from the fringes to the boardroom. Companies now have to think seriously about the resources, timelines and strategies needed to meet their legal obligations.
- But it also has its shortcomings.
- **Non-compliance** - A survey found that 52 of the country's largest 100 companies failed to spend the required 2% last year.
- A smaller proportion has gone further to allegedly cheating by giving donations to charitable foundations that then return the fund minus a commission.
- **Roll back** - Charitable spending was used as a big reputation builder for family-led conglomerates with a long tradition of philanthropy. Now it's just about legal compliance. Many companies that were giving more than 2% have scaled back their spending.
- **Inequality** - One of the challenges for the corporate sector is finding credible charity partners to support. So the bigger charities that are more well-known are being flooded with money leaving out smaller charities.
- Compounding the problem is that smaller charities often lack the capacity to cope with companies' bureaucratic and operational demands.
- **Geography** - There is also a geographic bias under the 2% law, with companies funding projects closer to where they are based.

Therefore more industrialised states are winning over poorer, more remote regions where development aid is acutely needed.

- **Politics** - Some companies looking to gain goodwill by backing government-led projects rather than independent initiatives.

What should be done?

- What India needs is large-scale social innovation and systems change and mandatory spending achieves a little in this direction.
- It also deflects pressure on companies to change their business practices.
- CSR should be more inclusive by which an organization should think about and evolve its relationships with stakeholders for the common good, and demonstrate its commitment by adopting appropriate business processes and strategies.
- A set of national voluntary guidelines to spell out what responsible business should look like and set out that CSR is more than just charitable giving should be formalised.

6.2 Removal of independent directors

Why in news?

- The ongoing boardroom tussle in the Tata Group has compelled the SEBI to review the norms for removal of independent directors in listed companies.

Who are Independent Directors?

- An independent director is a non-executive director of a company and helps the company in improving corporate credibility and governance standards.
- In a broad sense he does not have any kind of relationship with the company that may affect the independence of his/her judgement.

- The Companies Act, 2013 has mandated all listed public companies to have at least one-third of the total Directors to be independent.

What happened at the SEBI board meet?

- At present there is no restriction on promoters to vote on resolutions seeking removal of independent directors.
- SEBI took note of the fact that promoters by virtue of their majority holding in large listed companies can easily remove an independent director.
- An internal note presented to the SEBI board stated that the regulator should evaluate the option of barring the promoters from voting on resolutions seeking removal of independent directors.
- The present provisions make the removal process less stringent than the appointment process.
- Since a special resolution is required for the re-appointment of an independent director, the same principle should be applied for his removal also.
- SEBI listing regulations and Companies Act, 2013 needs to provide independent directors a fair process and the opportunity to debate their dismissal before the non-promoter independent shareholders, currently it does not require legally sufficient cause for dismissal, or any similar test.

6.3 Probe against DDA

Why in news?

- The Competition Commission of India (CCI) has ordered an investigation against the Delhi Development Authority (DDA) for alleged abuse of its dominant position in the market for the development and sale of residential plots in Delhi.

What is CCI?

- Competition Commission of India is a body of the Government of India responsible for enforcing the Competition Act, 2002. It was established on 14 October 2003.
- CCI consists of a Chairperson and 6 Members appointed by the Central Government.
- It is the duty of the Commission to eliminate practices having adverse effect on competition, promote and sustain competition, protect the interests of consumers and ensure freedom of trade in the markets of India.

What the DDA has done?

- The Delhi Development Authority was created in 1955 under the provisions of the Delhi Development Act to promote and secure the development of Delhi.
- The allotment of plots under DDA plot scheme was to be done in a phased manner, spread over a period of 5 years through draw of lots.
- DDA did not conduct the draw of lots and no allotment was done for a period of 31 years.
- DDA held draws for allotment lots in 2012 which too was conducted only after the direction of the Delhi High Court.
- DDA had also revised the price of the plots, asking for an arbitrary price for the allotted plot which is 116 times higher than the initially mentioned price.

Why CCI is involved?

- The commission said the DDA was found to be abusing its dominant position by formulating unfair terms of agreement, through disproportionate pricing, and delaying the allotment of flats.
- Considering that DDA is a public body, the commission noted that “public bodies need to ensure that their conduct is compliant with competition law.

- The commission noted that there is no parity in the rate of escalation of the price to be paid by the allottees and the compensation being offered to them owing to the delay caused by the opposite party (DDA) although both relate to the same period.
- CCI directed the DG to initiate an investigation into the matter and file a report within 60 days from the date of receipt of the order.
- It also said the director general shall also investigate the role of officials or persons who were in charge and responsible for the conduct of business.

6.4 Rose Valley Scam Explained

Why in news?

- Arresting of two Trinamool Congress MPs have put the focus back on ponzi scams that rocked West Bengal in 2013-14. Both MPs were arrested by CBI in Kolkata in the Rose Valley case.

What is a Ponzi scheme?

- A Ponzi scheme is an investment fraud where clients are promised a large profit at little to no risk.
- Companies that engage in a Ponzi scheme focus all of their energy into attracting new clients to make investments.
- Ponzi schemes rely on a constant flow of new investments to continue to provide returns to older investors.
- When this flow runs out, the scheme falls apart. There will not be any actual effective revenue generation.

What was the Rose Valley Holiday Membership Plan?

- Rose Valley was set up in the 1990s.
- Rose Valley had floated a holiday membership in 2010.

- The investors were given the choice of opting for a holiday package or “a return on the investment with annualised interest”.
- Interestingly, unlike Saradha, the Rose Valley was not a defaulter in Bengal. It was paying interest to its depositors.
- But after the Saradha scam, the Supreme Court to probe all the companies involved in raising funds from small depositors.
- Hence the Rose Valley Group was investigated.
- The organisation also allegedly violated guidelines of the Reserve Bank of India and other related financial fraud control acts, meant to regulate such companies raising small investments.
- A CBI release said on Tuesday that the case was registered in June 2014 for cheating, breach of trust, criminal breach by public servant, criminal conspiracy, and various sections of Prize Chits & Money Circulation Schemes (Banning) Act, 1978.

What was the scam?

- The Rose Valley Group has been accused of duping investors of about Rs 17,000 crores in different states.
- The money was primarily accumulated by raising small investments in the rural areas of at least half a dozen States.
- SEBI found that the company offered plans with interest rates ranging from 11.2% to 17.65%.
- The subscription couldn't be cancelled, and the investor could not get his money back before the end of the tenure.
- In July 2013, an investigation revealed suspicious expenditure in the profit and loss accounts of group companies.
- The assessment of balance sheet revealed poor performance by the company and leakage of cash.
- It also revealed erratic “miscellaneous expenditures” with an almost nine-fold increase in losses.
- The company also gave loans and advances amounting to Rs 596 crore during the year, much of it were given to its holding company, and the rest to its promoter GautamKundu.
- Therefore SEBI found out that the company did not follow due procedures.

- Both Rose Valley and Saradha Scams are being investigated by the CBI and ED separately.

6.5 Chit Funds & Saradha Scam

What is a chit fund?

- Chit fund means transaction in which a person enters into an agreement with a specified number of persons that every one shall subscribe a certain sum of money by way of periodical instalments over a definite period.
- Each such subscriber in his turn, as determined by lot or by auction or by tender be entitled to the prize amount.

How does it work?

- Let's assume that the 12 people come together and decide to contribute Rs 5,000/month.
- This means a total of Rs 60,000 will be collected every month.
- This amount is then auctioned among the 12 members after a minimum discount has been set.
- Let this minimum discount be Rs 5,000. This means the maximum amount any person can get from the total Rs 60,000 collected is Rs 55,000 (Rs 60,000 - Rs 5,000).
- After this discount bids are invited.

- One person bids the highest discount of Rs 12,000. And hence he gets the money.
- Since he has agreed on a discount of Rs 12,000, that would mean he would get Rs 48,000 (Rs 60,000 - Rs 12,000). He will also have to bear the organiser charges of around Rs 3000 (5 % of Rs 60,000).
- This means he would get Rs 45,000 (Rs 48,000 - Rs 3,000) after deducting the organiser charges.
- The discount amount of Rs 12,000 is basically a profit that the group has made. This is distributed equally among the members, with each one of them getting Rs 1,000.
- This money that is distributed is referred to as a dividend. The person who got the money, will have to keep contributing Rs 5,000 every month for the remaining eleven months.
- If two or more person bid the maximum discount their names will be written on chits of paper and a chit is drawn. The person, whose name is on the chit drawn, gets the money.
- The winner will be opted out of the future biddings.
- This is how chit funds works and they are perfectly legal if they are registered under the Chit Funds Act 1982, a central statute or various state-specific acts.

How is it helpful?

- A chit fund helps those people who are facing a liquidity crunch.
- Of course they will have to keep paying Rs 5,000 for the remaining eleven months.
- But by doing that the person gets an opportunity to get a bulk amount once.
- The chit fund company typically does not ask what the winner of the amount wants to do with the money.

What is the nature of the returns?

- The kind of return an individual participating in a chit fund gets depends on the maximum discount that is bid in each of the months.
- The higher the discount, greater is the dividend that is distributed among the members of the chit fund.
- The returns also depend on the organiser charges. Higher the organiser charges, lower is the returns.
- While organiser charges are fixed in advance, the maximum winning discounts are likely to vary from month to month. Therefore the returns are not fixed and cannot be predicted.
- The organiser of the chit fund also cannot know in advance the kind of returns that a participant can get.

Was Saradha a chit fund?

- Saradha Group was a consortium of over 200 private companies with SudiptoSen as a Chairman.
- It was believed to be running collective investment schemes popularly but incorrectly referred to as chit funds.
- As we know, chit fund cannot declare in advance the return an individual is likely to make. But returns were promised in Saradha chit fund.
- They offered fixed deposits, recurring deposits and monthly income schemes. The returns promised were handsome. High-value depositors were also promised foreign trips.
- The fact that a rate of return was promised in advance and the amount of 4 times return to the principal, clearly means that it was not a chit fund.

So what was Saradha then?

- It can be categorised under what SEBI calls a collective investment scheme.
- A collective investment scheme (CIS) is defined as any scheme or arrangement made or offered by any company under which the contributions made by the investors are pooled and utilised with a view to receive profits, income or property, and is managed on behalf of the investors. Investors do not have day to day control over the management and operation of such scheme or arrangement.
- Against the money collected Saradha promised allotment of land or a flat.
- The investors also had the option of getting their principal and the promised interest back at maturity.
- The investors did not have day to day control either over the scheme or over the flat or land for that matter.
- The money/land/flat came to them only at maturity. Given these reasons Saradha was actually a CIS

What was the scam?

- If the Saradha group was collecting money and promising land or flats against that investment, it should still have those assets. Saradha was trying to create an illusion it was doing all of it. But there was nothing really that it was doing.
- They were using money brought in by the newer investors to pay off the older investors whose investments had to be redeemed.
- At the same time they were creating an illusion of a business as well, which really did not exist.
- They were prompt with payments in the first year. Later agents were told to make payments for maturities with fresh collections or make adjustment against renewals.

- They also pay high commission to agents to keep bringing new investors. That keeps the Ponzi scheme going.
- And as long as money brought in by later investors is greater than the money that has to be paid to earlier investors, these schemes keep running.
- The day this equation changes, these so called chit funds go bust.
- The same happened in case of Saradha chit fund as well.
- The group collected around Rs.200 to 300 billion from over 1.7 million depositors before it collapsed in April 2013.

6.6 Amendment to the Chit Funds Act

Why in news?

- The Finance Ministry is amending the Chit Funds Act to insulate small savers from ponzi schemes.

What are the amendments?

- Definitions of the Act are being tightened to replace chits with “fraternity fund”.
- The new “fraternity fund” nomenclature will distinguish its working from prize chits or marketing schemes that are barred under the Prize Chits and Money Circulation Schemes (Banning) Act.
- This will signify its inherent nature of being a borrowing and saving scheme, and not one that just takes deposits.
- Technology - Currently the act requires at least two subscribers to be physically present at the auction.
- The bill proposes to allow the two minimum required subscribers at any chit auction to join through “duly recorded video presence”.
- It is also changing the 1982 law to allow e-auction of chit funds.

- State Government - Chit funds fall in the Concurrent List and states are free to issue their own law.
- Currently enforcement remains the primary responsibility of the state government. The draft Bill gives them more freedom to regulate such funds.
- At present, all chits with aggregate amount Rs 100 and below are exempted from provisions and penalties of the Act.
- The bill allows state governments to prescribe this ceiling and to increase it from time to time.
- A new clause is being introduced to protect companies or individuals that act as foreman of the chit fund whereby the promoter would be allowed a right to goods, securities or any other assets of the borrower until the debt is repaid.
- The Bill does not address a key concern raised by the Key Advisory Group in September 2013 i.e to provide insurance coverage in case of default by the foreman so that the interest of the investors is protected.
- In one case, the company offered an American millionaire fake ownership records to hide money from the authorities.
- This is in direct breach of international regulations designed to stop money laundering and tax evasion.
- It is the biggest leak in history even more than that by Wikileaks organisation in 2010.
- There are links to 12 current or former heads of state and government in the data, including dictators accused of looting their own countries.

How it is related to India?

- A petition was filed by Supreme Court advocate ManoharLal Sharma seeking an apex court-monitored probe against the Indian offshore account holders and stock market regulators.
- A bench was asked to direct the CBI to lodge FIRs and conduct probe into the alleged offences under the Prevention of Corruption Act and Prevention of Money Laundering Act.
- The case is currently being monitored by a multi-probed agency headed by the Central Board of Direct Taxes (CBDT) chairman Atulesh Jindal and attended by officials from the investigative unit of the CBDT and its Foreign Tax and Tax Research division, the Financial Intelligence Unit (FIU) and the Reserve Bank of India (RBI).

6.7 Panama paper scandal

Why in news?

- The Supreme Court will hear the plea seeking a Central Bureau Investigation (CBI) investigation into the Panama leak papers.

What are Panama papers?

- The Panama papers are files that are related to the documents and other details about illegal activities of wealthy off-shore account holders were leaked.
- They were leaked from one of the world's most secretive companies, a Panamanian law firm called Mossack Fonseca.
- The files show how Mossack Fonseca clients were able to launder money, dodge sanctions and avoid tax.

6.8 Net Neutrality

Why in news?

- Telecom Regulatory Authority of India (TRAI) released consultation paper on 'Net neutrality' and asked for written comments from stakeholders.

What is the current scenario?

- Internet consumption in India is rapidly growing with around 370 million subscribers already using data services.

- This huge market opportunity has pitted large telecom companies and internet giants against each other.
- So it is critical that India sets out clear regulations prohibiting all practices that tilt the network in favour of anyone.
- The TRAI last year ruled to end the Free Basics in India.

How is such a proposal detrimental?

What is net neutrality?

- Net neutrality is the principle that Internet service providers (ISP) and governments regulating the Internet should treat all data on the Internet the same and should not discriminate or charge differentially.

Why is it important?

- Web users are free to connect to whatever website or service they want. This has allowed the internet to grow into a truly global network and has allowed people to freely express themselves.
- It has enabled a level playing field on the internet.
- To start a website, one doesn't need lot of money or connections. If the service is good, it will find favour with web users. Unlike the cable TV where one has to forge alliances with cable connection providers to make sure that your channel reaches viewers, on internet one doesn't have to talk to ISPs. This has led to creation of Google, Facebook, Twitter and countless other services, all of them had very humble beginnings.

What is a Zero-rating platform?

- Zero-rating platforms offer free access to a limited number of sites through select telecom providers.
- Those who wanted unrestricted access to the entire internet would still have to pay, but the poor would have access to a few useful sites offered by them.
- Facebook's Free Basics is an example.

- It essentially creates a two-tier system with a fast and a slow lane.
- The free content will be on the slow lane where the download speed will be low.
- Those with resources to promote their content will be on the paid fast lane with high download speed.
- This effectively erodes the concept of level playing field, as new comers will no longer be able to compete with the already established tech giants.
- This is also detrimental from the consumer point of view as their usage pattern will be controlled by the telecom companies.

Is the self-regulation a solution?

- All telecom operators openly support the idea of net neutrality.
- Therefore they argue that internet services should be under a self-regulatory mechanism for adhering to core principles of neutrality.
- But there is a risk of some operators indulging in discriminatory practices such as blocking of particular content or tweaking speeds for access to particular services.
- Most consumers in India, being first time users, would not even realise that their network has been gamed to favour a particular content provider.
- So an intervention is needed in favour of net neutrality.

What has been done?

- The consultation paper comes at a time when the country is on the cusp of a digital revolution.

- Over the past two years, there have been several piecemeal attempts to determine India's approach to this issue.
- The TRAI has rightly pointed out that end users should be informed about such traffic management practices and the reason for which they are being deployed.
- In February last year, the TRAI disallowed differential pricing for data services.
- But then it allowed differential tariffs to be offered for data transmitted over "closed electronic communications networks" leaving the door open for telecom operators to create a parallel network.
- TRAI must ensure that the battle be fought through innovative products and best quality services, rather than by gaming the network to influence consumer behaviour.
- The regulator should also put in place a mechanism to monitor and enforce the principles of net neutrality.
- The latest consultation paper gives TRAI the opportunity to redeem itself by mandating neutrality without exceptions.
- It consists of a chairman and other members appointed by the Governor. They can be removed only by President.
- The qualifications are not prescribed and the strength of SPSC and the conditions of service is left to the discretion of the Governor.
- The only criterion is that the half of the members should be such persons who held the office under GOI or the state.
- The salary and the expenses are charged on the consolidated fund of the state.

What is the issue?

6.9 TNPSC Appointments

Why in news?

- The Supreme Court refused to stay a Madras High Court decision to quash the appointment of 11 members of the Tamil Nadu Public Service Commission (TNPSC).

What are the constitutional provisions?

- Articles 315 to 323 in Part XIV of the Constitution of India provides for the establishment of Public Service Commission for the Union for each State.
- State Public Service Commission (SPSC) conduct examinations for recruitment to state services and advise the governor on disciplinary matters.
- The vacancies for the posts of members of the TNPSC had arisen from 2013 when members completed their tenure and demitted office.
- The last member demitted office on January 31, 2016 and these posts were suddenly filled by a government order, dated the same day in anticipation of the election notification for the state Assembly polls.
- The petitioners was filed in High Court claiming that the Commission was packed with party loyalists and do have any merit.
- The government submitted that right to make appointment to the State Public Service Commission under Article 316 of the Constitution is left to the state government and the court ought not to interfere with it, especially as there are no charges or allegations against any member.
- It also pointed out that SPSC members can be removed only by Article 317.
- The Madras High Court quashed the appointment holding that the process was "deeply flawed" and conducted without following any transparent process and that not even police verification cold have been done in one day.

- The bench observed the selection should be based on merits. “the persons who are Chairman or Members of the PSC have to be equally of such competence and high moral values as they are the ones who are conducting the selection process for the Administrative Service Officers.”
- No character or antecedent verification was really done and the issue which arose for consideration was whether the state could have said to have applied its mind to the relevant facts, i.e., suitability, competence and integrity of the candidate.
- Thus the court said that where the deliberative process suffered from constitutional infirmity of being arbitrary, the appointment had to be struck down.

What is the recent judgment?

- While hearing the appeal the Supreme Court said the service commissions should have credibility, its members should be outstanding and should inspire confidence for the sake of good governance.
- Therefore it refused to stay the high court of quashing the appointments.
- The bench said that the candidature of Ramamurthy, the retired district judge, who had been ‘relieved’ from service when he turned 58, instead of it being extended till he turned 60 i.e who had been rendered unfit to hold any post after retirement should not be considered for reappointment.
- The other members can be considered for reappointment by following due process.

6.10 Aircel Maxis Case

Why in news?

- The mega merger between Reliance Communications and Aircel is at risk with the Supreme Court threatening to take away the latter’s spectrum if its Malaysian owner

T Ananda Krishnan does not appear in court within two weeks.

- In a separate development former Telecom Minister DayanidhiMaran and his brother Kalanithi were freed from bribery and money laundering charges in the Aircel-Maxis deal case.

What is the case about?

- Aircel is an Indian mobile network operator founded by C Sivasankaran of Tamil Nadu.
- Maxis is a communications service provider in Malaysia, owned by Ananda Krishnan.
- Aircel was taken over by Maxis in 2006 by acquiring its shares.
- In 2011 The Aircel-Maxis deal came under the scanner after Sivasankaran lodged a complaint that he was coerced into selling his company to Maxis.
- It was alleged that the Maxis Group had invested in Sun Direct between 2007 and 2009 and DayanidhiMaran as then Telecom Minister misused office in the deal. It was also alleged that Maxis made a quid pro quo investment in Sun Direct TV, owned by Dayanidhi’s brother, KalanithiMaran.
- The then finance minister Chidambaram was also alleged of delaying the clearance till his son received shares in Aircel.
- In 2014 the CBI filed charge sheet against former Telecom Minister DayanidhiMaran and his brother KalanidhiMaran, T. Ananda Krishnan and Ralph Marshall, a senior executive of the Maxis Group.
- In 2015 the CBI told a special court that Malaysian authorities were not “cooperating” in the service of summons.
- In August 2016 the CBI moved court for issuance of arrest warrants against Ralph Marshall and Ananda Krishnan as they failed to appear before the agency.

- In September 2016 Reliance Communications and Aircel announced a merger deal with equal representation on the board.
- This would have created the country's third-largest mobile operator by subscriber base enabling both RCom and Aircel to stay relevant.

What is the recent judgment?

- But the Supreme Court restrained the transfer of Aircel's 2G licences to any other telecom company. It also said that if Anandha Krishnan and Ralph Marshall fail to appear in January, the 2G license granted to Aircel will be seized.
- Most of Aircel's existing revenues come from 2G and it may end up losing millions of subscribers if the Department of Telecom were to transfer the airwaves to another operator.
- RCom can technically still use Aircel's 3G spectrum and other airwaves bought through recent auctions, but it is unlikely that the merger will go through in such a piecemeal manner.
- Though there is no immediate impact on merger plans the future is unclear.

7. INDIA AND ITS NEIGHBOURHOOD

7.1 Sri Lanka to offer a Port to India

Why in news?

- The Colombo's Minister of Regional Development said during Raisina Dialogue, that the decision on offering the port of Trincomalee to India will be taken soon.

What is Raisina Dialogue?

- The Raisina Dialogue is an annual conference held in New Delhi, envisioned to be India's

flagship conference of geopolitics and geo-economics.

- The conference name comes from Raisina Hill, which is the location of both the Government of India as well as the presidential palace of India.

What was Sri Lanka's decision?

- Trincomalee has been on the table for some time as Sri Lanka wants to maintain a neutral stand and provide equal access to its ports to both China and India.
- Chinese carried out major infrastructural work at the Hambantota port in southern coast of the island nation.
- It has not been very beneficial as we are facing a heavy debt burden due to the work done in that port.
- The port is currently given to a private entity so that some of the more immediate issues are resolved.
- This arrangement will also address India's security concerns.

7.2 India and China's Tug of War over Nepal

Why in news?

- China's People's Liberation Army (PLA) is planning to hold its first-ever joint military exercise with Nepal.

What is the status of India-Nepal relations?

- India is the largest supplier of military hardware to the Nepali Army.
- Since 1950, it has been a custom for the two countries to confer honors on each other's army chiefs,
- This signifies the close military-to-military ties between the two countries.

- Chinese military assistance to Nepal has significantly increased in recent years.
- But this is the first time that China has proposed a joint military exercise and Nepal accepted.
- The development came as Nepal is proposing to change some provisions of the 1950 Peace and Friendship Treaty with India.
- The treaty states that Nepal needs to inform or receive consent from India when it purchases military hardware from other countries.
- Nepal wants to change such provisions and make independent decisions on security issues, including the purchase of military equipment.
- India wants to maintain Nepal as its “sphere of influence” while China wants to increase its influence.
- India sees this as not only related to trade and commerce, but a part of China’s larger strategy to encircle it in South Asia.

What should be done?

How Chinese influence grew?

- For the long time, India enjoyed almost exclusive influence in Nepal.
- But after the abolition of monarchy in 2008 China has increased their influence in Nepal, mainly on political matters.
- Relationship of India and Nepal strained during India’s interference in the Nepal’s constitution making
- After accusations of a blockade at the Nepal-India border, Nepal relied on China to meet its everyday essential needs.
- The tensions between Nepal and India provided room for China to increase its influence in all areas of Nepal, including in politics.
- Similarly, several joint Nepal-China infrastructure development projects, including the expansion of railways and road connectivity, gained momentum.
- There is no reason that India should worry about a Nepal-China military exercise.
- China is not the only country conducting such drills with Nepal. e.g Nepal-U.S. military drill.
- India has no right to say that Nepal cannot conduct military exercises with another partner.
- Nepal has the sovereign right to make that decision.
- India also has its own joint military exercise with China.
- Even after NSG issue both countries conducted a 13-day joint military exercise in November 2016.
- India’s own experience with China should reassure it that joint exercises are not an indicator of converging strategic interests.
- It is unfortunate that Nepal’s government is quickly labeled as either pro-Indian or pro-Chinese.
- Nepal should be allowed to build a cordial relationship with both of its neighbors to gain the maximum economic benefits.

What is the new development?

- India sees the recent announcement of military exercise as China encroachment in India’s backyard.

7.3 Resettlement Fund for PoK refugees

Why in news?

- The Centre will deposit Rs. 2,000 crore into the bank accounts of 36,000 Hindu refugees from Pakistan-occupied Kashmir (PoK).

Who are PoK refugees?

- The refugees from West Pakistan, mostly from PoK, settled in different areas of Jammu, Kathua and Rajouri districts.
- However, they are not permanent residents of the state in terms of Jammu and Kashmir Constitution.
- Some of the families were displaced during Partition in 1947, and others during the 1965 and 1971 wars with Pakistan.
- The displaced people can cast their votes in Lok Sabha polls but not in the elections to Jammu and Kashmir assembly.

What is the current move?

- Each PoK refugee would get Rs. 5.5 lakh and the Centre will bear the cost.
- The west Pakistan refugees have been demanding a similar package for a long-time.
- The “resettlement fund” will be disbursed once the figures and data of refugees are compiled.
- The Home Ministry has sought bank account details of all the families from the State government as it intends to transfer the money directly into their accounts instead of giving it to the State government.
- This is for the first time that the Centre has allocated Rs.2,000crore for providing relief instead of setting up a State-Centre committee first to examine their demands.
- Jammu and Kashmir Sharanarthi Action Committee (JKSAC), an organisation representing the displaced people of the PoK has been maintaining that the package should not be seen as final settlement as Rs 9,200 crore was required to settle all of them.

- The central government has approved several concessions including special recruitment drives for induction into paramilitary forces, equal employment opportunities in the state, admission for the children of refugees in Kendriya Vidyalayas, among others.

8. BILATERAL AND INTERNATIONAL RELATIONS

8.1 India Japan WTO issue

Why in news?

- Japan is threatening to take India to the WTO over the trade restrictions placed by India.

What were India’s restrictions?

- India imposed duties of up to 20% on some steel imports in 2015.
- It set a minimum import price in 2016 for steel product imports to deter countries such as China, Japan and South Korea from undercutting local mills.
- Undercutting means selling cheaper than the local mills and eventually removing them from the competition.

Why Japan wants to move to WTO?

- Japan is the world’s second-biggest steel producer after China.
- It exports nearly half of its products.
- The move by India nearly halved Japan’s steel exports to India over the past year. India dropped down from sixth-largest buyer in 2015 to 11th-largest in 2016.
- Japan usually tries to settle disputes through bilateral talks.
- But currently it wants to move to WTO as it accuses India’s move to be against WTO rules.
- This is not just to oppose India’s move but also against the growing protectionism worldwide. e.g The new administration in US also signalled similar protectionist moves, China’s steel exports dropped by 3.5% in

2016 due to similar moves by Vietnam, Malaysia and South Africa.

- Therefore Japan wants to send a clear message of open and fair international markets and to stop unfair trade actions from spreading.
- India is of the view that it is following the WTO guidelines.

What is the dispute settlement mechanism in WTO?

- The request for consultations is the first step.
- It is followed by discussions under the dispute settlement system to find a satisfactory solution.
- If the consultations fail, the complainant can move for adjudication by a panel after 60 days.
- It further takes around a year to submit the final report.

8.2 H1-B Visa Bill

Why in news?

- The stocks of Indian IT majors such as Infosys, Wipro, HCL and TCS took a beating at the Mumbai Stock Exchange following the introduction of a new bill in the US House of Representatives.

What is a H1-B visa?

- Generally, a citizen of a foreign country who wishes to enter the United States must first obtain a visa.
- It must either be either a nonimmigrant visa for temporary stay or an immigrant visa for permanent residence.
- Temporary worker visas are for persons who want to enter the US for employment lasting a fixed period of time, and are not considered permanent or indefinite.
- The US H-1B visa is a non-immigrant visa that allows US companies to employ graduate

level workers in specialty occupations that require theoretical or technical expertise in specialized fields for a certain period of time.

- H-1B visa holders can bring immediate family members/spouse under the H-4 visa category as dependents.
- Some spouses of H-1B visa holders, who are in line for a green card, are allowed to apply for eligibility to work.
- 65,000 H-1B visas be awarded every year to foreign nationals working in “specialty” areas including computer programmers, scientists and engineers.
- An L1 Visa is an Intra-Company Transferee Visa. It specifies no education requirement and a maximum of 7 years stay is allowed.

What is the bill about?

- The bill seeks to more than double the minimum salary of H-1B visa holders from \$ 60,000 to \$ 1,30,000.
- It seeks to remove several numerical quotas per country in issuance of Green Cards.
- It also wants to make Masters Degree mandatory for H-1B visas.
- These will discourage the American companies to outsource jobs.
- There have been earlier attempts at legislation to amend the rules pertaining to the H-1B visa programme.
- But the bill introduced by Lofgren rang alarm bells in the Indian IT sector because it was accompanied by news that US President Donald Trump has drafted an executive order to overhaul the H1B visa programme.
- There is also a proposal of scrapping the existing lottery system used to award the visas and replacing it with a system that favours visa petitions for jobs that pay the highest salaries.

How will the Bill affect Indian companies?

- Around 70% of the H-1B visas are given to Indian workers annually.
- If the reform goes through, the resultant increase in employee wages will be a cost worry for the IT industry.
- But there are also positives.
- It may turn out to be beneficial to Indians in parts at least as
- As Indians are the second highest foreign students on US campuses the proposals may definitely appeal to them.
- In the present circumstances Green Cards for Indians are delayed due to quota system per country as citizens of any country cannot get more than 7% of the available green cards in that particular year. Indians being in the top two countries of immigration seekers this would be beneficial.
- The job seekers are exploited by the consulting companies forcing them to pay damages if they move to a better opportunity. The proposed bill argues for transparency to protect H-1B holders.
- The suggestion of H-1B visa allocation on market needs rather than the lottery system is likely to enhance the chances of employment of Indian students.
- 20% of H-1B visas for start-ups with less than 50 employees can also help Indian start-ups.

Will it affect American Economy?

- Indians with H1B and L-1 visas contribute USD 1 billion annually to the US.
- Indian IT industry contributes to about 4 lakh jobs in the US and USD 5 billion in taxes annually.
- Silicon Valley majors like Microsoft and Google have reiterated that the H-1B visas

are critical for recruiting specialised workers for jobs they can't fill with US citizens.

What is India's viewpoint?

- As no executive order has been passed India is of the view that will not "prejudge" the outcome of the three private bills raised before they go through the full Congressional

8.3 India-US Defence Technology and Trade Initiative

Why in news?

- American Defence Secretary General highlighted the centrality of the India-US Defence Technology and Trade Initiative (DTTI) to ties between the two countries.

What is DTTI?

- The DTTI mechanism was launched in 2012. It is not a treaty or a law.
- It is a flexible mechanism to ensure that senior leaders from our nations are persistently focused on the opportunities and challenges associated with growing our defense partnership.
- It aims to
 1. Transform the bilateral defense relationship into one that is limited only by independent strategic decisions, rather than bureaucratic obstacles or inefficient procedures.
 2. Strengthen India's defense industrial base by moving away from the traditional "buyer-seller" dynamic toward a more collaborative approach.
 3. Explore new areas of technological collaboration from science and technology cooperation through co-development and co-production.
 4. Expand U.S.-Indian business ties.

- The first four projects under the DTTI were announced during President Barack Obama's visit to New Delhi as chief guest for the 2015 Republic Day celebrations.
- India and the US are currently working on six projects.
- The whole idea of the DTTI was to cut through the government bureaucracies on the two sides. As a mechanism for defence cooperation, it has to focus on advanced technologies.
- The Pentagon has also proposed to the Defence Ministry that the two sides work on a deal for an American combat fighter aircraft, F-16 or F-18.
- But the Defence Ministry did not want the fighter aircrafts to be considered under the DTTI but under Make in India to supplement the 36 Rafale fighters in the medium-weight category.
- Though National Defence Authorization Act of 2017 was passed by the US government last month, which institutionalised the DTTI mechanism, New Delhi will adopt "a wait and watch attitude".

What are the projects proposed under DTTI?

- Fifty per cent of the original projects have reached project agreement stage, two are in a limbo, and we are hopeful of progress on the rest.
- DRDO and US Labs are the lead agencies from the two countries for these projects.
- The Next General Individual Protection Ensemble and Mobile Electric Hybrid Power Source projects reached the agreement stage in 2015.
- The Digital Helmet Mounted Display and Joint Biological Tactical Detection System projects were proposed last year and are currently "at a discussion stage".
- The US offer for trilateral cooperation (with Israel) on the futuristic military platform was made last November but sources said that they are yet to make up their mind on it.
- The Americans feel that three advanced countries can bring their advantage of expertise and economy to the project which, if successful, could then be used by the armies of all the three countries.
- The American side also proposed bilateral development of Future Vertical Lift Helicopter (FVLH) under the DTTI.

8.4 India Russia Stealth Frigates Deal

Why in news?

- The multi-billion dollar deal between India and Russia for four stealth frigates has run into trouble over pricing and local construction with Transfer of Technology.

What are the problems?

- India and Russia had signed an Inter-Governmental Agreement for four additional Krivak or Talwar class stealth frigates during bilateral discussions on the sidelines of the BRICS summit in October 2016.
- As per the agreement, two ships are to be procured directly from Russia and two to be built in India with Russian assistance.
- In the commercial offer submitted later, Russia has quoted about \$990 million for the two ships to be directly imported.
- For those to be built in India, the commercial offer quoted about \$800 million for "supply of material to ensure construction of the two ships in India" and \$51 million for "supply of project documentation" to ensure their construction.

- The cost of construction of the two ships in an Indian yard was to be arrived at later.
- This would steeply push up the overall cost of the two ships and it was seen as a way to ensure that all four ships were imported from Russia.
- It will be a serious setback to the Make-in-India initiative.
- The issue was discussed in detail by the Defence Acquisition Council.
- It has been decided that identification of the shipyard to be deferred till the cost for the construction of the ships in India was not cleared.
- India is of the view that the decision on procurement of two ships from Russia will not be initiated unless details of Transfer of Technology, costs etc of balance two ships are found acceptable.
- It will either take all four ships or none.
- An annual levy of £1,000 on firms for every worker hired from outside the EU.

What are the advantages?

- In 2015, UK employers struggled to fill nearly one fifth of the job vacancies as a result of the skills gap.
- Immigration is not helping to increase the incentive to employers to train and upskill the UK workforce. e.g Ready access to a pool of skilled IT professionals in India.
- The proposals would toughen the intra-company transfer route.
- It would make it harder and more expensive for firms to hire talent from abroad.
- The fee levied could be used to skill domestic workers in the UK.

What are the disadvantages?

- Indian IT workers accounted for nearly 90% of visas issued under the ICT route, therefore it will affect them greatly.
- New English language requirements when applying for settlement as a family member after two and a half years in the UK will also affect Indians.
- It will affect the growth of Britain's IT and engineering sectors, medium-sized businesses and healthcare sector, which relies heavily on migrant nurses.
- A lot of startup companies might move to nearby hubs like Berlin, Paris or Amsterdam.
- Various sectors are of the view that they should be keeping the resources they have developed and skilled over the years.

8.5 UK Immigration Policy

Why in news?

- The UK government had announced changes to its visa policy for non-EU nationals, which will also affect a large number of Indians.

What are the new rules?

- Tier 2 route for applying visa is for Intra-Company Transfer of resident from outside European Economic Area (EEA) and Switzerland, when an overseas employer has offered him/her a role in a UK branch of the organisation
- Under the new visa rules anyone applying after November 24 under the Tier 2 (ICT) category would be required to meet a higher salary threshold requirement of 30,000 pounds from the earlier 20,800 pounds.
- For those working as third party contractors, the minimum salary is raised to £41,500.

What should India do?

- India should examine the UK-India Bilateral Investment Protection Treaty, whether such a move that adversely impacts operations of Indian companies in the UK could be found to be in breach of the core principles of the treaty.

8.6 India's West Asia policy

Why in news?

- In November, India held its first joint commission meeting with the Palestinian Authority and recently sent a representative to a Paris meeting on reviving the West Asia peace process.

What is the rationale behind the move?

- In the pre-1990 days India was a vocal supporter of the Palestinian cause.
- The current moves are not path-breaking but there are several reasons India is considering tentative steps in this direction. They are,
- The transformation of relations of India with the UAE, Saudi Arabia and Qatar, has meant the present government is beginning to shape a "greater West Asia" policy.
- Besides some standard diplomatic and economic interests, India probably sees an opportunity to reduce Pakistan's standing in a part of the world.
- To increase the credibility of the present government in West Asia.
- India is likely to further expand its relationship with Israel.
- Already the larger importer of Israeli arms in the world, India now has a security relationship that extends to the most sensitive defence areas like nuclear weapons technology and doctrine.

Does the renewed Palestine interest help India?

- New Delhi knows that as it becomes closer to Tel Aviv there is an inevitable blowback in the Arab world.
- Showing renewed interest in Palestine is a useful means to help counter this.

- New Delhi has used support for Palestinian nationalism as a foil to counter criticism of its shift to Tel Aviv for decades.
- In the joint commission meeting the Palestinians said they were pleased to talk to India because of its presumed influence on the Israelis.

Will we involve in West Asian peace process?

- New Delhi has no interest in getting directly involved in the West Asian peace process. It has neither the means and interest nor the diplomatic heft to do so.
- India has other problems. One of them is its refusal to deal with Hamas, the Palestinian arm of the Muslim Brotherhood, because of its dislike for non-secular Islamic groups.
- So New Delhi's interest in Palestine is about issues other than Palestine itself.

8.7 India and UAE

Why in news?

- India and the United Arab issued a joint statement, after the Crown Prince's visit to Republic day celebration.

What was the significance of the statement?

- They condemned efforts by States, to use religion to justify, sustain and sponsor terrorism against other countries.
- It holds significance since the UAE as part of the Organisation of Islamic Cooperation (OIC), supported Islamabad-backed resolutions on Kashmir.
- The UAE has been one of Pakistan's closest allies and also one of the few countries to have recognised Taliban rule in Afghanistan in the mid-1990s. Therefore this would be a strong message.

- They condemned the terrorist attacks in Kabul and Kandahar in which five UAE diplomats were killed.
- The UAE and India also agreed to coordinate efforts to “counter radicalisation against misuse of religion by groups and countries for inciting hatred and perpetrating acts of terrorism”.
- They also emphasised the importance of promoting a culture of inclusiveness, openness and tolerance within and among societies.
- Lending support to New Delhi’s position on the Comprehensive Convention on International Terrorism in the United Nations, they also called for early conclusion of negotiations.
- India and UAE have signed Memorandum of Understanding in several sectors.
- MoU on Mutual Recognition of Certificates of Competency to pave way for recognition of maritime education and training, certificates of competency, endorsements, training documentary evidence and medical fitness certificates for seafarers issued by the Government of the other country.
- MoU on Bilateral Cooperation in the Road Transport and Highways Sector to increase investment in infrastructure development and enhance logistics efficiency.
- MoU in SME and Innovation to benefit Indian SMEs and lead to equitable and inclusive development.
- The exposure to best practices in SME sector abroad would provide an opportunity to Indian SMEs to improve upon them and innovate further.

What is India UAE strategic partnership?

- India appreciated the support extended by UAE security agencies on specific issues of security concern to India — a reference to the ISIS threat.
- The two leaders reiterated that the ongoing close cooperation on a range of security issues, particularly on counter-terrorism, maritime security and cyber-security remained a key pillar of the bilateral strategic partnership.
- The two sides agreed to further enhance cooperation in the fields of law enforcement, anti-money laundering, smuggling of fake currency, drug trafficking, human trafficking, illegal migration and other transnational organized crimes.
- MoU in agriculture to help in better productivity at farmer fields as well as improved global market access leading to equity and inclusiveness.

What both countries need to do?

What are the MoUs signed?

- India invited UAE participation in India’s National Infrastructure Investment Master Fund as an “anchor investor”.
- The strategic partnership that India envisions with the UAE must be based on clarity and concrete measures. This should include a crackdown on the shadowy businesses owned by Dawood Ibrahim.
- Also more steps to curb terror financing of the Taliban and groups in Pakistan and Afghanistan; such money is often routed through expatriate remittances from the UAE.
- India’s hopes of investment from the Abu Dhabi sovereign wealth fund, one of the world’s largest at \$500 billion, will not be realised until New Delhi steps up efficiency at its end.

- It took more than a year for the government to fully set up the National Investment and Infrastructure Fund mechanism for the UAE funds is a case in point.
- The delay resulted in the MoU for investment of a possible \$75 billion over 10 years falling through.
- Personalised leader-to-leader bilateral diplomacy is a great conversation-starter but enough should be done to energise ties.
- The Portuguese prime minister is the chief guest at the PravasiBharatiya Divas.

Why India needs Portugal?

8.8 India - Portugal

Why in news?

- Portugal Prime Minister Antonio Costa paid a seven-day long official visit to India.

What was the Mou on Defence about?

- Memorandum of Understanding (MoU) on Defence cooperation signed between the two countries will help us harness our respective strengths in this field for mutual benefit.
- India thanked Portugal's support to India's efforts to get a membership in the elite Nuclear Suppliers Group.
- A joint statement issued by the two sides called for tough global action against terror networks and states harbouring them stressing that there should not be any double standards in combating terrorism.
- They exhorted the international community to effectively implement the measures enumerated by the 1267 UN Sanctions Committee.
- The statement comes days after China blocked India's move to list Pakistan-based MaulanaMasoodAzhar as a global terrorist, at the 1267 Sanctions Committee.
- The two leaders also called for eliminating terrorist safe havens and infrastructure, disrupting terrorist networks and their financing, and sought adoption of the Comprehensive Convention on International Terrorism by the UN.
- Since Brexit, India has lost its traditional pathway to Europe. eGreat Britain.
- Now, India needs another partner country in Europe to take advantage of the common market.
- India has strong economic interests in the Netherlands, which continues to be one of the top destinations for outward Indian FDI.
- However, in the volatile global macroeconomic climate, India should look to hedge its investments and seek another country in Europe that can act as a gateway.
- Portugal can be one of the contenders to fill the void left by Britain.
- Presently India's business presence in Portugal is quite minimal.
- There are only a handful of companies in the hospitality industry, auto parts, renewable energy, and information technology (IT).
- But Portugal offers a good business environment, well-developed physical and IT infrastructure and a favourable climate for both short term and long-term investment.
- It takes around 46 minutes to set up a business there compared to 89 days in India.
- Its strategic location can make it a promising gateway to the European common market.
- Importantly, Portugal also has one of the lowest labour and operational costs in Western Europe.
- In addition to its European Union membership, Portugal retains close ties with Brazil, Mozambique, Macau and Angola and can serve as 'gateway' to other Portuguese-speaking markets.

- It has also launched the Golden Visa residence programme, which is a simple and fast track residence permit programme designed to attract foreign investment into the country

8.9 India - Kenya Opportunities and Challenges

Why in news?

- India announced 100 million dollars Line of Credit for Kenya's agricultural mechanisation.
- The announcement followed talks between PM Modi and Kenyan President Kenyatta during which they agreed to deepen economic cooperation and expand trade.

What are the avenues of engagement?

- The Line of Credit would open a new dimension of engagement.
- The Kenyan leader's top priority is likely to be to seek more access to the Indian market for Kenyan goods, while India is likely to be interested in exploring ways to become its top foreign trading partner.
- Long-term arrangement with Kenya for production and import of pulses is being explored and discussed.
- Kenyatta has repeatedly called for India's help in augmenting Kenyan healthcare.
- The India had also offered to help set up a full-fledged cancer hospital in Kenya.
- Kenyatta has publicly invited Indian firms to set up manufacturing facilities in his country and make it a distribution hub for generic drugs for the region.
- The agriculture and leather industries are other sectors where Kenya is hoping to attract Indian investment to offset the trade imbalance.
- India has already explored the possibility of importing foodgrains from Kenya to help meet its insatiable demand for pulses.

What are the challenges?

- Regaining the top spot for trade from China will be a hard climb.
- The challenges in the maritime domain are a shared concern and the two sides will explore opportunities in blue economy.
- Indian imports were around \$2.4 billion, while Chinese imports were \$3.09 billion in 2015.
- The sharp rise in China's trade figures was attributed to import expenditure for railway construction materials from China.
- Besides laying rail tracks, China is also constructing roads around the country and building berths at Laamu port.

What are the advantages for India?

- Between 2003-2015, Chinese FDI was only the fifth largest creator of jobs. In contrast, Indian FDI was the top employment generator for Kenyans, creating 7422 jobs during the same period.
- For Kenya, with a large youthful population, accelerating job creation is an essential part of maintaining domestic stability.
- Beyond economic ties, India is keen to build up a strong security relationship linked to Kenya's coastal location on the Indian Ocean.
- While India will find it difficult to win a race with China on financing, Indian money can be stretched in other ways.
- India's Africa policy is broadly in line with Agenda 2063, promoted by the African Union.
- However, some recalibration in New Delhi's approach may be needed because issues such as UN reform, counterterrorism, climate change and international solar alliance will inevitably take longer to show results.

- Meanwhile, India must concentrate on actions that strengthen its economic cooperation with select African countries.
- 2,000 inhabitants were resettled in Mauritius and the Seychelles.

8.10 Chagos Archipelago Dispute

Why in news?

- The British Foreign Secretary has sought Indian assistance in resolving current tensions in the U.S. military base Diego Garcia.

What is the issue?



- The Chagos Archipelago is a group of seven atolls comprising more than 60 islands in the Indian Ocean about 500 km south of the Maldives.
- It had been part of Mauritius since the 18th century when the French first settled the islands.
- All of the islands of French colonial territory in the region were ceded to the British in 1810.
- Before Mauritian independence, in 1965, the UK split the archipelago from the territory of Mauritius to form the British Indian Ocean Territory and permitted the US to use it for defence purposes for 50 years (until December 2016) followed by a 20-year optional extension.
- Following this US Military Base was setup in Diego Garcia, the largest of the islands.
- The UN resolutions banned the dismemberment of colonial territories before independence.
- Therefore Mauritius claims sovereignty over the islands and states that Britain's claim is a violation of law and of UN resolutions.
- The resettled inhabitants now number around 10,000 including their descendants and they wish to resettle.
- UK declared Marine Protected Area around Chagos in 2010, which prohibits fishing and extractive industry and has the effect of preventing any resettlement.
- In 2015, the Permanent Court of Arbitration ruled this move as illegal under the United Nations Convention on the Law of the Sea (UNCLOS).
- According to PCA, Mauritius holds legally binding rights
 - to fish in the waters surrounding the Chagos.
 - to the eventual return of the Chagos to Mauritius when no longer needed for defence purposes
 - to the preservation of the benefit of any minerals or oil discovered in the Chagos Archipelago pending its eventual return
- In November 2016, the U.K. ruled out the resettlement of the islanders on the grounds of feasibility, defence, security interests and the cost.
- UK also renewed the lease for Diego Garcia with US, up until 2036.
- Subsequently, Mauritius warned that it would push to take the matter to the International Court of Justice (ICJ).

What is the recent move?

- UK sees Diego Garcia as vital for its operations in the region.
- Therefore it wants India to exercise its influence with the Mauritian government to help reach some agreement.
- They believe that it would be in India's security interest in the region.
- India has maintained that the matter of to proceed with ICJ is a decision for the Mauritian government to make.
- But this is seen as a positive move, as it signals Britain's eagerness to partner with India on security matters.

8.11 PIO and OCI

Why in news?

- Prime Minister Narendra Modi recently urged the diaspora community to switch from their Person of Indian Origin (PIO) cards to Overseas Citizenship of India (OCI) cards and had extended the deadline for applying for the conversion.

Who are PIO and OCI?

- There are over 30 million overseas Indians living abroad and the remittance of close to 69 billion dollars annually by overseas Indians.
- They can be categorised in three broad categories - NRIs, PIOs and OCIs. A Non-Resident Indian (NRI) is a citizen of India who has temporarily emigrated to another country for six months.
- PIOs and OCI card holders are not citizens but people who want to stay connected and involved with India more closely.
- The PIO card was first implemented in 2002 as a benefit to foreign nationals who could establish at least a third generation tie to Indian origin.

- The OCI card was implemented in 2005, carried more benefits than the PIO card, and is valid for the holder's lifetime.
- In 2015, the PIO scheme was withdrawn by the Government of India and was merged with the OCI.

What were the benefits of PIO?

- A PIO card holder doesn't need a visa to visit India.
- The holder also doesn't require a student or employment visa to acquire employment or academic opportunities in India.
- The holder was exempted from registering at the foreigner regional registration office (FRRO) during the duration of stay in India.
- The holder also enjoys parity with NRIs in concern to economic, financial and educational matters like property transfer or acquisition, holding, disposal, investment, admission of children in educational institutions under general category quota for NRIs.
- Separate immigration counters are provided at all International airports.

What are the additional benefits of OCI?

- Apart from the benefits of PIO, the OCI can attain Indian citizenship and then live in India for a period of one year including short breaks, if they remain an OCI for 5 years.
- An OCI cards holder can open special bank accounts in India just like NRIs and make investments.
- They can also buy non-farm property and exercise ownership rights.
- They apply for a driver's license and PAN card.
- They get same economic, financial and educational benefits like NRIs and they can also adopt children.

- Both OCI and PIO cannot vote, hold a government job or purchase agricultural or farm land. They also cannot run for public office or travel to restricted areas without permission.

9. INTERNATIONAL INSTITUTIONS

9.1 India's Stand on ISDS

Why in news?

- India and some other countries have rejected an informal proposal made by the EU and Canada to work towards a multilateral pact on investments at the World Trade Organisation that would have an Investor-State Dispute Settlement (ISDS) mechanism built into it.

What new proposal has been made?

- The EU and Canada have got into an investment agreement in which they have got the much contentious ISDS which allows corporates to take sovereign governments to international arbitration.
- They now want it to be the template for a multilateral agreement.
- Investor-state dispute settlement (ISDS) or investment court system (ICS) is a system through which individual companies can sue countries for alleged discriminatory practices.
- ISDS is a neutral, international arbitration procedure. Like other forms of commercial, labour, or judicial arbitration, ISDS seeks to provide an impartial, law-based approach to resolve conflicts.
- The proposal for a global investment pact, made at an informal breakfast meeting of Trade Ministers of select countries in Davos last week, was rejected by India, Brazil, Japan and Argentina.

What is the need for ISDS?

- To resolve investment conflicts without creating state-to-state conflict

- To protect citizens abroad
- To signal to potential investors that the rule of law will be respected

Why India rejects?

- It is only after all options for settling disputes between a sovereign government and a corporate in domestic courts have been exhausted do we want to allow the issue to be taken up in international courts.
- It should be part of a bilateral agreement and not a multilateral agreement.
- The EU, in a bilateral meeting with India, also indicated that it would hold free trade talks with India only after concluding a new bilateral investment treaty (BIT) with India.
- Earlier New Delhi had asked all countries with which India has investment protection agreements, including the EU, to re-negotiate those pacts on the basis of the new draft text of BIT.
- EU did not do so and the existing BITs with existing members are set to lapse in April.

9.2 Hague convention on child abduction

What is the Hague Convention?

- The Hague Convention on the Civil Aspects of International Child Abduction is an international treaty that establishes procedures that provide for the prompt return of children wrongfully retained or removed from their habitual residence.
- Minister for women and children, took a decision not to have India sign the treaty. But there is now some reported rethinking.

How does the Hague convention work?

- Often a male Indian migrant who is a green card holder comes to India to marry an Indian woman, who is not a green card holder.
- They settle for example in the US and have children.

- Trouble erupts between them and the woman had to leave the country with her children.
- It is here the Hague Convention will enter the picture.
- The husband can now apply to an executive authority for the return of the child based only on an order of a foreign court which could be an ex-parte order (temporary order) or if the husband is “entitled “ to custody under a foreign law.
- The mother, will be a “child abductor” and an application can be made to the authority in India for the return of the child to the place of “habitual residence”, that is the US or any other reciprocal country who has signed the convention.
- It is argued that the mother can go to the foreign court and convince that court that she should be allowed to take the child back.
- To deny a woman to apply in a foreign court for a variation of a custody order in favour of the husband means returning to a foreign land with no support structure in place.
- Often such litigation is carried only by husbands with a view to compel a woman to give up her claims to alimony and any separation settlement.
- It is a known fact that when faced with such a choice, custody of children or alimony, women choose to exit a bad marriage with custody of the children with no alimony.

Why it would be disastrous for India to sign?

- The Convention deals with what has come to be known as “international child abduction”.
- The Law Commission of India observed that the word “abduction” when used by a parent is misplaced as no parent can ‘abduct’ her own child.
- The Commission recommends the passing of a domestic law and the signing of the Convention.
- The recommendation is surprising since the report itself notes that it is mainly women who are compelled to return to a foreign country to fight lonely battles for custody with no support.
- There are number of cases where women fleeing a violent marriage with the children, with no desire to return.
- To compel such a child to return to the foreign country-would be compounding the original problem.
- ***What is the solution?***
- The solution lies in a reverse law on protection of children found in the jurisdiction of the Indian courts.
- Our courts exercise ‘parens patriae’ jurisdiction over children - they are the ultimate guardians of children in their jurisdiction.
- When faced with a claim from a father who says that the child has been removed from his custody in the face of a court order granting him custody, the court must decide whether it is in the best interest of the child to be sent back to a foreign land.
- Indian law does not automatically recognise foreign judgments.
- Now by signing the Hague Convention, we will be compelled to recognise a foreign judgment regardless of the justness of the decision on custody under Indian law or whether was delivered ex-parte.



PAPER - III

10. INDIAN ECONOMY**10.1 Corruption Perceptions Index****Why in news?**

- The Annual Index of Transparency International has placed India on the watch list for its inability to curb mega corruption scandals and petty bribery.

What is Transparency International (TI)?

- Transparency International (TI) is an international non-governmental organization founded in 1993 and based in Berlin, Germany.
- The major aim of transparency international to take action to combat corruption and prevent criminal activities arising from corruption
- It publishes the Global Corruption Barometer and the Corruption Perceptions Index, Global Corruption Report and Bribe Payers Index.
- The corruption perception index was created in 1995.
- The CPI defines corruption as the misuse of public power for private benefit.
- It annually ranks the countries by their perceived levels of corruption, as determined by expert assessments and opinion surveys.

How is the index compiled?

- The index is compiled by using the data of the World Bank, the World Economic Forum (WEF) and other such institutions.
- Countries are scored in a scale ranging from 0 to 100, 0 being highly corrupt and 100 very clean.

What are the highlights of CPI-2016?

- This year's results highlight the connection between corruption and inequality, which feed off each other to create a vicious circle between corruption, unequal distribution of power in society, and unequal distribution of wealth.
- The Corruption Perceptions Index 2016 covers acuties of public sector corruption in 176 countries.
- India position - India, sharing rank 79 with Belarus, Brazil and China, scored 40 out of 100. India has marginally improved over last year's score of 38. However the rank slipped from 76 in 2015 to 79 in 2016. But since eight more countries were evaluated in 2016 (176 countries) from previous 168 countries, the rank cannot be taken as the judgment base.
- The condition of India showed growth with inequality but the poor performance and the low score echoes the country's inability to deal with petty and large scale corruption and scandals.
- About 70% of the total 176 countries in the index are below the mid-point of the scale. The global average score was a concerning 43, indicating rampant corruption in a country's public sector.
- Countries with a lower score are estimated to be more corrupt, generally characterized by exemption for corruption, weak institutions and poor governance.
- The index also showed that majority of Asia Pacific countries were placed in the bottom half of the Corruption Perceptions Index 2016.

- Besides, 19 out of 30 countries in this region scored 40 or less out of 100.
- The most corrupt countries - According to the Transparency International's index, Somalia, South Sudan, North Korea and Syria are allegedly the most corrupt countries in the world. Somalia has held this position for the past 10 years.
- The most non-corrupt countries - Denmark and New Zealand were tied in the first place as the world's most non-corrupt countries with their spotless public sectors. Finland, Sweden and Switzerland are following them in the list.

10.2 World Bank Growth forecast

Why in news?

- The World Bank has cut its 2016-17 economic growth forecast for India to 7% from 7.6%. Notably, India maintains the distinction of being the fastest growing emerging market economies of the world, bypassing China

What is the reason for the downgrade?

- Slowdown in consumption and manufacturing due to demonetization
- Demonetisation has suffocated the vast informal economy, which employs up to 80% of Indians
- Decline in private investment and credit constraints due to impaired bank balance sheets.

What are the reforms that can bring about growth rebound?

- The passage of the bankruptcy and insolvency code, the liberalization of FDI norms across sectors, the passage of the Goods and Services Tax (GST) Amendment Bill and flexible inflation targeting
- Spending on Infrastructure and promotion of make in India campaign will bring the growth

Conclusion

- The Indian economy is, however, set to recover its momentum subsequently, with growth projected to accelerate to 7.6% in FY18 and further strengthen to 7.8% in FY20, according to the World Bank's Global Economic Prospects report.

10.3 Paperless Budget

Why in news?

- The Union government is discontinuing the practice of providing printed copies of the annual Economic Survey and the Budget to the media and the public.

What is the need?

- Parliament has been reducing the print run of all documents. It is an attempt to go green.
- It is in line with a recommendation of a Parliamentary Standing Committee on Finance, which asked the government to print fewer copies of the Economic Survey and the Budget.
- Consequently the government has been reducing the print run in past two years, up to 60%. This was achieved by limiting the allocation of Budget copies to just three per media house.
- It is in line with other initiatives like Faster Adoption and Manufacturing of Electric Vehicles (FAME), carbon tax on petroleum products and other targets set for renewable energy capacity creation.
- It will bring down the barriers to the implementation on the right to information front.

What are the disadvantages?

- The total cost of printing the Budget documents is around 70 lakh. Therefore this move will not lead to huge savings.

- Instead of stopping printing, the government could have linked the printing of Budget documents to sustainable agro-forestry i.e finding sustainable solutions like using dead trees only than resorting to superficial curbs on consumption.
- The Economic Survey and the Union Budget are two of the most critical documents. Curbing the print version inhibits distribution of information that help people to understand the government's functioning and efficiency.
- Though the subscribers have been increasing at a faster rate, still only a small minority of people has access to the Internet.
- True goal of going green can only be achieved if the government shift to a paperless way of functioning instead of discontinuing the printing of Budget documents.

10.4 Vote on Account

Why in news?

- Election commission reminded the government of a 2009 advisory which said vote-on-account instead of a full-fledged budget is presented ahead of elections as per convention.
- In an election year, like it was in 2009, the Government would instead present a vote on account (VOA) or an interim budget.

What is a vote-on-account?

- VOA literally means a vote on the accounts of the government.
- During parliamentary elections years, till a new government takes over, the caretaker government needs funds for various routine items of expenditure like staff salaries.
- According to the Constitution, the government cannot spend any money without Parliament's approval.
- Hence, VOA is taken whereby a government gets parliamentary approval to run the government for a few months.

What are the restrictions on a VOA?

- Typically, no changes are made to tax and duty structures and no new schemes are announced in vote-on-account.
- However it can extend coverage or allocate more money to an existing scheme.

Why VOA is used?

- Constitutionally, there is no distinction between a caretaker government and a regular one.
- The government could technically present a full budget.
- However, by convention, a government that is at the end of its tenure opts for a vote-on-account since it is regarded as improper that an outgoing government should impose its policies on its successor.
- Also in election years a full budget would tempt governments to resort to populism and may spend rampantly.
- Interim budgets have also been used by governments taking office just before the financial year begins to get Parliamentary approval for immediate spending.

How is a VOA different from interim budget?

- VOA and interim budget are often interchangeably used.
- VOA generally deals only with the expenditure side of the government's budget, whereas an interim budget includes both expenditure and receipts.
- Generally, a VOA is for two or three months, usually till the time it is replaced by a regular budget.
- It cannot be for a period longer than six.

10.5 FRBM review committee

- A committee headed by N.K. Singh which was formed by the government to review and give recommendations on the Fiscal Responsibility and Management Act (FRBM) has submitted its report. The committee had broad terms of reference to analyse the Act in terms of uncertainty and volatility in the global economy.
- The report is not in the public domain yet it is believed to be in favour of fiscal consolidation but not sacrificing growth.

What is FRBM Act?

- The FRBM Act is a fiscal sector legislation enacted by the government of India in 2003, aiming to ensure fiscal discipline for the centre by setting targets including reduction of fiscal deficits and elimination of revenue deficit. It is a legal step to ensure fiscal discipline and fiscal consolidation in India.
- The targets set under the Act were postponed several times in later years though some other goals of the Act including phasing out of government borrowing from the RBI were implemented.

Why FRBM became necessary?

- The FRBM Act was enacted in 2003 as rising government borrowing and the resultant government debts have seriously eroded the financial health of the government. High revenue deficit due to higher expenditure on subsidies, salaries, defence etc. compelled the government to make big borrowing from early 1990s onwards. With inadequate revenues, government resorted to high level of borrowing.
- The borrowing again produced high interest payments. In this way, interest payments became the largest expenditure item of the government. To arrest this financial weakness in its budget, the government has taken some serious deficit cut targets by introducing a law in the form of the FRBM.

What the FRBM says?

- The FRBM rule set a target reduction of fiscal deficit to 3% of the GDP by 2008-09. This will be realized with an annual reduction target of 0.3% of GDP per year by the Central government. Similarly, revenue deficit has to be reduced by 0.5% of the GDP per year with complete elimination by 2008-09. Later, the target dates were reset and budget 2016-17 aims to realise the 3% fiscal deficit target by March 2018.
- The Act gives slight flexibility to the government regarding the realisation of the target as well. It gives the responsibility to the government to adhere to these targets. The Finance Minister has to explain the reasons and suggest corrective actions to be taken, in case of breach. Following are the provisions of the Act in detail.
- The government has to take appropriate measures to reduce the fiscal deficit and revenue deficit so as to eliminate revenue deficit by 2008-09 and thereafter, sizable revenue surplus has to be created.
- Setting annual targets for reduction of fiscal deficit and revenue deficit, contingent liabilities and total liabilities.
- The government shall end its borrowing from the RBI except for temporary advances.
- The RBI not to subscribe to the primary issues of the central government securities after 2006.
- The revenue deficit and fiscal deficit may exceed the targets specified in the rules only on grounds of national security, calamity etc.
- Though the Act aims to achieve deficit reductions prima facie, an important objective is to achieve inter-generational equity in fiscal management. This is because when there are high borrowings today, it should be repaid by the future generation. But the benefit from high expenditure and

debt today goes to the present generation. Achieving FRBM targets thus ensures inter-generation equity by reducing the debt burden of the future generation.

- Other objectives include: long run macroeconomic stability, better coordination between fiscal and monetary policy, and transparency in fiscal operation of the Government.

10.6 Banking Sector Reforms

What are the problems faced by Indian banks?

- Policy issues- Banks face what has been termed as ‘double financial repression’- issues with policies of Statutory Liquidity Ratio and Private Sector Lending policies
- Structural issues- Governance issues, rising stressed assets (Non- Performing Assets) and lack of diverse funding sources for infrastructure
- The Reserve Bank of India (RBI)’s Financial Stability Report has pointed out that the gross non-performing loans of the Indian banking industry rose to 9.1% in September, thus pushing the overall stressed loans to 12.3% from 11.5%.
- The report has also said that the public sector banks may record the highest bad loans and lowest capital adequacy ratio, a measurement of capital against risk-weighted assets, among all banks.
- Problem of NPAs - High percentage of NPAs in bank due to following reasons
 - Overleveraged balance sheets- overenthusiastic borrowing and lending
 - Stalled projects leading to stressed assets for banks
 - Faulty reporting mechanisms leading to worsening of situation before NPAs are reported

- Nexus between bankers and corporate- deliberate defaulting

What are the reform measures taken?

- **GyanSangam** - It is a forum where the highest officials from public sector banks, the government and the Reserve Bank of India, meet to discuss issues facing the sector, the objective of the event is to promote an informal academic environment for interaction among professionals and regulators.
- It was initiated in 2015 and was followed by a second conclave this year.
- **Mission Indradhanush** - Mission Indradhanush is a 7-pronged plan to address the challenges faced by public sector banks (PSBs). Many of the measures taken were suggested by P J Nayak committee on Banking sector reforms as indicated.
- The 7 parts include appointments, Banks board bureau, capitalisation, de-stressing, empowerment, framework of accountability and governance reforms (ABCDEFG)
- **Appointments** - separation of posts of CEO and MD to check excess concentration of power and smoothen the functioning of banks; also induction of talent from private sector
- **Bank Boards Bureau** - will replace the appointments board of PSBs.
- It will advise the banks on how to raise funds and how to go ahead with mergers and acquisitions.
- It will also hold bad assets of public sector banks.
- It will be a step into eventual transition of the bureau into a bank holding company. It will separate the functioning of the banks from the government by acting as a middle link.
- The bureau will have three ex-officio members and three expert members, in addition to the Chairman.

- **Capitalisation** - Capitalisation of the banks by inducing Rs 70,000 crore into the banks in the next 4 years.
 - Banks are in need of capitalisation due to high NPAs and due to need to meet the new BASEL- III norms
 - **De-stressing** - Solve issues in the infrastructure sector to check the problem of stressed assets in banks
 - **Empowerment** - Greater autonomy for banks; more flexibility for hiring manpower
 - **Framework of accountability** - The banks will be assessed on the basis of new key performance indicators. These quantitative parameters such as NPA management, return on capital, growth and diversification of business and financial inclusion as well as qualitative parameters such as human resource initiatives and strategic steps to improve assets quality.
 - **Governance Reforms** - GyanSangam conferences between government officials and bankers for resolving issues in banking sector and chalking out future policy
- consumer market, and inter-connected families.
- Those affected by demonetisation include family members of the large Nepalese workforce in India, Hindu and Buddhist pilgrims from Nepal, the Nepalese patients and students.
 - According to media reports in Nepal, the NRB delegation sought an exchange facility, where Nepal citizens could turn in old notes of up to Rs 25,000.
 - There appears to be little hope for small savers in an economy, which also is largely cash-driven.
 - Nepal's central bank, which has declared that it only has around 30 million INR, has stopped transacting or exchanging Indian currency since the ban.
 - Later it banned the exchange of India's new Rs 500 and Rs 2,000 currency notes. This added to the existing problems. Therefore Indian government wants Nepal to lift the ban to ease the situation.

10.7 Demonetisation and Nepal

Why in news?

- India has asked Nepal to lift the ban it has imposed on new Indian currency notes of Rs 500/2,000 to mitigate the problems in Nepal.

What is the issue?

- Indian government's announcement of demonetisation has affected all sections in Nepal.
- Indian currency used to be freely accepted and often preferred to the Nepalese rupee.
- One of the main reasons for the widespread acceptance of the Indian currency is that there are many satellite towns on either sides of the border that have a shared or rather inter-dependent economy, a common

10.8 Merchant Discount Rate in Petrol Pumps

Why in news?

- The All India Petroleum Dealers Association recently announced that petrol pumps across the country would not accept credit or debit cards in protest against the Merchant Discount Rate, the burden of which was placed entirely on the dealers. The association later deferred this move till January 13 after the transaction fees were waived till that date.

What is Merchant Discount Rate?

- The rate charged to a merchant by a bank for providing debit and credit card services.
- The merchant must set up this service with a bank, and agree to the rate prior to accepting debit and credit cards as payment.

- At the moment the charges are one per cent on all credit card transactions and 0.25-1 per cent on all debit card transactions.

Why the dealers protest?

- After the demonetisation exercise began, the government had waived the service tax on the MDR surcharge from December for card-based payments up to Rs. 2,000 and got banks to waive the MDR charges on debit cards till December 31, 2016.
- Banks are expecting some revenue in return for facilitating transactions through point of sale (PoS) devices.
- Fuel dealers raised a red flag on the decision by certain banks to levy the MDR of up to one per cent on card payments.

What is the way ahead?

- Petroleum outlets are particularly important for a push as they handle nearly Rs. 2 lakh crore of cash a year.
- In a situation where people are cash-strapped and the government is nudging them towards alternatives, the uncertainty of the sort created at fuel pumps should be avoided as it could lead to a crisis of confidence.
- Last February the Cabinet had given the nod for rationalising MDR charges. An expert panel to recommend legislative and other changes was constituted in August and it mooted greater transparency in fees for digital payments, protection for private data of consumers, a mechanism to ensure they will not be liable to pay for unauthorised transactions or system errors, and the creation of a new payments regulator.

10.9 Tax on Cosmetic & Medicine

Why in news?

- A question of whether a product is cosmetic or medicine for tax purposes arose over the products of Johnson & Johnson.

What is the issue?

- The revenue authorities of Rajasthan imposed 12.5% VAT on two products of Johnson & Johnson, 'Shower to Shower', Savlon and 'Listerine' mouthwash.
- They maintained that these were not medicines which are entitled for a lower tax which is generally 4 or 5 %.
- The Tax Board upheld the view, against which the company appealed to the high court.

What is the company's defence?

- It argued they have medicinal value as shown in the licence granted to it and are special products for specific purposes.
- It further submitted that similar products like Nycil, Vicks and others have been granted tax benefits by other courts.

What was the revenue authority's rationale?

- The revenue authorities stated that the presence of a small percentage of chemicals does not make the products medicine.
- These products are available in ordinary shops and are not commonly understood as medicines.
- The court agreed with this view and dismissed the appeal of the company.
- It also dismissed the appeal of the authorities that Savlon was also a cosmetic.
- The judgment said that Savlon is an anti-septic formulation with curing properties and hence a medicine.
- This issue, as it deals with the tax matters of products sold over the counter, it cannot be decided under the central excise law.
- Ultimately it is the state law which decides the issue.

10.10 Capital Gains Tax

Why in news?

- The Prime Minister suggested that capital market participants should make a 'fair contribution' to nation building in the form of capital gains tax.
- This has had stock market investors in a state of jitters expecting capital gains tax to be slapped on their long-term gains from the market.
- The Finance Minister later played down these fears by saying that there was no plan to impose long term capital gain tax on equities.

What is Capital Gains Tax?

- Any profit from the sale of a capital asset is deemed as 'capital gains'.
- A capital asset is officially defined as any kind of property held by an assessee, excluding goods held as stock-in-trade, agricultural land and personal effects.
- Normally if an asset is held for less than 36 months, any gain arising from selling it is treated as a short-term capital gain (STCG) and taxed in your hands.
- It becomes a 'long-term' capital gain (LTCG) if the asset is held for 36 months or more.
- Shares and equity mutual funds alone enjoy a special dispensation on capital gains tax. In their case, a holding period of 12 months or more qualifies as 'long-term'.
- Current tax laws state LTCG arising on the sale of listed equity shares or equity oriented mutual funds are exempt from tax if you have paid Securities Transaction Tax (STT) on the sale transaction.
- STCG from such shares and funds is also taxable at a flat 15 per cent (plus surcharge and cess).
- The short-term capital loss from financial assets can be set off against any other capital gain.

Why is it important?

- The monthly income is subject to income tax.
- So is the dividend and interest that one earns from investments.
- But suppose the assets one owns do not pay out any regular income by way of interest or dividend, but instead deliver returns by way of price appreciation on the asset, one makes profit when he sell them.
- Capital gains tax is designed to ensure that such windfall profits do not escape the tax net.
- Long-term capital gains on equities is probably exempted, to encourage Indian households to park more of their savings in the stock market, so it can be put to productive use.
- For a saver in India, shares and equity mutual funds are about the only investments where you can hope to make return without much taxation.
- Therefore, any decision to slap a LTCG on equity shares or funds will shut the only avenue for tax-free returns.
- But on the flip side, only 0.7% of the household disposable income in India goes into shares and mutual funds, according to RBI data.
- Also India is home to mere 3 crore equity investors.
- So, it is quite legitimate to ask why shares should get a tax-free status, while small savings and bank FDs are taxed.

10.11 Changes in tax treaties on FPI

Why in news?

- The government has finally brought in changes to Double Tax Avoidance Agreements DTAA's, to ensure that foreign investors using

DTAAs with Mauritius and Singapore do not get away without paying capital gains tax on their investments.

Double Taxation Avoidance Agreement (DTAA)

- A DTAA, also referred to as a Tax Treaty, is a bilateral economic agreement between two nations that aims to avoid or eliminate double taxation of the same income in two countries.

General anti-avoidance rule (GAAR)

- GAAR is a concept which generally empowers the Revenue Authorities in a country to deny the tax benefits of transactions or arrangements which do not have any commercial substance or consideration other than achieving the tax benefit.

Changes in the Tax Treaty

- The DTAAs with these countries were amended this fiscal to the effect that capital gains that arise from shares purchased after April 1 by foreign investors based in these countries can be taxed in India.
- There is, however, a 50 per cent concession on the tax rate from April 1, 2017 to March 31, 2019, if the investors are able to show that they have a substantial presence in these countries. From 2019-20, these investors will be taxed at the full domestic capital gains tax rate.
- Capital gains tax of at least 7.5 per cent can be charged on short-term gains from equity of investors from Mauritius and Singapore over the next two years and 15 per cent thereafter.
- There will be no capital gains tax on investments held for more than a year, in line with domestic regulations.
- The second impact is through the General Anti Avoidance Rules (GAAR) that will be applicable on income earned in 2017-18,

relating to tax assessment year 2018-19. While investments prior to March 31, 2017, are protected from GAAR, any tax benefit that arises from this April due to innovative tax arrangements can be scrutinised and questioned by the taxman.

Will it affect flows?

- While these changes are pretty significant, they might not impact flows materially.
- FPIs have had sufficient time to realign their investment routes. In 2016, FPIs' investment in Indian equity, at 20,568 crore, was among the lowest in recent years.
- While it could be partly due to the lacklustre returns of Indian equity markets last year, the rule changes could also have influenced flows.
- In 2016, equity investments of FPIs from Mauritius declined 5.95 per cent to Rs.3,90,323 crore from Rs.4,15,001 crore towards the end of 2015.
- On the other hand, investments of FPIs from the US increased 5.49 per cent and those from Luxembourg saw a significant jump of 9.35 per cent, implying that alternate routes are already becoming popular.

Implications

- These regulatory changes do not appear to have impacted the investment strategies of FPIs, which mostly moved in tandem with sectoral returns.
- According to NSDL, foreign investor stakes in the metals and mining sector increased 86 per cent in 2016 as prices of these stocks surged last year.
- However investments in software services dropped 9.82 per cent in 2016 as the sector struggled with growing competition. Consumer durables, healthcare and textiles are other sectors where FPIs reduced their holdings.

- Foreign investors using the Mauritius and Singapore routes will have to pay capital gains tax on fresh investments, albeit at a reduced rate for some time. Tax authorities will also have more power to question investments through shell companies set up in tax havens.

10.12 Relaxation in Angel Investment Rules

Why in news?

- To give a fillip to start-up funding, the Securities and Exchange Board of India (SEBI) has relaxed its rules for investment by angel funds, allowing them to invest in up to five-year old entities.

What is 'Alternative Investment Funds'?

- Anything alternate to traditional form of investments (such as stocks, bonds etc.) gets categorized as alternative investments.
- Alternative Investments Funds come under the SEBI (Alternative Investment Fund) Regulations 2012.

Who is an 'Angel Investor'?

- Angel fund, a sub-category of AIF, encourages entrepreneurship in the country by financing small start-ups at a stage where such firms find it difficult to obtain capital from traditional sources of finance such as banks.
- An angel investor is an affluent individual who provides capital for a business start-up, usually in exchange for ownership equity or convertible debt.
- The capital angel investors provide maybe a one-time investment to help the business propel and carry the company through its difficult early stages. Essentially, angel investors are the opposite of venture capitalists.

What's in the latest SEBI circular?

- The regulator has made amendment to SEBI (AIF) Regulations, 2012, following

which the definition of start-up for angel funds investments will be similar to one of Department of Industrial Policy & Promotion (DIPP), as given in their start-up policy.

- Accordingly, angel funds can invest in start-ups incorporated within five years, which was earlier three years.
- To diversify risks, SEBI has also allowed angel funds to make overseas investments, up to 25% of their investible corpus, in line with other AIFs.
- There are many start-ups that require a smaller amount of validating proposition. So, bringing down the limit to Rs.25 lakh from Rs.50 lakh will help such companies raise funds at the initial stage of development.
- Also, the minimum tenure of angel funds' investments in start-ups has also been lowered from three years to one year. And the upper limit for the number of angel investors in a scheme has been increased from 49 to 200.

Why this amendment is much needed?

- In order to further develop the alternative investment industry and the start-up ecosystem in India, SEBI, in March 2015 constituted a committee of experts called Alternative Investment Policy Advisory Committee under the chairmanship of N.R.Narayana Murthy.
- Considering the recommendations in the report, the SEBI board, in November, had approved amendments to AIF regulations with respect to angel funds.
- The amendments are part of SEBI's larger efforts to encourage young entrepreneurship in the country, and provide founders with access to private and eventually public funds.

10.13 National Small Savings Fund

Why in news?

- The Union Cabinet has given its approval to exclude States/UTs from NSSF investments from 01.04.2016.

What is NSSF?

- Prior to April 1999, the disbursement of loans against small savings made to the States and repayment of such loans were recorded in the capital account of the Consolidated Fund of India.
- The on-lending to States from the small savings collections was treated as part of Central Government's expenditure and added to Central Government's fiscal deficit.
- Therefore an increase in small savings collections led to an increase in fiscal deficit.
- Hence National Small Savings Fund (NSSF) in the Public Account of India was established with effect from 1999.
- All small savings collections are credited to this Fund.
- Similarly, all withdrawals under small savings schemes by the depositors are made out of the accumulations in this Fund.

What is the issue?

- The Fourteenth Finance Commission (FFC) recommended that State Governments be excluded from the investment operations of the NSSF.
- The NSSF loans come at an extra cost to the State Government as the market rates are considerably lower.
- The Union Cabinet in accepted that this recommendation will be examined in due course in consultation with various stake holders.

- Barring Arunachal Pradesh, Delhi, Kerala and Madhya Pradesh, the other State Governments/UTs expressed a desire to be excluded from NSSF investments.

What is the current move?

- The involvement of States which are excluded from operations of National Small Savings Fund with effect from 1.4.2016 would be limited solely to discharging the outstanding NSSF debt obligations as on 31.3.2016 (FFC Recommendation).
- The loan contracted by States till 31.3.2016, from the National Small Savings Fund will stand completely repaid by the Financial Year 2038-39.
- Arunachal Pradesh shall be given loans to the tune of 100% of NSSF collections within its territory, whereas Delhi, Kerala and Madhya Pradesh shall be provided 50% of collections.
- NSSF in the future shall, with the approval of Finance Minister, invest on items the expenditure of which is ultimately borne by Government of India and the repayment of principal and interest thereto would be borne from the Union budget.
- The States/UTs with legislators, except Arunachal Pradesh, Delhi, Kerala and Madhya Pradesh, shall be excluded from NSSF investments from 01.04.2016.
- It also approved providing a one-time loan of Rs. 45,000 crore from NSSF to Food Corporation of India (FCI) to meet its food subsidy requirements.

What is the effect?

- Once states are excluded from NSSF investments, the investible funds of NSSF with Gol will increase.
- Increased availability of the NSSF loan to Gol may reduce the Gol's market borrowings.

- The States will however, see an increase in market borrowings.
- Any increase in yields due to an increased demand for loanable funds in the market from Centre and States combined would be marginal.
- The reduction of FCI's borrowing cost equivalent to the extent of the interest differential will be reflected in the Gol's savings on the Food Subsidy Bill.
- Implementing the decision to exclude states from NSSF investments and extending the loan will entail no additional cost. Instead a reduction in the food subsidy bill of the Gol is anticipated.
- 26 other States and Puducherry who are eligible to borrow from the market have preferred to stop taking loans from the NSSF.
- **2. Imports:** Imports during December 2016 were 0.46% higher in Dollar terms and 2.43% higher in Rupee terms over the level of imports in December, 2015.
- Oil imports during April-December, 2016-17 was 10.76% lower than in the corresponding period last year.
- Non-oil imports during April-December 2016 were 6.42% lower than previous year.

II. Trade in Services

- Exports i.e Receipts during November registered a positive growth and imports i.e Payments during the period also increased as compared to negative growth of 7.51% during October 2016.

III. Trade Balance

- The trade balance in both merchandise and Services i.e. net export of Services for November, 2016 was estimated to be lower than that of previous year.
- Also the overall the trade balance has improved. Taking merchandise and services together, overall trade deficit for April-December 2016-17 is 36.78% lower in Dollar terms than the previous year.

10.14 India's Foreign Trade

Why in news?

- RBI released a data on the condition of Indian foreign trade

What is the situation?

I. Merchandise Trade

- **1. Exports :** In consonance with the revival exhibited by exports in the last three months, during December, 2016 exports continue to show a positive growth of 5.72% in dollar terms and 7.79% in Rupee terms as compared to December, 2015.
- Non-petroleum exports during April - December 2016-17 showed an increase of 2.2%.
- The growth in exports is negative for USA (-1.21%), China (-7.45%) and EU (-6.27%) but exhibited positive growth in case of Japan (3.79%) for October 2016 over the corresponding period of previous.

10.15 New Trade Policy

What is the need for new trade policy?

- The technological and socio-economic changes are re-defining the very concepts of productivity and employment.
- Developing country firms no longer have the luxury of time to slowly adapt to change. e.g It took several years to complete the transition from VHS to DVD in India in 1990s but a rapid transition happened from DVD to new media.
- A new group of young middle-class consumers is defining consumer patterns globally and is highly adaptive to new products and technologies.

- Automation and artificial intelligence are increasing in the production of goods and services.
- Therefore India needs to seriously review its overall trade strategy, both in terms of trade promotion schemes and activities, as well as the design of trade agreements and negotiating priorities going forward.
- India has been relatively less successful in leveraging this strength to attract foreign direct investment and associated technology transfers to emerge as a global production hub.
- MNCs attracted by the size of the Indian consumer base often do not expand operations in India to serve as one of their major manufacturing locations.

What are the drawbacks of current policy?

- Trade promotion schemes in India essentially amount to rewarding businesses with incentives after the export activity. This design is flawed because,
 1. It means that the trade promotion incentives are not designed to help a firm attain export competitiveness but reward already successful exporters to improve their margins from trade.
 2. It is not designed for strategic interventions based on value-addition and employment achieved by the firm. Thus it reduces the current regime to being an immediate-term measure rather than a longer-term programme.
- Trade promotion activities remain confined to the traditional 'trade fairs'.
- India's trade promotion environment has not invested in low-cost manufacturing facilities for the development of prototypes. Neither in marketing support for such new products and innovations targeting a global customer base.
- The designs of India's existing trade agreements are archaic.
- The Indian narrative around trade negotiations remain fixated on tariffs that are increasingly less important for market access gains. The new barriers are related to technical and quality standards.

- The ability to do all this well and fairly quickly would determine India's ability to undertake structural change and push for longer-term competitiveness in the first half of this century.

What should be done?

- A trade policy designed to foster successful structural change would have to have the following features
- It should reward value-addition, and promote employment in activities with higher returns to labour i.e more productive sectors.
- It should promote investment in innovation and new product development and help such products find a global market.
- It should ensure fair market access for Indian products subject to stringent technological and quality standards in global markets.
- It should leverage domestic economies of scale to attract FDI in sectors with higher returns to labour.

10.16 Report on Industrial Policy

Why in news?

- The Standing Committee on Commerce submitted a report on 'Industrial Policy in the Changing Global Scenario' recently.

What are the recommendations?

- Industrial reforms - Reforms must be taken up to ensure transparency in the allocation

- of natural resources, an open, competitive mechanism must be undertaken, along with greater disclosure of the approval process for industries.
- Other reforms include industry-friendly land acquisition frameworks by state governments, anti-corruption reforms, better inter-ministerial coordination, and judicial, financial and efficient public procurement reforms.
 - The National Manufacturing Policy must be reoriented to promote smart manufacturing, which includes zero emission, zero-incident, and zero-defect manufacturing.
 - R&D - India's manufacturing value addition of \$226 billion is low, compared to China's \$1,923 billion and USA's \$1,856 billion. In addition, India spends 0.8% of its GDP on research and development, compared to 1.2% by China and 2.6% by USA.
 - Therefore the government needs to provide an enabling environment for private enterprises to invest in technology creation in order to achieve high value addition.
 - Special focus must be placed on machine tools, heavy electrical equipment, transport and mining equipment.
 - FDI in small enterprises - The recent measures taken to promote foreign direct investment (FDI) mainly benefit large industries. The government may take measures to promote FDI in the small and medium enterprises sector.
 - In addition, for FDI in any industry, the ownership may be allowed to be transferred to the Indian partner after a specified period (15-20 years), including the transfer of technology.
 - Foreign investors may be encouraged to source their inputs other than technology, from within India.
 - Simplification of laws - Presently, 35 laws govern the industrial sector. This impedes the setting up of new industries and also affects their survival.
 - A single window system should be established to give all statutory clearances.
 - The labour laws and social security laws should also be reviewed.
 - Inclusion of MSME sector - The Micro, Small and Medium Enterprises (MSME) sector accounts for about 45% of the manufacturing output of the country, and about 40% of the total exports.
 - However, the sector faces issues such as lack of access to credit, technology, infrastructure, and skill development, among others. The access to finance for the MSME sector should be supplemented by alternative sources such as private equity, venture capital and angel funds.
 - The definition of MSMEs should be revised, and a dynamic definition may be developed which is indexed to inflation and international best practices.
 - Skill Development - By 2020, the median age in India is projected to be 28.1 years, as compared to China (38.1 years), Japan (48.2 years) and USA (37.3 years). The planned skill development would help India make productive use of its young population, majority of which is currently in unorganised sector.

10.17 Income Inequality

Why in news?

- A report titled 'An economy for the 99%' is released by the rights group Oxfam, ahead of the World Economic Forum (WEF) annual meeting.

What are the findings?

- Rich - The total wealth in the India stood at \$3.1 trillion and the total global wealth was \$255.7 trillion.

- India's richest 1% now hold 58% of the country's wealth. Only 57 billionaires in the country have the same wealth (\$216 billion) as that of the bottom 70% population.
 - The figure is higher than its global equivalent of about 50%.
 - Globally, just eight billionaires have the same wealth as the poorest 50% of the world.
 - It said that since 2015, the richest 1% has owned more wealth than the rest of the planet.
 - Over the next 20 years, 500 people will hand over \$2.1 trillion to their heirs, i.e. larger than gross domestic product (GDP) of India.
 - Poor - Meanwhile, in the past two decades, the richest 10% of the population in China, Indonesia, Laos, India, Bangladesh and Sri Lanka have seen their share of income increase by over 15%.
 - On the other hand, the poorest 10% have seen their share of income fall by almost 15%.
 - Due to a combination of discrimination and working in low-pay sectors, women's wages across Asia are between 70% and 90% of the men's.
 - Women - India suffers from a huge gender pay gap and has one of the worst levels of gender wage disparity i.e. men earning more than women in similar jobs, with the gap exceeding 30%.
 - Women form 60% of the lowest-paid wage labour but only 15% of the highest wage earners in India. This means women are not only poorly represented in the top bracket of wage earners but also experience wide gender pay gap at the bottom.
 - It also said that more than 40% of women who live in rural India are involved in agriculture and related activities.
 - However, as they are not recognised as farmers and do not own land.
 - They have limited access to government schemes and credit, restricting their agricultural productivity.
 - There is also a routine use of forced girl labour in the world's largest garment firms that have been linked to cotton-spinning mills in India.
 - Also as per ILO, there are 5.8 million child labourers in India.
- What were the recommendations?**
- The report urged the Indian government to end the extreme concentration of wealth to end poverty, introduce inheritance tax and increase the wealth tax as its proportion in the total tax revenue is one of the lowest.
 - The Indian government must crack down on tax dodging by corporates and rich individuals to end the era of tax havens.
 - It must generate funds to invest in health care and education and increase its public expenditure on health from 1% of GDP to three% and on education, from 3% of GDP to 6%.
 - It is time to build a human economy that benefits everyone, not just the privileged few.
- 11. AGRICULTURE**
- 11.1 Drought guidelines and Management Plan**
- Why in news?**
- Tamil Nadu was declared drought-hit recently by the state government. Earlier Kerala also was declared drought-hit due to deficit South-West Monsoon.
- What is Drought?**
- There is no universally accepted standard definition of drought because of its varying characteristics and impacts.

- A drought is a period of below-average precipitation in a given region, resulting in prolonged shortages in its water supply, whether atmospheric, surface water or ground water.
- Drought is a recurrent feature of climate and occurs in all climatic regimes.
- Drought is a temporary aberration unlike aridity, which is a permanent feature of climate.

Why drought is different from other disasters?

- Unlike other natural disasters, drought is different in the sense that
- It is difficult to determine the beginning and end of the event
- Duration may range from months to years
- No single indicator can identify the onset and severity and its impacts
- Spatial extent is usual greater than that for other hazards
- Impacts are difficult to quantify and they usually magnify when events continue from one season to the next.

Why drought recurs in India?

- High average annual rainfall of around 1,150 mm. No other country has such a high annual average.
- Concentration - About 73% of the total annual rainfall is received in less than 100 days during the south-west monsoon and the geographic spread is uneven.
- Variability in rainfall as compared to Long Period Average (LPA) exceeds 30% in large areas of the country and is over 40- 50% in parts of drought prone Saurashtra, Kutch, and Rajasthan.
- Around 33% of the cropped area in the country receives less than 750 mm rain

annually making such areas hotspots of drought.

- Rain-Fed Agriculture - Inadequacy of rains coupled with adverse land-man ratio compels the farmers to practice rain-fed agriculture in large parts of the country.
- Irrigation, using groundwater aggravates the situation in the long term as groundwater withdrawal exceeds replenishment.
- Harvesting - Traditional water harvesting systems have been largely abandoned.

What are the impacts of drought?

- **Economic** - Production losses in agriculture, loss of income resulting in reduction of purchasing power especially among those dependent on agriculture. It also has a multiplier effect on other sectors dependent on agriculture for raw material.
- **Environmental** - Decreased water levels in reservoirs, canals, ponds are the primary environmental impacts leading to decreased availability of drinking water and water for other needs. It will also cause loss of forest cover etc.
- **Social** - Migration of population, withdrawing children from schools, postponement of marriages, sale of assets etc. It will also lead to inadequate food leading to malnutrition and other health hazards.

When is a drought declared?

- The drought is assessed on availability of drinking water, availability of irrigation water, availability of fodder, availability of food grains & energy sector requirement.
- Drought may be declared by the State Government at these levels.
- The following four indicators are usually applied in combination for drought declaration.

1. Rainfall Deficiency - A departure in rainfall from its long-term averages is taken as the basis for drought declaration. The State Government could consider declaring a drought

If the total rainfall received during the months of June and July is less than 50% of the average rainfall for these two months.

If the total rainfall for the entire duration of the rainy season of the state is less than 75%.

2. Area under Sowing - Drought conditions could be said to exist if along with the other indicators, the total area sown by the end of July/August is less than 50% of the total cultivable area.

3. Normalized Difference Vegetation Index (NDVI) - The National Agricultural Drought Assessment and Monitoring System (NADAMS) issues NDVI. These reports provide quantitative information on sowings, surface water spread and District / Tehsil / Taluk / Block level crop condition assessment along with spatial variation in terms of maps.

4. Moisture Adequacy Index (MAI) - It is based on a calculation of weekly water balance, is equal to the ratio of Actual Evapo Transpiration (AET) to the Potential Evapo Transpiration (PET) following a soil-water balancing approach during a cropping season.

What are the classifications of drought?

- In the literature, droughts have been classified into three categories in terms of impact.
- **Meteorological drought** is defined as the deficiency of precipitation from expected or normal levels over an extended period of time.
- **Hydrological drought** is best defined as deficiencies in surface and subsurface water supplies leading to a lack of water for normal and specific needs. Such conditions arise, even in times of average precipitation when

increased usage of water diminishes the reserves.

- **Agricultural drought**, triggered by meteorological and hydrological droughts, occurs when soil moisture and rainfall are inadequate during the crop growing

What are the Relief Measures taken?

- The state governments submit reports on drought condition with all the relevant information and the government of India extends support via various ministries based on these reports. They include
- Allocation of additional days of work under MGNREGA to households in drought affected areas
- Diesel Subsidy Scheme for farmers in affected areas.
- Enhancement of ceiling on Seed subsidy
- Moratorium on farm loans and arrangement for crop loss compensation.
- The public distribution mechanism should be strengthened to provide food and fodder as a measure to sustain the rural economy.
- The government should initiate actions to recharge the groundwater table by building check dams and providing pipeline water and other irrigation facilities.
- Interventions for saving perennial horticulture crops
- Implementation of additional fodder development programme
- Flexible allocation under Rashtriya Krishi Vikas Yojana (RKVY) and other centrally sponsored schemes for undertaking appropriate interventions.
- Availability of seeds and other inputs for kharif.
- SDRF/NDRF funds should be released.

11.2 Tamil Nadu declared Drought-Hit

Why in news?

- The Tamil Nadu government declared a drought on 10 January, 2017.

What is the cause of Drought?

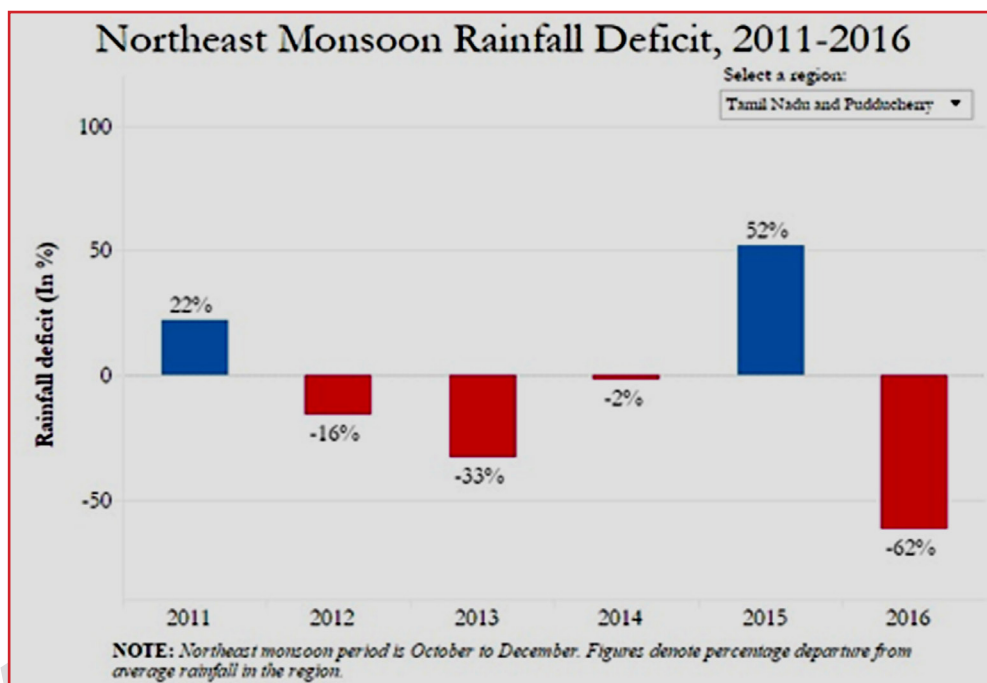
- The retreating northeast monsoon in 2016 was the worst ever over the last 140 years, according to IMD records.
- Northeast monsoon was 45 percent short of the average for this period, the state worst

hit being Tamil Nadu, where rainfall for the season was 62 percent short of normal.

- Even the southwest monsoon – which was classified as normal across India – was 19 percent deficient in Tamil Nadu.

How badly was Tamil Nadu affected?

- After losing the 'kuruvai' crop due to the Cauvery row, the farmers are on the verge of losing the 'samba' too due to an unprecedented drought. With spike in farmer deaths due to debt coupled with cash crunch, Tamil Nadu's farm sector is now in the midst of a huge crisis.



- Hit by shortages from both monsoons, Tamil Nadu, where the winter crop depends more on the northeast monsoon than in any other Indian state, reported a 33 percent drop in the winter sowing of rice, according to latest crop sowing situation report.
- As huge funds were required to protect people from drought, assistance from the Centre would be sought and a petition sent to the Centre at the earliest.
- The measures to tackle drought include efforts to convert crop loans from cooperative banks and commercial banks into medium term loans.
- The days of work for workers under the National Rural Employment Guarantee Scheme would be increased to 150 days from

What are the relief measures announced?

- The CM has announced a slew of relief measures, including waiver of land tax for farmers, to tackle drought situation in the State.

the existing 100 days to ensure livelihood for farmers affected by drought.

- The State government has made allocations for various domains for mitigating the effect of drought. Funds have been allocated especially for improving resources for drinking water.

11.3 Farmers and Farm Labourers Suicide – NCRB Report

Why in news?

- More than 72% of farmers who commit suicide have less than two hectares of land, latest data on farmer suicides compiled by the National Crime Records Bureau (NCRB) shows.
- NCRB report also said that, Agricultural labourers are more likely to commit suicide because of “Family Problems” and “Illness” than the rest of the population in India.

What is the share of land under cultivation?

- According to landholding census by the Ministry of Agriculture, 67.1% of all landholdings are marginal — smaller than 1 hectare.
- While 17.9% are small (1-2 hectares), Medium (2-10 hectares) and large (over 10 hectares) holdings are 14.3% and 0.7% of the total respectively.

What does the NCRB report say?

- Farm labourers are also more likely than farmers to fall into the trap of moneylenders and end their lives.
- Small farmers were 45.2% of all farmer victims, while marginal farmers made up 27.4%.

What are the causes of suicide?

- According to the data, family problems and illness were responsible for nearly 60% of the deaths which is well above the national average of 43%.
- Other prominent causes of suicide among agricultural labourers were Alcoholic Addiction, Poverty, Bankruptcy or Indebtedness from Financial Institutions/ Moneylenders etc.,
- In a general sense, farmers who have alternate sources of livelihood may cope with the crisis better when compared to those who may depend almost entirely on farming. This may be one of the factors separating the marginal from the small farmers.

What is the state-wise distribution?

- Agricultural labourers in Maharashtra were the most suicide prone, followed by Madhya Pradesh, Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat and Kerala.
- These states together accounted for 82.6% of all such suicides in the country during 2015.
- Goa, Manipur and West Bengal, besides all Union Territories except Puducherry, reported no incident of suicide by agricultural labourers during 2015.

How to solve this crisis?

- Our policies should encourage integrated pest management, an approach that focusses on combining biological, chemical, mechanical and physical means to combat pests with a long-term emphasis on eliminating / significantly reducing the need for pesticides.
- In Vietnam, over 2 million of the Mekong Delta’s rice farmers adopted a “no spray early” rule, curbing insecticide applications within the first 40 days of rice planting. Predatory beetles that commonly prey on rice pests were sustained, encouraging the crop while cutting pesticide use by over 50 per cent.

- The local fertilizer industry needs support — timely delivery of subsidies would improve working capital requirements, enabling them to manage costs through internal sources rather than external loans.
- State seed policies should focus on encouraging contract farming, along with identification of new genotypes for treating pest and disease syndromes, as well as adverse weather conditions.
- Precision-farming techniques like Systematic Rice Intensification (SRI) can help increase seed production in this regard.
- Our farm equipment policy needs to be re-tailored with a focus on manufacturing farming equipment and implements that are currently imported.
- Subsidies should be rerouted to ensure lower collateral requirements, longer moratoriums and payback periods for farmers seeking to buy equipments.
- Companies with a corporate social responsibility focus on agriculture can be further encouraged to invest in capacity-building initiatives and skill development.
- We need to ensure that institutional financing is available and accessible. States should seek to establish early warning signals and monitoring farmers. Village-wise lists of deeply indebted farmers must be prepared annually to identify farmers on the flight path to penury and potential suicide.
- NABARD, along with the local administration, should be tasked with analysing such lists for macro and local policy interventions, along with devising timely loan restructuring initiatives, insurance claim settlements and better counselling.

11.4 Silk Self Reliance

Why in news?

- The recent Union Budget announcement of a rise in customs duty on import of raw silk from five per cent to 15 per cent has brought cheer to silk farmers in the southern states.

What is Silk?

- Silk is made of proteins secreted in the fluid state by a caterpillar, popularly known as 'silkworm'.
- These silkworms feed on the selected food plants and spin cocoons as a 'protective shell' to perpetuate the life.
- Man interferes this life cycle at the cocoon stage to obtain the silk.
- Silk production is regarded as an important tool for economic development of a country as it is a labour intensive and high income generating industry.
- Geographically, Asia is the main producer of silk in the world and produces over 95 % of the total global output.
- Bulk of it is produced in China and India, followed by Japan, Brazil and Korea. China is the leading supplier of silk to the world.
- India is the second largest producer of silk and also the largest consumer of silk in the world.

What are the types of Silk?

- There are five major types of silk of commercial importance. These are,
 1. Mulberry
 2. Tropical Tasar
 3. Oak Tasar
 4. Muga
 5. Eri
- Except mulberry, other non-mulberry varieties of silks are generally termed as vanya silks.
- India is home to silkworms that produce all five of the major commercial types of silk in the world.

- Mulberry silk accounts for more than 90% of the total silk production in both India and the world. The worms that produce this silk are domesticated and usually raised in greenhouses, where they feed solely on mulberry bushes.
- Although it is not as highly prized, tasar silk is another key industry in many regions of India.
- However, this type of silkworm is somewhat rare in India and China is the world's largest producer of oak tasar silk.
- Eri silk is predominantly used by tribes in northern India.
- Muga silk has a beautiful golden color and is very highly prized, due to the fact that the worms that produce it only exist in India's Assam region.
- Mulberry silk is produced mainly in the states of Karnataka, Andhra Pradesh, Tamil Nadu, Jammu & Kashmir and West Bengal.
- Non-mulberry silks are produced in Jharkhand, Chattisgarh, Orissa and north-eastern states.

How will the rise in customs duty benefit the domestic industry?

- It will directly benefit farmers and reelers, as this will stabilise the price of cocoons and raw silk in the domestic market.
- Our imports will get reduced and, thereby, it will be an encouragement and inspiration for local rearers to go for import substitutes and buy bivoltine silk.
- It will also boost production-gradable silk in the domestic market, as the increase in duty will bring down the dependence on imported raw silk.
- The rise in import duty will also encourage farmers to take up sericulture on a larger scale and contribute towards quality raw silk production and attaining self-sustenance.

- In total, we are aiming to eliminate imports by 2022.

What is the present demand for silk?

- India is the largest consumer of raw silk in the world.
- Consumption was 28,733 tonnes in 2011-12, while our production was 23,060 tonnes. Of this, mulberry silk output aggregated 18,272 tonnes (79.2 %). The remaining 4,788 tonnes (20.8 %) was Vanya silk.
- The balance of the requirement was met through imports.
- About 5,700 tonnes, particularly mulberry silk of international quality, is imported from China.

What are the measures taken by the Central Silk Board?

- To bridge the gap between demand and supply they have set a target of producing 32,000 tonnes of raw silk, an increase of 39% over the current production during the 12th Five Year Plan.
- The government has planned to encourage silk farmers through various programmes - Cluster Promotion Programme, Catalytic Development Programme, RashtriyaKrishiVikasYojana and others.

11.5 Making Fertilizers cost effective

What is the issue?

- Due to gas scarcity and the difficulty of gas pricing, fertilizer production in India does not inspire confidence for fresh investment. Thus, no fresh investment has happened for the past two decades.

What is the problem in production?

- India is the world's largest importer of fertilizers.

- Since the main ingredient in urea is natural gas, which India lacks, there is large import dependence.
- It imports nearly 10 million tonnes of urea annually i.e one-third of its domestic consumption.
- Also as gas represents 80% of the cost of urea production, even a one-dollar per unit increase in price increases the cost of urea by 10-15% of its international price.
- So, cost-efficient gas is vital for the viability of producing urea in India.
- Subsidy - Farmers in India pay a highly subsidized price for urea, about Rs5,000 a tonne. This implies a subsidy of 60-70% on the international price of urea.
- This large gap is reimbursed to the supplier by the government.
- Food and fertilizer subsidy makes up about 12% of the Union budget, (fertilizer alone was Rs1 trillion).
- Due to this huge burden, domestic producers often face great delays in getting reimbursed by the government. That delay can be deadly to domestic producers, as it represents a substantial part of their revenue.

What is the condition of domestic reserves?

- Around 10 years ago, huge gas reserves were discovered in the Krishna-Godavari basin, off the east coast of India.
- The total reserves were supposed to be in excess of 80 trillion cubic feet.
- This could transform not just fertilizer production but could also meet the cooking, lighting and automobile gas.
- However due to various reasons and disagreements on the price of gas no new fertilizer capacity has come up to take advantage of India's gas find.
- On the other hand, foreign suppliers of urea have to be paid instantly, since otherwise they would stop supplying to India.

What has the government done?

- The government has tried to reform by moving to a nutrient-based subsidy regime to reduce dependency on urea.
- There is now talk of paying cash subsidy directly to farmers using Jan DhanYojana bank accounts but there are problems in identifying beneficiaries.
- In spite of them, there is one move which is worth recounting. It is the joint venture between India and Oman to produce 1.6 million tonnes of urea in Oman. It commenced 11 years ago.
- Since it is expensive to import gas it is planned to convert that gas into urea in situ, and import the urea instead. This production in Oman is completely dedicated to India.
- India also signed a long term contract to utilize gas at less than a dollar per unit.
- It now accounts for almost one-fifth of India's import of urea.

What is the problem in importing gas?

- Volatility - At any given point, the price of gas can vary from half a dollar to \$15 for various end-consumers in the world.
- The benchmark is the spot or futures price at Henry Hub, a natural gas pipeline hub in Louisiana, US. But even that is quite volatile.
- Long-term fixed price contracts are not very common.
- Infrastructure - The transport of gas itself is very costly either through pipeline or in liquefied form.

What should be done in future?

- This is now being replicated at the Chabahar port in Iran to produce another million tonnes of urea using Iranian gas near the port.
- This approach of converting India's vulnerable situation of import dependence for gas, into a joint venture on foreign shores that have abundant gas is a win-win for all.
- Though it goes against the spirit of Make In India, it makes ultimate strategic sense.
- It can be applied to address India's food security by encouraging agriculture-production joint ventures in land-abundant countries.

11.6 Model Land Leasing Bill**Why in news?**

- The central government is persuading the state government to enact the model land leasing law proposed by NITI Aayog.

What is the objective?

- The bill aims to protect the interest of farmers by enabling farmers and farming groups to lease their land for cultivation through a legal document, without dilution of ownership.
- Since Land is a state subject, the model law should be enacted by all states.

What is the need of this bill?

- Land is not only the state subject but also an emotive issue in our country. Thus the legislation on land should satisfy all the stakeholders.
- The need for new law arises after the government failed to amend the land acquisition law, 2015. The amendment was criticized for facilitating the corporate to acquire any land.

What are the provisions?

- The bill legalizes land leasing and terms of lease to be determined mutually by landowner and tenant farmer.
- It allows automatic resumption of land on expiry of agreed lease period, without requiring any minimum area criteria.
- The bill entitles and facilitates tenants access to short-term credit and crop insurance, based on a simple lease agreement
- At present, in a natural calamity, the entire compensation amount is deposited in the name of the landowner and farmers do not get anything. But the model law ensures the tenants get access to institutional credit, insurance and compensation, without impacting the legal ownership right of the holder.
- The Bill would allow leasing in and leasing out of land for agriculture without any restrictions.
- It is also likely to propose setting up of tribunals for disputes, if local settlement mechanisms like Panchayats fail.
- The model law remove clause of adverse possession of land in the land laws of various states.
- The bill also has provisions for termination of leasing based on certain conditions.
- NITI Aayog had consulted the states on the basis of land leasing laws enacted by respective states to make the draft legislation adoptable to all states. Thus it fosters co-operative federalism.

12. SCIENCE AND TECHNOLOGY**12.1 India to Test Fire Nuclear-Capable Ballistic Missile****Why in news?**

- India is about to test launch a K-4 intermediate-range nuclear-capable ballistic missile.

What are the specifications?

- The missile has a range of up to 3,500 km and is capable of carrying a nuclear/conventional payload of more than 2 tonnes.
- It is powered by solid rocket propellants.
- It has been designed to be fired from a depth of 50 meters.
- It uses a Ring Laser Gyro Inertial navigation system.
- It is capable of cruising at hypersonic speed.
- It also features a system of weaving in three dimensions during flight as it approaches its target.
- Indian scientists claim that the missile is highly accurate with a near zero circular error probability.
- India last tested the K-4 missile in April 2016 from aboard in the country's first domestically developed nuclear submarine, the INS Arihant.
- Prior to that the missile was test launched from a submerged platform in March of the same year.
- The K-4 missile deployed aboard boats of the new Arihant-class will give the Indian Navy an undersea nuclear deterrent capability.

What is the issue?

- The announcement of the K-4 trial launch follows Pakistan's first-ever test of a nuclear-capable Babur-3 submarine-launched cruise missile (SLCM), and the surface-to-surface medium-range ballistic missile Ababeel.
- The entire K family of missiles is a series of submarine-launched ballistic missiles (SLBM) developed by India to boost its second-strike capabilities.
- But one of the major problems for India remains is that its submarine force is too noisy.

- Therefore it questions the credibility of its second-strike capability even with the new K-4 missile.
- Also India's nuclear warfare policy is centered on a No First-Use (NFU) doctrine therefore India keeps nuclear warheads demated from missiles.

12.2 Three new additions to the vaccination basket

Why in news?

- The basket of vaccines in India's Universal Immunisation Programme (UIP) was static for many years — until the entry of the Pentavalent vaccine [Diphtheria, Tetanus, Pertussis, Hepatitis B, and Haemophilus B (HIB)], and Japanese Encephalitis vaccines.
- There have been regular additions to the basket since. Two new vaccines — Measles-Rubella (MR) and Pneumococcal Conjugate — are lined up for launch in January and February respectively, and a third, Rotavirus Vaccine, will become part of the UIP in 5 states — from February.

What is rubella?

- More commonly known as German Measles, Congenital Rubella Syndrome, or CRS, is believed to affect about 25,000 children born in India every year.
- Symptoms can include cataracts and deafness, and the disease can also affect the heart and the brain.
- 10-30% of adolescent females and 12-30% of women in the reproductive age-group are susceptible to rubella infection in India.
- The vaccine will be introduced in Goa, Karnataka, Lakshadweep, Puducherry and Tamil Nadu.
- The Health Ministry will run a campaign among children aged 9 months to 15 years before making the vaccine a part of routine

immunisation. Two shots will be given — one between the ages of 9-12 months, the other at age one-and-a-half.

- The monovalent measles vaccine is already part of the UIP basket of 10 vaccines; it will be discontinued once MR is introduced.

What is Pneumococcal Conjugate Vaccine (PCV)?

- PCV is a mix of several bacteria of the pneumococci family, which are known to cause pneumonia — hence 'conjugate' in the name. Pneumonia caused by the pneumococcus bacteria is supposed to be the most common.
- Pneumonia and diarrhoea have long been responsible for the most child deaths in India — approximate estimates say pneumonia is responsible for about 20% of under-5 child mortality in India, of which half are of pneumococcal origin.
- In 2008, the WHO's Child Health Epidemiology Reference Group reported that 5 countries in which 44% of the world's children aged less than 5 years live (India, China, Pakistan, Bangladesh, Indonesia and Nigeria) contribute more than half of all new pneumonia cases annually.
- It estimated around 43 million pneumonia cases (23% of the global total) and an incidence of 0.37 episodes per child-year for clinical pneumonia in India.
- In Himachal Pradesh and parts of Uttar Pradesh and Bihar from March 17. Three doses will be administered at one-and-a-half months, three-and-a-half months and 9 months.
- The annual incidence of severe pneumococcal pneumonia in India was estimated to be 4.8 episodes per 1,000 children younger than 5 years.
- The top five contributors to India's pneumococcal pneumonia burden in terms

of number of cases and deaths were Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan and Jharkhand.

What is Rotavirus?

- Rotavirus infections are the most common cause of diarrhoea in children. The rotavirus vaccine first became a part of UIP in April 2016.
- An estimated 1 lakh children die every year of the disease.
- The vaccine is currently being administered in HP, Haryana, Odisha and AP. From February, it will be a part of UIP also in Assam, Tripura, Rajasthan, Madhya Pradesh and Tamil Nadu.

12.3 India's fight against Leprosy

- 16 years ago, Leprosy was eliminated globally as a public health issue. But, India's fight against leprosy is far from over.
- The WHO asked South-East Asian countries, including India which accounted for 60% of such cases worldwide in 2015, to focus on preventing disabilities in children.

What are the facts?

- According to WHO, leprosy affected 2,12,000 people globally in 2015. India alone reported 1,27,326 new cases, accounting for 60% of new cases globally.
- Of the new cases, 8.9% were children and 6.7% presented with visible deformities. The remaining 10,286 new cases (5%) were reported by 92 countries. Thirty countries reported zero new cases.

Why it is an unacceptable number?

- Though present numbers are a fraction of what was reported a decade ago, they are unacceptable, as an effective treatment for leprosy — multidrug therapy, or MDT — has been available since the 1980s and can fully cure leprosy.

- Global statistics show that 94% of new cases were reported from 14 countries. Only 6% of new cases were reported from the rest of the world.
- India is among the 22 countries considered as having a “high burden for leprosy” along with high transmission by WHO.
- In 2016, WHO launched the Global Leprosy Strategy 2016–2020: Accelerating towards a leprosy-free world, with the aim of reinvigorating efforts to control leprosy and avert disabilities, especially among children still affected by the disease in endemic countries.

How it spreads?

- While the mode of transmission of leprosy is not known, the most widely held belief is that the disease was transmitted by contact between those with leprosy and healthy persons.
- More recently, the possibility of transmission by the respiratory route is gaining ground. There are also other possibilities such as transmission through insects which cannot be completely ruled out.
- In most parts of the world males are affected more frequently than females, often in the ratio of 2:1, according to WHO’s Global Leprosy Report.

What needs to be done?

- World Leprosy Day is observed on the last Sunday of January since 1954. To effectively combat stigma, a multi-sectoral approach is needed.
- Health authorities need to reach out to and include leprosy-affected persons and communities in their programming.
- Laws or regulations that sanction or abet discrimination against persons suffering from leprosy should be repealed.
- A concert of voices should be mobilised to counter harmful social attitudes. NGOs and civil society organisations should be included in campaigns to challenge leprosy-related stigma, and to address discrimination against affected persons and their family members.

- India, which is among the endemic countries, has been advised to include strategic interventions in national plans to meet the new targets, such as screening all close contacts of persons affected by leprosy; promoting a shorter and uniform treatment regimen, and incorporating specific interventions against stigmatisation and discrimination.

12.4 Weaponization of Space

What is the issue?

- China is making serious advances in weaponizing the outer space.

What is the Weaponization of Space?

- The weaponization of space includes placing weapons in outer space as well as creating weapons that will travel from Earth to attack or destroy targets in space.
- For example, The placing of satellites with the intention of attacking enemy satellites, using ground-based direct ascent missiles to attack space assets, jamming signals sent from enemy satellites, using lasers to incapacitate enemy satellites and satellite attacks on Earth targets.
- It is different from the militarization of space. The militarization of space assists armies on the conventional battlefield, whereas via the weaponization of space, outer space itself emerges as the battleground.
- Due to these, space is now sometimes referred to as the “fourth frontier of war.”
- Ballistic Missile Defense (BMD) Systems, which include long-range ICBMs, are used as an auxiliary system capable of destroying space-based assets.

What are China's developments?

- China has been making impressive developments in its ICBM program.
- These ICBMs aimed at and can target U.S. Intelligence, Surveillance, and Reconnaissance (ISR) satellites.
- In 2015 the U.S. Department of Defense's report claimed that along with its civilian space program, China continues to develop a variety of capabilities including "development of directed-energy weapons and satellite jammers."
- China justifies that the loss of critical sensor and communications capabilities could damage the U.S. military's ability to achieve victory or to achieve victory with minimal casualties.

What has been done?

- The United Nations has adopted a number of resolutions calling for negotiations to prevent an arms race in outer space.
- The U.N. Outer Space Treaty provides the basic framework on international space law, saying that space should be reserved for peaceful uses.
- India was one of the 18 members that formed an ad-hoc Committee on the Peaceful Uses of Outer Space at the United Nations.
- India firmly believes in peaceful uses of outer space and has thus denounced space weaponization. It is one of the leading voices in creating the Outer Space Treaty.

What should be done?

- The proper way to solve the arms race in outer space is to develop multi-laterally negotiated controls on weapons in space through a new space treaty.
- Such a treaty should,
 1. Ban the testing, production, deployment or use of weapons in space

2. Ban the testing, production, deployment or use of earth-based weapons which operate into space
 3. Require the notification of all planned space activities
 4. Establish monitoring and verification procedures
- Include procedures for resolving conflicts regarding military use of space and enforcement mechanisms for violations of the treaty. The view of earth itself from outer space presents a perspective of our planet as a unified, interconnected and unique centre of life should not be fought over or destroyed by the folly of war.
 - Thus, space in the 21st Century offers an opportunity to move towards a world of common security and disarmament rather than one of conflict and more arms races.

12.5 Big Data for the next green revolution

What is big data?

- The term "big data" often refers simply to the use of predictive analytics, user behavior analytics, or certain other advanced data analytics methods that extract value from data, and not just to a particular size of data set.
- The availability of data is on the grow because they are increasingly gathered by cheap and numerous information-sensing mobile devices, aerial (remote sensing), software logs, cameras, microphones, radio-frequency identification (RFID) readers and wireless sensor networks

What big data can do?

- **Seed Selection** - Big-data businesses can analyse varieties of seeds across numerous fields, soil types, and climates and select the best.

- **Crop disease** - Similar to the way in which Google can identify flu outbreaks based on where web searches are originating, analysing crops across farms helps identify diseases that could ruin a potential harvest.
- **Irrigation** - Precision agriculture aids farmers in tailored and effective water management, helping in production, improving economic efficiency and minimising waste and environmental impact.
- **Weather** - Advanced analytics capabilities and agri-robotics such as aerial imagery, sensors help provide sophisticated local weather forecasts can help increasing global agricultural productivity over the next few decades.
- **Climate change** - Since, climate change and extreme weather events will demand proactive measures to adapt or develop resiliency, Big Data can bring in the right information to take informed decisions.
- **Food processing** - They help in streamlining food processing value chains by finding the core determinants of process performance, and taking action to continually improve the accuracy, quality and yield of production. They also optimise production schedules based on supplier, customer, machine availability and cost constraints.
- **Loss control** - In India, every year 21 million tons of wheat is lost, primarily due to scare cold-storage centres and refrigerated vehicles, poor transportation facilities and unreliable electricity supply. Big Data has the potential of systematisation of demand forecasting thus reducing such losses.
- **Pricing** - A trading platform for agricultural commodities that links small-scale producers to retailers and bulk purchasers via mobile phone messaging can help send up-to-date market prices via an app or SMS and connect farmers with buyers, offering collective bargaining opportunities for small and marginal farmers.

What are the opportunities and challenges?

- The challenges and opportunities of data is immense in a country like India with 638,000 villages and 130 million with 140 million hectares of cultivable land under 127 agro climatic regions capable of supporting 3,000 different crops and one million varieties.
- Self-driven vehicles can already drive themselves across fields using Global Positioning System (GPS) signals accurate to less than inch of error thus helping farmers plant more accurately.
- But the real potential is what happens when this data from thousands of tractors on thousands of farms is collected, grouped and analysed in real time.
- There is need to formulate a business model wherein value can be captured from the scale of data being captured by different players in the agri-supply chain.
- Companies must act now to focus, simplify and standardise big data through an enterprise-wide data management strategy.

13. ENVIRONMENT

13.1 Graded Response Action Plan

Why in news?

- The union Environment Ministry recently notified a 'Graded Response Action Plan' against air pollution for Delhi and the National Capital Region.

What does a 'graded response' mean?

- The plan was prepared by the Supreme Court-mandated Environment Pollution Control Authority (EPCA).
- A graded response lays down stratified actions that are required to be taken as and when the concentration of pollutants i.e particulate matter, reaches a certain level.

- For eg, at the level of 100 microgrammes per cubic metre ($\mu\text{g}/\text{m}^3$) of PM 2.5 mechanised sweeping and water-sprinkling along roads has to start.
- Traffic police personnel have to ensure smooth flow of traffic, and all pollution control measures that are already in place — such as stopping landfill fires, and enforcing Pollution Under Control (PUC) norms and a ban on firecrackers — have to be imposed strictly.
- The response will change as pollutant levels increase.
- In January 2016, the average PM 2.5 concentration was $211 \mu\text{g}/\text{m}^3$, with concentrations crossing $300 \mu\text{g}/\text{m}^3$ on a few days. If this level persists for more than 48 hours, an emergency will be declared.
- This will mean a return of the odd-even road rationing scheme, ban on construction activity, and no entry of trucks in Delhi unless they are carrying essential commodities.
- The actions under the graded response plan are cumulative in nature i.e the actions under the previous level will be continued along with actions recommended in the current level.

What was the need for such a system?

- According to EPCA, the idea is to put in place graded response actions in a way that the emergency level is never reached.
- The plan focuses on taking progressively tougher actions as pollution crosses each level, without waiting to impose strict measures when the emergency situation has already been reached.
- During the first week of November 2016 — post Diwali — pollution levels were so high that several actions were taken simultaneously, including stopping construction, restricting the entry of trucks into Delhi, and shutting the Badarpur power plant.

- Such knee-jerk reactions will not be required if the graded plan is followed.
- Beijing and Paris have implemented graded action plans over the past few years. Paris recently implemented the odd-even road rationing scheme when PM 2.5 levels crossed $95 \mu\text{g}/\text{m}^3$.
- Several Chinese cities have a road rationing scheme when pollution reaches severe levels.

How will the system work?

- The concentration of pollutants will be communicated to EPCA. This will be an average for the entire city.
- The EPCA will be ensuring implementation of the action plan.
- It will delegate the responsibility to the concerned departments like the municipal corporations of all NCR towns, the traffic police, police, transport departments, Delhi Metro Rail Corporation etc.
- Each body has been set a task that it will have to carry out when EPCA asks it to, based on the concentration of pollutants.

What are the challenges?

- A large number of agencies, from different states, will have to work together.
- Some agencies have already pointed out problems in implementing the plan. e.g Odd-even has to be imposed during an air quality emergency. But the Delhi government has stated that it will be very difficult to implement the scheme without at least a week's notice.
- Thus a system will have to be devised to smooth out these problems.

13.2 New Delhi's first vehicle-free zone

Why in news?

- Connaught Place is going to become the Capital's first vehicle-free zone from February.

- The move will keep out cars and other vehicles from its middle and inner circle roads, during a three-month trial programme.
- Better walking and public transport infrastructure and availability of food plazas attract more people, improving the local economy.

What will be done for commuting?

- Those who want a ride to go from the parking complexes to Connaught Place will be able to hire cycles.
- Battery-operated vehicles will also be made available. The NDMC is going to provide this and the cost will be borne by them.
- Urban design in India is the preserve of State governments and local bodies, which have failed spectacularly to provide a safe, comfortable and accessible experience for walkers.
- Connaught Place is an intensive activity zone dominated by large scale movement of pedestrian traffic, which makes for 80 to 90 per cent of passenger trips.
- The pilot project in the national capital represents a refreshing change, taking a leaf out of the book of global cities that have pedestrianised their landmarks.
- Prominent examples: Times Square in New York and the route along the Seine in Paris, and the curbs on cars in central avenue in Madrid.
- In America, pedestrian injuries decreased after vehicles were removed from Times Square, beginning seven years ago. Globally this has been the trend too when cities curb car use and clean up the air.

What is the loss arising from congestion?

- A study by Transport for London in 2014-15, that found the British capital losing £5.5 billion a year in financial costs arising from congestion.
- In the intermediate phase, many cities find it rewarding to levy a stiff congestion charge on personal vehicles entering designated areas. This is a mature idea and needs to be tested in India, under its ongoing smart cities programme.
- It should be mandated by law that all proceeds would go towards funding walking, bicycling and emissions-free public transport infrastructure.

What will be the real challenge?

- Delhi's real challenge is to meet the demands of capital-intensive public transport. As any Delhi commuter will tell you, mobility is not the problem in the city. Accessibility is.
- Most people rely on private vehicles for their daily commute — for work, shopping etc., — because public transport remains patchy and last-mile connectivity is missing.
- Delhi's collapsing bus system cannot sustain the passenger load that any restriction on private vehicles will shift to it.
- With just 4,121 buses, the fleet size today is at a six-year low. For any anti-car measure to succeed, the government has to fix these basics first.

Why traders oppose the move?

- The traders contend that Connaught Place has ample space for pedestrians but less parking area.
- "CP is a commercial centre not a tourist destination. The moment the inner circle will be made vehicle-free, the outer circle will be choked.

Do the restrictions affect commercial activities?

- Contrary to apprehensions that restrictions affect commercial activity, the experience around the world has been quite the opposite.

- Measures to unclog cities are often posed, wrongly, as detrimental to the economy and efficiency. While cars will continue to remain relevant for longer-distance travel, dense urban areas need relief from excessive motorisation.
- Urban Development Minister has favoured people-centric ideas for Connaught Place, including aesthetic features such as water fountains and areas for relaxation.
- These are not expensive to put in, and State governments must extend the template to all cities and towns, acknowledging the wider social benefits.
- However, these private transactions are rarely accounted for under labels such as “climate resilience” or “climate adaptation.”
- Developing countries fails in securing viability-gap funding either from governments, or multilateral development banks.
- As much of these market activities, products and solutions related to climate resilience remain largely unrecognised.
- Projects to adapt to climate change rarely offer a clear rate of return due to high upfront cost, a longer gestation period capacity constraints and technological limitations.

13.3 Issues in Financing Climate Resilience

Why in news?

- Despite the progress made on several technical fronts at the UN’s climate summit in Marrakesh (COP22) last November, a deadlock persists over climate finance which, despite several international commitments remains marginal to global capital flows.

What are the fiscal constraints?

- Developed countries, however, are fiscally constrained and momentum is gathering around the need to mobilise private and institutional finance in meeting the commitment of \$100 billion a year for adaptation and resilience in the developing world.
- The World Bank estimates that some \$158 trillion worth assets could be in jeopardy without preventable action.

What is the ground reality?

- Many actions to improve climate resilience take place within local markets such as water-efficient irrigation technologies, storm resilient building materials, water harvesting services, flood control, climate resilient crops and seeds.

- No industry has done more analysis on the issue of climate-related risks than the insurance sector, and promising models such as parametric insurance schemes are being piloted across the globe.

What is needed now?

- What is needed is a deeper understanding of the benefits offered by climate resilience to better inform business decisions regarding climate risk transfer schemes such as insurance.
- But insurance against climate risks is prohibitively costly, unavailable or likely to disappear without a strong government support.
- Here the Government should intervene in facilitating privately-funded risk mitigation activities by establishing sound regulatory framework, and market- enabling policies.
- In addition, public vehicles can be efficiently designed to allow the private sector to insure a large portion of risk, while leaving only a residual risk (in very extreme circumstances) to public sector funding.
- Due attention should be given for improving capacity for bankable project development, implementation and monitoring, and evolving commonly acceptable technical standards.

- The financial sector globally needs to develop markets for instruments to invest in resilience main streamed projects.
- Instruments such as catastrophe risk insurance, contingency fund, disaster-relief fund, restoration fund, contingent credit at preferential rate, micro-credits; climate bond, social protection-bond need to be soundly designed and rightly targeted to beneficiaries' needs.
- Improve the quality of project proposals and increase the share of state budget.
- Policy actions need to focus on how the Government can encourage financiers and investor to 'take the long-term view' on climate financing by harnessing the public balance sheet, market incentives, blended finance, environmental legislation, market coherence, encouraging cultural transformation and, enhanced information flows among the stakeholders.
- Majority of the capital intensive items in the State climate plans are mixed actions and contribute to conventional development activities.

Where change is needed?

- Even for the Indian State governments climate finance is evolving as an important avenue to finance their climate change action plan.
- However, climate finance, in its current form, is just the cumulative costs of projects identified under this plan, whereas technically it refers to the incremental cost of 'climate proofing' of the investment that takes into account potential climate risks and, the costs of making the infrastructure more resilient to such risks.
- Thus an analytical framework is necessary to combine potential climate risks with a systematic cost-benefit analysis which can help decision-makers prioritise adaptation measures.
- Favourable policy and institutional actions are important preconditions for successful introduction or scaling up of financial instruments.
- Such actions, through public-private partnership, can help tackle the underlying drivers of inadequate insurance, especially lack of risk awareness or experience with risk management products and practices; unaffordability, especially among lower-income households or small enterprises; and fundamental limits to insurability.
- Examples include agricultural research and extension, irrigation, forestry conservation and urban infrastructure.

13.4 Pollution around Golden Temple

What is the issue?

- Golden Temple, the holiest shrine for Sikhs in Amritsar, attracts approximately seven million tourists in a month. It is gold-plated and almost 430 years old.
- The increasing numbers of tourists, the widening tourism industry and poor waste management have become a serious threat to the temple.
- Amritsar has now been ranked among the 30 most polluted cities in the world in terms of fine particulate matter (PM 2.5) levels in the air, as per WHO reports.

What are the problems?

- About 1.4 million Indians were killed by illnesses related to air pollution in 2013.
- The Management Committee Golden Temple (SGPC) has taken appropriate action to control the pollution generated from the kitchen.
- It has switched from burning wood or coal to cooking with gas and electric machines.

- But the government has done little to control the pollution caused by open construction or the burning of garbage on the narrow streets.
- The mixed waste from across the city is transported every day in garbage-lifting trolleys to Bhagtanwala, which is just a kilometer away from the Golden Temple.
- Around 600 metric tonnes of garbage is generated every day.
- It affects around 60,000 people in its neighborhood.
- The dumping site should be shifted and a waste treatment plant should be built.
- But it has been caught up among various political issues for more than five years now.
- The railways have lost their focus from operation with safety, to peripheral activities like catering, Wifi, bullet trains, etc.
- The quality of maintenance also isn't being monitored. Further, continuous track circuiting which detect rail fractures, is not available on all tracks.

What are the findings of standing Committee Report?

14. DISASTER MANAGEMENT

14.1 Rail Safety

Why in news?

- 39 people have lost their lives after the Hirakhand Express derailed in January. This is the third such horrific incident between Nov 2016 and Jan 2017.

What is the core reason for the mishaps?

- Indian railways is being systematically damaged by successive governments because of the lack of understanding of this organisation's potential.
- The present problem of the railways is that the organisation is on the verge of bankruptcy. Depreciation Reserve Fund (DRF) and Development Fund (DF) are also getting depleted.
- The railways are not generating enough operating cash surplus to even meet daily operating expenses. As a result, the much required replacement of old assets is postponed — knowingly compromising safety.
- Institutional framework -For Indian Railways to ensure safety in the backdrop of inter department differences is difficult. The Committee recommended that a separate department solely entrusted with providing safety and security.
- Under-investment in Railways -The Committee observed that slow expansion of rail network has put undue burden on the existing infrastructure leading to severe congestion and safety compromises.
- Accidents at unmanned level crossings (UMLCs) - In 2015-16, about 28% of the accidents occurred at UMLCs. The Committee recommended measures such as Approaching Train Warning Systems, Train Actuated Warning Systems for giving audio-visual warning to road users about an approaching train should be implemented.
- Accidents due to derailments - One of the reasons for derailment is defect in the track or rolling stock.
- The Committee noted that the Linke Hoffman Busch (LHB) coaches do not witness higher casualties in case of derailments as the coaches do not pile upon each other. So, IR should switch completely to LHB coaches.
- Accidents due to failure of railway staff -The Committee recommended that a regular

refresher course for each category of railway staff should be conducted.

- The course can cover case studies of accidents due to common errors, pattern of working, modernisation and technology upgradation.
- Accidents due to loco-pilots -The Committee recommended that loco-pilots be provided with sound working conditions, better medical facilities and other amenities to improve their performance.
- The location of signals can be uniformly displayed and be linked with visibility, braking distance, and speed.

What is the way forward?

- Indian railways needs to be benchmarked to the Japanese railway system, Shinkansen, which, since 1964, has been carrying millions of passengers with zero fatality.
- We need to go for a generational change in our railway system and completely modernise it with latest technology.
- For this, the government needs a massive investment programme without relying on revenue from the railway's internal generation.

14.2 Bihar Boat Tragedy: An Administrative Failure

Why in news?

- With four more bodies recovered, the death toll in boat tragedy in Bihar rose to 24. The boat carrying over 60 people capsized in the Ganga while coming to the NIT ghat in Patna from Sandalpur area.

Is this an administrative failure?

- The boat disaster is another reminder that safety in public transport remains a low priority for governments. Mishaps in the inland waterways and lakes take a terrible toll of lives regularly, with no effective administrative response.

- In the Ganga Diara tragedy near Patna, a large number of people had apparently crammed themselves into a small vessel for a free ride after witnessing a kite festival.
- The boat involved appears not to have used its engine at the time of the accident, but the absence of safety training for operators is painfully evident.
- The accident has exposed glaring holes in the system in place for water transport in the area: of the 50 private boats that ply on this section of the Ganga every day, over 30 are not registered and none carries life-jackets or safety tubes.
- There is a rule in place that boats shouldn't ply after sunset. But this is often flouted with hardly any government officials present here during normal days.
- Besides, officials said, NDRF teams were not called in as standby for the festival, which is being held annually for the last three years, and has been attracting thousands.
- The capsized boat was pulled out from 15-ft-deep water by the NDRF on Sunday — its front portion was completely damaged. This was obviously the result of serious neglect of safety norms for which accountability must be fixed.

What needs to be done?

- It is essential that a judicial commission be constituted to inquire into the incident, to determine whether the laws on transport using inland waterways are being implemented and to issue directions for the future.
- The Centre should respond to the shameful national record on boat safety by firmly implementing existing laws and introducing new measures along with the States.
- Just last year it expanded the National Waterways programme and notified several stretches of rivers and canals for a new deal for inland water transport.

- Just as in the case of motor vehicles, registration of inland vessels other than small personal non-powered craft must be made mandatory.
- This will help enforce construction standards, subsidy for transport boats, passenger insurance and accident compensation.
- In the latest tragedy, the problem also appears to have been inadequate supply, which forced people to pack themselves into the available boats. If this is true, the Bihar government must own full responsibility and prevent a recurrence.
- This incident must stir the conscience of governments whose duty it is to provide safe and adequate public transport, and one at which it failed badly.
- Most of India's mining is of the reasonably safe open-cast variety while much of the mining in the US is deep underground and much more dangerous.
- India's safety record in underground mining is extremely poor.
- There are also questions about the validity of Indian numbers given the large number of illegal wildcat mines where accidents, let alone fatalities, never make it to the official statistics.

What kinds of fatalities happen?

- India's coal industry has some obvious lacunae. It has among the highest rates of fatalities and injuries from the collapse of roofs and walls in the world.
- Inundation fatalities have also seen an increase in the past few decades. India also has unusually high incidents of accidents caused by the surface movement of heavy machinery – strictly speaking not even a consequence of actual mining activity but a clear sign of administrative failings.

14.3 Safety Standard of Coal Mining

Why in news?

- The Indian government has called for a nationwide safety survey for the country's coal mines after the deaths of 17 miners in the Rajmahal Open Cast Expansion Project in Jharkhand.

How safe is the coal mining in India?

- India's statistics indicate coal mining has become safer over the past few decades.
- Between 1990 and 2015, the average number of serious injuries per metric tonne of coal mined has fallen from 2.7 to 0.27.
- The average number of fatalities has also fallen from 0.69 to 0.07. But much of this is because of the greater mechanisation of mining which massively increases output per miner.
- Government officials like to point out that India's coal mining fatality figures are better than those of the US. But the numbers are not wholly comparable.
- China, for example, has registered some of the biggest gains in mine safety in recent times. Australia has the best safety record of any country.
- The fundamental reason that Coal India and others hesitate at such benchmarks, however, is that all this requires capital expenditure.
- This, in turn, requires a genuine corporatisation and streamlining of these inefficient public sector units.

What is the international scenario?

14.4 Flood Management Emerging Challenges

What is flood?

- A flood is an overflow of water that submerges land which is usually dry.
- Some floods develop slowly, while others such as flash floods can develop in just a few minutes and without visible signs of rain.
- Floods occur due to heavy rainfall when the natural water routes exceed their capacity to hold the entire mass.
- But floods are not always caused by heavy rainfall.
- There are two facets to flooding i.e natural and manmade.
- The manmade component is dangerously mixing up with the natural factors to give flooding propelled by natural factor a more lethal dimension.
- The unnatural factors contributing to flooding are on account of global warming, environmental degradation, poor town and farm planning, growing encroachment upon in the areas which provide outlets to water during rainy season.
- The earthquakes causing damage to Dams could also result in flooding of the downstream area, even in dry weather conditions. But this is not a regular feature and is a once-in-a-while occurrence.

What is the condition in India?

- In India floods are most common and frequently occurring source of disaster.
- The data compiled by the National Flood Commission shows that about 40 million hectares of land area in the country is flood prone.
- Over 60% of the flood damage results from river floods.

- Another 40% is the result of heavy rainfall and cyclones, most of which is in peninsular river basins.
- State wise study shows that about 27% of the flood damage in the country is in Bihar, 33% by Uttar Pradesh and Uttarakhand and 15% by Punjab and Haryana.
- On an average, the area affected by floods annually is about 8 million hectare, out of which the about 3.7 million hectare is cropped area affected.
- The major flood areas in India are in the Ganges-Brahmaputra-Meghna basin which accounts for nearly 60% of the total river flow of the country.

What are the reasons for floods in India?

- **Seasonality** - The rainy season is heavily concentrated in a short span of 3-4 months of the season. It results in heavy discharge from rivers resulting in devastating floods at times.
- **Cloud Burst** - Heavy precipitation and at time cloud bursts in the hills or upstream also floods the rivers. The rivers start spilling over if rainfall of about 15cm or more occurs in a single day. This affects Western coast of Western Ghats, Assam and sub-Himalayan West Bengal and Indo-Gangetic plains.
- **Accumulation of silt** - The Himalayan Rivers having huge ingredients bring in large amount of silt and sand that ultimately get accumulated with no clearing operations taking place for years on. As a result the water carrying capacity of the rivers is drastically reduced, resulting in floods. e.g Jhelum flooding
- **Obstruction** - Obstruction caused by construction of embankments, canals and railway related activities also results in floods.

- Deforestation - Trees play a vital role to hold the surface on mountains and create natural barriers for the rain waters. Therefore deforestation of hill slopes results in the water level rivers suddenly raising and causing floods.
- Town Planning - The new addition to this is the phenomena of urban flooding as witnessed in the metropolitan cities of Mumbai, Chennai, Bengluru and Srinagar.
- The root cause is the rampant migration from rural areas to the cities that has caused immense pressure on land, the failure of the civic authorities in checking encroachment of land which are traditional outlets for the overflowing rivers, poor planning and corruption.
- Monsoon Pattern - These factors are further compounded by irregular pattern of monsoon, unseasonal rains or even shift in the traditional periodicity of Monsoon.
- Cleaning of drains and rivulets near the cities should be accorded top priority.
- Construction of embankments, flood walls, ring bunds, flood control reservoirs should be scientifically carried on.
- Improvement of river channels and surface drainage and most importantly checking erosion of land on river banks are others measures that could help checking the spread of flood.
- Advance town planning and yearly preparations should be done to mitigate the effects of urban planning.
- Flood control as a subject has no clear cut legislative marking. As a subject it is not included in any of the legislative lists of the country that is the Union, the State or the Concurrent lists.
- Issues related to drainage and embankments find a mention in Entry 17 of List II of the State List. That entails that preventing and fighting floods is primarily the responsibility of the state governments.

What should be done?

- Due to technological up gradation the meteorology experts have of late been predicting monsoon and other weather conditions with near perfection. It definitely provides enough time-frame for the government to plan disaster management.
- But it is beyond any scientific means to either design or keep the rain patterns under control.
- Therefore a multi-pronged strategy is needed in consonance with the changing rain patterns to manage floods.
- It will be naive to look at flood management as an isolated subject. It should be seen in the light of environmental degradation, global warming and poor governance at various levels.
- Efforts made by the Centre and the state governments to check deforestation should be intensified. The tree plantation drives at all levels are steps in the right direction.
- The state level set up has water resources departments, flood control board and state technical advisory committee. The Central mechanism has a network of organisations and expert committees constituted from time to time to study advice on flood management.
- The Centre-states mechanism needs to be further strengthen with focus on greater coordination. This has to be a continuous and ongoing system rather than waking up at the time of the calamity only. The Centre and the states through a joint plan should undertake various measures to control floods.

15. INTERNAL SECURITY

15.1 Army Chief Appointment

Why in news?

- The government appointed General BipinRawat as the new Army Chief.

- It triggered widespread debate as two of Gen. Rawat's seniors were superseded in the selection.

What is the Importance to Seniority and merit?

- People within and outside the armed forces are concerned that the time-tested principle of seniority should not be overlooked unless merit is overwhelmingly in favour of an officer lower down in the hierarchy.

The tricky issue here is, how does the government weigh merit without playing favourites?

- An apolitical ethos of the services has been one of the strongest pillars of our democracy.
- Any possibility of senior commanders currying favour with the political leadership would therefore be fraught with grave risks for the nation and its military.

What is the importance of Army Commanders?

- The appointment of Army Commanders has a direct bearing on the selection of the Chief, as service chiefs are selected from amongst them.
- The changing nature of war today covers a spectrum of conflict — nuclear, information, cyber, space, etc.
- It is inevitable, therefore, that the Indian armed forces are going through phenomenal changes in terms of modernisation of weapons, combat systems, and strategic application of military power.
- The Army Commander's role in this entire gambit is pivotal.
- Besides commanding all the forces across the whole of Jammu and Kashmir, Rajasthan, the Northeast, and other places, Army Commanders also participate in national-level decision-making over strategic, operational, training, equipment, personnel

administration and logistic and financial issues. This is a huge set of responsibilities.

What are the present criteria to select the chief?

- There are two criteria to be fulfilled to be elevated to the position of Army Commander: an excellent command of a corps, the highest operational formation, and, in the interest of meaningful stability and continuity in this key appointment, eligible candidates must have two years of residual service before appointment (more or less similar criteria apply to the other two services).
- With these criteria being satisfied, Army Commanders are nominated in the order of seniority.
- At any given time, there could be approximately 14 incumbent corps commanders and approximately five or six more who may have just moved out of their command and who would also be considered to fill vacancies of four or five Army Commanders annually. This would result in only the best being selected.
- Till now, the mandatory requirement of two years of service and seniority at the time of vacancy has resulted in routine elevations to the appointment of Army Commander, merit not being considered.
- The logic was that all officers who had reached that level were considered competent and there was no need to introduce unnecessary competition among them.

What is the need for reform?

- The existing policy is therefore anomalous, wherein for promotion to this level the primary criterion is not merit unlike for all other ranks. Henceforth, the selection of Army Commanders must be made only through deep selection.
- We could consider reducing the stipulation of tenancy of two years to 18 months (it

is already one and a half years in the Air Force and one year in the Navy) to widen the number of eligible candidates.

- As regards the selection process, the three service chiefs (four when a Chief of Defence Staff or permanent Chairman of Chief of Staff Committee is introduced) could constitute the selection board, with the chief of the service concerned presiding.
- A final recommendation could then be sent to the government for approval, as in the cases of select ranks.
- Some other suggestions, such as selection by a triumvirate comprising the Prime Minister, Chief Justice of India and Leader of the Opposition are not relevant in a system so conditioned by exclusive military insight and stringent professional scrutiny at every stage.

15.2 Fake News

Why in news?

- Pakistan's Defence Minister recently threatened Israel with a retaliatory nuclear attack, in response to a fake news report that the Israelis had said they would use nuclear weapons against Pakistan if it sent ground troops to Syria.

What is fake news?

- Fake news is a deliberate creation of factually incorrect content to mislead people for some gain and is becoming an increasingly serious problem.

What is click bait?

- Clickbait is a web content that is aimed at generating online advertising revenue at the expense of quality or accuracy.
- It relies on sensationalist headlines/ thumbnail to attract click-throughs and to encourage forwarding.

- The headlines typically aim to exploit the "curiosity gap", providing just enough information to make readers curious, but not enough to satisfy their curiosity without clicking through to the linked content.

Why is fake news harmful?

- Everyone with an Internet connection and a social media presence is now a content generator.
 - Access to the web at all times on mobile platforms has raised expectations for real-time news and constant entertainment. This coupled with competition among websites and social media platforms has resulted in the proliferation of 'clickbait'.
 - With platforms such as Facebook, that have hundreds of millions of users, news, fake or otherwise, spreads rapidly.
 - While the news may be fake, its impact is real and potentially far-reaching.
 - A recent study from the Pew Research Center found that approximately two-thirds of Americans felt 'fake news' had caused a "great deal of confusion" over current affairs.
 - A man fired an assault rifle in a pizzeria in Washington, D.C. after reading online that it was involved in a child trafficking ring linked to Hillary Clinton.
 - The abundance of fake stories during the U.S. presidential elections has raised concerns about their impact on election results.
 - This has set alarm bells ringing in Europe where several countries are about to go to the polls
 - In India, a fake story said there was a GPS tracking chip embedded in the new Rs.2,000 note.
- ### How should it be tackled?
- Germany is considering imposing a €500,000 fine on Facebook if it shares fake news.

- Italian regulator has asked European countries to set up an agency to combat fake news.
- The danger is these instruments to identify fake news could curb free speech and opinion.
- Therefore such regulation should come from within.
- Social media and news organisations can regulate themselves at different levels through rigorous internal editorial and advertising standards.
- Industry-wide measures, such as adherence to a charter of standards on fake news and imposition of fines on organisations falling short of these, could be done.
- The broad contours of what constitutes fake news need to be defined.
- News and social media companies have a moral responsibility to ensure that they do not, directly or deliberately misrepresent the facts to their audiences and pass them off for news.
- Also, web users should clearly understand the difference between a facts and opinions. For example, climate change is a proven fact. It is not an opinion that a person can choose to believe.
- More importantly they should rely upon on news organisations with facts and sources, for information regarding issues (or simply news for that sake), ranging from Jallikattu to Nuclear Warfare, rather than mixing up the role of social media with it.
- This sudden uptake of online transactions has exposed the existing security gaps in the system which make organisations as well as customers vulnerable to cyber attacks at this critical time.

How the term 'security' is often viewed?

- Security is seen as just another layer to transact hassle-free but it is imperative that security becomes embedded by design rather than as a bolted add-on for payment gateways.

In what ways can the cyberspace be exploited?

- The existing security gaps are ready ground for cyber-criminals to exploit. There are various ways of doing this:
 - by introducing a malicious bug into the system that can skim through privileged information.
 - by introducing rogue applications to lure customers into downloading them.
 - by intensifying hacking attempts and phishing attacks etc.,
- According to research on strategic national measures to combat cybercrime, mobile frauds are expected to grow by to about 65% in India by 2017. About 46% complaints of online banking are related to credit or debit card fraud.
- In the absence of a proper understanding of the security infrastructure and the right policies and assets to protect, businesses and organisations are at a risk.
- India's premier security agency, CERT, has already cautioned bankers and customers to adopt high-end security encryption.

In what ways can the cyberspace be strengthened?

- The shortage of cash happened due to demonetisation has forced people to migrate to online transactions even for their smallest needs.
- The data security infrastructure along with customer-redress mechanisms will have to

15.3 Cyber attacks - Preparedness

Why cyberspace is getting more vulnerable?

be well thought of and the purview of IT laws for cybercrimes will have to be expanded to include mobile-wallet payment systems.

- E-wallet firms will need to invest in the latest technologies to safeguard their gateways against cyber attacks which are quite sophisticated and advanced.
- It is imperative that organisations develop a comprehensive “business-driven” security model that fully integrates with the security requirements keeping in mind the overall business goals and objectives of the company.
- Such a model will help organisations choose their security investments to create the best possible balance between customers’ ease of use and cyber security.
- The RBI has also recently sent out a cyber security framework to be followed by banks, covering best practices.
- To help the Government achieve its goal of Digital India, the RBI has ordered all prepaid payment instrument issuers, which includes all RBI-authorized banks and NBFCs, to get a special audit done of their systems by auditors of CERT-In and comply with the audit report recommendations immediately.
- CISOs (chief information security officers) along with the board of directors now need to take tough decisions to address the business impact of a cyber-attack.
- It is evident that the threat landscape is evolving continuously and the complex layers make cyber security a challenge.

What are the current policies and laws?

- We already have strong cyber security guidelines in place but they are not followed stringently, leading to a ‘gap of grief’.
- The Government is mulling over the almost 15-year-old Information Technology (IT) Act to further strengthen cyber security infrastructure, following demonetisation.
- The Government’s push for stronger cyber security infrastructure is a welcome move, although we still have a long way to go. The illusion of protection from cyber attacks is a thing of past, no one is secure.
- How we minimise the impact with continuous monitoring, early detection and quick response is the key in the world of digital economy. An attack is imminent. It is now up to the organisations to prioritise their cyber security needs and act on it.



PRELIM BITS

16. ART AND CULTURE

Themes of various States in Republic Day Parade

State	Theme	Description
Odisha	DolaJatra	A popular festival celebrated in the state which signifies the journey of Goddess Radha& Lord Krishna for ultimate union in the tradition of Bhakti cult.
Arunachal Pradesh	Yak dance	It is one of the most famous art form of the Mahayana sect of Buddhist Tribes of Arunachal Pradesh.
Manipur	Lai Haroba	It is one of the oldest ritualistic theatres of the world preserved by the Meitei community of Manipur. It is celebrated to worship local deities to bring prosperity and well-being. It is translated as 'Happiness of the Gods'.
Gujarat	The Art and Lifestyle of Kutch	Gujarat's Kutch district is renowned all over the world for its 16 different types of embroidery. The notable ones include the Rogan art and the art of making Bhunga.
Karnataka	Folk Dances	The folk dance of Goravas , the worshippers of Lord Shiva engaged in the traditional ritualistic dance.
Himachal Pradesh	ChambaRumal	It is the finest specimen of Pahari art flourishing in Chamba town of Himachal Pradesh during late 18th century. Scenes from Rasleela, Astanayikaare generally depicted on Rumal.
West Bengal	SharodUtsav	It signals the advent of festive season of " Durga Puja " and it involves displaying elaborate interior and exteriors of Puja pandals, executed by trained artists.
Punjab	JagoAaiya	Jago is a festive dance performed during Punjabi Weddings.
Tamil Nadu	Karakattam	It is a popular folk dance of Tamil Nadu performed in temple festival celebrations in the rural areas of Tamil Nadu.
Tripura	Hojagiri	It is a popular dance form of Reang Tribe.It is performed during bihu, the most popular festival of reang tribes.
Assam	Kamakhya Temple	Kamakhya temple is different from other temples as it has no image or idol for worship. The meaning of Ka-Mai-Kha is the mother progenitor and she is worshipped.

Kala Academy:

- Kala Academy (Academy of the Arts) situated at Campal, a prominent cultural centre run by the Government of Goa.
- It is registered as a society and started in February 1970.
- It is the apex body to develop music, dance, drama, fine art, folk art, literature, etc. and thereby promote cultural unity of Goa. Country's folk and handicrafts Fest will be held every year in the academy.

17. GEOGRAPHY***Gibraltar Arc***

- The Gibraltar Arc is a geological region corresponding to an arc like mountain belt surrounding the Alboran Sea, between the Iberian Peninsula and Africa.
- It consists of the Betic Ranges in southern Spain, and the Rif mountains in North Morocco.
- It is as considered one of the narrowest landforms on Earth.
- A team of scientists recently reconstructed for the first time what the Gibraltar Arc was like 9 million years ago.

First fully Organic State:

- Sikkim, after India's cleanest title, it also becomes the first fully organic state.
- Agricultural lands in the state were gradually converted to certified organic land by implementing practices and principles according to guidelines laid down in National Programme for Organic Production.
- The National Programme for Organic Production standards for production and

accreditation system has been recognized by European Commission and Switzerland.

- Kerala listed in 12 tourist hotspots in the world
- Kerala has been pegged as a 'Destination to Watch' in 2017 and it is the only Indian entry in the list of 12 tourist hotspots brought out by Association of British Travel Agents (ABTA) in its 'Travel Trends Report 2017'.
- The ranking of Kerala in 8th place is higher than premier destinations like the US, South Africa and Vietnam.
- Association of British Travel Agents (ABTA) is one of the UK's largest and most influential bodies of travel agents and tour operators and it releases ranking consist of locations that are expected to capture travellers' imaginations over the next year.

The Great Wall of India

- The Wall that runs for 80 km is located in Madhya Pradesh. It runs between Bhopal and Jabalpur in Madhya Pradesh and cuts through Vindhyan valleys.
- It is the India's longest fortification and second to China's great wall worldwide.
- The barrier is called as 'diwaan' among the locals. It might have been constructed during the Parmar Kingdom of 10th-11th century.

Second capital of Himachal Pradesh

- Dharamshala is declared as the second capital of Himachal Pradesh.
- Dharamshala is located in the Kangra Valley, in the shadow of the Dhauladhar mountains. The major water body at Dharamshala is Dall Lake and Kakeri Lake.

- It is the 'Capital in exile' of The Dalai Lama and also serves as the headquarters for Tibetan government in India. So the region is predominantly influenced by the Tibetan culture
- The Namgyal Monastery in the region serves the devotees of Buddhism.
- The famous festival is Hindu Lohri festival and folk dance is called as "Lhamo".

Hope Island

- In addition to Gahirmatha coast in Odisha, Hope Island also becomes the destination for olive ridleys breeding area.
- Hope Island is a small island situated off the coast of Kakinada in Andhra Pradesh State.

Climate-smart villages

- Madhya Pradesh has started an ambitious plan to develop 1100 climate-smart villages with an aim to prepare farmers to manage the climate change risks.
- The villages in the agro-climatic zones will be taken up under the National Agriculture Development Programme and Indian National Mission on Sustainable Agriculture.
- The focus on Climate-smart villages will be on integrated agriculture which comprises animal husbandry, fisheries in addition to traditional farming.

18. SOCIAL ISSUES

National tribunal for adoption

- The Centre has proposed a dedicated National Tribunal for adoption to deal mounting number of adoption cases.
- Under the amended Juvenile Justice Act of 2015, no judge should keep an adoption-

related case pending for more than two hearings spread over two months.

- In a related matter, The National Commission for Protection of Child Rights -the apex child right's body has prepared the Guidelines for Private Playschools with an important change that no child below the age of three would be allowed to be admitted to any such school.

Gender literature festival

- The world's first "Gender literature festival" will be held in Patna, Bihar.
- It will be organized by the gender resource centre of Bihar's Women Development Corporation.

Socio-Economic Caste Census

- Niti Aayog had setup a panel headed by Sumit Bose, to define poverty line and to identify the beneficiaries for various anti-poverty schemes.
- According to the panel's recommendation, Socio-Economic Caste Census will replace the existing poverty line and the central government has accepted the recommendations.
- Socio-Economic Caste Census was begun in 2011, the first national census to collect caste-based data since 1931.

Existing Poverty lines are

1. Suresh Tendulkar poverty line – Those spending at least Rs.27 in rural and Rs.33 in urban areas in 2011-12 were identified as being above the poverty line.
2. Rangarajan Poverty line – It raised the limit to Rs.32 and Rs.47 for rural and urban areas, respectively.

National Alliance against Online Child Sexual Abuse

- The Ministry of Women & Child Development is to form a National Alliance against Online Child Sexual Abuse and Exploitation.
- The objectives of National Alliance are
 - Developing a comprehensive outreach system to engage parents, schools, communities, NGO partners and local governments as well as police and lawyers to ensure better implementation of the legal framework, policies, national strategies and standards.
 - Bringing a common definition of child pornography including amendment of acts (Information technology Act, POCSO Act).
 - Setting up a multi-member secretariat based in MWCD with a portal inclusive of a hotline for reporting and strengthening existing service delivery systems.
 - Providing a platform for Government/NGOs and other child rights activists for networking and information sharing.
 - Documenting and showcasing success stories and best practices in terms of prevention of online abuse and exploitation of children.
 - Creating awareness among member organisations, parents, teachers, front line service providers and children.

19. GOVERNANCE

Developing Smart cities in India by world countries:

- Leading countries has decided to associate with the development of smart cities in India.

Country	Smart Cities
Japan	Chennai, Ahmedabad and Varanasi.
USA	Visakhapatnam, Ajmer and Allahabad.
UK	Pune, Amaravati(Andhra Pradesh) and Indore.
France	Chandigarh, Puducherry and Nagpur.
Germany	Bhubaneswar, Coimbatore and Kochi.

Gandhinagar – First Model Smart city in the Country

- Under Smart Cities Mission, Ministry of Urban Development has shortlisted Gandhinagar as the first model city in the country to go smart.
- The first phase of the smart city project has been rolled out in the city which has many features from seamless Wi-Fi connectivity to smart sensor-enabled traffic lights based on vehicular traffic density.
- The smart cities mission is to promote cities that provide core infrastructure and give a decent quality of life, sustainable environment and application of smart solution for sustainable and inclusive development.

New initiatives by Google

- My Business Website - It is a free tool which would help make a website in 10 minutes. It is available in English and vernacular languages.
- Primer - It is a free mobile App designed to teach digital marketing skills in a interactive way and it works offline.
- Digital Unlocked - It is an online training programme launched by Google and Federation of Indian Chambers of Commerce and Industry (FICCI). The programme is to empower Indian small and medium businesses with essential digital skills to grow their business and Certified by Google, FICCI and Indian School of Business.

Pravasi Bharthiya Divas

- Pravasi Bharatiya Divas is celebrated in India on 9 January every other year (every year before 2016) to mark the contribution of the overseas Indian community to the development of India.
- Diaspora is a word that brackets people of Indian origin who have emigrated since the 19th century to all corners of the world.
- It commemorates the day Mahatma Gandhi returned from South Africa in 1915.
- It is sponsored by the Ministry of External Affairs
- The 15th edition of Pravasi Divas in 2017 is in Bengaluru.

20. GOVERNMENT INITIATIVES

Saksham – 2017

- Saksham is a month long awareness programme by the Ministry of Petroleum and Natural Gas.
- It is aimed to create awareness towards judicious utilization and conservation of petroleum products and switching to cleaner fuels.
- It is organized by PCRA- Petroleum Conservation Research Association and other oil & gas PSU's under the aegis of Ministry of Petroleum and Natural Gas.

ShaGun

- It is the dedicated web portal launched by Union HRD ministry for the "SarvaShikshaAbhiyan".
- It aims to capture and showcase innovation and progress in the Elementary Education Sector.

Varishtha Pension BimaYojana

- It is a part of Government's commitment for financial inclusion and social security. The scheme will be implemented through Life Insurance Corporation of India (LIC).
- It is to provide social security to elderly persons aged 60 years and above by giving an assured pension at a guaranteed rate of 8% per annum for 10 years.
- The differential return, i.e., the difference between the return generated by LIC and the assured return of 8% per annum would be borne by Government of India as subsidy on an annual basis.

Rail Safety Fund

- The new rail safety fund called "Rashtriya Rail SanrakshaKosh" to be utilized for track improvement, bridge rehabilitation work, improved inspection work etc.
- It is a non-lapsable fund created by Ministry of Finance, since the union and railway budgets will be merged for the first time.
- It receives fund from this year budget allocation and also from the Central Road Fund, which is collected by levying Cess on diesel and petrol for safety-related work.
- It is setup based on the recommendation of a committee headed by Anil Kakodkar, former chairman of Atomic Energy Commission Chairman.

New Programme under National Health Mission

- The Ministry of Health and Family Welfare is launching population based prevention, screening and control programme for five common non-communicable diseases i.e Hypertension, Diabetes, and Cancers of oral cavity, breast and cervix.

- There are many prevention strategies one of which is Population based prevention strategy that targets the whole population e.g a mass-media anti-smoking campaign.
- These interventions are a one size fits all type, with no allowance for targeting specific populations. It is usually expensive and quite economic when calculated on a cost-per-person basis.
- Population-based prevention strategies include:
 1. Legislation
 2. Media-based strategies (including mass media campaigns and reduction in the advertising and promotion of alcohol and tobacco)
 3. Drug education (including school drug education)

21. STATE GOVERNMENT'S INITIATIVES

Health Insurance Schemes

- The government of Karnataka has initiated various health insurance schemes to provide "Tertiary Health Care" for treatment of catastrophic illness through an identified network of super-speciality hospitals.
- Rajiv ArogyaBhagya Scheme - The scheme is specially designed for Above Poverty Line (APL).
- JyotiSanjeevani Scheme - The scheme is to provide health services for the Government Employees.
- Vajpayee Arogyashree Scheme - This Scheme is to provide Health Protection to families living below Poverty line.

22. INTERNATIONAL EVENTS AND INSTITUTES

India and Mercosur bloc

- Mercosur bloc comprises Brazil, Argentina, Uruguay and Paraguay.
- India and the Mercosur bloc have stepped up efforts to expand their preferential trade agreement (PTA) to make greater inroads into the other's market.
- A PTA is a limited free trade agreement where partner countries reduce import duties on a few identified products for the other.

Bhutan & BBIN Pact

- The SAARC declaration at the Kathmandu Summit in Nov, 2014 encouraged Member States to initiate regional and sub-regional measures to enhance connectivity.
- Accordingly, a sub-regional Motor Vehicle Agreement among Bangladesh, Bhutan, India and Nepal (BBIN) was pursued.
- The pact will regulate the passenger, personal and cargo vehicular traffic among BBIN and will promote seamless movement of the same across borders for the overall economic development of the region.
- The ratification of BBIN pact is still pending in Bhutan and it is expected to be ratified.

Raisina Dialogue 2017

- It is an annual conference held in New Delhi and India's flagship conference of Geopolitics and geo-economics.
- It is organized by Ministry of External Affairs in partnership with Observer Research Foundation, an independent think tank in India.

- The first inaugural session was held in March 2016 with the theme “Connecting Asia”. The second edition was held in Delhi with the theme “The New Normal: Multilateralism with Multi-Polarity”.
- IVI, an International Organisation is headquartered at Seoul, South Korea and established based on the initiatives of UNDP.

MoU on MSME Cooperation with IORA

- The Indian Ocean Rim association (IORA) is an international organization headquartered in Mauritius with an objective to promote sustainable development and economic cooperation and liberalization among the member countries bordering the Indian Ocean.
- A MoU on MSME cooperation is now finalized with IORA and IORA special fund was created to carry out the activities under the MoU.
- The focus areas of MoU are,
 1. Finalizing linkages among various MSME organizations and associations in their respective countries.
 2. Exchange best practices and greater involvement of MSME in the global supply chain.
 3. Promote access to finance innovation and explore trade and investment opportunities and participate in trade fairs
- The Association comprises 21 member states and 7 dialogue partners. The members are Australia, Bangladesh, Comoros, India, Indonesia, Iran, Kenya, Madagascar, Malaysia, Mauritius, Somalia, Mozambique, Oman, Seychelles, Singapore, South Africa, Sri Lanka, Tanzania, Thailand, UAE, Yemen
- It is devoted to developing and introducing new and improved vaccines to protect the people against infectious diseases.
- India is a long-term collaborator and stakeholder of IVI since 2007. With the change in governance structure in 2012, India becomes a full member of its governing council with the cabinet approval.

23. NATIONAL INSTITUTES IN NEWS

Indian Skill Development Services

- The Ministry of Skill Development and Entrepreneurship (MSDE) has issued the notification of setting up of Indian Skill Development Services (ISDS).
- The service has been instituted as a formal service in Group ‘A’ category and created for the Training Directorate of the Ministry of Skill Development and Entrepreneurship.
- The Academy for training of the cadre will be National Institute of Skill Development.

24. NATIONAL AND INTERNATIONAL EXERCISES

BRIDGE

- It is the Indo-Oman Air Exercise.
- The fourth edition of BRIDGE is going to be held at Air Force Station at Jamnagar.
- The Royal Air Force of Oman (RAFO) is participating with its F-16 Air defence fighters and this is the first time that RAFO F-16s are participating in an air exercise outside the Gulf Countries.

International Vaccine Institute

- Cabinet approves India’s full membership of the International Vaccine Institute (IVI) Governing Council.

TROPEX:

- Theatre Readiness Operational Exercise (TROPEX) is an Annual inter-service exercise among three wings of Indian Armed Forces.
- The month-long exercise will have ships and aircraft of both the Western and Eastern Naval Commands, as also assets from the Indian Air Force, Indian Army and the Indian Coast Guard exercising together.
- It will also strengthen inter-operability and joint operations in a complex environment.

25. ECONOMY***Service charge at restaurants is discretionary***

- The consumer affairs department has ruled out that the services charges at restaurants are deemed to be accepted voluntarily and if a customer is dissatisfied with the dining experience he/she can have it waived off.
- The Department has asked State governments to sensitise companies, hotels and restaurants regarding these provisions of the Consumer Protection Act, 1986.
- Paytm gets final approval for payments bank
- Paytm, launched three years ago as a mobile wallet, is now aiming to build a new business model in the banking industry.
- By launching payment bank, paytm has focussed on bringing financial services to the un-served Indians.

7th Pay Commission

- Pay Commission is setup intermittently by Government of India to give recommendation regarding changes in salary structure of its employees.

- Justice A.K.Mathur headed the Seventh Pay Commission and suggested 2.5 times hike in basic salary and rate of 3% increment in annual term.
- The 7th Pay Commission revision will not directly apply to autonomous bodies.
- The autonomous organizations manage their affairs without financial support from the central government.
- The pay commission submits its report within four months of its formation to Union Finance Minister and suggestions on allowance shall be referred to committee headed by Finance secretary.

Google Tax

- The Google Tax was announced to introduce a tax on the income as accrued to a foreign e-commerce company outside of India.
- Any person or entity that makes a payment exceeding Rs 1 lakh in a financial year to a non-resident technology company will need to withhold 6% tax on the gross amount being paid as an equalisation levy or Google tax.
- This tax, however, is only applicable when the payment has been made to avail certain B2B services from these technology companies.

Disinvestment in Central PSU

- The Government has created a 'National Investment Fund' in 2005 and the funds from the disinvestment of Central Public Sector Enterprises are added to NIF.
- This was done to uphold the principle that the funds from disinvestment should go back to investment and not to fill fiscal deficit.
- Earlier NIF was under the Department of Disinvestment under Union Finance Ministry

which was renamed as Department of Investment and Public Asset Management (DIPAM).

- Now, the government has transferred the role of DIPAM to Department of Economic Affairs.
- It is now responsible for advising the government on quantum of disinvestment in CPSE and utilization of those funds, if Government retains 51% equity and management control.

Industrial Licensing

- The Ministry of Home Affairs will issue the industrial licences for defence manufacturing which includes electronic aerospace and defence equipment.
- Previously it was issued by Department of Industrial Policy and Promotion (DIPP) under Ministry of Commerce and Industry.
- The participation of private sector in defence manufacturing was allowed since 2001 subject to licensing from DIPP under Industries (Development and Regulation) Act, 1951.
- However with the notification of Arms Rule, 2016, Items configured for military use will be handled by Home Ministry instead of DIPP.

Coal Cess

- In order to financially support clean energy initiatives, Coal Cess on domestically produced and imported coal, lignite and peat production was introduced by the Government.
- The National Clean Energy Fund (NCEF) was created in 2010, under the Ministry of Finance by pooling the collected Coal Cess.

- An Inter Ministerial Group (IMG) chaired by Finance Secretary approves the projects/ schemes eligible for financing under the NCEF.

- NCEF was renamed as “Clean Environment Fund” during 2015-16 budget.

RCEP, FTAAP and TPP

- Regional Comprehensive Economic Partnership (RCEP) is the agreement first mooted in 2011 among 10 countries of the Association of South East Asian Nations.

- The core of this agreement is Free trade among the member countries.

- Besides South East Asian nations, India, China, Japan, South Korea, Australia and New Zealand are part of the arrangement.

- Free Trade Agreement of the Asia-Pacific (FTAAP) is a trade deal involving 21 economies that are part of Asia-Pacific Economic Cooperation (APEC). The trade deal was first mooted in 2006 and the talks were renewed by Beijing in APEC meet in 2014.

- 21 Pacific Rim nations that are part of the APEC were involved in this deal. APEC is a forum created in 1989 to promote free trade in the Asia Pacific.

- Trans Pacific Partnership (TPP) is the proposed trade deal among the 12 Pacific Rim nations excluding China.

- Following the exit of US, the future of TPP has become uncertain.

- RCEP Vs TPP - RCEP is expected to cover standard items such as trade in goods and services, investments and dispute settlements whereas TPP is expected to cover extended areas such as Environment, labour and food safety standards.

- 7 of the 16 signatories of RCEP are members of TPP. They are Australia, Brunei, Japan, Malaysia, New Zealand, Singapore and Vietnam.
- It is listed by the IUCN as near-threatened.
- Though primarily a scavenger, large specimens have been known to kill their own prey and striped hyenas is the smallest of the true hyenas.

Investor – State Dispute Settlement (ISDS)

- ISDS is an instrument of international public law; it is a neutral international arbitration procedure seeks to provide an impartial, law-based approach to resolve conflicts.
- The striped hyena is a monogamous animal i.e the state of having only one mate at any one time and it is nocturnal i.e emerges only in darkness.
- It is a system through which individual companies can sue countries for alleged discriminatory practices.
- They are popularly called as Sky islands.
- It is contained in a number of bilateral investment treaties, in certain international trade treaties, such as NAFTA, the proposed TPP and CETA agreements. It is also found in international investment agreements, such as the Energy Charter Treaty.
- Two new sub-species - Banasura Laughingthrushes (Endangered) and Travancore laughingthrushes (Vulnerable), are identified.
- If an investor from one country (the “home state”) invests in another country (the “host state”), both of which have agreed to ISDS, and the host state violates the rights granted to the investor under public international law, then that investor may bring the matter before an arbitral tribunal.
- The two original species of the family were Nilgiri laughingthrushes (Endangered) and Palani laughingthrushes (Near threatened).

Laughing thrushes in Western Ghats

- The bird species Montane Laughing Thrushes are found only in the peaks of Western Ghats.
- Two new sub-species - Banasura Laughingthrushes (Endangered) and Travancore laughingthrushes (Vulnerable), are identified.
- The two original species of the family were Nilgiri laughingthrushes (Endangered) and Palani laughingthrushes (Near threatened).

Polar Bear Recovery Plan

- The United States Fish and Wildlife Service (USFWS) is an agency of federal government of U.S. which is dedicated to the management of fish, wildlife, and natural habitats. It oversees the threats facing by the polar bears.
- The agency has released the final polar bear recovery plan, which includes provisions for tertiary threats, such as oil spills and excessive hunting.
- The agency had no jurisdiction over greenhouse gas emissions linked to the warming.

26. ENVIRONMENT

Species in news

Striped Hyenas bred at Visakhapatnam Zoo

- Indira Gandhi Zoological Park in Visakhapatnam is the third zoo in the country to have successfully recorded captive breeding of hyenas.
- The striped hyena is a species of hyena native to North and East Africa, the Middle East, the Caucasus, Central Asia and the Indian subcontinent.
- Primate is a biological order that included all the species commonly related to the lemurs, monkeys, apes and humans.

Primate Species

- Primate is a biological order that included all the species commonly related to the lemurs, monkeys, apes and humans.

- The most distinguishing feature of primates is fingernails.
- Primates have large brains relative to other mammals, five fingers, a generalized dental pattern, and a primitive body plan.
- Though primates are found all over the world, they are mainly in regions of Africa, South America, Madagascar and Asia.
- Worldwide, around 60 per cent of the 500 known primate species are threatened with extinction.
- Golden snub-nosed monkey, ring-tailed lemur, Javan slow loris, Azara's night monkey are the important primate species in the tropical and sub-tropical regions.
- It is very tolerant of changes in salinity and most populations are Anadromous.
- It is found abundant in Alaska Lake-Aleknagik.
- Recent Global Climate change prompts the fish to change its breeding behavior.
- It breeds earlier and more often each season in response to earlier spring ice breakup and longer ice-free summers. Thus it breeds more often in a single year.
- Thus the emergence of multiple breeding in a vertebrate as a response to climate change is seen for the first time.
- An Anadromous fish lives in seawater but migrates to freshwater for spawning i.e breeding. Catadromous fish migrate from fresh water down into the sea to spawn.

Rescue plan for the Vaquita

- The Vaquita (*Phocoena sinus*) is a rare species of porpoise.
- They are small toothed whales that are very closely related to oceanic dolphins.
- It is endemic to the northern part of the Gulf of California.
- It is the most endangered marine mammal species in the world.
- IUCN status - Critically Endangered.
- International Committee for the Recovery of the Vaquita (CIRVA) was created by the Mexican Ministry of Environment to eliminate illegal fishing, removing gill nets and relocating remaining Vaquita to a temporary sanctuary and thereby conserving the species.

Three-spined stickleback fish

- The three-spined stickleback fish is endemic to most inland coastal waters north of 30°N.

Global Warming and Climate Change

World Record in Carbon Storing

- The Scandinavian bay in Denmark has the world record in carbon storing due to the presence of potential sea grasses. The carbon stored by them is called Blue carbon.
- Why Denmark bay? – Sea grasses in this bay are more protected and productive. So when the plants die, they remain in the sea and carbon stored by it remains in the meadow itself in the form of sediments.
- Sea grass is not seaweed, but a plant with flowers, leaves and roots. Denmark eelgrass – *Zostera Marina* is the most common sea grass.
- It needs light and grows only in shallow water.

Importance of Sea grass

- Sea grasses are home for many small and large animals including commercial species such as Shrimps, cod and flatfish.
- Sea grasses function as particle filters, keeping the water clean.

Warmest Year

- The year 2016 was the warmest year since record-keeping began in 1880.
- The global average surface temperature last year was 0.94°C higher than the 20th century average and July was the warmest month ever recorded.
- Two phenomena were responsible for this. One was climate change and other was El Nino.
- Previously 2014 was the warmest year and the record was broken in 2015 and subsequently now in 2016 showing a continuous rise in the earth's temperature.
- This is only the second time that the annual temperature record has been broken three years in a row. The previous trio was during World War II.
- All 16 years in our current century rank among the 17 warmest on record.

Doha amendment to Kyoto protocol:

- The Kyoto Protocol signed in 1997, is an international treaty that commits state parties to reduce greenhouse gas emissions. It is operational since 2005.
- Under the Kyoto Protocol, industrialized nations agreed to cut their greenhouse gas emissions below 1990 levels.
- A group of rich and industrialized countries were assigned emission reduction targets with the first commitment period of 2005-2012.

- The Doha amendment was made to Kyoto protocol in 2012 to extend the obligations of the developed countries for the second commitment period of 2012-2020.
- It requires ratification from a total of 144 of the 192 parties of the Kyoto Protocol to become operational. As only 75 countries have so far ratified the Doha amendments it could not be enforced.
- China, Poland, Australia, Mexico, South Africa, Indonesia are some of the countries that ratified Doha amendments.
- India is expected to ratify it this month. US have not ratified the Kyoto Protocol and Canada withdrew from Kyoto protocol in 2012.

Ocean acidification and shell formation:

- The surface layer of the ocean is in equilibrium with the atmosphere.
- Thus any increase in carbon dioxide (CO₂) in atmosphere also increases the CO₂ content in the ocean which further decreases the pH and results in ocean acidification.
- Ocean acidification makes the shellfish and corals difficult to form limestone because acidification causes calcium carbonate to dissolve easily in acidic water.



- Now researchers found a species "single-celled shellfish foraminifera" which makes their shells better in acidic water.
- Foraminifera expel large amounts of hydrogen ions through their cell wall and take up the increased concentration of CO₂ quickly through its cell wall.

- A low acidity prevails inside the organism due to the massive excretion of protons. Under these conditions the ingested carbon dioxide is again converted to carbonate, which reacts with calcium to form lime.

Green Police Force:

- China has set up a new environment police called as “Green Police Force” to combat problems of heavy smog in the cities.
- They will focus on garbage incineration, open air barbeques and burning of wood and other biomass.

Energy Resources

Record trade in Renewable Energy Certificates:

- Renewable Energy Certificate (REC) is instruments awarded electronically in demat form to renewable energy companies to sell the electricity they produce through renewable sources.
- The policies framed under the Electricity Act, 2003, provides framework for the creation of Renewable Energy Certificate to mainly address the mismatch in the availability of Renewable Energy sources and the requirement of distributed licensee to meet the renewable purchase obligation.
- There is a designated central agency that will issue the REC to Renewable Energy (RE) generators and will be exchanged only in the Power Exchanges approved by Central Electricity Regulatory Commission.
- The distribution companies, open access companies, Captive power plants will have the option of purchasing the REC to meet the requirement of RPO.
- Renewable Purchase Obligation is mandated by the State Electricity Regulatory Commission (SERC) to purchase minimum level of renewable energy out of the total consumption.

Various kinds of species

Keystone species

- A keystone species is a plant or animal that plays a unique and crucial role in the way an ecosystem functions.
- Without them, the ecosystem would be dramatically different or cease to exist altogether.
- Its disappearance could affect other species that rely on it for survival.
- Example for keystone species is sea otter. It feed on sea urchins and controls their population. If sea urchins population is not controlled, it would eat up the seaweed, which is a major source of food for the ecosystem
- A keystone species is often, but not always, a predator. Herbivores can also be keystone species.
- For example, In African savannas, elephants are a keystone species. It controls the tree population which makes the grasses thrive and sustain grazing.

Foundation Species

- It refers to the species that creates or maintains an ecosystem.
- It has a strong role in structuring a community and can occupy any trophic level in a food web.
- Corals are one example of a foundation species. It produce the reef structures on which countless other organisms, including human beings, live.
- Other examples of foundation species are hardwood forests, kelp beds, and seagrass meadows.

Umbrella Species

- An umbrella species is a large animal or other organism on which many other species depend.
- Umbrella species are very similar to keystone species, but umbrella species are usually migratory and need a large habitat.
- Protecting umbrella species automatically protect a host of other species.
- Tigers are an example of an umbrella species. Efforts to save wild tigers in forests also accomplish the goal of saving other species there, such as leopards, boars, hares, antelopes, and monkeys.

Indicator Species

- An indicator species is a plant or animal that is very sensitive to environmental changes in its ecosystem.
- Indicator Species gets affected almost immediately by damage from external influences such as water pollution, air pollution, or climate change to the ecosystem and gives early warning.
- Examples of Indicator species
 - Lichens are indicators of air pollution, especially sulfur dioxide.
 - Adult frogs and toads are good indicator species since the skin of the adults is moist and permeable, allowing numerous pollutants entry into their bodies. Tadpoles live in water and indicate water quality issues.
 - Salmons are an indicator species for wetland ecosystems.

Ecosystem Engineers

- These are organisms that create, modify and maintain habitats.

- Ecosystem engineering can alter the distribution and abundance of large numbers of plants and animals, and significantly modify biodiversity.
- The best known examples of ecosystem engineers are humans (*Homo sapiens*).
- Two types of Ecosystem Engineers

1. Allogenic engineers - change the environment by transforming living or nonliving materials around them. Eg. Beavers create dams in the streams, which slows the movement of water. Behind the beaver dam, a pond of still water is formed. This pond is then colonized by animals and plants that typically live in lakes rather than streams.



2. Autogenic engineers - change the environment via their own physical structures, i.e. their living and dead tissues create habitats for other organisms to live on or in. Eg. Trees, corals, and giant kelps are good examples of autogenic engineers.

27. SCIENCE AND TECHNOLOGY

Space

Road-mobile launcher test of Agni-IV

- Agni-IV also called as Agni Prime will be flight tested from a road-mobile launcher on the Abdul Kalam Island (earlier called as Wheeler Island).

- Agni – IV is a two-stage, surface-to-surface missile that is 20 metres long and weighs 17 tonnes.
- It can carry a one-tonne nuclear warhead over a distance of 4,000 km.
- The army has already deployed the missile.

NASA mission to study black holes

- Black holes can heat surrounding gases to more than a million degrees. The high-energy X-ray radiation from this gas can be polarised and vibrating in a particular direction.
- The mission named The Imaging X-ray Polarimetry Explorer (IXPE) with three space telescopes will measure the polarisation of Cosmic X-rays of surrounding gases.
- The mission set for launch in 2020. For the first time it allows astronomers to explore astronomical objects such as stellar and supermassive black holes, neutron stars and pulsars.
- This will allow scientists to find the causes for rise of black holes.

Penitentes on Pluto

- Penitentes are snow and ice features formed by erosion and characterized by bowl-shaped depressions.
- Scientist has found the evidence of penitentes on Pluto using the images from the NASA's New Horizons spacecraft in 2015.
- Until now, Earth is the only planet in the solar system to have Penitentes.
- Unlike in Earth, Penitentes in Pluto are mainly made from methane and nitrogen due to its different environment i.e. thinner air, dimmer sun and much colder conditions. They are much larger than earth's counterparts.

Rogue Planet

- A rogue planet or starless planet is a planetary-mass object that orbits the galaxy directly.
- They have either been ejected from the planetary system in which they formed or have never been gravitationally bound to any star or brown dwarf.

Highest altitude telescope

- China has started the construction of the world's highest altitude gravitational wave telescope – Ngari NO 1, in Tibet to detect primordial gravitational waves, which have never been detected.
- Tibet is considered as the best location in the northern hemisphere to detect the G-waves due to thin air and its dry climate, which reduces the influences of moisture on the primordial sub millimeter G-waves.
- The primordial gravitational waves were created about 13.8 billion years ago by the Big Bang explosion.
- Gravitational waves are ripples in the space-time caused by the disruptive waves from the massive accelerating objects such as neutron stars or black holes orbiting each other.
- The ripples travel at the speed of light through the universe, carrying information about its origin and nature of gravity.

Age of Moon

- The new research on the minerals brought by the "Apollo Mission" to the Moon reveals the new age of Moon. The minerals are called as "Zircons" and it is the best mineral in preserving the geological history of moon.
- The research found that the moon formed only about 60 million years after the birth of solar system.

- The moon was formed by a violent, head-on collision between the early Earth and a planetary embryo called “Theia”.
- The Earth’s collision with Theia created a liquefied moon, which then solidified and most of the moon’s surface was covered with magma right after its formation.
- It has an atmosphere more similar to Venus.
- But the climate of Wolf 1061c is quite chaotic compared to earth, since the orbit around its star changes at a much faster rate than earth. The earth also experiences climate change due to change in its orbit around the sun which resulted in ice age previously.
- Now the earth is in interglacial period.

Cryogenic engine and GSLV MkIII

- CE20 is the new cryogenic rocket engine recently passed the high altitude flight acceptance test.
- It is being developed to power the upper stage for the first flight of the country’s most powerful satellite launcher GSLV-Mark III.
- The cryogenic stage is vital for a GSLV rocket as it gets its final and biggest push in space in this stage.
- GSLV MkIII, will double ISRO’s lifting power for communications satellites by lifting a four-tonne satellite to Geostationary Transfer Orbit (36,000 km high).
- ISRO plans to launch 3,200 kg communication satellite, GSAT-19 via GSLV MKIII.

Habitable exoplanet next to Earth

- The exoplanets are planets that exist outside Earth’s solar system.
- The term “habitable zones” refers to a planet where water could exist in a liquid state on a planet’s surface if there’s sufficient atmospheric pressure.
- Astronomers have located the habitable zone “The Wolf 1061”, a planetary system that is 14 light years away from the Earth.
- One of the planets in the wolf planetary system, Wolf 1061c, is entirely within the habitable zone.

NASA’s new robotic missions

- Lucy and Psyche are two robotic missions to explore asteroids. The Mission will open new windows to the history of our Solar System.
- The Psyche mission will explore 16 Psyche, a giant metal asteroid about three times farther away from the Sun than is the Earth and targeted to be launched in 2023.
- The Lucy Mission will explore the environment of Jupiter’s Trojan asteroids and is scheduled to launch in 2021.

Japan launches first military communications satellite

- The Kirameki-2 satellite is the first military communication satellite launched by H-2A rocket from the Tanegashima Space Center in southern Japan.
- It is the first of three satellites that will replace three civilian ones currently used by Japan’s military.
- The new satellites will allow military units to communicate on a high-speed and high-capacity network.

INSAT-3DR

- INSAT-3DR similar to INSAT-3D, is an advanced meteorological satellite of India launched by GSLV-F05.

- INSAT-3DR will provide service continuity to earlier meteorological missions of ISRO for Earth observation.
- The main application of this satellite includes Climate & Environment observation and Disaster Management as well as search and rescue services and configured with an imaging System and an Atmospheric Sounder.
- The Satellite has a lift-off mass of 2211Kg and placed in Geostationary orbit.

Defence

INS Khanderi

- INS Khanderi is a submarine and second of the navy's six scorpene-class stealth submarines.
- The six scorpene class stealth submarines are built under the Project – 75.
- The first one under project – 75 was INS Kalvari and it was launched in 2015.

Guided Pinaka

- The multiple rocket launcher Pinaka was transformed into a short-range guided missile and thus renamed as Guided Pinaka.
- The guided Pinaka is equipped with a navigation, guidance and control system with a range of 60-65 km.

Multi-barrel rocket Vs Guided Missile

- A Multiple rocket launcher is a type of rocket artillery system with multiple warheads and it was launched simultaneously by an unguided system.
- Guided Missile is a self propelled and launched by a precision guided system and it has 4 components such as targeting/missile guidance, flight system, engine and warhead.

Babur – 3

- Pakistan launched a Submarine Launched Cruise Missile (SLCM), Babur-3, having a range of 450 kilometers.
- It is fired from an underwater, mobile platform and hit its target with precise accuracy.
- It completes Pakistan's nuclear triad i.e a nuclear-armed nation's ability to deliver nuclear warheads from launch systems based on land, in the air and from sea.

28. SCIENCE

Physics

Sonic Boom

- It is the sound associated with the shock wave created by an object travelling through the air faster than the speed of sound.
- When an aircraft passes through the air, it creates pressure waves that travel at the speed of sound. If the plane is traveling slower than the speed of sound, then these waves can propagate ahead of the plane.
- If the plane flies faster than the speed of sound, all of these waves that would have normally propagated ahead of the plane are combined together and enormous amounts of sound energy is generated, sounding much like an explosion.
- It may increase the incidence of vibroacoustic disease i.e a thickening of heart tissue.

Chemistry

Vanadium dioxide (VO₂)

- Vanadium dioxide (VO₂) is a metal with ability to switch from insulator to conductive metal at the temperature of 67 °C.

- Researchers now found that this metal would conduct electricity without conducting heat.
- It contradicts the working of all other conductors which usually conducts heat when it conducts electricity i.e against the Wiedemann-Franz Law.
- The law states that good conductors of electricity will also be proportionally good conductors of heat, which is why things like motors and appliances get so hot when you use them regularly.

Atomic metallic hydrogen

- Scientists have created atomic metallic hydrogen which is the rarest material on the planet.
- Hydrogen is squeezed at a pressure greater than the pressure at the centre of the earth.
- At this extreme pressure solid molecular hydrogen breaks down and the tightly bound molecules dissociate to transform into atomic hydrogen, which is a metal.
- The metallic hydrogen could act as a superconductor at room temperatures.
- It can be used to increase the effectiveness of electric cars, energy production and storage, and transportation system by making magnetic levitation of high-speed trains possible, more efficient.
- When metallic hydrogen is converted back to molecular hydrogen, the energy released during the process can be used as powerful rocket propellant and has high specific impulse among all other propellants.

Biology

New species of Ginger

- The Botanical Survey of India has found a new species of Zingiber (Commonly referred

as Ginger) from the Andaman and Nicobar Islands.

- The species *Zingiber pseudosquarrosus* belongs to genus *Zingiber* and it possess ethno-medicinal uses such as treating abdominal pain and anti-helminthic troubles.

Super wheat

- Researchers in the UK have announced genetically modified “superwheat” that increases the efficiency of photosynthesis to boost yields by 20 to 40 percent. Field trials are expected in 2017.
- The researchers focused on improving the efficiency of photosynthesis, by adding genes from a grass called stiff brome.
- The new GM wheat was found to assimilate carbon dioxide better than conventional wheat.

New technique to detect jaundice

- Jaundice, also known as icterus, is a yellowish or greenish pigmentation of the skin and whites of the eyes due to high Bilirubin levels.
- Bilirubin is a yellow compound that occurs during the body’s clearance of waste products that arise from the destruction of aged red blood cells.
- Levels of Bilirubin in blood are normally below 1.0 mg/dL and levels over 2-3 mg/dL typically results in jaundice.
- High Bilirubin levels may be due to excess red blood cell breakdown, new born jaundice, thyroid problems, liver diseases such as cirrhosis or hepatitis or blockage of the bile duct.
- IIT-Guwahati researchers devised a new technique that uses thumb imprint to detect Bilirubin levels and thereby diagnose Jaundice.

Measles - Rubella Vaccine

- Measles Rubella is also called as German Measles.
- The Measles - Rubella Vaccine under Universal Immunisation Program (UIP) is set to be introduced from next month in few states and UT.
- The UIP has already 10 vaccines such as BCG (Bacillus Calmette Guerin), DPT (Diphtheria, Pertussis and Tetanus), OPV (Oral Polio Vaccine), Hepatitis B, Measles, TT (Tetanus Toxoid), Japanese Encephalitis, Pentavalent Vaccine, Adult Japanese Encephalitis and Inactivated Polio Vaccine.
- In addition to it, Pneumococcal Pneumonia vaccine and Rotavac will also become a part of Universal Immunisation Program (UIP).

Biosimilars and Bioartis

- Biosimilars - a biopharmaceutical drug designed to have active properties similar to one that has previously been licensed.
- Bioartis will be involved in optimising and validating novel diagnosis methods for diseases of marine and animal origin and developing diagnostic kits for such marine diseases.

Diseases in news

Leishmaniasis

- Historically the disease is known as “Aleppo boil”. Recently it becomes a problem among Syrian refugees.
- It is caused by protozoan parasites of the genus Leishmania and is spread by the bite of the sandfly.
- The disease will result in skin ulcerations and then presents with fever, low red blood cells, and enlarged spleen and liver.

- It may occasionally spread to internal organs with fatal consequences.

Oropouche fever

- It is caused by the Oropouche virus and transmitted in humans primarily through the bite of Culex Mosquitoes.
- No direct transmission of the virus from human to human has been documented.
- The incubation period of this disease varies from 4-8 days.
- Symptoms include the sudden onset of high fever, headache, joint pain, and vomiting.
- The outbreaks are reported in the American Countries which includes Brazil, Ecuador, Panama, Peru, and Trinidad and Tobago.

Mayaro disease

- Mayaro virus disease is zoonotic pathogen endemic to certain humid forests of tropical South America.
- It is considered as distant relative of Chikungunya and spread by Aedes Mosquitoes.
- It is characterized by fever, aches and pains and a rash.
- It recently had its appearance in Haiti and it was given the title of “The next Zika”.

Rift Valley Fever

- Rift Valley fever (RVF) is a viral zoonosis that primarily affects animals but can also infect humans.
- RVF virus is a member of the Phlebovirus genus. The virus was first identified in 1931 in the Rift Valley of Kenya.
- The incubation period for RVF varies from 2 to 6 days.

- The majority of human infections results from contact with the blood or organs of infected animals and from the bites of infected mosquitoes
- Till date, no human-to-human transmission of RVF virus has been documented.
- IDI scores are based on the scale of 1-7 and it is computed separately for developed and developing countries and is not comparable.
- Lithuania tops the list of 79 developing economies, Azerbaijan and Hungary at 2nd and 3rd positions respectively.

Elizabethkingia

- Elizabethkingia is a genus of bacteria commonly found in the environment worldwide.
- It has been detected in soil, river water and reservoirs.
- It has caused meningitis in newborn babies and meningitis or bloodstream and respiratory infections in people with weakened immune systems
- India is placed at 60th place, much lower than the neighbouring countries. China (15th), Nepal (27th), Bangladesh (36th) and Pakistan (52nd).
- Norway tops the list in developed economies followed by Luxembourg and Switzerland.

City Momentum Index

- It is released by Jones Lang LaSalle, a real estate services firm headquartered at Illinois, US.
- The Index identifies dynamic cities across the world and it is being discussed at World Economic Forum held at Davos this year.
- Dynamic cities are those that share the ability to embrace technological change, absorb rapid population growth and strengthen global connectivity.
- It also considers socio-economic factors of GDP, population, air traffic, foreign direct investment, growth of commercial real estate, innovation capacity and technological process, access to education, and environment quality.
- According to the index, Bengaluru has been ranked the most dynamic city in the world. It is followed by Ho Chi Minh City in Vietnam and Silicon Valley in the United States.

29. AWARDS

National Geoscience Award

- The National Geoscience Awards are the prestigious awards given by the Ministry of Mines.
- The objective of the award is to honor individuals and teams of scientists for their achievements and contributions in the field of fundamental / applied geosciences, mining and allied areas.
- Keshav Krishna, a scientist at the National Geophysical Research Institute (NGRI) has been selected for the National Geoscience Award for 2016.

30. INDEX AND REPORTS

Inclusive Development Index (IDI)

- The index is computed by World Economic Forum to provide a more complete measure of economic development than GDP growth alone.
- The index has 3 pillars – Growth and Development, Inclusion and Intergenerational Equity and Sustainability.
- The only other Indian city in the top 10 is Hyderabad at the fifth spot.

India Innovation Index

- The World Economic Forum, NITI Aayog, the World Intellectual Property Organization (WIPO) and the Cornell University will work

together to develop an India Innovation Index.

➤ The index will be based on key pillars of innovation like

- the strength of institutions,
- capacity of human capital and research,
- supporting infrastructure &
- the level of business sophistication, among others.

➤ WIPO - It was created in 1967 to encourage creative activity, to promote the protection of intellectual property (IP) and is headquartered in Geneva.

➤ WIPO provides a global forum where intergovernmental organizations, governments, industry groups and civil societies can come together to address IP issues.



IAS PARLIAMENT