

**CURRENT AFFAIRS**

**ANALYST**

**— WEEKLY —**

**Week - 3**

**APRIL, 2019**

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The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

# CURRENT AFFAIRS ANALYST

WEEK-3 (APRIL, 2019)

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**SECTION: A**  
**(MAINS)**

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**CURRENT AFFAIRS**

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## MAKING SENSE OF NYAY

### CONTEXT

- Last week, the Congress party announced its version of a quasi-universal basic income (UBI) scheme by promising an income guarantee of ₹6,000 per month to 50 million “poor” families if voted to power.
- The proposed scheme has been referred to as Nyuntam Aay Yojana, or NYAY.

### ◎ ABOUT:

- An income guarantee scheme is an important policy intervention for securing the objective of reducing both poverty and economic inequality. Money proposed to be given to the poor under ‘NYAY’ scheme would be deposited in the accounts of women.

#### Nyuntam Aay Yojana, or NYAY:

- The scheme aims to guarantee a transfer of Rs 6,000 to every family that earns less than Rs 12,000 per month if the household is a member of the poorest 20% of all households in the population.
- The estimated number of households in 2018 is 25 crore.
- 20% of this number is five crore families. Five crore families multiplied by Rs 72,000 per family per year works out to an annual bill of Rs 3.6 lakh crore.

#### However, several questions around the scheme remain -

- What is the nature of the proposed scheme?
- What is its expected size?
- How will it be financed?
- How will it be delivered to its intended beneficiaries?

### ◎ BACKGROUND:

#### Oxfam India report:

- 73 percent of the wealth generated last year went to the richest one percent, while 67 crore Indians who comprise the poorest half of the population saw one percent increase in their wealth.
- India's top 10% of population holds 73% of the wealth.

### ◎ ANALYSIS

#### How fiscally ambitious is the scheme?

- Given an Indian GDP of around Rs 188 lakh crore in 2018-19, the bill of Rs 3.6 lakh crore as a proportion of GDP is just around 1.9%.

- From 2005-06 to 2013-14, the average annual ratio of ‘revenue forgone’ (which is a measure of exemptions and concessions attracted by direct and indirect taxes) to GDP was of the order of 6.45%. This is mainly assistance to corporate and business interests.
- It is being criticized for supporting the rich, while a prospective programme of a vastly more modest support for the poor is met with the charge of violating fiscal discipline.
- If the net worth of the 831 richest entities in the nation were to be capped at its present level with an annual wealth tax of 10%, then the revenue generated should amount to about 2.4% of GDP.
- The bill for income guarantee is bound to grow if it is indexed for inflation and population growth.
- By the same token the GDP figure should also grow with the growth of per capita GDP and population growth.
- If both the numerator and the denominator should grow at roughly the same rate, the ratio of the income guarantee bill to GDP might be expected to be roughly constant over time

#### • This paves the way for specifying income support not as a fixed amount, but as a fixed share of GDP.

- However, any basic income guarantee scheme involves the problem of cadasterability and conduitability.
  - ▶ Cadasterability refers to the problem of preparing a ‘cadaster’ or list of all the names of eligible beneficiaries, with data on their present incomes
  - ▶ Conduitability refers to the problem of actually physically delivering the benefit of a welfare programme to its beneficiaries.
- The poorest people are the ones that typically do not have access to banks or post office savings accounts, so unless there is concurrent effort (and money) incurred on building this infrastructure, delivery will continue to constitute a major difficulty.

**Why the scheme is important?**

- Absolute levels of poverty have fallen in the country, particularly over the last two decades; from about two in five people living in poverty, it is now down to one in five.
- The concern has now shifted to inequality—not just of incomes, but of opportunities—though it is yet to echo in public policy action.
- The version of neoliberalism ideology influenced growth—which entails lowering of tariffs among other things to enable globalization—has clearly failed to trickle down.
- Identifying the poor may be easy on paper, but extremely difficult in practice.
- The best solution is to make the scheme universal and employ automatic exclusion criteria, like it has been done for ensuring food security.
- The rapid technological changes are exacerbating new kinds of inequalities defined around access to fundamental needs (primary education or healthcare).
- These trends will only perpetuate the growing gap between the rich and poor in newer ways with consequences for an entire lifetime.
- Socio Economic Caste Census of 2011 identified 107.3 million of the total 179.7 million rural households as deprived.
- And within this group of deprived households, 42.2 million (or nearly 40%) were seeing the first generation of literates emerge in the family; and this, six decades after independence.

**The NYAY scheme also poses certain challenges:**

- ▶ The first one concerns fairness: An income of Rs 12,000 a month translates into Rs 1,44,000 a year. Adding numerous other existing in-kind transfers such as subsidized food, house, crop insurance, education and health insurance would likely bring this annual figure to Rs 2,00,000.

▶ In contrast, a hard-working family that earns Rs 3,00,000 must pay a tax of Rs 2,500.

▶ The second issue concerns financial feasibility.

- Based on coverage of 20% families and Rs 6,000 a family, proponents of NYAY have placed the cost at Rs 3.6 trillion - 13% of total GoI expenditures in the 2019-20 budget.
- But many families currently earn less than Rs 6,000 a month, and so will require a transfer of more than Rs 6,000 to cross the threshold of Rs 12,000.
- Also, a lot more than 20% families will have to be covered by the scheme, thereby making NYAY's true cost significantly higher than Rs 3.6 trillion.
- How are such large funds to be freed up?

**If not NYAY, what are other ways to provide a solution?**

- Promote inclusive growth by ensuring that the income of the bottom 40% of the population grows faster than of the top 10% so that the gap between the two begins to close.
- This can be done by encouraging labour-intensive sectors that will create more jobs; investing in agriculture; and effectively implementing the social protection schemes that exist.
- Bring data transparency, produce and make available high quality data on income and wealth.
- Regularly monitor the measures the government takes to tackle the issue of rising inequality.
- Seal the leaking wealth bucket by taking stringent measures against tax evasion and avoidance
- Increasing wealth tax, reducing and eventually do away with corporate tax breaks
- Creating a more equal opportunity country by increasing public expenditure on health and education.
- Create a MGNREGA like scheme with inbuilt skill development and skill India components for urban poor. This programme must weigh in for livelihood parameters.

**Practice Question**

- NYAY appears more as a political commitment to a massive pension scheme, equivalent to cash transfers of Rs 6,000 per month to the poorest 20 per cent households. Critically evaluate the feasibility of the scheme and also comment on the challenges that it may face in its implementation.

# NEED FOR PUBLIC SCRUTINY FOR THE JUDICIARY ON THE LINES OF OTHER INSTITUTIONS AND ORGANS OF GOVERNMENT

## CONTEXT

- Recently, activist S.C. Aggarwal RTI petition in Supreme Court has a hearing and several new demands were made in addition to the original demand that SC and its collegium should accede to the Right to Information (RTI) regime.
- It was argued that the public has a right to know why a certain person was appointed or rejected as a judge. Also, the reasons behind the transfer of judges between High Courts shall be disclosed.

### ◎ ABOUT:

- RTI Act, 2005: An Act for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, the constitution of a Central Information Commission and State Information Commissions and for matters connected therewith or incidental thereto.
- Right to Privacy: The right to privacy is protected as an intrinsic part of the right to life and personal liberty under Article 21 and as a part of the freedoms guaranteed by Part III of the Constitution.

### ◎ BACKGROUND:

- This case has its origin in an RTI application filed in 2007 in which the Public Information Officer (PIO) of the Supreme Court was asked, whether the judges of the Supreme Court had complied with the terms of a resolution.
- The PIO is seeking to invoke among other sections, Section 8(1) (j) of the RTI Act to deny this information.

### ◎ ANALYSIS:

#### Why RTI was introduced?

- It was introduced with the objective of empowering people, containing corruption, and bringing transparency and accountability in the working of the Government.
- The other objective was to counter the Official Secrets Act 1923. Initially Secrets Act was an anti-espionage measure; later it became tool to block information from public.

#### Where RTI is applicable?

- The law talks of "access to information under the control of public authorities". That means that any citizen in India can approach any "public authority" of a body of Government or "instrumentality of State" for the same.
- The ambit was widened even further and made applicable for bodies "owned, controlled or substantially financed" by the Government.

#### Where RTI is not applicable?

- The public authority will be under no obligation to provide such information that might hurt the sovereignty and integrity of India, information that has been forbidden to share by any court of law, information received under confidence by a foreign Government and cabinet papers.
- Agencies like Central Bureau Investigation, Intelligence Bureau, Research and Analysis Wing, Enforcement Directorate are excluded.
- Article 370 of the Constitution confers a special autonomous status to Jammu & Kashmir. And it is out of the ambit of the RTI too. However, it's not that they don't have access. They have to rely on the Jammu and Kashmir Right to Information Act of 2009.

#### Why should RTI in Judiciary be applicable?

- The judges of the Supreme Court adopted a resolution in 1997, in which all judges has committed to disclosing information about their assets and liabilities to the Chief Justice of India.
- The resolution had specifically mandated that the information would remain confidential.
- In 2005, Parliament passed the RTI Act, creating a legal right to demand information held by public authorities which arguably also include the Chief Justice of India.



- Hence all judges being public servants need to disclose their assets and liabilities.
- This is also in line with the landmark judgement in PUCL (2003) and Lok Prahari vs Union of India (2018) in which smaller benches of the court rubbished the privacy claims of the political class while forcing them to publicly disclose not just their assets but also the sources of income.

### **How is the Court defending it?**

- The Constitutional Bench of five judges hearing the arguments said nobody wants a system of opaqueness, but too much transparency may become counter-productive.
- The Chief Justice said that this will not only destroy judge's reputation, but also their family and career.
- He further said that the collegium does not recommend the judges of Supreme Court and High Court casually. It spends 10-15 minutes with each candidate and verifies and many times re-verifies them from many other sources.
- Section 8(1) (j) of the RTI Act: They are seeking to invoke Section 8(1) (j) of the RTI Act which prohibits the sharing of personal information that has no nexus to public activity or which amounts to an unwarranted invasion of privacy unless the larger public interest justifies such a disclosure.
- They say the public servants as a class of employees cannot be forced to disclose their personal assets to the public merely because they hold public posts. For disclosing such information there should be larger public interest such as wrongdoing or impropriety on the part of the public official.
- Privacy a fundamental Right: This non-disclosure of assets is in line with the judgment by the Supreme Court of India in Justice K.S. Puttaswamy (Retd) vs Union of India case. Nine member constitutional bench ordered that- the right to privacy is protected as an intrinsic part of the right to life and personal liberty under Article 21 and as a part of the freedoms guaranteed by Part III of the Constitution, challenging the constitutional validity of the biometric identity scheme Aadhaar.

### **Way forward:**

- The assets are disclosed by the political class. In similar line the judges should also disclose their assets and source of income.
- Judges shall be judged by the same standards that they use to probe other organ of government

and hence several attempts by our judiciary to seek special privileges. For example, recently the Madras High Court asked NHA to create special lanes for judges, as it is embarrassing for VIPs and judges to wait.

- Similarly, in a decision reminiscent of the colonial era, the Registrar General of Allahabad High Court issued a circular on Tuesday directing all officers that whenever they spot a judge passing through within the premises, they should stop and pay highest respect to the lordships. Thus, judiciary itself seeks a high and special status for itself and violates the right to equality frequently.
- As the Chief Justice of India already has information of the assets of the judges and it being a public office, he/she should make available the information in public as per the RTI Act.
- It is true that the privacy is a fundamental right but disclosing the assets does not harm the privacy in any way because salaries are given to judges are from consolidated fund of India (for SC judge)/ state (for HC judge) whose amount is already known.
- When a certain person is appointed or rejected as a judge, public (and the person concerned) should informed of the reasons for the same. This will bring more transparency in the appointment of judges and it will help the person concerned in making informed decisions in his/her future career.
- When a judge is transferred, again the reasons for the same should conveyed to the public (and the person concerned). This will instil confidence in the minds of people on our judicial system.



### **Practice Question**

- **In the today's age of prevalence of individual centric rights, the right to information has unfolding challenges. In context of recent ruling of non- disclosure of appointments, transfers of judges and assets by SC discuss how Right to information can serve a better purpose of welfare of all.**

# RIGHT TO EDUCATION AND CHALLENGES TO EWS CHILDREN: AN ANALYSIS

## CONTEXT

- Successful implementation of the RTE Act has led to an improved net enrollment rate in primary education, infrastructure of schools and increased awareness among the states to abide by the curriculum mandate under the Act,
- However, thousands of EWS children are facing an uncertain future as they reach Class IX. Their parents are being asked to pay fee they cannot afford.

### ◎ ABOUT:

#### Right of Children to Free and Compulsory Education (RTE) Act

- Right to Education Act, 2009 proposed to provide free and compulsory elementary education for children between six and 14 years of age. It was passed **to achieve the vision under Article 21-A**.
- The Act made it **legally binding for state** and local governments to follow the norms laid down under the Act.
- The RTE Act 2009 guarantees **admission to EWS children in private schools for up to 25% of all admissions that take place in schools at the entry level** — nursery, kindergarten and Class I.
- These **children do not have to pay tuition fee** and are to be reimbursed for course material as well as uniforms. **This clause is applicable up to Class VIII**.
- The state can refuse to grant recognition to schools or withdraw recognition that has been conferred, for schools that do not adhere to the prescribed minimum quality, standards and rules.

#### Reserved seats for Economically Weaker Section (EWS):

- The mandate for reservation of 25 per cent seats in private unaided schools for EWS groups was a major step **to bridge the gap between the quality of education** offered by the government and private players.
- The **definitions of disadvantaged groups and weaker sections** have been defined under Section 2, Clauses (d) and (e) of the RTE Act as:
  - A child belonging to **disadvantaged groups** refers to a **child belonging to a Scheduled Caste, Scheduled Tribe, a socially and educationally backward class** or such other group having **disadvantages owing to social, cultural, economic, geographical, linguistic, gender** or such other fact, as may be specified by the appropriate Government, by notification.
  - A child belonging to **weaker section** refers to a **child belonging to such parent or guardian whose annual income is lower than the minimum limit** specified by the appropriate Government, by notification.

### ◎ ANALYSIS:

#### The Rationale behind RTE and EWS:

- **Education is indeed an act of faith and social engineering** — but not quick-fix social engineering.
- In view of the fact that **children take time to socialize** and teachers take time to develop new attitudes and pedagogic skills, the RTE Act provides for admission of disadvantaged and poor children at the entry level, covering pre-school and Class I.
- With these children moving up, the school will gradually have a more diverse population spread across all classes.
- **Progression at this pace will allow children the opportunity to grow up together and create bonds:** bonds that can survive social walls.
- The larger objective is **to provide a common place where children sit, eat and live together for at least eight years** of their lives across caste, class and gender divides in order that it narrows down such divisions in our society.

#### Why thousands of EWS children are facing an uncertain future?

- For hundreds of children — who got admission in Class I at private schools in Delhi, under the EWS quota in 2011 — the move from Class VIII to Class IX has left them staring at an uncertain future.
- Several schools have sent letters to their parents, telling them that if they want their children to continue in school, they will have to foot the bill.
- According to the RTE Act, children are to be provided free education only till Class VIII.
- In Delhi, one is eligible for the EWS quota if the parents' income is less than Rs 1 lakh per annum, or Rs 8,333 per month.
- In many top schools in the city, the fee ranges from Rs 10,000-Rs 30,000 per month, depending on the facilities offered.

#### Unique position of RTI and EWS in Delhi:

- In Delhi, close to 350 schools were given land at institutional rates.

- For a majority of these schools, a clause was added in their lease document that they would have to reserve a certain percentage of seats for children from the EWS category.
- While some were set a responsibility of admitting at least 25% applicants from the EWS category, others were told to reserve 20% or 10%.
- Till the early 2000s, most schools did not follow the requirement.
- In 2004, a Delhi High Court order said all schools built on government land will have to adhere to their lease requirements — a point reiterated in a Supreme Court order in a different case the same year.
- In 2007, the Delhi government's Directorate of Education (DoE) notified that all schools on government land will have to reserve 20% of their seats uniformly for EWS children.

The main issue in Delhi is that the RTE Act provision seems to have gotten mixed up with the Delhi Development Authority provision, under which schools getting land at concessional rate were supposed to set aside some seats for EWS kids.

According to experts, at least 20% children who were admitted under the EWS category will have to be supported till Class XII as it is a requirement of the schools' lease documents.

#### Other significant challenges affecting RTE:

- Whilst the greater emphasis on enrollment levels and infrastructure standards, the Act has been less than successful in providing an adequate focus on quality in education.
- RTE Act only applies to EWS (Economically Weaker Section) children till Class VIII.
- Variations have also been observed even in terms of provisions of entitlements for EWS children across states.
- The government does not keep track of children admitted under the category in private schools.
- Various state rules do not even specify which agency or authority would maintain these records.
- Elementary education forms the basis of mental development in a child, and equips him/her with the analytical skills; confidence and competencies which help pave the way for a successful future for him/her.
- It is imperative for nations to focus their attention on providing quality elementary education to their citizens, especially to the underprivileged sections of the society.

#### What is the way out?

- Nothing is stopping the government from using their majority to pass the resolution to say that the RTE Act for Delhi extends to Class XII. Once

that is done, the state government would have to pay schools for the children they teach, the way it's done currently.

#### Significant government policies/interventions that have shaped the education landscape in India

- 1950: Constitutional mandate**—It made education a directive principle of state policy. It states that "The State shall endeavor to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education to all children until they complete the age of 14 years"
- 1986: National Policy of Education (NPE)** - Its principles state free and compulsory education for all children up to 14 years of age, adequate and satisfactory emoluments and training for teachers, emphasis on the development of languages, equalization of education opportunities, high priority on science education and research, low cost and high quality textbooks for students and examinations to be introduced as a continuous evaluation process for learning assessment.
- 1993: Shri Unnikrishnan Judgment** - The Supreme Court accorded the status of fundamental right to 'free and compulsory education' for all children till they attain 14 years of age.
- 1995: Mid-Day Meal Scheme** - To enhance enrolment, retention and attendance and simultaneously improve nutritional levels among children.
- 1998: Education Ministers' Resolve** - "Universal elementary education should be pursued in the mission mode. It emphasized the need to pursue a holistic and convergent approach towards UEE".
- 1999: National Committee's Report on UEE in the Mission mode** - The Report emphasized the preparation of District Elementary Education Plans for UEE.
- 2001: Sarva Shiksha Abhiyan (SSA)** - Sought to provide useful and relevant elementary education for all children in the age group of six to 14 years by 2010.
- It recognized the need to improve the education system with active participation of the community and envisioned to bridge the prevalent gender and social inequalities, leading to a nationally integrated country.



#### Practice Question

- According to the RTE Act, children are to be provided free education only till Class VIII. Thousands of EWS children are facing an uncertain future as they reach Class IX. Critically analyses of the Right to Education act within this frame of concern.

# DANDI MARCH: BEGINNING OF WOMEN'S PARTICIPATION IN FREEDOM MOVEMENT

## CONTEXT

- 2019 is the 89th Anniversary of Dandi March that took place from 12 March to 6th April in 1930
- Dandi March also marks the beginning of one of the first women movements in modern India.

## ABOUT

### Dandi March

- Mahatma Gandhi led a march to break one of the most widely disliked laws in British India, which gave the state a monopoly over the manufacturing and sale of salt.

### Salt March was notable for at least three reasons:

- It was the first nationalist activity in which women participated in large numbers. The socialist activist **Kamaladevi Chattopadhyay** had persuaded Gandhiji not to restrict the protests to men alone. Kamaladevi was herself one of numerous women who courted arrest by breaking the salt or liquor laws.
- It was the Salt March which forced upon the British the realization that their Raj would not last forever, and that they would have to devolve some power to the Indians. To that end, the British government convened a series of "**Round Table Conferences**" in London.
- Salt Satyagraha brought Mahatma Gandhi to world attention. The march was widely covered by the European and American press.

Gandhiji was released from jail in January 1931 and several long meetings with the Viceroy Irwin were held after that. These culminated into "**Gandhi-Irwin Pact**", saying that civil disobedience would be called off, all prisoners released, and salt manufacture allowed along the coast. The pact was criticized by radical nationalists as Gandhi was unable to obtain a commitment to political independence for Indians.

A notable feature of the Dandi March and second disobedience movement was participation from women. They came out in large numbers like never before and changed the course of modern Indian history.

### Incidents that led to Dandi March

- Anti-Simon Commission did not lead to a wider political struggle in India as Mahatma Gandhi was waiting for right opportunity to launch a nationwide struggle. However there was popular enthusiasm in the country which was reflected in Congress session of 1929.

- Lahore session of 1929 headed by Jawaharlal Nehru gave voice to the new militant spirit of Indian people. Poorna Swaraj resolution that demanded complete independence was passed in this session and launching of second Civil disobedience movement was also announced.

### Women Participation in Freedom Struggle

- Apart from Rani Lakshmibai, 1857 Revolt saw many stalwart women participants in the freedom struggle that have gone down as legends in the history of Indian Independence. Rani Avantibai Lodhi of Ramgarh, Rani Tace Bai, Rani Jindan Kaur, Jhalkaribai and Uda Devi. Savitri Bai Phule, the first female teacher in a first women school also opened a school for the untouchables and worked tirelessly for women rights. Helping her was Tarabai Shinde known for her published work *Stri Purush Tulana* considered as one of the first modern Indian feminist perspectives.
- The Swadeshi Movement with its seed in the partition of Bengal in the year 1905, the Indian National Movement took a major leap forward. Women folk both from the rural and urban population from Bengal and other parts of India became actively involved in politics. They joined men in protesting the division by boycotting foreign goods and only buying swadeshi goods. Instances are found women even joining the extremist ventures during the Swadeshi Movement. Nanibala Devi a women from Bengal was an active worker of Jugantar group an extremist organization from Bengal led by Amarendranath Chattopadhyaya. With the advent of Mahatma Gandhi in the political scenario the participation of Indian women achieved a new fillip.
- 19th and 20th century saw the freedom struggle take full swing and women from across all castes and class took the baton of being equally responsible and dedicated to the national cause. Some of these women like Sarojini Naidu, Madame Bhikaji Cama, Kalpana Dutta, Annie Besant, Vijaylakshmi Pandit, Matangini Hazra



## ◎ ANALYSIS

- Salt movement of 1930 led to an unprecedented movement of middleclass women out of their homes in the cause of the nation's struggle. It was chosen as an opportunity for women to be part of the movement in a visible and prominent manner.
- Once the salt satyagrahas began, women started pouring out on to the streets. Sarojini Naidu led the protest at the Dharasana Salt Works, but there was another glorious group of marching women who made its way to Chowpatty Beach on the same day that Gandhi made salt at Dandi. It was led by Kamaladevi Chattopadhyay. They carried makeshift stoves and chulhas, and, after a few hours of making salt, were raided by the police. More housewives joined in, armed with pots and pans. Later, the salt was sold outside the Bombay Stock Exchange and Bombay high court.
- Although many of these women had never participated in public life before they started organizing prabhat pheris, or morning processions, on the streets of Bombay and Ahmadabad, where they sang songs about the bounty of the motherland.
- The act of stepping out into the streets was legitimized for middleclass women by extending the concept of the nation as "family". Thus this construct of "extended family" was used to show that public activities could be perceived as natural extensions of household roles, thus enabling women to step out of their homes.
- Some historians believe that these women had to follow a clear code of conduct in the public space. They were expected to maintain the non-violent, self-sacrificing, benevolent image of the domesticated wife and mother. For instance, women covered their heads while going on prabhat pheris. Married women had to return back soon to their homes and they could only join processions after they had fed their family members or only after the permission of their guardians.
- The perception of "respectability" and class consciousness was also prominent. As the Hindu nationalist women's organization Desh Sevika Sangha in Bombay stressed the importance of recruiting women from the "upper class only". Devadasi community in Bombay participated in the salt movement in a limited way as the stress

on segregation was prevalent. Women from the families of male leaders were the first to step out.

- Despite limitations Salt movement saw powerful women's demonstrations. In Delhi Arya Samaj leader Swami Shraddhanand's daughter Satyavati Devi led a demonstration which included professional women, students, artists and housewives and peasant women.
- When Congress headquarters in Bombay was raided on 13 April. It was women who formed human shields on the streets to block their path. They faced brutal lathi charges, and a record number ended up in prison for the first time in the history of the subcontinent.
- Thus these women who had till now led sheltered lives were now an inspiration for other women to claim public space. Gandhi and other Congress leaders, along with many of the women leaders, invoked the traditional patriarchal notion of women's role and femininity by urging them to step outside the threshold of their homes.

## Conclusion

- In this way, Dandi March can be seen as a turning point in the "public" participation of Indian women for a political cause India has produced great women throughout her long political, social and cultural history.
- Heroic role of women in winning freedom for their mother land as well as for themselves is an inspiration for women all over the world. They faced bullets and lathis and this speaks of their valor and spirit of nationalism and patriotism.
- India was one of the earliest states in the world that saw female head of the state. Currently also females occupy important positions in cabinet in defense and foreign portfolio. They were allowed to vote right from the first general elections after the independence of India in 1947. Equality in all aspects including voting rights, employment, wages, education etc. has been granted. This is a major feat especially because many developed economies like USA, France and England granted it only after prolonged struggle.

## Practice Question

- Dandi March was a critical event in the participation of Indian women in the freedom movement. Critically Analyze.

# LANGUAGE AND CIVILIZATION

## CONTEXT

- President's award was presented to scholars of Sanskrit, Pali, Prakrit, Arabic, Persian, Telugu, Kannada, Odia and Malayalam for their service in the preservation and development of classical languages at an event organized by the Ministry of Human Resource Development.
- Government of India has awarded these scholars for keeping alive the traditional knowledge and acting as the intellectual bridge between the past and the present.

### ◎ ABOUT:

- Language is a tool for intellectual and emotional expression. It acts a bridge between civilizations.
- The civilizations for which written history is not available or is not deciphered yet, are put in pre-historic categories.
- Indus Valley Civilization is a classic example of pre-historic society since its scripts are not deciphered yet.
- Script and language, along with strong vocabulary and grammar provides a fertile ground for the spread of language.

### ◎ BACKGROUND:

- India is a multilingual country where more than 19,500 languages or dialects are spoken. So much is the importance of language that the great Indian poet Acharya Dandi had said that if the light of language does not exist, we will be groping in a dark world. Since India is highly diverse, almost 97 per cent of the population speaks one of the 22 scheduled languages.

### Initiatives to Conserve and Promote Languages

#### ● Constitutional provisions relating to Eighth Schedule:

- ▶ Eighth Schedule was intended to promote the progressive use of Hindi and for the enrichment and promotion of that language.
- ▶ Related provisions occur in article 344(1) and 351 of the Constitution.

#### ● List of languages in the Eighth Schedule:

- ▶ (1) Assamese, (2) Bengali, (3) Gujarati, (4) Hindi, (5) Kannada, (6) Kashmiri, (7) Konkani, (8) Malayalam, (9) Manipuri, (10) Marathi, (11) Nepali, (12) Oriya, (13) Punjabi, (14) Sanskrit, (15) Sindhi, (16) Tamil, (17) Telugu, (18) Urdu (19) Bodo, (20) Santhali, (21) Maithili and (22) Dogri.
- ▶ Of these languages, 14 were initially included in the Constitution.
- ▶ Sindhi language was added in 1967.

- ▶ Konkani, Manipuri and Nepali were included in 1992
- ▶ Bodo, Dogri, Maithili and Santhali were added in 2004.

#### ● National Mission for Manuscripts (conserving the past for the future):

- ▶ It was established in February 2003, by the Ministry of Tourism and Culture, Government of India.
- ▶ It seeks to unearth and preserve the vast manuscript wealth of India.
- ▶ India possesses an estimate of ten million manuscripts, probably the largest collection in the world. These cover a variety of themes, textures and aesthetics, scripts, languages, calligraphies, illuminations and illustrations.
- ▶ It is a National level comprehensive initiative which caters to the need of conserving manuscripts and disseminating knowledge contained therein.

#### ● Central Institute of Indian Languages:

- ▶ Advices and Assists Central as well as State Governments in the matters of language.
- ▶ Contributes to the development of all Indian Languages by creating content and corpus.
- ▶ Protects and Documents Minor, Minority and Tribal Languages.
- ▶ Promotes Linguistic harmony by teaching 15 Indian languages to non-native learners.

#### Classical Languages of India

- In 2004, Government of India declared Tamil as the Classical Language of India.
- In 2005, Sanskrit was declared as Classical Language of India.
- These two languages are parental sources for several languages belonging to the Indo-European family and the Dravidian family of language groups.
- Kannada and Telugu were given classical language status in 2008.

- Malayalam and Odia were declared as classical languages in 2013 and 2014 respectively.

#### Criteria for classical language

- Extraordinary antiquity of its early transcripts or verified history over a period of 1500-2000 years.
- A body of ancient literature or texts, which is considered a valuable heritage by generations of speakers.
- The literary tradition should be unique and not hired from another language community.
- The classical language and literature being diverse from modern, there may also be a discontinuity among the classical language and its later forms or its sprouts.

### ● ANALYSIS

#### Importance of protecting and conserving linguistic heritage:

- Languages are a crucial part of history, culture and evolution of a society.
- There is a rich literary tradition in many languages, especially the ones recognized as classical languages by the Government of India.
- Sanskrit is one of the oldest Indo-European languages, dating back to the second millennium BC.
- Tamil literature dates back to 500 BC, Telugu to 400 BC, Kannada to 450 BC, Malayalam to 1198 AD and Odia to 800 AD.
- Each of these languages has a rich treasure house of literature, starting from Sangam literature and Tholkappiyum in Tamil, Kavitrayam's Andhra Mahabharatam in Telugu, Ramacharitham of Cheeraman in Malayalam, Kavirajamarga of Amoghavarsha in Kannada and Kharavela's inscriptions in Odia.
- For each of the populations speaking these languages, their literature is a matter of pride and distinct identity and the language is a goddess to be revered.
- This factor assumes importance because State re- organization demand had taken a firm footing behind linguistic grounds. There are songs in praise of these languages like "Maa Telugu talliki Mallepoo danda" in Telugu, "Jai Bharatha Jananiya Tanujate" in Kannada and "Thamil Thai Valthu" in Tamil.

#### Challenges:

- Studies by experts estimate that almost 600 languages are on the verge of extinction and that more than 250 languages have disappeared in the past 60 years.
- When a language dies, an entire culture dies.
- Protecting cultural heritage, including languages, is state's constitutionally-mandated duty.
- Since studying the classical languages and literature would provide access to authentic sources of history, the National Mission for Manuscripts was set up.
- Extant manuscripts in Sanskrit number over 30 million, one hundred times those in Greek and Latin combined.
- This constitutes the largest cultural heritage that any civilization has produced prior to the invention of the printing press.
- Preservation of ancient texts is only the first step. One has to encourage scholars to do research using these primary sources and unearth new nuggets of knowledge.

#### Way forward:

- The resources required to develop language technology and artificial intelligence-based tools are inadequate or unavailable for many Indian languages.
- To fill this gap, the Government of India launched the Linguistic Data Consortium for Indian Languages (LDC-IL) in 2008.
- It has been preparing high-quality linguistic resources over the last 11 years in all the scheduled languages of India.
- Language preservation and development needs a multi-pronged approach. It should begin at the primary school level and be continued to higher levels of education.
- Functional literacy in at least one language should be ensured.
- More and more people should start using their native languages at home, in the community, in meetings and in administration.
- One must accord a sense of dignity and a sense of pride to those who speak, write and communicate in these languages.
- Language should become a catalyst for inclusive development. Language promotion should be an integral part of good governance.



### Practice Question

- Language is a vehicle for the transmission of culture, scientific knowledge and a worldview across generations. However, almost 600 languages are on the verge of extinction. Critically evaluate the steps taken by the government to reverse this trend and what constructive role can the civil society play.

**SECTION: B**  
**(PRELIMS)**  

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## KONYAK DANCE

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◎ **CONTEXT:**

- During the Aoling Monyu festival, 4,700 Konyak Naga women danced together to set world record. The programme was organised to welcome the spring with an aim to preserve the cultural heritage of the people and also to promote tourism.

◎ **ABOUT:**

- In an attempt to set a Guinness World Record for the "Largest Traditional Konyak Dance display", around 4700 women of Konyak tribe dressed in their traditional attires danced to the beats of traditional instruments and sang a ceremonial song for 5:01 minutes under the theme "Empowering Women for Cultural Heritage".

### What is Konyak?

- Konyak is one of the 16 Naga tribes and people of this community live mainly in the Mon district of Nagaland. It is one of the largest Naga tribe of Nagaland and their head hunting tradition is widely popular and known.
- They are easily distinguishable from other Naga tribes by their pierced ears; and tattoos which they have all over their faces, hands, chests, arms, and calves.

### Aoling Monyu festival

- It is a major festival of Konyak Naga tribe celebrated in first week of the April every year. Being on the border of Myanmar, the neighbouring country also witnesses the pomp and gay of the Aoling Monyu festival.
- The festival is divided into three segments – 1st 3 days for weaving, feasting and sacrificing; 4th day for singing, dancing and head hunting; last 2 days for cleansing the house and the community for re-establishment of daily life. It also coincides with the start of Konak New Year. It is basically a harvest festival.

### Purpose of this festival:

- To forgive each other so that everyone can work together and welcome the oncoming season of spring.
- Aoling is a time to offer sincere prayers to divine spirits for a good harvest. The people firmly believe in the generosity of the divine spirits who in turn blesses the people and their land.
- People also make small sacrifices of domestic animals for the respective purpose.

### Difference between Hornbill festival and Aoling Monyu festival

- The Hornbill festival, which is often cited as festival of all festivals, celebrates the cultures of all the 17 tribes in Nagaland. However, Aoling is celebrated by a single tribe (Konyak) of Nagaland.

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## ARTILLERY GUN DHANUSH

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◎ **CONTEXT:**

- Recently, Indian Army received its first batch of indigenous built Dhanush artillery Guns. It was inducted during a ceremony held at Ordnance Factory in Jabalpur, Madhya Pradesh.

◎ **ABOUT:**

- Dhanush is the first indigenous artillery gun with a calibre of 155mm x 45mm. It is the first long range artillery gun to be produced in India, having a range of 38 km, which is equipped with a navigation- based sighting system, on board ballistic computation and an advanced day and night direct firing system.

- It has been developed by Ordnance Factory Board (OFB), Kolkata based on requirements of Indian Army and manufactured by Jabalpur-based Gun Carriage Factory (GCF) and 81 % of its components are indigenously sourced.

#### Ordnance Factory Board

- Indian Ordnance Factories organisation is a family of 41 Ordnance Factories under the aegis of its corporate headquarters Ordnance Factory Board, Kolkata
  - It works under the aegis of Ministry of Defence.
  - The ordnance factories form an integrated base for the indigenous production of defence hardware and equipment. The primary objective of the ordnance factories is achieving self-reliance in equipping the armed forces with state of the art battlefield equipment.
- It is also referred to as Desi Bofors because Bofors had played a crucial role in targeting Pakistani military positions during the 1999 Kargil War, and similarly has a 155 mm calibre.
  - The gun has passed tests under severe cold conditions in Sikkim and Leh and in hot and humid weather in Balasore, Odisha, Babina in Jhansi and in the desert of Pokhran in Rajasthan.

#### Features of Dhanush

- It has several significant advance features, including an all-electric drive, high mobility, quick deployability, auxiliary power mode, advanced communication system and automated command and control system.
- It has six round magazine, instead of standard three round.
- It weighs slightly more than normal due to the larger chamber.

#### Significance

- It is a part of the army's mediumisation of the artillery plan.
- It will be deployed along the borders with Pakistan and China. Self-propulsion unit allows the gun to deploy itself in mountainous terrains with ease.
- Dhanush gun has emerged as a reliable and robust gun system at par with the latest in the world and will increase the fire power of the Indian artillery manifold. It is truly Make in India marvel.
- Dhanush gun system has laid the foundations for India catapulting itself straight on to the world stage, India will soon emerge as a leading Artillery Gun design and manufacturer in the form of evolution of ATAGS, which would be the highly advanced version of Dhanush.
- In future, it will potentially take over guns in this category. Dhanush's long-range, light-weight and automation features will help it immensely.

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## RESILIENCE IN RISK-PRONE ASIA NEEDS REALISTIC POLICY AND FINANCIAL PLANNING

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#### ◎ CONTEXT:

- As per new Asian Development Bank (ADB) report four in five people affected by natural disasters are in Asia, putting the region's prosperity at risk.

#### ◎ ABOUT:

- The report is published under ADB's flagship Asian Development Outlook (ADO) 2019. It released ahead of the biennial global platform for Disaster Risk Reduction (DRR) scheduled in May 2019 — is very well-timed and deserves to be discussed on behalf of the Asian nations to strengthen disaster resilience in the region.

- Over the past three decades, natural disasters have affected over 10 million people throughout the Central Asian region and caused economic losses of almost \$2.5 billion. In this backdrop, experts from the Central Asian countries also agreed on increasing financial protection against natural disasters at a regional forum on Disaster Risk Financing held at Almaty in February 2019.

### Key Findings:

- With nearly 38,000 disaster fatalities per year between 2000 and 2018, the region accounted for 55 per cent of the 60,000 disaster fatalities across the world.
- The region also accounted for 26 per cent of the \$128 billion in economic damage due to natural disasters.
- In Asia, 82 per cent of the disasters ensued from extreme weather events such as floods, storms and droughts.

### Who suffers the most?

- It has been recognised that the poor suffer the maximum brunt of natural catastrophes.
- A survey conducted across five Asian countries found that, among the rural households surveyed, 90 per cent suffered either loss of life or significant damage to assets from floods in the past decade, and their financial recovery took more than three times longer compared to urban households.
- The ADB report highlights case studies from Indian cities like Mumbai, Chennai and Puri, which show that in the absence of social protection; disaster-hit families deplete their savings or borrow at high interest rates from informal sources, pushing them into indebtedness and poverty traps.

### Way Forward:

#### • Funding needed to strengthen disaster resilience

- Asia is projected to need \$26 trillion in infrastructure investment between 2016 and 2030, or \$1.7 trillion per year.
- Hence, planning for and investing in climate-friendly and disaster-resilient infrastructure from the start will be a cost-effective way to reduce future losses.
- The report calls upon the international agencies for more financial support.
- At present, international agencies provide seven times more assistance to the developing countries to respond to disasters after they occur, than fund preparation programmes beforehand.
- Even though many countries in the region are adapting the Sendai Framework for Disaster Risk Reduction 2015-2030, the increasingly high losses from such disasters need effective actions too.
- It also urges governments in the region to work on realistic policy and budget planning.
- It suggests that Asian nations integrate disaster risk reduction into national development and investment plans, and spend more on prevention.

#### Sendai Framework

- It is the first major agreement of the post-2015 development agenda, with seven targets and four priorities for action.
- It was endorsed by the UN General Assembly following the 2015 third UN World Conference on Disaster Risk Reduction (WCDRR).
- It is a 15-year, voluntary, non-binding agreement.

- UNISDR has been tasked to support the implementation, follow-up and review of the Sendai Framework.
- Aim: The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.
- The Sendai Framework is the successor instrument to the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters.

#### ● Insurance against catastrophes

- According to the report, although climate change is spurring more natural hazards and rapid urbanisation is increasing exposure to such hazards, only around 8 per cent of Asia's catastrophe losses since 1980 have been covered by insurance.
- Many developing countries in Asia now boast of multiple disaster insurance schemes, including 15 in India, but effectiveness of such schemes needs to be prioritised.
- In fact, Southeast Asia Disaster Risk Insurance Facility (SEADRIF) — Asia's first regional facility to provide climate and disaster risk financing and insurance solutions, including a regional catastrophe risk insurance pool — was established nearly four months ago.

## CAPITAL HIGH: FOREIGN INVESTMENT IN INDIA

### ◎ CONTEXT-

- The inflow of foreign capital into India's stock market in the month of March hit a high of \$4.89 billion, the biggest foreign inflow into Indian stocks since February 2012.
- As a result, the stock market rose a solid 8% in March.
- Foreign investment in Indian equities stood at \$2.42 billion in February, as against a net outflow of \$4.4 billion during the same month a year earlier, and is expected to be strong in April as well.

### ◎ ABOUT-

- The rupee has appreciated by about 7% since early October, when it was reeling at around 74 against the dollar.
- Last year, India received more foreign direct investment than China for the first time in two decades.
- While the Chinese economy has been slowing down considerably in the last one year, India has emerged as the fastest-growing major economy.

#### Reasons for the Inflow:-

- There is a sense among a section of investors that their fears of political instability are misplaced. Also, there are clear signs that western central banks have turned dovish.
- Both the Federal Reserve and the European Central Bank, for instance, have promised to keep interest rates low for longer.
- This has caused investors to turn towards relatively high-yielding emerging market debt. Indian mid-cap stocks, which suffered a deep rout last year, are now too attractive to ignore for many foreign investors.

#### Challenges-

- To retain investor confidence, there is a need to increase the pace of structural reforms and also ensure proper macroeconomic management with the help of the Reserve Bank of India.

- Long-pending reforms to the labour and land markets are the most pressing structural changes that will affect India's long-term growth trajectory.
- The high fiscal deficit of both the Centre and the State governments and the disruptive outflow of foreign capital are the other macroeconomic challenges.

#### Significance-

- The return of foreign capital is a good sign for the Indian economy.
- But policymakers need to be careful not to take foreign investors for granted.
- Other emerging Asian economies will be competing hard to attract foreign capital, which is extremely nimble.
- Any mistake by policymakers will affect India's image as an investment destination.

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## SMALL FINANCE BANKS

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### ◎ CONTEXT-

- Data from the Reserve Bank of India (RBI) show that the small finance banks, in total, saw their deposits grow 31.6% in the third quarter (ended December) of this financial year, compared with the second quarter.
- The phenomenal growth of small finance banks has come on a very small base which is why bigger banks and NBFCs don't see them as competition yet.

### ◎ ABOUT-

- The small finance bank will primarily undertake basic banking activities of acceptance of deposits and lending to unserved and underserved sections including small business units, small and marginal farmers, micro and small industries and unorganised sector entities.

#### Advantages-

- Take small deposits and disburse loans.
- Distribute mutual funds, insurance products and other simple third-party financial products.
- Lend 75% of their total adjusted net bank credit to priority sector.
- Maximum loan size would be 10% of capital funds to single borrower, 15% to a group.
- Minimum 50% of loans should be up to 25 lakhs.

#### Guidelines:

- Promoter must contribute minimum 40% equity capital and should be brought down to 30% in 10 years.
- Minimum paid-up capital would be Rs 100 cr.
- Capital adequacy ratio should be 15% of risk weighted assets, Tier-I should be 7.5%.
- Foreign shareholding capped at 74% of paid capital, FPIs cannot hold more than 24%.
- Priority sector lending requirement of 75% of total adjusted net bank credit.
- 50% of loans must be up to Rs 25 lakh.

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## AIR POLLUTION IS THE THIRD-HIGHEST CAUSE OF DEATH AMONG ALL HEALTH RISKS IN INDIA

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### ◎ CONTEXT:

- State of Global Air 2019, published by Health Effects Institute (HEI), said exposure to outdoor and indoor air pollution contributed to over 1.2 million deaths in India in 2017.

## © ABOUT:

- The State of Global Air 2019 annual report and accompanying interactive website are designed and implemented by the Health Effects Institute in cooperation with the Institute of Health Metrics and Evaluation (IHME) at the University of Washington, the University of British Columbia, and the University of Texas, Austin.

**Key points from the report:**

- For the first time, this year's report and website include worldwide estimates of the effect of air pollution on life expectancy.
- Worldwide air pollution was responsible for more deaths than road traffic injuries or malaria and many better-known risk factors such as malnutrition, alcohol abuse and physical inactivity.
- In India, air pollution is the third-highest cause of death among all health risks, ranking just above smoking.
- The study found that China and India together were responsible for over half of the total global attributable deaths, with each country witnessing over 1.2 million deaths from all air pollution in 2017.
- China has made initial progress, beginning to achieve air-pollution decline.
- Overall, long-term exposure to outdoor and indoor air pollution contributed to nearly 5 million deaths from stroke, diabetes, heart attack, lung cancer, and chronic lung disease in 2017.
- Out of these, 3 million deaths are directly attributed to PM2.5, half of which are from India and China together.
- The South Asian region — Bangladesh, India, Nepal and Pakistan — led the world as the most polluted, with over 1.5 million air-pollution related deaths according to the report.

**Global Status:**

- Worldwide, air pollution reduced life expectancy by an average of 20 months in 2017, a global impact rivaling that of smoking; this means a child born today will die 20 months sooner, on average, than would be expected without air pollution.
- It also highlighted that nearly half of the world's population — a total of 3.6 billion people — were exposed to household air pollution in 2017.
- Globally, there has been progress: the proportion of people cooking with solid fuels has declined as economies develop.
- But in India, 60% of the population still uses solid fuels; in Bangladesh that number rises to 79%, underscoring the importance of achieving success in government initiatives to address the problem.

**Steps taken in India:**

- India has initiated major steps to address pollution sources:
  - The Pradhan Mantri Ujjwala Yojana Household LPG program,
  - Accelerated Bharat Stage 6/VI clean vehicle standards,
  - The new National Clean Air Programme.
- These and future initiatives have the potential, if fully implemented as part of a sustained commitment to air quality, to result in significant health benefits in coming years.

**National Clean Air Programme**

- The NCAP was launched by the government earlier this month and is a ₹300 crore initiative to reduce particulate matter (PM) pollution by 20-30% in at least 102 cities by 2024.



- It is a time bound national level strategy for pan India implementation to tackle the increasing air pollution problem across the country in a comprehensive manner.
- It is launched under Ministry of Environment, Forest and Climate Change.
- Need: Today cities occupy just 3% of the land, but contribute to 82% of GDP and responsible for 78% of Carbon dioxide emissions.
- The NCAP will be a mid-term, five-year action plan with 2019 as the first year.
- Approach: The approach for NCAP includes collaborative, multi-scale and cross-sectoral coordination between the relevant central ministries, state governments and local bodies.
- Dynamic: The NCAP is envisaged to be dynamic and will continue to evolve based on the additional scientific and technical information as they emerge.

## ARRANGEMENTS FOR THE PROTECTION OF WILD LIFE

### ◎ CONTEXT:

- A barely one-month-old female leopard cub was seized from a passenger who arrived at Chennai's Anna International Airport on a flight from Thailand, carrying the cub in a stroller bag.
- The leopard cub was seized under the Customs, Wildlife Protection Act, 1972 and as per the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

### ◎ ABOUT:

#### Protection status of Leopard:

- It is listed in Schedule I of the Wildlife Protection Act. Hence, providing it absolute protection and heavy penalties for its trade.
- It is the species threatened with extinction and hence included in Appendix I of CITES.
- It is categorised as Vulnerable in the IUCN Red List of Threatened Species hence it is likely to become endangered unless the circumstances threatening its survival and reproduction improve.

#### Wildlife Protection Act, 1972:

- It is an Act of the Parliament of India enacted for protection of plants and animal species.
- The Act established schedules of protected plant and animal species. It has six schedules which give varying degrees of protection:
  - Schedule I and part II of Schedule II: They provide absolute protection i.e. offences under these are prescribed the highest penalties.
  - Schedule III and Schedule IV: Species listed in them are also protected, but the penalties are much lower.
  - Schedule V: It includes the animals which may be hunted.
  - Schedule VI: The specified endemic plants in this schedule are prohibited from cultivation and planting.
- Convention on International Trade on Endangered Species of Wild Fauna and Flora (CITES):
- It is an international agreement between governments with aim to ensure that international trade in specimens of wild animals and plants does not threaten their survival.
- It was drafted as a result of a resolution adopted in 1963 at a meeting of members of IUCN (The World Conservation Union).

- All import, export, re-export and introduction from the sea of species covered by the Convention has to be authorized through a licensing system.
- The species covered by CITES are listed in three Appendices, according to the degree of protection they need:
  - Appendix I: It includes species threatened with extinction. Trade in specimens of these species is permitted only in exceptional circumstances.
  - Appendix II: It includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival.
  - Appendix III: It contains species that are protected in at least one country, which has asked other CITES Parties for assistance in controlling the trade.

### **IUCN Red List of Threatened Species:**

- It is a comprehensive inventory of the global conservation status of biological species. It was founded in 1965.
- Its aim is to convey the urgency of conservation issues to the public and policy makers, as well as help the international community to try to reduce species extinction.
- Species are classified by the IUCN Red List into nine groups: Extinct (EX), Extinct in the wild (EW), Critically endangered (CR), Endangered (EN), Vulnerable (VU), Near threatened (NT), Least concern (LC), Data deficient (DD), Not evaluated (NE)
- In the IUCN Red List, "threatened" embraces the categories of Critically Endangered, Endangered, and Vulnerable.

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## **CORAL BLEACHING**

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### **◎ CONTEXT:**

- The world's southernmost coral reef - Lord Howe Island – approx. 600 kilometres offshore from Sydney - has been hit by bleaching due to increase in temperature but escape severe bleaching that damaged the Great Barrier Reef in 2016 and 2017.

### **◎ ABOUT:**

#### **More on news:**

- Rising sea temperature from climate change is affecting even the most isolated ecosystems and also has been held responsible for the recent adverse phenomenon (affected reef is 600 kilometres from the mainland).
- Deeper-water corals in the marine park, contains species not found anywhere else and like the Barrier Reef is a World Heritage site, were still "looking quite healthy" having mostly escaped the bleaching.
- Increasing baseline temperatures caused by climate change, and local factors such as elevated temperatures in the area has been held responsible for the bleaching.

#### **Coral Bleaching**

- It occurs when abnormal environmental conditions, such as warmer sea temperatures, cause coral polyps to expel algae (zooxanthellae) living in their tissues, causing the coral to turn completely white.
- Normally, coral polyps live in an endosymbiotic relationship with this algae crucial for the health of the coral and the reef as the algae provides up to 90% of the coral's energy.
- When a coral bleaches, it is not dead. Corals can survive a bleaching event, but they are under more stress and are subject to mortality.
- Corals can recover if the water temperature drops and the algae are able to recolonise the coral reefs



### Factors responsible for Coral Bleaching

- Increased water temperature (most commonly due to global warming), or reduced water temperatures
- Oxygen starvation caused by an increase in zooplankton levels
- Increased solar irradiance (photosynthetic active radiation and ultraviolet light)
- Increased sedimentation (due to silt runoff)
- Bacterial infections
- Changes in salinity
- Herbicides
- Extreme low tide and exposure
- Cyanide fishing
- Pollutants such as oxybenzone, butylparaben, octyl methoxycinnamate, or enzacamene: four common sunscreen ingredients that are nonbiodegradable and can wash off of skin
- Ocean acidification due to elevated levels of CO<sub>2</sub> caused by air pollution
- Being exposed to Oil or other chemical spills

### Consequences

- Coral can survive short-term disturbances, but if the conditions that lead to the expulsion of the zooxanthellae persist, the coral's chances of survival diminish.
- If the coral polyps die of starvation after bleaching, they will decay and the hard coral species will then leave behind their calcium carbonate skeletons, which will be taken over by algae, effectively blocking coral re-growth and eventually, the coral skeletons will erode, causing the reef structure to collapse.

### Significance and Apprehensions

- Coral reefs make up less than one percent of Earth's marine environment, but are home to an estimated 25 percent of ocean life, acting as nurseries for many species of fish.
- In the 2012–2040 period, coral reefs are expected to experience more frequent bleaching events and the Intergovernmental Panel on Climate Change (IPCC) sees this as the greatest threat to the world's reef systems.
- Coral reefs worldwide has been lost by 19%, and 60% of the remaining reefs are at immediate risk of being lost.

#### Great Barrier Reef

- The Great Barrier Reef, off the coast of Queensland in northeastern Australia, is the largest living thing on Earth, and even visible from outer space.
- The 2,300km-long ecosystem comprises thousands of reefs and hundreds of islands made of over 600 types of hard and soft coral and is home to countless species of colourful fish, molluscs and starfish, plus turtles, dolphins and sharks.
- According to the United Nations Environment Programme, between 2014 and 2016 the longest recorded global bleaching events killed coral on an unprecedented scale.
- In 2016, bleaching of coral on the Great Barrier Reef killed between 29 and 50 percent of the reef's coral and in 2017, the bleaching extended into the central region of the reef.
- The average interval between bleaching events has halved between 1980 and 2016.

## GLOBAL COOL COALITION

### ◎ CONTEXT:

- The first-ever global coalition on clean and efficient cooling was launched at the First Global Conference on Synergies between the 2030 Agenda and Paris Agreement, which recently concluded in Copenhagen, Denmark.

### ◎ ABOUT:

#### Global Cool Coalition

- It is a unified front that links action across the Kigali Amendment, Paris Agreement and Sustainable Development Goals.
- It is expected to inspire ambition, identify solutions and mobilise action to accelerate progress towards clean and efficient cooling.
- It will complement and build upon ongoing successful programmes to advance clean and efficient cooling, including, the Cooling for All Secretariat, the Climate and Clean Air Coalition, the Kigali Cooling Efficiency Programme, private sector action like the Global Cooling Prize, and other initiatives.

#### What is the current scenario?

- Throughout the world, 2018 was the fourth hottest year, preceded by 2017, 2015 and 2016.
- The India Meteorological Department (IMD), too, warned that the season average maximum temperatures from April to June are likely to be warmer than normal by 0.5 degree Celsius.
- As the world gets warmer, the demand for air conditioners is projected to grow and the greenhouse gas it emits will endanger the planet.
- With increasing incomes and urbanisation, number of air conditioning units across the globe is set to increase from 1.2 billion to 4.5 billion by 2050, and India alone may account for one billion units.
- In the next 20 years, India's cooling requirement will increase by eight times, with air conditioners alone consuming more than half of the total energy required for cooling in the country by 2037-38.

#### Initiative taken by India

- India has already developed a national cooling action plan that was launched in March, 2019.
- The plan acknowledges that "there is an immense potential to rationalise the rise in requirement for active refrigerant-based cooling in the country by adoption of passive cooling design strategies across sectors."
- Plan further says, wider proliferation of thermally efficient built spaces that have reduced heat load is required.
- It mentions other efforts as: insulation, shading, and enhanced natural ventilation, to reduce requirement of active-cooling.
- This reduced cooling demand then needs to be met using the energy efficient and climate-friendly technologies.

## SEWAGE TREATMENT PLANTS CAN TURN E COLI INTO SUPERBUG

### ◎ CONTEXT:

- In samples collected from Sabarmati River, two lakes and three effluent treatment plants, researchers find microorganisms to be drug resistant.

## © ABOUT:

- It is found that pollution, whether in a lake or at a point of sewage discharge into a river, induced multi-drug anti-microbial resistance in collected samples of E Coli bacteria possibly transforming it into what is known as a superbug.
- **The Asia Pacific Network for Global Change Research** is funding the project, in collaboration with University of Kanazawa and University of Tokyo from Japan, University of Ruhuna from Sri Lanka and IIT-Gandhinagar from India.
- **Samples collected from:** As part of the project, IIT-Gandhinagar team collected water samples from lakes Kankaria and Chandola, the Sabarmati river and three effluent treatment plants (both in flow and outflow) in Ahmedabad.
- **Samples tested with:** Six different kinds of antibiotics like ciprofloxacin, norfloxacin, tetracyclin and kanamycin for antibiotic resistance.

**Findings:**

- In Sabarmati, they collected samples from three different locations — Nehru Bridge (upstream), Sardar Bridge (middle) and Fatehwadi (downstream).
- While the sample from Nehru Bridge showed the E Coli was not resistant to any antibiotics.
- But in the Sardar Bridge sample, 60 per cent of the E Coli was resistant to kanamycin and 40 per cent of the bacteria were resistant to other five drugs.
- But the resistance again decreased to zero further downstream in Fatehwadi showing that the river had a natural way of dealing with the phenomenon if not polluted again.
- Similarly, in the samples collected from Chandola Lake, 80 per cent of the bacteria were multi-drug resistant.

**What caused the resistance to go up at Sadar Bridge?**

- Sabarmati does not have a high natural flow during summers but the riverfront needs water at all times. So, the water is stored at Sardar Bridge and remains stagnant. This stagnant water probably makes the E Coli antibiotic resistant.

**Treatment plants:**

- The most surprising results came from the treatment plants.
- In all three treatment plants from where samples were collected and tested, the resistance was higher in the effluents than in the influents.
- On the other hand, the density of E Coli had decreased after treatment. This means that though the treatment had killed the bacteria, the ones that did get saved had evolved to higher antibiotic resistance.
- One possible reason for this could be genetic mutation due to ultra-violet radiation treatment or even chlorination.
- Since E Coli multiplies really quickly, creating new generations in 15-60 minutes, the gene transfer from one generation to the next will happen rapidly which could explain the escalation of resistance and also its quick downfall.

**E Coli**

- E. coli (Escherichia coli), is a type of bacteria that normally lives in your intestines.
- It's also found in the gut of some animals.
- Most types of E. coli are harmless and even help keep your digestive tract healthy.
- But some of them can cause severe diarrhoea, pneumonia, urinary tract infection (UTI), cholecystitis and neo-natal meningitis.
- Some versions of E. coli make you sick by making a toxin called Shiga. This toxin damages the lining of your intestine. The strains of E. coli that make the toxin are sometimes called STEC, which is short for "Shiga toxin-producing E. coli."

## COLOUR CODED WEATHER WARNING

### ◎ **CONTEXT:**

- Recently Indian Meteorological Department issued a yellow weather warning for rain in Himachal Pradesh.
- The weather department forecast thunderstorm with hail in isolated places of mid hills, including Shimla, Mandi, Kullu, Chamba, Solan and Sirmour.

### ◎ **ABOUT:**

#### **Colour coded weather warning:**

- It is issued by the country's apex weather agency Indian Meteorological Department (IMD) from Ministry of Earth Sciences.
- Its objective is to alert people ahead of severe or hazardous weather which has the potential to cause damage, widespread disruption or danger to life.
- As per the regular practice, warnings are uploaded in the website every day. District wise rainfall forecast along with warnings with colour coded alerts are also uploaded and updated thrice daily in the website.

#### **Four colour codes:**

- The Four colour codes are issued to indicate various categories of warnings. The meaning of these codes are:

#### **Red:**

- Take action.
- Extremely bad weather is expected.
- People need to take action to keep themselves and others safe.
- Widespread damage, travel and power disruption and risk to life are likely. People must avoid dangerous areas and follow the advice of the emergency services and local authorities.

#### **Amber:**

- Be prepared.
- There is an increased likelihood of extremely bad weather, which could potentially cause travel delays, road and rail closures, and interruption of power supply.
- Amber means people need to be prepared to change plans and protect themselves, their family and community from the impacts of the severe weather based on the forecast from the Met Office.
- There could be risk to life and property.

#### **Yellow:**

- Be updated.
- Severely bad weather is possible over the next few days, plan ahead thinking about possible travel delays and disruption of day-to-day activities possible.
- It indicates the weather may change or worsen in the next few days.

#### **Green:**

- No action required.
- No severe weather concerns.
- No advisory is issued.

## INDIAN PEACEKEEPING FORCES

### ◎ **CONTEXT:**

- India has evacuated its entire contingent of peacekeeping forces comprising of 15 CRPF personnel from Tripoli, Libya (North Africa) after the situation there "suddenly worsened".

## © ABOUT

**More on news**

- Eastern Libyan Army Commander Khalifa Haftar ordered his forces, the Libyan National Army (LNA), to take over Tripoli — the capital of the United Nations-backed government (Government of National Accord) — amid reports of escalating political tension in the country.
- In response the army aligned to Libya's United Nations-backed government announced a counteroffensive and vowed to reclaim all areas seized by Libyan National Army
- The US military had also temporarily pulled some of its forces out of Libya amid the escalating political tension in the North African country.

**Peacekeeping Forces**

- The United Nations Charter gives the United Nations Security Council the power and responsibility to take collective action to maintain international peace and security.
- Most of these operations are established and implemented by the United Nations itself, with troops serving under UN operational control. In these cases, peacekeepers remain members of their respective armed forces, and do not constitute an independent "UN army," as the UN does not have such a force.
- In cases where direct UN involvement is not considered appropriate or feasible, the Council authorizes regional organizations such as the North Atlantic Treaty Organization (NATO), the Economic Community of West African States, or coalitions of willing countries to undertake peacekeeping or peace-enforcement tasks.
- Department of Peacekeeping Operations's highest level doctrine document, is "United Nations Peacekeeping Operations: Principles and Guidelines".
- Peacekeepers monitor and observe peace processes in post-conflict areas and assist ex-combatants in implementing the peace agreements they may have signed.
- Such assistance comes in many forms, including confidence-building measures, power-sharing arrangements, electoral support, strengthening the rule of law, and economic and social development.
- Accordingly, UN peacekeepers (often referred to as Blue Berets or Blue Helmets because of their light blue berets or helmets) can include soldiers, police officers, and civilian personnel.

**India's Contribution**

- So far India has taken part in 43 Peacekeeping missions with a total contribution exceeding 180,000 troops and a significant number of police personnel having been deployed.
- In 2014 India is the third largest troop contributor [TCC] with 7,860 personnel deployed with ten UN Peacekeeping Missions of which 995 are police personnel, including the first Female Formed Police Unit under the UN.
- Recently Indian Peacekeepers were lauded by the UN for their efforts in preventing a carnage in the South Sudan conflict which resulted in the death of two of its soldiers.

**State of Libya**

- Libya, officially the State of Libya, (largest city and capital, Tripoli) is a country in the Maghreb region in North Africa, bordered by the Mediterranean Sea to the north, Egypt to the east, Sudan to the southeast, Chad to the south, Niger to the south-west, Algeria to the west, and Tunisia to the north-west.
- Libya is the fourth largest country in Africa, and is the 16th largest country in the world.
- Libya has the 10th-largest proven oil reserves of any country in the world.
- Libya became independent as a kingdom in 1951 and bloodless military coup by Muammar Gaddafi in 1969 overthrew King Idris I.

- Muammar Gaddafi ruled the country from 1969 and the Libyan Cultural Revolution in 1973 until he was overthrown and killed in the 2011 Libyan Civil War.
- Chaos-ridden Libya has emerged as a major transit point for people trying to reach Europe and more than 700,000 migrants have reached Italy by boat since 2013.
- Libya is a member of the United Nations (since 1955), the Non-Aligned Movement, the Arab League, the OIC and OPEC.
- Resulting from years-long civil conflict, Libya has no single government currently, with Libyan National Army (LNA) backing the Tobruk-based parliament which governs the East of Libya, and the Government of National Accord (GNA) which controls Libya's western parts from Tripoli.

## SERVICE VOTERS

### ◎ **CONTEXT:**

- **The first vote for the upcoming Lok Sabha elections (2019) was casted in Arunachal Pradesh by service voters from Indo-Tibetan Border Police (ITBP) unit located in the eastern tip of the state of Arunachal Pradesh.**

### ◎ **ABOUT:**

- There are voters who aren't residing in their constituency due to certain constraints and can vote in the elections via proxy voting or postal ballot voting, they are known as Service voters.

### **Who are Service Voters?**

- Service voters are those who have service qualification and include members of Armed Forces of the Union of India, members of Armed Police forces of the States serving outside that state and persons employed Government of India on posts outside India.
  - They are provided with an option to cast the votes through postal ballots and send them to the returning officer of the constituency.
  - A service voter can also cast his vote through a proxy. The proxy can cast the vote on behalf of the service personnel at the polling station. The proxy should be a registered voter of that constituency. The provision for voting through proxy is valid till the person making the appointment is a service voter.
  - No person can be enrolled simultaneously as a service voter at his native place as well as a general voter at the place of posting.

### **Prerequisites for Service Voter:**

- **Service voter is a voter having service qualification. According to the provisions of sub – section (8) of Section 20 of Representation of People Act, 1950, service qualification means:**
  - Being a member of the armed Forces of the Union
  - Being a member of a force to which provisions of the Army Act, 1950 (46 of 1950), have been made applicable whether with or without modification.
  - Being a member of an Armed Police Force of a State, and serving outside that state.
  - Being a person who is employed under the Government of India, in a post outside India.
  - As per the existing arrangements, members of Indian Army, Navy and Air Force and personnel of General Reserve Engineer Force (Border Road Organization), Border Security Force, Indo Tibetan Border Police, Assam Rifles, National Security Guards, Central Reserve Police Force, Central Industrial Security Force and Sashastra Seema Bal are eligible to be registered as service voters.



**Is wife or son/daughter of a service voter also enrolled as a service voter?**

- The wife of a service voter shall, if she is ordinarily residing with him, be also deemed to be a service voter in the constituency specified by that person. The wife will be enrolled as a service voter on the basis of declaration made by her husband in the application form itself submitted by him and no separate declaration is required to be made by the wife.
- A son/daughter/relative/servant etc. residing ordinarily with a service voter cannot be enrolled as service voter.

**How is a service voter different from an ordinary elector?**

- While an ordinary elector is registered in the electoral roll of the constituency in which his place of ordinary residence is located, person having service qualification can get enrolled as 'service voter' at his native place even though he actually may be residing at a different place (of posting). He has, however, an option to get himself enrolled as general elector at the place of his posting where he factually, at the point of time, is residing ordinarily with his family for a sufficient span of time.

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## CANDIDA AURIS FUNGUS

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**◎ CONTEXT:**

- US Centers for Disease Control and Prevention has reported that a drug-resistant superbug fungus- *Candida Auris* has sickened nearly 600 people across the United States, including more than 300 patients in New York State.
- Recently, a top American hospital had to rip out ceiling and floor tiles to get rid of the infestation from this fungus in the room of the effected patient after his death.

**◎ ABOUT:**

- **What is *Candida Auris*?**
- It is a fungus that causes serious bloodstream infections and even death, particularly in hospital and nursing home patients. It preys on people with weakened immune systems. More than 1 in 3 patients with invasive *C. Auris* infection (for example, an infection that affects the blood, heart, or brain) die.

**Why it is a problem**

- Resistant to multiple anti-fungal drugs: Antifungal medicines commonly used to treat *Candida* infections often don't work for it. Some *C. auris* infections have been resistant to all three types of antifungal medicines.
- Difficult to identify: *C. auris* can be misidentified as other types of fungi unless specialized laboratory technology is used. This misidentification might lead to a patient getting the wrong treatment hence giving time to the fungus to acclimatise to the medication.
- It can spread in hospitals and nursing homes. *C. auris* has caused outbreaks in healthcare facilities and can spread through contact with affected patients and contaminated surfaces or equipment. Good hand hygiene and cleaning in healthcare facilities is important because *C. auris* can live on surfaces for several weeks.

**What are the symptoms of infection?**

- People who get invasive *Candida* infections are often already sick from other medical conditions, so it can be difficult to know if the patient has a *C. auris* infection.
- The most common symptoms of invasive *Candida* infection are fever and chills that don't improve after antibiotic treatment for a suspected bacterial infection.
- Only a laboratory test can diagnose *C. auris* infection.

**What are the precautions and treatment?**

- Isolation of the patient, ideally in a single room, with strict hand hygiene. Everyone who has come in contact with a patient should be screened for the fungus. All equipment used for the care of the patient should be cleaned every day in accordance with clinical care recommendations.
- Only when there are symptoms of an infection should the patient be given anti-fungals such as Caspofungin and Micafungin.

**Brief history of Candida Auris fungus:**

- It has been around for at least a decade. It was identified in 2009 from yeast isolates from the ear of a Japanese patient, and described as a new species after RNA sequencing.
- In 2013, a team of Indian scientists led by those from the Vallabhbhai Patel Chest Institute, Delhi, documented in Emerging Infectious Diseases “the emergence of a new clonal strain of *C. auris* as an etiologic agent of candidemia in India”.
- In 2017, the same team of researchers predicted that going by the behaviour of other similar organisms that have developed resistance, a Candida outbreak might be on the cards.

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## NON-COMMUNICABLE DISEASES

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**◎ CONTEXT:**

- The Vice President of India addressing the Annual Meeting of the National Interventional Council (NIC) of the Cardiological Society of India described the rise in non-communicable diseases as a “deeply disturbing trend” and called upon the medical fraternity to educate the people on the dangers of leading sedentary lifestyles.
- Disease burden from non-communicable diseases increased from 30 per cent to 55 per cent between 1990 and 2016, while the communicable diseases dropped from 61 per cent to 33 per cent in the same period.

**◎ ABOUT:****Differences between NCD and CD:**

Non communicable diseases (NCD)	Communicable diseases(CD)
<ul style="list-style-type: none"> <li>• They are primarily cardiovascular diseases, cancers, chronic respiratory diseases and diabetes.</li> <li>• Causes: High levels of stress, increased incidences of diabetes, blood pressure, smoking, excessive consumption of alcohol, lack of exercise, lack of proper sleep.</li> <li>• These diseases are majorly prevalent in rich countries like US and European countries due to widespread sedentary lifestyle.</li> </ul>	<ul style="list-style-type: none"> <li>• They include HIV, hepatitis A, B and C, measles, salmonella, malaria, Ebola, Pertussis, West Nile Virus, Zika.</li> <li>• Causes: Microorganisms such as bacteria, viruses, parasites and fungi that spread, directly or indirectly, from one person to another, bites from insects, ingesting contaminated food or water.</li> <li>• These diseases are majorly prevalent in poor countries like African, Latin American and Asian countries due to lack of hygiene and sanitation.</li> </ul>

**Global efforts for its prevention:**

- To strengthen national efforts to address the burden of NCDs, the 66th World Health Assembly endorsed the WHO Global Action Plan for the Prevention and Control of NCDs 2013-2020.



**Objectives of the plan:**

- To raise the priority accorded to the prevention and control of NCDs in global, regional and national agendas and internationally agreed development goals, through strengthened international cooperation and advocacy.
- To strengthen national capacity, leadership, governance, multisectoral action and partnerships to accelerate country response for the prevention and control of NCDs.
- To reduce modifiable risk factors for NCDs and underlying social determinants through creation of health-promoting environments.
- To strengthen and orient health systems to address the prevention and control of NCDs and the underlying social determinants through people-centred primary health care and universal health coverage.
- To promote and support national capacity for high-quality research and development for the prevention and control of NCDs.
- To monitor the trends and determinants of NCDs and evaluate progress in their prevention and control.

**India's efforts:**

- India has adopted National Action Plan and Monitoring Framework for Prevention and Control of NCDs in line with WHO's Global Action Plan for the Prevention and Control of NCDs.
- The global action plan lists 9 targets for countries to set. But India has taken the unprecedented step of setting a tenth target to address household air pollution.
- India has implemented WHO's Framework Convention on Tobacco Control aimed at reducing the demand for tobacco products.
- National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular diseases and Stroke( NPCDCS)
- Accredited Social Health Activist (ASHA)-female health volunteer of the village. She educates women, men and adolescents regarding the determinants of NCD's and various associated risk factors like unhealthy diet, physical inactivity, intake of Tobacco and Alcohol and Stress and essentiality of Iodine.
- Mental Health Act,1987
- Tobacco Control Act ,2003

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## STUDY DISPROVES HAWKING, SHOWS TINY BLACK HOLES MAY NOT ACCOUNT FOR DARK MATTER

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**◎ CONTEXT:**

- An international research team from Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, has ruled out the possibility of primordial black holes being a major constituent of Dark matter.
- This finding disproves a theoretical claim of Professor Stephen Hawking.

**◎ ABOUT****Dark matter**

- In the solar system, Mercury, the planet closest to the Sun, takes just 88 days to make one revolution around the sun; while Neptune, the farthest one, takes 165 years to make one round.
- Laws of gravity expect us to see stars closer to the centre of galaxies rotating faster than the stars on the edge. However, in most galaxies, the stars closer to the centre and the stars at the edge of the galaxies take almost same time to make one revolution.
- This implied that something invisible and enveloping the galaxies was giving an extra push to the outer stars, speeding them up. This entity, known as 'dark matter'.

- The material is considered to be a 'matter' since it appears to have gravitational attraction, and it is 'dark' because it does not seem to interact with light (or with any part of the electromagnetic spectrum).
- Almost 85 per cent of the total mass of the Universe is composed of dark matter.
- Cosmologists have come up with various hypothesis and theories to explain the dark matter. Some postulate it to be composed of neutrinos — particles that have no charge but have tiny mass and, therefore, do not interact with the electromagnetic spectrum, but are interacting gravitationally.
- Others have postulated they may be some new kind of elementary particles — "weakly-interacting massive particles (WIMPs)", or "gravitationally-interacting massive particles (GIMPs)", which are yet to be detected.

### Primordial black holes

- When the big bang hypothesis was proposed, two Soviet physicists, Yakov Borisovich Zel'dovich and Igor Dmitriyevich Novikov, proposed that at the initial instant of the big bang, the densities would have been very high at many points, resulting in the formation of small black holes. These were named "primordial black holes".
- Stephen Hawking investigated them in 1971 and computed that the mass of the primordial black holes could range from as low as one-hundredth of a milligram to as high as more than the mass of a thousand Suns.

### Latest Findings:

- The research team used the Hyper Suprime-Cam on the Japanese Subaru Telescope located in Hawaii to look for any tell-tale evidence of primordial black holes between Earth and Andromeda galaxy using gravitational lensing technique.
- For one whole night, the research team took 190 consecutive images of Andromeda galaxy. If the Universe is filled with invisible teeny weeny primordial black holes, with masses lighter than the moon, as postulated by Stephen Hawking, then the team should have seen at least 1,000 gravitational lensing events. However, they were able to see at most one such candidate event, if not none. This implies Prof Stephen Hawking's theory that such black holes make up all of dark matter is wrong.

### Gravitational lensing

- Black holes are not radiant and will not be visible through any telescope. However, as first suggested by Albert Einstein, if by chance, a tiny primordial black hole eclipses a distant star, light rays of the star will bend around the black hole due to the gravitational force, resulting in the star appearing to be brighter than it originally is for a short while.
- Called "gravitational lensing", this rare phenomena can occur only when the star, the black hole and the observer on the Earth are aligned in a straight line.

- Cardiological Society of India (CSI): It is the oldest and the most prestigious organization of cardiologists in the country. It was founded in 1948.
- National Interventional Council: It is the interventional arm of CSI established to provide forum for practitioners of this sub-specialty.

## WORLD HOMEOPATHY DAY

### ◎ CONTEXT:

- The two-day Convention on World Homeopathy Day was inaugurated by Secretary, Ministry of AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy) in New Delhi on 10 April. AYUSH systems also includes SOWA-RIGPA.

- The theme of the convention this year is-linking research with education and clinical practice.

#### © ABOUT:

#### What is Homoeopathy system of medicine?

- The word 'Homoeopathy' is derived from two Greek words, Homois meaning similar and pathos meaning suffering. Homoeopathy simply means treating diseases with remedies, prescribed in minute doses, which are capable of producing symptoms similar to the disease when taken by healthy people.
- Its strength lies in its evident effectiveness as it takes a holistic approach towards the sick individual through promotion of inner balance at mental, emotional, spiritual and physical levels.
- It was developed by Dr. Samuel Hahnemann in Germany in 1796. Now it is one of the major forms of treatment, adapted by most of the doctors of the world.

#### Why World Homoeopathy Day is observed?

- It is observed every year on April 10 to commemorate the birth anniversary of Dr. Samuel Hahnemann, founder and father of Homoeopathy system of Medicine.
- Observance of day seeks to spread more knowledge about this form of medicine in mainstream public health.
- It is an effort to bridge the gap between science and tradition through researches in the field of AYUSH.
- It gives an opportunity to review the path trodden so far, take stock of the challenges facing us, and formulate future strategies for development of Homoeopathy.

#### Initiatives of Ministry of AYUSH to promote Homoeopathy

- It launched the Short Term Studentship in Homoeopathy Scheme (STSH) for undergraduate Students and also the Central Council for Research in Homeopathy (CCRH) Scholarship Scheme for MD Students as a step towards capacity building and encouraging research aptitude among students.
- It is undertaking clinical research on cure of epidemic diseases like Dengue, Influenza, Chikungunya, Tuberculosis and other infectious diseases.
- A Dossier on 'Homoeopathy – A Science of Gentle Healing' and 'Standard Treatment Guidelines' on 15 more diseases have been developed by CCRH.
- The 'CCRH Archives on Homeopathy' a digital repository of accumulated knowledge in homeopathy, having important homoeopathic literary material spread all over the world has been launched.

#### Central Council for Research in Homeopathy (CCRH)

- It is an apex research organization under Ministry of AYUSH, Govt. of India which undertakes, coordinates, develops, disseminates and promotes scientific research in Homoeopathy. It was constituted in 1978.
- The Headquarters of the Council are situated in New Delhi and multi-centric research is conducted through a network of 26 institutes/units all over India.
- Objectives:
  - To formulate the aims and patterns of research on scientific lines in Homoeopathy
  - To exchange information with other institutions, associations and societies interested in the objectives similar to those of the Council
  - To propagate research findings through monographs, journals, newsletters and develop audio-visual aids for dissemination of information to the profession and public.

## BATTLE OF KANGLA TONGBI

### ◎ CONTEXT-

- The Platinum Jubilee of the Battle of Kangla Tongbi War was commemorated on 07 Apr 2019 by Army Ordnance Corps at Kangla Tongbi War Memorial near Imphal honouring the valiant brave hearts of Ordnance Personnel of 221 Advance Ordnance Depot who made their supreme sacrifice in the line of duty during the battle of World War-II on the night of 6/ 7 April 1944.

### ◎ ABOUT-

- It is considered one of the fiercest battles of World War II.
- It was fought by Ordnance personnel of 221 Advance Ordnance Depot (AOD) on the night of 6/7 April 1944 against Japanese forces.
- Japanese forces had planned a three pronged offensive to capture Imphal and the surrounding areas.
- In their attempt to extend their line of communication to Imphal, the 33rd Japanese Division cut in behind the 17th Indian Division at Tiddim (Mynmar) and establishing themselves firmly on the main Kohima – Manipur highway, started advancing towards Kangla Tongbi.
- However, combatant role of AOD personnel shook the enemy and forced the Japanese to withdraw.

### Significance:

- The Kangla Tongbi War Memorial is a mute testimony to this battle and the unflinching devotion to duty of the Ordnance personnel of 221 AOD, 19 of whom made the supreme sacrifice.
- It conveys to the world at large that Ordnance personnel, apart from being professional logisticians, are second to none in combat, being equally proficient soldiers, should the occasion demand.

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