

CURRENT AFFAIRS

WEEKLY

WEEK 1
APRIL
2021

MAINS

GS-I

- Global Gender Gap Index

GS-II

- Uniform Civil Code and debate surrounding it

- Electoral Bonds

GS-III

- Deep Fakes

GS-IV

- Relevance of Mahatma Gandhi's principles dealing pandemic

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- Shigmo Festival
- Anangpal II Tomar Dynasty

INTERNATIONAL RELATIONS

- The Joint Comprehensive Plan of Action (JCPOA)

ECONOMY

- India ranked 40th on International Intellectual Property Index

- Chenab Arch Bridge

ENVIRONMENT

- Area in Maharashtra's Sindhudurg named as a 'biodiversity heritage site'
- Two species of seaweed discovered along India's coastline

SCIENCE & TECHNOLOGY

- Green Propulsion for India's Human Space Mission 'Gaganyaan'
- Hidden 'Goldilocks' black hole exposed by early universe explosion
- NASA's InSight lander

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— Disclaimer —

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- 1 (APRIL, 2021)

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SECTION: A

(MAINS)

CURRENT AFFAIRS

GLOBAL GENDER GAP INDEX

CONTEXT

Recently the Global Gender Gap Index was released by the World Economic Forum. India has been one of the worst performers in South Asia and has fallen 28 places in the World Economic Forum's Global Gender Gap Report 2021.

◎ BACKGROUND

- The Global Gender Gap Index is released by the World Economic Forum. It was first introduced in 2006 to benchmark progress towards gender parity.
- It was the 15th edition of the Global Gender Gap Report 2021 which comes out a little late over one year after COVID-19 was officially declared a pandemic.
- It is an index that is designed to **measure gender equality**.
- The released report examines four overall areas of inequality between men and women-
 - Economic participation and opportunity
 - Educational attainment
 - Political empowerment
 - Health and survival
- It tracks the progress for the closing of the gender gaps over time.

been further widened since the 2020 edition of the report by 2.4 percentage points.

- At the current rate of progress, the World Economic Forum estimates that it will take more than 145.5 years to attain gender parity in politics.

• Gender gap in Economic Participation and Opportunity

- It is the second-largest of the four key gaps tracked by the index. A marginal improvement was seen in the gap since the 2020 edition of the report and as a result, we estimate that it will take another 267.6 years to close the gap.

• Gender gaps in Educational Attainment:

- In Educational Attainment, 95% of this gender gap has been closed globally, with 37 countries already at parity.
- The index estimates that on this current trajectory, it will take another 14.2 years to completely close this gap in terms of gender.

• Gender gaps in Health and Survival

- Globally, the average distance completed to parity is at 68%, a step back compared to 2020 (-0.6 percentage points).
- On its current trajectory, it will now take 135.6 years to close the gender gap worldwide

◎ ANALYSIS

Key global findings of the reports

- Iceland is declared as the most gender-equal country in the world for the 12th time, which is followed by Norway, Finland, and Sweden.
- The five most-improved nations in the overall index are Lithuania, Serbia, Timor-Leste, Togo, and United Arab Emirates. These countries had narrowed down their gender gaps by at least 4.4 percentage points or more.
- Western Europe had remained the most progressed region with the gender parity at 77.6%.
- The Middle East and North Africa region again remain the area with the largest gap of 60.9%.
- Three new countries have been assessed for the first time: Afghanistan with 44.4% of the gender gap, rank- 156th), Guyana (72.8%, rank- 53rd), and Niger (62.9%, rank-138th).
- In the report, global gender gap analysis is based on the following patterns:
- **Gender gap in Political Empowerment**
 - The gap under this category remains the largest of the four gaps tracked. The gap has

What are the observations made for India?

- India has ranked 140 out of 156 countries. It has slipped to 28 places from the last year.
- **Political Empowerment:** India has declined on the political empowerment index as well in the number of women ministers.
 - It has performed relatively well in women's participation in politics and ranked 51. The upward movement in rank was observed due to several females to the male head of state ratio. However, India did not perform well in the women representation in parliament and ministerial positions. This shows that the opportunities were not given to women for proper representation in Parliament.
- **Health and survival:** India secured rank 155 on this front. Its performance on Sex ratio at birth and healthy life expectancy has remained dismal.

Despite several women-centric health programs, the rank in this front shows the lack of access or leakages in the system.

- **Economic Participation and Opportunity:** India got rank 151 on this end. This shows a poor labor force participation rate, inequality in wages for similar work, reduction in income, less participation as legislators, senior officials, and managers. The equal pay for equal work notion has not done well for women. And Still, a large gap exists in terms of position and payment for women.
- **Education attainment:** In the index of education attainment India has ranked at 114. India has shown improvement in the literacy rate. On the enrolment front for primary, secondary, and tertiary levels of education, India has performed very well. The Right to education has been one of the major reasons for the improvement of this parameter.

What are the reasons behind the gap?

- **Gender-based sex-selective practices:** High incidence of gender-based sex-selective practices is behind the wide gaps in sex ratio at birth.
- **Violence:** Besides, more than one in four women have faced intimate violence in their lifetime.
- **Low rate of literacy:** Gender gaps persist in terms of literacy.
- **Economic difficulties:** Women continue to face economic and workplace difficulties and declining political participation, despite the progress in education and health.

Steps taken by the Government to reduce the gender gap

- **Health sector initiatives:** ICDS (Integrated child development services, Matritva Sahyog Yojana for Pregnant and lactating women, Matru Vandana Yojna, and Janani Suraksha Yojna are some of the health sector initiatives for women.
- **Gender gap reduction:** STEP scheme, MGNREGA are some of the initiatives for gender gap reduction.

- **Educational initiatives:** Sarva Shiksha Abhiyan, Right to Education, Kasturba Gandhi Balika Vidyalayas are some of the educational initiatives.
- **Reservation in Parliament:** The **Women's Reservation Bill (108th amendment)** was introduced in the parliament to reserve 33% of Lok Sabha and Vidhan Sabha seats for women but the bill has yet to be passed by Lok Sabha.

Suggestions to reduce the gap

- **Social integration:** A more social integration is required to bring parity among the gender. The removal of prejudices and awareness generation through sensitization programs can be effective.
- **Employment opportunities:** Women's employment should be increased in the formal sector. A more healthy working environment for women, equal salary, promotion for higher positions, removal of prejudices, and skill training programs should be adopted.
- **Reservation of seats in Parliament:** Seats should be reserved for women in parliament, so they can have good participation in the governance and sensitize the population.
- **Education:** More female-centric schemes, scholarships, hostels should be improved.
- **Spreading awareness against child abuse and violence:** Stopping sex identification and abortions, sensitization of female issues should be encouraged. Promoting NGOs to eradicate Gender Inequality can be taken.

◎ WAY FORWARD

The slippage by a huge rank on the gender gap index is a major concern for India, which indicates the reduced level of women equality. The situation needs to be handled with vigor otherwise the other important half of the population will be left out of the path of growth.

UNIFORM CIVIL CODE AND DEBATE SURROUNDING IT

CONTEXT

The Chief Justice of India (CJI) recently applauded Goa's Uniform Civil Code. He also encouraged "intellectuals" who are involved in 'academic talk' to visit the state to learn about it.

◎ BACKGROUND

- CJI of India said that Goa has Uniform Civil Code as envisaged by the Constitution, and all the academicians and Intellectuals debating on the subject, should come and see how justice is administered in the state of Goa.
- Goa has also been described as the 'shining example' of the success of the Uniform Civil Code before.
- Goa is the only Indian state which has a Uniform Civil Code in the form of common family law.
- In the 19th century, the Portuguese Civil Code was bought in place and it has not been replaced even after Goa's independence, thus, remaining in force.
- In 2018, taking a view contrary to the Supreme Court, the **Law Commission** of India had concluded that "a Uniform Civil Code is neither feasible nor desirable".

In this context, let us understand the concept of the Uniform Civil Code and the debate surrounding it in detail.

◎ ANALYSIS

What is Uniform Civil Code?

- A Uniform Civil Code means that all sections of the society irrespective of their religion shall be treated equally according to a national civil code, which shall apply to all uniformly.
- It covers areas like - Inheritance, Marriage, adoption, divorce, maintenance, etc. It is based on the presumption that no connection exists between religion and law in modern civilization.
- Article 44 present in the Directive Principles of State Policy (Part IV) of the Indian Constitution states, "The State shall endeavor to secure for the citizens a uniform civil code throughout the territory of India".

Historical Perspective:

- During British rule, while criminal laws were codified and became common for the whole country, personal laws continue to be governed by separate codes for different communities.

- After independence, there was division on the issue that, should the Uniform Civil Code be placed in the fundamental rights chapter or not?
- The matter was settled by a vote and finally, UCC was placed outside fundamental rights
- Later, a common **Hindu code** was put forward by BR Ambedkar. But that bill also could not pass the legislature. The provisions of the bill were later diluted and then passed.

The two crucial debates

• DPSP vs Fundamental Rights

- ▶ **Fundamental Rights are justiciable** while DPSP is not, this makes Fundamental Rights inherently more important than DPSP.
- ▶ The 42nd Amendment Act, inserted **Article 31C** which stated that, if a law is made to implement any directive principle, it cannot be challenged on the ground of being violative of the fundamental rights under Articles 14 and 19.
- ▶ In the **Minerva Mills Judgement (1980)**, Supreme Court held, "Indian Constitution is founded on the bedrock of the balance between Parts III (Fundamental Rights) and IV (Directive Principles). To give absolute primacy to one over the other is to disturb the harmony of the Constitution."
- ▶ Thus, Supreme Court held, that a **balance between Fundamental Rights and DPSP** is needed in policy-making.

• Uniform Civil Code vs Fundamental Right to Religion

- ▶ Some important Article relating to Fundamental Right to Religion in the current debate are
 - **Article 25** - lays down the individual right to religion
 - **Article 26** - Right of each religious denomination to or any section to manage its affairs in matters of religion
 - **Article 29** - includes the right to conserve distinctive culture (is a part of Cultural and Educational Rights)

- An individual's freedom of religion under Article 25 is subject to "public order, health, morality" and other provisions relating to fundamental rights.
- The Constituent Assembly was divided on the matter of whether UCC and the Right to religion should be in the same Part.
- But eventually, the assembly voted by 5:4 ratio of keeping UCC in Part IV, thus giving it lesser importance than the Fundamental Right to religion.

How will Uniform Civil Code Help?

- It will help in the **integration of India**, as today personal laws vary across states as well as religion.
- **Modern and progressive** laws can be made. For example, current laws which discriminate against women can be done away with.
- It will help **reduce vote bank politics**.
- It will **reduce the burden on the judiciary** as currently, a plethora of personal law leaves many loopholes and uncertainty.
- It will lead to a **truly secular state** where everyone would be treated equally despite his/her religion.

What are the arguments against UCC?

- The term 'secularism' in our constitution has meaning only if it assures that every religious group has freedom of expression of any form of difference. UCC goes against this principle.
- Both religious and regional **diversity may get subsumed** under the louder voice of the majority.

- **Discriminatory practices within a religion** can hide behind the cloak of that faith to gain legitimacy

Challenges in implementation of UCC

- **Vast range of interests:** The task of actually devising a set of common rules that will govern all communities is a very challenging and complex one. A vast range of interests and sentiments have to be accounted for.
- **Misinformation about UCC:** Idea of UCC has not been clearly articulated publicly, leading minorities to believe that it is a way of imposing majority views on them.
- **Lack of political interest:** Lack of political will due to the sensitivity and complexities involved in the issue. Political parties do not want to risk their support base.
- **Communalization:** Different religious communities have their laws which lead to the communalization of the UCC debate.

◎ CONCLUSION

A progressive outlook should be encouraged among the citizenry which would help understand the spirit of the UCC. For this, value-based education, awareness, and sensitization programs can be taken up. Instead of using UCC as a sentimental issue to gain political advantage, political, intellectual, and religious leaders should try to evolve a consensus around it and help India realize the objective that our constitutional framers envisioned.

ELECTORAL BONDS

CONTEXT

Recently, the Supreme Court of India dismissed the petitions that sought to put a stay on fresh sale of electoral bonds ahead of the state elections of West Bengal, Assam, Kerala, Tamil Nadu, and the UT of Puducherry.

◎ BACKGROUND

- The **Supreme Court dismissed two stay applications** that were filed by NGO Association for Democratic Reforms, in 2019 and earlier this month.
- A three-judge bench of the SC headed by Chief Justice of India (CJI) noted that the sale of these bonds, which began in January 2018, has continued **"without any impediment"** in the past three years.
- The Supreme Court of India, in 2019, had introduced an interim "safeguard", which directed all political parties to **submit details of receipts** that they received through electoral bonds **to the Election Commission in a sealed cover**.
- The safeguard was introduced as an interim measure until the decision on pending petitions questioning the validity of Electoral Bond was decided.
- A petition challenging the constitutional validity of the Electoral Bond scheme was filed in the Supreme Court in 2018.
- This case, which is vital for the health of Indian democracy, has been left unheard by the Supreme Court.

- Companies
- Foreign Nationals
- Individuals or groups of individuals
- NGOs, religious and other trusts

Increasing Popularity of the Scheme

- According to the Government, electoral bonds will help them in preventing the flow of black money into elections.
- Electoral bonds have become the dominant method for funding political parties in India, in the last three years.
- According to an analysis by ADR, more than half the total income of national parties and the regional parties for the financial year 2018-19 came from electoral bonds donations.
 - The biggest beneficiary of this scheme has turned out to be the Bharatiya Janata Party (BJP).

Stand of Election Commission on the Scheme

- The Election Commission has opposed the exemption of political parties from disclosing the donation received by them.
- In a letter to the Law Commission, it has asked the Government to 'reconsider' and 'modify' the above amendment.

◎ ANALYSIS

What is the Electoral Bond Scheme?

- The Scheme was announced in the Union Budget of 2017.
- Electoral Bonds are **interest-free bearer instruments**, which are used to **donate money to political parties, anonymously**.
- The specialty of a bearer instrument is that it **does not carry any information about the buyer** and the holder of the instrument (in this case, the political party) is presumed to be its owner.
- The bonds are sold in multiples of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh, and Rs 1 crore, and the only authorized bank that can sell them is **the State Bank of India (SBI)**.
- The party could **encash the bond within 15 days** through its verified account.
- **No upper limit** has been imposed on the number of bonds an individual or company can purchase.
- Donation can be made by:

Stand of RBI on the Scheme

- According to RBI, such a scheme has no precedent in the world.
- RBI has highlighted that the scheme can help in money laundering. According to RBI, the bonds can be misused and could lead to more black money.
- RBI also feared that it would make political funding opaque.

Why has the scheme been opposed?

- **Circumvent citizens 'Right to Know':**
 - Before the introduction of electoral bonds, political parties needed to disclose details of all their donors, who have donated more than Rs 20,000.
 - But with the coming of Electoral bonds, Political parties are not required to disclose any amount of funding they receive to citizens or voters.

- Thus, the voter may never know, which political party is getting funded by which individual or organization and to what extent.
 - This infringes the citizens 'Right to know' and makes political parties **even more unaccountable**.
 - **Provides undue advantage to the ruling party:**
 - The electoral bonds, which provide anonymous and limitless donations to political parties, do so **asymmetrically**.
 - To elaborate, **the Government (i.e. the ruling party), can always access details** of people who have donated them by demanding data from the State Bank of India (SBI).
 - While **other political parties will have no information regarding the donations** they receive.
 - Thus, the bonds incline information towards the ruling party, making the bonds **inherently undemocratic**.
 - **Government Policy can get biased:**
 - Money has been the most effective way of buying a policy, across all democratic societies.
 - Electoral bonds help **skew the field** in one's favor, as only the political party knows individuals or organizations who have donated for them.
 - Electoral bonds create a much severe problem as citizens are kept in the dark about the source of money. It becomes impossible for them to assess whether any government **policy is nothing more than a quid pro quo to benefit its funders**.
 - Democracies have always tried to limit the role of money in influencing politics.
 - For example, in many advanced countries, elections are funded publicly, and it is ensured that there does not exist a wide gap between the ruling party and the opposition.
 - The electoral scheme, on the other hand, removes all limits and allows corporations with huge sums of money to buy politicians.
 - This defeats the entire purpose of democracy, which as B.R. Ambedkar memorably pointed out, was not just to guarantee one person, one vote, but **one vote one value**.
 - **No proof that the scheme helps in circumventing Black Money:**
 - Apart from this, it has not been established yet how donor anonymity, limitless donations, and reducing transparency can help in preventing black money.
- ## ◎ CONCLUSION
- By suppressing information of political financing, we are hampering the basic tenets of democracy like transparency and accountability. An unsettled law is as dangerous as a poor law. The Court must once and for all, settle the questions around the constitutionality of electoral bonds.

DEEP FAKES

CONTEXT

AI-generated fake videos (or deep fakes) are becoming more common and convincing. These videos have become one of the key weapons used in propaganda battles for quite some time now.

◎ BACKGROUND

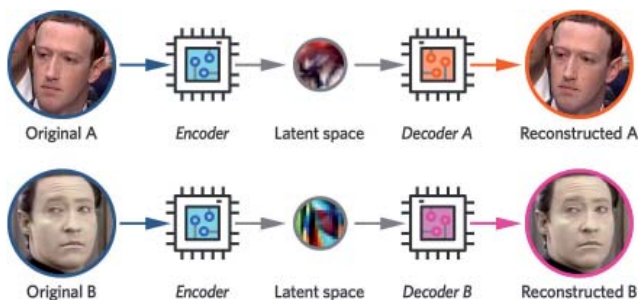
- Deep Fakes constitute fake multi-media content — often in the form of videos but also other media formats such as pictures or audio — created using powerful artificial intelligence tools.
- Deep Fake makes it possible to synthesize media — switch faces, lip-syncing, and puppeteers — mostly without consent. This creates a threat to internal security, political stability, and business disruption in a nation.
- Currently, most social media companies such as Twitter and Facebook have banned deepfake videos. They have told that if they detect any video as deep fake manipulated or synthetically generated, it will be taken down.
- Today, as technology advances,
 - it is becoming increasingly easier for anyone to produce deep fakes and
 - deep fakes are becoming harder to detect using traditional techniques

In this article, we will therefore first understand deep fakes and then the various challenges they pose for our society and ways to address them.

◎ ANALYSIS

What is deep fake?

- Deep Fakes are called so because they use deep learning technology, a branch of Artificial intelligence that applies neural network simulation to large data sets, to create fake videos.



- Using this technology, a person's head movements and expressions, etc are transferred onto some other person's video in such a way that it becomes difficult to tell that it is a deep fake unless one closely observes the source media file.

- Here the AI learns what a source face looks like and then transposes it onto another target to perform a face swap seamlessly.

An illustration of how a Deep fake video is created

How are deepfakes detected currently?

- Currently, deep fakes are identified manually or by software, using some identifiers like:
 - Flicking, blur with bleeding color, etc. in poorly produced deep fake videos
 - Unusual eye blinking pattern in deep fake videos
 - Using markers known as "soft biometrics" of a person i.e., his/her eyebrow movements, lip movements, etc.

Why are deep fakes becoming harder to detect?

- Newer and more advanced deep fakes use a machine learning technique called generative adversarial network, or GAN
- This type of machine learning system consists of two neural networks, operating in concert. One network generates the fake and the other tries to detect it, with the content iterating back and forth, and improving with each iteration (repetition of the process).
- This dynamic is replicated in the wider research landscape, where each new deep fake detection technique gives the deep fake makers a new challenge to overcome, making deep fakes increasingly foolproof.
- Thus, any deep fakes detector will only be going to work for a short while before deep fake makers account for it in their algorithm.

What are the threats posed by deep fakes?

- Can lead to a new type of Warfare:** A deepfake can be used as a powerful tool by a nation-state or on-state actors to undermine public safety and create uncertainty and chaos in the target country.
- Can undermine Democracy:** Deep Fakes can be used to power false information about public policy, institutions, and politicians which can be exploited to change stories and manipulate beliefs.

- A high-quality deepfake can create false information that can cast a shadow on the legitimacy of the voting process and election results.
- Deep fakes can become an effective tool to induce polarization, amplify division in society, and suppress dissent.
- **Can be used for targeting women:** The malignant use of a deepfake can be seen in pornography, inflicting emotional, reputational, and in some cases, violence towards the individual. Women can be disproportionately affected.
- **Can cause damage to personal reputation:** Deepfake can depict a person indulging in antisocial behaviors and saying vile things. Even when the deep fake is debunked, it may be too late to remedy the initial harm caused to the victim.
- **Can be used for financial and other frauds:** Deepfakes can be deployed to extract money, confidential information, or exact favors from individuals.
- **Media provenance** includes providing information on media origin, either in the media itself or as metadata of the media.
- **Deepfake detection** includes solutions that leverage various detection techniques to determine whether target media has been manipulated or synthetically generated
- **Increased public awareness and behavioral change in society:** Media literacy for consumers and journalists is the most effective tool to combat disinformation and deep fakes. Also, there is a need to take the responsibility to be a critical consumer of media on the Internet, think, and pause before sharing on social media.
- **Proper Regulation:** Effective regulations involving a discussion with the tech industry, civil society, academicians and policymakers can help to disincentivize the creation and distribution of malicious deep fakes.

How to counter deep fakes?

- **Technological Interventions:** Technical countermeasures used to mitigate the impact of deep fakes fall into three categories: media authentication, media provenance, and deepfake detection.
- **Media Authentication** includes solutions that help prove integrity across the media lifecycle by watermarking, media verification markers, signatures, and chain-of-custody logging

◎ CONCLUSION

In today's world of the internet and social media, infodemic and its associated problems of fake news and disinformation have become a major challenge for the internal as well as external security of nations. Deep fakes only add to these challenges. An important step, therefore, would be to increase public awareness of the possibilities and dangers of deep fakes. Informed citizens will act as a strong defense against misinformation and a national security threat.

RELEVANCE OF MAHATMA GANDHI'S PRINCIPLES DEALING PANDEMIC

CONTEXT

The current COVID-19 Crisis, created by the 'western socio-economic model', which is based on profits & consumerism, has revived the relevance of 'Gandhian philosophy' in today's world.

◎ BACKGROUND

- The current pandemic is a wake-up call for the postmodern world, and it spotlights the relevance of Mahatma Gandhi's principles loud and clear and to extract ourselves from the mesmerization of modernity.
- Gandhi went as far as to discredit modernity's alleged civilizational status as a "disease".
- However, 21st century is the era of globalization, that moves on to make the world a global village.
- Nowadays, there is this belief that all emergent problems (ecological, social, economic, political, and moral) could be resolved by technological innovations and further discoveries.
- Gandhi almost predicted the current pattern in the modern society in **Hind Swaraj** as he prepared its manuscript in 1908 in which he put forward four main goals. These are-
 - Swaraj
 - Non-violence
 - Swadeshi
 - Sarvodaya

◎ ANALYSIS

What is Gandhian ideology?

Gandhian ideology can be understood as the set of ideas based on religious and social concepts adopted and developed during Gandhi's period in South Africa (1893 to 1914), and later in India.

- The philosophy is not only simultaneously political, moral, and religious; it is also traditional and modern, simple and complex.
- Though it embodies various Western influences to which Gandhiji was exposed, it was rooted in ancient Indian culture harnessing universal moral & religious principles.
- His ideology focuses not only on idealism but on practical idealism. And it exists on several planes – such as the moral, political, economic, social, religious, individual, and collective.
- The philosophy is a double-edged weapon, whose objective is to transform the society and individual simultaneously, in accordance with the principles of 'truth' and 'non-violence'.

Mahatma Gandhi's principles and their relevance to health

Gandhi once said, "It is health that is real wealth and not pieces of gold and silver." Today, when everyone is running to acquire wealth while neglecting their health, there could not be any 'better eye-opener' than this quote.



Important Gandhian principles which still hold true

Swadeshi - Applied the meaning of swadeshi in multiple ways.

- **Political dimension:** The concept of Swadeshi is essential for the revival of the indigenous institutions and strengthening them.
 - In 1909, Gandhi pleaded the need for internal governance (swaraj) in the book **Hind Swaraj or Indian Home Rule**.
 - He wanted to empower the people through political **self-governance**.
 - His vision of a decentralized political system was **Panchayati Raj**
- **Religious dimension:** Swadeshi guides us to measure our glorious past and further enact it in the present generation.

- ◉ **Economic dimension:** Gandhi thought that the deep poverty prevailing among the masses was resultant of the departure from the path of Swadeshi in economic and industrial life.
 - Gandhi advocated the use of a product that is produced by our immediate neighbors and serves those industries by making them efficient, and strengthen them in areas where they are found deficient.
 - Encouraging and reviving the indigenous industries.
 - **E.g:** khadi was found as the most important corollary of the principle of Swadeshi
 - Also, the recent '**Make in India**' campaign is a re-imagined and modified version of the swadeshi movement.
 - Gandhi's concept of **Gram Swaraj** can be very well appreciated in the light of the COVID pandemic.

Relevance

Global dependence on China has made this pandemic & its recovery difficult for Nations therefore need of the hour.

Swachhata - "Sanitation is more important than independence".

- ◉ Cleanliness and sanitation were made an integral part of the Gandhian way of living.

Relevance

- Gandhi practiced and promoted personal hygiene and community sanitation, which has been advocated as **Social Vaccine** during this pandemic.
- Keeping surroundings clean helps in preventing most infectious diseases from contaminated water, oral faecal route, etc.

Sarvodaya - Sarvodaya is a term meaning 'Universal Uplift' or 'Progress of All'.

- ◉ The term 'Sarvodaya' was first coined by **Gandhi** as the title of his **1908** translation of John Ruskin's tract on political economy, "*Unto This Last*".
- ◉ It can be summed up as follows:-

- An individual's good is contained in the 'good of all'.
- A lawyer's work has the same value as the barber's in as much as all have the same right of earning their livelihood from their work.
- The life of the tiller of the soil and the handicraftsman is the real-life worth living.

Relevance

Adhering to this principle would have mitigated the troubles faced by migrants & the poor during the lockdown.

- This principle lays great emphasis on moral and spiritual values and it seeks to create new social and economic values.
- People will work for the good of all and family feelings will animate the entire community.
- Fullest scope for freedom, fellowship, and equality.
- Shifting of world's perspective from commerce-driven economy to humanity-driven economy.

Sustainable Living

- ◉ Mahatma Gandhi advocated living in harmony with the environment and eradicating exploitative practices as much as possible.

Emphasis on Ethics

- ◉ Gandhi called for integrating economics, politics, and technology with ethics.
- ◉ If China was prompt about the initial outbreak of the disease in Nov 2019, much of the damage could have been avoided.

◎ CONCLUSION

Given the catastrophic disruption caused in the global economy, now is the right time to rethink the Gandhian Principles of swachhta for protection from a pandemic, swadeshi for self-reliance and self-sufficiency, and finally Sarvodaya for the betterment of lives. Moreover, it would be the ideal moment to focus on regenerating our rural economy to bring about Gandhi's cherished dream of gram swaraj.

SECTION: B

(PRELIMS)

CURRENT AFFAIRS

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MALI AND UNESCO TO RECEIVE A 'SYMBOLIC EURO' FOR TIMBUKTU HERITAGE DESTRUCTION

◎ **CONTEXT:** The Government of Mali and UNESCO are to receive a 'Symbolic Euro' from the International Criminal Court (ICC) as a gesture of its 2017 judgment over the destruction of the cultural site of Timbuktu by the religious extremists, in 2012.

◎ **ABOUT:** Timbuktu



- **Timbuktu** is a city in the **West African country of Mali**.
 - It is situated on the southern edge of the **Sahara and North of the Niger River**.
- It has been an important trading post on the **trans-Saharan caravan route** and has been a **center of Islamic culture**.
- The city was declared as a **UNESCO World Heritage site in 1988**.
- In 2012, due to the armed conflict in the region, Timbuktu was added to the **UNESCO List of World Heritage in Danger**.
- **Architecture:** It has famous Mosques of Djingareyber, Sankore, and Sidi Yahia, sixteen mausoleums, and holy public places.
 - The mosques are examples of **earthen architecture** and traditional maintenance techniques.

Symbolic Euro: The symbolic euro is a token of the need for redress, though the amount will never be paid.

SHIGMO FESTIVAL

◎ **CONTEXT:** The Goa government has limited the Shigmotsav (Shigmo festivities) parades to three locations only (Panaji, Ponda, and Mapusa), owing to rising cases of Covid-19 in the state.

© ABOUT:

About the festival

Other Major harvest festivals

- **Makar Sankranti** – An Auspicious Day For Hindus
- **Baisakhi** – Celebrating With The Rhythms Of Dhol And Bhangra
- **Ladakh Harvest Festival** – Buddhist Tradition At Its Best
- **Lohri** – A Punjabi Folk Festival
- **Basant Panchami** – To Celebrate Birth Of Goddess Saraswati

- **State:** It is Goa's harvest festival. It is also known as Shishirotsava and it is the biggest Hindu folk festival.
- **Goan life in traditional folk dances:** The festival also depicts the Goan life in traditional folk dances like Ghode Modni, Goff, and Fugdi, performed in troupes along the procession, passing through the streets that are lit up with colorful décor.
- **Konkani name:** Shigmo as it is called in Konkani is a vibrant celebration full of color, song, and dance rooted in Goan culture and traditions.
- **Golden harvest of paddy:** It is the celebration of a 'rich, golden harvest of paddy' by the tribal communities of Goa.
- **Agricultural communities:** including the Kunbis, Gawdas, and Velips celebrate the festival that also marks the onset of spring.
- **Shigmo Street Parade:** These color parties sometimes see individuals wearing spirited vesture playing ancient folk dances to depict the historical gift of the Maratha War that backs this competition.
- **Time:** Shigmo celebrations last over a fortnight in the months of Phalgun-Chaitra months of the Hindu calendar that correspond with March-April every year.

Other similar festivals all over India

- **Rang Panchami** – Maharashtra
- **Lathmar Holi & Holi Milan** - Uttar Pradesh
- **Holla Mohalla**- Punjab
- **Shigmo**- Goa
- **Royal Holi**- Udaipur
- **Kumaoni Holi** – Uttarakhand
- **Manjal Kuli**- Kerala

• **Festival Details:**

- It was traditionally celebrated as the homecoming of the warriors who had left their homes and families at the end of Dusshera to fight invaders.
- The festival begins with Naman, the invocation of local folk deities on the village maand, or the village stage, to the beats of percussion instruments like the ghumat, dhol, mhadle and tashe by men. This is called the romta mell that moves from one village to another.
- The celebration is replete with traditional, colourful costumes, mythological installations, painted faces and colourful costumes.
- Ik dances like Ghodemodini (a dance of equestrian warriors), Gopha and Phugadi are among the many performed by the participating communities.
- There are float parades too during Shigmo festival.

• **Variants of the festival:**

- **Dhakto Shigmo:** It is celebrated by the rural population, farmers and the labour class.
- **Vhadlo Shigmo:** It is of greater importance and is celebrated by everyone.

ANANGPAL II TOMAR DYNASTY

◎ **CONTEXT:** A government seminar conducted recently in Delhi highlighted the legacy of the long-forgotten Tomar king Anangpal II.

◎ **ABOUT:** About Anangpal II

- **Anangpal Tomar:** He was popularly known as Anangpal Tomar.
- **Dynasty:** He belonged to the Tomar dynasty that ruled parts of present-day Delhi and Haryana between the 8th and 12th centuries.
- **Founder of Dhillikapuri:** Anangpal II was the founder of Dhillikapuri, which eventually became Delhi.
- **Inscriptions and coins:** Their rule is attested by multiple inscriptions and coins.
- **Lal Kot fort and Anang Tal Baoli:** The region was in ruins when he ascended the throne in the 11th century; it was he who built Lal Kot fort and Anang Tal Baoli.
- **Battle of Tarain:** The Delhi Sultanate was established in 1192 after Prithviraj Chauhan's defeat in the Battle of Tarain (present-day Haryana) by the Ghurid forces.
- **Prithviraj Chauhan:** Anangpal Tomar II was succeeded by his grandson Prithviraj Chauhan.
- Tomars and their Delhi link:
 - Noted medieval historian Professor KA Nizami's Urdu book named Ehd-e-Wusta ki Dilli mentions this.
 - It is translated in English as 'Delhi in Historical Perspectives'.
 - It looks at Delhi across six centuries, tracing the antecedents of Delhi.
 - It refers to Persian annals that describe Delhi as "Inderpat".
 - And yet, according to the book, Delhi formally emerged as a city only in the 11th century when Tomar Rajputs took over the mountainous Aravalli region.

Tomar dynasty

- It is one of the minor early medieval ruling houses of northern India.
- Puranic evidence gives its early location in the Himalayan region.
- According to bardic tradition, the dynasty was one of the 36 Rajput tribes.
- The history of the family spans the period between the reign of Anangapala, who founded the city of Delhi in the 11th century CE, and the incorporation of Delhi within the Chauhan kingdom in 1164.
- Although Delhi subsequently became decisively a part of the Chauhan kingdom, numismatic and comparatively late literary evidence indicates that Tomara kings such as Anangapala and Madanapala continued to rule as feudatories, presumably until the final conquest of Delhi by the Muslims in 1192–93.

Archaeological Survey of India (ASI)

- The Archaeological Survey of India (ASI) functions under the Ministry of Culture.
- It is the premier organization for archaeological researches and protection of the cultural heritage of the nation.
- Maintenance of ancient monuments and archaeological sites and remains of national importance is the prime concern of the ASI.
- Besides, it regulates all archaeological activities in the country as per the provisions of the Ancient Monuments and Archaeological Sites and Remains Act, 1958.
- It also regulates Antiquities and Art Treasure Act, 1972.

THE JOINT COMPREHENSIVE PLAN OF ACTION (JCPOA)

◎ **CONTEXT:** The U.S. and Iran said that they would begin negotiations through intermediaries to try to get both countries back into an accord limiting Iran's nuclear programme

- ◎ **ABOUT:**
- The announcement marked the first major progress in efforts to return both countries to the 2015 accord, which bound Iran to restrictions on its nuclear programmes in return for relief from U.S. and international sanctions.
 - But Iran and the U.S. have disagreed over Iran's demands that sanctions be lifted first.
 - Trump pulled the U.S. out of the accord in 2018, opting for a "maximum pressure" campaign of stepped-up U.S. sanctions and other tough actions.
 - Iran responded by intensifying its enrichment of uranium and building of centrifuges, while maintaining its insistence that its nuclear development was for civilian and not military purposes.
 - Iran's moves increased pressure on major world powers over the Trump administration's sanctions and raised tensions among U.S. allies and strategic partners in West Asia.
 - Agreement on the start of indirect talks came after the EU helped broker a virtual meeting of officials from Britain, China, France, Germany, Russia and Iran, which have remained in the accord, known as the Joint Comprehensive Plan of Action (JCPOA).

Geography of Iran

- Iran is located in West Asia and borders the Caspian Sea, Persian Gulf, and Gulf of Oman.
- The Persian Gulf and Gulf of Oman littorals form the entire 1,770 kilometres southern border.
- To the east lies Afghanistan on the north and Pakistan on the far south.
- The topography of Iran consists of rugged, mountainous rims surrounding high interior basins.
- The main mountain chain is the Zagros Mountains.

Iran Nuclear Deal

- It is also known as the Joint Comprehensive Plan of Action (JCPOA).
- The JCPOA was the result of prolonged negotiations from 2013 and 2015 between Iran and P5+1 (China, France, Germany, Russia, the United Kingdom, the United States, and the European Union, or the EU).
- Iran agreed to significantly cut its stores of centrifuges, enriched uranium and heavy-water, all key components for nuclear weapons under this treaty.

India-Iran relations

- Trade ties: There are significant trade ties, particularly in crude oil imports into India and diesel exports to Iran.
- Supporter of India at various platforms: Iran frequently objected to Pakistan's attempts to draft anti-India resolutions at international organisations such as the OIC and the Human Rights Commission.
- Inclusion as an observer state in the SAARC: India welcomed Iran's inclusion as an observer state in the SAARC regional organisation.
- Zaranj-Delaram Highway: A highway between Zaranj and Delaram is being built with financial support from India.
- The Chabahar port: has also been jointly financed by Iran and India. It will give it access to the oil and gas resources in Iran and the Central Asian states.

- Members in the North–South Transport Corridor: It is the ship, rail, and road route for moving freight between India, Russia, Iran, Europe, the Caucasus, and Central Asia.
- **Religious factor:** The world's largest population of Zoroastrians are the Parsi community in India.

INDIA RANKED 40TH ON INTERNATIONAL INTELLECTUAL PROPERTY INDEX

◎ **CONTEXT:** India is ranked 40 among 53 economies through the latest annual edition of the International Intellectual Property (IP) Index.

- ◎ **ABOUT:** **What is the IIP Index?**
- It is released annually by the US Chamber of Commerce Global Innovation Policy Centre (GIPC).
 - The Index aims to evaluate Intellectual Property rights in 53 global economies through-
 - patent and copyright policies
 - commercialization of IP assets
 - ratification of international treaties

International Intellectual Property Index 2020

- India is ranked 40th in 2021, by scoring 38.4 out of 100. India has shown real improvement over the past few years.
- **Top Countries:** The United States, Japan, and Europe are at the top of the intellectual property rankings.
- **Improvement:** The overall global IP environment has been improved in 2020, with the positive score increasing in 32 of the 53 economies measured by the IP Index.

CHENAB ARCH BRIDGE

◎ **CONTEXT:** Chenab Arch Bridge set to be world's highest rail bridge.

- ◎ **ABOUT:**
- The length of the Chenab Bridge will be 1,315 metres with 17 spans, of which the span of the main arch across Chenab River will be 467m.
 - It would be higher than the Eiffel Tower in Paris.
 - The bridge will provide the much-needed all-weather connectivity between Kashmir and the rest of the country.

Chenab River

- It is a major river that flows in India and Pakistan, and is one of the 5 major rivers of the Punjab region.
- It rises in the upper Himalayas in the Lahaul and Spiti district of Himachal Pradesh state, India, and flows through the Jammu region of Jammu and Kashmir into the plains of Punjab, Pakistan, before flowing into the Indus River.
- The waters of the Chenab were allocated to Pakistan under the terms of the Indus Waters Treaty.
- The river is formed by the confluence of two rivers, Chandra and Bhaga.

- **Criticism:**

- The Chenab Bridge has been mired in controversy since its inception because it is bang in the middle of Seismic Zone IV and nestled in the young, folding Himalayas.
- A railway bridge like this, with this kind of geography, has not been made anywhere in the world.

- It is built by Konkan Railway Corporation Ltd.

Konkan Railway Corporation Ltd

- Konkan Railway Corporation Limited (KRCL) is a Union Government Company headquartered at CBD Belapur in Navi Mumbai that operates Konkan Railway and also undertakes other railway-related projects.
- The railway (railroad) route of KRCL covers the coastal districts of Maharashtra, Goa and Karnataka states of India.
- Konkan Railway Corporation is at the forefront of research and development of new technologies and concepts for Indian railways.
- The anti-collision devices, the Sky Bus and RORO are a few of Konkan Railway's innovations.

Chenab Arch Bridge

- **Northern Railway:** The Bridge is part of an ambitious 272-km rail link project and is being constructed by the Northern Railway.
- **Withstand earthquakes:** The Bridge will be able to withstand earthquakes with a magnitude of up to eight and high-intensity blasts.
- **Lifespan:** It will include a 14-metre dual carriageway and a 1.2-metre-wide central verge; will have a design speed of around 100 kilometres per hour with a lifespan of 120 years.
- **Material used:** Steel was specifically chosen for the construction of the bridge as it will make the project more economical.
- **It can resist extreme temperatures:** The metal will also be able to resist temperatures of minus 20 degree Celsius and wind speeds of above 200 kilometres per hour.

AREA IN MAHARASHTRA'S SINDHUDURG NAMED AS A 'BIODIVERSITY HERITAGE SITE'

◎ **CONTEXT:**

The Maharashtra government declared an area in the Sindhudurg district in the Western Ghats as a biodiversity heritage site to protect a rare small fish Schistura.

◎ **ABOUT:**

Schistura

- Schistura is a small and colorful fish.
- Schistura Hiranyakeshi is a rare sub-species of Schistura which is a freshwater loach.
- The fish was named after the Hiranyakeshi river near Amboli
- It lives in water and streams with plenty of oxygen.

Why it has been declared a biodiversity heritage site?

- The decision came in the view of the protection of a freshwater species of fish, Schistura.
- It is a rare species and might face extinction due to fishing activities.

Other biodiversity heritage sites by the state government

- **The glory of Allapalli** in Gadchiroli district
- **Landor Khor Park** in Jalgaon
- **Ganesh Khind** in Pune
- **Myristica swamp vegetation** in Sindhudurg district

Biodiversity heritage sites

- Biodiversity Heritage Sites (BHS) are areas that are unique and with rich biodiversity.
- According to **Section 37**, of the **Biological Diversity Act**, the State Governments in consultation with 'local bodies' are empowered to notify areas of biodiversity importance as Biodiversity Heritage Sites.

Criteria for Identification of BHS

- Areas that contain a mosaic of natural, semi-natural, and manmade habitats
- Areas that contain significant domesticated biodiversity component and/or representative agro-ecosystems with ongoing agricultural practices that sustain this diversity
- Areas that are significant from a biodiversity point of view as also important cultural spaces such as sacred groves/trees and sites, or other large community conserved areas
- Areas including very small ones that offer refuge or corridors for threatened and endemic fauna and flora, such as community conserved areas or urban greens and wetlands
- Areas that provide habitats, aquatic or terrestrial, for seasonal migrant species for feeding and breeding
- Areas that are maintained as preservation plots by the research wing of the Forest department
- Medicinal Plant Conservation Areas

TWO SPECIES OF SEAWEED DISCOVERED ALONG INDIA'S COASTLINE

- ◎ **CONTEXT:** A group of marine botanists has traced new species of native seaweed along the coasts of Kanyakumari in Tamil Nadu and Gujarat and Daman Diu.
- ◎ **ABOUT:** About the new species discovered
- These species were found in the form of isolated patches in the intertidal regions of the sea.
 - Species and its place of discovery
 - Hypnea indica and Hypnea Bullata - Kanyakumari
 - Hypnea indica - Gujarat
 - Hypnea Bullata - Daman and Diu.
 - Potential use: Hypnea variants of seaweeds can have a good monetary benefit in the food industry as it contains Carrageenan which is a biomolecule commonly used in the food industry.
 - It can be a potential raw material for those involved in jelly and ice cream production.

Seaweed

- Seaweed is a macro-algae that is referred to as thousands of species of macroscopic, multicellular, marine algae.
 - The term seaweed includes some types of Rhodophyta, Phaeophyta, and Chlorophytamacroalgae also.
- Significance:** Seaweed species such as kelps provide essential habitats for fisheries and other marine species.
 - Some other types of seaweed such as planktonic algae play a vital role in capturing carbon and producing up to 90% of Earth's oxygen.

GREEN PROPULSION FOR INDIA'S HUMAN SPACE MISSION 'GAGANYAAN'

◎ **CONTEXT:** India's human space mission Gaganyaan is likely to use a green propellant to avoid all toxic and hazardous materials as a propellant.

◎ **ABOUT:** What is Green Propulsion?

- Green Propulsion** is a green alternative for the conventional chemical propulsion systems for future spacecraft.
- This is called a "green" fuel because when **combusted it transforms into nontoxic gasses**.
- Example: Hydroxylammonium nitrate (NH₂OHNO₃)** fuel/oxidizer blend which is also known as AF-M315E is one example of green propellant

Significance

- Efficient:** The green propulsion system seeks to improve **overall propellant efficiency**.
- Better performance:** It delivers a **higher specific thrust** delivered to per given quantity of fuel. It strives to **optimize the performance** of the hardware, systems, and power solutions.
- Easy & Safe:** This is **easier and safer** for storage and handling.
- Less toxic:** It will reduce the handling concerns which are associated with the toxic fuel hydrazine.
- Lower cost:** It requires a potentially shorter launch processing period and results in lowering costs.

Gaganyaan

- This is an Indian crewed orbital spacecraft for the formative spacecraft of the Indian Human Spaceflight Programme under ISRO.
 - The spacecraft is designed to carry three people.
 - The mission will have two unmanned flights and one human spaceflight.
- It will encircle Earth in a low-earth-orbit with an altitude of 300-400 km from earth.
- GSLV Mk III (LVM-3 (Launch Vehicle Mark-3))** the three-stage heavy-lift launch vehicle, will be used for the launch of Gaganyaan.

HIDDEN 'GOLDILOCKS' BLACK HOLE EXPOSED BY EARLY UNIVERSE EXPLOSION

◎ **CONTEXT:**

Analysis of light of a gamma-ray burst, which dates back three billion years ago, has revealed the presence of a previously undetected black hole.

◎ **ABOUT:****Key-highlights of the finding**

- **Intermediate-mass black holes:** The discovered black hole is **Intermediate-mass black holes** which is an elusive category of black holes that were considered non-existing until a few years ago.
 - In 2020, the **Hubble Space Telescope** provided a piece of evidence for an IMBH.

Intermediate-mass black holes (IMBHs) are a class of a black hole with a mass approximately 100 to 100,000 times that of the Sun.

The technique used

- The **gravitational lensing technique** was used to detect the black hole.
 - Under this technique, the gravity around a massive body bends light that comes from a source behind.
 - It is then used to identify the intermediate-mass black hole (IMBH) which lensed the **gamma-ray burst**.

What is a gamma-ray burst?

- The gamma-ray burst that is known as **GRB 950830** was detected in 1995.
 - GRBs are the most energetic form of electromagnetic events in the universe having short bursts of gamma rays that ejected at the speed of light.
 - Gamma-ray bursts are formed when a high-mass star collapses and creates a neutron star or black hole.

What is Gravitational lensing?

- When the light from distant galaxies or events like gamma-ray bursts passes by massive objects in the universe such as stars or black holes then **Gravitational lensing** is expected to occur.
- The gravitational tug of these massive bodies can bend the light and causes the source to look distorted.
 - **Weak:** When gravitational lensing is weak, it distorts the distant object or galaxy to appear magnified or stretched out.
 - **Strong:** When it is strong, it bends light to such a degree that multiple images of the same galaxy are visible.

Blackhole and its subtypes

- A black hole is a region of space-time where gravity is extremely strong that no object can escape from it.
- **Types:** There are two types of black holes which become three with the discovery:
 - **Stellar-mass black holes:** These are the black holes with a mass of fewer than 100 times that of the Sun.
 - **Supermassive black holes (SMBH):** These are the ones with a mass greater than 100,000 times that of the Sun.

Both stellar black holes and SMBHs are commonly found.

Some of the discovered black holes

- The **first-ever black hole** detected was **Cygnus X-1** in 1964.
- The **closest black hole** to Earth is a part of the system **HR 6819** and is active just 1,000 light-years from earth

- The **smallest known black** hole is **GRO J0422+32**. It was discovered in 1992 at around 7,800 light-years from us.
- **A supermassive black hole** called **Sgr A*** and is 26,000 light-years from Earth. It holds a mass of at least 40 lakh times the Sun's.

NASA'S INSIGHT LANDER

◎ **CONTEXT:**

Nasa's InSight lander has recorded over 500 quakes to date on Mars since its touchdown

◎ **ABOUT:**

- NASA's InSight lander has detected two strong, clear quakes originating in a location of Mars called Cerberus Fossae the same place where two strong quakes were seen earlier in the mission.
- The planet doesn't have tectonic plates like Earth, but it does have volcanically active regions that can cause rumbles.
- These findings support the idea that the planet is seismically active.

India's Mars Orbiter Mission

- It is also called Mangalyaan.
- It is India's first interplanetary mission and it made it the fourth space agency to achieve Mars orbit, after Roscosmos, NASA, and the European Space Agency.
- It made India the first Asian nation to reach Martian orbit and the first nation in the world to do so on its maiden attempt.
- The Mars Orbiter Mission probe lifted-off from the First Launch Pad at Satish Dhawan Space Centre.
- It used a Polar Satellite Launch Vehicle (PSLV) rocket.

InSight Lander and its significance

- NASA's InSight lander opens a window into the "inner space" of Mars.
- Its instruments peer deeper than ever into the Martian subsurface, seeking the signatures of the processes that shaped the rocky planets of the inner Solar System, more than four billion years ago.
- InSight's findings are expected to shed light on the formation of Mars, Earth, and even rocky exoplanets.
- The lander builds on the proven design of NASA's Mars Phoenix lander.

InSight Mission

- The Interior Exploration using Seismic Investigations, Geodesy and Heat Transport (InSight) mission is a robotic Lander designed to study the deep interior of the planet Mars.
- It was manufactured by Lockheed Martin Space Systems, is managed by NASA's Jet Propulsion Laboratory, and most of its scientific instruments were built by European agencies.
- InSight's objectives are to place a seismometer, called SEIS, on the surface of Mars to measure seismic activity and provide accurate 3D models of the planet's interior; and measure internal heat flow using a heat probe called HP3 to study Mars' early geological evolution.
- InSight was initially known as GEMS (Geophysical Monitoring Station).



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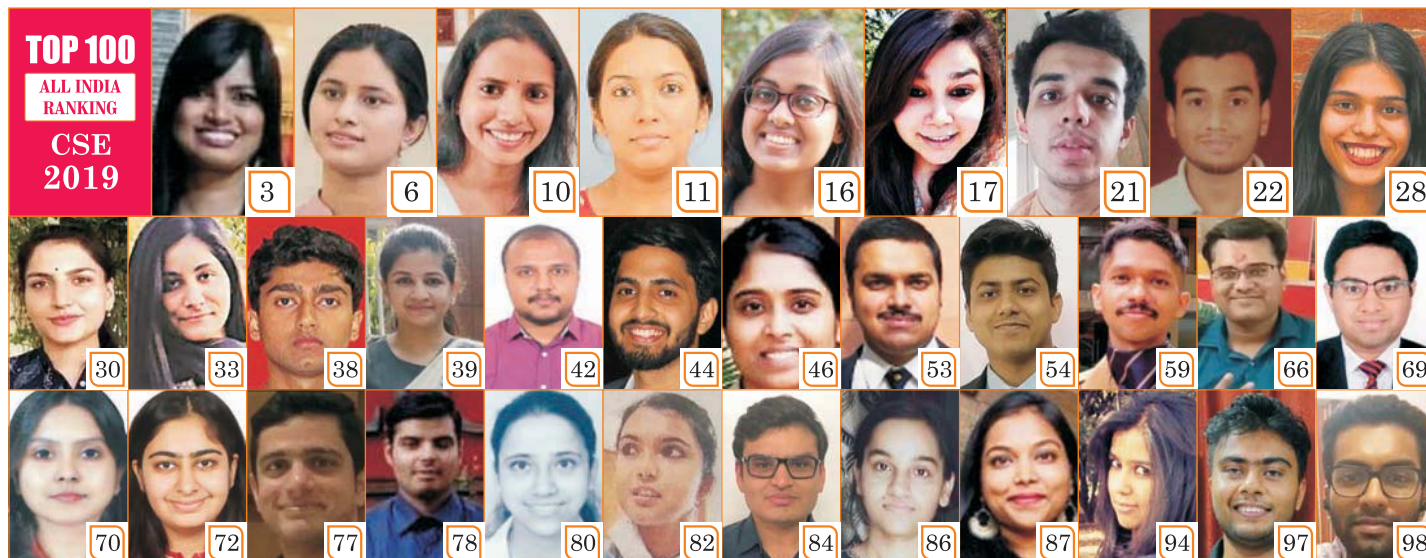
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