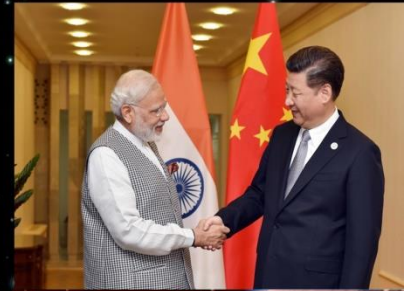
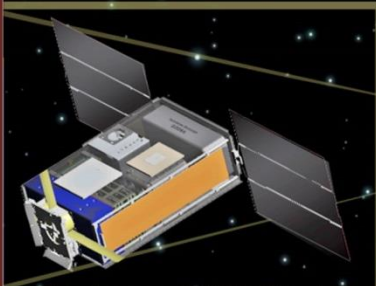


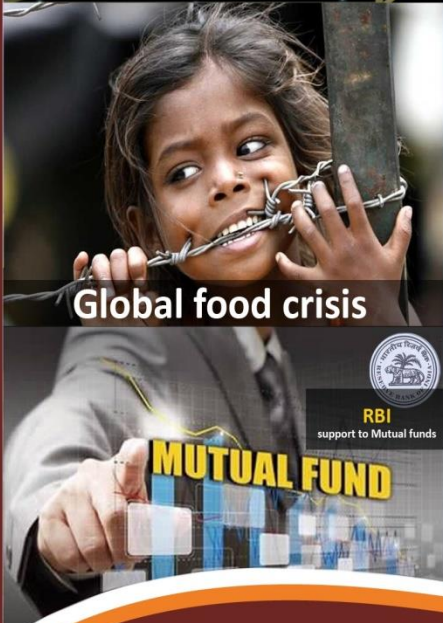
EXCEL QUEST

VOLUME - 5, May 2020

Mission Sunrise



70 years of Diplomatic with China



Global food crisis



PM CARES

Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund

Pm care fund for
COVID-19



A Monthly Magazine from

EXCEL CIVILS ACADEMY

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Contact: 91004 33442, 91004 33445

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Director's message

Dear friends,

As the adage goes, 'No news is good news', the UPSC has come out with a Statement postponing the CS Preliminary Examinations scheduled for 31st May 2020, thereby ending a month long uncertainty over the same due to COVID-19 lockdown 3.0. Earlier, the UPSC suspended the Personality Tests of those candidates who cleared the Mains Examination midway for similar reasons which happened for the first time in decades. While for some this may provide additional time to prepare, but for most of you the uncertainty must have turned your entire schedule topsy-turvy. However, the UPSC has also assured the aspirants that a review will be taken on 20th May and will give a clear one month's advance notice before conducting the CS Prelims Examinations. Given the current scenario, one may safely assume that the Prelims can be held any time by the end of June or mid July at the earliest with travel curbs being gradually relaxed. Having said that, I still expect you all to complete your preparation including revision with 31st May as the deadline and any extra time there after should be used to brush up your knowledge in those subjects where you find a little difficulty and take as many online tests as possible to develop adequate confidence to face the actual tests and when they are held.

The Lockdown 2.0 which was to end on 3rd May as per GOI and 7th May as per TS Govt was further extended as Lockdown 3.0 till 17th May by GOI and till 29st May by the State Government and is being strictly implemented accordingly throughout the Country owing to unabated fresh infections and casualties globally as well in India with Vaccination nowhere in sight. Some Countries like Italy, Japan, Israel, US etc have been claiming breakthrough in development of medicine as well as successful treatment with antiviral drugs like Remdesvir, Hydroxychloroquine etc, but without conclusive proof. In the meanwhile, the Virus has taken its toll globally with 41,81,307 infections and 2,83,880 deaths with USA recording highest number of deaths (80,787) followed by UK(31,855), Italy(30,500), Spain(26,621), France(26,380), Brazil(11,123), Belgium(8,656), Netherlands(5,440) with quite a few of them critical and some on the path of recovery. UN compared the current situation worse than World War II.

India recorded 67,259 infections out of which 2,212 resulted in deaths and the recovery rate is very encouraging at 30%. With Lockdown 3.0 announced to further contain the infection/casualty rates, a serious debate about Lives vs Livelihood cropped up especially when the manufacturing, transport, construction sectors and other related activities came to a grinding halt with more than 23 million migrant laborers rendered jobless and started reverse migration to their native places crisscrossing various States mostly on foot due to non availability of public transport system thereby throwing up an unprecedented challenge compelling the Government to run special SHRAMIK TRAINS to transport them to their respective places. A record number of more than five lakh migrants have already been transported to their native places and more are in the process.

In the last 47 days of nationwide lockdown, India has confined more than a billion population indoors in the largest quarantine in the human history and kept the number of infections and deaths low compared to other Countries at enormous economic cost. Had the containment not been enforced, the number of infections would have crossed 25 lakhs and deaths mounting to over a lakh by 17th May as per studies conducted by various groups. The forecasts doesn't see the Indian economy growing at more than 1.5 % during the FY 20-21, and some estimates do predict a negative growth like rest of the world. Millions of jobs are likely to be lost in various sectors like aviation, travel, hospitality, real estate, automobiles and other sectors like exports that are linked to global supply chains are withering away due to drying up of demand. Unemployment rates have shot up from 6.7% in mid-March to 27.11% in the first week of May 2020. More than 12.2 Crore people lost jobs due to COVID-19 in India as of today. Corporate Sectors are resorting to salary cuts and advising most of their employees to work from home. The situation is likely to get further aggravated with a large number of expatriate Indians returning to India due to job losses especially from Gulf Countries and other part of the world which will substantially reduce the foreign currency remittances and adding up to the already bulging number of unemployed persons.

While the entire world is grappling with the COVID-19 pandemic, on the Western front, Pakistan is actively aiding and abetting terrorism in India by activating a large number of terrorist training centers and launch pads across the Line of Control for infiltrating more and more number of trained terrorists to replenish the depleting cadres in J&K. More than

64 terrorists, mostly Pakistanis were killed in Kashmir and along the line of Control this year. J&K Police and Security Forces achieved a major success by eliminating a dreaded Terrorist Riaz Naikoo, Chief of Hizbul Mujahideen on 6th May, in Pulwama District, Kashmir. As far as the Northern and Eastern fronts are concerned, there are reports of Indian and Chinese troops clashing physically with each other in Ladakh and Sikkim which was subsequently resolved through established practice of dialogue and meetings at field level. Such skirmishes have been taking place on the Borders between both the Countries due to difference of perception on the demarcation of borders.

In conclusion, the road ahead seems to be arduous, tough and uncertain but we as a nation need to move ahead with determination and confidence to overcome all the hurdles. So far, Indian leadership has proved its mettle and farsightedness in deftly handling the emerging situation which has been globally acknowledged. The Healthcare system has been adequately strengthened to handle any magnitude of Pandemic and the morale of the frontline workers like Doctors, Paramedics, Sanitary workers, Police personnel and all others who are actively involved in this task has been boosted and felicitated by showering flowers on Hospitals and laying wreaths on Police Memorials by the frontline defenders (Armed forces) of the nation on 3rd May 2020, thereby demonstrating their solidarity with rest of the countrymen engaged in fight against COVID-19. Perhaps, the post Lockdown situation may warrant certain steps like maintaining social distance, face masks, hand hygiene and mostly work from home till such time appropriate vaccine is developed and made available in a large scale. Infact, we have to coexist with Covid.

Best wishes



K. Rajendra Kumar IPS (Retd.)
Director.

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1. NATIONAL

1.1 Pradhan Mantri Garib Kalyan Package: Insurance scheme for health workers fighting

COVID -19

- Government has approved an Insurance Scheme announced under Pradhan Mantri Garib Kalyan Package for health workers who are fighting to contain COVID-19.
- The scheme will provide an insurance cover of 50 lakh rupees for ninety days to around 22.12 lakh public healthcare providers.
- They include community health workers, who may have to be in direct contact and care of COVID-19 patients and who may be at risk of being impacted by this.
- The scheme will also include accidental loss of life on account of contracting COVID-19.
- The insurance provided under this scheme will be over and above any other insurance cover being availed by the beneficiary.

PRADHAN MANTRI GARIB KALYAN YOJANA

Insurance scheme for Health Workers

Insurance cover of ₹50 lakh for 90 days to 22.12 lakh public healthcare providers & community health workers

Insurance scheme will also include **accidental loss of life** on account of contracting COVID-19

Insurance provided under this scheme would be over and above any other insurance cover being **availed of by the beneficiary**

On account of the unprecedented situation, private hospital staff/ retired/volunteer/local urban bodies/contract/daily wage/ ad-hoc/outourced staff requisitioned by hospitals can also be **drafted for COVID-19 related responsibilities**

1.2 Corona studies series

- National Book Trust (NBT) will launch Corona Studies Series books to provide relevant reading materials for all age-groups for the post-Corona readership needs.
- Realising the extraordinary psychological, social, economic and cultural significance of Corona Pandemic for the human society in times to come, NBT will launch this series.
- The 'Corona Studies Series' will be the long-term contribution to prepare and engage readers with the various aspects of the Corona times by bringing out affordable books in various Indian languages in the identified subject areas.
- National Book Trust, India is the national body for book publishing and book promotion under the Ministry of Human Resource Development, Government of India.

1.3 National gallery of modern art (NGMA)

- In the wake of Coronavirus lock down, National Gallery of Modern Art (NGMA) celebrated its 66th Foundation Day by launching virtual tour of its permanent collection.
- It is for the first time that NGMA has provided the facility of virtual tour of its permanent collection to art lovers.

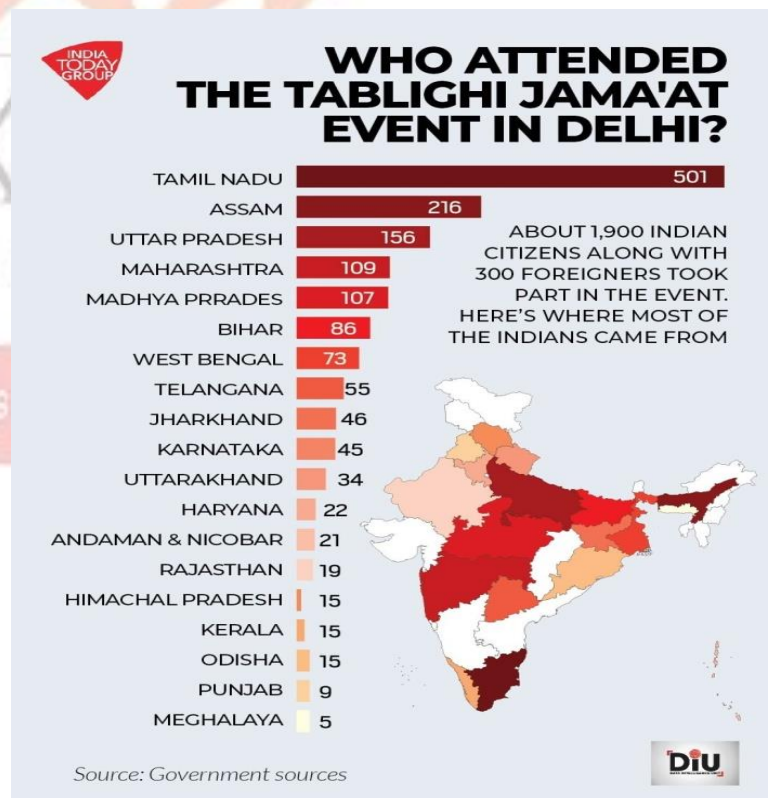
- The National Gallery of Modern Art (NGMA) is the premier Art Gallery which aims to acquire and preserve works of modern art from 1850s onward.
- It is run and administered as a subordinate office to the Ministry of Culture, Government of India.
- Its collection includes works by artists such as Thomas Daniell, Raja Ravi Verma, Abanindranath Tagore, Rabindranath Tagore, Gaganendranath Tagore, Nandalal Bose, Jamini Roy, Amrita Sher-Gil as well as foreign artists.
- The main museum in New Delhi was established in 1954 by the Government of India, with subsequent branches at Mumbai and Bangalore.

1.4 'Stranded In India' Portal

- The Ministry of Tourism has launched a portal 'Stranded in India' to help foreign tourists who are stuck in various parts of the country.
- The portal strandedinindia.com consists of the following information that will be useful for the tourists in their time of need:
- Comprehensive information around COVID-19 helpline numbers or call-centres that the foreign tourists can reach out to for help.
- A variety of information around Ministry of External Affairs control centers along with their contact information.
- Help Support section to extend help to the ones in need of further information and connect foreign tourists to concerned authorities.
- The website will be featured on the Tourism Website and prominent Ministry of Tourism channels.

1.5 Tablighi jamaat

- Over 200 have tested positive for COVID-19 from among 4,000-odd who had gathered in Delhi's .
- Tablighi Jamaat, which literally means a society for spreading the faith, is a Sunni Islamic missionary movement.
- The proselytising movement aims to reach out to ordinary Muslims and revive their faith, particularly in matters of ritual, dress, and personal behaviour.
- It was launched by Deoband cleric and



prominent Islamic scholar Maulana Muhammad Ilyas Khandhalaw in 1927 in Mewat to bring back Meo peasants (mostly Muslims who were largely practicing Hindu traditions) into the fold of traditional Islam.

- In two decades after its launch, the Tablighi Jamaat had spread beyond the Mewat region.
- It has a significant base in Pakistan, Bangladesh, United States, Britain, Indonesia, Malaysia, and Singapore.

1.6 Minal Dakhave Bhosale

- Vice President Venkaiah Naidu has appreciated the commitment of virologist Ms. Minal Dakhave Bhosale and her team at Mylab Discovery Solutions, Pune in developing India's first testing kit for COVID-19.
- Virologist Minal Dakhave Bhosale led from the front to create India's first coronavirus testing kit even when she was in the last stage of her pregnancy.
- The Maylab test kit will cost Rs 1,200, a quarter of Rs 4,500 per kit that the government has been spending on testing so far.
- The low cost kit can test 100 samples.
- Her achievement will hugely benefit India's fight against Corona.

1.7 Government regulates 24 classes of medical devices as drugs for quality control, price regulation

- National Pharmaceutical Pricing Authority, NPPA has revised the ceiling price of 883 scheduled formulations.
- The Authority in its meeting noted with satisfaction that the supply disruption of active pharmaceutical ingredients caused by the COVID-19 outbreak is returning to normalcy.
- The government is regulating 24 classes of medical devices which have been notified and regulated as drugs under Drugs and Cosmetics Act, 1940 and Drugs and Cosmetics Rules, 1945.

NOTIFICATION LACKS CLARITY: MEDICAL PROFESSIONALS	
<p>Doctors pointed out that the notification lacks clarity. "The reagents used in a lab for testing can't be considered drugs. The issue is more than just of terminology. How can an MRI machine be considered a drug? The MRI machines that we use are either made in Europe or the US. There are regulations on their usage and we're following the same. It becomes a problem if everything is considered a drug. The process of approval would become complex," says Dr NK Venkataramana, chief neurosurgeon and founder chairman, Brains Hospital. He added that the move may bring</p>	<p>everything under one roof, including licences, certification, quality control and usage. Though the government has not yet revealed the pattern of regulation and the need of such a notification, there are possibilities of price capping on advanced tests. "I don't know if the government is mulling bringing down the prices of diagnostic tests through this notification. This needs to be studied further. The CT and MRI scan machines are imported. The government may scrap the import duty on these expensive machines," said Dr H Sudarshan Ballal, chairman, Manipal Hospitals.</p>
<p>WILL HELP IN TRACKING USAGE</p> <p>Officials in the health department say most of the medical diagnostic equipment imported and used in India are not in the health ministry's records. "There is a need to register the</p>	<p>diagnostic and scanning machines and other equipment being used in India and be able to trace them," said officials. The new rule can enhance efficiency and give directions on the usage of the devices through data generation.</p>

- Remaining non-scheduled medical devices which are notified and regulated as drugs, NPPA is currently monitoring Maximum Retail Prices to ensure that no manufacturer and importers can increase the price more than ten per cent in preceding twelve months.
- The NPPA in its order stated that all medical devices shall be governed under the provisions of the Drugs (Prices Control) Order, 2013 which come into effect from today.
- All medical devices shall be regulated by the government as drugs for quality control and price monitoring.
- NPPA said, no unusual price fluctuations in the price of inputs for medicines, amid COVID-19 outbreak have been reported so normal price revisions have been allowed.
- The revised prices are applicable from today and the detail of revised prices is available on NPPA's

1.8 Covid-19: SC Asks Media To Report Official Version To Curb Fake News

- The Supreme Court upheld the right to free discussion about COVID-19, even as it directed the media to refer to and publish the official version of the developments in order to avoid inaccuracies and large-scale panic.
- It ordered the government to start a daily bulletin on COVID-19 developments through all media avenues in the next 24 hours.
- The Apex Court was hearing two petitions that brought the issue of the plight of migrant laborers to the notice of the court.
- The Court asked the Center to submit a status report regarding the same.
- The government, pursuant to the Court's Order, filed a detailed affidavit explaining the steps taken by it to combat the COVID-19 threat.
- The Ministry said any panic reaction in the midst of an unprecedented situation based on such reporting would harm the entire nation.
- Creating panic is also a Criminal Offense under the Disaster Management Act, 2005, the Ministry said.
- But the Court took a view balancing free press and the need to avoid panic in society during an unprecedented crisis.
- Noting that the 21-day nationwide lockdown was "inevitable" in the face of an "unprecedented global crisis" like the COVID-19 pandemic, the government blamed "fake and misleading" messages on social media for creating widespread panic, which led to mass "barefoot" journey of migrant workers from cities to their native villages in rural India.

1.9 Hydroxychloroquine is recommended for very specific cases – Here's why it's no silver bullet

- Hydroxychloroquine, a drug that has existed for several decades, could see a resurgence of demand, after the Indian Council of Medical Research (ICMR) on Monday recommended its use as a post-exposure prophylactic (preventive medicine) against the Novel Coronavirus disease.
- Last week, US President Donald Trump had said Hydroxychloroquine- Azithromycin combination could be a “game-changer” in the fight against COVID-19.
- Hydroxychloroquine (not to be confused with anti-malaria drug Chloroquine) is an oral drug used in the treatment of Autoimmune diseases such as Rheumatoid arthritis.
- Notably, the drug shows antiviral activity in vitro against Corona Viruses, and specifically, SARS-CoV-2 [the virus that causes COVID-2].
- Pharmacological modeling based on observed drug concentrations and in vitro drug testing suggest that prophylaxis with hydroxychloroquine at approved doses could prevent SARS-CoV-2 infection and ameliorate viral shedding.
- The US Centers for Disease Control and Prevention (CDC) says both Hydroxychloroquine and Chloroquine have in vitro activity against SARS-CoV, SARS-CoV-2, and other coronaviruses, with Hydroxychloroquine having higher potency against SARS-CoV-2.
- The combination is hydroxychloroquine with azithromycin, a commonly used antibiotic.

1.10 Jammu and Kashmir reorganisation adaptation of State laws Order 2020

- Union Ministry for Home Affairs (MHA) has issued an order for adaptation and modification of State Laws specific to the erstwhile State of Jammu and Kashmir, to further facilitate the application of Central Laws to the newly formed Union Territory of Jammu and Kashmir.
- The Order - Jammu and Kashmir Reorganisation (Adaptation of State Laws) Order 2020 - issued by the Ministry of Home Affairs, Department of J&K, comes into force with immediate effect. Under the Order Domiciles laws have been defined under the Jammu and Kashmir Civil Services (Decentralisation and Recruitment) Act.
- Under the law, the Domiciles have been defined as those who have resided for a period of 15 years in the Union territory of Jammu and Kashmir or have studied for a period of seven years and



appeared in Class 10/12 examination in an educational institution located in what is now a Union Territory.

- It includes Children of those Central Government Officials, All India Services Officers, Officials of Public Sector Undertaking and Autonomous Bodies of the Central Government, Public Sector Banks, Officials of Statutory Bodies, Officials of Central Universities and recognized Research Institutes of the Central Government who have served in Jammu and Kashmir for a total period of ten years.
- The law has empowered Tehsildars within their territorial jurisdiction to issue Domicile Certificates.
- The government of J&K UT has also been empowered to notify any other Officer to be Competent Authority for issuance of a Domicile Certificate.
- All government jobs reserved for Domicile of J&K.

1.11 PM-CARES fund to have up to 13 eminent experts

- The government has sent conflicting signals over the question of foreign donations to the new Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund, better known as PM-CARES.
- Initially, Indian ambassadors were directed to mobilise donations from abroad, with SWIFT Code details made available in order to accept such contributions.
- However, the Centre has now seemed to take a step back, indicating that foreign funds would be accepted only from individuals and foundations, with details for foreign donations unavailable for now.
- The PM-CARES fund also does not seem to have any website with details of objectives, income and expenditure as yet, raising concerns about transparency and accountability.
- Repeated queries on these issues sent to a senior official at the Prime Minister's Office remain unanswered.
- PM-CARES is a Public Charitable Trust launched on March 28 as a "dedicated national fund with the primary objective of dealing with any kind of emergency or distress situation, like the one

PM announces new fund for people to donate towards govt fight against coronavirus

PM-CARES Fund

Primary objective of dealing with any kind of emergency or distress situation, like posed by the COVID-19 pandemic, and to provide relief to the affected

It is my appeal to my fellow Indians, kindly contribute to the PM-CARES Fund. This Fund will also cater to similar distressing situations, if they occur in the times ahead. —Prime Minister Narendra Modi

Chairman
Narendra Modi
Prime Minister

Members

- Rajnath Singh**
Defence Minister
- Amit Shah**
Home minister
- Nirmala Sitaraman**
Finance minister

Donation Details

Name of the Account: PM CARES
Account Number: 2121PM20202
IFSC Code: SBIN000691
SWIFT Code: SBININBB104

DONATE NOW!

Name of Bank & Branch: State Bank of India
New Delhi Main Branch
UPI ID: pmcares@sbi

can also donate on pmindia.gov.in using

- Debit Cards and Credit Cards
- Internet Banking
- UPI (BHIM, PhonePe, Amazon Pay, Google Pay, PayTM, Mobiwik, etc.)
- RTGS/NEFT

PII GRAPHICS

posed by the COVID-19 pandemic, and to provide relief to the affected,” according to the original press statement.

- The Trust is chaired by the Prime Minister, and its members include the Ministers of Home, Finance and Defence.
- The PMNRF Website includes audited accounts of the quantum of funds collected — in Indian and foreign currency — and disbursed, as well as details of specific projects.
- As on December 16, 2019, the PMNRF had a balance amount of Rs. 3,800 crore.

1.12 CARUNA(Civil Services Associations Reach to Support in Natural Disasters)

Associations representing officers of Central Civil Services, including the Indian Administrative Service (IAS) and the Indian Police Service (IPS), have formed an initiative called 'Caruna' to support and supplement the government's efforts in fighting Corona Virus, an official said.

About the funds

The acronym 'Caruna' stands for Civil Services Associations Reach to Support in Natural Disasters and represents a collaborative platform, on which civil servants, industry leaders, NGO professionals and IT professionals among others have come together to contribute their time and abilities.

1.13 Govt constitutes empowered group for coordinating COVID-19 related response activities

- Government has constituted an Empowered Group chaired by NITI Aayog CEO Amitabh Kant for coordinating with Private Sector, NGOs and International Organisations for COVID-19-related Response Activities.
- It will address the issues pertaining to identification of problems, effective solutions and formulation of plans with three groups of stakeholders.
- First group is the UN agencies, World Bank and Asian Development Bank, second is Civil Society Organisations and development partners and the third group is of Industry associations - CII, FICCI, ASSOCHAM, NASSCOM.
- Six meetings were conducted between 30th March and 3rd April with Industry Associations, International Organisations and Civil Society Organisations about their contribution to the response, their plans for the coming weeks, and the issues they are facing, and their expectations from the government.
- All 3 groups have proactively pointed out the areas where they need support which the government is following up.
- They have also been put in touch with other Empowered Groups for faster and more effective response and coordination.

- The Empowered Group had detailed meetings with UN Resident Coordinator for India, and country heads of WHO, UNICEF, UNFPA, UNDP, ILO, UN Women, UN-Habitat, FAO, World Bank, and Asian Development Bank.
- Following the discussions on these International Organisation's providing technical support in monitoring and surveillance systems, strengthening health and nutritional services, capacity building, financial resources and critical equipment support, etc, the UN in India has built a Joint Programme Response Plan and submitted to NITI Aayog, defining their clear activities and deliverable in different sectors and States, where they are partnering with Union Ministries and State Governments.

1.14 E-COURTS

- The Supreme Court today passed a slew of directions for all courts across the country to extensively use video-conferencing for judicial proceedings.
- The Government of India had initiated the second phase of the eCourts project as one of the National e-Governance projects in 2015.
- The eCourts project has made significant progress under the guidance of the e-Committee of the Supreme Court of India in computerizing district and subordinate courts of the country through installation of case information software, hardware and local area network in courts.
- It is in line with the Digital India Programme of the Government of India.

1.15 Samadhan Challenge

- The innovation cell of MHRD and AICTE has launched a mega ONLINE challenge, SAMADHAN, to test the ability of students to innovate.
- The students participating in this challenge will search and develop such measures that can be made available to the government agencies, health services, hospitals and other services for quick solutions to the Coronavirus epidemic and other such calamities.
- Apart from this, through this "Samadhan" challenge, work will be done to make citizens aware, to motivate them, to face any challenge, to prevent any crisis and to help people get livelihood.
- Under the "Samadhan" challenge, the students and faculty will be motivated for doing new experiments and new discoveries and provide them with a strong base leading to the spirit of experimentation and discovery.
- The success of this program depends on how effective are the ideas of participating contestants with ability to find solutions, technically and commercially, which in turn will help fight the epidemic like coronavirus.

1.16 World Health Day

- **WORLD HEALTH DAY IS CELEBRATED ON APRIL 7 EVERY YEAR, THE THEME FOR WORLD HEALTH DAY 2020 IS TO SUPPORT NURSES AND MIDWIVES.**
- Health is a relationship between you and your body, to keep that relationship healthy you must live in a balanced state.
- According to WHO, health is central to human happiness and well-being.
- It also makes an important contribution to economic progress, as healthy populations live longer, are more productive, and save more.
- Marking the importance of Health, World Health Day is celebrated on April 7 every year.
- It is an initiative taken by the World Health Organization to raise awareness about overall health and well-being of people across the world.
- Each year there is a specific theme for World Health Day.
- The theme for World Health Day 2020 is to support Nurses and Midwives.
- WHO chose the year 2020 as the "Year of the Nurse and Midwife" because of the contribution which nurses and midwives are making in making the world a healthier place.
- WHO is honouring the Nurses and other health workers who are putting their own health at risk to protect the broader community at the forefront of COVID-19 response.
- 2020 is the International Year of the Nurse and the Midwife, and WHO wants to highlight the significant roles which these two play in making the world a better place.
- This World Health Day, WHO is asking for support to ensure that the nursing and midwifery workforces are strong enough to make sure that everyone, everywhere gets the healthcare they need.

1.17 GISAIID

- India has shared nine whole genome sequences of the novel coronavirus (SARS-CoV-2) with the Global Initiative on Sharing All Influenza Data (GISAIID) — a public platform started by the WHO in 2008 for countries to share genome sequences.
- All the sequences have been shared by the Pune-based National Institute of Virology(NIV).
- Till recently, the NIV had shared only two sequences.
- Sequencing the genome of SARS-CoV-2 will help understand where the virus came from if there are different strains circulating in India, and how the virus has spread.
- The Indian Council of Medical Research (ICMR) allowed all national research laboratories including those under the Council of Scientific and Industrial Research (CSIR) to conduct testing for the novel coronavirus.
- Since the CSIR labs will now have access to virus samples, they will be in a position to sequence the genome too.

- The CCMB has both biosafety level (BSL)-2 and BSL-3 labs.
- The virus is isolated and deactivated in the BSL-3 facility and sequenced in a BSL-2 facility.
- GISAID is a public-private partnership between the German government and the nonprofit organization Friends of GISAID that provides public access to the most complete collection of genetic sequence data of influenza viruses and related clinical and epidemiological data through its database (named EpiFlu).
- The database is hosted by the German government.

1.18 Domestic Violence

- The UN Women has urged member-states to include prevention of violence against women in their action plans on COVID-19 and consider shelters and helplines essential services, calling the rise in gender-based violence a “shadow pandemic”.
- As per data compiled by the U.N. body, France has seen a 30% increase in domestic violence
- In Argentina, emergency calls for domestic violence cases have increased by 25% since the lockdown on March 20 and Cyprus (30%), Singapore (33%) have also registered an increase in calls.
- UN Women is the United Nations entity dedicated to gender equality and the empowerment of women.
- In July 2010, the United Nations General Assembly created UN Women.
- It became operational in January 2011.

1.19 IGOT E-LEARNING PLATFORM

- The Department of Personnel and Training has launched of a learning platform to combat COVID-19 for all frontline workers to equip them with the training and updates in coping with the pandemic.
- “Appropriate training will prepare them for the subsequent stages of the pandemic.
- By giving COVID-19 training to another potential second-line workforce, India will be better prepared for the emergent situations,” an official statement said.
- The target group is Doctors, Nurses, Paramedics, Hygiene workers, Technicians, Auxiliary Nursing Midwives (ANMs), Central & State government Officers, Civil Defense Officials, various police Organizations, National Cadet Corps (NCC), Nehru Yuva Kendra Sangathan (NYKS), National Service Scheme (NSS), Indian Red Cross Society (IRCS), Bharat Scouts & Guides (BSG) and other volunteers, the statement added.
- This platform can be accessed at <https://igot.gov.in> where it delivers curated, role-specific content, to each learner at his place of work or home and to any device of his choice.

- iGOT platform is designed to population scale, and will provide training to around 1.50 crore workers and volunteers in the coming weeks.
- To begin with, nine courses on iGOT have been launched on topics like basics of COVID-19, ICU care, and ventilation management, clinical management, infection prevention through PPE, infection control and prevention, quarantine and isolation, laboratory sample collection and testing, management of COVID-19 cases, COVID-19 Training.

1.20 Food Corporation Of India

- Union Government has said that Food Corporation of India, FCI has sent enough stocks to States throughout the Country to implement Prime Minister's Garib Kalyan Anna Yojana.
- Through this scheme, five kilograms of food grains per person per month for the next three months have to be distributed free to all National Food Security Act beneficiaries.
- Many states like Uttar Pradesh, Bihar, Telangana, Assam, Himachal Pradesh, Meghalaya, Sikkim, Uttarakhand, Maharashtra, Gujarat, Haryana, Kerala and Mizoram have already started lifting foodgrains from FCI under this scheme.
- The Consumers Affairs Ministry yesterday said, in the next few days other states will also start lifting the foodgrains for distribution.
- The Ministry said, FCI is working tirelessly and has ensured that enough stocks are made available in every part of the country during countrywide lockdown
- During the last 14 days, while the lockdown is in force to fight the COVID-19 pandemic, FCI moved an average of one lakh 44 thousand tonnes of foodgrains per day.
- A total of 658 rakes carrying over 18 Lakh tonnes of foodgrains have been transported across the country.

1.21 Postal Life Insurance

- The Directorate of Postal Life Insurance (PLI), Department of Posts, Ministry of Communications has given an extension of the period for payment of their due premium of March 2020 up to April 30.
- The decision has been taken in view of the threat posed by the outbreak of coronavirus (COVID-19) and the nationwide lockdown.
- It has been decided that there won't be any charge or penalty or default fee for this period.
- The directorate of PLI said that although many Post Offices are functional as part of essential services, Postal Life Insurance/Rural Postal Life customers are facing difficulty in approaching post offices for payment of premium.
- The decision is likely to benefit approximately 13 lakh policy holders (5.5 Lakh PLI and 7.5 Lakh RPLI) who have not been able to pay a premium for the current month.

- As compared to about 42 lakh policyholders who paid premium last month, only 29 lakh of them have been able to pay a premium for this month till today.
- Customers registered on the portal have also been advised to pay premium online using PLI Customer Portal.

1.22 Shaurya Diwas (CRPF)

- Prime Minister Narendra Modi and Home Minister Amit Shah celebrated the Central Reserve Police Force (CRPF) on April 09, 2020 in tweets that honored a small contingent of soldiers stationed at a border outpost in Gujarat.
- The soldiers, despite being outnumbered, fought off an attack by a Pakistani force on April 9, 1965.
- The valiant CRPF personnel killed 34 and captured four Pakistani soldiers.
- The CRPF marks this heroic moment every year as Shaurya Diwas (Valour Day).
- "The courage of India's CRPF is widely known. On CRPF Valour Day, I salute this brave force and remember the bravery of our personnel (at) Gujarat's Sardar Patel Post in 1965. The sacrifices of the brave martyrs will never be forgotten," Prime Minister Modi tweeted.
- The landmark battle that took place 55 years ago on this day saw a small group of the CRPF's 2nd Battalion - around 150 soldiers - attacked by a heavily-armed Pakistani force that consisted of 3,500 men of the 51st Infantry Brigade, among other divisions.
- The assault, most of which took place on a tactically disadvantageous flat area, began at 3.30 pm and went on for a gruelling 12 hours, during which the enemy made three attempts to overrun the CRPF post. Six CRPF soldiers died in the attack.

1.23 Operation SHIELD

- Delhi Chief Minister Arvind Kejriwal said his administration was starting something called "Operation SHIELD" in the capital city to curb the spread of the coronavirus pandemic.
- "SHIELD", according to the Chief Minister, will stand for "Sealing, Home Quarantine, Isolation and Tracking, Essential Supply, Local Sanitisation and Door-To-Door Checking".
- It will be enforced in neighbourhoods with a high concentration of COVID-19 cases.
- 21 areas have been identified as containment zones in Delhi.
- These areas have been sealed.



- People are not being allowed to enter or exit from these areas.
- All people in these areas will be under home quarantine. They will not be allowed to leave their homes.
- Coronavirus positive cases in these areas will be isolated and people they came in contact with will be traced.
- With the area under total lockdown, essential supplies will be delivered to homes. The government will conduct rigorous sanitization of the locality.
- Delhi registered 93 new Corona Virus cases in the last 24 hours, taking the total to 669.
- This includes nine deaths and 21 people who have been released after treatment.

1.24 India COVID-19 emergency response and health system preparedness package

- The government of India (GoI) has announced significant investments to the tune of Rs.15000 crores for 'India COVID-19 Emergency Response and Health System Preparedness Package'.
- The funds sanctioned will be utilized for immediate COVID-19 Emergency Response (amount of Rs.7774 crores) and rest for medium-term support (1-4 years) to be provided under mission mode approach.
- The key objectives of the package include mounting emergency response to slow and limit COVID-19 in India through the development of diagnostics and COVID-19 dedicated treatment facilities, centralized procurement of essential medical equipment and drugs required for treatment of infected patients, strengthen and build resilient National and State health systems to support prevention and preparedness for future disease outbreaks, setting up of laboratories and bolster surveillance activities, biosecurity preparedness, pandemic research and proactively engage communities and conduct risk communication activities.
- These interventions and initiatives would be implemented under the overall umbrella of the Ministry of Health and Family Welfare.

The Central Government has provisioned Rs. 15,000 crore for treating Coronavirus patients and strengthening the medical infrastructure of the country. This will allow for rapidly ramping up the **number of Corona testing facilities, Personal Protective Equipment (PPE), Isolation Beds, ICU beds, ventilators** and other essential equipment. Simultaneously, training of medical and paramedical manpower will also be undertaken.

PM Shri Narendra Modi
24th March

The funds will be utilised for

- Emergency response to contain COVID-19
- Development of diagnostics
- COVID-19 dedicated treatment facilities
- Centralized procurement of essential medical equipment and drugs
- Building resilient health systems to prevent and prepare for future outbreaks
- Setting up of laboratories surveillance activities, bio-security preparedness and pandemic research

Read more: bit.ly/COVID19EmergencyResponse

- The major share of the expenditure will be used for mounting robust emergency response, strengthening National and State health systems followed by strengthening pandemic research and multi-sector national institutions and platforms for One Health, community engagement, and risk communication and implementation, management, capacity building, monitoring, and evaluation components. M/o Health & Family Welfare is authorized to re-appropriate resources among components of the package and among the various implementation agencies (National Health Mission, Central Procurement, Railways, Dept of Health Research/ICMR, National Centre for Disease Control) as per the evolving emergent situation.

1.25 Food Security

- Several States on Saturday pitched for an extension of the 21-day nationwide lockdown, that was to end on 14 April, during their video conference with Prime Minister Narendra Modi, according to government officials.
- While Chief Ministers of Kerala, West Bengal, Telangana, Uttar Pradesh, Maharashtra, Punjab and Delhi, and Governor of Jammu and Kashmir made a case for the extension of lockdown, Andhra Pradesh Chief Minister Y.S. Jagan Mohan Reddy suggested a partial lockdown.
- States and the union government have to make a crucial decision over the issue of lives versus livelihood during the ongoing coronavirus pandemic.
- States also sought more resources to deal with the health and the socio-economic impact of the coronavirus pandemic and pitched for leveraging Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) to counter the same.
- MGNREGA is a demand-driven social security scheme that provides for 100 days of work per rural household with the number of work days allowed to be increased to 150 annually in case of drought, flood or a similar calamity.
- India had earlier rolled out a Rs. 1.7 trillion relief package, to limit the economic damage caused by the coronavirus outbreak, which many experts have termed as inadequate.
- This comes in the backdrop of India's economy losing steam over the last few years with growth declining from 8.3% in FY17 to 7% and to 6.1% in the subsequent two years.
- In the financial year ended March, growth was projected to be 5% but analysts and rating agencies have sharply scaled it down with the most optimistic projections hovering around 4%.
- India is facing a humanitarian crisis with many migrant workers trudging hundreds of miles from the cities to their homes as the lockdown has rendered them jobless.
- Even as Modi has leveraged his popularity among Indians to enlist them in the battle against the covid-19 pandemic, India, home to a fifth of the world's population, saw more than 600,000 daily wagers and their families leaving for their villages.

1.26 Market Intervention Scheme

- The Union Minister for Agriculture, Cooperation and Farmers' Welfare, took a Video Conference with the Agriculture Ministers of all States and UTs, to discuss the issues related to farmers and farming activities, arising due to the lockdown in wake of COVID 19 pandemic.
- The Government has decided that the start date of procurement of pulses and oilseeds under the Price Support Scheme (PSS) may be decided by the respective States.
- The procurement shall continue for 90 days from the date of commencement of procurement.
- The Department of Agriculture, Cooperation and Farmers Welfare has circulated to all States/UTs the details of Market Intervention Scheme to ensure remunerative prices for the perishable Agriculture and Horticulture Crops.
- The States have been advised to implement the scheme wherein 50% (75% in case of North-Eastern States) of the cost will be borne by the Government of India.

1.27 YUKTI PORTAL

- Minister for Human Resource Development Ramesh Pokhriyal Nishank has launched a Web-Portal YUKTI (Young India Combating COVID with Knowledge, Technology and Innovation) in New Delhi.
- The Portal and Dashboard will monitor and record the efforts and initiatives of the Ministry of HRD.
- It intends to cover different dimensions of COVID-19 challenges in a holistic and comprehensive way.
- In the wake of the COVID-19 threat, the primary aim is to keep the academic community healthy, both physically and mentally and to enable a continuous high-quality learning environment.
- The Portal is an effort of the HRD Ministry to achieve this goal in these difficult times.
- The Minister informed that it will cover the various initiatives and efforts of the institutions in academics, research especially related to COVID, social initiatives and measures taken for the betterment of the total well being of the students.
- The Portal will cover both qualitative and quantitative parameters for effective delivery of services to the academic community at large.
- The Portal will also allow various institutions to share their strategies for various challenges.
- The Portal will give inputs for better planning and will enable the Ministry to monitor its activities effectively for the coming six months.
- The Portal will also establish a two-way communication channel between the Ministry of HRD and the institutions to provide the necessary support system to the institutions.

- The Government is confident that the portal will help in critical issues related to student promotion policies, placements related challenges and physical and mental well-being of students in these challenging times.
- The web platform Yukti will epitomize its name and prove to be a great enabler in taking the research to the citizens of the country, the ultimate stakeholders.

1.28 Bank Sakhi

- COVID – 19 pandemic has worst hit daily wage labourers, migrants, homeless, the poor and many who form the floating population.
- The Union Government had announced release of 500/- per month for 3 months in 20.39 Crore Women PMJDY accounts. Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM), Ministry of Rural Development was given responsibility to transfer the fund with support of Department of Financial Services and Banks.
- Government of India also released other DBT funds like Rs.2000/- to PM Kisan Yojana accounts, MGNREGA wages payments to all rural population to address the financial stress being faced by the community.
- Due to release of DBT funds, there was an expected rush at Bank premises for withdrawal of the amount.
- The instructions regarding withdrawal were already given in advance by many Banks as to how and who can come to the Bank for withdrawal as per last digit of account numbers.
- In most of the cases, the services of BC Sakhis (SHG women working as Business Correspondents for banks) were utilized for making payments to the rural households.
- All banks understood the importance of BC Sakhi and Bank Sakhi and issued special ID cards for Covid-19 Lockdown Pass as Essential Service Duty.
- They were issued letters from the Banks and stickers/passes by local administration.
- They were asked to take due care in view of Covid-19 pandemic like hand sanitizer, social distancing, masks etc.
- As a result, out of around 8800 BC Sakhi and 21600 Bank Sakhi, around 50% of both cadre voluntarily started working amidst Lockdown across the country right from Assam, Mizoram, Sikkim, Manipur to Bihar, Jharkhand, Chattisgarh, Madhya Pradesh, Odisha, West Bengal, Gujarat, Maharashtra, Rajasthan, Punjab, Uttar Pradesh & Tamilnadu.
- Bank Sakhis are supporting Bank Branch Managers in managing rush at branches during DBT payment and ensuring social distancing of customers by creating awareness among rural community.

1.29 Spring Harvest Festivals In India

- Prime Minister Narendra Modi greeted the nation on Apr 13, 2020 on the occasion of Baisakhi and the Odia New Year or Maha Bishuba Pana Sankranti.
- Taking to Twitter, the Prime Minister said in Hindi, Odia and English: "Many wishes to the countrymen on the auspicious occasion of Baisakhi. May the festival of new aspirations bring new energy and new enthusiasm in everyone's life."
- The Prime Minister also said: "Happy #OdiaNewYear and Maha Bishuba Pana Sankranti. May the coming year bring happiness and good health in everyone's lives."
- Baisakhi is a historical and religious festival in India specially in Punjab.
- It is a spring harvest festival for Sikhs and also marks the formation of the Khalsa in 1699 by Guru Gobind Singh.
- Additionally, it celebrates the Solar new year, based on the Hindu Vikram Samvat calendar.
- Maha Bishuba Pana Sankranti is the traditional new year day festival of Buddhists and Hindus in the state of Odisha.
- The festival is celebrated by visiting Shiva, Shakti, or Hanuman temples and taking holy dip in the river.
- Amid the coronavirus pandemic, most religious places are closed in India. People are celebrating these festivals staying home and maintaining social distancing.
- Punjab Chief Minister Captain Amarinder Singh also posted a video message on Twitter and urged the people of the state to celebrate the festival inside their homes and pray for the people of the country.


1.30 Covid Gyan


- Scientists and engineers in India are collaborating at an unparalleled scale to understand all the aspects of the COVID-19 pandemic as the nation unites for the fight against the virus outbreak.
- The topics covered range from the exact behaviour of the novel coronavirus (SARS-CoV-2), transmission dynamics of the Corona flu and its diagnostics to innovative technologies to scale up the fight, means of coping up with physical distancing, and critical assessment of communications.

COVID-19 THE BIG PICTURE

Where do Corona viruses come from?


COVID-19 originated from bats






How does the virus spread?

Proximity to infected people and touching infected surfaces






What is the future of this pandemic?

It could

- disappear like SARS
- or become endemic & seasonal like flu

SCIENTISTS ARE DEVELOPING VACCINES FOR COVID-19.




What should I do?


Many countries have stopped the infection with these measures.

Stay at home

Wash hands often with soap

Weston & Frieman, Am. Soc. Microbiol. (2020)





- In aims to bring all the scientific and factual aspects of this pandemic outbreak on to a public domain, a multi-institutional, multi-lingual science communication initiative, called 'CovidGyan' has been created.
- This informative website is not just user-friendly but also authentic, reliable and trustworthy.
- The initiative is the brainchild of Tata Institute of Fundamental Research (TIFR), Indian Institute of Science (IISc), and Tata Memorial Centre (TMC).
- Several other prominent partners have since joined this noble effort including Vigyan Prasar, IndiaBioscience, and the Bangalore Life Science Cluster (BLiSc), which includes Institute for Stem Cell Science and Regenerative Medicine (InStem), Centre for Cellular And Molecular Platforms (C-CAMP), and National Centre for Biological Sciences (NCBS).
- An outcome of this initiative is the launch of a website that went live on April 03, 2020.
- This website also named CovidGyan serves as a hub to bring together a collection of resources in response to the COVID-19 outbreak.

1.31 'Dekho Apna Desh' Webinar Series

- With the tourism sector in India hugely impacted with no movement happening either domestically or from across the border due to COVID-19 lockdown, the Union Tourism ministry launched "Dekho Apna Desh" webinar series to cater for an in-depth information on several destinations and expanse of the culture and heritage of India.
- The first Webinar, which was part of a series that will unfold, touches upon the long history of Delhi as it has unfolded.
- The seminar was titled " City of Cities -- Delhi's Personal Diary", the ministry said.
- The core of the session based itself on tourism awareness and social history.
- Laced with interesting anecdotes, the session which was conducted by the India City Walks and was attended by 5,546 people registering for it.
- The webinar will be available in public domain soon.
- One can see it on the official links of the Ministry's social media handles, IncredibleIndia on Instagram and Facebook.
- Union Minister for Tourism and Culture Prahlad Singh Patel said, "The series of webinars will be an on-going feature and the Ministry would work towards showcasing the diverse and remarkable history and culture of India including its monuments, cuisine, arts, dance forms, natural landscapes, festivals and many other aspects of the rich Indian civilization."
- The next webinar is on April 16 from 11 am to 12 noon and will take you to the amazing City of Kolkata, the ministry said.

1.32 Fit India Active Day Programme

- Fit India and CBSE organised first-ever live fitness sessions for school students in the second phase of lockdown.
- Fit India and CBSE have taken this unique initiative to ensure fitness of all school children.
- The live sessions will cover all aspects of children's fitness from daily workouts to yoga, nutrition to emotional well-being.
- Students accessed these live sessions on Facebook and Instagram handles of Fit India Movement and CBSE.
- All the sessions will also be available on YouTube so that students can access it at their convenience as well.
- The Fit India Movement was launched by PM Modi in August, 2019.
- As part of the movement, individuals and organisations can undertake various efforts for their own health and well-being as well as for the health and well-being of fellow Indians.

1.33 World Heritage Day

- The Ministry of Tourism celebrated World Heritage Day-2020 (18-04-2020) through a Webinar series.
- Union Minister of Tourism and Culture addressing participants through Webinar quoted 'Vasudhaiva Kutumbakam', the World is One, from the Maha Upanishad saying that India demonstrated its true spirit and humility through the help it extended to all the tourists stranded in the country since the outbreak of COVID-19 pandemic.
- He added that values of resolve and silent resilience is holding everyone together even in these testing times.
- The values of humanity and warm hospitality define people of the country.
- Referring to Indian traditions of saying Namaste, entering home without shoes, taking bath before entering home, he said that these simple practices of precautions depict the deep and timeless wisdom of the country.
- During the first Webinar, which was in ancient Temple City of Mamallapuram, the architectural and religious significance of the temples was highlighted by the panellists.
- The second Webinar was titled World Heritage and Sustainable Tourism at Humayun's Tomb.
- Prime Minister Narendra Modi in his 'Vision 2024' has fixed the timeline for completing the work of enlisting, preserving and showcasing the deep and invaluable heritage and culture of the country's monuments and traditions.



1.34 Child Sexual Abuse Material

- In a global compilation of reports of child sexual abuse material (CSAM) found online, India stands right on top of the list, with 11.7% of the total reports or at 19.87 lakh reports, followed by Pakistan, which contributes 6.8% of all reports (11.5 lakh reports).
- The National Centre for Missing and Exploited Children (NCMEC) urges people to report CSAM found online across the world annually, on their online platform CyberTipline.
- This year, the Centre received a total of 1.68 crore reports.
- Three of the top four countries were in South Asia, raising concerns among child rights activists about the online safety of children in the region.
- Bangladesh comes in fourth with 5.5 lakh reports and a share of 3.3%.

1.35 COVIDFYI.IN

- An international team led by an Indian Institute of Management Kozhikode student has developed a one-stop COVID-19 platform for accessing emergency services from official government sources.
- The website - covidfyi.in - is a one-stop digital directory for all COVID19 related services and help.
- The website aims to bring the right information to the right people, as only official information from Government organisations is put on this platform to ensure authenticity and credibility.
- The Core team of 16 is led by IIM Kozhikode students and consists of researchers, medical students and developers from countries like Germany and the US.
- The team is trying to reach under-served communities so that the website can help people who need it most.

1.36 Precautionary principle

- The aggressive methods to halt the virus by suspending mobility are examples of a strategy known as the 'precautionary principle'.
- According to the principle, authorities must take precautionary measures when stakes are high, despite when scientific evidence about the expected event being harmful is not yet certain.
- This implies that protective action should be taken to prevent any possible harm, even if there is a chance that such harm will not occur—thus playing it safe.

- The principle first found acceptance in Germany in the 1970s and 80s, as lawmakers sought its implementation in cases of uncertain environmental and health hazards.
- In 1992, the UN Rio Declaration on Environment and Development incorporated the strategy, as did the Maastricht Treaty.
- The Rio Declaration defines the principle as: “Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”

1.37 Railways operate special freight trains for speedy delivery of essential items

- To ensure speedy delivery of essential items to states during the ongoing lockdown, Railways have started operation of ‘Annapoorna’ and ‘Jai Kisan’ special freight trains.
- The trains have delivered essential goods to states like UP, Assam, Bihar, Goa, Gujarat, Karnataka, Maharashtra, Manipur, Nagaland, Odisha, Tamil Nadu, West Bengal, Mizoram and New Bongaigaon (NBQ) in NFR.
- Two freight trains loaded from two different originating stations are clubbed at the nearest junction point and moved as a single train up to the common junction point of the destination stations taking the advantage of path availability due to non-running of passenger trains.
- Under normal circumstances, one freight train containing 42 covered wagons loaded with food grains carries around 2,600 tonnes.
- But in the new concept two freight trains with 84 covered wagons with 5,200 tonnes capacity food grains moved in a single path.
- This concept drastically reduces the journey time of the freight trains to their respective destinations.
- Annapoorna trains from North and Jai Kisan Special from South mark the beginning of long distance super heavy fast special freight trains.
- Northern Railway has formed 5,000 tonne lead long haul loaded foodgrain trains and 25 such Annapoorna trains have been formed and run by NR upto April 16.
- They covered the states like Assam, Bihar, Goa, Gujarat, Karnataka, Maharashtra, Manipur, Nagaland, Odisha, Tamil Nadu, Uttar Pradesh, West Bengal and Mizoram.
- These long lead long haul foodgrain trains have gone up to New Bongaigaon (NBQ) in North Frontier Railway (NFR).
- South Central Railway too has come up with a unique concept of running "Jai Kisan" special freight trains so as to ensure speedy delivery of foodgrains to different parts of the country.






- The first Jai Kisan train was moved from Dornakal Junction in Telangana on South Central Railway to Southern Railway (Sevuru and Chettinad) by clubbing two food grains trains at Dornakal Junction.
- The second Jai Kisan special train was also clubbed at Dornakal Junction in Telangana and moved to Southern Railway (Dindigal and Mudiyapakkam).
- The national transporter is running only special parcel trains and freight trains to ensure the supply of essential items across the country.

1.38 **ZAKAT – One Of Five Pillar Of Islam**

The Grand Mufti of Dubai has declared that this year Zakat can be paid to those affected by COVID-19 or any disadvantaged person in the form of food or meals.

About Zakat

- Zakat is an Islamic finance term referring to the obligation that an individual has to donate a certain proportion of wealth each year to charitable causes.
- Zakat is a mandatory process for Muslims and is regarded as a form of worship.
- Giving away money to the poor is said to purify yearly earnings that are over and above what is required to provide the essential needs of a person or family.
- Zakat is one of the Five Pillars of Islam: the others are a declaration of faith, prayer, fasting during Ramadan, and the Hajj pilgrimage.
- It is a compulsory procedure for Muslims earning above a certain threshold and should not be confused with Sadaqah, a term that refers to giving charitable gifts out of kindness or generosity.
- There are five principles that should be followed when giving the Zakat:
 - The giver must declare to God his intention to give the Zakat.
 - The Zakat must be paid on the day that it is due.
 - After the offering, the payer must not exaggerate on spending his money more than usual.
 - The payment must be in kind. This means if one is wealthy then he or she needs to pay a portion of their income. If a person does not have much money, then they should compensate for it in different ways, such as good deeds and good behavior toward others.
 - The Zakat must be distributed in the community from which it was taken.

5 PILLARS OF ISLAM		
	SHAHADAH	<i>Belief that there is only one Allah and that Muhammad is Allah's messenger.</i>
	SALAH	<i>Prayer are to be given Allah five times each day</i>
	ZAKAT	<i>Giving of alms, charity, to the poor 2.5% of income</i>
	HAJJ	<i>Making pilgrimage to the House of Allah in Mecca</i>
	FASTING	<i>Fasting sunrise to sunset during the Month of Ramadan</i>

1.39 SEPSIVAC – A Drug To Treat Sepsis

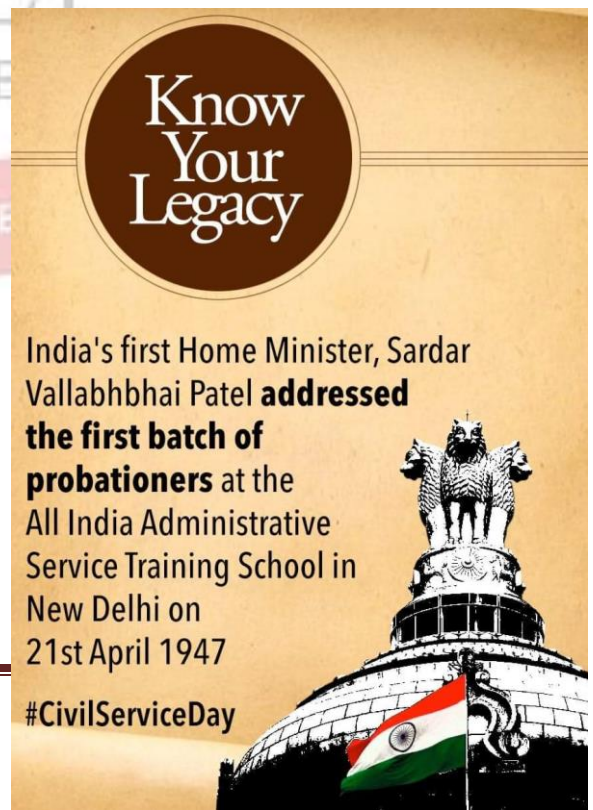
- Sepsivac – a drug to treat Sepsis, has been jointly developed by the Ahmedabad-based Cadila Pharmaceuticals, and the Council for Scientific and Industrial Research (CSIR), will be tested in 50 COVID-19 patients at AIIMS, Delhi, and Bhopal.
- Sepsivac was originally developed for treating sepsis by a class of pathogens called gram-negative bacteria, that are known to cause life-threatening infections.
- Given the similarities in the immune system response in critically ill COVID-19 patients, it is theorized, the therapy could stimulate a benign response.
- A large number of cytokines, chemicals signaling the presence of an infection, are produced in the early stages of the body's response against infection to stimulate the production of antibodies.
- However, cytokines also cause inflammation of organs and can be counter-productive in protecting the body.
- Keeping them in check is the goal of so-called immuno-modulators or medicines like Sepsivac.

About Sepsis

- SEPSIS is basically a life-threatening condition that arises when the body's response to infection causes injury to its tissues and organs.
- Its common signs and symptoms include fever, increased heart rate, increased breathing rate, and confusion.
- There may also be symptoms related to a specific infection, such as a cough with pneumonia, or painful urination with a kidney infection.
- Bacterial infections are the most common cause, but fungal, viral, and protozoan infections can also lead to SEPSIS.
- The risk of death from sepsis is as high as 30%, as high as 50% from severe sepsis, and up to 80% from septic shock.
- Sepsis affected about 49 million people in 2017, with 11 million deaths (1 in 5 deaths worldwide).

1.40 COVID INDIA SEVA

- Union Minister of Health launched the COVID India Seva, which provided an interactive platform to establish a direct channel of communication with millions of Indians amid the pandemic.
- This initiative is aimed at enabling transparent e-governance delivery in real-time and answering citizen



queries swiftly, at scale, especially in crisis situations like the ongoing COVID-19 pandemic.

- Through this, people can pose queries by tweeting to @CovidIndiaSeva and get them responded to in almost real-time.
- Anyone can ask questions on the Latest updates on measures taken by the Government, learning about access to healthcare services, or seeking guidance for someone who perhaps has symptoms but is unsure about where to turn to for help.
- This does not require the public to share personal contact details or health record details.

1.41 CIVIL SERVICES DAY 2020

- Getting into civil services is one of the most sought-after dreams for Indians.
- To celebrate this passion and all those people who successfully get into civil services to serve the nation, the Government of India has dedicated a day to them.
- The Civil Services Day is celebrated on April 21.

Background and Objective

- “Civil Service Day” is observed by all Civil Services to re-dedicate and re-commit themselves to the cause of the people.
- The day aims at renewing their commitments to public service and excellence in work.
- It was this day when Sardar Vallabhbhai Patel, the first Home Minister of Independent India, addressed to the probationers of Administrative Services Officers at Metcalf House, Delhi in the year 1947.
- Since then, the day commemorates the special occasion.
- Sardar Patel aptly called the civil servants as the ‘steel frame of India’.
- The first celebration of Civil Services Day was held on April 21, 2006, at Vigyan Bhawan, New Delhi.

About the day

- Civil Servants work tirelessly towards ensuring the smooth functioning of the Public administration.
- The Civil Service members do not take any pledge to any political Government.
- However, their responsibility involves being the executioners of the policies of the ruling party.
- To mark the Civil Services Day, the country rewards the Prime Minister’s Awards for Excellence in Public Administration to various officers to celebrate their work.
- These awards work as an inspiration for the civil servants to work better for the government of India while ensuring the welfare of the citizens.

1.42 Girls In ICT Day 2020

- The International Telecommunication Union (ITU), the global technology community, and an expected 170 countries will celebrate Girls in ICT Day, an international day observed by the United Nations to help bridge the gender digital divide.
- Hundreds of events are planned worldwide aimed at inspiring a new generation of girls to explore the exciting opportunities offered by a career in information and communication technology (ICT), says ITU.

About the estimates

- ITU estimates that within the next 10 years, there will be more than two million technology jobs that cannot be filled because of a lack of digital specialists.
- It points out that girls and young women who learn coding, app development, and computer science will be well-placed for a successful career in the ICT sector, while advanced digital skills are rapidly becoming a strong advantage for students in almost any other field they might choose to pursue.

About the impact

- According to ITU, digital skills give qualified girls an edge in a competitive job market, provide a higher salary, and enhance career mobility.
- This year, ITU is celebrating Girls in ICT Day at the African Union Commission in Addis Ababa, Ethiopia.
- It says the special focus on Africa recognizes the enormous potential for leveraging ICT to drive economic growth and development, and accelerate progress towards all 17 Sustainable Development Goals.

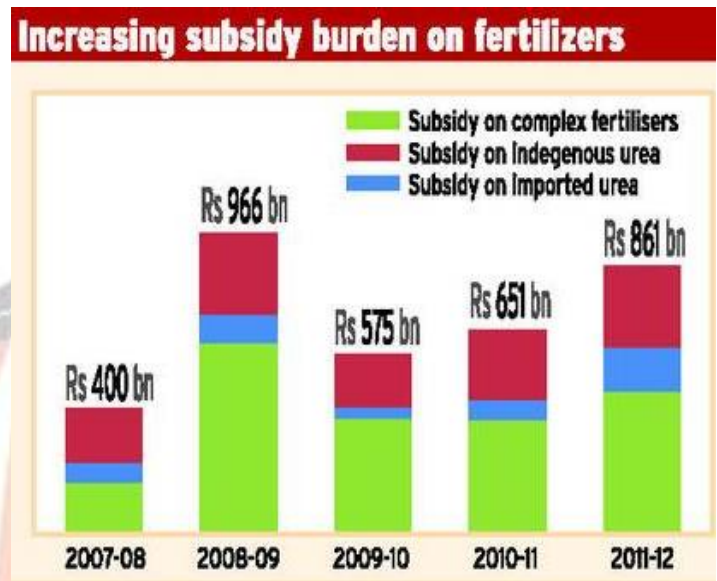
1.43 VIDYADAAN 2.0

- Union HRD Minister launched national program VidyaDaan 2.0 for inviting e-learning Content contributions.
- VidyaDaan is conceptualized as a common national program for individuals and organizations across the country to contribute e-learning resources for both school and higher education to ensure continuity of quality learning.
- The content will be used on the DIKSHA app to help millions of children across the country to continue their learning anytime and anywhere.
- Contributions can be made by educationists, subject experts, schools, colleges, Universities, Institutes, government, and non-government organizations and individuals.

- The program has been launched due to the increasing requirement for e-learning content for students in both school and higher education especially in the backdrop of the situation arising out of COVID-19.
- The DIKSHA platform of the Ministry has been operating since 2017 with more than 30 States and Union Territories leveraging DIKSHA for augmenting teaching and learning processes.

1.44 Nutrient Based Subsidy

- The Cabinet Committee on Economic Affairs, CCEA today gave its approval for fixation of Nutrient Based Subsidy, NBS rates for Phosphatic and Potassic (P and K) Fertilizers for the year 2020-21.
- The approved rates for NBS will be 18 rupees 78 paise per kg for Nitrogen, 14 rupees 88 paise per kg for Phosphorus, 10 rupees 11 paise per kg for Potash, and 2 rupees 37 paise per kg for Sulphur.
- The CCEA also approved the inclusion of a complex fertilizer namely Ammonium Phosphate under the NBS Scheme.
- The expected expenditure for the release of subsidy on Phosphorus and Potassium Fertilizers during 2020-21 will be over 22 thousand 186 crore rupees.
- The subsidy on the Phosphorus and Potassium will be provided on the subsidy rates approved by the CCEA to the fertilizer companies.



1.45 Violence Against Health Care Workers

- The Union Cabinet has approved promulgation of Ordinance to amend the Epidemic Diseases Act, 1897 in the light of COVID-19 pandemic situation making acts of violence against the healthcare workers as cognizable and non-bailable offenses.
- Under it, there is a provision to provide compensation for injury to healthcare service personnel or for causing damage or loss to the property.
- The investigation into the cases of attack on healthcare workers will be completed within 30 days and judgment will be pronounced within one.
- Accused of the attack can attract a punishment ranging from 3 months to 5 years and a fine from 50 thousand rupees to 2 lakh rupees.
- In case of grievous injuries, the accused can be sentenced from 6 months to 7 years and they can also be penalized from one lakh to 5 lakh rupees.

- If the damage is done to the vehicles or clinics of healthcare workers, then a compensation amounting to twice the market value of the damaged property will be taken from the accused.

1.46 Bull Running Festival

- Spain's best-known bull-running festival in the northern town of Pamplona has been canceled because of the coronavirus pandemic.
- Hundreds of thousands of people typically attend the centuries-old San Fermin celebration, which sees half-a tonne fighting bulls chase hundreds of daredevils, many wearing traditional white shirts and scarves, through the narrow streets of the city each morning.
- Pamplona's Municipal Council decided to call off the event, held each year between July 6 and 14, because the fight against COVID-19 has become a global priority and there is no other possible option for such massive festivities.
- Though the contemporary festival is largely symbolic, its original purpose, dating back to the 13th century, was to allow herders and butchers to drive cattle from pens outside of the city to the bull ring in preparation for market days and bullfights.

1.47 E-Gram Swaraj Portal

- On the occasion of Panchayati Raj Day, PM Modi launched two new portals i.e., E-Gram Swaraj Portal and the Swamitra Scheme on April 24, 2020.
- The portal has been launched for the improvement of society.
- This Portal will mark the complete digitization of the villages to strengthen e-governance in Panchayati Raj institutions in the whole country.

About the portal

- The E-Gram Swaraj Portal (egramswaraj.gov.in) is one single interface on which the panchayat wise details will be listed.
- The platform will provide records of work from planning to the implementation in every village panchayat under Gram Panchayati Development Plan (GPDP).
- To strengthen e-Governance in Panchayati Raj Institutions (PRIs) across the country, the Ministry of Panchayati Raj (MoPR) has launched eGramSwaraj, a user-friendly web-based portal.
- eGramSwaraj aims to bring in better transparency in decentralized planning, progress reporting, and work-based accounting.

Benefits of the portal

- **SPEED AND EFFICIENCY:** Monitoring and recording all the work via Gram Swaraj Portal/App will help speed-up the implementation of projects in village areas.
- **EASE OF ACCESS:** One can access and know about the groundwork, as it will contain the details of ongoing development works and the fund allocated for the projects.

- **ACCOUNTABILITY:** All the details related to Panchayat Sachiv and Panch can be viewed on Gram Swaraj Portal.
- **ACCESSIBILITY:** The works of the Ministry of Panchayati Raj will be accessible through Gram Swaraj Portal.
- **TRANSPARENCY:** The Gram Swaraj Portal and application will provide a boost in transparency by decentralized planning of development projects, with progress reports updates and increased accountability.

1.48 PM SWAMITVA YOJANA

- PM Modi launches Swamitva scheme on Panchayati Raj Divas
- PM Swamitva Yojana was launched on the occasion of Panchayati Raj Day.
- It provides for the Integrated Property Validation Solution for rural areas in India.
- Anyone can check the complete details about the land, plans of development, progress report, etc on this single Swamitra portal.

About the scheme

- This Unified Portal is a new initiative of the Ministry of Panchayati Raj that is going to provide a single interface for the Gram Panchayats in order to prepare and implement their Gram Panchayat Development Scheme (GPDS).
- The Central Government has launched the Swamitva Scheme under which the government has launched the e-Gram Swaraj Portal.
- The Scheme provides an integrated property verification solution for rural India.
- The demarcation of inhabited land in rural areas will be done using the technology of drones in collaboration with the latest survey methods.
- This is going to help various departments such as the Ministry of Panchayati Raj, State Panchayati Raj Department, State Revenue Department, and Survey Department.
- This facility is expected to reach about 1.25 lakh panchayats all over the country.

1.49 CHITRA MAGNA

- Chitra Magna, an innovative RNA extraction kit, has been developed as an innovative technology for isolating RNA from swabs for COVID 19 tests.
- This RNA extraction kit has been developed by Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), an Institution of National Importance under the Department of Science and Technology, Govt. of India.
- SARS-COV-2, the causative virus of COVID-19 pandemic, is an RNA virus– a long single-stranded polymeric substance present in all living cells that carries the genetic information of the organism necessary for life.

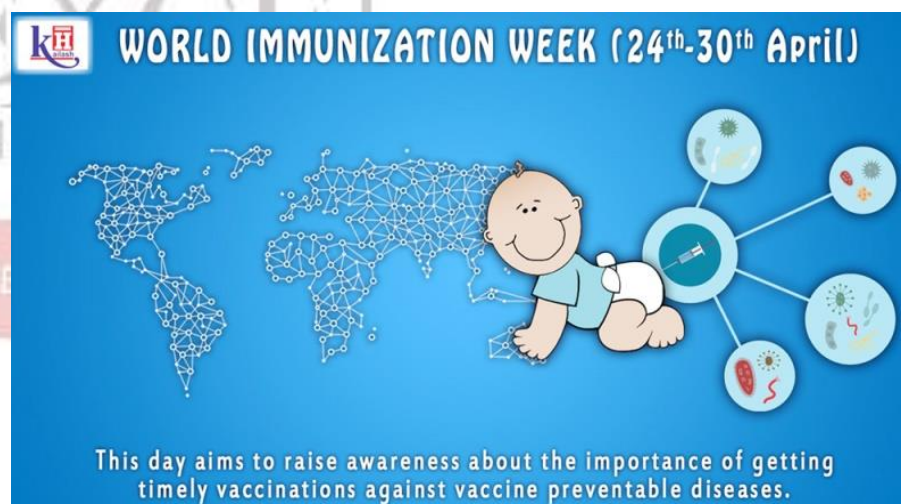
- One of the critical steps in detecting this virus is by confirming the presence of the RNA of the virus in the sample taken from the throat or nose.
- The sample collected is transported under specified conditions in a viral transport medium to the testing laboratory.

About the working

- The protocol for the kit uses magnetic nanoparticles to capture and concentrate the RNA from the patient sample.
- This is of significant advantage because even if some viral RNA disintegrates during the storage and transportation of the patient samples, all of it is captured by the magnetic bead-based extraction technology.
- The magnetic nanoparticle beads bind to the viral RNA and, when exposed to a magnetic field, give a highly purified and concentrated level of RNA.
- As the yield of PCR or LAMP test is dependent on getting an adequate quantity of viral RNA, this innovation enhances the chances of identifying positive cases.
- Chitra Magna can be used to extract high purity RNA from patient samples not only for LAMP testing but also for the RT-PCR test.
- The first step of isolating high quality and high concentration of RNA without degradation is critical to the outcome of the PCR or LAMP test in which RNA is converted to DNA.
- Barring a few Indian manufacturers, the majority of RNA isolation kits are imported, and its non-availability often becomes a severe bottleneck for RT-PCR testing in large numbers across the country.

1.50 World Immunization Week 2020

- World Immunization Week is being celebrated this year with the theme “#VaccinesWork for All.”
- World Immunization Week is celebrated annually in the last week of April (24 to 30 April).
- It is a global public health campaign that aims to promote the use of vaccines to protect people of all ages against disease.
- Immunization is one of the most successful and cost-effective health interventions.
- However, nearly 20 million children are still unvaccinated and under-vaccinated worldwide.



- The theme this year is #VaccinesWork forAll.
- The campaign focuses on how vaccines, as well as the people who develop, deliver, and receive them, are vaccine champions by working to protect the health of everyone, everywhere.
- Given that WHO has designated 2020 the International Year of the Nurse and the Midwife, WHO will highlight nurses and midwives for their crucial role as early vaccine champions for new parents and parents-to-be.

1.51 World Malaria Day

- The World Health Organization celebrated World Malaria Day 2020 on April 25, 2020 as an occasion to highlight the need for continued investment and sustained political commitment for malaria prevention and control.
- Between 2000 and 2014, the number of malaria-related deaths fell by 40% worldwide, from an estimated 743 000 to 446 000.
- But in recent years, progress has ground to a standstill.
- In 2018, 27 countries reported fewer than 100 cases of malaria, up from 17 countries in 2010. Four countries – Algeria, Argentina, Paraguay and Uzbekistan – were certified malaria-free by WHO over the last 2 years and, globally, 38 countries and territories have achieved this milestone.
- Six countries – Cambodia, China (Yunnan Province), Lao People’s Democratic Republic, Myanmar, Thailand and Viet Nam – reduced their malaria caseload by 76% in the period 2010 to 2018.
- Sub-Saharan Africa continues to shoulder the heaviest burden of malaria.

About the statistics

- Pregnant women and children continue to be the hardest hit.
- An estimated 11 million pregnant women living in 38 African countries were infected with malaria in 2018.
- As a result, nearly 900 000 babies were born with a low birth weight – a major risk factor for infant mortality.
- Globally, children under the age of 5 accounted for about two-thirds of all malaria deaths in 2018.
- According to WHO’s World malaria report 2019, there were no global gains in reducing new infections over the period 2014 to 2018.
- And nearly as many people died from malaria in 2018 as the year before.

1.52 My Book My Friend Campaign

- Union HRD launched the #MyBookMyFriend campaign on social media on the occasion of World Book and Copyright Day (23 April).
- The #MyBookMyFriend campaign will run for the next 7 days.

- Under this campaign, the Union HRD Minister urged all the students to read books of interest in addition to course books during the time of lockdown and share with him about the book which they are reading at the moment using #MyBookMyFriend on social media.
- Union HRD minister appealed to various Union Ministers and prominent personalities on social media by tagging them to join the #MyBookMyFriend campaign.

1.53 Devanahalli Pomelo

Bangalore International Airport Limited (BIAL), which operates the Kempegowda International Airport (KIA), is cultivating the Devanahalli Pomelo fruit under its CSR programme 'Namma Ooru', thereby giving it a fresh cultivation push.

About the fruit

- The Devanahalli pomelo is a variety of the citrus fruit pomelo (*Citrus maxima*) of the family Rutaceae.
- It is exclusively grown in the region around Devanahalli taluk of Bangalore Rural District.
- It is locally known as chakkota.
- It is protected under the Geographical Indications of Goods (Registration & Protection) Act (GI Act) 1999 of the Government of India.

1.54 Immunity Passports

- The World Health Organization (WHO) has warned against issuing "immunity certificate" or immunity passports amid lockdown to those people who have recovered from Covid-19.
- It was warned by WHO keeping in mind the fact that there is no evidence those who have recovered from COVID-19 would be protected from a second infection.

About the Passports

- Under increasing pressure to reopen their economies, parts of Europe and the US have been considering issuing immunity certificates to people who have recovered from COVID-19 and have its antibodies— thus presumed to be immune to the disease.
- People who are issued these certificates would be allowed to go back to work and move about freely.
- The idea has also become popular in Italy, where the lockdown exit strategy includes compulsory antibody tests as the country seeks to set up the certificate system.

About the criticism

- The scheme of Immunity Passports has been criticized by many as both scientifically and ethically controversial.
- According to the Experts, this decision is more like governments against acting in haste, since much still remains to be understood about the spread of the virus, as well as immunity to it.

- Further, the lack of necessary information would make categorizing between immune and non-immune persons a challenging as well as potentially dangerous task, they insist.
- It is also believed that the issuance of such certificates would create resentment among members of the community, and raise the possibility of stigmatization.
- the European parliament's Sakharov human rights prize the following year.

1.55 Dekho Apna Desh

- The Ministry of Tourism organised the 8th Webinar of "Dekho Apna Desh" series on "North East India-Experience the Exclusive villages."
- Key focus of the 8th Webinar series are the lesser known villages of Assam & Meghalaya.

About Sualkuchi

- It is one of the World's largest weaving villages where 74% of the households are engaged in weaving exquisite silk fabrics.
- The Silk ranging from the golden Muga to the ivory white Pat and the light beige Eri or Endi silk is famous for its centuries old heritage of weaving.
- People here support the concept of Ahimsa Silk breeding where silk is obtained without killing the silk worms.
- It is a noble step towards creating an Eco-friendly environment.

About Mawphlang

- The beautiful valley is famed for its sacred forest, a nature's own museum with a treasure trove of unique flora which is seldom seen in other parts of the world.
- The sacred groves, revered and preserved by local Khasi communities, has the megaliths believed to be 500 years old.
- Close to the amazing sacred groves is the 'David Scott's trail', a trekking zone amidst beautiful Meghalaya's landscape as one walks through streams, rocks, forest and local villages

1.56 New List of Names of Tropical Cyclones over North Indian Ocean

The India Meteorological Department (IMD) released a new list of names of tropical cyclones over north Indian Ocean including Bay of Bengal and Arabian Sea, comprising of 169 names including 13 from India such as Gati, Tej, Aag, Neer, Vyom, Jhar and Jaladhi among others.

About the naming

- The current list has, in fact, 13 names each from all 13 member countries of the Regional specialised meteorological centres (RSMCs) including Bangladesh, Iran, Maldives, Myanmar, Oman, Pakistan, Qatar, Saudi Arabia, Sri Lanka, Thailand, United Arab Emirates and Yemen.
- The IMD being one of the six RSMCs in the world to provide tropical cyclone and storm surge advisories finalised the new list of 169 names.

About the significance

- Naming of Tropical Cyclones helps the scientific community, disaster managers, media and general masses to
 - Identify each individual cyclone.
 - Create awareness of its development.
 - Remove confusion in case of simultaneous occurrence of TCs over a region .
 - Remember a TC easily.
 - Rapidly and effectively disseminate warnings to much wider audience.

Highlights

- Once the last name (Amphan) of the previous list is used, the TCs thereafter will be known one-by-one as Nisarga (shared by Bangladesh), Gati (India), Nivar (Iran) in that order from the list of 169 names.
- The other names from India in the new list include Murasu, Probaho, Prabhanjan, Ghumi, Ambud and Vega.
- The names of TCs over the north Indian Ocean are not repeated. Once used, it will cease to be used again.

1.57 Mid-Day Meal Scheme

Government has announced around 11 % increase in annual central allocation of cooking cost under Mid-day meal scheme to 8,100 crore rupees in view of the situation arising out of COVID-19.

About the scheme

- With a view to enhancing enrolment, retention and attendance and simultaneously improving nutritional levels among children, the National Programme of Nutritional Support to Primary Education (NP-NSPE) was launched as a Centrally Sponsored Scheme in 1995.
- In 2001 MDMS became a cooked Mid Day Meal Scheme.



- The Mid-Day Meal Scheme covers children of classes I-VIII studying in government, government-aided schools, special training centres (STC) and madarasas/ maqtabas supported under Sarva Shiksha Abhiyan (SSA).
- It is the largest school feeding programme in the world.
- The Midday Meal Scheme is covered by the National Food Security Act, 2013.

1.58 Jal Shakti Abhiyan

- ‘Jal Shakti Abhiyan’—is all set to combat the present health crisis and give a boost to the rural economy through its various components.
- This year owing to the COVID-19 emergency, and availability of large labour force in rural areas, the Abhiyan has started gearing up for the impending monsoon.

Background

- Under the lockdown, the ministry of home affairs has allowed irrigation projects, which the government said can be dovetailed with the MGNREGA work.
- This will help in generating work for the people who have left cities to return to their villages, and thus create employment and rev up rural economy.

About the Abhiyan

- The Government of India launched Jal Shakti Abhiyan (JSA), a time bound campaign with a mission mode approach intended to improve water availability including groundwater conditions in the water stressed blocks of 256 districts in India.
- It is being implemented by the Ministry of Jal Shakti.
- In this regard, teams of officers from the Central Government along with technical officers from the Ministry of Jal Shakti were deputed to visit water stressed districts and to work in close collaboration with district level officials to undertake suitable interventions.
- This ‘Abhiyan’ is a mass movement to bring all the stakeholders under one ambit of water conservation drive, and last year it had a nationwide impact.
- Under this Abhiyan more than six and a half crore people became part comprising of State Govts, Central Govt, Civil Society Organisations, Panchayati Raj Institutions and Communities.
- More than seventy- five lakh traditional and other water bodies and tanks were renovated and around a crore water conservation & rainwater harvesting structures were created.

1.59 Ayushman Bharat Diwas 2020

- The scheme will enable the beneficiaries to take cashless benefits from public and private hospitals across the country.
- Ayushman Bharat Diwas 2020 is celebrated on 30 April

- The day aims to promote affordable medical facilities in remote areas of the country based on the Socio-Economic Caste Census database. It will also promote health and wellness and provide insurance benefits to the poor.

Ayushman Bharat:

- Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PMJAY), also known as the National Health Protection Mission (AB-NHPM), was launched by PM Narendra Modi on 14 April 2018, at Bijapur, Chhattisgarh.
- The scheme will enable the beneficiaries to take cashless benefits from public and private hospitals across the country.
- The scheme aims to cover 50 crore beneficiaries in India and it covers secondary and tertiary healthcare. So far, the scheme has benefitted 10 crore families in India, of which 8 crore families in rural areas and 2.33 crore families from urban areas.
- The Scheme includes various benefits with a cover of Rs.5 lakh per family to be given per year.

1.60 Over 5 million people were displaced in India in 2019 reports 2020 GRID

- The report highlighted that the displacements were caused due to a combination of increasing hazard intensity, high population exposure, and high levels of social and economic vulnerability.
- Over 5 million people were displaced in India in 2019 reports 2020 GRID
- Geneva-based Internal Displacement Monitoring Centre (IDMC) released its Global Report on Internal Displacement (GRID) 2020 on 29 April. The reports stated that 5 million people were displaced in India in 2019, the highest in the world, due to disasters, including cyclones and monsoon floods.

Report Highlights:

- The report highlighted that the displacements were caused due to a combination of increasing hazard intensity, high population exposure, and high levels of social and economic vulnerability.
- India reported 50,37,000 displacements in 2019.
- As per the report Political and electoral violence, primarily in Tripura and West Bengal in the first half of the year, accounting for more than 7,600. Conflict and violence triggered about 19,000 new displacements and 2,89,000 people were evacuated in Gujarat in June ahead of cyclone Vayu in 2019. Also, Cyclone Bulbul in Odisha and West Bengal triggered 1,86,000 displacements.
- India's neighbouring countries Bangladesh recorded 40,86,520 displacements, Afghanistan recorded 40,86,520 displacements, Pakistan recorded 1,16,000 displacements, Nepal recorded 1,21,000 displacements.
- South Asia recorded a total of 9.5 million new displacements associated with disasters in 2019.

GRID:

GRID 2020 is the global reference for internal displacement data and analysis. The report is widely used by policy-makers, national governments, UN agencies, international NGOs, journalists, and academics.

IMDC:

IMDC was established in 1998. It is headquartered in Geneva, Switzerland. It is the world's authoritative source of data and analysis on internal displacement. IMDC focuses to improve the lives of the millions of people living in internal displacement, or at risk of becoming displaced in the future.



2. INTERNATIONAL RELATIONS

2.1 70 Years of Diplomatic Relations between China and India [1950-2020]

Why in news?

On April 1, 2020, China and India marks the important moment of the 70th anniversary of the establishment of diplomatic relations between them since 1950.

Looking around the world, China and India, as the only two emerging countries with a population of more than 1 billion, shoulder the historical mission of national rejuvenation, play a key role in the process of the collective rise of developing countries, and inject strong momentum into the profound changes unseen in a century.

At this moment, it is particularly important to revisit the original aspiration of establishing diplomatic relations 70 years ago and carry forward the spirit of good neighbourliness and friendship, unity and cooperation.

2.2 Looking back at the past 70 years, China-India relations:

Memorabilia of 70th Anniversary of the Establishment of Diplomatic Relations between China and India



Mao Zedong, Chairman of the Central People's Government of China, met with Indian Prime Minister Jawaharlal Nehru in October 1954.

- On April 1, 1950, China and India established diplomatic relations. India was the first non-socialist country to establish relations with the People's Republic of China. " Hindi Chini Bhai Bhai " has become a catch phrase from that time and a much-told story in the history of bilateral exchanges.
- In 1954, Chinese Premier Zhou Enlai visited India. China and India signed the Joint Statement and jointly advocated the Five Principles of Peaceful Coexistence (Panchsheel Treaty) . In the same

year, Indian Prime Minister Nehru visited China. He was the first head of government of a non-socialist country who visited China since the founding of the People's Republic of China.



Zhou Enlai, Premier of Government Administration Council of the Central People's Government of China, visited India and jointly advocated the Five Principles of Peaceful Coexistence in June 1954.

- In 1955, Premier Zhou Enlai and Prime Minister Nehru attended the Asian-African Conference in which 29 countries participated in Bandung, Indonesia and jointly advocated the Bandung Spirit of solidarity, friendship and cooperation.
- In 1962, the border conflict led to a serious setback in bilateral relations.
- In 1976, China and India restored ambassadorial relations and bilateral ties improved gradually.
- In 1988, Indian Prime Minister Rajiv Gandhi visited China, initiating the process of normalization of bilateral relations. The two sides agreed to "look forward" and develop bilateral relations actively in other fields while seeking a mutually acceptable solution to boundary question.
- In 1991, Premier Li Peng visited India. The Prime Minister level mutual visits were restored after decades of suspension.
- In 1992, Indian President R. Venkataraman visited China. He was the first President who visited China since the independence of the Republic of India.
- In 1993, Indian Prime Minister Narasimha Rao visited China. Agreement between the Government of China and the Government of India on the Maintenance of Peace and Tranquillity along the Line of Actual Control in the India-China Border Areas was signed.
- In 1996, President Jiang Zemin visited India. He was the first head of state from China who visited India since the establishment of bilateral ties. Both sides agreed to build a constructive partnership of cooperation oriented towards the 21st century. Agreement between the Government of China and

the Government of India on Confidence Building Measures in the Military Field along the Line of Actual Control in the India-China Border Areas was signed.



Chinese President Jiang Zemin visited India and held talks with Indian President Shankar Dayal Sharma and Prime Minister Dewe Gowda in November 1996.

- In 2000, Indian President K R Narayanan visited China on the occasion of the 50th anniversary of the establishment of diplomatic ties between China and India.
- In 2002, Premier Zhu Rongji visited India. Both sides agreed to enhance mutual understanding and trust and promote exchanges and cooperation in various fields.
- In 2003, Indian Prime Minister Vajpayee visited China. The two sides signed The Declaration on the Principles and Comprehensive Cooperation in China-India Relations, and agreed to establish the special representatives meeting mechanism on India-China boundary question.
- In 2005, Premier Wen Jiabao visited India. China and India signed the Joint Statement and declared the establishment of the strategic and cooperative partnership for peace and prosperity. The two sides welcomed signing of the Agreement on the Political Parameters and Guiding Principles for the Settlement of the India-China Boundary Question.



- Chinese President Hu Jintao met with Indian President Abdul Kalam in New Delhi in November 2006. In 2006, President Hu Jintao visited India. The two sides signed a Joint Declaration to formulate the ten-pronged strategy for deepening the strategic and cooperative partnership.
- In 2008, Indian Prime Minister Dr Manmohan Singh visited China. "A Shared Vision for the 21st Century" was agreed upon by the two governments.
- In 2010, Indian President Patil visited China in May, which coincided with the 60th anniversary of the establishment of diplomatic ties between China and India. In December, Chinese Premier Wen Jiabao visited India and the two sides issued a Joint Communiqué.
- 2011 was the "China-India Exchange Year". Both sides held a series of people-to-people and cultural exchange activities, and signed a memorandum on joint compilation for the "Encyclopedia of India-China Cultural Contacts". A 500-member Indian youth delegation visited China.
- 2012 was the "Year of China-India Friendship and Cooperation". President Hu Jintao and Premier Wen Jiabao met with Indian Prime Minister Dr Manmohan Singh respectively on the sidelines of the 4th BRICS Summit and the United Nations Conference on Sustainable Development. A 500-member Chinese youth delegation visited India.
- In 2013, President Xi Jinping met with Indian Prime Minister Dr Manmohan Singh on the sidelines of the 5th BRICS Summit in Durban, South Africa in March. Premier Li Keqiang visited India in May and the two sides released a Joint Statement. Prime Minister Dr. Manmohan Singh visited China in October.
- 2014 is the "China-India Friendly Exchange Year". In September, President Xi Jinping paid a state visit to India and visited Indian Prime Minister Narendra Modi's home state of Gujarat. The two sides issued Joint Statement on Building a Closer Developmental Partnership. In the same year, President Xi Jinping and Premier Li Keqiang met with Prime Minister Modi respectively on the sidelines of the 6th BRICS Summit and the Leaders' Meetings on East Asia Cooperation in Myanmar.
- In 2015, Indian Prime Minister Modi visited China and went to President Xi Jinping's hometown Xi'an. In the same year, President Xi Jinping and Premier Li Keqiang met with Prime Minister Modi respectively on the sidelines of the 7th BRICS Summit in Ufa and the Leaders' Meetings on East Asia Cooperation in Malaysia. China decided to open the Nathu La Pass to Indian official pilgrims to Xizang. India celebrated the India Tourism Year in China.
- In 2016, Indian President Mukherjee visited China. Prime Minister Modi visited China to attend the G20 Summit in Hangzhou and met with President Xi Jinping on the side-lines. President Xi Jinping visited India to participate in the 8th BRICS Summit in Goa and met with Prime Minister Modi on the sidelines. China celebrated China Tourism Year in India.

- In 2017, President Xi Jinping met with Prime Minister Modi on the sidelines of the SCO Summit in Astana. Prime Minister Modi visited China to attend the 9th BRICS Summit in Xiamen and met with President Xi Jinping on the sidelines.
- In 2018, President Xi Jinping held an informal meeting with Indian Prime Minister Narendra Modi in Wuhan. They had in-depth discussions and reached broad consensus on the overarching, long-term and strategic issues of global and bilateral importance and their respective visions for national development as well as domestic and foreign policies. The informal meeting set up a new model of exchanges between two leaders and became a milestone in the history of bilateral relations. In the same year, Prime Minister Modi visited China to attend the SCO Summit in Qingdao and met with President Xi Jinping on the sidelines. The two leaders met again on the sidelines of the 10th BRICS Summit and the G20 Summit in Buenos Aires later in the year.



- In 2019, President Xi Jinping and Prime Minister Modi held the second informal meeting in Chennai, reaffirmed the Wuhan consensus and agreed to build a closer partnership for development, enhance the in-depth strategic communication, promote mutually beneficial cooperation in various fields, and advance exchanges and mutual learning between the two civilizations. In the same year, President Xi Jinping met with Prime Minister Modi on the sidelines of the SCO Summit in Bishkek and the 11th BRICS Summit.



- 2020 marks the year of the 70th anniversary of the establishment of diplomatic relations between China and India. It is also China-India Year of Cultural and People-to-People Exchanges. The two sides agreed to hold 70 celebratory activities to demonstrate the historic connection between the two civilizations as well as their growing bilateral relationship over the years, and further deepen people-to-people exchanges between the two countries at all levels, including between their respective legislatures, businesses, academics, cultural and youth organizations as well as the defence forces.

2.3 Japan declares emergency amid COVID-19 outbreak



Japan's PM, Shinzo Abe on April 7, 2020, declared a state of emergency for Tokyo and six other prefectures till May 6. The decision has come in the light of rising COVID-19 cases in Japan.

The state of emergency has been declared in seven prefectures of Japan including Tokyo, Osaka, Kanagawa, and Saitama, neighboring Chiba, Hyogo in the west and Fukuoka in the south. Japan has a total of 47 prefectures.

The Prime Minister also informed that there will not be a European-style lockdown. Only Tokyo Governor Yuriko Koike and the heads of 6 other prefectures will be permitted to reinforce calls for social distancing. There will be no penalty enforcement for violations.

State of Emergency in Japan: Key Highlights

- The announcement of an emergency can be credited to the rising cases rising new cases in Tokyo. Nationwide, Japan has 3,906 confirmed cases.
- Tokyo Governor Yuriko Koike welcomed measures such as social distancing. The Governor also mentioned that because the measures are legally valid and involve a coordinated action with central govt, the actions will successfully prevail among the people.
- Japan's government was thought to have delayed the emergency as it may hurt the economy. But with the rise in a pandemic, there was a constant demand for drastic actions from public and medical experts.

2.4 COVID-19 Pandemic Worst Crisis after World War II: UN Chief



The United Nations (UN) Secretary-General Antonio Guterres has defined the COVID-19 pandemic as the worst crisis after World War II. The ongoing health crisis has been threatening public health across the world while also bringing a global economic recession.

At the report launch of the socioeconomic impacts of COVID-19, the UN chief stated that the combination of this disease along with its economic impact will contribute to enhanced instability, enhanced conflict, and enhanced unrest.

Declaring the current situation as a human crisis which is much more than a health crisis, the UN chief talked about the impacts COVID-19 pandemic and how it is attacking the societies at its core.

Key Highlights:

- UN Secretary-General Antonio Guterres stressed that we are still very far to fight COVID-19 pandemic effectively.

- He pointed out that there are still many countries who are not following the guidelines defined by W
- Guterres highlighted the need for assistance from developed countries to the developing ones, especially in health care.
- Highlighting the mobilization of USD 5 trillion, the UN Chief mentioned that most of the money was by the developed world to support their own economy
- Giving massive support to the developing world, he mentioned the lack of a global package that will help in suppressing the disease and its dramatic consequence.
- He also talked about the International Labor Organization Report that has reported an estimate of job loss between 5 million and 25 million in 2020

2.5 UN Secretary-General suggested the following measures to overcome COVID-19 crisis:

- To overcome the crisis, there must be no political games.
- There is a need for a large-scale response that is coordinated and comprehensive and they must be guided by the World Health Organization (WHO).
- Announced COVID-19 Response and Recovery Fund to support low and middle-income countries.
- Hope for a positive response from the international community for tens of millions of refugees and internally displaced people.
- There must be an expansion of IMF capacity to issue special drawing rights for the countries that need them.
- Supported an idea from French President Emmanuel Macron, Russian President Vladimir Putin and German Chancellor Angela Merkel to start a G-20 initiative to support Africa.

2.6 US invoked the rarely used Defense Production Act



The United States has invoked the Defense Production Act on 27 March 2020. The rarely used Act was invoked to direct General Motors to manufacture ventilators that are needed to combat COVID-19.

President Donald Trump earlier criticized the company for slow-walking production.

Highlights:

- President Trump also appointed trade advisor Peter Navarro to coordinate the government's efforts to purchase and distribute emergency medical supplies, including ventilators and protective equipment for health care workers.
- The US government aims to use the full authority of the federal government to combat the COVID-19 crisis.
- The Act was invoked as General Motors did not move quickly enough to produce needed ventilators amid the coronavirus pandemic.

2.7 IMF reported that the Global economy might enter a recession

- International Monetary Fund (IMF) chief Kristalina Georgieva announced that the global economy is now in a recession due to coronavirus. It has been made clear that the world countries have entered a recession.
- A rebound in 2021 can happen, only if the virus is contained and prevent liquidity problems from becoming a solvency issue.
- IMF stated that over 80 countries have already have requested emergency aid to contain coronavirus. Of the 80 countries, most of the countries are low-income countries. More countries have imposed lockdown measures to contain the rapidly spreading virus, which has infected over 337,500 people across the world.

Background:

- Earlier, the IMF had warned that 2020 world growth would be below the 2.9% rate seen in 2019. The organization stopped short of predicting a recession.
- Trade wars pushed global growth last year to the lowest rate since a 0.7% contraction in 2009. Also, it forecasted a recovery in 2021.

2.8 FDA approved Convalescent Plasma Transfusion to treat people from Coronavirus

- The US Food and Drug Administration (USFDA) approved Convalescent plasma is the method to treat people who are critically ill with COVID-19.
- Convalescent plasma refers to the plasma extracted from those who are recovering from coronavirus (COVID-19). To run the process the doctors must get approval over the telephone.

What is Plasma?

- Plasma is a fluid carries the blood components throughout the body. It is the largest part of blood. It makes up to 55% of its overall content.
- The liquid is light yellow in colour. It carries water, salts, and enzymes. Plasma also contains important components like antibodies, clotting factors, and the proteins albumin and fibrinogen.

Convalescent plasma:

- The method was used in the past to treat diseases such as polio, measles, mumps, 1918 flu epidemic, and in previous outbreaks of respiratory infections namely H1N1 influenza, SARS, and MERS.
- Under the method, Plasma from people who have recovered from COVID-19 will be collected and transmitted to the critically ill COVID-19 patients. It is believed that it might contain antibodies to the virus that causes the disease and might be effective against the infection.

Background:

- Earlier, a study suggested that the convalescent plasma could be a possible treatment methodology. The study was conducted by the Shenzhen Third People's Hospital in Shenzhen, China.
- The study was conducted on 5 critically ill COVID-19 patients and the preliminary results from the test were promising. After the plasma transfusion, body temperature was normalized within 3 days in 4 of 5 patients, the Sequential Organ Failure Assessment score decreased, and the ratio that determines the severity of ARDS increased within 12 days. Viral loads decreased and became negative within 12 days after the transfusion.

2.9 Tokyo Olympics might be held in 2021 July

- Tokyo Olympics organizers are planning to host the Tokyo 2020 Summer Olympics in July 2021. The event was delayed due to the coronavirus.
- The Tokyo Organising Committee is planning to begin the events from 23 July 2021. The day was suggested by Tokyo Governor Yuriko Koike.
- The plan to host it in July 2021 comes as the International Olympic Committee (IOC) had decided to move the games to be held in northern Sapporo city, Japan instead of Tokyo.

Background:

- The Olympics were scheduled to commence on 24 July 2020 with the Paralympics on 25 August. Japan announced that it had secured agreement from the IOC to postpone the Games.
- Prime Minister Shinzo Abe announced that the games will be held in around a year. The Olympic flame which was lit would be displayed for a month at the J-Village sports complex in Fukushima, Tokyo.

2.10 UP government transferred Rs.611 crore to the beneficiaries under MNREGA

- On 30 March, the Uttar Pradesh Chief Minister Yogi Adityanath transferred Rs.611 crore in the accounts of 27.15 lakh Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) labourers of the state. The move comes in the wake of the COVID-19 outbreak.

Highlights:

- The amount was electronically transferred to help the labourers in the situation of lockdown due to CoronaVirus. The state government informed the beneficiaries of the money transferred under the scheme.
- CM Yogi Adityanath directed private enterprises and organizations to compulsorily give one month's salary to their employees without any deduction.
- It also ordered the landlords not to charge one month's rent from any worker or labourer. Strict action will be taken on the violators.
- The Uttar Pradesh State Government has reported that there are no signs of community spread of the virus in the state, so far.

2.11 UN report India, China will stay away from world recession

- The United Nations Trade report titled "The COVID-19 Shock to Developing Countries: Towards a whatever it takes program" stated that the world economy will go into recession in 2020 with a predicted loss of trillions of dollars of global income due to the COVID-19 pandemic.

It also predicted serious problems for developing countries with the likely exception of India and China.

Report Highlights:

- The report highlighted that the two-thirds of the world's population living in developing countries face unprecedented economic damage from the coronavirus crisis.
- The UN is planning a \$2.5 trillion rescue package for the nation.
- As per the new analysis from United Nations Conference on Trade and Development (UNCTAD), the developed countries will face a \$2 trillion to \$3 trillion drop in investments from overseas in the next two years.
- It highlighted that the recession will occur despite the massive government package of \$5 trillion that is to be infused by G20 member countries.
- However, the report did not mention any explanation as to why and how India and China will be exceptions as the world faces a recession and loss in global income that will impact developing countries.

2.12 China recommended bear bile to treat COVID-19 patients

- The National Health Commission of China published a list of recommended treatments to treat COVID-19. Apart from western medicine and Chinese medicine, the list included Tan Re Qing, injections that contain bear bile powder.

Bear's Bile:

- Tan Re Qing is secreted by the liver and stored in the gallbladder of the bear. The bile from various species of bears, including Asiatic black bears and brown bears, has been used as a traditional Chinese medicine since the 8th century.
- Bear's bile contains high levels of ursodeoxycholic acid, also known as ursodiol. It has been clinically proven to help dissolve gallstones and treat liver disease. Ursodeoxycholic acid has been available as a synthetic drug worldwide for decades.
- The process of extracting bile from the live bear is painful and can cause agony to the animal. Hence, a synthetic version of ursodeoxycholic acid has been available for decades.

2.13 **World Bank offered USD 1 billion for proposed India project**

- The World Bank has announced \$1 billion to the Government of India for a proposed India COVID-19 emergency response and health systems preparedness project.
- The World Bank funding allocated the fund from its COVID-19 fast-track facility.

Project:

- The span of the proposed project is four-years. The project aims to develop the preparedness of India's health care systems in the time of the pandemic.
- The main objective of the project is to respond and mitigate the COVID-19 threat and strengthen national systems for public health preparedness in India.
- Under this, both the World Bank and the Government of India will work on following the best international practice.
- The project will measure progress on key indicators such as the proportion of laboratory-confirmed cases of COVID-19 who responded within 48 hours and the proportion of specimens submitted for SARS-COV-2 laboratory testing confirmed within WHO stipulated standard time.
- The government has assessed that outbreaks like COVID-19 might continue in the coming years, and hence there needs to be a long-term strategy to tackle the disease.

2.14 **UN report stated COVID-19 is worst crisis since World War II**

- The United Nations warned that the world countries face the most challenging crisis since World War II.
- The pandemic is expected to cause a recession that probably has no parallel in the recent past.
- The announcement was made by the UN Secretary-General Antonio Guterres during the launch of the "Report on the socioeconomic impacts of COVID-19" on 31st March.

Report Highlights:

- UN stated that there is also a high risk that the combination of the disease and economic impact will contribute to enhanced instability, unrest, and conflict.

- The report also highlighted that International Labor Organization (ILO) estimates for the year 2020 which stated 5-25 million jobs will be lost, with a corresponding loss of between \$860 million and \$3.4 trillion in labor income.
- It pointed to the UN trade and development organization UNCTAD's estimate of a 30-40% downward pressure on global foreign direct investment (FDI) flows in 2020.
- It also recommended establishing a COVID-19 Response and Recovery Fund to support efforts in low- and middle-income countries, with the aim of swiftly enabling governments to tackle the crisis and promote recovery.

2.15 World Athletics Championships rescheduled to 2022 due to Tokyo Olympics

- The 2021 World Athletics Championships in Eugene, Oregon has been shifted to 2022. The move is to accommodate the re-arranged Tokyo Olympics which was postponed due to the Coronavirus pandemic.
- The move was made by the World Athletics to support the Japanese organizers and the International Olympic Committee (IOC). New dates were not announced yet.

Background:

- The world athletics championships were scheduled to be held in Eugene on 6-15 August 2021. It is expected that the rescheduling will give the athletes enough time they need to get back into training and competition.
- World Athletics also discussed with the Commonwealth Games Federation to move the dates from 2021 to 2022 as the Commonwealth Games were scheduled to be held in the English city of Birmingham on 27 July to 7 August 2022.

2.16 World Autism Awareness Day is observed on 2 April

- World Autism Awareness Day is observed on 2 April every year to recognize and celebrate the rights of persons with autism. The day makes people understand, recognize, and accept people with autism.
- This year, the day is commemorated by the Department of Community Development, Abu Dhabi, the UAE.
- The theme of the 2020 World Autism Awareness Day is "The transition of adulthood."

History:

- The United Nations held the Convention on the Rights of Persons with Disabilities (CRPD) in 2006. It came into effect in 2008. It aimed to promote, protect and ensure the full and equal rights of all human rights and fundamental freedoms by all persons with disabilities.

- It assured the fundamental principles of universal human rights for all. In 2008, the United Nations General Assembly (UNGA) passed the resolution and designated 2 April as the day of World Autism Awareness Day.

2.17 UNSC to hold virtual meeting on Corona Virus outbreak

- The United Nations Security Council (UNSC) is to hold a virtual meeting for the first time by next week under the presidency of the Dominican Republic. The council aims to discuss the coronavirus pandemic which killed over 42,000 people globally.
- The Dominican Republic assumed the rotating presidency of the council for the month of April, taking the baton from China.

Highlights:

- The meeting will discuss the pandemic caused due to coronavirus.
- As per Johns Hopkins University estimate, the confirmed coronavirus cases across the world now stand at over 932,600 and over 42,000 deaths. As per the report, the US has the highest number of coronavirus cases in the world at 213,372, followed by Italy (110,574), Spain (104,118) and China (82,361). Over 4,600 people have died in the US so far because of the COVID19.
- Earlier, Dominican Republic presented to members of the Security Council its program of work and informal plan of video teleconferencing (VTCs) for the month of April.
- During a virtual pre-council meeting, the members discussed the brought up the COVID-19 pandemic. The Security Council aims to find a solution to the pandemic as the primary responsibility of the UNSC deals with the geopolitical security and peace matters.

2.18 World Bank lends USD 1billion to India to combat COVID-19 outbreak

- The World Bank's Board of Executive Directors (ED) has approved \$1 billion to India COVID-19 Emergency Response and Health Systems Preparedness Project. The project will cover all the States/Union Territories in India.

Aim:

- The aim of the project is to help India prevent, detect, and respond to the COVID-19 pandemic. It focuses to strengthen India's public health preparedness. This is the largest ever health sector support from the Bank to India.

Highlights:

- The new support offered by the World Bank will cover all states/UTs across India.
- The project will address the needs of the coronavirus infected people, at-risk populations, medical and emergency personnel and service providers, medical and testing facilities, and national and animal health agencies.

- The project will immediately enable the Central Government to scale-up efforts to limit human-to-human transmission of the coronavirus.
- Under the project, new ways to strengthen the health system will be introduced to improve India's capacity to respond to the COVID-19 pandemic and be better prepared to respond to emerging disease outbreaks, including transmission between humans and animals.
- The project also includes the procurement of testing kits, infection prevention, and control, setting up of new isolation wards including turning hospital beds into intensive care unit beds and purchase of personal protective equipment (PPEs), ventilators, and medicines in district hospitals and COVID-19 dedicated hospitals.

2.19 COP26 Climate Change Summit Postponed



- The United Nations COP26 summit on “Climate Change” has been postponed until next year due to the COVID-19 pandemic. The conference was set to take place in Glasgow in November 2020. The rescheduled dates of the summit for 2021 has not been announced yet.
- The decision to postpone the summit was taken by the COP Bureau of UNFCCC (United Nations Framework Conventions on Climate Change), with the United Kingdom and its Italian Partners.
- Some 30,000 people including 200 world leaders were due to attend the 10-day conference for the crucial talk to halt the rising global temperature.
- **Statement by COP26 President Alok Sharma** in his statement regarding the rescheduling of COP26, Alok Sharma spoke about the current global challenge that the world is facing.
- He stated that in this fight against COVID-19, the countries are rightly focusing their efforts on saving lives.
- He further talked about the need to tackle the climate crisis and said that he looked forward to agreeing to a new date for the conference.
- **UN Climate Change Executive Secretary Patricia Espinosa** termed COVID-19 as a threat that humanity is facing today but also stated that we cannot forget that climate change is the biggest threat.

2.20 COP (Conference of Parties)

COP is a supreme-decision making body of the United Nations Climate Change Convention. One of the key tasks of COP is to review the emission inventories and national communications that are submitted by the parties. The COP meets every year unless the parties involved in the convention decides otherwise.

COP24 in 2018 focused on climate-friendly modern solutions like electromobility for sustainable urban development while also discussed the major requirement of a major shift in society in the world economy.

COP25 in 2019 which was held in Madrid ended on a rather disappointing note. In one of the longest climate talks, there were no concrete plans regarding the growing climatic urgency.

2.21 Indian-American Pharma firm pledges to donate 3.4 Hydroxychloroquine tablets



An **Indian-American Pharma Firm** has pledged to donate **3.4 million Hydroxychloroquine tablets**, stepping up the fight against COVID-19 in the United States of America.

The New Jersey-based Amneal Pharmaceuticals, owned by Chirag and Chintu Patel, is one of the largest US-based manufacturers of pharmaceutical products. The firm will be providing Hydroxychloroquine Sulphate tablets to the states that are COVID-19 hotspots including New York and Louisiana.

The United States has the highest number of COVID-19 cases in the world with the number doubling almost every day. Currently, the total confirmed cases in the nation stand at 400,540, which includes 365,972 active cases, 21,711 recoveries and 12,857 deaths.

Key Highlights

- The Indian-American pharma firm has announced that it is increasing its production of Hydroxychloroquine Sulphate at many of its manufacturing sites and expects to produce about 20 million tablets between now and mid-April.
- The tablets will be made available across the nation through the company's existing retail and wholesale customers and direct sales to the larger institutions that require the drug.

- The company will be donating the essential tablets to the US states that are the hardest hit by the coronavirus outbreak.
- The company has already donated about two million Hydroxychloroquine Sulphate 200 mg tablets to New York and one million to Texas for treatment of COVID-19 patients. It has also announced a donation of 400,000 Hydroxychloroquine Sulphate tablets to Louisiana.
- The company is further ready to provide more tablets as and when required. Besides providing to the states, it is also donating products directly to the hospitals in need across the nation.
- In a joint statement, the CEOs of Amneal emphasised on the need to work together at this time to help resolve the COVID-19 crisis. They said that the company is working to help as many patients as possible during the critical time.
- Hydroxychloroquine Clinical Trials
- The Louisiana State University School of Medicine is now working to launch two different clinical trials using hydroxychloroquine for coronavirus treatment. The trials will be launched at the University Medical Center in New Orleans and at the LSU Medical School locations in Baton Rouge and Lafayette.

Following are the two trials:

1. One trial will use Hydroxychloroquine on the critical COVID-19 patients.
2. The other trial will use the drug as a preventative measure for healthcare workers on the front lines of the battle.

2.22 US President advocates use of Hydroxychloroquine

US President Donald Trump has been advocating the use of Hydroxychloroquine to treat COVID-19 patients. He said that the drug would be a game-changer in the global fight against the novel coronavirus.

Background

- Hydroxychloroquine Sulphate is known as an anti-malaria drug as it was historically used to treat and prevent malaria. It was first synthesized in 1946.
- Amneal's Hydroxychloroquine Sulphate tablets have the approval of the US Food and Drug Administration (FDA) to treat malaria, rheumatoid arthritis, lupus, childhood arthritis and other autoimmune diseases. Though the drug has not been approved by the FDA for COVID-19 treatment, it has been identified as a possible treatment option.

2.23 South Korea Election won by the ruling party amid COVID-19



- The Democratic party of South Korean President Moon Jae-in has won in the parliamentary elections. South Korea has become among the first countries to hold national elections amid the COVID-19 pandemic.
- The ruling party's response to coronavirus pandemic was one the major reason for voters casting their votes in the party's favor. With all votes nearly counted, Mr. Moon's party won 163 seats in the 300 seat National Assembly.
- Strict measures of social distancing were taken while casting a vote. The race in South Korean elections was between the left-leaning Democratic Party and the United Future Party which was a conservative opposition.

South Korea Parliamentary Elections: Key Highlights

- Democratic Party's sister group, the Platform Party was forecasted to win further 17 seats, which will give the government total of 180 seats.
- United Future's high profile candidate, North Korean defector Thae Yong-Ho was among the winning candidates. He won a seat for the Gangnam district in Seoul. Mr. Thae was a former senior diplomat at North Korean's embassy in London.
- The total of 35 parties put forward the candidates but the main race was between Democratic and United Future party.
- The left-leaning party has won a majority for the first time in 16 years.

2.24 Voting amid COVID-19 outbreak:

- To cast vote, voters have to sanitize their hands, wear plastic gloves and face masks. They had to stand at least one meter (3ft.) apart and also had their temperature taken.
- Those with a temperature above 37.5C had to give their vote in a separate booth. The booth was then disinfected after each use.

- Despite all the regulations, the overall turnout was more than 66%. It was the highest in 18 years, also given the fact that 18 years old were allowed to vote for the first time.
- Around 26% of the population cast their votes in advance. It was done either by post or in early polling stations set up in quarantine stations.
- People tested positive for COVID-19 were under strict instructions. They had to vote only at certain times and only at specially designated polling stations. They were not allowed to use public transport and were to only walk or take their own cars.

Corona Virus Outbreak in South Korea:

The world's second-largest outbreak of Coronavirus was briefly in South Korea. The situation was brought under control due to the policy of thorough contact-tracing, widespread testing, and strictly observed social distancing. South Korea has currently 60,000 people in quarantine.



3. INDIAN ECONOMY

3.1 Global Report on Food Crisis



Why in News?

The 2020 edition of the annual Global Report on Food Crises has been released. The report is produced by the Global Network against Food Crises, an international alliance working to address the root causes of Extreme Hunger.

Highlights:

- The 2020 edition of The Global Report on Food Crises describes the scale of acute hunger in the world.
- It also examines how the COVID-19 pandemic might contribute to their perpetuation or deterioration.
- At the close of 2019, 135 million people across 55 countries and territories experienced acute food insecurity. Acute food insecurity is when a person's inability to consume adequate food puts their lives or livelihoods in immediate danger.
- Additionally, in 2019, 183 million people were classified in Stressed condition — at the cusp of acute hunger and at risk of slipping into Crisis or worse if faced with a shock or stressor, such as the COVID-19 pandemic.
- Most affected areas: More than half (73 million) of the 135 million people covered by the report live in Africa; 43 million live in the Middle East and Asia; 18.5 million live in Latin America and the Caribbean. The key drivers behind the trends analysed in the report were: conflict, (the key factor that pushed 77 million people into acute food insecurity), weather extremes (34 million people) and economic turbulence (24 million).

3.2 Global Network Against Food Crisis:

The Global Network Against Food Crises was launched by the European Union, FAO and World Food Programme (WFP) during the 2016 World Humanitarian Summit (WHS) to respond to the WHS's call for new approaches to tackle protracted crises and recurrent disasters, reduce vulnerability, and manage risk, by bridging the divide between development and humanitarian partners.

World Food Programme:

- The World Food Programme (WFP) is the food-assistance branch of the United Nations and the world's largest humanitarian organization addressing hunger and promoting food security.
- According to the WFP, it provides food assistance to an average of 91.4 million people in 83 countries each year.
- From its headquarters in Rome and from more than 80 country offices around the world, the WFP works to help people who cannot produce or obtain enough food for themselves and their families.
- It is a member of the United Nations Development Group and part of its executive committee.
- The WFP was formally established in 1963 by the FAO and the United Nations General Assembly on a three-year experimental basis.

3.3 RBI to restart Operation Twist

Why in news?

The Reserve Bank of India (RBI) has announced simultaneous purchase and sale of government bonds in a bid to soften long-term yields.

Key highlights:

- The central bank will buy ₹10,000 crore of bonds maturing between 2026 and 2030 and sell the same Amount of T-bills.
- "On a review of current and evolving liquidity and market conditions, the Reserve Bank has decided to conduct simultaneous purchase and sale of government securities under open market operations (OMO) for ₹10,000 crore each on April 27, 2020.
- Such open market operations are known as 'Operation Twist,' which was used by the RBI in December 2019 last year for the first time.
- Following the announcement, the yields on the 10- year bonds dropped by 20 basis points (bps).
- The move will also aid monetary transmission by prompting banks to pass on interest rate cut benefits to their customers.
- The RBI had reduced key policy rate or the repo rate by 75 bps to 4.4% in the monetary policy review, announced in the last week of March 2020.

3.4 Centre freezes DA/DR increase for staff

- The Central Government to put on hold Increment in Dearness Allowance (DA) for 48 lakh Central government employees and 65 lakh pensioners till July 2021.
- The unprecedented situation arising from the COVID-19 pandemic has placed huge additional demands on government finances. There is need for major increase in the expenditure on health as well as on welfare measures for various affected sections of society including the poor and vulnerable.



- Since States generally follow the Central government on DA and DR decisions, it is expected that states may announce similar decisions.
- The Finance Ministry said it has decided that additional instalment of DA payable to central government employees and Dearness Relief (DR) to Central Government Pensioners due from January 1, 2020, shall not be paid.
- While the increase is being held back, DA and DR at current rates will continue to be paid.
- Government sources said the savings on account of freezing of these instalments of DA and DR to central government employees and pensioners would be Rs 37,530 crore in the current financial year and 2021-22.

3.5 Why the GOI has taken such a move?

- Given that the pandemic is straining government finances, this freeze will lead to an estimated saving of Rs 37,530 crore in the current financial year and 2021-22 — creating room for stepping up expenditure on health and welfare measures.
- If States too follow the Centre, which they do, the savings will be Rs 82,566 crore.
- “The unprecedented situation arising from the COVID-19 pandemic has placed huge additional demands on government finances. There is need for major increase in the expenditure on health as well as on welfare measures for various affected sections of society including the poor and vulnerable.
- Slowing tax and non-tax revenues have strained government finances, even as there are demands of economic stimulus to protect the economy from entering into recession.
- While there are doubts on aggressive stock sale plans given the slump in stock markets, net direct tax collections had contracted after 20 years in 2019-20. During 2019-20, the government faced a shortfall of Rs 1.42 lakh crore from the downward revised target at Rs 10.27 lakh crore, a decline of 9.6 per cent from previous year’s collections.
- Earlier this month, the Union Cabinet had cleared a 30 per cent salary cut for all MPs, including the Prime Minister and Union Ministers, for a year.
- It also decided to suspend all MPLADS (Members of Parliament Local Area Development Scheme) funds — under which each elected MP gets Rs 5 crore annually for development work in his/her constituency — for two financial years starting April 1.
- The money from the MPLADS funds — nearly Rs 8,000 crore — will go to the Consolidated Fund of India which, the government had said, will be used in the battle against COVID-19.

3.6 Coronavirus lockdown | Industries cannot be forced to pay wages during lockdown: panel



Why in news?

The Parliamentary Committee on Labour in its report on the Industrial Relations Code, 2019, submitted on Thursday, has recommended that “in case of natural calamities, payment of wages to the workers until the re-establishment of the industry may be unjustifiable”.

Highlights of the report:

- Committee Chairman and senior BJD leader Bhartruhari Mahtab added that the ongoing lockdown to check the spread of COVID-19 can be counted as one such calamity.
- As per Industrial Code it is incumbent upon the employer to pay 50% wages to the workers/employees who are laid off due to shortage of power, coal, raw material etc for 45 days.
- The Committee has, however, expressed reservations for payment of the prescribed percentage of wages to the workers in the event of closure of an establishment due to “natural calamity”.
- “In case of natural calamities like earthquake, flood, super cyclone etc. which often result in closure of establishments for a considerably longer period without the employer's fault, payment of wages to the workers until the re-establishment of the industry may be unjustifiable,” the report says.
- The Committee has suggested that “clarity” be brought in so that employers “not responsible for closure or lay off, are not disadvantaged in case of such natural calamity of high intent”.
- When asked if COVID-19 and the ongoing 40-day lockdown under which almost all industries have been shut, would also count as a natural calamity.
- “The basic idea about our recommendations is that the industry should also not be forced when the situation is beyond their control. The law has to be reasonable.
- It is for the government to step in and extend a helping hand for the industries,” he added.

Arguments against the report:

- These recommendations were strongly opposed by three members — CPI (M) Rajya Sabha MP Elamaram Kareem, CPI Lok Sabha MP K. Subbarayan and DMK's M. Shanmugam.
- In his dissent note against the report, Mr. Kareem said the recommendations are unfortunate especially in the present context. “Given the present situation where the entire nation is fighting against monstrous attack of novel coronavirus and when every ordinary citizen has been shouldering the risk beyond his/her capacity.

Background:

- The Industrial Relations Code 2019 is an amalgamation of three laws — Industrial Disputes Act, 1947, Trade Unions Act, 1926, and Industrial Employment (Standing Orders) Act, 1946.

- It was introduced in the Lok Sabha in November last year and referred to the Standing Committee on Labour in December.
- With the ongoing lockdown, the draft report was circulated to the members on April 15 via e-mail and they were given eight days to respond. And the final adopted report was accepted by the Speaker Om Birla.

3.7 ANDHRA BANK FADES INTO HISTORY

Why in news?

Come April 1, it will be curtains lower for Andhra Bank as one of the oldest and well-known household names in the region gets amalgamated with Union Bank of India.

Highlights

- A part of the Central government plan to create four larger banks by merging 10, the move will see Andhra Bank over time coming to be identified as Union Bank of India.
- Under the present plan of the Centre, four sets of merger will come into force on 1st April 2020.
- One of them will see Andhra Bank and Corporation Bank amalgamating into Union Bank of India.
- The combined entity will be the 5th largest public sector bank and will have the 4th largest branch network of any bank in India, Union Bank of India said.

The consolidation of 10 PSBs into four includes the merger of:

1. Oriental Bank of Commerce and United Bank of India into Punjab National Bank.
2. The amalgamation of Syndicate Bank into Canara Bank.
3. The merger of Andhra Bank and Corporation Bank into Union Bank of India, and
4. The amalgamation of Allahabad Bank into Indian Bank.

About Andhra Bank and its founder

- Andhra Bank was founded by freedom fighter Bhogaraju Pattabhi Sitaramayya and commenced business on November 28, 1923 in Machilipatnam, Andhra Pradesh, with a paid up capital of Rs. 1 lakh and an authorised capital of Rs.10 lakh by Raja Yarlagadda Sivarama Prasad.
- Bhogaraju Pattabhi Sitaramayya was an Indian independence activist and political leader in the state of Andhra Pradesh.
- He started his practice as a Doctor in the coastal town of Machilipatnam, headquarters of Krishna District and the political centre of Andhra.
- He left his lucrative practice to join the freedom fighting movement.
- During the years 1912–13, when there was a great controversy over the desirability of forming a separate province for Andhra, he wrote a number of articles in “The Hindu” and other journals explaining the need for immediate formation of linguistic provinces.

3.8 RBI increased short-term borrowing limit for states, UTs by 30 percent

Why in news?

The Reserve Bank of India introduced new measures to relax the impact of the COVID-19 induced lockdown. The Central bank focused on the finances of the states that have announced the staggered payment of salaries.

Measures:

Short-term borrowing limits of States or ways and means advances (WMA) have been increased by 30%. It aims to enable the state governments to tide over the situation arising from the outbreak of the COVID-19 pandemic.

The States have faced pressure on revenues as the economic activity came to a halt and the transfers from the Central government and less Goods and Services Tax (GST) collection.

The decision came as the Banks that bear the moratorium would get some reprieve in meeting regulatory norms with respect to the capital needs.

The revised limits came into force on 1 April 2020. It will be valid until 30 September 2020.

3.9 CPSEs under the Ministry of Steel Pay Tax Dues under Vivad Se Vishwas scheme

Why in news?

Ministry of Steel stated that Several Central Public Sector Enterprises (CPSEs) have made payment of due tax to the government under Vivad Se Vishwas scheme by 31st March 2020.

- As per the data shared by the Steel Ministry, NMDC settled a dispute to save Rs.1,868.80crore in possible tax payments by opting for the Vivad se Vishwas scheme of the Centre.
- SAIL settled a dispute of Rs.266.27 crore for Rs.186.72 crore.
- Rashtriya Ispat Nigam Ltd (RINL) settled two disputes under the scheme, a dispute of Rs.577.32 crore was settled for Rs.275.88 crore, while another one of Rs.29.39 crore was settled for Rs.22.61 crore.
- Other CPSEs include MOIL, MSTC Limited, Kudremukh Iron Ore Company (KIOCL), and JKMD.

3.10 Vivad Se Vishwas scheme:

- The objective Vivad Se Vishwas scheme to reduce pending income tax litigation, generating timely revenues for the government and help taxpayers end their tax disputes by paying disputed tax and get a waiver from payment of interest and penalty.
- The Scheme aims to extend the scope to cover litigation pending in various debt recovery tribunals (DRTs).
- It will provide an opportunity to settle direct tax disputes within the current financial year by waiving interest and penalty on their pending taxes.

3.11 Finance Minister participated in G20 meeting of Finance Ministers

Finance Minister Nirmala Sitharaman participated in the 2nd Extraordinary G20 Finance Ministers and Central Bank Governors meeting. It was hosted under the Chairmanship of Saudi Arabian on 31 March.

The Ministers discussed the impact of COVID-19 pandemic on the global economy and coordinate efforts in response to this global challenge.

The meeting was a follow up on the discussion of the 1st virtual meeting and to discuss the follow-up in line with the statement made by G20 Leaders during the G20 Virtual Leaders Summit held on 26 March.

Highlights:

- The G20 members will provide an opportunity to all G20 members to not only share their individual experiences but also to work in better coordination.
- The meeting was held virtually on a regular basis to continue discussions on the evolution of the COVID-19 pandemic.
- They also discussed the impact on markets and economic conditions and take further actions to support the economy during and after this phase.
- The Ministers recommended a G20 Action Plan in Response to COVID-19 and asked a close cooperation with relevant international organizations.
- It aimed at providing an opportunity for immense cross-learning and critical insights.
- Discussions regarding regulatory and supervisory measures to support and quickly revive the economy was held.
- It was suggested that the International Monetary Fund (IMF) can develop innovative and ingenious methods to meet COVID-19 related financing requirements given that policy space is severely constrained in most countries in these unprecedented circumstances.

3.12 ADB to invest \$100 million in NIIF FOF

Why in news?

Asian Development Bank (ADB) has joined the Government of India (GOI) and Asian Infrastructure Investment Bank (AIIB) as an investor under the instruments of the National Investment and Infrastructure Fund (NIIF) of India.

Highlights:

- Under the move, ADB will invest \$100 million equivalent in the NIIF Fund of Funds (FOF).

- With the investment now made by ADB into the NIIF platform, the FOF has now secured \$700 million in commitments.
- NIIF's FOF is targeted at India-focused PE fund managers who rely on international investors for large-scale fundraising.
- The FOF invests in various sectors and strategies through third-party managed funds.
- FOF is committed to three funds, aggregating to over \$350 million (Rs.2,600crores), that focus on green energy and climate, middle-income and affordable housing and entrepreneur-driven mid-market growth companies, operating across diversified sectors.

3.13 NDB should increase emergency facility to USD 10 billion

Union Finance Minister Nirmala Sitharaman on April 20 has asked the New Development Bank (NDB) to enhance the emergency facility to USD 10 billion in the fight against COVID-19.

Key Highlights:

- The finance minister participated in the 5th Annual meeting of Board of governors of NDB through video conferencing.
- In the meet, Nirmala Sitharaman appreciated NDB's efforts on providing financial assistance to BRICS countries to combat the COVID-19 pandemic.
- She also outlines various measures taken by the Indian government to control the ongoing health crisis.
- Finance Minister recognized NDB's effort on fast-tracking the financial assistance of USD 5 Billion to BRICS countries, which also includes emergency assistance of USD 1 billion to India.
- Nirmala Sitharaman noted that the bank has the financial capacity to enhance the assistance to USD 10 billion.
- Amid the discussion, she also talked about the financial measures taken in India which included the allocation of USD 2 billion by Narendra Modi's government.
- Union Minister encouraged NDB to take the required actions in order to join the G-20 forum along with other International Financial Institutions (IFS's)/Multilateral Development Bank (MDB's).
- It was also suggested by the minister that NDB must follow innovative practices that will support BRICS nations to support their sustainable development goals.
- New Development Bank (NDB) has so far approved 14 projects of an amount of USD 4,183 million in India.

About the New Development Bank (NDB):

- New Development Bank (NDB) which was formerly referred to as BRICS Development Bank was established by BRICS states (Brazil, Russia, India, China, and South Africa) in 2014.

- It is headquartered in Shanghai, China and its first regional office is in Johannesburg, South Africa.
- The purpose behind the establishment of the bank was to mobilize resources for sustainable development and infrastructure projects in BRICS as well as other emerging market economies and developing countries.

3.14 Facebook buys 9.99% stake in Reliance Jio platform

- Facebook has announced the investment of Rs. 43,474 crores in Reliance Jio for 9.99 percent stake on April 22. It is the largest Foreign Direct Investment (FDI) in India's tech sector.
- The announcement of signing a binding agreement for an investment of Rs. 43,474 crore was made by Jio Platform Ltd, Reliance Industries Ltd., and Facebook.
- As per a statement by Reliance Industries Ltd., the investment by Facebook translates into 9.99% of the equity stake in Jio on a fully diluted basis. The declared investment now values Jio Platforms at Rs. 4.62 lakh crore pre-money enterprise value.

3.15 Statement by Mukesh Ambani on the announced investment:

- Chairman and Managing Director of Reliance Industries Ltd., Mukesh Ambani commented on the partnership with Facebook stated that since the launch of Jio in 2016, the platform was driven by the dream of India's Digital Sarvodaya which aims at improving the quality of life of every citizen and to make India as world's leading digital society.
- He also mentioned that the cooperation between Reliance and Facebook will help in achieving Prime Minister Narendra Modi's Digital India Mission with its two goals of 'Ease of doing business' and 'ease of Living'.
- Mukesh Ambani also further identified the need for comprehensive digitalisation for the revival of the Indian economy in a post-Corona era and how the partnership between Jio and WhatsApp will give an important contribution to the revival of the economy.

Facebook's Investment in Jio: Key Highlights:

- Reliance retail ltd., Jio platform and WhatsApp are also coming together in a commercial partnership. It will accelerate Reliance's new commerce business on the Jio mart platform and support small businesses on WhatsApp.
- Facebook's investment in Jio has placed the company among the top 5 listed companies in India within just three and a half years of its launch.
- As Facebook's most established communities WhatsApp, Instagram, and Facebook are already in India, the announced deal with Jio will allow it to place itself deeper in the Indian market.

3.16 The goal of an announced partnership between Facebook and Reliance:

- The investment will introduce new opportunities to businesses of all sizes. It will particularly be beneficial for small businesses across India by enriching the digital ecosystem that will empower citizens of India.
- It will further accelerate India's all-round development.
- The focus will be on India's 60 million micro, small and medium businesses, 30 million small merchants, 120 million farmers and millions of medium and small enterprises in the informal sector and empowering them with digital services.
- The partnership between Facebook and Reliance will also help in overcoming the disruptions in the Indian economy caused by COVID-19.

About Reliance Jio Platform:

- Jio Platform is a wholly-owned subsidiary of Reliance and aims at building a digital society for India. The platform provided connectivity to over 388 million subscribers.
- Its vision is to enable a digital India for 1.3 billion Indians and their businesses, focusing especially on small merchants, farmers, and micros-businesses. It has undoubtedly brought transformational changes in Indian digital services.
- The world-class digital platform has been built by Jio which is powered by leading technologies such as smart devices, Broadband connectivity, Big data analytics, Cloud and Edge computing, Artificial Intelligence, Augmented and mixed reality and blockchain.
- For every Indian to experience Jio digital life, it has created an ecosystem that comprises a network, applications, devices, contents, and affordable tariffs.

3.17 MSMEs to get Liquidity support scheme from SIDBI

Why in news?

- Small Industries Development Bank of India (SIDBI) has announced the launch of the Liquidity support scheme for micro, small and medium enterprises (MSMEs) that have been hugely impacted by COVID-19 pandemic.
- SIDBI stated that it has received Rs. 15,000 crore from Reserve Bank of India (RBI) in order to provide financial help to MSMEs. RBI provided the help through a Special Liquidity Facility (SLF).
- SIDBI will provide the liquidity lines to non-banking finance companies (NBFC's), microfinance institutions (MFI's), and banks who will refinance the MSME's.

Objective:

In its measures to support COVID-19 hit businesses, Reserve Bank of India (RBI) stated that the funding was provided to SIDBI. The announced schemes will cover all eligible entities with an investment-grade rating, irrespective of an organization's size to ensure wide coverage.

3.18 Qualifications of NBFC's and MFI's to receive the funding:

- To receive funding, non-banking finance companies (NBFC) must be registered with RBI as an investment and credit company. It must have been in business for at least 3 years. The company must have minimum assets size of Rs. 50 crore and minimum net owned funds of 20 crores with an external rating of BBB-.
- In case of microfinance institutions (MFI's), it must be registered as a trust cooperative society, society, company or NBFC with a minimum credit rating of BBB-.
- For banks, they must be profit-making and have their minimum net worth of Rs. 100 crores. They must also have non-performing assets below 10% and a minimum capital adequacy ratio of 9%.

About SIDBI:

- Small Industrial Development Bank of India (SIDBI) is a financial institution which was formed on April 2, 1990. Its aim is to provide short term lending to industries and to refinance facilities along with serving as the major financial institution to micro, small, and medium enterprises (MSMEs).
- SIDBI is headquartered in Lucknow, India, and was established under an Act of Parliament. It operates under the Department of Financial Services, Government of India.

3.19 Remittances to India likely to fall by 23%: World Bank

- The World Bank has stated that remittances to India are likely to drop down by 23% due to COVID-19 which has led to the global recession. The drop will be from USD 83 billion last year to USD 64 billion this year.

- Globally remittances will see a sharp decline by about 20 percent in 2020 due to the economic crisis started by the pandemic and shutdowns, as per the World Bank's report on the impact of COVID-19 on migration and remittances which was released on April 22.
- World Bank's President David Malpass stated that remittances are a vital source of income, specifically for the developing countries.

Reason for the projected fall:

- The fall which will be the sharpest decline in recent history will be largely due to the fall in employment and wages of the migrant workers. They tend to be more vulnerable to the loss of employment and wages at the time of an economic crisis in the host country.
- President David Malpass also added that an ongoing economic recession caused by COVID-19 is impacting the ability to send money home which makes it more important that the time to recovery must be shortened for the advanced economies.

Measures by the World Bank:

As the World Bank Group has been working to implement fast and broad actions to support the countries, the group will also be working to keep remittances channels open and will safeguard the poorest communities access to the basic needs. The remittances help families to afford, healthcare, food, and basic amenities.

3.20 Expected fall in remittance flows across World Bank Regions:

- In India, the projected fall will be about 23% in 2020 to USD 64 billion which will be a striking contrast with a growth of 5.5% and receipt of USD 83 billion in 2019.
- In Europe and Central Asia (27.5%)
- Sub-Saharan Africa (23.1%)
- North Africa and Middle East (19.6%)
- South Asia (22.1%)
- East Asia and the Pacific (13%)
- The Caribbean and Latin America (19.3%)
- In Pakistan (23%)
- In Bangladesh (22%)
- In Nepal (14%)
- In Sri Lanka (19%)

3.21 15th Finance Commission Meeting Highlights

- The 15th Finance Commission held virtual meetings with its advisory council on April 23-24, 2020.

- The two-day meeting chaired by Finance Commission Chairman NK Singh discussed various issues related to the impact of COVID-19 pandemic on the growth of India's Gross Domestic Product.
- The meeting was attended by all members and senior officials of the Commission.
- Four members of the commission's advisory council- Neelkanth Mishra, Dr. Omkar Goswami, Dr. Sajjid Z Chinoy and Dr. Prachi Mishra attended the virtual meeting on April 23, while the remaining members including Dr. Krishnamurthy Subramanian, Dr. Indira Rajaraman, Dr. Arvind Virmani, Dr. DK Srivastava, Dr. Sudipto Mundle and Dr. M Govinda Rao attended on April 24.
- This is the 15th Finance Commission's second round of meetings with the Advisory Council, after the submission of its report for the year 2020-21.

Key Agenda

1. Implications of the Coronavirus pandemic on India's GDP growth in 2020-21 and 2021-22 and uncertainty about macro variables over time.
2. What should be the public expenditure fillip to shore up the economy?
3. Possible assumptions for tax buoyancy and revenue in the current year and next year.

3.22 Recovery of Economy to be Gradual: Advisory Council

- According to the advisory council members, the impact of COVID-19 pandemic and the ensuing national lockdown may come through a slowdown in the domestic activity, its impact on the cash flows of financial institutions and business enterprises and loss of global demand for Indian products due to steep global recession.
- The members unanimously suggested that projections of real GDP growth made before March 2020 need to be re-looked into entirely and revised downwards considerably.
- The advisory council members felt that once the lockdown is lifted, the recovery of the economy will be gradual, depending on the ability of the workforce to get back to work soon, restoration of cash flows, supplies of intermediates and demand for output.
- Hence, the full magnitude of the economic impact of coronavirus will only be clear only over a course of time.

3.23 Impact on Public Finances: Massive shortfall in tax, other revenue

- According to the Finance Commission's advisory council members, the magnitude of the impact of COVID-19 outbreak on public finances is uncertain currently.
- They, however, felt that the governments will have substantial expenditure burden on account of health, support to poor and other economic agents.

- Further, they felt that there will be a massive shortfall in tax and other revenues due to subdued economic activity. Hence, they suggested that the fiscal response to the crisis should be much more nuanced.
- The council members suggested that it is important not to just look at the size of fiscal response but also carefully at its design.
- The advisory council further apprised the Finance Commission regarding the different suggestions floating around in terms of public expenditure support to the economy.

3.24 Following are some of the key suggestions made by the advisory council members:

1. Development of a **support mechanism to help cash-starved small-scale enterprises**. The small scale enterprises were cash-starved even before the COVID-19 pandemic. Their activity levels and cash flows were hit further during the health crisis.
2. Appropriate **measures to be formulated to avoid bankruptcies** and deepening of Non-Performing Assets (NPAs) in the financial sector such as partial loan guarantee. The council has suggested that the RBI will play a significant in ensuring that the financial institutions are well-capitalized. The non-banking financial companies were also impacted majorly by the slowdown.
3. The council has suggested that the **finances of the Centre and State governments** need to be watched carefully. Currently, adequate provision for ways and means advances will help the governments to manage cash-flow mismatches but more options for financing the additional deficit will need to be figured out for the future. The Council members highlighted that it is important to ensure that the state governments get access to adequate funds to support their fight against the pandemic.
4. The Council also noted that the **revival of activity in different States will be at a varied pace**, as different states may come out of the severity of the impact of the pandemic in different stages.

Advisory council

The Economic Advisory Council was set up by the 15th Finance Commission in April 2018 to advise it on all matters related to its terms of reference. The Council is also required to assist in the preparation of any paper or research study that would enhance the Commission's understanding on the issue contained in its ToR.

3.25 Composition of the Council

Krishnamurthy Subramanian: Chief Economic Adviser of Indian Government

Arvind Virmani: Former Chief Economic Adviser, President of Forum for Strategic Initiatives

Sanjeev Gupta: Former Deputy Director in IMF

Sajjid Chinoy: JP Morgan Chief India economist

Neelkanth Mishra: MD, India economist and strategist at Credit Suisse

Surjit Bhattal: Oxus Research and Investments Chairman, part-time member of Prime Minister's Economic Advisory Council

Pinaki Chakraborty: Professor at the National Institute of Public Finance and Policy

Background

India's growth forecast has been cut majorly over in the wake of COVID-19 pandemic and the resulting nation-wide lockdown. The International Monetary Fund reduced India's GDP growth projection to 1.9 percent in 2020 from 5.8 percent estimated in January 2020. The IMF has predicted the global economy to hit its worst recession since the Great Depression in 1930 due to the health crisis.

World Bank has also forecasted India's GDP growth to be between 1.5 to 2.8 percent in 2020-21, the worst growth rate since 1991 liberalisation. The Indian economy is estimated to have grown by 5 percent in the 2019-2020 fiscal.

3.26 RBI announces special liquidity support worth Rs 50,000 crore to mutual funds



The Reserve Bank of India announced a **special liquidity facility for mutual funds** worth Rs 50,000 crore on April 27, 2020. According to RBI, the heightened volatility in capital markets due to the COVID-19 pandemic has imposed liquidity strains on mutual funds (MFs).

The liquidity strains on mutual funds have only intensified in the wake of redemption pressures related to the closure of some debt MFs and potential contagious effects therefrom. The stress is, however, confined to the high-risk debt mutual fund segment at this stage, while the larger industry remains liquid.

Hence, the RBI has decided to open a special liquidity facility for mutual funds worth ₹ 50,000 crore to ease the liquidity pressures on mutual funds.

Objective

The main objective behind the move is to preserve financial stability and mitigate the economic impact of COVID-19.

RBI's special liquidity facility: Key Highlights

- Under the special liquidity facility scheme for mutual funds (SLF-MF), the RBI will conduct repo operations of 90 days tenor at a fixed repo rate.
- The scheme is on-tap and open-ended and the banks can submit their bids to avail funding on any day from Monday to Friday excluding the holidays.
- The scheme has been brought into effect starting from today, April 27 till May 11, 2020 or up to utilization of the allocated amount, whichever is earlier.
- The Reserve Bank will review amount and the timeline, depending upon market conditions.
- The Rs 50,000 crore worth funds made available under the special scheme will be used by the banks exclusively to meet the liquidity requirements of mutual funds by:

1. Extending loans

2. Undertaking outright purchase or repos against the collateral of investment-grade corporate bonds, commercial papers (CPs), debentures and certificates of Deposit (CDs) held by MFs.

- The liquidity support availed under the SLF-MF scheme will be eligible to be classified as held to maturity (HTM) even in excess of 25 per cent of total investment permitted to be included in the HTM portfolio.
- The exposures under this facility will not be reckoned under the Large Exposure Framework (LEF). The face value of the securities acquired under the SLF-MF scheme and kept in the HTM category will not be reckoned for computation of adjusted non-food bank credit (ANBC) to determine priority sector targets/sub-targets.
- The support extended to MFs under the SLF-MF shall be exempted from banks' capital market exposure limits.

Important Points

- The special repo window will be available to all Liquidity Adjustment Facility(LAF) eligible banks against eligible collateral and can be availed only for on-lending to Mutual funds.
- The eligible banks can place their bids electronically on the CBS platform between 9 am-12 pm every day.
- A LAF Repo issue will be created every day for the amount remaining under the scheme.
- The bidding process, settlement and reversal of SLF-MF repo would be similar to the existing system being followed in the case of LAF/MSF.

- In case of over-subscription of the notified amount on any given day, the allotment will be done on a pro-rata basis.
- The RBI will, however, reserve the right to inject a marginally higher amount than the notified amount due to rounding effects.
- The minimum bid amount would be Rs one crore and multiples thereof and the allotment would be in multiples of Rs one crore.
- A market participant can place bids of an amount less than or equal to the notified amount of the issue announced on a given day. The RBI can reject participant bids if the total bid amount submitted by the participant exceeds the notified amount of the issue.
- The eligible collateral and the applicable haircuts will remain the same as applicable for LAF.
- All other terms and conditions as applicable to LAF operations, including a facility for security substitution in terms of extant guidelines dated April 12, 2017 will also be applicable to these special operations.
- While banks will decide the tenor of lending to /repo with mutual funds, the minimum tenor of repo with RBI will be for three months.

3.27 APEC economy to be reduced by 2.7 per cent in 2020



- The Asia-Pacific Economic Cooperation (APEC) region has been expected to post an economic decline by 2.7 percent in 2020 because of the Coronavirus pandemic.
- As per the APEC Secretariat, this will be the most significant fall since the zero -growth rate logged in 2009 because of the financial crisis.

- The region with 21 member countries had recorded an economic growth rate of 3.6 percent. The countries are expected to see this fall due to the ongoing global health crisis that has dangerously impacted the world economy.

3.28 COVID-19 is impacting APEC economy:

As per the report released by APEC (The Asia-Pacific Economic Cooperation), the region's unemployment rate is projected to rise by 5.4 percent in 2020 which was 3.8 percent in 2019 that means an additional 23.5 million workers will be unemployed in 2020.

3.29 Is there an economic rebound in 2021?

- For 2021, an economic rebound is forecasted with an anticipated growth of 6.3 percent. It is higher than the projected global economic growth of 5.8 percent.
- The rebound, however, has been dependent on the effectiveness of containment mechanisms, steps to avoid the second wave of Coronavirus pandemic, as well as appropriate and required measures, are taken by the countries to stimulate the economy.

3.30 APEC Countries:

- Brunei
- Australia
- Canada
- China
- Chile
- Hong Kong
- Indonesia
- Japan
- Malaysia
- Republic of Korea
- New Zealand
- Mexico
- Papua New Guinea
- Philippines
- Peru
- Taiwan
- Singapore
- Russia
- Thailand
- Vietnam

- The United States

About APEC:

- It is an Inter-Governmental Organization of 21 member economies in the Pacific Rim. It promoted free trade throughout the Asia-Pacific Region
- The Asia Pacific Economic Cooperation (APEC) was established in 1989 because of the increasing interdependence of the Asia-pacific economies. APEC is often recognized as one of the oldest forums and highest level multilateral bloc in the Asia Pacific region.

3.31 Review of FDI policy for curbing opportunistic takeovers/acquisitions of Indian companies

The GOI took a significant decision when it amended its extant FDI policy to make prior governmental approval mandatory for foreign investments from countries that share land border with India to curb ‘**opportunistic takeovers**’ of domestic firms at a time when global coronavirus pandemic is upending the rules of the economic game worldwide.

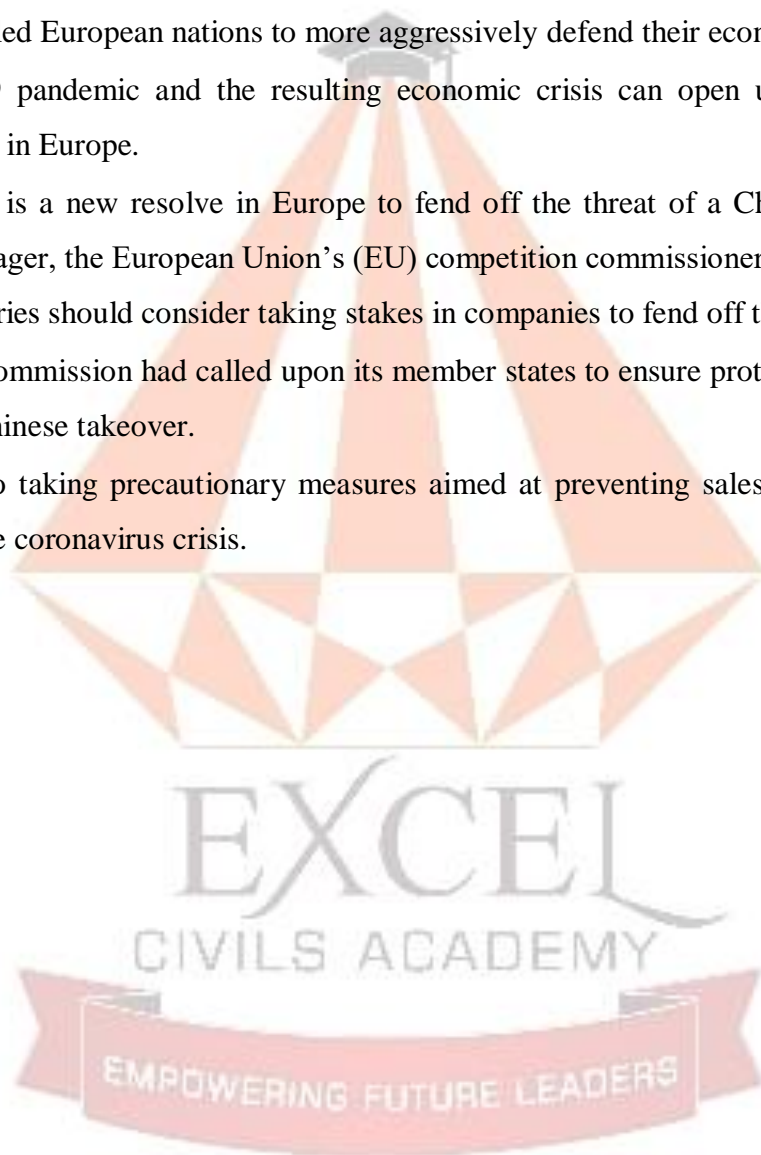
This amendment to the FDI rule states:

- A non-resident entity can invest in India, subject to the FDI policy except in those sectors/activities which are prohibited.
- However, an entity of a country, which shares a land border with India or where the beneficial owner of investment into India is situated in or is a citizen of any such country, can invest **only under the government route**.
- Along with this, another important shift entailed blocking the indirect acquisition of investments by entities based in China with the change in ownership of the investment also requiring clearance from the Indian government.

3.32 Reason Behind GOI Quick Shift in FDI Policy:

- The immediate cause for bringing this amendment may have to do with the backlash that the government has been facing since the Peoples Bank of China (PBoC) raised its stake in India's largest non-banking mortgage provider HDFC from 0.8 percent to 1.01 percent.
- However, there are larger issues behind this decision which are likely to transform the trajectory of India-China ties, especially after the negative externalities generated by the COVID-19 pandemic.
- Faced with China's economic drive at a time of acute economic crisis, concerns have been rising across the world about Chinese companies using this opportunity to buy up distressed assets at cheap rates.
- The ongoing economic crisis is presenting opportunities for takeover in several sectors and India will need to safeguard its own technological assets at a time when China's cumulative investment in India has been rising, exceeding \$8 billion till December 2019.

- In particular, Chinese investors have been investing in Indian start-up sector aggressively. India emerged as an attractive destination for the Chinese firms ever since the US-China trade war began to restructure the global supply chains.
- India's response is part of a worldwide trend where Chinese predatory trade practices and weaponization of trade has generated an intense backlash.
- This process has been accelerated by the current pandemic.
- Europe too has been raising alarm at the Chinese practices. Chinese investments in strategic industries have led European nations to more aggressively defend their economic interests.
- The COVID-19 pandemic and the resulting economic crisis can open up new possibilities for Chinese inroads in Europe.
- However, there is a new resolve in Europe to fend off the threat of a Chinese takeover. In fact, Margrethe Vestager, the European Union's (EU) competition commissioner, recently suggested that European countries should consider taking stakes in companies to fend off this threat.
- the European Commission had called upon its member states to ensure protection of strategic assets from a likely Chinese takeover.
- Australia is also taking precautionary measures aimed at preventing sales of distressed corporate assets during the coronavirus crisis.



4. ENVIRONMENT

4.1 GreenCo rating system

- GreenCo Rating system has been acknowledged in India's Intended Nationally Determined Contribution (INDC) document, submitted to United Nations Framework Convention on Climate Change (UNFCCC) in 2015, as a proactive voluntary action of Indian industry / private sector towards combating climate change.
- GreenCo Rating System has been developed by Confederation of Indian Industry (CII).
- It helps the industrial units in implementing various measures in terms of energy conservation, material conservation, recycling, utilisation of renewable energy, Green House Gases (GHG) reduction, water conservation, solid and liquid waste management, green cover etc.
- The Confederation of Indian Industry (CII) is an industry association in India founded in 1895.
- CII is a non-government, not-for-profit, industry-led and industry-managed organization.



4.2 Safar

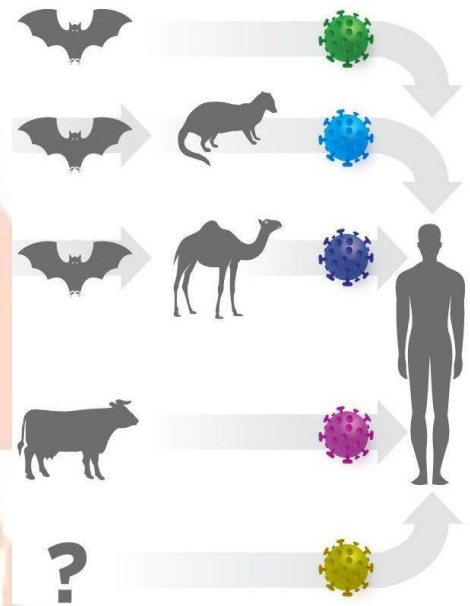
- According to the Centre-run System of Air Quality and Weather Forecasting and Research (SAFAR), the measures against COVID-19 have led to a drop in PM2.5 (fine particulate pollutant) by 30% in Delhi and by 15% in Ahmedabad and Pune, respectively.
- With a nationwide lockdown in place, over 90 cities, including Delhi, recorded minimal air pollution in the last few days.
- India is currently under the biggest lockdown with around 130 crore people asked to stay home in view of the COVID-19 outbreak.
- The government has urged people to avoid unnecessary travel, significantly reducing the traffic movement across the country.
- The level of Nitrogen Oxide (NOx) pollution, which can increase the risk of respiratory conditions, has also reduced.
- NOx pollution is mainly caused due to a high motor vehicle traffic.

About SAFAR

- It was indigenously developed by Indian Institute of Tropical Meteorology, Pune and is run by India Meteorological Department (IMD).
- The objective is to provide Real-time air quality index on 24x7 basis with colour coding along with 72-hour advance weather forecast; To issue Health advisory to prepare citizens well in advance.
- Pollutants: PM1, PM2.5, PM10, Ozone, CO, NO_x (NO, NO₂), SO₂, BC, Methane (CH₄), Non-methane hydrocarbons (NMHC), Black Carbon, VOC's, Benzene and Mercury.
- Meteorological Parameters: UV Radiation, Rainfall, Temperature, Humidity, Wind speed, Wind direction, solar radiation.

4.3 Human to animal transmission of Coronavirus

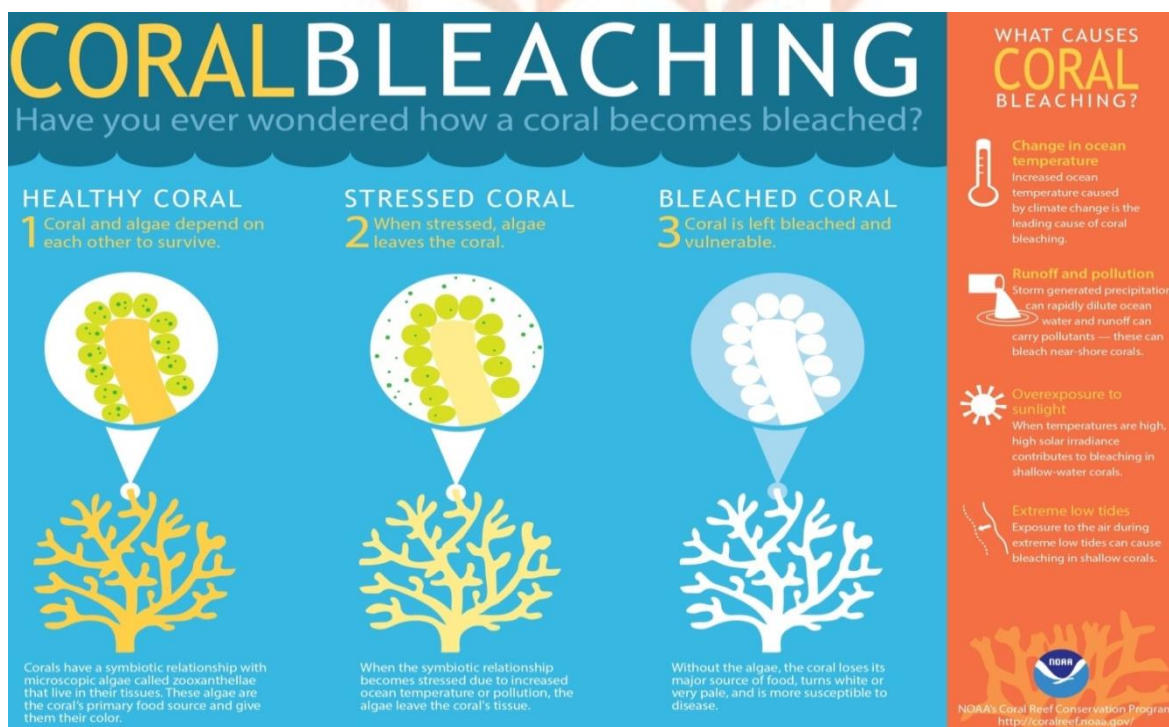
- A Malayan tiger at New York's Bronx Zoo has been infected with the COVID 19.
- Four-year-old Nadia is believed to have caught the virus from a zoo employee, who had not shown symptoms.
- The virus came from an animal source and mutated; humans have since been infecting humans.
- It is theoretically possible for the virus to mutate again to survive in certain species after being transmitted by humans.
- The Bronx Zoo case suggests an employee spread the virus to the tiger.
- There may be a possible explanation why felines are more susceptible. SARS-CoV2 infects respiratory cells after entering through a protein, which lies on the surface of the cells.
- Called ACE2, the protein in felines resembles ACE2 in humans.
- As it is, cats are susceptible to feline coronavirus, which is common but generally asymptomatic, although it can cause mild diarrhoea.



4.4 Great Barrier Reef's third mass bleaching in five years the most widespread yet

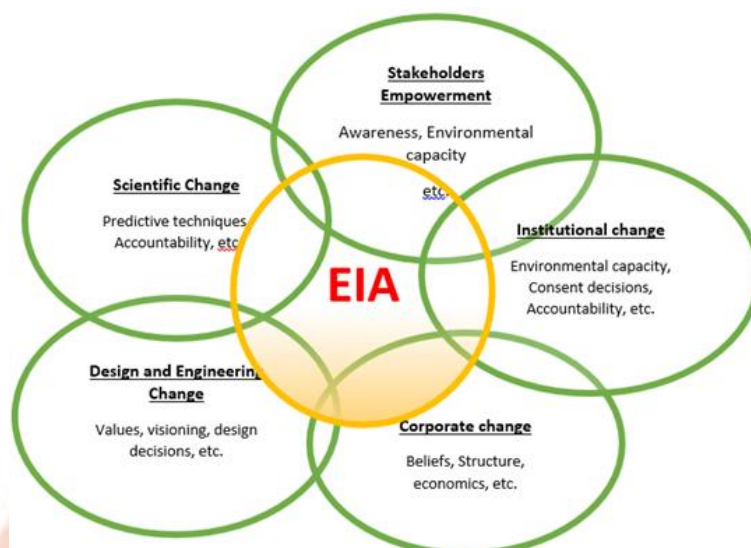
- The government's top Great Barrier Reef scientist says a third mass bleaching event in five years is a clear signal the marine wonder is "calling for urgent help" on climate change.
- One quarter of the Great Barrier Reef suffered severe bleaching this summer in the most widespread outbreak ever witnessed, according to analysis of aerial surveys of more than 1,000 individual reefs released.
- People need to see these [bleaching] events not as depressing bits of news that adds to other depressing bits of news.

- They are clear signals the Great Barrier Reef is calling for urgent help and for us to do everything we can.
- The released maps showing severe levels of bleaching occurred in 2020 in all three sections of the reef – northern, central and southern – the first time this has happened since mass bleaching was first seen in 1998.
- Some 25% of the reefs were severely bleached – meaning that more than 60% of the corals on each reef had bleached.
- The Great Barrier Reef has experienced five mass bleaching events – 1998, 2002, 2016, 2017 and 2020 – all caused by rising ocean temperatures driven by global heating.
- Corals can recover from mild bleaching, but scientists say those corals are more susceptible to disease.
- Severe bleaching can kill corals.
- The globe has already warmed by about 1C above pre-industrial levels, caused primarily by rising levels of greenhouse gases in the atmosphere from burning fossil fuels.
- Measures to improve the resilience of the reef include improving water quality, controlling outbreaks of coral-eating starfish, and research and development to improve the heat tolerance of corals.
- Under the Paris Climate Agreement, Countries agreed to deliver Country-wide plans that would keep global heating well below 2C, with an aim to keep temperatures to 1.5C.



4.5 Amendments To EIA Notification, 2006

- To ramp up availability/production of various drugs against COVID-19, the Ministry of Environment has made an amendment to Environment Impact Assessment (EIA) Notification 2006.



- All projects or activities in respect of bulk drugs and intermediates, manufactured for addressing various ailments, have been re-categorized from the existing Category 'A' to 'B2' category.
- Projects falling under Category B2 are exempted from requirement of collection of Baseline data, EIA Studies and public consultation.
- The re-categorization of such proposals has been done to facilitate decentralization of appraisal to State Level so as to fast track the process.
- This amendment is applicable to all proposals received up to 30th September 2020.

4.6 Trimeresurus Salazar

- A new species of venomous snake discovered in Arunachal Pradesh has been named after J.K. Rowling's fictional character Salazar Slytherin, co-founder of the Hogwarts School of Witchcraft and Wizardry.
- The pit viper, discovered by a team of researchers in the thick evergreen forests of Pakke tiger reserve in July 2019, has been named Trimeresurus Salazar.
- The specific epithet is a noun in apposition for J.K. Rowling's fictional Hogwarts School of Witchcraft and Wizardry co-founder Salazar Slytherin.
- He was a Parselmouth that links him to serpents.
- The suggested common name is Salazar's pit viper.

About the discovery

- The discovery was made during a herpetological expedition between June 25 and August 5, 2019.
- Comparison of the specimens found near Pakke with *T. septentrionalis* and *T. albolabris* revealed that the latter represents a new species.
- Molecular data for the specimens corroborate our morphological findings and allow us to describe a new species of green pit vipers from northeastern India.

- The researchers said they collected two specimens of green pit viper, which resembled the species *Trimeresurus septentrionalis* and *Trimeresurus albolabris* in the number of dorsal scale rows and colouration.
- However, these specimens differed in the colour of the lateral stripe on the head and the body in males.
- The new species differed from its closely related species of green pit vipers in bearing a rusty red or orange lateral stripe along with the head and the entire body.
- A comparison of DNA sequences and skull morphology of closely related species highlights the distinctness of the new species.
- Arunachal Pradesh belongs to the Himalayan biodiversity hotspot and shows a high degree of heterogeneity in its landscape with elevation ranging from 100m to 7,000m and distinct climatic regimes that harbor diverse flora and fauna.
- The researchers said they have documented more species from the forests of Arunachal, which is likely to yield new species.

4.7 Water Crisis In India

- Although hand hygiene is considered an effective means for warding off Novel Corona Virus infections, the lack of access to clean water itself is an ongoing challenge that the Country has been facing for several years.
- In 2017, in a written reply in Lok Sabha, the Ministry of Water Resources said that average annual per capita water availability fell from 1820 cubic meters assessed in 2001 to 1545 cubic meters in 2011, and could reduce further to 1341 and 1140 in the years 2025 and 2050 respectively.
- Annual per-capita water availability of less than 1700 cubic meters is considered as a water stressed condition.
- Annual per- capita water availability below 1000 cubic meters is considered a water scarcity condition.
- In a 2018 report, the water and sanitation advocacy group WaterAid ranked India at the top of 10 countries with the lowest access to clean water close to home, with 16.3 crore people not having such access.

4.8 EARTH DAY 2020

- Google marked the 50th Anniversary of the Earth Day 2020 with a special interactive doodle dedicated to one of the smallest and most critical organisms – the bees.
- About the Earth Day 2020

- Every year, April 22 is celebrated as Earth Day to raise public awareness about the environment and inspire people to save and protect it.
- On this occasion of Earth Day 2020, Google partnered with The Honeybee Conservancy, a non-profit organization to create the doodle.
- This doodle created by Doodlers Jacob Howcroft & Stephanie Gu is a fun challenge where users can guide a bee from flower to flower, help in pollination and unlock facts about bees.
- The doodlers also list out 5 ways to help save bees, even while maintaining social distance. these include:
 - Support your Local Beekeeper.
 - Donate time or funds to local environmental groups.
 - Make safe havens for native bees.
 - Create a bee bath.
 - Plant a pollinator garden.
- THEME 2020: The theme for Earth Day 2020 is climate action



4.9 Petersberg Climate Dialogue Xi

- Union Minister for Environment, Prakash Javadekar represented India in the first virtual Petersberg Climate Dialogue.
- The first virtual Climate Dialogue, was the eleventh session of Petersberg Climate Dialogue.
- It has been hosted by Germany since 2010 to provide a forum for informal high-level political discussions, focusing both on international climate negotiations and the advancement of climate action.
- The dialogue saw participation from Ministers and representatives of about 30 countries.

5. SCIENCE & TECHNOLOGY

5.1 Sodium hypochlorite

- In several places, migrant workers travelling to their home States they or their belongings, were sprayed with a disinfectant, apparently to sanitise them.
- The chemical in the spray was a sodium hypochlorite solution.

About the chemical

- Sodium hypochlorite is commonly used as a bleaching agent, and also to sanitise swimming pools.
- As a common bleaching agent, Sodium Hypochlorite is used for a variety of cleaning and disinfecting purposes.
- It releases chlorine, which is a disinfectant.
- The concentration of the Chemical in the solution varies according to the purpose it is meant for.
 - A normal household bleach (for disinfecting buildings and solid surfaces) usually is a 2-10% sodium hypochlorite solution.
 - At a much lower 0.25-0.5%, this chemical is used to treat skin wounds like cuts or scrapes.
 - An even weaker solution (0.05%) is sometimes used as a handwash.
- The World Health Organization, and the US Centers for Disease Control and Prevention, recommend homemade bleach solutions of about 2-10% concentration to clean hard surfaces to clear them of any presence of the novel coronavirus.
- Sodium Hypochlorite is corrosive, and is meant largely to clean hard surfaces.
- It is not recommended to be used on human beings, certainly not as a spray or shower.
- Large quantities of chlorine can be harmful. A 1% solution can cause damage to the skin of anyone who comes in contact with it.
- If it gets inside the body, it can cause serious harm to lungs.

5.2 Aarogya setu, a covid-19 tracker app, informs you if you come in close proximity with positive cases

- The Government today launched a mobile app developed in public-private partnership to bring the people of India together in a resolute fight against COVID-19.
- The App, called 'AarogyaSetu' joins Digital India for the health and well-being of every Indian.
- The App will enable people to assess themselves the risk of catching the Coronavirus infection.
- It will calculate this based on their interaction with others, using cutting edge Bluetooth technology, algorithms and artificial intelligence.
- Once installed in a smartphone through an easy and user-friendly process, the app detects other devices with Aarogya Setu installed that come in the proximity of that phone.

- The app can then calculate the risk of infection based on sophisticated parameters if any of these contacts is tested positive.
- The App will help the Government take necessary timely steps for assessing risk of spread of COVID-19 infection, and ensuring isolation where required.
- The App's design ensures privacy-first.
- The personal data collected by the App is encrypted using state-of-the-art technology and stays secure on the phone till it is needed for facilitating medical intervention.
- The app is ready for pan-India use from day-1 and has highly scalable architecture.
- This app is a unique example of the nation's young talent coming together and pooling resources and efforts to respond to a global crisis.
- It is at once a bridge between public and private sectors, digital technology and health services delivery and the potential of young India with a disease-free and healthy future of the nation.

5.3 Operation Sanjeevani

- The Indian Air Force (IAF) lifted medicines from Airports in New Delhi, Mumbai, Chennai and Madurai before delivering for the Maldives and the Indian Army facilitated the transport of these medicines and consumables from warehouses across India to the respective airports.
- Amidst the global coronavirus COVID-19 crisis, India launched an 18-hour operation called Operation Sanjeevani to deliver 6.2 tonnes of essential medicines and hospital consumables to the Maldives.
- Indian Air Force (IAF) lifted medicines from airports in New Delhi, Mumbai, Chennai and Madurai before delivering for the Maldives and the Indian Army facilitated the transport of these medicines and consumables from warehouses across India to the respective airports.
- The medicines include influenza vaccines, anti-viral drugs such as Lopinavir and Ritonavir which have been used to treat patients with COVID-19 in other countries, medicines for cardiac conditions, kidney ailments, hypertension as well as consumables such as catheters, nebulisers, urine bags and infant feeding tubes.
- India has been assisting Maldives during the COVID-19 crisis.
- New Delhi gifted 5.5 tonnes of essential medicines to the Maldives on March 14 and also sent a 14-member COVID-19 Rapid Response Team of doctors to enhance preparedness.
- It had evacuated 9 Maldives nationals from China's Wuhan which was once the epicentre of the crisis.

5.4 Naval Dockyard Mumbai Designs Low Cost Temperature Gun

- Naval Dockyard, Mumbai has designed and developed its own Infrared based temperature sensor for screening large number of personnel entering the Dockyard.

- The instrument has been manufactured at a cost less than Rs. 1000/- through in-house resources, which is fraction of the cost of the Temperature Guns in the market).
- The non-contact thermometer has an Infrared sensor and an LED display integrated with a microcontroller which runs on a 9V battery.

About the Instrument

- The handheld sensor gun to screen personnel at the entry gates of the yard is expected to reduce the load on security guards at the gate of the Naval dockyard.
- The 285-year-old Naval Dockyard of the Western Naval Command (WNC) has an average influx of around 20,000 personnel every day.
- In view of COVID-19, initial screening of these personnel entering the dockyard was essential to prevent the spread of the disease within the yard and the Western Fleet.
- Since the outbreak of Covid 19, the non-contact thermometers or temperature guns have become scarce in the market and are being sold at a very high cost.

5.5 Participate IN NIF's 'Challenge Covid-19 Competition'

- National Innovation Foundation - (NIF) under the Department of Science and Technology has come up with a call inviting innovative citizens to participate in its Challenge COVID-19 Competition (C3).
- All interested innovators are welcome to participate with their creative ideas and innovations for problems or issues like reducing transmission of Coronavirus.
- Ideas are also invited for gainful engagement of people at home, healthy food for nutrition and boosting immunity especially at the time of lockdown when raw materials are limited.
- NIF is a unique institution with a strong focus and experience in scouting and facilitating inclusive and grass-roots innovations driven by citizens.
- The initiative will not only create awareness, but will also engage a wide cross-section of society with diverse backgrounds in providing and implementing solutions.
- The selected technological ideas and innovations will be supported for incubation and dissemination.
- The details of ideas and innovations may be sent to campaign@nifindia.org.
- The competition announced on 31st of March will accept entries on a rolling basis until further notification.

5.6 CAWACH

- Department of Science & Technology, Government of India in a rapid response to combat COVID-19 global pandemic approved setting up of a Centre for Augmenting WAR with COVID-19 Health

Crisis (CAWACH) at a total cost of Rs 56 Cr to scout, evaluate and support the innovations and start-ups that address COVID-19 challenges.

- The Society for Innovation and Entrepreneurship (SINE), a technology business incubator at IIT Bombay supported by DST has been identified as the Implementing Agency of the CAWACH.
- The CAWACH's mandate will be to extend timely support to potential startups by way of the requisite financial assistance and fund deployment targeting innovations that are deployable in the market within the next 6 months.
- CAWACH will identify upto 50 innovations and startups that are in the area of novel, low cost, safe and effective ventilators, respiratory aids, protective gears, novel solutions for sanitizers, disinfectants, diagnostics, therapeutics, informatics and any effective interventions to control COVID-19.
- It will provide access to pan India networks for testing, trial and market deployment of these products and solutions in the identified areas of priority COVID-19 solutions.
- This will help to address various challenges faced by country due to severe impact of Covid-19.
- CAWACH program of DST is focused on leveraging the youthful energy, intelligence and extraordinary innovative potential of our technology incubators and startups and empowering them for scale-up to speedily address the multi-dimensional challenges of COVID-19 across respiratory aids, disinfection systems, protective gear and coatings, information and monitoring assists, diagnostics, and plethora of other relevant materials, devices and solutions.
- DST is taking a lead from the front and upping efforts across its wide resource network of highly committed institutions, researchers, experts, incubators, innovators and startups in the hour of this grave national need and health crisis.

5.7 Integrated command and control centres

- Municipalities implementing the Smart Cities Mission have started using their Integrated Command and Control Centres (ICCCs) as “war rooms” for COVID-19 response to provide up-to-date information about the status of coronavirus in different administrative zones of their cities.
- Under the smart cities mission, the Integrated Command and Control Center (ICCC) acts as the “nerve center” for operations management, day-to-day exception handling and disaster management.’
- The ICCC is envisaged to aggregate information across multiple applications and sensors deployed across the city, and then provide actionable information with appropriate visualization for decision makers.

5.8 Madhuban Gajar

- Shri Vallabhhai Vasrambhai Marvaniya, who is a farmer scientist from Junagadh district, Gujarat has developed a Madhuban Gajar. It is a biofortified Carrot variety with high β -carotene and Iron content.
- This Carrot variety is benefitting over 150 local farmers in the area.
- It is being planted in an area of more than 200 hectares in Junagadh, & the average yield, which is 40 to 50 t/ha, has become the main source of income to the local farmers.
- The biofortified carrot variety is being cultivated in over 1000 hectares of land in Gujarat, and other states such as Maharashtra, West Bengal, Rajasthan and Uttar Pradesh during the last 3 years.
- It is a highly nutritious Carrot variety which is developed through the selection method with higher β -carotene content (277.75 mg/kg) and Iron content (276.7 mg/kg) dry basis.
- This carrot variety is used for several value-added products like carrot chips, juices, and pickles.
- From all the varieties tested, beta-carotene & iron content were found to be in high quantity.

5.9 National analytical platform for dealing with intelligent tracing, tracking and containment

- The Centre for Development of Advanced Computing (C-DAC) has prepared a data science-based tool to make easy the task of tracking the movements of COVID-19 patients or quarantined people across the country.
- C-DAC, in association with the Indian Council for Medical Research and Union department of telecommunications, will deploy the platform after its launch.
- The system has been named the National Analytical Platform for Dealing with Intelligent Tracing, Tracking, and Containment (NAADI).
- It has many features that would be helpful for the administrators, decision-makers, health workers and common citizens.
- The tool will also facilitate culling out the correct information from the confirmed or suspected patients, who might have genuinely forgotten the places they had visited during the two-three weeks before being diagnosed with the infection or quarantined.
- Some people may hide such facts fearing that they may be ostracized by society.
- The information generated by the tool would be accurate up to a metre and would be of much help for the medical professionals, law enforcement agencies and data scientists.
- The development of this tool is among the several projects undertaken by C-DAC under Supercomputer using Artificial Intelligence, Machine Learning, Healthcare Analytics based Research, Covid-19 (SAMHAR).
- The SAMHAR project is in partnership with the National Supercomputing Mission established in association with startups and industries to build a rapid supercomputing system and research community for India to fight Covid-19.

5.10 **Bharat Padhe Online**

- Human Resources Development Minister Ramesh Pokhriyal Nishank today launched a week long Bharat Padhe Online campaign for crowdsourcing of ideas in New Delhi for improving the online education ecosystem of India.
- The campaign aims to invite all the best brains in India to share suggestions or solutions directly with the HRD Ministry to overcome constraints of online education while promoting the available digital education platforms.
- He said that ideas can be shared on bharatpadheonline.mhrd@gmail.com and on twitter by using #BharatPadheOnline up to 16th of this month .
- While using Twitter one must tag @HRDMinistry and @DrRPNishank so that ideas can be notified to the Ministry.
- The Minister said that he would like to go through the suggestions personally.
- The students and teachers are the main target audience in it and hoped that they will participate in this campaign wholeheartedly to improve the existing online education methods.
- The students who are currently studying in schools or higher educational institutions are the ones engaging with the existing digital platforms offering various courses etc. on a daily basis.
- The educators across the country can also come forward to contribute with their expertise in the field of education.
- A conversation can be initiated with them, asking them what they think an ideal online education ecosystem should look like or what are the limitations of the current online education scenario of India and what challenges they face in traditional classrooms that can be addressed through online education.

5.11 **Active Virosome Technology**

- Seagull BioSolutions, a startup working on new biological technologies, is being funded by the Department of Science and Technology (DST), to undertake the development of Active Virosome (AV)-Vaccine and Immunodiagnostic kits for COVID-19 emergency.
- Active Virosome Technology (AVT) developed by Seagull Bio is useful for the production of vaccines & immunotherapeutic agents.
- The AVT platform is useful for producing novel, non-hazardous & economical Active Virosome agents expressing desired antigens from the target pathogen.
- These will be used to develop a novel vaccine for the prevention of COVID-19 infection and also immunodiagnostic ELISA kits for COVID-19.
- Polymerase chain reaction (PCR)-based diagnostic kits which are currently available in India are rapid & enable detection of active COVID 19 infection but cannot identify asymptomatic infections

or those people who were exposed to or infected with COVID-19 in the past and did not suffer from the disease or have recovered from COVID-19 disease and may still be spreading the virus.

- In contrast, Immunodiagnostic kits help in detection of antibodies to COVID – which can identify these infections also.
- Therefore, SBPL has initiated efforts to produce Immunodiagnostic kits for COVID-19.
- These tests will enable healthcare researchers to monitor the spread of COVID-19 more accurately.

5.12 APOLLO 13

- As NASA marks the 50th anniversary of the Apollo 13 mission – which has become known as “a successful failure” that saw the safe return of its crew in spite of a catastrophic explosion – the agency is sharing a variety of resources, recognizing the triumph of the mission control team and the astronauts, and looking at how those lessons learned can be applied to its lunar Artemis program.
- The crew of Apollo 13 consisted of Commander James (Jim) Lovell Jr., Command Module Pilot John Swigert Jr. and Lunar Module Pilot Fred Haise Jr. Their Saturn V rocket launched at 2:13 p.m. EST on April 11, 1970, from Launch Pad 39A at NASA’s Kennedy Space Center in Florida.
- The command module was named Odyssey, and the lunar module was named Aquarius.

About the journey

- While enroute to the Moon on April 13, an oxygen tank in the Apollo service module ruptured.
- The lunar landing and moonwalks, which would have been executed by Lovell and Haise, were aborted as a dedicated team of flight controllers and engineering experts in the Apollo Mission Control Center devoted their efforts to developing a plan to shelter the crew in the lunar module as a “lifeboat” and retain sufficient resources to bring the spacecraft and its crew back home safely.
- Splashdown occurred in the Pacific Ocean at 1:07 p.m. April 17, after a flight that lasted five days, 22 hours and 54 minutes.

5.13 Collab CAD

- To provide students experience in creating and modifying 3D designs Atal Innovation Mission, NITI Aayog and National Informatics Centre (NIC) jointly launched CollabCAD, a collaborative network, computer enabled software system that would provide a total engineering solution from 2D drafting & detailing to 3D product design.
- The aim of this is to provide a platform to students of Atal Tinkering Labs across the country to create data across the network and concurrently access the same design data for storage and visualization.
- Atal Tinkering Labs or ATLs are established across India in 5,000 schools and provide tinkering spaces to children to hone their innovative ideas and creativity.

- AIM's collaboration with NIC's CollabCAD is a great platform for students to utilize indigenous, state-of-the-art made-in-India software for 3D modeling/ slicing to use 3D Printing, said an official statement.
- For the students a customized version of CollabCAD has been developed.
- Atal Innovation Mission also launched the Game Development module in partnership with DELL Technologies and Learning Links Foundation. It is an online platform where students can start their learning journey while tinkering from home.
- Through the platform they can learn to create their own games and also share it with others.
- This platform envisages to make students transition from 'game players' to 'game makers'.
- Atal Innovation Mission is the government's flagship initiative to promote a culture of innovation and entrepreneurship.

5.14 DRDO DEVELOPS KIOSK FOR COVID-19 SAMPLE COLLECTION

- Defence Research & Development Laboratory (DRDL), Hyderabad has added another product to the portfolio of Defence Research and Development Organisation (DRDO) to combat Coronavirus (COVID-19) by developing COVID Sample Collection Kiosk (COVSACK).
- The unit has been developed by DRDL in consultation with the doctors of Employees' State Insurance Corporation (ESIC), Hyderabad.
- The COVSACK is a kiosk for use by healthcare workers for taking COVID-19 samples from suspected infected patients.
- Patient under test walks into the Kiosk and a nasal or oral swab is taken by a health care professional from outside through the built in gloves.
- The Kiosk is automatically disinfected without the need for human involvement, making the process free of infection spread.
- The shielding screen of the kiosk cabin protects the health care worker from the aerosols/droplet transmission while taking the sample.
- This reduces the requirements of PPE change by health care workers.
- After the patient leaves the Kiosk, four nozzle sprayers mounted in the kiosk cabin disinfect the empty chamber by spraying disinfectant mist for a period of 70 seconds.
- It is further flushed with water & UV light disinfection.
- The system is ready for next use in less than two minutes.
- Voice command can be given through two-way communication system integrated with the COVSACK.
- It is possible to configure COVSACK to be used either from inside or outside as required by the medical professionals.

- The COVSACK costs nearly Rs one lakh and the identified industry based at Belgaum, Karnataka can support 10 units per day.
- The DRDO has designed and developed two units and handed over these to ESIC Hospital, Hyderabad after successful testing.

5.15 TRUENAT

- Indian Council of Medical Research, ICMR has issued guidance on the use of Truenat beta CoV test which has been validated by the research body for undertaking a screening test for COVID-19.
- ICMR has advised all the States which intend to initiate Truenat beta CoV test that the proposed sites of Truelab Workstation do not require approval of ICMR.
- The States can appoint a core team of experts for assessing facilities with the Truelab Workstation for feasibility of initiating COVID-19 testing in the existing setup.
- It has also been advised that based on the evaluation of the core team, the designated officer of each state can accord approval for testing and the procurement of the cartridges for existing machines and other logistics should be done through the Central TB Division.
- ICMR said that sample collection should only be done using the virus lysis buffer provided by the supplier as this is essential to avoid any bio-safety concerns.

5.16 All India Agri Transport Call Centre

- Agriculture Minister Narendra Singh Tomar today launched the All India Agri Transport Call Centre at Krishi Bhavan in New Delhi.
- This will facilitate inter-state movement of perishables in the current situation of lockdown due to the COVID-19 threat.
- The Call Centre numbers are 18001804200 and 14488.
- These numbers can be called from any mobile or landline phones any time of the day or night.
- The 24x7 service All India Agri Transport Call Centre is an initiative of the Department of Agriculture, Cooperation and Farmers Welfare for coordination between states for inter-state movement of perishables.

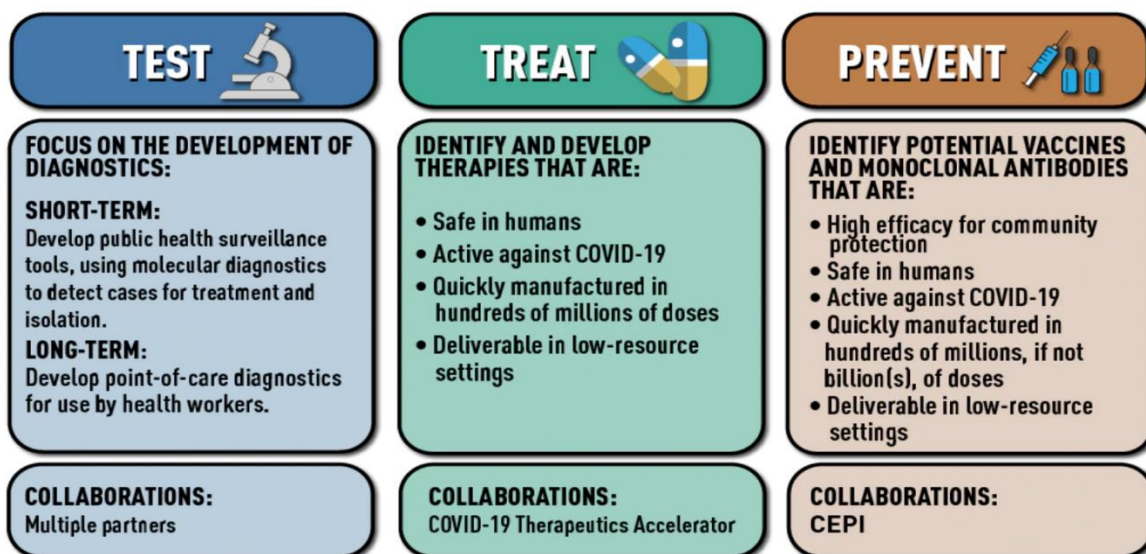
5.17 Tuberculosis (TB) During The COVID-19 Crisis

- According to a WHO Information Note — ‘Tuberculosis and COVID-19’, there is a need to maintain TB services during the effective response to COVID-19.
- “It is important that the progress made in TB prevention and care is not reversed by the COVID19 pandemic,” said WHO, adding that TB patients who have lung damage or chronic obstructive pulmonary disease may suffer from more severe illness if they are infected with COVID-19.
- India accounts for 27 percent of the world’s total TB patients and is among the top 8 countries with the highest number of TB cases.

- In 2018, as many as 4.4 lakh people died of TB in India which is 29 percent of the total 1.5 million deaths due to TB in the world.
- Out of a total 7 million cases reported in 2018 across the world, India had 2.69 million cases, while, according to data available, it missed out on tracking down 5.40 lakh cases.
- The agency has said that there is a stronger case for concurrent testing for both conditions in these individuals even if the clinical picture is atypical.
- Doctors claim that people suffering from TB and COVID-19 may have poorer treatment outcomes, especially if TB treatment is interrupted.

R&D's ROLE IN A PANDEMIC

Developing New Tools in Response to COVID-19

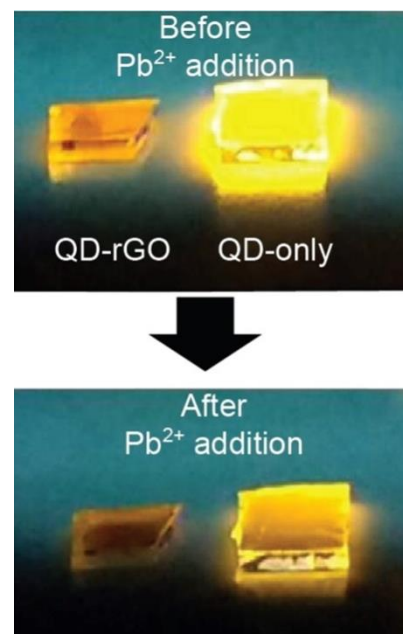


- Health experts believe so.
- They argue that because of the fear of the coronavirus several will step forward for testing since symptoms for TB – fever, cough, and difficulty in breathing — are almost similar to coronavirus.
- The medical examination then will help reveal their TB bacteria infection.
- TB expert Dr. M B Bali said that the current situation can also help identify people with latent TB – who have the disease but no symptoms. According to WHO, there are 25 percent of patients with latent TB.

5.18 Solid-State Sensor To Detect The Heavy Metal Ions

- The Centre for Nano and Soft Matter Sciences (CeNS) has developed a compact solid-state sensor to detect the heavy metal ions in water.
- It is a portable device that can help onsite detection in remote areas.
- Heavy metal ions such as lead, mercury, and cadmium pose severe potential threats to living beings as they can easily be accumulated in the body and cannot be detoxified by any chemical or biological processes.

- The health hazards associated with heavy metal ions in water demands the development of efficient and portable sensors for rapid onsite detection of these ions.
- There is an urge to develop visual sensors, which can effectively detect heavy metal ions rapidly (within seconds) under ambient conditions.
- The sensor film was prepared by forming a composite between manganese doped zinc sulfide quantum dots and reduced graphene oxide on a glass substrate.
- These particular quantum dots are water-soluble and have high photoluminescence (~ 30 %) quantum yield, making them suitable for luminescence-based sensing.
- These quantum dots can be excited with handheld UV light of 254 nm, thus making it a portable device even to remote areas.
- If a drop of water containing heavy metal ions such as mercury, lead, cadmium, etc. are added to the composite film, the emission of the film quenches within seconds.
- This study demonstrates the easy detection of heavy metal ions in water; however, the team is developing strategies to improve the selectivity of the detection.



5.19 Zoom Video Calling App

- The Ministry of Home Affairs (MHA) has issued an advisory that ZOOM Video Conference is not a safe platform.
- USA based ZOOM video communication has seen an exponential rise in usage in India as office-goers remain at home owing to the present lockdown.
- The software used in the online platform is said to be made in China and some calls were being routed through servers in China.
- The Cyber Coordination Centre (CyCord), under the Union Ministry of Home Affairs (MHA), issued a set of guidelines for its safe usage.
- It was not for use by government offices and officials.

5.20 PSEUDO CAPACITORS

- Scientists at the Institute of Nano Science and Technology (INST), Mohali, an autonomous institute under the Department of Science and Technology, Government of India, have developed a stable material for pseudocapacitors or supercapacitors which store electrical energy by electron charge transfer.
- The material can offer a low-cost scalable energy storage solution as an alternative to batteries.

- Dr. Ramendra Sundar Dey and his team from INST have formulated an interesting synthetic strategy to overcome the long-standing challenges of pseudocapacitors, their cycling stability, and rate capability.
- Pseudocapacitors are a type of super capacitors which store electrical energy by electron charge transfer.
- The team has developed the pseudo capacitive material, a hybrid xerogel structure (a solid formed from a gel by drying with unhindered shrinkage), for the very first time.
- The hybrid material was fabricated by the integration of a well-known organic molecule, dopamine onto a conductive matrix, like graphene.
- This class of xerogel architectures, although reported in the literature as alternatives to conventional pseudocapacitors, lack sufficient cycling stability to replace batteries in the consumer market.

5.21 Whole-Genome Sequencing Of Novel Coronavirus

- One more institute of the Council of Scientific and Industrial Research (CSIR) has started the whole-genome sequencing of the novel coronavirus.
- Chandigarh-based Institute of Microbial Technology (IMTech) has taken up the task of large-scale genome sequencing of the virus.
- The Centre for Cellular and Molecular Biology and the Institute of Genomic and Integrated Biology is already working on this.

BACKGROUND

- Director, IMTech, Dr. Sanjeev Khosla said, the complete genome sequence information will enable researchers to gain insights about the virus origins, different strains circulating in India and how it has spread across the country.
- He said the genomic resource obtained from this sequencing will also allow identification of new targets for diagnosis and drugs for COVID-19.

Highlights

- The whole-genome sequencing is a method used to determine the complete DNA sequence of a specific organism's genome.
- CSIR-IMTech will perform sequencing of the SARS-Cov-2 RNA genome isolated from clinical samples.
- So far, 9000 samples have been sequenced internationally as per Global Initiative on Sharing All Influenza Data (GISAID) - a public platform started by the WHO in 2008 for countries to share genome sequences.
- Dr. Khosla also said the institute has already started clinical testing of samples for the project.

5.22 Kisan Rath Mobile App

- The Agriculture Ministry has launched the Kisan Rath Mobile App to facilitate the transportation of food grains and perishables during the lockdown.
- This mobile application is developed by the National Informatics Centre to ensure farmers and traders are able to find transport for Agriculture and Horticulture produce.
- Speaking on the occasion, Agriculture Minister Narendra Singh Tomar said Kisan Rath' App will greatly facilitate farmers, FPOs and Cooperatives in the country to have the choice to find a suitable transport facility to transfer their agriculture produce from farm gate to markets.

5.23 Bug Sniffer

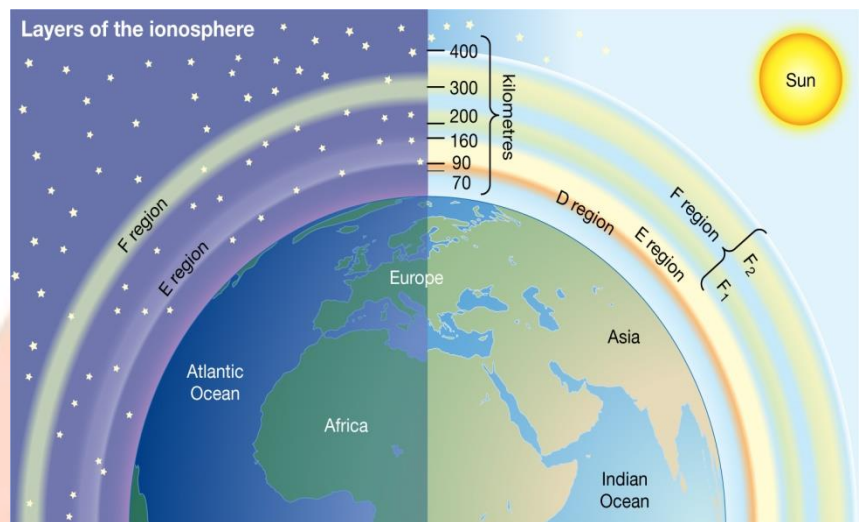
- Researchers at the Agharkar Research Institute (ARI), Pune, an autonomous Institute under the Department of Science & Technology, Govt of India, have developed a sensitive and low-cost sensor to rapidly detect Bacteria.
- The portable device can detect as low as ten Bacterial cells from a sample size of one milliliter in just 30 minutes.
- At present, they are working on a method for simultaneous separation and detection of Escherichia coli and Salmonella typhimurium.
- The most common disease-causing bacteria Escherichia coli and Salmonella typhimurium can be detected individually and simultaneously using the in-house developed synthetic peptides, which act as a recognition element and provide the specificity to the detection.
- These Peptides, which are highly specific to the Bacteria to be detected, have extremely low cross-reactivity.
- In their work, which was published in the Journal of Biotechnology, initially, magnetic nanoparticles attached to the peptides were allowed to flow through the microchannel along-side the bacteria.
- On applying an external magnetic field, the bacteria attached to the peptide were isolated and immobilised.
- Finally, the peptide tagged with quantum dots was passed through the microchannels to complete the sandwiched peptide assay.
- After capturing the bacteria, microchannels exhibited strong and stable fluorescence due to the quantum-dot-tagged peptides.



- The bug sniffer is affordable, and the raw materials required for making it are readily available. Currently, the researchers are working with simultaneous separation and detection of *Escherichia coli* and *Salmonella typhimurium* using LAMP (Loop-mediated isothermal amplification), a single-tube technique for the amplification of DNA and a low-cost alternative to detect certain diseases.
- This work is funded by ICMR.

5.24 Ionospheric Electron Density

- Researchers from the Indian Institute of Geomagnetism (IIG), Navi Mumbai, an autonomous institute of the Department of Science & Technology, Govt. of India, have developed a global model to predict the ionospheric electron density with larger data coverage.



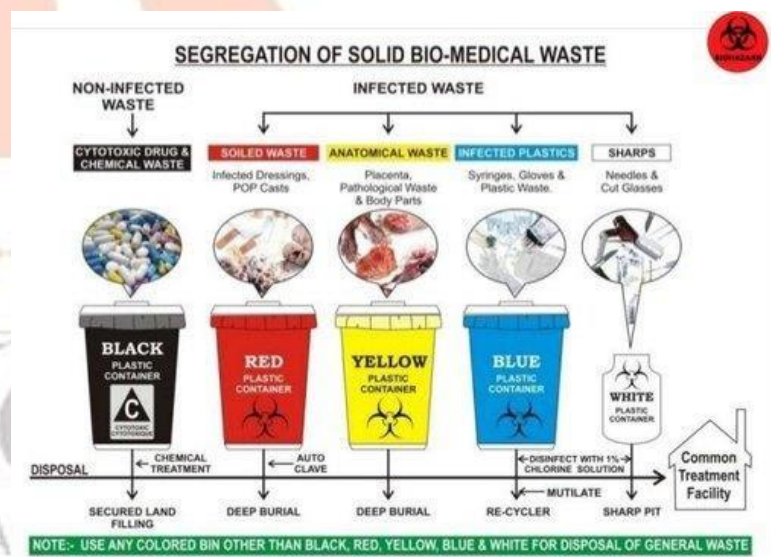
- The new Artificial Neural Networks based global Ionospheric Model (ANNIM) has been developed using long-term ionospheric observations to predict the ionospheric electron density and the peak parameters.
- Artificial Neural Networks (ANNs) replicate the processes in the human brain (or biological neurons) to solve problems such as pattern recognition, classification, clustering, generalization, linear and nonlinear data fitting, and time series prediction.
- It is to be noted that very few attempts have been made to model the global ionosphere variability using ANNs.
- The researchers developed a neural network-based global ionospheric model by using an extensive database consisting of nearly two decades of global Digisonde, Global Navigation Satellite System (GNSS) radio occultation and topside sounders observations.
- Digisonde is an instrument that measures real-time on-site electron density of the ionosphere by sending the radio-frequency pulses.
- ANNIM successfully reproduced large scale anomalies of the ionosphere.
- It also captured the general morphological features of the ionosphere during the disturbed space weather periods, such as geomagnetic storms which occurs when the magnetic cloud originated from Sun (known as Coronal Mass Ejection (CME)) interacts with the Earth's magnetosphere.

5.25 INDSCI-SIM

- Scientists from Chennai, Pune, Bengaluru, Delhi and Goa, have come together to build INDSCI-SIM, a model to estimate the impact of COVID-19 under different scenarios.
- The model, named INDSCI-SIM, is the first detailed, State-specific, epidemiological, compartmental model for COVID-19 made in India.
- The model can compare the effects of multiple non-pharmaceutical interventions – such as different types of lockdowns, quarantines and expanded testing – in altering the trajectory of the pandemic.
- In the model, each State or City is represented by a population, every one of which is described by nine compartments representing various stages of the COVID-19 disease progression.
- This extends the four-compartment SEIR model (Susceptible, Exposed, Infected, Recovered) that is usually used.
- The ability to estimate hospital bed and critical care requirements is one important feature of this model.
- This model can be used not just for COVID-19, but for any future epidemics, too.

5.26 Common Bio-Medical Waste Treatment Facilities

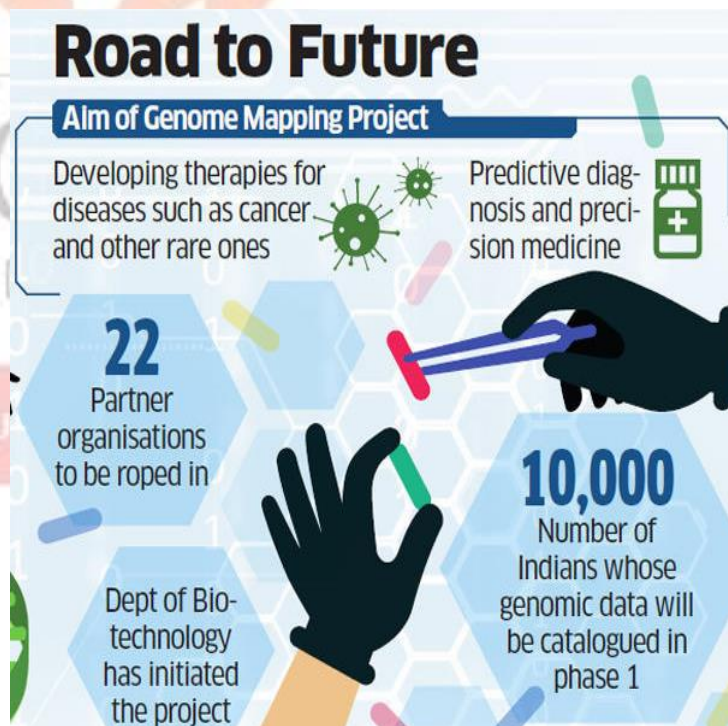
- Using double-layered bags, mandatory labeling and color-coded bins for the management of waste generated during the diagnostics and treatment of suspected and confirmed COVID-19 patients are part of the guidelines issued by the Central Pollution Control Board (CPCB).
- The apex pollution monitoring body said specific guidelines are required to be followed by all, including isolation wards, quarantine centers, sample collection centers, laboratories, ULBs and common biomedical waste treatment and disposal facilities, in addition to existing practices under BMW Management Rules, 2016.
- The CPCB has also written to the state pollution control boards and pollution control committees to consider the operation of common bio-medical waste treatment and disposal facility and its associated staff as an essential service part of health infrastructure.
- According to the guidelines, healthcare facilities having isolation wards for Covid-19 patients need to keep separate color-coded bins/bags/containers inwards and maintain proper segregation of waste as per BMW Rules, 2016 as amended and CPCB guidelines for implementation of BMW Management Rules.



- As a precaution, double-layered bags (using 2 bags) should be used for the collection of waste from COVID-19 isolation wards so as to ensure adequate strength and no-leaks.
- Collect and store biomedical waste separately prior to handing over the same to Common Bio-medical Waste Treatment and Disposal Facility (CBWTF).
- Use a dedicated collection bin labeled as 'COVID-19' to store COVID-19 waste and keep separately in a temporary storage room prior to handing over to the authorized staff of CBWTF.
- Biomedical waste collected in such isolation wards can also be lifted directly from the ward into the CBWTF collection van.
- In addition to mandatory labeling, bags/containers used for collecting biomedical waste from COVID-19 wards should be labeled as 'COVID-19 Waste ', it said adding that general waste not having contamination should be disposed of as solid waste as per Solid Waste Management Rules, 2016.
- Maintain a separate record of waste generated from COVID-19 isolation wards. Use dedicated trolleys and collection bins in COVID-19 isolation wards.
- A label 'COVID-19 Waste' to be pasted on these items also.
- The (inner and outer) surface of containers/bins/trolleys used for storage of COVID-19 waste should be disinfected with a 1 percent sodium hypochlorite solution daily.

5.27 Indian Initiative On Earth Biogenome Sequencing (IIEBS)

- The Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI) has been selected as one of the Biological Knowledge and Resource Centres of the Indian Initiative on Earth BioGenome Sequencing (IIEBS).
- IIEBS is a nationwide project to decode the genetic information of all known species of plants and animals in the country.
- The whole-genome sequencing of 1,000 species of plants and animals will be taken up in the initial phase of IIEBS to be completed over a period of five years at an estimated cost of ₹440 crores.
- The National Institute of Plant Genome Research, New Delhi is the coordinating center for the nationwide project involving a total of 24 institutes.



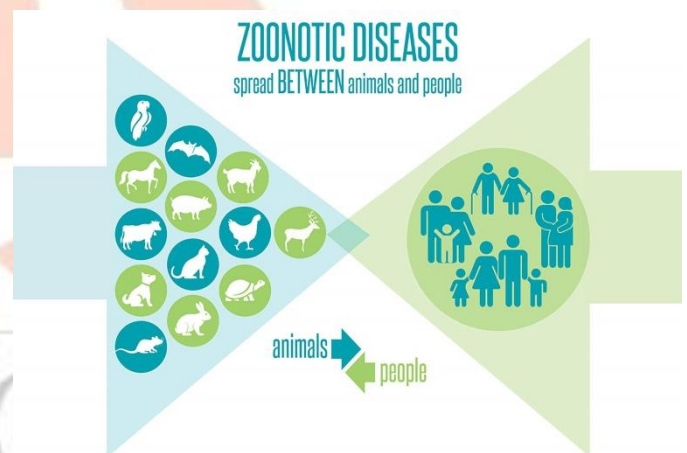
- The project is part of the Earth BioGenome Project, an international initiative that aims to sequence the genetic codes of all of the earth's eukaryotic biodiversity over a period of 10 years.

5.28 **FELUDA**

- Scientists at the Council of Scientific & Industrial Research — Institute of Genomics and Integrative Biology (CSIR-IGIB) have developed a low-cost, paper-strip test that can detect the new coronavirus within an hour.
- The test, named Feluda after a fictional detective character created by Satyajit Ray, is expected to cost around Rs 500 against the RT-PCR test that costs Rs 4,500 in private labs.
- The test is based on a bacterial immune system protein called Cas9.
- It uses a cutting-edge gene-editing tool CRISPR-Cas9 system.
- The team has repurposed it for the diagnosis of COVID-19 genetic material.
- This technology is not limited to COVID-19 and can work on any DNA-RNA or single mutations, disease mutations, etc.

5.29 **ZOONOSES**

- According to experts, the Corona Virus outbreak comes from the animal world. It is human activity that enables the virus to jump to people, and specialists are warning that if nothing changes, many other pandemics of this nature will follow.
- The name given to diseases transmitted from animals to humans are “zoonoses”, based on the Greek words for “animal” and “sickness”.
- They are not new — tuberculosis, rabies, toxoplasmosis, malaria, to name just a few, are all zoonoses.
- According to the UN Environment Programme (UNEP), 60% of human infectious diseases originate from animals.
- This figure climbs to 75% for “emerging” diseases such as Ebola, HIV, Avian flu, Zika, or SARS, another type of coronavirus. The list goes on.
- The emergence of zoonotic diseases is often associated with environmental changes or ecological disturbances, such as agricultural intensification and human settlement, or encroachments into forests and other habitats.



5.30 SN 2010KD

Researchers at the Aryabhata Research Institute of Observational Sciences (ARIES) Nainital an autonomous research institute under the Department of Science and Technology (DST) Govt. of India found that SN 2010kd, a super-luminous supernova stands out with the amount of mass as well as Nickel ejected during explosion, which is much more than seen in case of normal core-collapse supernovae.

About Supernovae

- Supernovae are a kind of energetic explosions where the core of massive stars (a few times that of the mass of our Sun) go to a catastrophic phase of explosion liberating huge amounts of energy.
- These events are visible through very far away distances much beyond our own solar system.
- Superluminous supernovae are a special type of stellar explosions having energy output 10 or more times higher than that of standard supernovae.

About super luminous Supernova

- A super-luminous supernova (SLSN) is a type of stellar explosion with a luminosity 10 or more times higher than that of standard supernovae.
- Like supernovae, SLSNe seems to be produced by several mechanisms, which is readily revealed by their light-curves and spectra.
- The first confirmed superluminous supernova connected to a gamma-ray burst was not found until 2003 when GRB 030329 illuminated the Leo constellation.
- In June 2018, AT2018cow was detected and found to be a very powerful astronomical explosion, 10 – 100 times brighter than a normal supernova.
- Today, it is believed that stars with $M \geq 40 M_{\odot}$ (where M_{\odot} = Solar Mass = approximately 2×10^{30} kg) produce superluminous supernovae.

5.31 Nano Mission Programme

- As part of the Nano Mission program, the Department of Science and Technology (DST) has approved support for upscaling an antiviral nano-coatings developed by Professor Ashwini Kumar Agrawal of IIT-Delhi.
- These antiviral nano-coatings are for use as appropriate material for producing anti-COVID-19 Triple Layer Medical masks and N-95 respirators in large quantities.

About the Background

- Silver is known to have strong antimicrobial activity against bacteria, viruses, fungus, and so on.
- Professor Ashwani Kumar Agrawal developed the N9 blue nanosilver at SMITA Research Lab, IIT Delhi, under the nano mission project.

About the project

- The upscaling work will be done in association with two industrial partners, Resil Chemicals Pvt Ltd. Bangalore and Nanoclean Global Pvt Ltd., New Delhi.
- Resil chemicals will provide N9 blue nanosilver.
- Nanoclean Global will provide face masks and PPE materials for the application of nanocoating and will help in the design and fabrication of samples at their facilities.
- The N9 blue nanosilver, which is a highly potent antimicrobial agent, will be further modified to form nanocomplexes with Zinc compounds to achieve a synergistic effect.
- Subsequently, these nanomaterials will be applied as coatings on facemasks and other PPEs to improve their ability to protect the wearer from accidental contamination from COVID-19 virus droplets.

5.32 **MOBILE BSL-3 VRDL LAB**

Raksha Mantri dedicated the first COVID-19 sample collection mobile Lab of the country namely “Mobile BSL-3 VRDL Lab” to the nation through video conference.

About the lab

- This Lab has been developed by Defence Research and Development Organization (DRDO), Ministry of Defence, Govt. of India in collaboration with ESIC Medical College & Hospital, Sanathnagar (Hyderabad) with due permission of Indian Council of Medical Research (ICMR) and Govt. of Telangana.
- The design of Mobile BSL-3 VRDL Lab has been developed by DRDO scientists whereas specification of the lab has been given by ESIC Medical College & Hospital, Sanathnagar, Hyderabad. The project has been executed and constructed by three industry partners of DRDO.
- This Biosafety Level 2 and Level 3 lab which usually takes about six months time to be fully developed, has been developed by DRDO in a record time of 15 days.
- This testing facility can process more than 1,000 samples in a day and will enhance the country's capabilities in fighting COVID-19.
- It will be the first of its kind facility in the country for COVID-19 and other related testing and research purposes.
- Other innovative technologies developed by DRDO and shared with ESIC Medical College & Hospital, Sanathnagar, Hyderabad comprise of:
 - COVSACK unit for sample collection
 - Aerosol boxes and aerosolized sanitizer dispenser
 - Snorkel face masks and face shields as reusable PPE N-95 equivalent
 - UV-C disinfection chamber in the fight against COVID-19 for use by the hospital

5.33 Conversion Of Surplus Rice To Ethanol

- Recently, the Central government has allowed the conversion of surplus rice to ethanol.
- Ethanol produced from this will be used for utilization in making alcohol-based hand sanitizers and blending in petrol.

About the Key points

- The National Biofuel Coordination Committee (NBCC) took the decision which will lead to utilization of part of a huge stockpile of 30.57 million tonnes (MT) of rice which is almost 128% more than the buffer stock and strategic requirement norms.
- Presently, the Food Corporation of India (FCI) has huge rice stock from previous years excluding the unmilled paddy lying with millers on behalf of FCI.
- Using surplus rice for ethanol will address the concern of about 750 million litres of grain-based distillery capacities lying idle, due to the lack of feedstock.
- In India, the total capacity of grain-based distilleries is close to 2 billion litres, of which around 38% (750 million litres) was lying unused.
- The National Policy on Biofuels, 2018 allows conversion of surplus quantities of food grains to ethanol when there is a projected oversupply of food grains.

TAKING STOCK

30.57 metric tonne

Stock of rice as of March 10

10 metric tonne

Quantity of rice to be absorbed from the Central pool due to the scheme of 5 kg free foodgrain for the poor

750 million litres

Grain-based distillery capacities lying idle due to lack of feedstock

5.34 VILOKANA

- The Indian Institute of Information Technology and Management- Kerala (IIITM-K) has developed an AI (Artificial Intelligence) semantic search engine “Vilokana”.
- This search engine is to enable researchers to get deeper insights into scientific studies and to find an early solution to the COVID-19 crisis.

About the Search engine

- The AI search engine named “Vilokana”, in Sanskrit, means ‘finding out’.
- The search engine was developed by a team of IIITM-K, as part of the open science initiative of the research centre.
- The search engine will guide the researchers to the proper information in no time.
- The user can supply key-words based queries, the meaning of which the search engine are going to be ready to understand and find the relevant text from the scientific papers.
- The user also has the choice to upload any scientific text for analysis, which can be used for sentiment analysis and knowledge discovery.

About the Working

- The AI search tools provide contextual search information from the vast domain of scientific literature, which is a difficult problem faced by scientists and people to get deeper insights into scientific studies.
- The search has also several advanced functions such as being able to pick up undiscovered keywords, learning based on popularity, summarize the text & help identify trends.
- The search engine is different from Google because the researcher will also have access to a quick summary of the article at hand.
- The purpose is to accelerate the process of research by giving easy access to a wide range of information to those who're working in the field.

5.35 Hydrogen Fuel Bus And Car Project

- NTPC launched Hydrogen Fuel bus and car project for Leh, New Delhi
- NTPC Ltd, India's largest power producer and a central PSU under the Ministry of Power has invited Global Expression of Interest (EoI) to provide 10 Hydrogen Fuel Cell (FC) based electric buses and an equal number of Hydrogen Fuel Cell based electric cars in Leh and Delhi.
- The EoI has been issued by NTPC's wholly-owned subsidiary, NTPC Vidyut Vyapar Nigam (NVVN) Limited.
- The move to procure Hydrogen Fuel Cell-based vehicles is first of its kind project in the country, wherein a complete solution from green energy to the fuel cell vehicle would be developed.
- The initiative, which has been undertaken with the support of the Ministry of New and Renewable Energy, will also harness renewable energy for the generation of hydrogen and develop its storage and dispensation facilities as part of pilot projects at Leh and Delhi.
- The move to launch hydrogen-powered vehicles aims at decarbonizing the mobility segment.

5.36 Sing Air Conditioners During Coronavirus Outbreak

Amid the Covid-19 pandemic, the Central Public Works Department (CPWD) issued the advisory to its officials to address concerns associated with the spread of the disease via air conditioners and ventilation systems.

About the guidelines

- The guidelines state “Set air conditioners room temperature between 24 degrees Celsius and 30 degrees Celsius and maintain relative humidity between 40 percent and 70 percent.
- The guidelines were formulated by the Indian Society of Heating Refrigerating and Air Conditioner Engineers (ISHRAE) .
- It quotes a study that found the transmission of Covid-19 in 100 cities in China lower in high temperature and high humidity.

- It also quotes a study which has shown that the SARS-CoV-2 can live for 14 days on a surface at 4 degrees Celsius, one day at 37 degrees Celsius and will die in 30 minutes at 56 degrees Celsius.
- Humidity can affect the infectivity — the ease with which infections can take place — of the virus through respiration. In a dry environment, or when there is low humidity, it is easier for foreign particles to invade the body.

5.37 PRACRITI - COVID 19 Tracker

Researchers at the Indian Institute of Technology in Delhi have developed a web-based dashboard named “PRACRITI” for predicting the spread of COVID-19 in India.

About the dashboard

- The mobile-friendly dashboard, PRACRITI (PREdiction and Assessment of CoRona Infections and Transmission in India) gives detailed State-wise and district-wise predictions of COVID-19 cases in India for a three-week period, which is updated on a weekly basis.
- A key parameter of interest on COVID-19 is the basic reproduction number (R_0), pronounced ‘R naught’ and its countrywide variability.
- PRACRITI provides the R_0 values of each district and State based on data available from the Ministry of Health and Family Welfare, National Disaster Management Authority, and the World Health Organization.
- Such a platform will be highly useful for healthcare organisations as well as local and central authorities to efficiently plan for different future scenarios and resource allocation.
- The model also accounts for the effect of different lockdown scenarios such as the effect of locking down district boundaries, and implementing different levels of lockdown within a district.
- The distinguishing feature of the model is the inclusion of the effect of movement of population across district/State borders in the spread of COVID-19.

5.38 Unified Geologic Map Of Moon

- The scientists from United States Geological Survey, Astrogeology Science Center, in collaboration with NASA (National Aeronautics and Space Administration) and the Lunar Planetary Institute have virtually released the first ever digital, unified, global, geological map of the moon namely “Unified Geologic Map of the Moon”.
- It will serve as a blueprint for future human missions and a source of research and analysis for the educators and the general public interested in lunar geology.
- It should be noted that the moon is the closest cosmic body to Earth.

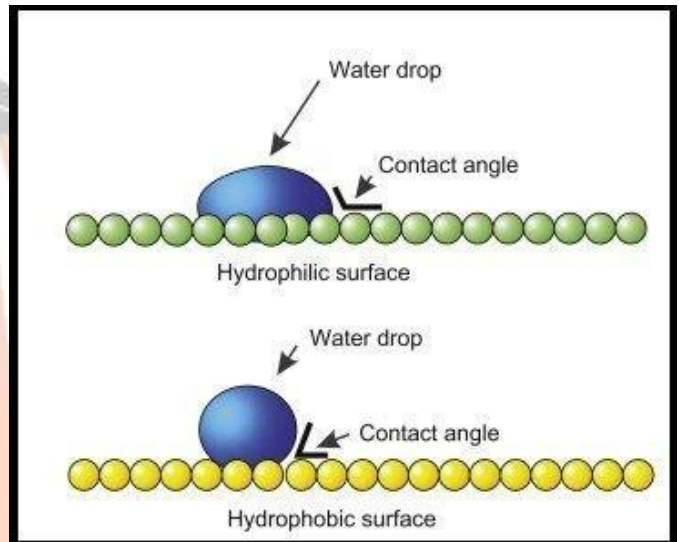
About the moon

- The geological map, mapped the surface features of the moon which included crater rim crests, buried crater rim crests, fissures, grabens, scarps, mare wrinkle ridges, faults, troughs, rilles, and lineaments.

- While the researchers built on the original digital renovation of the six 1:5,000,000-scale lunar geologic maps consisting of the near, central far, east, west, north and south sides that was released in 2013.
- Data from recent satellite missions to the moon and resources data from NASA's Apollo Missions were also used to come up with the map.

5.39 Organic-Inorganic Hybrid Nanocoatings

- The Department of Science and Technology (DST) has approved support for large-scale production of Organic-Inorganic hybrid nanocoatings for disposable masks under the DST Nano Mission.
- Dr. Viswanatha R, who developed this hybrid nanocoating, intends to make use of the sol-gel nanotechnology to develop a functionalized organic-inorganic hybrid nanocoating based on silica nanoparticles coupled with a polymer matrix that is hydrophobic and disinfects the pathogenic virus associated with COVID-19 that comes in contact with the surface of the mask.
- The N95 masks available in the market are capable of filtering out all types of particles, including viruses and bacteria, but they are expensive and need prior training as standard practice before using it.
- On the other hand, inexpensive disposable masks have several limitations. They often get wet through salivary droplets, body fluids, and sweat.
- The wet masks attract the microorganisms and act as a breeding ground for those organisms to multiply in number, due to which the person wearing it gets easily infected.
- Being disposable, these medical masks, when discarded, generate medical waste.
- Moreover, the wearer of the mask is prone to touch the surface of the mask frequently to adjust his mask or to scratch the itch. Due to this, the mask gets contaminated.

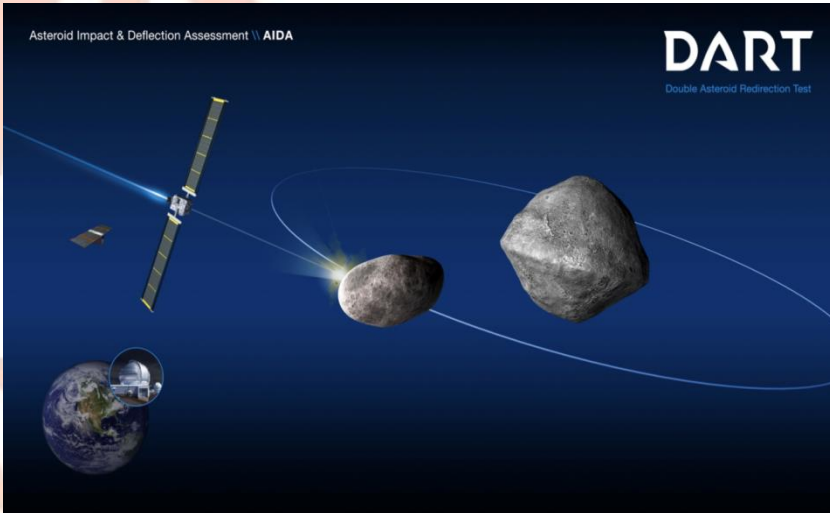


5.40 1998 OR2

- Providing astronomers with an exceptional opportunity to study the 1.5-mile-wide (2-kilometer-wide) object in great detail a large near-Earth asteroid safely passed by our planet.
- Classified as a near-Earth object and potentially hazardous asteroid of the Amor group, with a diameter of 2 kilometers (1.2 mi) 1998 OR2, is an asteroid on an eccentric orbit.

- The astronomers of the NEAT program at the Haleakala Observatory, Hawaii discovered it on 24 July 1998.
- There are recovery images from 1987 and 1996.
- It is one of the brightest and therefore largest potentially hazardous asteroids known to exist.
- The asteroid has a well-determined orbit, and its trajectory is well known through the year 2197 with an observation arc of 32 years.
- The asteroid's orbit is only potentially hazardous on a time scale of hundreds, if not thousands, of years.

5.41 **Double Asteroid Redirection Test(DART)**

- The importance of Double Asteroid Redirection Test (DART) came to light amidst this approach to potentially hazardous near earth asteroids, 1998 OR2.
 - DART is a spacecraft which is designed to determine whether an asteroid can be redirected with a high-speed collision.
 - DART is basically a planetary defense-driven test of technologies for preventing an impact of Earth by a hazardous asteroid.
- 
- Initially it was planned to be launched by SpaceX in 2019 toward an asteroid named Didymos about 4 million miles from Earth.
 - It was then supposed to ram into the asteroid's small moon at about 13,000 miles per hour.
 - DART is NASA's first mission to demonstrate what's known as the kinetic impactor technique – striking the asteroid to shift its orbit – to defend against a potential future asteroid impact.
 - The DART spacecraft launch window begins in late July 2021.
 - DART will launch aboard a SpaceX Falcon 9 rocket from Vandenberg Air Force Base, California.

5.42 **CMERI develops HCARD to assist frontline COVID-19 healthcare warriors**

- The device is equipped with various technologies and works both in automatic as well as manual modes of navigation.
- CMERI develops HCARD to assist frontline COVID-19 healthcare warriors
- CSIR-Central Mechanical Engineering Research Institute (CMERI) has developed HCARD (Hospital Care Assistive Robotic Device). The device can help frontline healthcare workers in maintaining physical distance from those infected by a coronavirus.

- The device is equipped with various technologies and works both in automatic as well as manual modes of navigation.
- The robotic device can be controlled and monitored by a nursing booth with a control station having such features as navigation, drawer activation for providing medicines and food to patients, sample collection, and audio-visual communication.
- The cost of the device is less than Rs.5 lakh and the weight is less than 80 kg.
- CMERI has also developed a few other customized technologies, including Disinfection Walkway, Road Sanitizer Unit, Face Mask, Mechanical Ventilator, and Hospital Waste Management Facility.

5.43 CSIR transferred Electrostatic Disinfection Technology for Commercialization

- It produces uniform and fine spray droplets of disinfectants in the size range of 10-20 micrometer to kill microorganisms and viruses.
- CSIR-Central Scientific Instruments Organisation (CSIR-CSIO), Chandigarh, has designed and developed Electrostatic Disinfection Machine, an innovative technology for effective disinfection and sanitization to fight against COVID-19 pandemic.

5.44 Electrostatic Disinfection Technology:

- Electrostatic Disinfection Machine will be very efficient and effective to stop the spread of coronavirus and pathogens.
- CSIR-CSIO has transferred this technology to a Nagpur-based company, Rite Water Solutions Pvt. Ltd., for commercialization and large-scale production.
- The machine is developed based on the electrostatic principle.
- It produces a uniform and fine spray droplets of disinfectants in the size range of 10-20 micrometer to kill microorganisms and viruses.
- Due to the small size of droplets, the surface area of spray droplets increases thereby enhancing the interaction with harmful microorganisms and coronavirus.
- The machine uses very less disinfection material as compared to conventional methods. This will help to save natural resources with a negligible increase of chemical waste in the environment.
- The innovative concept of electrostatic spraying for disinfection and sanitization of public places especially hospitals, poultry, trains and buses, airports and airplanes, offices, classrooms, and hotels.
- It will contribute to a healthy lifestyle and healthcare for the masses and is directly linked to the Swasth Bharat Mission of the Government of India.
 - product.



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