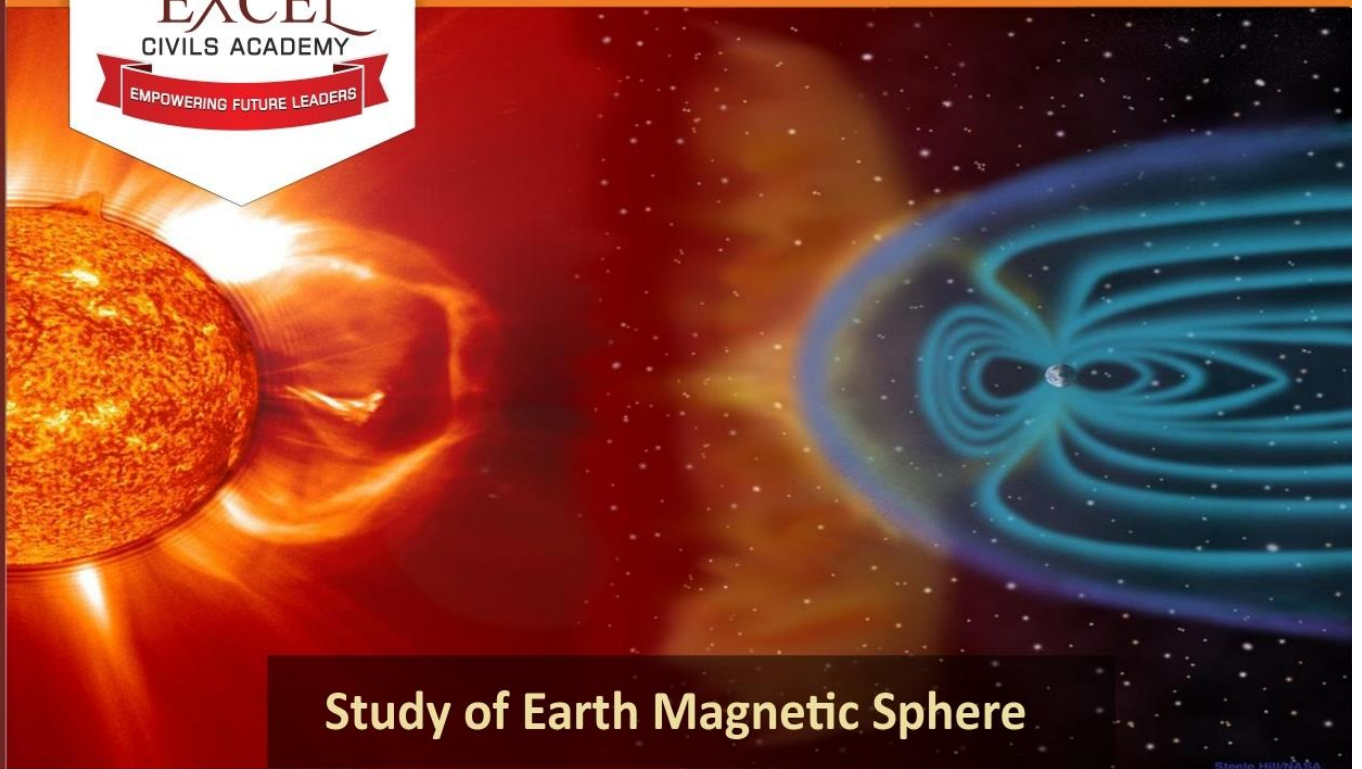


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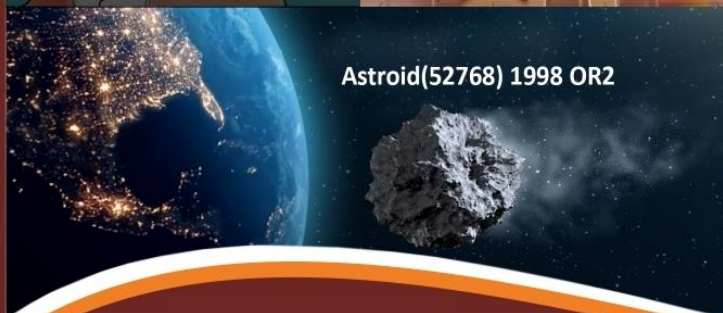
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Director's message

Dear Aspirants,

The good news first, which I am sure, all of you have heard it the moment it was announced. Yes, I am talking about the much awaited date for holding of the CSE Prelims Exams on 4th October 2020, as well as remaining Personality Tests from 20th July 2020, which were earlier postponed due to the pandemic, COVID-2019. End of this uncertainty comes as a big relief to every aspirant all over the Country who have been meticulously planning and preparing for this great Nation.

The worst pandemic of the century, COVID-19 continues to ravage the entire world without any exceptions. All the major festivals and events which used to witness huge gatherings with lots of bonhomie and celebrations have merely gone by with people remaining indoors. Ugadi (25th March), a major festival in all Southern States, Easter (4th April)-celebrated as a day of resurrection of Jesus by the Christians and Ramzan (24th May)-the most important festival for Muslims were some of the most important festivals to name, which could not be celebrated with usual enthusiasm and brotherhood.

In the meanwhile, the Centre further extended the lockdown on 17th May, for two more weeks till May 31, but with some major relaxations, permitting most of the economic activities and increased Public movement. Most things like public transport and markets have been opened in non-containment zones. All factories, manufacturing units, Offices and supply lines were thrown open without any restrictions. However, air travel-both domestic and international as well Metro rail services continue to be disrupted. Limited long-distance trains are being operated for transporting migrant workers and common public and Vande Bharat flights were operated to transport those Indian travellers stranded abroad in various Countries due to restrictions imposed on International travel by all the Countries world wide. However Schools, Colleges and other educational institutions continue to remain closed as would be the Hotels, Cinema halls, Malls, Swimming pools and various other sports activities. All social, Political and religious functions continue to be barred and places of worship remain closed. Some other activities which were permitted were of day to day requirements catering to the common people including liquor shops, market complexes, e-Commerce and Offices.

Unlock 1.0 with some modifications have been announced after almost 3 months long lockdown period wef 8th June 2020. The Key highlights of Unlock 1.0 are opening of Hotels/restaurants, shopping malls and religious places in some States, including the revered Lord Venkateswara Temple in Tirupati , A.P, while taking all precautions to curtail spread of infections. The decision to extend relaxations in some areas was taken in light of reviving the economy. Even though the Centre has delivered standard guidelines for all except the containment zones, the State Government does have the freedom and flexibility to tailor it to its requirements in case there is a surge in the number of COVID-19 positive cases.

The Prime Minister in his address to the nation on 12th May, 2020 announced a Rs 20 lakh Crore economic stimulus package for the country fighting the COVID-19 pandemic saying it will give a new impetus and a new direction to the self-reliant India campaign. PM Modi said, the relief package which amounts to around 10% of India's gross domestic product (GDP) would help all classes, from farmers and migrant labourers to big businesses. He also urged Indians to become more economically self-reliant. Emphasizing on the need for **ATMANIRBHAR BHARAT**, he explained that it stands on five pillars which are 1. Economy 2. Infrastructure 3. Technology driven 4. Vibrant Demography and 5.Demand, the cycle of demand and supply chain which needs to be harnessed to its full potential. He exhorted every Indian to become '**VOCAL FOR LOCAL**' not only to buy local products but also to promote them proudly.

As of today, the number of confirmed COVID-19 positive cases in India are 3,32,424 with 9,520 casualties whereas a total number of 79,98,006 positive cases were recorded with 4,35,697 deaths all over the world with India in 4th position in terms of number of infections. Both the Central and State Governments are taking all necessary steps to handle the current situation.

While the nation was grappling with corona virus pandemic, a severe Cyclone storm Amphan, had its landfall into West Bengal on 20th May 2020 between 3.30 pm and 5.30 pm in Sunderbans around 20 Kms east of Sagar Island with a wind speed of 185 kmph, triggering torrential rain and leaving behind a trail of destruction across length and breadth of the State leaving behind 12 people dead and lakhs in the coastal villages rendered homeless besides destruction to property worth crores of rupees and two deaths were

reported from neighboring Odisha State apart from damage to property. Similar impact was felt in the neighboring Country Bangladesh where 6 deaths were reported besides damage and destruction to property. Amphan is the most severe storm in the Bay of Bengal since the Odisha super cyclone of 1999.

On the International front, inauguration of 80 Kms long road in the Himalayas connecting to the border with China at the **Lipulekh Pass** virtually by the Defence Minister on 8th May 2020 to cut down travel time to **Manasarover Yatra** resulted in the Nepali Government protesting immediately, contending that the road crosses territory that it claims and accused India of changing the status quo without diplomatic consultations. Nepal deployed Police forces to the region, summoned the Indian ambassador in Kathmandu and initiated a constitutional amendment to formalize and extend its territorial claims over approximately 400 sq kms. India, on the other hand, has conveyed its openness to a dialogue after the COVID-19 crisis is tackled. India has been in effective possession of this territory for the last at least sixty years, although Nepal claims it conducted a census there in the early 1950s and refers to the 1815 Sugauli Treaty as legitimizing its claims. India's new road up to the Lipulekh Pass is not unprecedented change in the status quo. The territory has been under Indian control and lot of other infrastructure has been built there earlier apart from conducting its administration and deploying military forces up to the border pass with China. The region is of strategic importance, and the new road is now one of the quickest links between Delhi and Tibetan Plateau. In the meanwhile on 13th May 2020, Nepal's Parliament had voted in favour of an amendment to its Constitution to alter the Country's map, to show three areas-Lipulekh, Kalapani and Limpiyadhura-fall within its own borders. India's Ministry of External Affairs said Nepal's artificial enlargement of claims is "not based on historical fact or evidence and is not tenable".

On the northern front, in early May, Chinese PLA carried out well-planned and deftly executed multi prong deep incursions of three to five Kilometers across north Sikkim and east Ladakh. India shares a 3,488 Kms long Line of Actual Control (LAC) with China which is regularly patrolled by troops from both the Countries but is yet to be clearly demarcated. PLA intruded into Indian Territory at four locations-Patrol Points 14(in Galwan), 15,14 (Gogra) and finger 4(Pangong Tso). At Galwan they objected to the construction of an Indian bridge and road and at Pangong, PLA moved in troops to stop

Indian Patrols beyond Finger 4 effectively cutting off an area of over 50 sq km. At least two violent clashes also took place at Galwan and Pangong-both involving sticks and stones-in which scores of soldiers were injured. On 6th June, 2020, Lt General level talks were held between both the Countries at Chushul-Moldo border to defuse tension and limited disengagement has taken place in the Galwan Valley and near Gogra though PLA troops still remain deployed in strength. Further talks are continuing between both the militaries so that the matter could get resolved through dialogue which seems to be a long drawn process.

In conclusion, I would like to say that the entire world is going through a crisis of unprecedented magnitude never seen before. The economy is likely to experience recession of severe magnitude with the GDP registering a negative growth in most of the Countries. Need of the hour is for all Countries to come together to fight the common enemy COVID-19 and win the battle decisively by inventing appropriate Vaccine at the earliest before it is too late.

Best wishes.

A handwritten signature in green ink, consisting of stylized initials 'K' and 'C' followed by a horizontal line.

K. Rajendra Kumar IPS (Retd.)
Director.

Table of Content

1. NATIONAL..... (01 – 60)

- 1.1 1st MAY AS LABOUR DAY
- 1.2 YEAR OF AWARENESS ON SCIENCE & HEALTH (YASH)
- 1.3 AYURAKSHA
- 1.4 JANAUSHADHI SUGAM MOBILE APP
- 1.5 KOVILPATTI KADALAI MITTAI
- 1.6 KASHMIRI SAFFRON
- 1.7 CHAK HAO
- 1.8 CHAKMA AND HAJONG
- 1.9 SHRAMIK SPECIAL TRAINS
- 1.10 KISAN SABHA APP
- 1.11 'ONE NATION, ONE RATION CARD' SCHEME
- 1.12 GORAKHPUR TERRACOTTA
- 1.13 NON-ALIGNED MOVEMENT
- 1.14 NGMA KE SANGRAH SE
- 1.15 GLOBAL REPORT ON FOOD CRISIS 2020
- 1.16 THE SARAS COLLECTION
- 1.17 NEW SPECIFIED HEALTH WARNING ON TOBACCO PACKING
- 1.18 GLOBAL ENERGY REVIEW 2020
- 1.19 UNICODE CONSORTIUM
- 1.20 INDIA SME PLATFORM
- 1.21 AFRICAN SWINE FEVER
- 1.22 VESAK DAY
- 1.23 INTERNET PENETRATION
- 1.24 OPERATION SAMUDRA SETU
- 1.25 GARUD PORTAL
- 1.26 SILENT HYPOXIA
- 1.27 DARBAR MOVE
- 1.28 NATIONAL LAND MANAGEMENT CORPORATION
- 1.29 PRAVASI RAHAT MITRA APPLICATION
- 1.30 WORLD RED CROSS DAY
- 1.31 COVID-19 EMERGENCY RESPONSE AND HEALTH SYSTEMS PREPAREDNESS
- 1.32 PROJECT
- 1.33 HORNETS
- 1.34 SBI Wecare DEPOSIT

- 1.35 LUHMAN -16
- 1.36 Hmabs
- 1.37 SHEKATKAR COMMITTEE
- 1.38 SPIRULINA GROUNDNUT CHIKKI
- 1.39 “BHAROSA” HELPLINE
- 1.40 COVID KAVACH ELISA
- 1.41 STATE OF THE WORLD’S NURSING REPORT 2020
- 1.42 FAMILY PLANNING
- 1.43 ATMANIRBHAR BHARAT ABHIYAN
- 1.44 SERO-SURVEY
- 1.45 LABOUR LAW CHANGES
- 1.46 CHAMPIONS PORTAL
- 1.47 ACE2 ENZYME
- 1.48 FIR AAPKE DWAR
- 1.49 GLOBAL NUTRITION REPORT 2020
- 1.50 INFANT MORTALITY RATE
- 1.51 DIBANG MULTIPURPOSE PROJECT
- 1.52 INTEGRATED BATTLE GROUPS
- 1.53 INTEREST SUBVENTION ON WORKING CAPITAL LOANS FOR DAIRY SECTOR
- 1.54 MIGRANT WORKERS COVID-19 PACKAGE
- 1.55 SALARY OF PRESIDENT OF INDIA
- 1.56 INTERNATIONAL DAY OF LIGHT 2020
- 1.57 NEW LAW FOR CONTRACT FARMING
- 1.58 ANAKKAMPOYIL-KALLADI-MEPPADI-ROAD TUNNEL
- 1.59 SIKKIM STATEHOOD DAY
- 1.60 WORLD TELECOMMUNICATION AND INFORMATION SOCIETY DAY
- 1.61 NATIONAL MIGRANT INFORMATION SYSTEM
- 1.62 MOODOFINDIA PORTAL
- 1.63 INTERNATIONAL MUSEUM DAY
- 1.64 PM E-VIDYA
- 1.65 CHARAN PADUKA
- 1.66 SHEKATKAR COMMITTEE FOR BORDER INFRASTRUCTURE
- 1.67 NATIONAL TEST ABHYAS
- 1.68 COMPLETE SOLARISATION OF KONARK SUN TEMPLE AND KONARK TOWN
- 1.69 STAR RATING OF GARBAGE FREE CITIES
- 1.70 PRADHAN MANTRI VAYA VANDANA YOJANA
- 1.71 SCHEME FOR FORMALISATION OF MICRO FOOD PROCESSING ENTERPRISES

- 1.72 METHODOLOGY FOR AUCTION OF COAL & LIGNITE MINES/ BLOCKS
- 1.73 COIR GEO TEXTILES
- 1.74 KHUDOL
- 1.75 UMANG
- 1.76 AYUSHMAN BHARAT PRADHAN MANTRI JAN AROGYA YOJANA
- 1.77 Restart
- 1.78 ZARDALU MANGO
- 1.79 EMISSION NORMS FOR L7 (QUADRICYCLE) CATEGORY FOR BS VI NOTIFIED
- 1.80 HUMAN CHALLENGE TRIAL
- 1.81 VINAYAK DAMODAR SAVARKAR
- 1.82 INTERNATIONAL DAY OF UN PEACEKEEPERS
- 1.83 KARNATAKA STATE HEALTH REGISTER
- 1.84 MONTENEGRO
- 1.85 APOE AND COVID-19
- 1.86 CHARDHAM PARIYOJANA
- 1.87 SHIV LINGA UNEARTHED
- 1.88 SOUTH ATLANTIC ANOMALY
- 1.89 DELIMITATION COMMISSION OF INDIA
- 1.90 MFP ITEMS IN MSP LIST
- 1.91 NATIONAL CAREER SERVICE (NCS) PROJECT

2. INTERNATIONAL RELATIONS(61 – 83)

- 2.1 US terminates relationship with World Health Organisation
- 2.2 US President Donald Trump signs order to regulate social media platforms
- 2.3 International Day of Light is observed on 16 May
- 2.4 New Political Map of Nepal
- 2.5 PM of Israel Benjamin Netanyahu sworn-in for the 5th time
- 2.6 World Telecommunication and Information Society Day was observed on 17th May
- 2.7 World Hypertension Day is observed on 17th May
- 2.8 International Museum Day is observed on 18th May
- 2.9 Historic Travel Bubble amid COVID-19
- 2.10 Travel Bubble?
- 2.11 Criteria for Entering the Travel Bubble?
- 2.12 Which are the other Countries to Start such a travel bubble?
- 2.13 World Bee day is observed on 20th May
- 2.14 46th G-7 SUMMIT via Videoconferencing
- 2.15 What you need to know about Group of Seven (G-7)?

- 2.16 The G-7 Summits
- 2.17 International Day for Biological Diversity is observed on 22 May
- 2.18 International Tea Day is observed on 21 May
- 2.19 World Day for Cultural Diversity for Dialogue and Development is observed on 21 May
- 2.20 UN and partners launch USD 6.7 billion appeals for vulnerable countries for COVID-19 relief
- 2.21 Prime Minister of Iraq Mustafa al-Kadhimi assumed office
- 2.22 WHO, UN postal agency release commemorative postage stamp on 40th anniversary of eradication of smallpox
- 2.23 Global Energy Review of IEA states 15 percent decline in electricity demand
- 2.24 World Migratory Bird Day is observed on 9 May
- 2.25 Finding Freedom Harry and Meghan and the Making of A Modern Royal Family to be released in 2020 August
- 2.26 International Nurses Day is observed on 12 May
- 2.27 International Day of Families is observed on 15 May
- 2.28 US FDA allows use of remdesivir drug for severely ill COVID-19 patients
- 2.29 World Press Freedom Day is celebrated on 3 May
- 2.30 United Nations Educational, Scientific and Cultural Organization (UNESCO):
- 2.31 World Tuna Day is observed on 2 May
- 2.32 International Astronomy Day is celebrated on 2 May
- 2.33 GRFC 2020 says around 135 million people are living under food crisis
- 2.34 US President Trump nominates Indian-American lawyer as US representative for IBRD
- 2.35 World Asthma Day is celebrated on 5 May
- 2.36 International Firefighters' Day is observed on 4 May
- 2.37 Russia awarded Kim Jong Un on its 75th anniversary of the victory over Nazi Germany
- 2.38 Iran's parliament introduces new Currency, Toman, to tackle inflation
- 2.39 Lost At Home report of UNICEF says largest number of children displaced in 2019 yr
- 2.40 EU hosted online Coronavirus Global Response International pledging conference
- 2.41 World Athletics Day is celebrated on 7 May
- 2.42 Vesak day is observed on 7 May
- 2.43 UNEP extends Actress Dia Mirza's term as Goodwill Ambassador
- 2.44 United Nations Environment Programme (UNEP):
- 2.45 Time of Remembrance and Reconciliation for victims of WWII is observed on 8-9 May
- 2.46 World Thalassaemia Day is observed on 8 May
- 2.47 World Red Cross day is observed on 8 May

3. INDIAN ECONOMY.....(84 – 91)

- 3.1 Government Slashes Interest Rates on Small Saving Schemes
- 3.2 World Bank proposes \$1 billion for India's Project on COVID-19
- 3.3 Subsidiary General Ledger (SGL) | RBI fines UCO Bank
- 3.4 Defence and Mining Sectors | COVID-19 Stimulus Package
- 3.5 Centre introduces several initiatives to boost Education Sector
- 3.6 NABARD released Rs.20,500 crore to co-operative banks, RRBs
- 3.7 Partial Credit Guarantee Scheme | Govt eases norms
- 3.8 Cabinet approves Special Liquidity Scheme for NBFCs, HFCs to address their Liquidity Stress
- 3.9 RBI cuts repo rate to a record low by 40 bps
- 3.10 SBI reduces benchmark lending rate by 15 basis points
- 3.11 SC places cooperative banks under Sarfaesi Act on a par with other lenders
- 3.12 IMPS transfers in April dive to 2-year low due to lockdown
- 3.13 Finance Minister launched INR-USD Futures and Options contracts in the International Exchanges at GIFT-IFSC

4. ENVIRONMENT.....(92 – 106)

- 4.1 IDEathon ON 'THE FUTURE OF RIVER MANAGEMENT'
- 4.2 BAMBOO CONCLAVE
- 4.3 ZANSKAR RIVER
- 4.4 STYRENE
- 4.5 SCIENTISTS WARNS ABOUT RISE IN OCEAN LEVEL BY 2100
- 4.6 SwasthVayu
- 4.7 AIR POLLUTION
- 4.8 PM CARES FUND
- 4.9 NATIONAL DISASTER MANAGEMENT AUTHORITY
- 4.10 TROGLOMYCES TWITTERI
- 4.11 PINANGA ANDAMANENSIS
- 4.12 CYCLONE AMPHAN
- 4.13 WORLD BEE DAY 2020
- 4.14 INTERNATIONAL DAY FOR BIOLOGICAL DIVERSITY
- 4.15 ECOLOGICALLY SENSITIVE AREA (ESA) OF WESTERN GHATS
- 4.16 WORLD TURTLE DAY
- 4.17 NEW PLANT SPECIES FOUND IN WESTERN GHATS
- 4.18 CICADAS
- 4.19 SILVER FISH
- 4.20 CHARRU MUSSELS

4.21 HERBAL ROADS PROJECT

4.22 SAHARAN CHEETAH FILMED FOR THE FIRST TIME IN DECADES

5. SICENCE & TECHNOLOGY(107-127)

5.1 STUDY OF EARTH MAGNETOSPHERE

5.2 PULSE OXIMETER

5.3 DRAFT GUIDELINES FOR SATELLITE TV CHANNELS

5.4 DEMO-2 MISSION

5.5 UV DISINFECTION TOWER DEVELOPED BY DRDO

5.6 ASTEROID 1998 OR2

5.7 CORONAVIRUS ‘COPY MACHINE’

5.8 FLYTNOW – AN INTERNET OF DRONES (IoD) PLATFORM

5.9 NSafe

5.10 LUHMAN -16

5.11 hmAbs

5.12 NATIONAL TECHNOLOGY DAY

5.13 DEFENCE RESEARCH ULTRAVIOLET SANITISER

5.14 NEW GI TAGS

5.15 DIRECT SEEDING OF RICE

5.16 COBAS 6800

5.17 INTELLECTUAL PROPERTY FACILITATION CELL

5.18 LIGHT WEIGHT CARBON FOAM

5.19 BIODEGRADABLE METAL IMPLANTS

5.20 ASHWAGANDHA AGAINST COVID-19

5.21 BENGALURU ‘BOOM’

5.22 SPACE DEMO-2 MISSION

5.23 AGAPPE CHITRA MAGNA

5.24 PLATFORM FOR DETECTING CARCINOGENIC COMPOUNDS IN FOOD

5.25 ANTARCTIC IMPULSIVE TRANSIENT ANTENNA

5.26 FACEBOOK SHOPS

5.27 SPIRAL GALAXY NGC 3895

5.28 VAMS SafeGuard

5.29 NUMBER-18 - FLYING BULLETS

5.30 TIANWEN-1

5.31 CENTRAL INSTITUTE OF PLASTICS ENGINEERING AND TECHNOLOGY (CIPET)

5.32 WFIRST TELESCOPE OF NASA RENAMED

5.33 NEW TROJAN ASTEROID DISCOVERED NEAR JUPITER

5.34 ERRA MATTI DIBBALU

1. NATIONAL

1.1 1st MAY AS LABOUR DAY

- International Labour Day is an official public holiday all over the world in various countries.
- It is observed every year to pay tribute to the contribution of workers across the world.
- May Day has different origin stories in different countries.
- However, the common theme in all countries is the labour class taking a stand against the exploitation they were subjected to.
- In India, the first May Day was celebrated in Madras (now known as Chennai) by the Labour Kisan Party of Hindustan on May 1, 1923.
- It was also the first time when the Red Flag which symbolises Labour Day was used in India for the first time.
- The day is linked to labour movements for communist and socialist political parties.

About the significance

- During the era of industrialisation, US industrialists exploited the working class by making them work 15 hours a day.
- It was only on May 1, 1886, that the labour class came together and revolted against this unjust system and asked for paid leaves, good wages and proper breaks.
- This is the reason why May Day is celebrated every year.

1.2 YEAR OF AWARENESS ON SCIENCE & HEALTH (YASH)

National Council for Science & Technology Communication (NCSTC), Department of Science & Technology (DST) has launched a programme on health and risk communication 'Year of Awareness on Science & Health (YASH)' with focus on COVID-19.

About the programme

- The programme is aimed at minimizing risks at all levels with the help of public communication and outreach activities, promoting public understanding of safety measures like personal sanitation and hygiene, physical distancing, maintaining desired collective behaviour and so on.
- Under the programme, strategies have been worked out to involve academic, research, media, and voluntary organizations to facilitate necessary actions and emergency preparedness of society to address the challenge.
- The programme will encompass development of science, health, and risk communication software, publications, audio-visual, digital platforms, folk performances, communicators, especially in regional languages to cater to various cross-sections of the society.

1.3 AYURAKSHA

- The All India Institute of Ayurveda (AIIA), under the Ministry of AYUSH and Delhi Police organised AYURAKSHA programme for Delhi Police personnel at New Delhi.
- The joint programme titled AYURAKSHA “Corona Se Jung- Delhi Police Ke Sang” aims to fight against corona through simple and time tested Ayurveda immunity boosting measures.
- These measures are as per the advisory issued by the Ministry of AYUSH.
- The recommended formulations like Chyawanaprasha (Amla as main content), Anu Taila and SanshamaniVati (prepared from Guduchi) have simple herbs which are time tested and scientifically proven for enhancing immunity.
- Delhi Police has come forward with a proposal for maintaining the health of front line COVID warriors like Delhi police personnel through Ayurveda immunity boosting measures.
- The proposal would be implemented in a phase wise manner.
- The distribution will take place for nearly 80000 personnel of Delhi police across 15 districts of NCT Delhi.
- All India Institute of Ayurveda has nominated 3 main coordinators under the Director of Institute.
- 15 nodal officers of AIIA have been identified for 15 districts of Delhi State who will be working in close coordination with 15 Nodal officers from Delhi Police.
- The All India Institute of Ayurveda has also planned for identifying Police Officials/Officers with co morbid conditions like Diabetes, Stress, Hypertension etc. who are more susceptible to this pandemic.
- These Officials/Officers will be provided additional support and care. A proper health record would be maintained in a digital format for all the officers/officials taking these medicines.
- For this a specially designed questionnaire and Digital Arogya Sanjivani developed by Ministry of AYUSH would be used.

1.4 JANAUSHADHI SUGAM MOBILE APP

Janaushadhi Sugam Mobile App is helping people in a big way to locate their nearest Pradhan Mantri Bharatiya Janaushadhi Kendra (PMJAK) and availability of affordable generic medicine with its price amid this COVID-19 crisis.

Background

- Over 3,25,000 people are using Janaushadhi Sugam Mobile App to avail the host of benefits provided by it.
- Presently , more than 6300 PMJAKs are functioning across the nation covering 726 districts of the country.

- In the lockdown period PMBJP is also generating awareness through informational posts on their social media platforms to help people protect themselves from Coronavirus.

About the App

- It has been developed for facilitating the general public by providing a digital platform at the tip of their fingers, by the virtue of which they can avail a host of user-friendly options like
- Locating nearby Janaushadhi kendra.
- Direction guided through Google Map for location of the Janaushadhi kendra.
- Search Janaushadhi generic medicines.
- Analyze product comparison of Generic and Branded medicine in form of MRP & overall Savings, etc.
- Janaushadhi Sugam Mobile App is available on both Android & I-phone platforms.

1.5 KOVILPATTI KADALAI MITTAI

With the Geographical Indication (GI) tag for the tasty **Kovilpatti Kadalai Mittai or groundnut candy**, manufacturers who are truly located in Kovilpatti district of Tamil Nadu will benefit, said a top official of Kovilpatti Kadalai Mittai Manufacturers and Retailers Association.

About the mittai

- The groundnut candy made with jaggery syrup and topped with wisps of grated coconut dyed in pink, green and yellow.
- It is sold as single rectangular chunks or cuboids in packets.
- The candy is made with jaggery sourced from Theni and Salem and groundnuts sourced from the nearby town of Aruppukottai.
- The nuts are shelled and roasted and mixed with jaggery syrup prepared -mixing jaggery from Theni and Salem in right proportion.
- Cardamom and dry ginger are also added.
- The mix is cut into small squares or even rolled as a tiny ball.



1.6 KASHMIRI SAFFRON

- Famed Kashmiri Saffron was granted the Geographical Indication (GI) tag, symbolizing its exclusivity in the international market.
- As per the documents, the Geographical Indication Registry has approved the GI tagging on the Saffron with GI no 635.

About the Kashmiri Saffron

- Kashmiri Saffron, known for its quality and aroma worldwide, has been witnessing an invasion by cheaper Iranian Saffron.
- Iran is currently the largest producer of Saffron in the world, cultivating over 300 tonnes every year on 30,000 hectares of land.
- In Kashmir, which ranks second in supply, Saffron cultivation is limited to about one-eighth that area—3,715 hectares.
- As per the figures by the Agriculture Department, Pampore Township in Pulwama district with around 3,200 hectares of land under Saffron cultivation produces most of the Saffron in the Valley.
- Around 165 hectares of land is under Saffron cultivation in Srinagar.
- Likewise, 300 hectares of land is under the Saffron cultivation Budgam.
- Kishtwar is the only District in the Jammu division to grow the Spice on 50 hectares of land.
- Kashmiri Saffron is of superior quality because of the higher concentration of crocin, a carotenoid pigment that gives Saffron its color and medicinal value: Its crocin content is 8.72% compared to the Iranian variant's 6.82%, which gives it a darker color and enhanced medicinal value.
- Iran is the largest producer of Saffron and India is a close competitor.

1.7 **CHAK HAO**

Chak-Hao, scented glutinous rice popularly known as **Black Rice** which is cultivated in **Manipur** since centuries and popular to people apart from the State has got GI (Geographical Indications) registration after almost a yearlong battle for registration competing with other States of India.

About the GI status

- GI status is an indication that identifies goods as produced from a particular area, which has special quality or reputation attributable to its geographical origin and GI branded goods possess a recall value amongst consumers.
- Also GIs are covered as an element of IPRs under the Paris Convention for Protection of Industrial Property.

About the Rice

- Chakhao or Manipuri Black rice is grown in the state of Manipur.
- These come to us directly from the farmers who cultivate and grow this rice.
- Black rice or Chakhao is a part of local tradition and is often cooked in festivals and occasions in North East of India.
- Chakhao is famous for kheer or black rice pudding made during special occasions in the family or festivals.
- Chak Hao or Black Rice contains antioxidants known as anthocyanins, which helps in fighting many health issues.

- Good for diabetes and for a healthy heart too, due to its anti-inflammatory nutrients.

1.8 CHAKMA AND HAJONG

The Ministry for Development of the North Eastern Region (DONER) has directed the Government of Arunachal Pradesh to take up the exclusion of the 65,875 Chakmas and Hajongs from the ‘economic package for vulnerable sections in these difficult times of COVID-19 pandemic’ that caused massive hunger and starvation as a “matter of priority.

Highlights

- Chakmas and Hajongs faced discrimination as a matter of State policy and their exclusion from the COVID-19 economic package, which is the humanity’s largest humanitarian crisis in recorded history, exposes this State policy.
- Because of discrimination and exclusion in the last 56 years, overwhelming majority of the Chakmas and Hajongs have been reduced to daily wage labourers, and these people require relief under the COVID-19 the most.
- The Chakmas and Hajongs are ethnic people.
- Chakmas are predominantly Buddhists; Hajongs are Hindus.
- An estimated 1 lakh Chakma and Hajong refugees are staying in India.
- When they came in 1964, there were about 15,000 Chakmas and about 2,000 Hajongs.

1.9 SHRAMIK SPECIAL TRAINS

- The Indian Railways has decided to run "Shramik Special" trains to move migrant workers and all those pilgrims, tourists, students, and people who are stranded at different places due to the coronavirus lockdown.
- These special trains will be run from point to point on the request of both the concerned state government as per the standard protocols for sending and receiving such stranded persons, Railways said in a communication.

About the Trains

- The Railways and State Governments will have to appoint senior officials as Nodal Officers for coordination and smooth operation of these “Shramik Specials”.
- In the release, the Railways said that the passengers will be screened by the sending states and only those found asymptomatic would be allowed to travel.
- Officials said the sending state governments will also have to bring these persons in batches that can be accommodated in the train to the designated Railway Station in sanitized buses following social distancing norms and other precautions.
- It will be mandatory for every passenger to wear face masks. Meals and drinking water would be provided to the passengers by the sending states at the originating station.

- The Railways will endeavor to ensure social distancing norms and hygiene with the cooperation of passengers.
- On longer routes, the Railways will provide a meal enroute during the journey.
- On arrival at the destination, passengers will be received by the State Government, who would make all arrangements for their screening, quarantine if necessary and further travel from the Railway Station.

1.10 KISAN SABHA APP

- In the present situation of COVID 19, farmers are looking for help in their harvest reaching the market, seed/ fertilizer procurement, etc.
- A robust supply chain management is urgently required to facilitate the timely delivery of the product at the best possible prices.

About the App

- Kisan Sabha App developed by CSIR-Central Road Research Institute (CSIR-CRRI), New Delhi to connect farmers to the supply chain and freight transportation management system was remotely launched by DG, ICAR and Secretary DARE, Dr Trilochan Mohapatra.
- Dr Mohapatra complimented CSIR on developing this portal as a one-stop solution for farmers, transporters and other entities engaged in the agriculture Industry and offered that ICAR can work together with CSIR and use the Krishi Vigyan Kendra's (KVK) networks for implementation.

About the significance

- The portal connects the farmers, transporters, Service providers (like pesticides/ fertilizer/ dealers, cold store and warehouse owner), mandi dealers, customers (like big retail outlets, online stores, institutional buyers) and other related entities for a timely and effective solution.
- The portal acts as a single stop for every entity related to agriculture, be they a farmer who needs better price for the crops or mandi dealer who wants to connect to more farmers or truckers who invariably go empty from the mandis.
- KisanSabha also works for people in the agriculture services sector such as dealers of fertilizers/ pesticides, who can reach out to more farmers for their services.
- It would also prove to be useful for those associated with cold store(s) or godown(s).
- KisanSabha also provides a platform for people who want to buy directly from the farmers.
- Kisan Sabha has 6 major modules taking care of Farmers/Mandi Dealers/Transporters/Mandi Board Members/ Service Providers/Consumers.

1.11 'ONE NATION, ONE RATION CARD' SCHEME

- Five more States, including Bihar and Uttar Pradesh, have been integrated with the 'one nation, one ration card' scheme.

- Under the 'one nation, one ration card' initiative, eligible beneficiaries would be able to avail their entitled food grains under the National Food Security Act (NFSA) from any fair-price shop in the Country.
- The scheme was announced in June last year.

Background

- On January 1 this year, 12 States were integrated among each other and now 17 States are on integrated management of the public distribution system (PDS), also called ration shops/fair price shops.
- About 60 crore beneficiaries from 17 States and UTs can benefit from the ration card portability and they can purchase the subsidised food grains using the existing ration cards.

About the standard format

- For national portability, the State governments have been asked to issue the ration card in bi-lingual format, wherein besides the local language, the other language could be Hindi or English.
- The States have also been told to have a 10-digit standard ration card number, wherein the first two digits will be state code and the next two digits will be running ration card numbers.
- Besides this, a set of another two digits will be appended with a ration card number to create unique member IDs for each member of the household in a ration card.
- Andhra Pradesh, Telangana, Gujarat, Maharashtra, Haryana, Rajasthan, Karnataka, Kerala, Madhya Pradesh, Goa, Jharkhand and Tripura are 12 states where ration card portability has been implemented.

Easy access
Under the 'One nation, one ration card' system, beneficiaries can buy subsidised foodgrains from a ration shop in any part of the country

The scheme will be rolled out across the country on: July 1, 2020

A migrant will be allowed to buy a maximum of 50% of the family quota. This is to ensure that the individual, after shifting to another place, does not buy the entire family quota in one go

Ration card-Aadhaar linkage must to access the portability scheme

States providing portability of PDS entitlements:

- Andhra Pradesh, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Maharashtra, Rajasthan, Telangana and Tripura
- A person will only be eligible for the subsidies supported by the Centre, which include rice sold at ₹3/kg and wheat at ₹2/kg
- Even if a beneficiary moves to a State where grains are given for free, he/she will not be able to access those benefits

1.12 GORAKHPUR TERRACOTTA

The famed **Gorakhpur Terracotta art** has recently bagged the **Geographical Indication (GI) tag**.

About Terracotta

- “Terracotta” a type of earthenware, is a clay-based unglazed or glazed ceramic, where the fired body is porous.

- Terracotta is the term normally used for sculpture made in earthenware, and also for various practical uses including vessels (notably flower pots), water and wastewater pipes, roofing tiles, bricks, and surface embellishment in building construction.

About the Gorakhpur Terracotta

- The famed baked clay or ‘terracotta’ products made from the special soil found in the Bhathat area of Uttar Pradesh’s Gorakhpur district has finally been recognized and has bagged the Geographical Indication (GI) tag.
- It is to be noted that the terracotta products are a major source of income for the residents of the Aurangabad area in this district.
- The terracotta artists make various structures like bells, vases, Ganeshas, tables, elephants, deer, horses, bullock carts, horse carts, lamps, and chandeliers.

1.13 NON-ALIGNED MOVEMENT

- In a significant development, Indian Prime minister Narendra Modi will participate in a video conference meeting of non-alignment movement (NAM) on the COVID crisis.
- The meeting that will happen at around 4.30 pm IST will see External Affairs Minister S Jaishankar also present.
- This is the first time PM Modi is taking part in a NAM meeting since 2014 when he first became the Prime Minister.
- The last time any Indian PM participated at Tehran NAM meet was 2012 with the then PM Manmohan Singh was present.
- Both in 2016, 2018 summits of NAM, India was represented at Vice President level.
- The last NAM Summit happened in 2019 in Azerbaijan, before that it was 2016 in Venezuela.

About NAM

- Non-Aligned Movement is an idea that emerged in 1950 and the initiative was led by the then Indian Prime Minister Jawaharlal Nehru, Egyptian President Gamal Abdel Nasser and Present of erstwhile Yugoslav Josip Broz Tito.
- NAM is the second-largest platform globally in terms of country membership after the UN.
- While it currently has 120 member states, 17 states which are observers in the last few years the grouping has lost the main rationale of the existence of remaining equidistant to 2 powers—US and the Soviet Union, after the disintegration of the latter.

1.14 NGMA KE SANGRAH SE

- The National Gallery of Modern Art is closed temporarily due to COVID 19 but COVID19 failed to bring down the enthusiasm to display EXHIBITION OUTREACH DURING LOCKDOWN.

- National Gallery of Modern Art, New Delhi proudly presents the virtual program "NGMA KE SANGRAH SE".

Objective

- This virtual program will showcase the rarely seen or maybe unseen jewels from its repository.
- This program is based on various weekly/ daily themes from NGMA's prestigious collections.

About the exhibition

- The theme for this week is ARTIST BY ARTISTS and is dedicated to Gurudev Rabindranath Tagore.
- This week's program coincides with the maestro's 159th birth anniversary on 7th May 2020, a date we would like to celebrate.
- Many more exciting and thought-provoking themes have to come in the coming days.
- These virtual programs and exhibitions will give the opportunity to art lovers, artists, art connoisseurs, students, teachers, etc. to see the rarely presented artworks from their homes.

1.15 GLOBAL REPORT ON FOOD CRISIS 2020

- The Global Report on Food Crisis 2020 has been released by the Global Network Against Food Crises, made of international humanitarian and development partners.
- The 2020 edition (the fourth annual report on the global food crisis) of The Global Report on Food Crises describes the scale of acute hunger in the world.
- It provides an analysis of the drivers that are contributing to food crises across the globe and examines how the COVID-19 pandemic might contribute to their deterioration.

About the findings

- At 135 million, the number of people in Crisis or worse (IPC/CH Phase 3 or above) in 2019 was the highest in the four years of the GRFC's existence.
- An estimated 75 million stunted children were living in the 55 food-crisis countries analysed.
- Conflict/insecurity was still the main driver of food crises in 2019, but weather extremes and economic shocks became increasingly significant.
- Over half of the 77 million acutely food-insecure people in countries where conflict was identified as the primary driver were in the Middle East and Asia.
- Africa had the largest numbers of acutely food-insecure people in need of assistance in countries badly affected by weather events, particularly in the Horn of Africa and Southern Africa, followed by Central America and Pakistan.

- Around 183 million people in 47 countries were classified in Stressed (IPC/CH Phase 2) conditions, at risk of slipping into Crisis or worse (IPC/CH Phase 3 or above) if confronted by an additional shock or stressor.
- An estimated 79 million people remained displaced globally as of mid-2019 – 44 million of them internally displaced and 20 million were refugees under UNHCR’s mandate.

1.16 THE SARAS COLLECTION

The Union Minister for Rural Development and Panchayati Raj and Agriculture and Farmers’ Welfare, Shri Narendra Singh Tomar, launched “**The Saras Collection**” on the Government **e-Marketplace (GeM) portal**.

About the initiative

- The Saras Collection is a unique initiative of GeM and the Deen Dayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM), Ministry of Rural Development.
- It showcases daily utility products made by rural self-help groups (SHGs) and aims to provide SHGs in rural areas with market access to Central and State Government buyers.
- Under this initiative, the SHG sellers will be able to list their products in 5 product categories, namely, Handicrafts, Handloom and textiles, Office accessories, Grocery and pantry, Personal care and hygiene
- In the first phase, 913 SHGs from 11 States have already registered as sellers and 442 products have been on-boarded.
- In order to develop a scalable model capable of onboarding a large number of SHGs across the country in a short time frame, GeM has developed an API based integration mechanism with the NRLM database.

1.17 NEW SPECIFIED HEALTH WARNING ON TOBACCO PACKING

New specified health warning on Tobacco Packing has been released by the Ministry of Health and Family Welfare by making an amendment in the Cigarettes and other Tobacco Products (Packaging and Labelling) Rules, 2008.

About the new guidelines

- These new health warnings are being issued via “The Cigarettes and other Tobacco Products (Packaging and Labelling) Amendment Rules, 2020” which amended the “Cigarettes and other Tobacco Products (Packaging and Labelling) Rules, 2008”.
- The amended Rules will be applicable to w.e.f. 1st September 2020.
- The said notification along with the soft or printable version of the specified health warnings in 19 languages are available on the websites www.ntcp.nhp.gov.in and www.mohfw.gov.in.

- Violation of the above-mentioned provision is a punishable offense with imprisonment or fine as prescribed in Section 20 of the “Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply, and Distribution) Act, 2003“.

1.18 GLOBAL ENERGY REVIEW 2020

The Global Energy Review 2020 Report has been recently released by **International Energy Agency (IEA)** highlighting the major energy demands of the present.

About the findings

- As per the 2020 report, the global energy demand is projected to fall 6% in 2020.
- This will be the steepest decline in percentage terms in 70 years and the largest ever in absolute terms.
- Except renewable sources, all other fuels are set to experience their greatest contractions in demand for decades.
- The projected 6% decline would be more than seven times the impact of the 2008 financial crisis on global energy demand, reversing the growth of global energy demand over the last five years.
- Report projected that the advanced economies will experience the greatest declines in energy demand in 2020.
- The report highlighted that for India, energy demand would decline for the first time, following on from low demand growth in 2019.
- Global oil demand in 2020 is projected to drop by 9% or 9 million barrels per day on an average across the year, returning oil consumption to 2012 levels.
- Global coal demand is projected to decline by 8%, in large part because electricity demand will be nearly 5% lower over the course of the year.
- Global Electricity Demand has declined by 20% during periods of full lockdown in several countries.
- However, residential demand is outweighed by reductions in commercial and industrial operations.

About IEA

- It was established in 1974 as per the framework of the OECD, IEA is an autonomous intergovernmental organization.
- It is headquartered in Paris, France.
- Its major mission is to ensure reliable, affordable, and clean energy for its member countries and beyond.
- Established in the wake of the 1973-1974 oil crisis, to help its members respond to major oil supply disruptions, a role it continues to fulfill today.

- IEA's mandate has expanded over time to include tracking and analyzing global key energy trends, promoting sound energy policy, and fostering multinational energy technology cooperation.
- It has 30 members at present.
- IEA family also includes eight association countries.
- A candidate country must be a member country of the OECD. But all OECD members are not IEA members.

1.19 UNICODE CONSORTIUM

- The Unicode Consortium has accepted the proposal to add two Tamil characters to the Telugu list for transcribing religious Tamil texts.
- The proposal was submitted by Vinodh Rajan, a computer science researcher at the University of Hamburg.
- The idea is to 'borrow' the characters (LLA) ழ and (RRA) ா so that Tamil texts can be transcribed into Telugu without worrying about equivalents.

About the Unicode Consortium

- The Unicode Consortium (Unicode Inc.), established in 1991, is a non-profit organization based in California, United States.
- Its primary purpose is to maintain and publish the Unicode Standard which was developed with the intention of replacing existing character encoding schemes which are limited in size and scope, and are incompatible with multilingual environments.

క	ఖ	గ	ఘ	ఙ	చ	ఛ	జ	ఝ	ఞ	ట	థ	డ
kka	kkha	kga	kgha	kria	kca	kcha	kja	kjha	kna	kta	ktha	ktha
క	ఖ	గ	ఘ	ఙ	చ	ఛ	జ	ఝ	ఞ	ట	థ	డ
kda	kḍha	kṇa	kta	ktha	kda	kḍha	kna	kpa	kpha	kba	kbha	kbha
క	ఖ	గ	ఘ	ఙ	చ	ఛ	జ	ఝ	ఞ	ట	థ	డ
kma	kya	kra	kla	kva	kḷa	kṣa	kṣa	ksa	kha			

- An essential part of this purpose is to standardize, maintain, educate and engage academic and scientific communities, and the general public about, make publicly available, promote, and disseminate to the public a standard character encoding that provides for an allocation for more than a million characters.
- The Unicode Standard assigns code to characters from different languages in the world so that they can be understood and displayed across software platforms.
- Unicode's success at unifying character sets has led to its widespread adoption in the internationalization and localization of software.

1.20 INDIA SME PLATFORM

The Small Industries and Development Bank of India (SIDBI) has planned to launch a **digital India SME Services Platform**, to educate stakeholders in the small and medium enterprises (SME) ecosystem.

About the platform

- It has been developed by the Small Industrial and Development Bank of India (SIDBI).
- It provides Micro, Small and Medium Enterprises (MSMEs) information about starting operations, getting finance, credit enhancement and other support services.
- It brings together all MSMEs, MSME ecosystem stakeholders, financiers, corporates, government, regulators, employees and associations in an interactive platform, where all will be at one place & one place for all kinds of initiatives.
- The Platform will have a web page that will contain a dashboard of all schemes being implemented by the central government, state governments, banks and industry associations & the government can also monitor actions on policies, schemes and programmes for the sector.
- With the help of the Platform, industry associations can avail of a window for insights and analytics, partnerships and directory & give financiers an opportunity to look for marketplace, documentation support and loan management.
- Using the Platform, the regulators can tap macroeconomic trends, compliance, risk management and systemic aspects.

1.21 AFRICAN SWINE FEVER

- The African Swine Fever (ASF) has gripped Assam which is already battling the Covid-19 outbreak.
- The disease “ASF” was detected towards the end of February this year, but it started in April 2019 at a village in Xizang province of China bordering Arunachal Pradesh.

About the issue

- According to a 2019 state census, the Pig population was 21 lakh, which has increased to around 30 lakh at present.
- Usually stray Pigs get infected with such viruses, but of late those in the farms have also been found afflicted with the disease.
- The Animal Husbandry Department initially started administering classical swine flu vaccine but it was stopped due to the scare that the disease could spread through the Doctor.



About the fever

- According to the World Organisation for Animal Health, ASF is a severe viral disease affecting both domestic and wild pigs.
- It can spread by live or dead Pigs and Pork products.
- Transmission can also occur via contaminated feed and objects such as shoes, clothes, vehicles, knives and other equipment.
- Unlike Classical Swine Fever (CSF), there is no vaccine for ASF.
- While swine flu can spread from animals to humans, swine fever does not, and therefore is not a public health threat.
- The first outbreak was retrospectively recognized as having occurred in 1907 after ASF was first described in 1921 in Kenya.
- The disease remained restricted to Africa until 1957, when it was reported in Lisbon, Portugal.
- In 2018 the virus spread to Asia, affecting more than 10 percent of the total pig population in several countries, leading to severe economic losses in the pig sector.
- In 28 April 2020, India reported the first African Swine Fever disease outbreak in the state of Assam and Arunachal Pradesh.

1.22 VESAK DAY

Lord Buddha's message of unity, service to others is more important today as the humanity suffers from the COVID-19 pandemic and it is only by working together that nations can stop the spread, recover from the deadly coronavirus, the UN chief said in his message for the Day of Vesak.

About Vesak

- Vesak marks the birth, enlightenment and death of Gautama Buddha.
- It is the most sacred day to millions of Buddhists around the world.
- It was on the Day of Vesak two and a half millennia ago, in the year 623 B.C., that the Buddha was born.
- On this day, Buddha attained enlightenment and passed away in his 80th year.

About the day

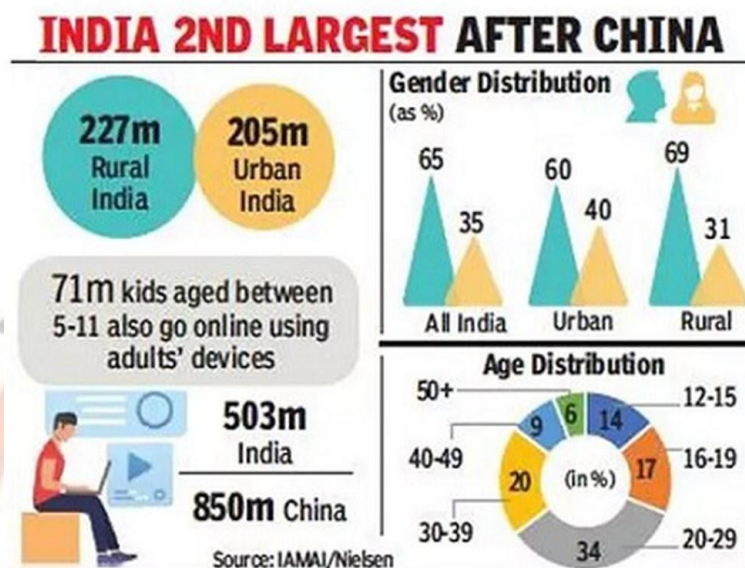
In 1999, the UN General Assembly adopted a resolution in which it recognised the International Day to acknowledge the contribution that Buddhism, one of the oldest religions in the world, has made for over two and a half mill

1.23 INTERNET PENETRATION

- Among the states, Delhi has registered the highest Internet penetration, while Kerala ranks second, according to a study by Internet and Mobile Association of India (IAMAI).
- While Delhi retains top spot in terms of penetration, at a city level, Mumbai has the highest number of Internet users at estimated 13 million, with Delhi coming second with 11.3 million.

About the Highlights

- Bengaluru comes a distant third with an estimated 6.6 million users, while Kolkata (6.3 million) and Chennai (6 million) complete the top 5 cities in terms of number of users. (All numbers denoting active internet users above 12 years of age), it said.
- Significantly, eastern states together have seen a 24 percent increase in the Internet population in November 2019 compared with March 2019.
- Jharkhand and Bihar witnessed 48 percent and 36 percent increase in internet population respectively, which is higher compared to any other Indian states.
- The eastern States overall historically have comparatively lower levels of internet penetration and it is expected that the newfound momentum will help this region catch-up with the rest of the country.
- In terms of age-wise demographics, two-third of Internet users in India are in the age group of 12-29 years and this age group corresponds to more than 70 percent of Internet users in the rural.
- The proportion of 12-29 years and 30 years is about 50:50 in Mumbai and Chennai, it said.



1.24 OPERATION SAMUDRA SETU

- Indian Navy has launched Operation Samudra Setu - meaning Sea Bridge, as a part of national effort to repatriate Indian Citizens from overseas.
- Indian Naval Ships Jalashwa and



Magar are presently enroute to Malè in Maldives to commence evacuation operations from Friday as part of Phase-1.

Background

- Indian Mission in Maldives is preparing a list of Indian nationals to be evacuated by Naval ships and will facilitate their embarkation after requisite medical screening.
- A total of one thousand persons are planned to be evacuated during the first trip, catering for COVID- related social distancing norms vis-a-vis the carrying capacity and medical facilities available onboard.

About the Mission

- The Ships have been suitably provisioned for the evacuation operation.
- The evacuated personnel would be provided the basic amenities and medical facilities during the sea-passage.
- In view of the unique challenges associated with COVID-19 stringent protocols have also been stipulated.
- The evacuated personnel will be disembarked at Kochi in Kerala and entrusted to the care of State authorities.
- This operation is being progressed in close coordination with Ministries of Defence, External Affairs, Home Affairs, Health and various other agencies of the Government of India and State governments.

1.25 GARUD PORTAL

The Union Civil aviation Ministry and the **Directorate General of Civil Aviation (DGCA)** have launched GARUD portal for fast-track approval to COVID-19-related drone operations.

About GARUD

- The GARUD or Government Authorisation for Relief Using Drones portal will provide fast track conditional exemptions to government agencies for COVID-19 related drone operations.
- Since the outbreak of COVID-19 in India, authorities have used drones for surveillance in several cities including Delhi, Jaipur among others.

Highlights

- In April, the DGCA had also approved operations by no-permission-no-takeoff compliant drones in several green zones such as Tumkur in Karnataka, Kharsa in West Bengal, Neemrana in Rajasthan, Nandyal in Andhra Pradesh among others.
- The step has been taken to aid government entities in addressing the challenges posed by COVID-19 & shall remain in force until further orders.

- Any violation of provisions of this Notice shall make the conditional exemption null & void & shall lead to penal action.
- Surveillance is a major component in containing the spread of novel coronavirus in the country.
- The government is using various surveillance techniques to ensure that people are strictly adhering to lockdown restrictions in red and orange zones and are following social distancing norms in green zones.

1.26 SILENT HYPOXIA

- In hospitals around the world, Doctors are shaking their heads in disbelief as they watch Covid-19 patients who should be comatose or "seizing" from hypoxia -- a lack of oxygen in the body's tissues check Social Media, chat with nurses and barely complain of discomfort while breathing.
- Some have dubbed them "happy hypoxics," a terrible misnomer for what could be a long, slow recovery -- or worse.

About Silent Hypoxia

- The proper medical term is "silent hypoxia."
- It happens when people are unaware they are being deprived of oxygen and are therefore showing up to the hospital in much worse health than they realize.
- Typically, these patients have experienced some Covid-19 symptoms for two to seven days before they show up at the hospital complaining of sudden chest tightness or an inability to breathe deeply.

How can this happen?

- Doctors speculate that, for some people, Covid-19 lung problems progress in a way that isn't immediately apparent.
- As patients focus on battling such symptoms as fever and diarrhea, the body begins fighting back against the lack of oxygen by speeding up breathing to compensate.
- People may not be aware of their more rapid breathing rate and don't seek help, yet blood oxygen levels continue to fall. In the meantime, the body slowly becomes somewhat adjusted to the lower levels of oxygen, much like what happens when a person travels to a higher altitude.
- By the time these patients get to the hospital with crippled lungs and crashing oxygen levels.
- Yet the damage has already taken place. Not only are the lungs severely ravaged, the lack of oxygen may have already comprised other organs in the body, such as the heart, kidneys and brain.
- A silent hypoxia that progresses rapidly to respiratory failure may explain why some younger Covid-19 patients with no underlying health conditions have died suddenly after not experiencing any serious shortness of breath.

1.27 **DARBAR MOVE**

- The 148-year-old Jammu and Kashmir (J&K) tradition of moving the Capital of the region twice a year from Srinagar to Jammu during the winter and back to Srinagar in the summer has been postponed for the first time in its history.
- The exercise, called the Darbar Move, is being delayed in view of the lockdown due to the Covid-19 pandemic.



Background

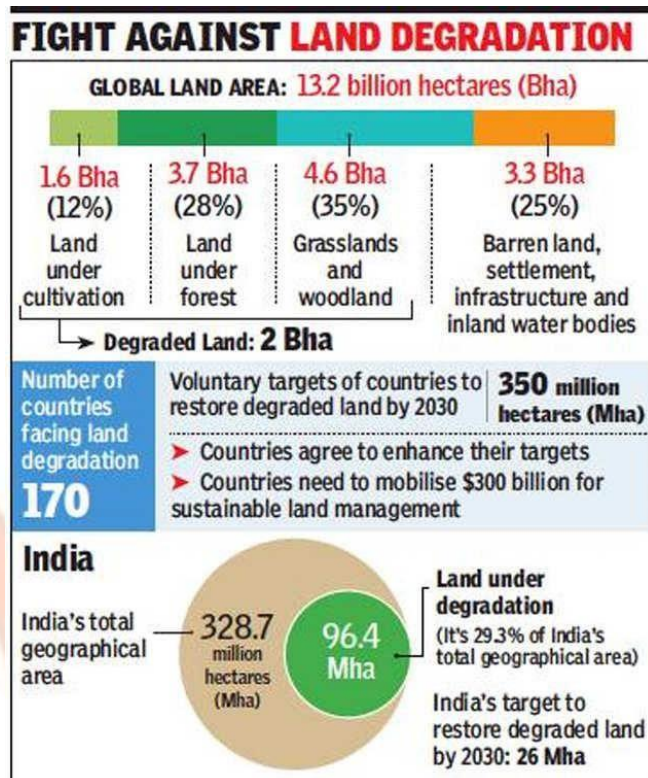
- According to an order issued by the J&K administration, the Darbar will open in Srinagar on 15 June as opposed to its scheduled opening in the first week of May.
- J&K has so far recorded 314 cases of infection, including 276 active cases. Of these, 54 are in Jammu and 260 in Kashmir.
- Five patients have died while 38 patients have recovered.

About the change in Capital

- The practice of 'Darbar Move' was started by Maharaja Gulab Singh in 1872 to escape the extreme weather conditions in the two regions.
- When the Capital shifts, so does the Civil Secretariat, important subsidiary Offices, files and government documents, and the Assembly.
- Official documents and other equipment are packed in hundreds of bundles, cartons and metallic trunks, and loaded into more than 200 trucks to transport them for the over 300 km distance between Jammu and Srinagar.
- Last week the administration Ordered the Move offices to reopen in Srinagar on 4 May, but also kept the Civil Secretariat in Jammu functional.
- It also ordered that only employees of the Kashmir Division, who are required to move to Srinagar on account of the Darbar Move, would be transported while employees of the Jammu Division will work on an 'as is where is' basis.

Highlights

- The move had drawn criticism, with many questioning the government's decision to undertake the mass shifting during the pandemic.
- Since last week's Order did not specify a date on which the Civil Secretariat would become operational in Srinagar, several also saw it as a move to shift the capital of the Union Territory to Jammu permanently.
- Subsequently, a petition was filed in the J&K High Court seeking a judicial intervention in the matter.
- The court sought details of the last four Darbar Moves, including security arrangements and the expenditure.
- The expense incurred would include transportation and accommodation of government employees as well financial benefits given to employees such as move allowance.
- The Court sought the details in order for "a considered view to be taken", such as impact on the necessary resources and the personnel involved (positions and number).



1.28 NATIONAL LAND MANAGEMENT CORPORATION

A government panel on boosting infrastructure investment has recommended setting up a National Land Management Corporation, which would help in monetising state-owned surplus land assets in a systematic and specialised way.

About the Corporation

- Such a corporation should be set up under Companies Act to function as the facilitator for land monetisation and an asset manager for lands owned by government of India and Central Public Sector Enterprises.
- It has recommended that a chief executive officer (CEO) and a technical team be hired at market-linked compensation to carry out land monetisation.
- The Corporation can raise capital from the equity market, based on the value of its leased assets, just like it has been done recently by some private-owned Real Estate Investment Trusts (REITs), which were listed on the stock exchanges last year.

About the recommendations

- The task force noted there is a need for a separate organisation, which can work with various government departments including Railways and Defence Ministry to utilise their surplus land assets.
- After setting up the proposed Corporation, which will identify and manage surplus land assets, concessioning of the land should be done through this special purpose vehicle that would provide land on lease basis or other revenue sharing modes (including sale of land) for commercial purpose.
- The panel recommended the Corporation consider development or co-development of land belonging to defence or railways as well.
- It can also take up co-development of private land parcels adjoining government lands to maximise revenue.

1.29 PRAVASI RAHAT MITRA APPLICATION

Recently, Uttar Pradesh Government has launched the Pravasi Rahat Mitra Application for migrant workers of state who are returning from different parts of the country amidst lockdown.

Objective

The multipurpose App is aimed at providing benefits of government schemes to the migrant workers and it will also help in monitoring their health besides providing jobs and livelihood, related to their skills.

About the App

- The app has been developed by the State Revenue Department in collaboration with the United Nation Development Programme.
- The app will have full details of the persons staying in the shelter homes and also of those migrants who have reached their homes directly from other states.
- The basic information of the person such as name, educational qualification, temporary and permanent address, bank account details, Corona-related screening status and experience will be taken in the app.
- In this app, details of more than 65 types of skills will also be collected.
- The status of distribution of ration kits to migrant citizens will be there in the app which can work online as well as offline.

1.30 WORLD RED CROSS DAY

- The World Red Cross Day was observed by IFRC on May 8, 2020.
- World Red Cross Day is also known as World Red Cross and Red Crescent Day.

About the day

- The objective is to commemorate the principles of International Red Cross and Red Crescent Movement.
- It is observed every year on May 8.
- The day is the birthday of Henry Dunant, who had generated the Red Cross Committee of the International (ICRI) in 1863 in Switzerland, Geneva.
- He was born on May 8, 1828 and was also the recipient of the Nobel Peace Prize.
- It is a worldwide humanitarian aid organization that acts before, during and after disasters and health emergencies to meet the needs and improve the lives of vulnerable people.
- It is guided by seven Fundamental Principles: Humanity, impartiality, neutrality, independence, voluntary service, universality and unity.
- The Indian Red Cross Society, which was founded in 1920, is celebrating its 100th anniversary this year.

1.31 COVID-19 EMERGENCY RESPONSE AND HEALTH SYSTEMS PREPAREDNESS PROJECT

India and the Asian Infrastructure Investment Bank (AIIB) signed a 500 million dollar “COVID-19 Emergency Response and Health Systems Preparedness Project” in New Delhi to strengthen its public health preparedness.

About the project

- This will cover all States and Union Territories across the country and address the needs of infected people, at-risk populations, medical and emergency personnel and service providers, medical and testing facilities, and national and animal health agencies.
- It will help strengthen the Country's Integrated Disease Surveillance Program, revamp infectious disease hospitals and medical college hospitals.
- The Project will be implemented by the National Health Mission (NHM), the National Center for Disease Control (NCDC) and the Indian Council of Medical Research (ICMR) under the Ministry of Health and Family Welfare.
- The Project is being financed by the World Bank and AIIB in the amount of \$1.5 billion, of which \$1.0 billion will be provided by World Bank and \$500 million will be provided by AIIB.
- This is the first ever health sector support from the Asian Infrastructure Investment Bank (AIIB) to India.

1.32 HORNETS

According to the experts, panic over the news of the “murder hornets” in America will lead to damage to essential Bee populations.

Background

- The deadly “Hornets” from Asia were first spotted last weekend in Washington state.
- Measuring up to 2 inches long, the Hornets have been known to wipe out Bee colonies within hours.
- The Hornet can kill up to 50 people a year in Japan.

About the damage

- According to the experts, such reports have whipped up a national panic that may lead to more “needless” damage to those essential insect populations.
- There are no known sightings of Asian giant hornets anywhere else in the United States and trapping them there will likely do more harm than good by catching native desirable insects.
- The concern for bees has stemmed from their role in the general ecosystem: bees are responsible for pollinating approximately 75 percent of the fruits, nuts and vegetables grown in the United States.

1.33 SBI Wecare DEPOSIT

- As a measure to safeguard the interests of senior citizens, the bank has introduced a new product ‘SBI Wecare Deposit’ in the retail term deposit segment.
- It is a new product which is launched by the State Bank of India in the retail term deposit segment.

About the deposit

- Under the new product, an additional 30 bps premium will be payable for senior citizen’s retail term deposits with Five Years and above tenure only.
- This scheme would be open until 30 September 2020.
- SBI also slashed its interest rates on retail term deposits by 20 bps for up to 3 years tenure, effective from 12 of May.
- State Bank of India (SBI) further slashed the benchmark lending rate by 15 basis points (bps).
- With the newly announced cut, the MCLR (Marginal Cost of Funds based Lending Rate) reduced to 7.25%, from 7.40% with effect from 10 of May.

1.34 LUHMAN -16

- Cloud bands has been identified by a group of international astrophysicists on the surface of Luhman 16A, one of a pair of LUHMAN-16 binary brown dwarf in the Vela constellation.
- Understanding the cloud system over a brown dwarf can shed light on the pressure, temperature and climate on the surface of the celestial body.

Highlights

- Luhman 16 is a binary star system, the third closest system to the Sun after Alpha Centauri and Barnard’s star.
- At a distance of about 6.5 light years from the Sun, this pair of brown dwarfs referred to as Luhman 16A and Luhman 16B orbit each other, casting a dim light.

- In the newest study of Luhman 16, researchers have found the actual structure of the clouds — that they form bands over one of the pair (Luhman 16A) of brown dwarfs.

1.35 hmAbs

Council of Scientific and Industrial Research (CSIR) through its New Millennium Indian Technology Leadership Initiative (NMITLI) programme has approved a project towards development of human monoclonal antibodies (hmAbs) that can neutralize SARS-CoV-2 in patients.

About the project

- The project aims to generate hmAbs to SARS-CoV-2 from convalescent phase of COVID-19 patients and select high affinity and neutralizing antibodies.
- The project also aims to anticipate future adaptation of the virus and generate hmAbs clones that can neutralize the mutated virus so that could be readily used for combating future SARS-CoV infections.
- The project will be implemented by National Centre for Cell Science (NCCS), IIT-Indore and PredOmix Technologies Pvt. Ltd. with Bharat Biotech International Ltd. (BBIL) as the commercialization partner.

1.36 SHEKATKAR COMMITTEE

Defence Minister Rajnath Singh has approved a proposal for the abolition of 9,304 posts in the Military Engineering Service (MES) out of the total 13,157 vacancies of the basic and industrial staff.

About the recommendations

- This is in line with the recommendations of the Lt. Gen. D.B. Shekatkar (Retd.) Committee.
- The 11-member committee, appointed by the late Defence Minister Manohar Parrikar in 2016, had made about 99 recommendations, from optimising defence budget to the need for a Chief of the Defence Staff.
- These recommendations, if implemented over the next five years, can result in savings of up to ₹25,000 crore in defence expenditure.
- Of these, the first batch of 65 recommendations pertaining to the Army were approved in August 2017.



- One of the recommendations was to restructure the civilian workforce so that the work of the MES could be partly done by departmentally employed staff and other works could be outsourced.
- It was aimed at making the MES an effective organization with a leaner workforce.

1.37 SPIRULINA GROUNDNUT CHIKKI

- The Central Food Technological Research Institute, CFTRI has developed Spirulina groundnut Chikki that can provide micronutrients and boost immunity of people during this time of pandemic.
- CFTRI is based in Mysuru, Karnataka.

About the benefits

- The snack provides good micro-nutrients.
- It has used Spirulina as well as the tasty, nourishing groundnuts to prepare Chikki that is rich in micronutrients such as Vitamin A, Beta Carotene and easily digestible algal proteins.

About Spirulina

- Spirulina is an organism that grows in both fresh and saltwater.
- It is a type of cyanobacteria, which is a family of single-celled microbes that are often referred to as blue-green algae.
- Just like plants, cyanobacteria can produce energy from sunlight via a process called photosynthesis.
- Spirulina was consumed by the ancient Aztecs but became popular again when NASA proposed that it could be grown in space for use by astronauts.

About the health benefits of Spirulina

- Consuming Spirulina is one way to supplement protein and vitamins in people's diets without notable side effects.
- Introducing Spirulina to the diet may help people lose weight without losing nutrition.
- It helps in improving gut health.
- Spirulina shows promise as a way to manage the symptoms of diabetes.
- Taking spirulina extract may help to lower cholesterol levels.

1.38 "BHAROSA" HELPLINE

- Union HRD Minister launched a helpline for counselling of students of the Central University of Odisha, who are in mental distress in the wake of the coronavirus pandemic.
- The Minister lauded the initiative as it aims at providing mental and psychological assistance to the students of the institute.

About the Helpline

- Addressing the mental health concern of students is of great importance and the helpline, 08046801010, introduced by the university, is a good initiative.

- "Bharosa" can address concern of any student of any university in Odisha.
- Over 400 calls have been received in the pilot phase of the project.

1.39 COVID KAVACH ELISA

The Union Health Ministry issued an official statement stating that a new test developed by the Indian Council of Medical Research (ICMR)-National Institute of Virology (NIV) Pune, would be used for 'antibody detection of COVID-19.'

About the test

- The new test being introduced is called the 'COVID KAVACH ELISA' is a type of biochemical test known as enzyme-linked immunosorbent assay or ELISA.
- Scientists at NIV Pune were able to isolate the SARS-CoV-2 virus from the samples of those who had been diagnosed with COVID-19, which then led them to develop this particular screening test which can be used to detect antibodies formed against the novel coronavirus in an individual's blood.

About the technique

- The ELISA technique has been commonly used to confirm the presence of the HIV virus in an individual which causes AIDS (acquired immunodeficiency syndrome).
- It can also be used to detect syphilis and even infection with the Zika virus.
- An ELISA microplate has several tiny wells as pictured, which are all coated with an antigen to a specific antibody; in this case, this is the IgG antigen that forms naturally in response to infection with SARS-CoV-2.
- Different dilutions of the person's blood sample are taken and deposited in each well.
- If the antibody to the IgG antigen for COVID-19 is present, the solution in the well will change colour, which indicates that that sample is positive for the antibody to COVID-19.

1.40 STATE OF THE WORLD'S NURSING REPORT 2020

The WHO State of the World's Nursing report will describe how the nursing workforce will help deliver Universal Health Coverage (UHC) and the Sustainable Development Goals (SDGs), and highlight areas for policy development for the next three to five years.

Background

- The reports will inform national policy dialogue on strengthening nursing and midwifery and accelerating progress across the SDGs.
- The evidence base on the role of nurses and midwives can help drive the development of national workforces and unlock investment in nursing, midwifery and the gender equity agendas for generations.

Highlights

- Nursing is the largest occupational group in the health sector accounting for approximately 59 per cent of the health professionals.
- According to the report, the focus has to be on investing in nurses' education and jobs.
- In India, there are an estimated 1,800 BSc Nursing Colleges, 3,000 Diploma Courses in general Nursing Schools, 700 Postgraduate Nursing Institutions and 1,600 ANM (Auxiliary Nurse Midwifery) schools.
- If the optimum nurse ratio is properly implemented, then there is one nurse for four patients in special wards and one nurse for six in general wards.
- The National Health Policy, 2017, has focused on single entry into nursing courses and recommended upgrading Diploma Schools into nursing colleges.
- A specialisation programme in critical care nursing practitioner also has been started across 20 institutions.
- The focus is on nurses playing an advanced role in ICU (intensive care unit) towards patient care management.

1.41 **FAMILY PLANNING**

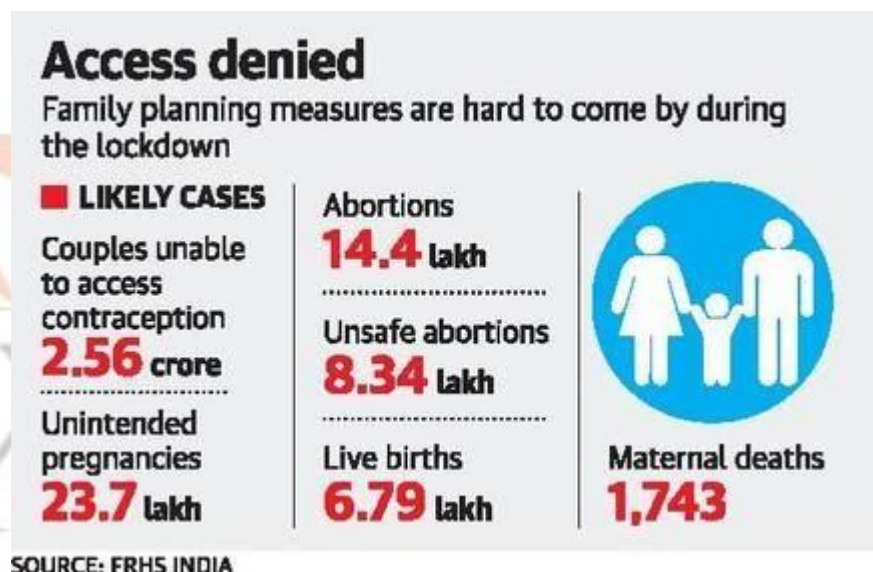
Experts have warned that temporary ban on family planning services at government facilities and poor access to contraceptives during the lockdown will result in lakhs of unwanted pregnancies, leading to a spurt in unsafe abortions and maternal deaths.

Background

- Foundation for Reproductive Health Services India is a leading Indian NGO working since 2009.
- It is an affiliate of Marie Stopes International, a global organization providing personalized contraception and safe abortion services to women and girls across 37 countries.

About the analysis

- An analysis, conducted by the Foundation for Reproductive Health Services (FRHS) India, estimates that nearly 2.56 crore couples may not be able to access contraception services during the period after the lockdown and until the return of normalcy by September.
- This will lead to a loss of 6.9 lakh sterilisation services, 9.7 lakh intra-uterine contraceptive devices (IUCDs) and 40.59 crore condoms, among other forms of contraception.



- As a result, there will be an additional 23 lakh unintended pregnancies, 6.79 lakh child births, 14.5 lakh abortions (including 8.34 lakh unsafe abortions) and 1,743 maternal deaths.

1.42 ATMANIRBHAR BHARAT ABHIYAN

Prime Minister of India, Narendra Modi has announced the launch of **Atmanirbhar Bharat Abhiyan** during his address to the nation on 12th May 2020.

About the Abhiyan

- As part of the Atmanirbhar Bharat Abhiyan, the Prime Minister announced a special economic package and gave a clarion call for Atmanirbhar Bharat.
- This special economic package, along with earlier announcements made by the government during the COVID crisis and decisions taken by RBI, is to the tune of Rs 20 lakh crore, which is equivalent to almost 10% of India's Gross Domestic Product.
- As mentioned in his address to the nation, the package will also focus on land, labour, liquidity and laws.
- It will cater to various sections including Cottage Industry, MSMEs, labourers, middle class, industries, among others.
- The package will provide a much needed boost towards achieving '**Atmanirbhar Bharat**'.



1.43 SERO-SURVEY

This household-level cross-sectional survey will cover 24,000 adults distributed equally across four strata of Districts categorised on the basis of reported cases of Covid-19. Overall, the survey will be conducted in randomly selected 69 Districts from 21 States.

Background

- A community-based sero-survey to estimate the prevalence of SARS-CoV-2 infection in Indian population will be started soon.
- The survey will be coordinated by the Indian Council of Medical Research (ICMR's) National Institute of Epidemiology (NIE) and National Institute of Research in Tuberculosis (NIRT), Chennai.

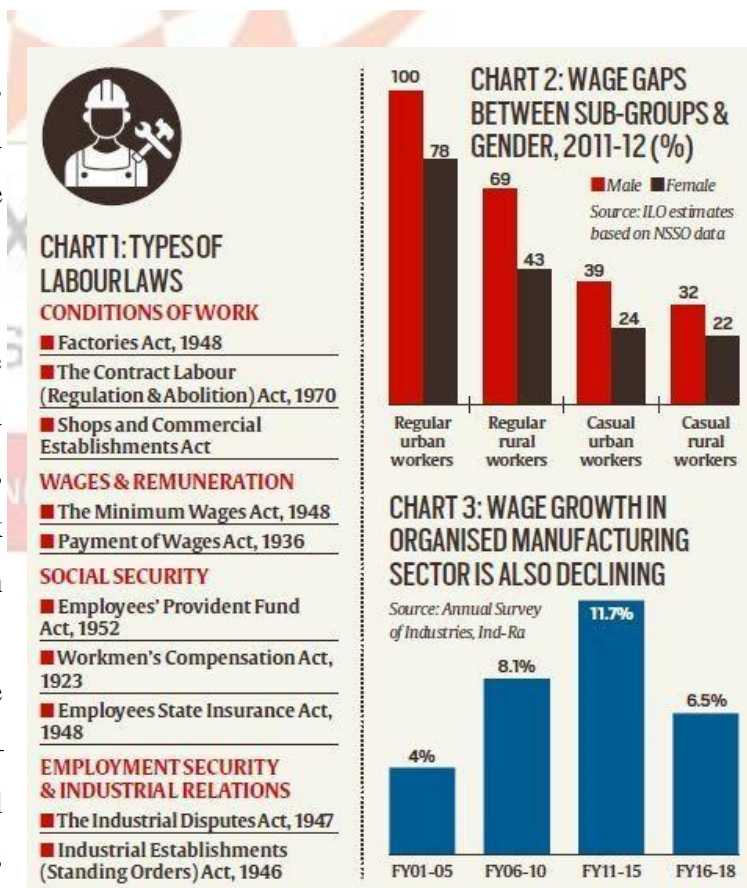
About the Survey

- The aim is to monitor the trend in prevalence of SARS-COV2 infection at the District level.

- This household-level cross-sectional survey will cover 24,000 adults distributed equally across four strata of Districts categorised on the basis of reported cases of Covid-19.
- Overall, the survey will be conducted in randomly selected 69 districts from 21 states.
- The survey will involve collection of venous blood samples from 400 randomly-selected individuals (one per household) from 10 clusters in each district.
- Sera from these individuals will be tested for presence of IgG antibodies using ELISA test developed by ICMR-National Institute of Virology (NIV), Pune.
- The results of the survey will provide information about the spread of SARS-CoV-2 infection in different parts of the Country.
- Besides this community-based survey, the Ministry of Health is also initiating hospital-based surveillance to monitor the trend of infection in all districts.
- Officials from the NIRT, which is the implementing agency, said that their trained staff will be sent to the sites to help with the survey.
- From each District, 10 health facilities, including six public and four private health facilities, will be selected.
- Throat/nasal swabs will be collected for RT-PCR tests.
- In addition to throat/nasal swabs, blood samples will be collected for detecting IgG antibodies for ELISA testing.
- According to State Health Officials, from Maharashtra, Beed, Nanded, Parbhani, Jalgaon, Ahmednagar and Sangli districts will be involved in the survey.

1.44 LABOUR LAW CHANGES

- As the economy struggles with the lockdown and thousands of firms and workers stare at an uncertain future, some State governments last week decided to make significant changes in the application of labour laws.
- The most significant changes were announced by three BJP ruled states — UP, MP and Gujarat — but several other States, ruled by the Congress



(Rajasthan and Punjab) as well as BJD-ruled Odisha, too made some changes, although smaller in scope.

- UP, the most populous state, has made the boldest changes as it summarily suspended the application of almost all labour laws in the state for the next three years.

Highlights

- Estimates vary but there are over 200 STATE laws and close to 50 Central laws. And yet there is no set definition of “labour laws” in the Country. Broadly speaking, they can be divided into four categories.
- The main objectives of the Factories Act, for instance, are to ensure safety measures on factory premises, and promote health and welfare of workers. The Shops and Commercial Establishments Act, on the other hand, aims to regulate hours of work, payment, overtime, weekly day off with pay, other holidays with pay, annual leave, employment of children and young persons, and employment of women.
- The Minimum Wages Act covers more workers than any other labour legislation.
- The most contentious labour law, however, is the Industrial Disputes Act, 1947 as it relates to terms of service such as layoff, retrenchment, and closure of industrial enterprises and strikes and lockouts.

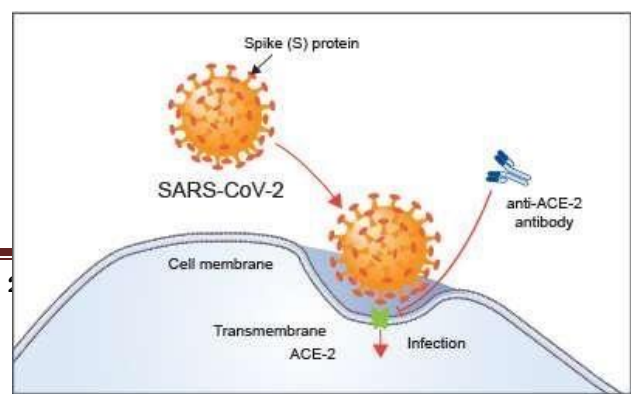
1.45 CHAMPIONS PORTAL

- Union Ministry of MSME has launched CHAMPIONS portal www.Champions.gov.in, a Technology driven Control Room-Cum-Management Information System.
- The name CHAMPIONS stands here for Creation and Harmonious Application of Modern Processes **for Increasing the Output and National Strength.**

About the portal

- The system utilising modern ICT tools is aimed at assisting Indian MSMEs march into big league as National and Global CHAMPIONS.
- The portal is for making the smaller units big by solving their grievances, encouraging, supporting, helping and handholding.
- It is a real one-stop-shop solution of MSME Ministry.
- As part of the system a network of control rooms is created in a Hub & Spoke Model.
- The Hub is situated in New Delhi in the Secretary MSME’s office.
- The spokes will be in the States in various Offices and Institutions of Ministry.

1.46 ACE2 ENZYME



- A new study has suggested reasons for why men seem to be more vulnerable to Covid-19 than women.
- The role of enzyme ACE2 in Covid-19 is already established: It responds to the novel coronavirus and enables it to infect the human cell.

About the study highlights

- The new, large study of several thousand patients found men have higher concentrations of ACE2 in their blood than women.
- The researchers measured ACE2 concentrations in blood samples from several thousand heart failure patients from 11 European countries.
- The study also found that heart failure patients taking a certain class of drugs (called RAAS inhibitors) did not have higher concentrations of ACE2 in their blood.
- Some recent research had suggested that RAAS inhibitors might increase ACE2 concentrations in blood plasma, thereby increasing the risk of Covid-19 for cardiovascular patients taking these drugs, but the new study indicates that this is not the case.

1.47 FIR AAPKE DWAR

- Mahya Pradesh Home Minister launched the country's first ever 'FIR Aapke Dwar Yojana' in Bhopal.
- Madhya Pradesh is the first state in the country to implement such an innovative scheme.

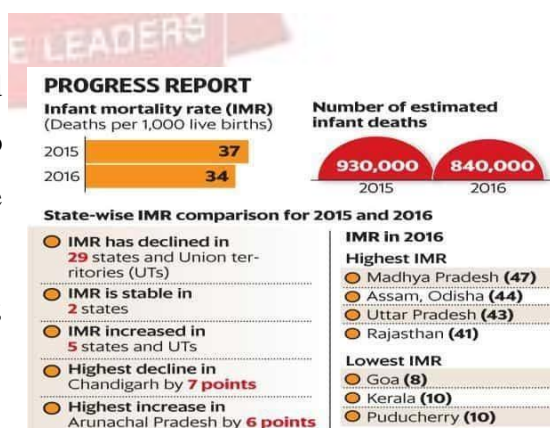
About the scheme

- 'FIR Aapke Dwar' scheme has been started as a pilot project in 23 Police Stations including one Urban and one Rural Police Station at 11 Divisional Headquarters.
- Now people would not be required to visit police stations to lodge an FIR.
- Under it, Dial 100 vehicle would have trained Head Constables to lodge FIR.
- FIRs in complaints of general nature will be lodged on the spot.
- In case of serious complaints, guidance will be sought from senior officers.

1.48 INFANT MORTALITY RATE

- India's infant mortality rate (IMR) has improved marginally from 33 per 1,000 live births in 2015 to 32 in 2016, according to data released by the Registrar General of India.
- The IMR has declined significantly over the years; in 1971, it was 129.

About the States performance



- Madhya Pradesh continues to have the worst IMR in the country at 48 while Nagaland has the best at 4.
- In fact, MP's IMR has worsened slightly from 2017 when it stood at 47.
- The urban-rural differential in MP is huge with the rural IMR at 51, while the urban IMR at 32.
- Among large States, Kerala is the best performer being the only state with an IMR in single digits at 7.
- It is also the only State which has now achieved the United Nations' sustainable development goal in this regard.
- The largest decline in IMR has been registered by Mizoram with a decline from 15 to 5.
- Undivided Jammu and Kashmir has also seen a decline and is at 22, well below the national average of 32.

About the Highlights

- Child and infant mortality continues to be a massive problem in India despite improvements over the years.
- An estimated 8,82,000 children under the age of 5 died in 2018 in India.
- The registrar also released data for death and birth rates.
- While India's birth rate stood at 20, the death rate was 6.2.
- Chhattisgarh has the highest death rate in the Country at 8, while Delhi has the lowest at 3.
- India's birth rate has declined from 36 in 1971 to 20 now.
- The death rate in 1971 was 14.9.

1.49 GLOBAL NUTRITION REPORT 2020

- The Global Nutrition Report (GNR) 2020, said that India is among 88 countries that are off track from 2025 global nutrition targets.
- Just five years away from 2025, the year that was targeted to achieve World Health Organisation's Global Nutrition targets, 88 Countries in the world, including India, are off track to achieve even one of the targets.

About the criteria

- The criteria for the ten 2025 global nutrition targets are: anaemia, low birthweight, exclusive breastfeeding, childhood stunting, childhood wasting, childhood overweight (including obesity), adult obesity (men, women) and adult diabetes (men, women), level for salt intake, and raised blood pressure.
- The Global Health Report measured countries' progress only on the first eight of these criteria due to data constraints, and found that four was the maximum number of targets that any country was on track to meet by 2025.

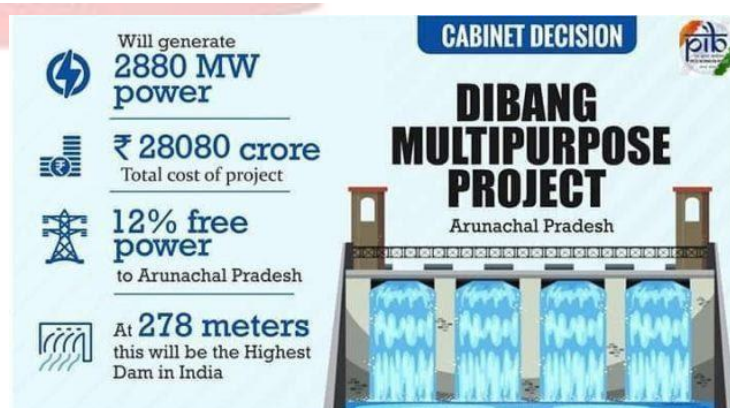
- Only eight countries were on track to meet four targets.

About the malnutrition in Indian children

- When it comes to India's Country profile, a snapshot of the data reveals that as of 2015, the national prevalence of overweight in children under five years is 2.4%, which has increased slightly from 1.9% in 2006.
- The national prevalence of under-five stunting (impaired growth and development in children due to poor nutrition, repeated infection and insufficient psychosocial stimulation), meanwhile, is 37.9%, which is greater than the developing country average of 25%.
- Further, wasting (low weight for height) is seen in 20.8% of children under five which is also greater than the developing country average of 8.9%.
- According to data from WHO, UNICEF and the World Bank, the prevalence of wasting in boys (21.8%) is higher than in girls (19.8%).
- The national average is 20.8%; and the cumulative stunting in the 0-23 months age group is much higher at 25.1%.
- Stunting in both boys and girls has seen a reduction from 2007 to 2015 across age groups.
- However, overweight has increased in both boys and girls in the same time period, with a significant difference between the genders.
- There was a clear relation found between child feeding practices and household characteristics globally.
- Continued breastfeeding up to 1 or 2 years of age is less common for children in wealthier households, urban areas or with a more educated mother. In contrast, rates of solid food introduction and minimum diet diversity are substantially lower for children in the poorest households, in rural areas or with a less educated mother.
- This was true for India too.
- For instance between urban and rural areas, exclusive breastfeeding, as well as continued breastfeeding at two years and one year were higher in rural areas i.e. in poorer households.
- The same was seen for introduction to solid, semi-solid and soft foods.

1.50 DIBANG MULTIPURPOSE PROJECT

Citizens from different towns and cities across the country participated in a nationwide tweet-storm demanding the government stop the 'disastrous Etalin hydro power project, which would destroy Dibang valley', one of the world's mega biodiversity hotspots and a rich



carbon sink for the entire nation.

About the tweetathon movement

- The tweetathon was organized by a motley of environmental organizations from across the country under the movement, 'The Dibang Resistance'.
- The Prime Minister's Office, Ministry of Environment, Forest and Climate Change (MoEFCC), India's Environment Minister and the Chief Minister of Arunachal Pradesh were tagged in all the tweets with the hashtags #StopEtalinSaveDibang and #SaveArunachalBiodiversity.
- In Arunachal Pradesh, it is being spearheaded by Fridays for Future-Arunachal Chapter consisting of wildlife experts, research scholars, conservationists, journalists and locals of Idu Mishmi Community.

About the concerns

- Research in Dibang Valley shows that this region is a critical habitat for Schedule I endangered species including 52 Tigers, more than 50 other mammal species including the Clouded Leopard, Mishmi Takin, Red Goral, Musk Deer and 430+ bird species including rare ones like Rufous-necked Hornbill, Ward's Trogon, Hodgson's Frogmouth, Mishmi Wren-Babbler.
- These hydro power projects will also destroy the traditional way of life of the indigenous Idu Mishmi Tribes who have for generations protected and managed these forests.
- Construction of a colossal structure in exchange for loss of biodiversity and the wildlife we proudly boast to have preserved for generations, especially the Tigers here whom we have considered as our brothers, does not feel like such a good bargain.
- It is not certain that dam safety measures and the design can withstand multiple glacial lake outburst floods and seismic events.
- Given the potential risks to communities and their ecosystems, scientific consensus is against dam construction in Dibang Valley.

1.51 INTEGRATED BATTLE GROUPS

- Indian Army Chief General informed that his force plans to introduce the Integrated Battle Groups (IBG) along the borders with China and Pakistan for swift strikes in case of a war situation.
- A "test-bedding" for the same had been completed but the rollout has been delayed for the foreseeable future due to the coronavirus COVID-19 pandemic.

About the IBG



- An IBG is a mix of infantry, artillery, air defence, tanks and logistics units, as part of bringing a change in warfighting capability.
- Each IBG will be modelled on the specific operational requirement in which the topography of the land will be taken into consideration and the threat perceptions as well.
- There will be at least 5,000 troops in each IBG headed by a Major General.
- All the IBGs will be theatre-specific which means that a unit deployed in the deserts of Rajasthan will have equipment and forces trained for desert warfare while those deployed in the mountains will be suitably equipped and trained.

1.52 INTEREST SUBVENTION ON WORKING CAPITAL LOANS FOR DAIRY SECTOR

Union Government has introduced a new scheme of Interest Subvention on Working Capital Loans for Dairy sector for supporting Dairy Cooperatives and Farmer Producer Organizations engaged in dairy activities for implementation during 2020-21.

Highlights

- Interest subvention will be given to Cooperatives and Farmer owned milk producer companies on working capital loan taken from banks and financial institutions between 1st April 2020 to 31st March 2021 for conversion of milk into conserved commodities and other milk products.
- The scheme has made provisions for providing interest subvention of 2% per annum, with an additional incentive of 2% per annum interest subvention to be given in case of prompt and timely repayment/interest servicing.
- The modified scheme envisages a budgetary provision of 100 crore rupees earmarked for the component Interest Subvention on Working Capital Loans for Dairy sector during 2020-21.
- The scheme will be implemented by this Department of Animal Husbandry through National Dairy Development Board (NDDB), Anand.
- The scheme will help in providing stable market access to milk producers. This will help to ease out the working cap

1.53 MIGRANT WORKERS COVID-19 PACKAGE

- A major focus of the second portion of the economic stimulus package announced by Union Finance Minister was to provide free foodgrains for the next two months to migrant workers who do not have ration cards.
- There are an estimated 8 crore migrant

MORE FOR MIGRANTS
The second part of the "economic stimulus" package focusses on migrant workers and farmers

- Close to **8 crore** migrants, who are not covered under the food distribution system, will be given **5 kg of grains** per person and **1 kg chana** per family per month for **two months**
- Affordable **rental housing** complexes planned under Pradhan Mantri Awas Yojana
- Interest subvention worth **₹1,500 crore** announced for MUDRA-Shishu loans of up to **₹50,000**
- 'One Nation One Ration Card' to be used to enable access of PDS across country; 100% national coverage expected by March 2021
- Funds worth **₹6,000 crore** to be used for boosting employment for Adivasis and tribals
- A scheme worth **₹5,000 crore** to facilitate easy access to credit for street vendors
- **63 lakh** agriculture loans worth **₹86,600 crore** approved between March 1 and April 30
- Concessional credit for **2.5 crore** PM-KISAN beneficiaries worth **₹2 lakh** crores
- Centre had released **₹11,000 crore** to States on April 3 to augment funds in their State Disaster Response Fund for setting up shelters for migrants
- **14.62 crore** person-days of work generated under MGNREGA as of May 13

workers who have been housed in government and privately run relief camps across the country since the lockdown.

About the package details

- The Centre is going to spend ₹3,500 crore for providing free foodgrains for the next two months to migrant workers who do not have ration cards.
- Besides measures for migrant workers, the second portion of the stimulus package also included an extension of credit facilities for urban housing, street vendors and farmers and an interest subvention scheme for small businesses.
- The move to provide free foodgrain for migrant workers is an extension of the Pradhan Mantri Gharib Kalyan Yojana which provided an additional monthly free rice or wheat allocation of 5 kg per person, and 1 kg of pulse per household from April to June to the 80 crore people with ration cards covered by the National Food Security Act (NFSA).
- According to the special announcement, for those who are non-card holders, meaning they are neither under the NFSA nor are they holders of any State-level cards, they shall be given this benefit and if the person is remaining without card, he can also get it.
- It is claimed by FM that by August 2020, the ration card portability scheme will allow 67 crore NFSA beneficiaries in 23 connected states to use their cards at any ration shop anywhere in the country.
- This will allow the migrant workers to access subsidised food away from their home villages.
- The scheme would cover all beneficiaries by March 2021.
- In fact, the One Nation One Ration card scheme was originally supposed to cover all States by June 2020.

1.54 SALARY OF PRESIDENT OF INDIA

President Ram Nath Kovind has decided to forgo 30% of his salary for the whole year apart from directing officials to adopt other austerity measures in the wake of the coronavirus (COVID-19) pandemic.

About the Constitutional provisions

- Article 59 (2): The President shall not hold any other office of profit.
- Article 59 (3): The President shall be entitled without payment of rent to the use of his official residences.
- He/she shall also be entitled to such emoluments, allowances and privileges as may be determined by Parliament by law and, until provision in that behalf is so made, such emoluments, allowances and privileges as are specified in the Second Schedule.

- Article 59 (4): The emoluments and allowances of the President shall not be diminished during his term of office.

Highlights

- The Union Budget 2018 announced a sharp increase in the salaries of the President, Vice-President and the Governors in India.
- The President's salary increased to ₹5 lakhs per month from ₹1.5 lakhs.
- The Vice-President's salary rose to ₹4 lakhs from ₹1.10 lakhs.
- The state governors saw their salaries increase to ₹3.5 lakhs.

1.55 INTERNATIONAL DAY OF LIGHT 2020

Context

UNESCO is celebrating the International Day of Light on 16 May.

About the day

- The International Day of Light is celebrated on 16 May each year, the anniversary of the first successful operation of the laser in 1960 by physicist and engineer, Theodore Maiman.
- This day celebrates the role light plays in science, culture and art, education, and sustainable development, and in fields as diverse as medicine, communications, and energy.
- The International Day of Light is administered from the International Basic Science Programme (IBSP) of UNESCO.



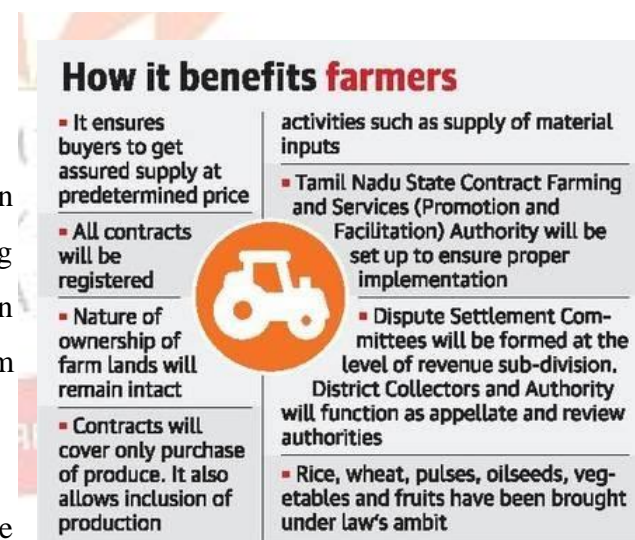
1.56 NEW LAW FOR CONTRACT FARMING

Context

Union Finance Minister Nirmala Sitharaman announced plans to enact a new law of contract farming in order to ensure a legal framework for its facilitation and to permit barrier-free inter-State trade of farm commodities.

About the relief package

- As per the announcement made by the Finance Minister, the long-pending agricultural marketing reforms were the centrepiece of the third portion of the Atmanirbhar Bharat Abhiyan economic stimulus package.
- A new law is to be launched in order to ensure proper legal framework to facilitate contract farming and to permit barrier-free inter-State trade of the farm commodities.



- The third portion also included plans to invest ₹1.5 lakh crore to build farm-gate infrastructure and support logistics needs for fishworkers, livestock farmers, vegetable growers, beekeepers and related activities.
- Although this includes some previously budgeted money and extensions of existing schemes.
- As part of the announcement, the Centre will deregulate the sale of six types of agricultural produce, including cereals, edible oils, oilseeds, pulses, onions and potatoes, by amending the Essential Commodities Act, 1955.

About the issues with the act

- The Essential Commodities Act, 1955 was enacted at a time of food scarcity, and needs to reflect current concerns.
- Issue now is that there is an abundance of crops, and this sometimes leads to issues because they would want to export, and the government don't permit that.
- Because of a flip-flop sometimes, farmers don't get the benefit. Some other times, the consumers suffer.
- So there was a need to amend the Act.
- Further, the stock limits will not be imposed on these commodities except in case of national calamity or famine or an extraordinary surge in prices adding that even these stock limits would not apply to processors and exporters.
- It is to be noted that even though agricultural market remains in the State List, Centre could enact a law on agricultural marketing, because the inter-State trade falls in the Central list.

1.57 ANAKKAMPOYIL-KALLADI-MEPPADI-ROAD TUNNEL

The government has cleared the construction of a ₹658 crore two-lane tunnel road in the Anakkampoyil-Kalladi-Meppadi corridor that would run parallel to the landslip-prone Thamarassery pass that links Kozhikode to Wayanad.

About the tunnel

- The proposed tunnel road would be shorter only to the two tunnels in Jammu & Kashmir.
- The Chenani-Nashri tunnel road on National Highway 44 is 9.2 km long, while the Banihal-Qazigund tunnel in the Pir Panjal range is 8.5 km long.
- Kerala's longest road tunnel is at Kuthiran between Thrissur and Palakkad at 962 metres.
- The Konkan Railway Corporation will execute the project on a turnkey basis.

1.58 SIKKIM STATEHOOD DAY

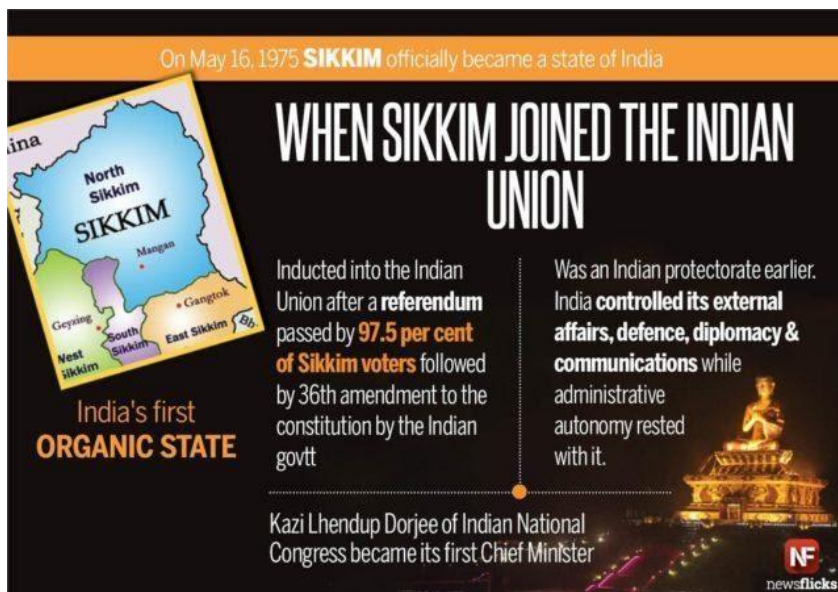
- The 45th State Day of Sikkim was observed in a brief function held at Chintan Bhawan.
- The function was attended by Governor Ganga Prasad as the Chief Guest, while Chief Minister Prem Singh Tamang was present as the Guest of Honour.

About the accession

- The Kingdom of Sikkim was founded by the Namgyal dynasty in the 17th century.
- It became a Princely State of British India in 1890.
- Before Indian independence, Jawaharlal Nehru, as the Vice President of the Executive Council, pushed through a resolution in the Indian Constituent Assembly to the effect that Sikkim and Bhutan, as Himalayan States, were not 'Indian States' and their future should be negotiated separately.
- A Standstill Agreement was signed in February 1948.
- Meanwhile, Indian independence and its move to democracy spurred a fledgling political movement in Sikkim, giving rise to the formation of Sikkim State Congress (SSC).
- The Party Sent a plate of demands to the Palace, including a demand for accession to India.
- The palace attempted to defuse the movement.
- The demand for responsible government continued and the SSC launched a Civil Disobedience movement.
- The Chogyal Palden Thondup Namgyal asked India for help in quelling the movement, which was offered in the form of a small military Police Force and an Indian Dewan.
- In 1950, a Treaty was agreed between India and Sikkim which gave Sikkim the status of an Indian protectorate.

About the Statehood day

- Sikkim came under the suzerainty of India, which controlled its external affairs, defence, diplomacy and communications. In other respects, Sikkim retained administrative autonomy.
- A state council was established in 1953 to allow for constitutional government under the Chogyal.



- In 1975, the Prime Minister of Sikkim appealed to the Indian Parliament for Sikkim to become a State of India.
- In April 1975, the Indian Army took over the City of Gangtok and disarmed the Chogyal's Palace guards.
- Thereafter, a referendum was held in which 97.5 % of voters supported abolishing the monarchy, effectively approving Union with India.
- On 16 May 1975, Sikkim became the 22nd state of the Indian Union, and the monarchy was abolished.
- First, the 35th Amendment laid down a set of conditions that made Sikkim an "Associate State", a special designation not used by any other State.
- A month later, the 36th Amendment repealed the 35th Amendment, and made Sikkim a full State, adding its name to the First Schedule of the Constitution.

1.59 **WORLD TELECOMMUNICATION AND INFORMATION SOCIETY DAY**

Context

World Telecommunication and Information Society Day 2020 is being observed on 17 May with the theme **"Connect 2030: ICTs for the Sustainable Development Goals (SDGs)."**

About the day

- The Objective of WTISD is to help raise awareness of the possibilities that the use of the Internet and other information and communication technologies (ICT) can bring to societies and economies.
- It has been celebrated annually on 17 May since 1969, marking the founding of the International Telecommunication Union (ITU) and the signing of the first International Telegraph Convention in 1865.



About the ITU

- ITU is a specialized agency of the United Nations (UN). It is a member of the United Nations Development Group (UNDP).
- It is responsible for issues that concern information and communication technologies.
- Established in 1865.
- It is based in Geneva, Switzerland.
- It has membership of 193 countries and nearly 800 private sector entities and academic institutions.

- India has been an active member of the ITU since 1869 and has been a regular member of the ITU Council since 1952. In November 2018, India was elected as a Member of the ITU Council for another 4-year term (2019-2022).

1.60 NATIONAL MIGRANT INFORMATION SYSTEM

The Ministry of Home Affairs (MHA) has written to States to upload data on the NMIS dashboard for better coordination, movement monitoring and contact tracing of migrants.

About the Portal

- The Portal will maintain a central repository of migrants and help sending as well as receiving state or district to ask for and give their acceptance in an online format seamlessly.
- This system will help in speedy communication between states and also aid in contact tracing of migrants.
- The States can upload the batch file of individual data such as name, age, mobile no, originating & destination, date of travel, etc of the migrants which the states are already collecting.
- The States can visualize how many people are going out from where and how many are reaching destinations through GIS.
- A unique ID will be generated for each migrant which can be used for all transactions, including contact tracing.
- The Central government nodal ministries can also monitor the movement of migrants through this portal.

1.61 MOODOFINDIA PORTAL

Context

The Indian Institute of Technology-Tirupati (IIT-T) has developed an interactive Web Portal that can gauge the prevailing mood of any region in the country based on real-time analysis of Twitter data.

About the portal

- The portal — <https://moodofindia.herokuapp.com> — has been built by the Research and Intelligent Software and Human Analytics (RISHA) Lab of IIT-Tirupati.
- Users can log on to the portal and select a location and particular date and see the prevailing mood in that region, based on tweets made using a set of hashtags.
- Based on the tweets, results are classified into seven categories — six basic emotions and one ‘neutral’ category.
- As per the professors of IIT-T, “across India, 4,64,933 tweets were posted during March 14 to May 9 under the hashtags #Indiafightscorona, #Covid19, #coronavirus and #lockdown, of which 29%

sounded positive, 20% were sad, 11% expressed surprise, 5% anger, 2% fear and 1% disgust, while 35% remained neutral.”

- A list of ‘trigger events’ such as the announcement of the Janata Curfew in March, extension of the lockdown, Prime Minister’s call for lighting lamps, and lifting of the ban on the export on hydroxychloroquine, among others, has been specified, which allows users to view the Country’s reaction to specific events during the COVID-19 situation.
- The portal will continue to gauge the public mood as long as the fight against COVID-19 is on.

1.62 INTERNATIONAL MUSEUM DAY

Development of Museums and Cultural Spaces, Ministry of Culture, Government of India hosted a webinar on “**Revitalising Museums and Cultural Spaces**” to celebrate the International Museum Day.

About the webinar

- The webinar has been hosted by the Development of Museums and Cultural Spaces, Ministry of Culture, Government of India.
- The National e-Governance Division (NeGD) created by the Ministry of Electronics & Information Technology (MeitY) has supported DMCS, Ministry of Culture by providing technical assistance for conducting this Webinar.
- The webinar featured some of the best experts in the museum and cultural spaces domain.
- The objective of the webinar is to identify the possible policy actions that will help alleviate the short and long term effects of the crisis on museums, cultural spaces and their broader ecosystems.
- The nascent topic Museo-preneurs also discussed to look at how museums can embrace the entrepreneurial spirit and work on sustainable business models.

About the day

- International Museum Day (IMD) is an international day held annually on or around 18 May, coordinated by the International Council of Museums (ICOM).
- The event highlights a specific theme which changes every year to reflect the basis of the international museum community’s preoccupations.
- International Museum Day therefore serves as a platform to raise public awareness on the role museums play in the development of society today, on an international level.
- THEME 2020 – Museum for Equality: Diversity and Inclusion.

About the National e-Governance division

- In 2009, National e-Governance Division (NeGD) was created by the Ministry of Electronics & Information Technology (MeitY) as an Independent Business Division under the Digital India Corporation.

- Since 2009, NeGD has been playing a pivotal role in supporting the Ministry of Electronics & Information Technology in Programme Management and implementation of e-Governance Projects and initiatives undertaken by Ministries/ Departments, both at Central and State levels.

1.63 **PM e-VIDYA**

PM e-VIDYA is part of a number of initiatives that are launched by the Union Finance & Corporate Affairs Minister Smt. Nirmala Sitharaman to boost education sector.

Background

- The government is committed to ensuring learning for all, with equity, so as to cover all students at all levels of education and in all geographical locations, even in the remotest parts of the country.
- “One nation, one digital platform” and “one class one channel” will ensure that quality education material will reach the students present in the farthest areas of the country.

About PM e-Vidya

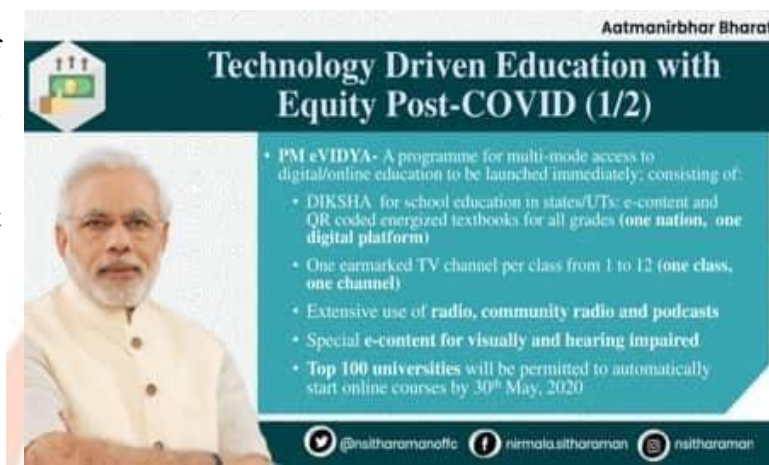
A comprehensive initiative called PM e-VIDYA will be launched which unifies all efforts related to digital/online/on-air education. This will enable multi-mode access to education, and includes:

- DIKSHA (one nation-one digital platform) which will now become the nation’s digital infrastructure for providing quality e-content in school education for all the states/UTs;
- TV (one class-one channel) where one dedicated channel per grade for each of the classes 1 to 12 will provide access to quality educational material;
- SWAYAM online courses in MOOCS format for school and higher education;
- IITPAL for IITJEE/NEET preparation;
- Air through Community radio and CBSE Shiksha Vani podcast;
- Study material for the differently abled developed on Digitally Accessible Information System (DAISY) and sign language on NIOS website/ YouTube.
- This will benefit nearly 25 crore school going children across the country.

1.64 **CHARAN PADUKA**

In Madhya Pradesh, in a first of its kind of initiative, Charan Paduka campaign has been started for the migrant labourers passing through the state.

About the campaign



- Under this campaign, the migrant labourers going barefoot are being provided shoes and slippers to reduce their pain.
- The most notable thing is that this campaign is being conducted by the police at most places.
- Now this human initiative has spread in many cities of MP including Damoh, Umaria and Sagar.

1.65 **SHEKATKAR COMMITTEE FOR BORDER INFRASTRUCTURE**

- Government has accepted and implemented three important recommendations of the Committee of Experts (CoE) under the Chairmanship of Lt General D B Shekatkar (Retd) relating to border Infrastructure.
- These were related to speeding up road construction, leading to socio-economic development in the border areas.

About the committee

- The military reforms committee under Lt General (retd.) DB Shekatkar or otherwise known as Shekatkar Committee, was set up by then Raksha Mantri Manohar Parrikar in 2015.
- The committee was established with a mandate for Enhancing Combat Capability and Rebalancing Defence Expenditure.
- Shekatkar Committee had made recommendations on enhancing the combat potential of India's three armed forces, rationalizing the defence budget etc.
- The committee submitted its report on December 21, 2016.
- It had apparently exceeded its brief with some 200 recommendations.
- A major recommendation is that the defence budget should be 2.5% to 3% of the GDP.
- The report, which is now the guiding principle for ongoing defence reforms, has never been made public, because it covers operational aspects of the Armed Forces, and its disclosure, is not in the interests of National Security.

About the committee recommendations

- Optimization of Signals Establishments to include Radio Monitoring Companies, Corps Air Support Signal Regiments, Air Formation Signal Regiments, Composite Signal Regiments and merger of Corps Operating and Engineering Signal Regiments.
- Restructuring of repair echelons in the Army to include Base Workshops, Advance Base Workshops and Static / Station Workshops in the field Army.



- Redeployment of Ordnance echelons to include Vehicle Depots, Ordnance Depots and Central Ordnance Depots apart from streamlining inventory control mechanisms.
- Better utilization of Supply and Transportation echelons and Animal Transport Units.
- Closure of Military Farms and Army Postal Establishments in peace locations.
- Enhancement in standards for recruitment of clerical staff and drivers in the Army.
- Improving the efficiency of the National Cadet Corps.

1.66 NATIONAL TEST ABHYAS

- Union Human Resource Development Minister Ramesh Pokhriyal Nishank launched a new mobile app named - the 'National Test Abhyas'.
- The App has been developed by National Testing Agency-NTA to enable candidates to take mock tests for upcoming exams such as JEE Main and NEET under the NTA's purview.

About the App

- The app has been launched to facilitate candidates' access to high quality mock tests as there was a demand for making up the loss to students due to closure of educational institutions and NTA's Test-Practice Centers due to the lockdown.
- Students across the country can use the App to access high quality tests, free of cost, in a bid to be fully prepared for the upcoming JEE, NEET and other competitive exams.
- The tests can be easily downloaded.
- This timely launch is designed to ensure that no student is left behind in getting exposure to practice testing, especially when student's loss due to closure of educational institutions is to be compensated.

1.67 COMPLETE SOLARISATION OF KONARK SUN TEMPLE AND KONARK TOWN

- Government of India has launched a scheme for 100 % solarisation of Konark Sun Temple & Konark town in Odisha.
- The Ministry of New and Renewable Energy (MNRE) has taken up the Complete Solarisation of Konark Sun Temple and Konark town in Odisha. The implementation of this Project will be done by the Odisha Renewable Energy Development Agency (OREDA).

About the scheme

- The Scheme envisages setting up of 10 MW grid-connected solar projects and various solar off-grid applications like solar trees, solar drinking water kiosks, off-grid solar power plants with battery storage etc.
- There will be 100% Central Financial Assistance (CFA) support of around Rs. 25 Crores from Government of India through Ministry of New & Renewable Energy (MNRE).
- The scheme will meet all the energy requirements of Konark town with solar energy.

1.68 STAR RATING OF GARBAGE FREE CITIES

Recently, the **Ministry of Housing & Urban Affairs (MOHUA)** has announced the results of the **Star Rating of Garbage Free Cities** for the assessment year 2019-2020.

Background

- The Star Rating Protocol was launched by the Ministry in 2018 to institutionalize a mechanism for cities to achieve Garbage Free status, and to motivate cities to achieve higher degrees of sustainable cleanliness.
- It is one of the various initiatives which intends to make Swachh Bharat Mission-Urban (SBM-U) as a successful project.

About the Project

- It is based on 12 parameters which follow a SMART framework – Single metric, Measurable, Achievable, Rigorous verification mechanism and Targeted towards outcomes.
- It is a comprehensive framework that assesses cities across 24 different components of Solid Waste Management (SWM) and is graded based on overall marks received.
- The Star Rating is supported by self-assessment and self-verification for achieving a certain star rating.
- It also ensures the involvement of citizen groups for a transparent system of self-declaration.
- Further, the self-declaration is further verified through an independent third party agency appointed by MoHUA.

About the findings

- A total of six cities have been certified as 5-Star, 65 cities as 3-Star and 70 cities as 1-Star.
- The 5-Star Cities include Ambikapur (Chattisgarh), Surat and Rajkot (Gujarat), Indore (Madhya Pradesh) and Navi Mumbai (Maharashtra).

About the significance

- The performance of Cities under the Star Rating Protocol is crucial as it carries significant weightage for their final assessment in Swachh Survekshan.
- It also ensures certain minimum standards of sanitation through a set of prerequisites defined in the framework.
- Since the rating is conducted at a City Level, it makes the process easier to implement and helps the cities incrementally improve their overall cleanliness.
- The rating protocol is an outcome-based tool that helps MoHUA and other stakeholders to evaluate cities on the basis of this single rating.

1.69 PRADHAN MANTRI VAYA VANDANA YOJANA

Context

- In order to ensure the welfare of the Senior Citizens and to ensure their old age income security, Government of India approves the extension of Pradhan Mantri Vaya Vandana Yojana (PMVVY).
- Pradhan Mantri Vaya Vandana Yojana (PMVVY) has been extended for another period of 3 years beyond 31st March 2020, up to 31st March, 2023.

About the new extension

- As per the government notification, following approvals have been given with respect to the Pradhan Mantri Vaya Vandana Yojana.
- Apart from following mentioned changes, all other terms and conditions of the scheme remain the same.
- Initially an assured rate of return of 7.40 % per annum for the year 2020-21 per annum has been allowed for the approval. However, it would have to be reset every year thereafter.
- Approval has also been provided for the annual reset of the assured rate of interest with effect from 1st April of the financial year in line with the revised rate of returns of Senior Citizens Saving Scheme (SCSS) up to a ceiling of 7.75% with a fresh appraisal of the scheme on breach of this threshold at any point.
- The difference between the market rate of return generated by LIC (net of expenses) and the guaranteed rate of return under the scheme are to be considered while looking up to the expenditures to be incurred.
- Approval has also been provided for the Capping Management expenses at 0.5% p.a. of funds of the scheme for the first year of scheme in respect of new policies issued and thereafter 0.3% p.a. for second year onwards for the next 9 years.
- As part of the approval, the Finance Minister has been authorized to approve an annual reset rate of return at the beginning of every financial year.
- The minimum investment has also been revised to Rs.1,56,658 for pension of Rs.12,000/- per annum and Rs.1,62,162/- for getting a minimum pension amount of Rs.1000/- per month under the scheme.

1.70 SCHEME FOR FORMALISATION OF MICRO FOOD PROCESSING ENTERPRISES

Context

The Union Cabinet has given its approval for the “Scheme for the formalization of Micro Food Processing Enterprises (FME)”, a Centrally



SCHEME FOR FORMALISATION OF MICRO FOOD PROCESSING ENTERPRISES (FME)

TOTAL OUTLAY: RS. 10,000 CRORE

- **2,00,000** FPOs/SHGs/Cooperatives and working micro enterprises to be directly benefitted
- Expected to generate **9 lakh** skilled and semi-skilled jobs
- To be implemented over a **5-yr period from 2020-21 to 2024-25**
- Cluster approach
- Focus on Perishables.



Sponsored Scheme for the unorganized sector.

About the objectives

- To increase access to finance by micro food processing units.
- Further, an increase in revenues of target enterprises.
- To ensure enhanced compliance with food quality and safety standards.
- Strengthening capacities of support systems.
- To ensure a transition from the unorganized sector to the formal sector.
- Provide a special focus on women entrepreneurs and Aspirational districts.
- To encourage Waste to Wealth activities.
- To enlarge its focus on minor forest produce in Tribal Districts.

About the scheme

- The Scheme has been launched on an all India basis with an overall outlay of Rs 10,000 crore.
- Being a Centrally Sponsored Scheme, the expenditure would be shared by the GoI and the States in the ratio of 60:40.
- As part of the Scheme, approximately 2,00,000 micro-enterprises are to be assisted with credit-linked subsidies.
- This Scheme will be implemented over a 5 year period from 2020-21 to 2024-25.
- Further, the scheme will follow a cluster approach and will focus on the perishables.
- **Support to Individual Micro Units:**
 - As part of the Scheme, the micro-enterprises will get a credit-linked subsidy @ 35% of the eligible project cost with ceiling of Rs.10 lakh.
 - Further, the beneficiary contribution will be a minimum 10% and the remaining balance from the loan.
 - There will be facilities for on-site skill training & Handholding for DPR and technical upgradation.
- **Support to FPOs/SHGs/Cooperatives:**
 - The Scheme provides seed capital to SHGs for loan to members for working capital and small tools.
 - It also ensures a grant for backward/ forward linkages, common infrastructure, packaging, marketing & branding.
 - Further, it provides the necessary Skill training & Handholding support.
 - There is also provision for the Credit linked capital subsidy.

1.71 METHODOLOGY FOR AUCTION OF COAL & LIGNITE MINES/ BLOCKS

The Cabinet Committee on Economic Affairs (CCEA) has approved the methodology for auction of Coal and lignite mines or blocks for sale of Coal Or Lignite on revenue sharing basis and increasing the tenure of coking coal linkage.

About the methodology

- This methodology provides that the bid parameter will be on revenue sharing basis. The bidders would be required to bid for a percentage share of revenue payable to the Government.
- The floor price shall be 4 percent of the revenue share.
- Bids would be accepted in multiples of 0.5 percent of the revenue share till the percentage of revenue share is up to 10 percent and thereafter bids would be accepted in multiples of 0.25 percent of the revenue share.
- There shall be no restriction on the sale or utilization of Coal from the Coal mine.
- The entire revenue from the auction or allotment of coal mines would accrue to the coal-bearing States.
- Tenure of coking coal linkage in the non-regulated sector linkage auction has been increased up to 30 years.

About the upfront amount

- Successful Bidder shall be required to make monthly payments which shall be determined as the product of:
 - percentage of revenue share (final bid),
 - quantity of coal on which the statutory royalty is payable during the month and
 - Notional price or actual price whichever is higher.
- The Upfront-Amount shall be 0.25 percent of the value of estimated geological reserves of the Coal mine payable in 4 equal installments. However, the upfront amount payable shall be as per actual calculation as per above method or as per ceiling mentioned here, whichever is lower.
- If Geological Reserves in mine up to 200s tonne, the upper ceiling of upfront amount will be Rs. 100 crore.
- If Geological Reserves in mine is over 200 tonnes, the upper ceiling of the upfront amount will be Rs. 500 crore.
- It also permits commercial exploitation of the CBM present in the mining lease area.

1.72 COIR GEO TEXTILES

Context

Coir Geo textiles, a permeable fabric, natural, strong, highly durable, resistant to rots, moulds and moisture, free from any microbial attack, has finally been accepted as a good material for rural road construction under the PMGSY-III.

About the scheme

- As per the PMGSY new technology guidelines for road construction, 15% length in each batch of proposals, is to be constructed using new technologies.
- Out of this 5% roads are to be constructed using IRC accredited technology.
- The IRC has now accredited coir Geotextiles for the construction of rural roads.
- As per these instructions, 5% length of the rural roads under PMGSY-III will be constructed using Coir Geotextiles.
- The decision opens up a huge market potential for Coir Geotextiles in the Country and will be a boon to the Covid-19 hit Coir Industry.

1.73 KHUDOL

The United Nations Secretary-General's Envoy on Youth has listed Manipur's Khudol (gift) among the top 10 global initiatives for an inclusive fight against the COVID-19 pandemic.

About Khudol

- Khudol is a crowdfunded initiative of Ya_All, an Imphal-based NGO that had created India's first transgender football team.
- The initiative entails ensuring food, health and hygiene of the LGBTQI+ community, people living with HIV, daily-wage earners, children and adolescents.

About the objective

- Ya_All, which was founded in 2017, for organising mental health workshops and founding Meitram, the first co-working and networking space owned and run by queer individuals in India.
- Manipur has also been more accommodative to the transgender community than other States during the COVID-19 pandemic lockdown, ensuring that they were not put into quarantine centres for men.
- Ya_All created a model of an inclusive safe space for transgender returnees.
- The organisation teamed up with the local Thangmeiband United Club and Imphal West district administration to set provide separate rooms and toilets for transgender persons besides a ramp for the differently-abled at a quarantine centre in Imphal's DM College of Teacher's Education.

1.74 UMANG

IMD cyclone warnings, weather forecast, rainfall information, tourism related updates, among other services, provided by the Met Department are now available on UMANG app.

About the app

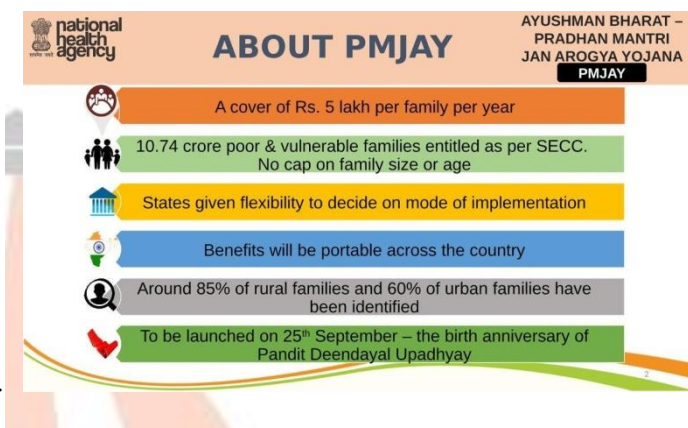
- The Unified Mobile Application for New-age Governance (UMANG) is a Government of India all-in-one single, multi-lingual, multi-service mobile app, powered by a robust back-end platform providing access to high impact services of various organization (Central and State).

- Prime Minister Narendra Modi had launched UMANG app in 2017 to bring all the government services on a single mobile app.
- About 660 services from 127 department and 25 states, including utility payments, are available on the app and more are in pipeline.

1.75 **AYUSHMAN BHARAT PRADHAN MANTRI JAN AROGYA YOJANA**

Context

- Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY), the flagship health assurance scheme of the Government of India has marked 1 Crore treatments.
- To mark this milestone, Dr. Harsh Vardhan, Union Minister of Health and Family Welfare inaugurated the first edition of Arogya Dhara, a series of webinars created as an open platform for discussion on topical issues of public health.



About the Yojana

- PM-JAY is a giant step towards a healthy India, as it aims to make affordable, accessible healthcare a reality for all.
- PM-JAY has crossed a significant milestone of one crore hospitalisations, worth over Rs. 13,412 crore, in less than 20 months since its launch on September 23, 2018.
- Delivering one crore free and cashless treatments in this time period shows that there was a lot of demand and people needed a scheme like PM-JAY.
- The efforts of the doctors, nurses, healthcare workers, para medical staff and all others associated with Ayushman Bharat, across all states, have helped in making it the largest healthcare programme in the world.

Highlights

- The aim of Ayushman Bharat is to ensure the achievement of universal health coverage in India.
- Gujarat, Tamil Nadu, Chhattisgarh, Kerala, and Rajasthan have emerged as the top-performing states providing the highest number of treatments under the scheme.
- Orthopedics, Cardiology, Cardio-thoracic and Vascular surgery, Radiation Oncology and Urology have remained as the top specialties under which treatment is sought.
- Treatment packages — such as single stent (medicated, inclusive of diagnostic angiogram), hip fracture internal fixation and rehabilitation, Coronary Artery Bypass Grafting (CABG), double stent

(medicated, inclusive of diagnostic angiogram) and Total Knee Replacement — have emerged as top tertiary procedures.

1.76 **ReStart**

- As a lockdown exit plan, Andhra Pradesh Chief Minister YS Jagan Mohan Reddy announced a mega boost for MSMEs with a Rs 1,110 crore restart package.
- The government will be immediately releasing Rs 450 crore as the first installment which would benefit nearly 98,000 units.
- These units employ more than 10 lakh people who were facing hardships due to the lockdown.

Background

- During a video conference with District Collectors and entrepreneurs, CM Reddy released the amount towards the pending industrial incentives to the MSME sector, despite the state facing deep financial crisis.
- The government also waived power demand charges of MSMEs during the months of April, May and June which is roughly around Rs 188 crore.

Highlights

- Additionally, Rs 200 crore is going to be provided as input capital to the firms at low-interest rates which would put the MSMEs back on rails, the government said.
- In order to strengthen the MSME sector during this emergency situation, the state government came up with a reviving package to boost up the MSMEs and create employment.
- MSMEs is one sector which provides employment to locals.
- The Chief Minister further announced that the government will directly purchase 360 items manufactured by the MSMEs and give payments in a period of 45 days which will further help the sector.
- Of the total purchases, almost 25 per cent of the purchases are to be done from micro and small enterprises, four percent from SC-ST community enterprise, and three percent from women entrepreneurs.

1.77 **ZARDALU MANGO**

After transporting medical consignments, then Alphonso mangoes from Gujarat, India Post has now partnered with the Bihar government to deliver 'Shahi Lichi' and 'Zardalu Mango' at the doorstep of people in Patna, Muzaffarpur and Bhagalpur.

Background

- Following the COVID-19 outbreak, farmers faced the prospect of their produce going to waste given the nationwide lockdown.

- The Bihar Postal Circle has made an agreement with the Department of Horticulture, Government of Bihar, for logistics of Shahi Lichi from Muzaffarpur and Zardalu Mango from Bhagalpur and its delivery to the doorstep of the people.

Highlights

- The partnership has been forged to address the woes of Litchi and Mango cultivators in the state due to the lockdown to contain the spread of coronavirus.
- People can place orders for the fruits on the website of the Bihar horticulture department.
- The Shahi Lichi of Muzaffarpur and Zardalu Mango of Bhagalpur are famous variety of fruits.
- In the first week of March, India Post had entered into a tie-up with the Indian Council of Medical Research (ICMR) for delivery of its COVID-19 testing kits to 200 additional labs designated for coronavirus testing across the country.
- While continuing to reach money to people's doorsteps through Aadhaar enabled Payment System, India Post has entered into a tie-up with ICMR for delivery of its COVID-19 testing kits from its 16 regional depots to the 200 additional labs designated for COVID testing across the country.

1.78 EMISSION NORMS FOR L7 (QUADRICYCLE) CATEGORY FOR BS VI NOTIFIED

The government has notified BS-VI emission norms for quadricycles, paving the way for higher production of the new category of vehicle that was introduced less than two years ago.

Background

- The Ministry of Road Transport and Highways has issued notification regarding the emission norms for L7 (quadricycle) category for BS-VI.
- These norms are applicable from the date of notification.

This notification completes the process of BS-VI for all category vehicles in India.

Highlights

- The emission norms are on the lines of the European Union's World Motorcycle Test Cycle (WMTC).
- In 2018, the government had introduced the quadricycle segment with necessary standards to produce the vehicle.
- It had approved the vehicle for both commercial and private use.

About Quadricycle

- According to the road transport ministry, a quadricycle is the size of a three-wheeler but with four tyres and is fully covered like a car.
- A quadricycle cannot be more than 3.6 metres long, should have an engine smaller than 800cc, and should not weigh more than 475 kilograms.

- India's automobile industry has been urging the ministry to set BS-VI emission standards for quadricycles, after the norms were rolled out for other segments starting 1 April, 2020.
- Currently, only a few automobile players in India manufacture quadricycles.
- After the government had allowed the introduction of the vehicle in 2018, Bajaj Auto Ltd was the first to commercially launch 'Qute' under this segment.

About Bajaj Qute

- Bajaj Qute was launched in India in April, 2019 in both CNG and petrol variants.
- The company produced 6,095 quadricycles in fiscal 2020, of which 942 were sold domestically and 5,185 were exported.
- Mahindra and Mahindra Ltd showcased the Atom, an electric quadricycle, at Auto Expo 2020.
- The vehicle is likely to be launched later this year.

1.79 HUMAN CHALLENGE TRIAL

- The World Health Organisation (WHO) has announced that eight vaccine candidates for COVID-19 have entered human trials.
- In a human challenge trial, participants are deliberately exposed to the infection (in this case it is SARS-CoV-2 virus), in order to study the disease and test the vaccines.

Background

- For this, the exact Virus strain that will be used to infect the participant and dosage or how much of the Virus the volunteers need to be exposed to needs to be determined and approved by the regulatory authorities.
- Human challenge trial isn't new.
- The method has been used for developing vaccines for seasonal flu, typhoid, malaria, and cholera, among others.

About the benefits

- Human challenges expedite trials because a lot of time may be lost waiting for a trial subject to contract the disease naturally from the community.
- Till such time that happens, whether the vaccine works or not cannot be tested.
- Then again, if infection does not happen normally, there is little way of finding out whether it is because of the vaccine or whether it is because the person was never exposed at all.

1.80 VINAYAK DAMODAR SAVARKAR

Prime Minister Narendra Modi paid tributes to freedom fighter and Hindutva ideology Veer

Savarkar on his birth anniversary, saying he motivated several people to join the freedom struggle.

About Savarkar

- Savarkar commonly known as 'Swatantryaveer Savarkar' was an Indian independence activist and politician who formulated the Hindu nationalist philosophy of Hindutva.
- He was a leading figure in the Hindu Mahasabha.
- As a response to the Muslim League, Savarkar joined the Hindu Mahasabha and popularized the term Hindutva (Hinduness), previously coined by Chandranath Basu, to create a collective "Hindu" identity as an essence of Bharat (India).
- Savarkar was an atheist and also a pragmatic practitioner of Hindu philosophy.
- He and his brother founded a secret society called Abhinav Bharat Society.
- When he went to the United Kingdom for his law studies, he involved himself with organizations such as India House and the Free India Society.
- In 1948, Savarkar was charged as a co-conspirator in the assassination of Mahatma Gandhi; however, he was acquitted by the court for lack of evidence.
- Savarkar resurfaced in the popular discourse after the coming of the BJP into power in 1998 and again in 2014 with the BJP government at the center.

1.81 INTERNATIONAL DAY OF UN PEACEKEEPERS

The International Day of United Nations Peacekeepers, 29 May, offers a chance to pay tribute to the uniformed and civilian personnel's invaluable contribution to the work of the Organization and to honor more than 3,900 peacekeepers who have lost their lives serving under the UN flag since 1948, including 102 last year.

Background

- This year, the challenges and threats faced by our Peacekeepers are even greater than ever, as they, like people around the world, are not only having to cope with the COVID-19 pandemic, but also support and protect the people in the countries they are based in.
- They are continuing their operations to the best of their abilities and supporting the governments and the local populations, despite the risk of COVID-19.
-

About the objective

- The theme for this year's Day is "Women in Peacekeeping: A Key to Peace" to help mark the 20th anniversary of the adoption of UN Security Council Resolution 1325 on Women, Peace and Security.
- Through UNSCR 1325, ensuing resolutions, as well as the Action for Peacekeeping (A4P) Declaration of Shared Commitments, the UN has called for an expansion of the role and contribution of women in its operations, including of uniformed peacekeepers.

Highlights

- Women peacekeepers make invaluable contributions to peacekeeping.
- They help improve overall peacekeeping performance, have greater access to communities, especially to women, and therefore, help in promoting human rights and protection of civilians.
- They also encourage women to become a meaningful part of peace and political processes; when diverse women participate in peace negotiations, the quality and durability of peace agreements increases, and when women are signatories of peace agreements, they are more likely to be implemented, which academic research shows helps to ensure sustainable peace and prosperity.

1.82 KARNATAKA STATE HEALTH REGISTER

In a first of its kind initiative in the Country, Karnataka government will soon launch a State Health Register project to maintain the health database of all its citizens.

About the Register

- The Karnataka State Health Register will be a robust and standardized health repository of all the citizens.
- This will not only help the government to provide better healthcare, but will also help efficient resource allocation, management and better implementation of various citizen-centric schemes in the state.
- This project will be implemented first in Chikkaballapur district on an experimental basis.

1.83 MONTENEGRO

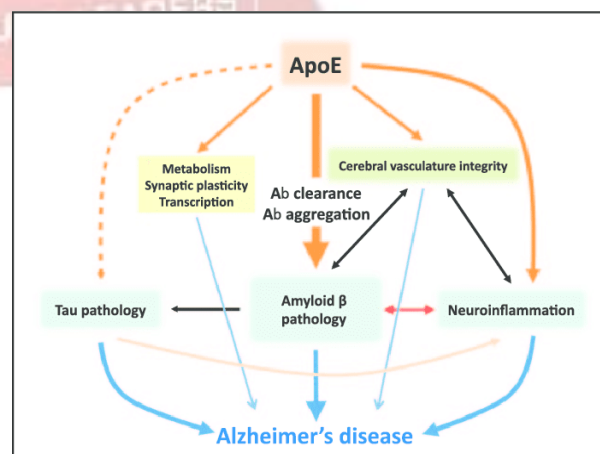
Less than two months after detecting its first infection, Montenegro is the first country in Europe to declare itself coronavirus-free.

About the country

- Montenegro is a country of South and Southeast Europe on the coast of the Balkans.
- It borders Bosnia-Herzegovina to the northwest, Serbia to the northeast, Kosovo to the east, Albania to the southeast, the Adriatic Sea to the southwest, and Croatia to the west.
- Its capital is Podgorica.
- Montenegro is a founding member of the Union for the Mediterranean.
- It is also in the process of joining the European Union.
- The largest lake in Montenegro and the Balkans is Lake Scutari.

1.84 APOE AND COVID-19

- A new study suggests people with the ApoE e4 genotype are more likely to have a severe case of COVID-19 if they fall ill.



- As dementia appears to be a risk factor for COVID-19 severity, researchers from the US and UK sifted through UK Biobank data to examine whether there was a link between the Alzheimer's disease risk-like ApoE genotype and COVID-19 severity.

About the research findings

- They combined both UK Biobank ApoE genotype data with data on UK Biobank individuals who underwent COVID-19 testing in the hospital, which they used as a proxy of disease severity.
- From this, the researchers found that individuals who are ApoE e4e4 homozygotes were more likely to also have tested positive for COVID-19 in the hospital.
- It is not just age: this is an example of a specific gene variant causing vulnerability in some people.

About Alzheimer's disease

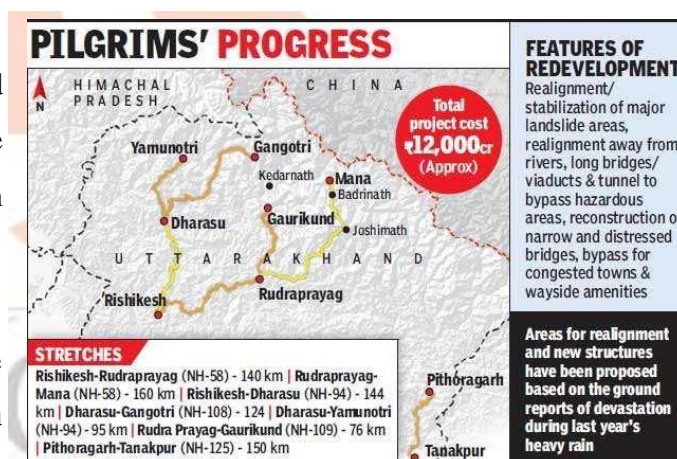
- A progressive disease that destroys memory and other important mental functions.
- Brain cell connections and the cells themselves degenerate and die, eventually destroying memory and other important mental functions.
- Memory loss and confusion are the main symptoms.
- No cure exists, but medication and management strategies may temporarily improve symptoms.

1.85 CHARDHAM PARIYOJANA

Union Minister for Road Transport inaugurated the 440 meter-long tunnel, constructed below the busy town of Chamba as part of the Chardham Connectivity Project.

About the project

- The tunnel will significantly reduce the time taken by travelers on the Rishikesh-Dharasu and Gangotri stretch of the Chardham Highway.
- It will also avoid congestion in the city of Chamba and open up avenues of socio-economic development in the region.
- The project is likely to be completed by October this year which will be three months ahead of its schedule.
- Under the Chardham Project costing around 12 thousand crore rupees approximately 889 Kilometres of Highway Construction is to be done. BRO has been entrusted for construction of 250 Kilometre-stretch leading to holy shrine Gangotri and Badrinath.



1.86 SHIV LINGA UNEARTHED

- Archaeological Survey of India (ASI) unearthed a Shiv Linga or representation of the Hindu deity Shiva dating back to the 9th century at Cham temple complex in Vietnam during restoration work.
- The development underscored the “civilisational connect” between the two countries and was also a “great cultural example of India’s development partnership.”

About the excavation

- The Shiv Linga or the Representation of the Hindu Deity “SHIVA” has been unearthed by the Archaeological Survey of India at Cham temple complex, Vietnam.
- The Cham Temple complex is a part of the UNESCO world heritage site of My Son in Quang Nam province of Vietnam.
- It was built in the 9th century AD during the reign of King Indravarman II, who was also responsible for the famous Dong Duong Buddhist monastery in the same region.
- French experts discovered the temple complex in a dilapidated condition in 1903-04.
- During excavations at that time, French archaeologists had described the presence of a Shiv Linga in the group of temples that is currently being renovated.
- However, due to limited excavation capabilities in those days, this Shiv Linga could not be recovered.
- Subsequently, political disturbances and wars in Vietnam led to the destruction of the temple complex.
- The external affairs ministry created a new Development Partnership Division (DPA-IV) in January to coordinate and undertake culture and heritage conservation projects abroad.

1.87 SOUTH ATLANTIC ANOMALY

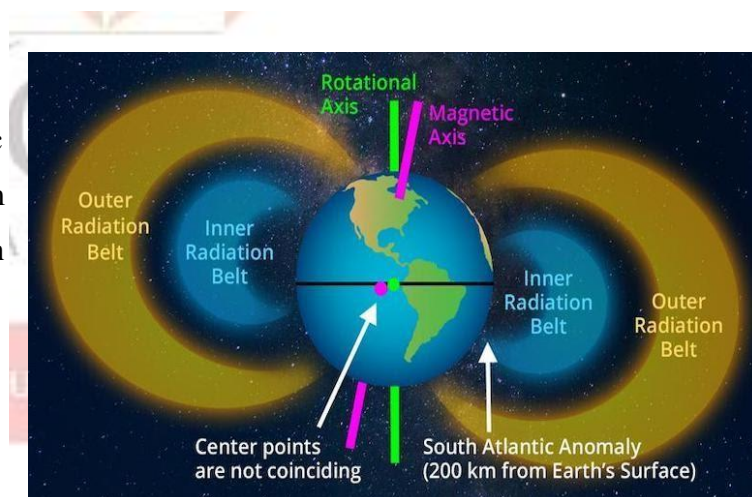
Context

Recently, development of the South Atlantic Anomaly (SAA) was updated by the Swarm constellation of satellites of the European Space Agency (ESA).

Background

- This update about the South Atlantic Anomaly signifies the weakening of the Earth’s magnetic field between Africa and South America.
- However, it has been observed that the present dip in intensity of the Earth’s magnetic field is within the normal fluctuation levels.

About the South Atlantic Anomaly



- The South Atlantic Anomaly (SAA) is an area where the Earth's inner Van Allen radiation belt comes closest to the Earth's surface, dipping down to an altitude of 200 kilometres (120 mi).
- This leads to an increased flux of energetic particles in this region and exposes orbiting satellites to higher-than-usual levels of radiation.
- The area of the SAA is confined by the intensity of Earth's magnetic field at less than 32,000 nanotesla at sea level, which corresponds to the dipolar magnetic field at ionospheric altitudes.

About Van Allen Radiation Belt

- A Van Allen radiation belt is a zone of energetic charged particles, most of which originate from the solar wind, that are captured by and held around a planet by that planet's magnetic field.
- Earth has two such belts and sometimes others may be temporarily created.
- The belts are named after James Van Allen, who is credited with their discovery.
- Earth's two main belts extend from an altitude of about 640 to 58,000 km (400 to 36,040 mi) above the surface in which region radiation levels vary.
- Most of the particles that form the belts are thought to come from solar wind and other particles by cosmic rays.
- The belts are located in the inner region of Earth's magnetosphere.
- The belts trap energetic electrons and protons.

1.88 DELIMITATION COMMISSION OF INDIA

- The Delimitation Commission of India held its second meeting on 28th May 2020, to review the progress of direction given by the Commission in its first meeting held on 29th April 2020.
- Earlier there was a slight delay in organizing the first meeting due to ongoing lockdown because of the COVID 19 pandemic.

About Delimitation

Delimitation refers **to the act or process by which limits or boundaries of territorial constituencies are fixed in a country to represent changes in the population.**

About the procedure

- The Delimitation process is followed to provide equal representation to equal segments of a population.
- With the help of delimitation, fair division of geographical areas can take place which in turn ensures that one political party doesn't have an advantage over others in an election.
- Apart from above, delimitation ensures the compliance of the principle of "One Vote One Value".

About the Constitutional provisions

- As per the Indian Constitution, under Article 82, the Parliament enacts a Delimitation Act after every Census.

- Further, as per Article 170, States also get divided into territorial constituencies as per the Delimitation Act after every Census.
- Once the Delimitation Act is in force, the Union government sets up a Delimitation Commission of India.
- The first delimitation exercise was carried out by the President (with the help of the Election Commission) in 1950-51.
- The Delimitation Commission Act was enacted in 1952.
- Delimitation Commissions have been set up four times — 1952, 1963, 1973 and 2002 under the Acts of 1952, 1962, 1972 and 2002.
- There was no delimitation after the 1981 and 1991 Censuses.

About the Delimitation Commission of India

- The responsibility of the appointment of the Delimitation Commission lies with the President of India.
- The Commission works in close collaboration with the Election Commission of India.
- The Delimitation Commission of India consists of the following:
 - **Retired Supreme Court judge**
 - **Chief Election Commissioner**
 - **Respective State Election Commissioners**

1.89 MFP ITEMS IN MSP LIST

The Ministry of Tribal Affairs has announced the **inclusion of 23 additional Minor Forest Produce (MFP) items in the Minimum Support Price (MSP) list.**

About the announcement

- They include Van Tulsi seeds, Van Jeera, Mushroom, Black Rice, and Johar Rice among others.
- The decision enhancing the coverage from 50 to 73 items comes in view of the COVID-19 pandemic so that much-needed support could be provided to the tribal MFP gatherers.
- The ministry said, 14 of the newly added items, otherwise agricultural produce, are not commercially grown in the North-Eastern part of India but are found to grow in the wild in forests.
- Hence, the Ministry has favorably considered to include these specific items as MFP items for the North-East.

1.90 NATIONAL CAREER SERVICE (NCS) PROJECT

The Ministry of Labour and Employment under its National Career Service (NCS) project has now started offering free online “Career Skills Training” in partnership with TCS ION for its registered job-seekers.

About the portal

- The Ministry of Labour and Employment is implementing the National Career Service (NCS) project for transformation of the National Employment Service to provide a variety of employment related services like job search, job matching, career counselling, vocational guidance, information on skill development courses through an on-line portal (www.ncs.gov.in).
- Around 1000 employment exchanges including 200 Model Career Centers across the country are integrated with NCS.
- A Special link for Work from Home Jobs and Online Trainings has been created on NCS portal Home Page to give direct access to job-seekers to such jobs.
- NCS also offers the functionality of creation of video profiles for job-seekers in partnership with HIREMEE, a platform which provides online assessment and hiring services. Job-seekers can showcase their ability to recruiters using short video clips.
- All services on NCS are free.



2. INTERNATIONAL RELATIONS

2.1 US terminates relationship with World Health Organisation



- The United States has officially terminated its relationship with the World Health Organisation. This was announced by US President Donald Trump on May 29, 2020.
- The US President in a live speech accused China of having total control over WHO despite paying only USD40 million a year compared to what the US has been paying, which is approximately USD 450 million a year. Trump stated that the US will be terminating its relationship with the World Health Organisation because they have failed to act on the requested and greatly needed reforms.
- The US President stated that the US will be redirecting the funds intended for WHO to other worldwide and deserving, urgent global public health needs.

2.2 US President Donald Trump signs order to regulate social media platforms;



- The US President Donald Trump on May 28, 2020 signed an executive order to increase the government's ability to regulate social media platforms.
- The US President stated that the move is being taken to defend free speech from one of the gravest dangers it has faced in American history.
- The order comes two days after Twitter labelled two of Trump's tweets as misleading by highlighting them with a label.

Key Highlights

- The executive order directs a Commerce Department agency to file a petition with the Federal Communications Commission (FCC) to clarify the scope of Internet law, Section 230. The proposition invited criticism from Democratic members of the commission.
- The order also directs federal agencies to review their spending on social media advertising.
- The executive order not only tests the boundaries of the White House's authority, but it is also being viewed as a dramatic escalation by Trump against tech companies as they struggle with the growing problem of misinformation, especially on social media platforms.
- While passing the order, Trump acknowledged that it is likely to get challenged in the court but they will be ready for it.

What is Section 230?

Section 230 of the Communications Decency Act (CDA) of 1996 is a landmark Internet legislation of the United States, which helped pave the way for social media companies like Google, Twitter and Facebook to grow into global giants.

According to Section 230, no provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider.

Section 230 was developed in response to a pair of lawsuits against Internet service providers in the early 1990s, which had different interpretations of whether the service providers should be treated as publishers or distributors of content created by its users.

Scope of Section 230

The scope of Section 230 is not limitless, as it still requires internet providers to remove criminal material from user pages such as copyright infringement.

The section was amended in 2018 by the Stop Enabling Sex Traffickers Act to direct the internet providers to remove material violating federal and state sex trafficking laws.

Why has Section 230 come under scrutiny?

The protections offered by Section 230 to the internet providers have come under scrutiny lately with rising issues related to hate speech and ideological biases in relation to the power technology companies can hold on political discussions.

Significance

Section 230 is often referred to as the “twenty-six words that created the internet.” The law was passed at a time when internet use had just begun expanding. It is known as the key law that led the internet to flourish.



Background

Twitter had on May 26, 2020 labelled tweets from US President Donald Trump as misleading by highlighting two of his tweets that falsely claimed mail-in ballots would lead to widespread voter fraud. Twitter labelled both the tweets with a message-“ Get the facts about mail-in-ballots”, which was linked to a fact-checking platform. Twitter defended the move by saying that it was aimed at providing "context" around Trump's remarks.

2.3 International Day of Light is observed on 16 May



- International Day of Light is observed on 16 May. The day marks the 60th anniversary of the first successful operation of the laser in 1960 by Theodore Maiman, the physicist, and engineer.
- The day aims to raise awareness about the important role played by all the light-based technologies in the lives of people in areas of education, art, and culture sustainable development, science & technology, and in fields as diverse as medicine, communications, and energy.

History:

The International Day of Light was initiated by UNESCO. The day marks the anniversary of the first successful operation of the laser by engineer and physicist Theodore Maiman on 16 May 1960. 2020 International Day of Light marks the global celebration of the second edition of the International Day of Light.

2.4 New Political Map of Nepal

Nepal will publish a new political map asserting its claim over the Kalapani region that has been at the centre of a simmering territorial dispute with India.

Issue of this New Political Map of Nepal?

- As part of its Budget session, President Bidhya Devi Bhandari announced the decision before the Nepali Parliament.
- The announcement of a new map is being viewed as a response to India's publication of a new political map in 2019, which depicted the newly formed Union Territories of Jammu and Kashmir, and Ladakh.
- The same map had triggered the border row with Nepal as it showed the tri-junction territory of Kalapani as part of the state of Uttarakhand.
- Nepal on Thursday set up an armed border outpost in the westernmost part of the country, saying the outpost will be used for observation of Indian activities and will be strengthened over time.

About Kalapani Disputed Region

- The Kalapani region is an area under the administration of Indian as part of Pithoragarh district in the Uttarakhand state, but is also claimed by Nepal.
- According to Nepal's claim, it lies in Darchula district, Sudurpashchim Pradesh.
- It is marked by the Kalapani river, one of the headwaters of the Kali River in the Himalayas at an altitude of 3600–5200 meters.
- The valley of Kalapani, with the Lipulekh Pass at the top, forms the Indian route to Kailash–Manasarovar, an ancient pilgrimage site. It is also the traditional trading route to Tibet for the Bhotiyas of Uttarakhand.
- Today, Nepal claims all the area up to the Kalapani river.
- The Nepalese maps show this area, measuring 35 square kilometres, as part of Nepal's Darchula District.
- A joint technical committee of Indian and Nepalese officials have been discussing the issue since 1998, along with other border issues. But the matter has not yet been resolved.

2.5 PM of Israel Benjamin Netanyahu sworn-in for the 5th time

Prime Minister Benjamin Netanyahu finally swore in his new government on 17th May for the fifth time. The ceremony of the swearing-in of Israel's new government, the Knesset, was held in accordance with coronavirus social distancing directives. Netanyahu will be in power until 13th November 2021. This ended the 18-month political crisis in the country. Benny Gantz will serve in the specially created role of alternate Prime Minister and Defense Minister.

2.6 World Telecommunication and Information Society Day was observed on 17th May

World Telecommunication and Information Society Day was observed on 17th May every year. The day aims to celebrate the power of telecommunication and its importance in building relationships

across cultures around the world.

Aim:

The World Telecommunication and Information Society Day aims to raise awareness of the possibilities that the use of the Internet and other information communications technology (ICT) can bring to societies and economies, and the ways to bridge the digital divide.

Theme:

The theme for the year 2020 World Telecommunication and Information Society Day is "Connect 2030: ICTs for the Sustainable Development Goals (SDGs)." The theme focuses to achieve five SDGs and aim for environmental, economic, and social sustainability. These five plans include growth, inclusiveness, sustainability, innovation, and partnership.

History:

World Telecommunication and Information Society Day was initiated by the United Nations General Assembly (UNGA). The Day has been celebrated annually on 17 May since 1969. The day commemorates the establishment of the International Telecommunication Union (ITU) on 17 May 1865. ITU was instituted by the Plenipotentiary Conference held in Malaga-Torremolinos in 1973. Until 2015, it was just regarded as World Telecommunication Day. But, later, the UN renamed it as "World Telecommunication and Information Society Day".

2.7 World Hypertension Day is observed on 17th May

World Hypertension Day (WHD) is observed on 17th May every year. The day aims to promote public awareness of hypertension. It also encourages all the people across the world to prevent and control this silent killer.

Theme:

The theme of 2020 World Hypertension Day is "Measure Your Blood Pressure, Control It, Live Longer." It focuses to create awareness about raising high blood pressure (BP) in all the populations around the world.

History:

The observation of World Hypertension Day was initiated by the World Hypertension League (WHL). The day was first inaugurated in May 2005. WHL is an affiliated section of the International Society of Hypertension (ISH). The day aims to spread awareness about hypertension disease, early detection, prevention, and control. The main risk factor to develop cardiovascular disease is high blood pressure.

Hypertension:

Hypertension or high blood pressure is a long-term medical condition in which the blood pressure in the arteries is persistently elevated. High blood pressure, if left untreated, can cause health conditions, such as heart disease and stroke.

A diet high in salt, fat, and/or cholesterol, Chronic conditions such as kidney and hormone problems, diabetes, and high cholesterol are the common factors that can lead to high blood pressure.

2.8 International Museum Day is observed on 18th May

Development of Museums and Cultural Spaces, Ministry of Culture, Government of India hosted a webinar on “Revitalising Museums and Cultural Spaces” to celebrate the International Museum Day on 18 May.

International Museum Day 2020 theme – Museum for Equality: Diversity and Inclusion

Key Highlights of the Webinar on International Museum Day

- The webinar has been hosted by Development of Museums and Cultural Spaces, Ministry of Culture, Government of India.
- The National e-Governance Division (NeGD) created by the Ministry of Electronics & Information Technology (MeitY) has supported DMCS, Ministry of Culture by providing technical assistance for conducting of this Webinar.
- The webinar featured some of the best experts in the museum and cultural spaces domain.
- The objective of the webinar is to identify the possible policy actions that will help alleviate the short and long term effects of the crisis on museums, cultural spaces and their broader ecosystems
- The nascent topic Museo-preneurs also discussed to look at how museums can embrace the entrepreneurial spirit and work on sustainable business models.

2.9 Historic Travel Bubble amid COVID-19

- Recently, the Baltic countries of Estonia, Latvia and Lithuania started a travel bubble to help put their economies back on track after Covid-19 lockdowns.
- All three have been fairly successful at managing the Covid-19 outbreak and remaining comparatively safe.
- In the Estonia-Latvia-Lithuania travel bubble, residents would be able to travel freely by rail, air and sea without quarantine measures.

2.10 Travel Bubble?

- Creation of this travel bubble involves reconnecting countries or States which have shown a good level of success in containing the Covid-19 pandemic domestically.
- Such a bubble would allow the members of the group to restart trade ties with each other and open travel and tourism.
- According to a report, potential travel bubbles among better-performing countries around the world would account for around 35% of the global Gross Domestic Product (GDP).
- Travel bubbles are favoured by smaller countries because they are likely to benefit after being able to trade again with larger partners.

2.11 Criteria for Entering the Travel Bubble?

- People from the outside countries, willing to join the bubble corridor, will have to go into isolation for 14 days.
- One should not have travelled outside the member Countries of the travel bubble, in the past 14 days.
- One should not be infected with coronavirus and should not have come in contact with anyone who has been coronavirus infected.

2.12 Which are the other Countries to Start such a travel bubble?

- Australia and New Zealand have reached an agreement to form a travel bubble, once it becomes safe to operate flights between them. Once it opens, the trans-Tasman zone (around Tasman Sea) will allow travel without a quarantine period.
- Trans-Tasman Zone: Trans-Tasman Travel Arrangement is an arrangement between Australia and New Zealand which allows for the free movement of citizens of one of these countries to the other. The arrangement came into effect in 1973 and allows citizens of each country to reside and work in the other country, with some restrictions.
- China and South Korea have launched a fast track channel for business travellers.
- In the USA, travel bubbles are being suggested to group states who are doing well against the pandemic.

2.13 World Bee day is observed on 20th May

World Bee day is observed on 20th May every year. The day aims to strengthen measures to protect bees and other pollinators. The day aims to spread awareness about the significance of pollinators like bees, butterflies, bats, and sparrows.

Theme:

The theme for 2020 World Bee Day is "Save the Bees". The theme aims to stress the protection of bees and other pollinators. It also aims at protecting the natural habitat of pollinators.

History:

The United Nations initiated the observation of World Bee day. The days also commemorate the birth anniversary of the pioneer of beekeeping Anton Jansa who was born in 1734 in Slovenia. The UN Member States approved the proposal of World Bee Day in December 2017. The first World Bee Day was celebrated on 20 May 2018. The purpose of the Bee Day is to acknowledge the role of bees in the ecosystem. The day aims to highlight the variety of threats and development.

2.14 46th G-7 SUMMIT via Videoconferencing

- Recently, an announcement to host the 46th G7 summit in-person instead of remotely by videoconference was made by the US President Donald Trump.

- The annual G7 summit was scheduled to be held on June 10 to June 12, 2020 in Camp David, United States.

2.15 What you need to know about Group of Seven (G-7)?

- Group of Seven (G-7) is a bloc of industrialized democracies i.e. France, Germany, Italy, the United Kingdom, Japan, the United States, and Canada.
- It is an intergovernmental organisation that was formed in 1975.
- The bloc meets annually to discuss issues of common interest like global economic governance, international security and energy policy.
- The G7 was known as the 'G8' for several years after the original seven were joined by Russia in 1997.
- The Group returned to being called G7 after Russia was expelled as a member in 2014 following the latter's annexation of the Crimea region of Ukraine.
- The world's biggest population and second-biggest economy, China has relatively low levels of wealth per head of population. Thus it is not considered as an advanced economy like other G7 members. Hence China is not a member of G7.

2.16 The G-7 Summits

- Summits are held annually and hosted on a rotation basis by the group's members.
- The host country not only holds the G7 presidency but also sets the agenda for the year.
- The groundwork for the Summit, including matters to be discussed and follow-up meetings, is done by the sherpas, who are generally personal representatives or members of diplomatic staff such as ambassadors.
- The leaders of important international organizations like European Union, IMF, World Bank and the United Nations are also invited.

2.17 International Day for Biological Diversity is observed on 22 May

International Day for Biological Diversity (IDB) is observed on 22 May. The day to increase understanding and awareness of biodiversity issues. It calls people to re-examine human relationship to the natural world.

Theme:

- The theme for 2020 International Day for Biological Diversity is "Our solutions are in nature". The theme emphasizes hope, solidarity, and the importance of working together at all levels to build a future of life in harmony with nature.
- The theme aims to increase the resilience of nations and communities as the world countries are recovering from the COVID-19 pandemic.

History:

- IDB was first initiated by the Second Committee of the UN General Assembly (UNGA) on 29 December 1993, when the Convention on Biological Diversity came into force.
- In December 2000, the UNGA adopted 22 May as IDB with an aim to commemorate the adoption of the text of the Convention on 22 May 1992 by the Nairobi Final Act of the Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity.

2.18 International Tea Day is observed on 21 May

International Tea Day is observed on 21 May every year. The day provides an opportunity to celebrate the cultural heritage, health benefits, and economic importance of tea. The day is celebrated by the United Nations Food and Agriculture Organisation (FAO).

Tea:

- The origins of tea go back to more than 5,000 years. Tea contributes to health, culture, and socioeconomic development. Currently, Tea is grown in more than 35 countries.
- It supports over 13 million people, including smallholder farmers and their households, who depend on the tea sector for their livelihoods. Tea has many health benefits due to its anti-inflammatory & antioxidant properties.

History:

- In 2019, the United Nations General Assembly (UNGA) proclaimed 21 May as International Tea Day as it recognized the long history and deep cultural and economic significance of tea around the world.
- UNGA recognized that tea has medicinal value and has the potential of bringing health benefits to people. The reason for the UN celebrating Tea day on 21 May is that the season of tea production begins in May in most of the tea producing countries.
- Earlier, tea producing countries like Malawi, Malaysia, Bangladesh, Uganda, India, Sri Lanka, Nepal, Vietnam, Indonesia, Kenya, and Tanzania observed International Tea Day on 15 December every year.

2.19 World Day for Cultural Diversity for Dialogue and Development is observed on 21 May

World Day for Cultural Diversity for Dialogue and Development is observed on 21 May. The day celebrates the richness of the world's cultures and the essential role of intercultural dialogue for achieving peace and sustainable development.

The day aims to promote culture and highlight the significance of its diversity as an agent of inclusion and positive change.

Aim:

The day aims to provide an opportunity to celebrate culture's manifold forms, creative industries, diversity of cultural expressions, and to reflect on how these contribute to the dialogue, mutual

understanding, and the social, environmental, and economic vectors of sustainable development.

History:

The United Nations General Assembly (UNGA) first declared the observation of World Day for Cultural Diversity for Dialogue and Development in 2002. The move followed UNESCO's adoption of the 2001 Universal Declaration on Cultural Diversity which recognized the need to enhance the potential of culture as a means of achieving prosperity, sustainable development, and global peaceful coexistence.

2.20 UN and partners launch USD 6.7 billion appeals for vulnerable countries for COVID-19 relief

The United Nations and its partner agencies launched a \$6.7 billion global appeal to fight the COVID-19 pandemic. It will focus on more vulnerable countries and combating food insecurity and gender-based violence.

The UN Emergency Relief:

- The UN Emergency Relief plan originally included 54 countries and programmes to respond to the growth in food insecurity.
- Under the plan, 9 more vulnerable countries have been added. The nine newly added countries are Pakistan, Benin, Mozambique, Djibouti, Liberia, the Philippines, Sierra Leone, Togo, and Zimbabwe.
- The plans are for quick and determined action to stave off the most debilitating effects of the pandemic in 63 low and middle-income countries.
- New transport hubs for delivering supplies by air have also been established under the plan. Nearly 2 million people worldwide, including health workers, have been trained in virus identification through an online portal run by the WHO.
- World Food Programme (WFP) the UN agencies and partners responding to the immense needs, reaching nearly 100 million people on any given day.

2.21 Prime Minister of Iraq Mustafa al-Kadhimi assumed office

Iraq's new Prime Minister Mustafa al-Kadhimi assumed office on 6 May after the country's parliament approved a new government. The approval came after around 6 months of political wrangling. Mustafa replaced Adel Abdul Mahdi.

Along with Mustafa al-Kadhimi, two other candidates, Mohammed Allawi and Adnan al-Zurfi were

nominated by the Iraqi Parliament. But Mohammed Allawi and Adnan al-Zurfi withdrew after failing to win enough support in parliament. Kadhimy Won with the backing of the biggest political blocs. The Iraq Parliament also approved 15 ministers out of a prospective 22-seat cabinet in a vote of confidence.

Mustafa al-Kadhimi:

Mustafa al-Kadhimi is a Shia Muslim and is seen as a political independent and a pragmatist. The 53-year-old is a former journalist. He wrote against former President Saddam Hussein from exile in Iran and the UK before the US-led invasion of Iraq in 2003. He served as head of the Iraqi National Intelligence Service (Inis) from 2016 until April 2020 when he was tasked with forming a government.

2.22 WHO, UN postal agency release commemorative postage stamp on 40th anniversary of eradication of smallpox

- The World Health Organization (WHO) and the UN's postal agency have released a commemorative postage stamp on 9 May to commemorate the 40th anniversary of the eradication of smallpox.
- WHO's smallpox eradication campaign was launched in 1967. WHO raised awareness about smallpox across the world through postage stamps. In 1980 May, the 33rd World Health Assembly issued its official declaration that the world and all its peoples have won freedom from smallpox.

Smallpox:

- The causative agent of Smallpox is the Variola virus. It is a member of the genus Orthopoxvirus, subfamily Chordopoxvirinae of family Poxviridae.
- The symptoms of smallpox include fever (range of 101 to 104 degrees Fahrenheit), malaise, head and body aches, vomiting, rashes which turn into small red spots on the tongue and mouth, sores and bumps.
- In 1796, Edward Jenner developed the first successful vaccine. The smallpox disease has now been eradicated after a successful worldwide vaccination program.

2.23 Global Energy Review of IEA states 15 percent decline in electricity demand

The International Energy Agency (IEA) released the Global Energy Review in 2020. The report stated that 15% of the daily electricity demand has been reduced. It highlighted the carbon dioxide emissions and the global energy demand in the year 2020.

Report Highlights:

- The report was based on the survey collected from 30 countries including India and China.
- The report stated that decline in the electricity demand is due to lockdown imposed because of the COVID-19 pandemic in countries such as India, Italy, France, UK.

- The pandemic has reduced fossil-fuel based power generation. In India, the production of electricity has declined by 32.2% as compared to the 2019 level.
- It also stated that the oil demand was reduced by 5% and Carbon Dioxide Emissions have declined by 8% as compared to 2019.

2.24 World Migratory Bird Day is observed on 9 May

- World Migratory Bird Day (WMBD) is observed on 9th May in the year 2020. The day is globally observed on the second Saturday of May month. The day aims to bring attention to the threats faced by migratory birds, their ecological importance.
- It also aims to raise awareness about the increasing need for international cooperation to conserve them.

Theme:

The theme of 2020 World Migratory Bird Day is "Birds Connect Our World." The theme highlights the importance of conserving and restoring the ecological connectivity and integrity of ecosystems that support the natural movements of migratory birds and that are essential for their survival and well-being.

Issues faced by the Migratory Birds:

- Migratory birds rely on their natural habitats for food, shelter, and nesting. Various issues including Unsustainable agricultural practices and infrastructural pressures cause the habitats of migratory species to shrink. The use of pesticides also poses great threats to the birds.
- Furthermore, stop-over-sites have seen increased competition, especially where bird densities are high and food supplies have depleted. As stopover sites continue to be exposed to degradation and human expansion, this competition is likely to increase, harming migratory birds greatly.
- Also, the collision of birds with artificial man-made structures has posed a threat to over 350 species of migratory birds, especially the birds that fly at night. Structures made of glass and other reflective material can cause the death of more birds than almost any other human-related mortality factor.
- The increased building of wind turbines in flight paths, especially near wetlands, and expanded power lines near sites where birds congregate have also resulted in high bird mortality rates.

2.25 Finding Freedom Harry and Meghan and the Making of A Modern Royal Family to be released in 2020 August

The biography of Britain's Prince Harry and wife Meghan Markle "Finding Freedom: Harry and Meghan and the Making of A Modern Royal Family" by royal reporters Omid Scobie and Carolyn

Durand has been scheduled to be released worldwide on 11 August.

Highlights:

- The book reveals details of the couple who stepped back as frontline royals to settle down in the US in April 2020.
- The book provides a glimpse into the lesser-known aspects of their romance and decision to go their separate way from Buckingham Palace.
- The book aims to portray the real Harry and Meghan, a couple who continue to inspire many around the world through their humanitarian and charitable work but are often inaccurately portrayed.
- Prince Harry, 35, and Meghan, 38, the Duke and Duchess of Sussex, quit as senior members of the royal family earlier 2020. They are now living with their one-year-old son Archie in a Los Angeles mansion.

2.26 International Nurses Day is observed on 12 May

International Nurses Day (IND) is observed around the world on 12 May of every year. The international day marks the contributions that nurses make to society. The day assumes more significance due to the COVID-19 pandemic. Over the past several months, nurses and other medical professionals have put their lives on the line to save lives and defeat this menace.

Theme:

The theme for 2020 International Nurses Day is "Nurses: A Voice to Lead – Nursing the World to Health." The theme aims to demonstrate how nurses are central to addressing a wide range of health challenges. The theme aims to inspire nurses and make the public aware of their contribution to healthcare and health management.

History:

International Nurses Day was initiated by the International Council of Nurses (ICN) in 1974. The day marks the birth anniversary of Florence Nightingale, who was born in 1820. She is revered as the founder of modern nursing. The International Nurses Day 2020 marks her 200th birth anniversary. The day highlights the important role nurses fulfill in health care.

2.27 International Day of Families is observed on 15 May

International Day of Families is celebrated on 15th May every year. The day is celebrated to raise awareness towards the significance of families and to overcome the aspects that might be negatively affecting these efforts.

Aim:

The day highlights the various issues that plague the families around the world and suggests the necessary measures that can be taken to resolve these and build harmony. The day aims to strengthen a

single family, as it will empower and strengthen the entire society and a nation.

Theme:

The theme for 2020 International Day of Families is "Families in Development." The theme aims to portray the importance of families and their roles in social development. The theme stresses the importance of families and how much they mean in the context of the pandemic COVID-19.

History:

In 1993, the United Nations General Assembly (UNGA) passed a resolution and designated the observation of the International Day of Families. The day aims to encourage improved living standards and the social progress of families in the world. The day aims to cater to the changing socio-economic structures affecting the stability of families in different parts of the world. The day was first observed in 1994.

2.28 US FDA allows use of remdesivir drug for severely ill COVID-19 patients

- The United States Food and Drug Authority (USFDA) have allowed emergency use of the antiviral drug, Remdesivir for treatment of severely ill COVID-19 patients.

Remdesivir for COVID-19 patients:

- A study by Gilead Sciences in the US showed that Remdesivir shortens the recovery time by 31% or about 4 days on average, for hospitalized COVID-19 patients.
- The reports also stated that the clinical trials of Remdedivir were conducted on 1,063 patients. When the patients were given the drug, they were able to leave the hospital in 11 days on average versus 15 days for the comparison group.
- The drug has not yet tested on people with the milder illness. The medicine is currently given through an IV in a hospital.
- Remdesivir would become a new standard of care for severely ill COVID-19 patients.

2.29 World Press Freedom Day is celebrated on 3 May

World Press Freedom Day is celebrated on 3 May every year. The day aims to celebrate the fundamental principles of press freedom and pay tribute to journalists who have laid down their lives in the exercise of their profession. The day also focuses to assess its state around the world, defend the

media from attacks on their independence.

Theme:

- The theme of 2020 World Press Freedom Day is "Journalism Without Fear or Favour." The theme creates awareness on specific issues about the safety of journalists, their independence from political or commercial influence, and gender equality in all aspects of the media.
- As the world fights the COVID-19 pandemic, journalists and media workers are crucial to helping the public make informed decisions, which can make the difference between life and death.

History:

The World Press Freedom Day was started by the United Nations General Assembly (UNGA) in 1993, on a recommendation from UNESCO. The observation of World Press Freedom Day was marked on the jubilee of the Declaration of Windhoek. It holds a statement of fundamentals of press freedom assembled in 1991 by the African Journalists to encourage an independent African press.

2.30 United Nations Educational, Scientific and Cultural Organization (UNESCO):

UNESCO was established on 4 November 1946. It is headquartered in Paris, France. It functions under the United Nations Economic and Social Council (UNSC). It also aims to promote international collaboration through educational, scientific, and cultural reforms.

2.31 World Tuna Day is observed on 2 May

- World Tuna Day is observed on 2 May. The day aims to raise awareness about the importance of tuna. The day will promote more sustainable fishing practices.
- The day aims to spread information about the possible impact of drastically declining tuna stocks. The day also highlights the economic and social benefits of establishing more sustainable fishing practices.

Aim:

- The World Tuna Day aims to stress the importance of a stable and healthy tuna population. It also shows the importance of sustainably managed fish stocks in achieving the 2030 Agenda for Sustainable Development Goals (SDG).
- Tuna is a saltwater fish. It belongs to the Thunnin tribe. Tuna are found in warm seas. It can maintain a body temperature higher than that of the surrounding water. The fish has a life span of 50 years.

History:

- In December 2016, the United Nations General Assembly (UNGA) passed resolution 71/124 and designated the observation of the day on 2 May. It is observed for the first time in 2017. The UN report stated that a large number of countries worldwide depend on tuna for both food security and

nutrition. It also stated that more than 80 countries have tuna fisheries, and their capacity is constantly growing.

- Environmental groups like the World Wildlife Fund (WWF) have warned that some types of Tuna, such as the Bluefin, are now endangered because of overfishing.
- A 2013 Stock assessment reported that because of overfishing, Bluefin stocks in the Northern Pacific Ocean have declined by more than 96% in comparison to un-fished levels. In 2016, the UN Food and Agriculture Organization (FAO) registered new record catches for tuna. Total catches of tuna and tuna-like species were almost 7.7 million metric tonnes (MT). Effective management to restore the overfished stocks including tuna is needed.

2.32 International Astronomy Day is celebrated on 2 May

- International Astronomy Day is celebrated on 2 May. The day is celebrated twice a year, one in autumn and another in spring. The next Astronomy Day will be observed on 26 September 2020. The day is celebrated by enthusiasts and professionals to share their knowledge and love of outer space with the general public.
- On this special day, museums, astronomical institutions, and planetariums organize seminars, workshops, and other fun-filled activities with an aim to spread awareness about the world of astronomy.

History:

- The day was first celebrated in 1973 by Doug Berger, the then president of the Astronomical Association of Northern California. He planned to set up various telescopes in busy urban locations so that passersby could enjoy views of the heavens. He wanted to increase interest in the field of astronomy and give the general public access to more ways to learn about it.
- The day is also celebrated by setting up telescopes in urban locations in order to make space more accessible to everyone. The day included many countries and many organizations and groups. The observation of the day was amended in 2006 to include a second day of celebration in the year.
- Initially, the Astronomy Day occurred on a Saturday between mid-April and mid-May. It was scheduled so as to occur at or close to the first quarter Moon. In the year 2007, an autumn rendition of Astronomy Day was added.
- The observation of the day was scheduled to occur on a Saturday between mid-September and mid-October so as to be on or close to the first quarter Moon.

2.33 GRFC 2020 says around 135 million people are living under food crisis

- The Global Network against Food Crisis released the Global Report on Food Crisis (GRFC) 2020. The report stated that around 135 million people are living under the food crisis. The report aims to address the root causes of extreme hunger.

Global Report on Food Crises:

- The report described the scale of acute hunger in the world.
- It provided an analysis of the drivers that are contributing to food crises across the globe. It examines how the COVID-19 pandemic might contribute to their perpetuation or deterioration.
- The analyses in the GRFC report were prepared before the global crisis of the COVID-19 pandemic and do not account for its impact on vulnerable people in food-crisis situations.
- The report stated that around 183 million people in 47 countries were classified in Stressed (IPC/CH Phase 2) conditions, at risk of slipping into crisis or worse (IPC/CH Phase 3 or above) if confronted by an additional shock or stressor.
- As per the report, the population in crisis or worse (IPC/CH Phase 3 or above) increased from 112 to 123 million.
- The reports stated that the main driver of food crises in 2019 was Conflict and insecurity. And, weather extremes and economic shocks became increasingly significant.

2.34 US President Trump nominates Indian-American lawyer as US representative for IBRD

- The US President Donald Trump has nominated Indian-American lawyer Ashok Michael Pinto as a representative to the International Bank for Reconstruction and Development (IBRD), the World Bank's lending arm.
- He was nominated for the post of the US Alternate Executive Director of IBRD for a term of two years. If confirmed, he would replace Erik Bethel, who has resigned from the post.

Michael Pinto:

- Pinto has worked as a Special Assistant and Associate Counsel to former President George W Bush. He also served as a law clerk to Judge F A Little, Jr. of the US District Court for the Western District of Louisiana.
- Pinto is currently serving as the Counsellor to the Under Secretary for International Affairs at the US Department of the Treasury. He holds a BA degree from Stanford University and a Juris Doctor from the University of Illinois College of Law. He served as a Counsellor to General Counsel at Treasury.

2.35 World Asthma Day is celebrated on 5 May

World Asthma Day is celebrated on 5 May 2020. The day aims to raise awareness, care, and support for those affected by asthma. The primary focus of the day is to support the person with asthma, family, friends, and caregivers. Every year the day is observed on the first Tuesday of May month.

Theme:

The theme of the 2020 World Asthma Day is "Enough Asthma Deaths." The day is not actively promoted this year due to the coronavirus pandemic. It also aims to raise awareness and the struggles of people suffering from asthma.

History:

World Asthma Day is annually organized by the Global Initiative for Asthma (GINA). The day was aimed to increase awareness about chronic respiratory disease asthma, its precautions, prevention, and care around the world.

GINA works with health care groups and asthma educators to reduce asthma "prevalence, morbidity, and mortality". It also aims to improve the lives of people suffering from asthma.

2.36 International Firefighters' Day is observed on 4 May

International Firefighters' Day is observed on 4 May. The day aims to remember those firefighters' who have died while serving the community or dedicated their lives to protecting the safety of all.

History:

Firefighters' Day was initiated after the tragic death of 5 firefighters' in 1999 during a bushfire at Linton in Victoria, Australia when they were on a rescue mission. They died due to the sudden change in the direction of the wind.

Soon after that tragic event, a firefighter' named JJ Edmondson sent an email to his colleagues calling for an international holiday that would honour the sacrifices and triumphs of firefighters' everywhere. On 4 May 1999, people all over the world celebrated the first International Firefighters' Day.

The Ribbon:

The most unique and significant symbols of International Firefighters' Day is the red and blue ribbon. The ribbon is 5 cm long and 1 cm wide, with the two separate colors conjoined at the top.

The red and blue colour was chosen as red stood for the element of fire and blue represents the element of water. Coincidentally, red and blue are also the colors recognized worldwide to signify emergency services.

2.37 Russia awarded Kim Jong Un on its 75th anniversary of the victory over Nazi Germany

Russian President Vladimir Putin awarded Kim Jong Un a Commemorative War Medal to mark the 75th anniversary of the victory over Nazi Germany.

The medal was awarded to recognize the North Korean leader's role in preserving the memory of Soviet soldiers who died on North Korean territory.

Russia-North Korea ties:

In 1948, diplomatic relations were established between the Soviet Union and North Korea. The Soviet

military forces supported the Korean People's Army during the Korean War. N. Korea was established as communist bloc gaining maximum support from Russia.

Background:

In 2019, Russia invited Kim Jong Un to visit Moscow on 9 May and attend the military parade to mark the 75th anniversary of the victory. Russian President later announced the decision to postpone the parade indefinitely in April because of the COVID-19 pandemic. In 2015, the North Korean leader rejected an invitation by Moscow to attend the 70th anniversary, citing domestic affairs.

2.38 Irans parliament introduces new Currency, Toman, to tackle inflation

- The Iranian Parliament has announced the decision to replace its currency "Rial" with another basic unit of currency called the "Toman." Each toman will be worth 10,000 Rials under the new system. The move aims to ease the psychological impact of soaring consumer prices on a population that has endured high inflation for decades and grappled the number of zeros in government figures.
- The move by the Iranian government aims to simplify financial transactions. Once the law is ratified, the Central Bank of Iran will have two years to implement the change.
- The rial and the new currency is expected to overlap for between two to five years in the market. The new system was authorized to manage high inflation in the country.

Background:

In 1930, Iran changed its basic monetary unit from Dinar to the Rial. The change was a part of the modernization of the economy undertaken by the Pahlavi dynasty, which was overthrown by the revolution in 1979. The Iranian government has been planning to replace currency notes since 2016.

2.39 Lost At Home report of UNICEF says largest number of children displaced in 2019 yr

UNICEF released a report titled "Lost At Home" on 5 May. The report highlighted the risks and challenges of internally displaced children and the need to protect them.

Highlights:

- The report highlighted that 19 million children were living in displacement within their own countries due to conflict and violence in 2019.
- In 2019, an estimated 46 million people were internally displaced by conflict and violence.
- It also stated that there were around 12 million new displacements of children in the 2019, out of which 3.8 million of them were caused by conflict and violence, and 8.2 million by disasters related to weather-related events like flooding and storms.
- UNICEF also called on governments to take concrete action and investment that will help provide protection and equitable access to services for all internally displaced children and their families.

2.40 EU hosted online Coronavirus Global Response International pledging conference

- Coronavirus Global Response International pledging conference was held virtually on 5 May. The conference began on 4 May and expected to end on 23 May.
- Around 40 countries participated in the online summit. The conference was hosted by the European Union (EU) and its partners.

Aim:

The conference aimed to raise €7.5 billion in initial funding in global cooperation.

Highlights:

- The conference highlighted the requirement of global responsibility for the global coronavirus pandemic.
- The need to develop and deploy effective diagnostics, treatments, and a vaccine against COVID-19 pandemic was stressed.
- Countries and organizations around the world ensured the development of the life-saving vaccine.
- Several world leaders and organizations pledged \$8 billion (around Rs.60,000 crore) to manufacture a vaccine to combat COVID-19, the diseases caused by the novel coronavirus. The fund will be used to fund laboratories across the world that have promising leads to research and develop a vaccine.
- Romania contributed \$200,000, Canada contributed \$850 million. Other top donors were Japan, the United Kingdom (UK), Germany, France, and Saudi Arabia.

2.41 World Athletics Day is celebrated on 7 May

World Athletics Day is celebrated on 7 May. The date of observation is subjected to change as International Amateur Athletic Federation (IAAF) decides the date every year, but the month remains the same which is May. The day aims to boost participation in athletics among youngsters.

Aim:

World Athletics Day falls under the social responsibility project of IAAF 'Athletics for a Better World.' The day is observed to make people aware of the various health issues and to promote physical fitness. The day also aims to establish a link between the youth, sport, and environmental conservation.

History:

World Athletics Day was celebrated for the first time in the year 1996. The observation of the day was initiated by Primo Nebiolo, the then-president of IAAF. Several competitions take place on the day with the most common types are track and field, road running, race walking and cross country running, etc.

World Athletics:

World Athletics was formerly known as the International Amateur Athletic Federation. It was formed on 17 July 1912. The headquarters is located in Stockholm, Sweden. It governs the sport of athletics,

covering track and field, road running, racewalking, mountain running and ultrarunning, and cross country running.

2.42 Vesak day is observed on 7 May

'Vesak', the Day of the Full Moon is observed in the month of May by the United Nations on 7 May 2020. The day commemorates the birth, enlightenment, and Death of Lord Buddha, the founder of Buddhism, all of which is said to have taken place on the same day.

Gautam Buddha:

- The birth anniversary of Gautam Buddha is celebrated as Buddha Purnima or Buddha Jayanti across the world. According to the Hindu calendar, the day falls on a full moon day in the month of Vaisakh (April/May). In 2020, the Buddha Purnima is celebrated on 7 May.
- In Theravada Buddhism, the day is observed as the day when Buddha was born as Prince Siddhartha Gautama and attained Nirvana (salvation) under the Mahabodhi tree at Bodh Gaya, Bihar and his death anniversary.
- The Vesak full moon day is the most important day in the Buddhist calendar. On this day, several Buddhists go to the pagodas to pour water at the foot of the sacred tree in remembrance of the Buddha's Enlightenment.
- Buddha Purnima is a major festival celebrated with great pomp and fervour in countries like India, Nepal, Bhutan, Sri Lanka (where it is called Vesak), Burma, Thailand, Tibet, China, Korea, Laos, Vietnam, Mongolia, Cambodia, Singapore, and Indonesia.

2.43 UNEP extends Actress Dia Mirza's term as Goodwill Ambassador

- The United Nations Environment Programme (UNEP) extended environmentalist and actor-producer Dia Mirza's term as its National Goodwill Ambassador for another two years till the end of 2022. Dia is also a United Nations Sustainable Development Goals Advocate.

Dia Mirza:

- Dia Mirza has contributed and taken an active part in the campaign "Beat the Pollution". She has made significant contributions towards World Environment Day celebrations, Circular fashions, and other UNEP campaigns. Under Beat the Pollution Campaign India works to become completely free from single-use plastics by 2022.

2.44 United Nations Environment Programme (UNEP):

UNEP was established on 5 June 1972. It is headquartered at Nairobi, Kenya. It is responsible to coordinate the UN's environmental activities. It also assists developing countries in implementing environmentally sound policies and practices. UNEP also provides funds and implements specific environmental development projects worldwide including reforestation and wetlands restoration.

2.45 Time of Remembrance and Reconciliation for victims of WWII is observed on 8-9 May

The Time of remembrance and reconciliation for those who lost their lives during the Second World War is observed on 8-9 May every year. On this day people across the world and many authority bodies including UNGA, pay tribute to all victims of World War-II (WWII).

History:

The time of remembrance and reconciliation was designated by the UN General Assembly (UNGA) by resolution 59/26 of 22 November 2004. On 2 March 2010, UNGA passed resolution 64/257 and designated 8-9 May as the day to honour the victims of the Second World War.

It also encouraged its Member States, NGOs and individuals to honour the victims of WWII. UNGA plans to make every effort to settle all disputes by peaceful means in conformity with the Charter of the United Nations and in such a manner that international peace and security are not endangered.

United Nations (UN):

After WWII, the United Nations was created as a body to promote international co-operation and to create and maintain international order. UN was established on 24 October 1945. It replaced the ineffective League of Nations that was disbanded in 1946 after WWII following its failure in preventing the conflict.

2.46 World Thalassaemia Day is observed on 8 May

World Thalassaemia Day is observed on 8 May globally. The day aims to create awareness about thalassemia, its prevention, and measures to avoid its transmission among people throughout the world. The day is observed to honor all patients suffering and fighting from thalassemia. It also appreciates scientists working hard to provide improved quality of life to people suffering from it.

Theme:

The theme for 2020 World Thalassaemia Day is "The dawning of a new era for thalassemia: Time for a global effort to make novel therapies accessible and affordable to patients."

History:

World Thalassaemia Day has been observed since 1994. Also, the Thalassaemia International Federation (TIF) organizes many diverse activities for the International Thalassaemia Day.

The objective to draw the attention of the general public, patient associations, public authorities, healthcare professionals, and industry representatives, to fuel discussions and promote actions on a particular theme related to the prevention, management, or treatment of the disease in a patient-centered manner.

Thalassemia:

Thalassemia is an inherited blood disorder which is characterized by abnormal hemoglobin production.

As it is inherited, it cannot be prevented completely But it can be lessened through the prenatal tests which help in the early detection and cure before the childbirth.

There are two main types of Thalassemia are Alpha thalassemia, Beta-thalassemia.

The Symptoms of the disease include mild to severe anemia, that is low red blood cells, Chest pain, dizziness and faintness, headaches, jaundice, and pale skin. It also causes bone problems, an enlarged spleen, yellowish skin, and dark urine. It also slows the growth of children.

Treatments include blood transfusions, iron chelation, and folic acid.

2.47 World Red Cross day is observed on 8 May

World Red Cross day is observed on 8 May. The day aims to celebrate the principles of the International Red Cross and Red Crescent Movement.

The day pays tribute to the Red Cross volunteers for their contribution to helping those in need.

The day creates awareness about the need for life protection in some drastic conditions.

History:

The World Red Cross is observed on the birth anniversary of Henry Dunant, who was the founder of the International Committee of the Red Cross. Red Cross Society aims to inspire, initiate, and encourage all kinds of humanitarian activities under all times and circumstances.

Red Cross Society:

Red Cross Society, former International Red Cross and Red Crescent Movement, was established on 9 February 1863 in Geneva, Switzerland. The mission is to encourage and initiate at all times and all forms of humanitarian activities so that human suffering can be minimized and to create a peaceful environment

The day is celebrated by the National Societies affiliated to the International Committee of the Red Cross in their countries. The Red Cross Society is based on 7 principles are humanity, impartiality, neutrality, independence, voluntary, unity, and universality.



3. INDIAN ECONOMY

3.1 Government Slashes Interest Rates on Small Saving Schemes

- The interest rates on small saving schemes have been slashed by the central government for the April-June quarter of the financial year 2020-2021.
- The decision has come after the Reserve Bank of India's recent 75 bps cut in the interest rates at the time of economic fallout due to COVID-19 Pandemic.
- The government revises interest rates on small saving schemes on a quarterly basis.
- According to the Department of Economic Affairs, the decision of reduced interest rates will come in effect from April 1 for this quarter.
- Presently, the Ministry of Finance offers 9 types of small saving schemes and the interest rates on these schemes are reviewed every quarter. The offered schemes include Kisan Vikas Patra, Public Provident Fund (PPF), Senior Citizen Saving schemes (SCSS) and Sukanya Samriddhi.

Key Highlights

- The interest rate on Public Provident Fund (PPF) for the April-June quarter is now 7.1 percent. It has been brought down by 80 bps (basic points).
- The interest rate on Kisan Vikas Patra has been slashed down to 6.9 percent.
- For Sukanya Samriddhi Scheme, the interest rate for the quarter is now 7.6 percent.
- For National Saving Certificate Scheme, the interest rate by the government has been brought down to 6.8 percent.
- For five-year recurring deposits, the interest rate has been lower down to 5.8 percent.
- For a five-year time deposit, the quarterly interest rate has been brought down to 6.7 percent.

3.2 World Bank proposes \$1 billion for India's Project on COVID-19

The World Bank has offered \$1 billion for India's COVID-19 emergency response and health systems preparedness project. The World Bank will be allocating the fund through its COVID-19 Fast Track facility.

The aim of the four-year project is to develop India's health care system at the time of the pandemic. The project will help in the formulation of long term strategies that will help the next wave of disease. The main focus will be on strengthening the healthcare systems and reducing the COVID-19 threat. Through the offered fund, both the World Bank and Indian Government will work on the COVID-19 pandemic threat by following the best international practices.

Key Highlights of the Project:

- One of the aims is to be prepared for any of the health crisis in the coming year

- The progress of the project will be measured on the basis of key indicators such as the specimen proportion submitted for SARS-COV-2 laboratory testing that has been confirmed within WHO stipulated Standard time
- Another key indicator will be the proportion of COVID-19 laboratory-confirmed cases that responded within 48 hours
- One of the main objectives of the project is also to respond to COVID-19 threat as well as strengthening the national health system in India

Significance:

The objective of the partnership between India and the World Bank is to focus on India's emergency response system to the disease. The project will provide immediate support in order to enhance the capacities for disease detection. This can be achieved through increased surveillance capacities, health screening, etc. It will also slow down and control the spread of COVID-19.

3.3 Subsidiary General Ledger (SGL) | RBI fines UCO Bank

Reserve Bank of India has imposed a penalty on UCO Bank for bouncing of Subsidiary General Ledger (SGL) forms.

What is this issue?

- Public sector lender UCO Bank said the Reserve Bank has imposed a penalty of Rs.5 lakh for violating norms on government bond holding.
- The Reserve Bank of India has imposed a penalty of Rs.5 lakh on UCO Bank for bouncing of Subsidiary General Ledger (SGL) forms.

Subsidiary General Ledger account

- SGL account denotes Subsidiary General Ledger which is maintained with Reserve Bank of India for holding Government Securities and T-Bills in paperless form (or what in retail is called the demat account for G-secs!). The account is used for facilitating delivery and payment trades.
- UCO Bank shares were trading 1.26% down at Rs.11.78 a piece on the BSE.
- In exercise of powers conferred by Section 4 of Government Securities Act 2006, Reserve Bank of India had notified the conditions applicable for opening and maintaining of Subsidiary General Ledger (SGL) Accounts and Constituents' Subsidiary General Ledger (CSGL).

3.4 Defence and Mining Sectors | COVID-19 Stimulus Package

Recently, fourth tranche of COVID-19 stimulus economic package announced by PM focuses on reforms across industry, aviation and space.

Key details about fourth portion of COVID-19 Stimulus Package

- The Highlights of the fourth trench of the Aatmanirbhar Bharat Abhiyan package includes steps to indigenise defence production by banning the import of some weapons and platforms while hiking foreign direct investment into the sector
- This portion seemed to focus more on industry reforms than any sort of economic stimulus.
- FM Nirmala Sitharaman also announced measures to introduce commercial mining in the coal sector, liberalise the mineral sector, ease airspace restrictions and encourage private involvement in space and atomic energy projects.

Package as a boost for growth

- The COVID-19 Stimulus package was welcomed by most industry groups, although some in the space sector said the measures to boost private participation had to go beyond mere intent.
- However, labour unions across the ideological spectrum, including the RSS-based Bharatiya Mazdoor Sangh, slammed the reform measures.
- The only direct budgetary cost in this tranche was the Rs. 8,100 crore to be provided as a hiked 30% viability gap funding to boost private investment in social sector infrastructure.
- In a bid to enhance self-reliance in defence production, the Centre would notify a list of weapons and platforms that could not be imported, and widen it every year as domestic capacities grew.

3.5 Centre introduces several initiatives to boost Education Sector

Union Finance & Corporate Affairs Minister Nirmala Sitharaman has announced several initiatives to boost the education sector on 17 May in New Delhi. The move comes as the present pandemic situation has presented new challenges and several opportunities for the education system in the country.

The immediate set of initiatives includes:

1. A comprehensive initiative called PM e-VIDYA will be launched which unifies all efforts related to digital/online/on-air education. This will enable multi-mode access to education, and includes: DIKSHA (one nation-one digital platform), TV (one class-one channel), SWAYAM online courses in MOOCS format for school and higher education, IITPAL for IITJEE/NEET preparation.
2. The launch of the Manodarpan initiative to provide such support through a website, a toll-free helpline, national directory of counselors, interactive chat platform, etc. This initiative will benefit all school-going children in the Country, along with their parents, teachers, and the community of stakeholders in School education.
3. GoI's move to expand e-learning in higher education by liberalizing open, distance, and online education regulatory framework.
4. GoI to prepare a new National Curriculum and Pedagogical Framework for school education, teacher education and early childhood stage to prepare students and future teachers as per global

benchmarks. The aim is to promote critical thinking, creative and communication skills, along with experiential and joyful learning for the students focussing on learning outcomes.

5. Centre is to launch National Foundational Literacy and Numeracy Mission for ensuring that every child in the country necessarily attains foundational literacy and numeracy in Grade 3 by 2020.

3.6 NABARD released Rs.20,500 crore to co-operative banks, RRBs

National Bank for Agriculture and Rural Development (NABARD) released Rs.20,500 crore to co-operative banks and regional rural banks (RRBs) for on-lending.

The disbursement to RRBs and Co-operative banks is the part of Rs.25,000 crore of special refinance plan which was approved by the Reserve Bank of India (RBI) to RRBs, Co-operative banks and Microfinance Institutions (MFIs).

Highlights:

- Of the total, Rs.15,200 crore has been released to cooperative banks and Rs.5,300 crore to RRBs as special liquidity facilities in various states.
- The funds to the co-operative banks and RRBs aims to ensure the availability of liquidity with the Banks to finance farmers for taking up pre-monsoon and Kharif 2020 operations.
- Also, the banks have initiated a programme for Kisan Credit Cards and around 12 lakh new KCC cards have been issued by co-operative banks and RRBs in April 2020.

3.7 Partial Credit Guarantee Scheme | Govt eases norms

As part of the extension of the Partial Credit Guarantee Scheme, the Union Cabinet has approved the Sovereign portfolio guarantee of up to 20% of first loss for purchase of Bonds or Commercial Papers (CPs) with a rating of AA and below issued by NBFCs/ MFCs/Micro Finance Institutions (MFIs) by Public Sector Banks (PSBs).

These commercial papers also includes unrated paper with original/ initial maturity of up to one year.

Background

- The previously existing Partial Credit Guarantee Scheme was issued in December 2019.
- It offered sovereign guarantee of up to 10% of first loss to PSBs for purchasing pooled assets worth rated BBB+ or above worth up to Rs. 1,00,000 crore, from financially sound NBFCs/ MFCs.
- Following the COVID-19 outbreak along with lockdown of business activity, it became necessary to adopt additional measures to support NBFCs and HFCs.
- On the liabilities side by providing a sovereign guarantee to cover purchase of Bonds/CPs issued by NBFCs/HFCs as well as MFIs which also play a critical role in extending credit to small borrowers;
- On the assets side by modifying the existing PCGS to widen its coverage.

Key Highlights about new Partial Credit Guarantee Scheme

- As part of the Rs 21 lakh crore special economic package amid the COVID-19 crisis, Finance Minister Nirmala Sitharaman last week announced Partial Credit Guarantee Scheme (PCGS) 2.0
- worth Rs 45,000 crore for non banking financial companies (NBFCs) and micro finance institutions (MFIs).
- As part of the recent modifications in PCGS, sovereign guarantee of up to 20% of first loss will be provided to state-owned banks for purchase of bonds or commercial papers of NBFCs, MFIs and housing finance companies (HFCs) having a credit rating of AA or below, including unrated paper with original maturity of up to one year.
- The time period of the Scheme has also been extended by the Cabinet from June 30, 2020 to March 31, 2021 for purchase of pooled assets of the distressed entities.

3.8 Cabinet approves Special Liquidity Scheme for NBFCs, HFCs to address their Liquidity Stress

The Union Cabinet chaired by Prime Minister Narendra Modi approved the proposal of the Ministry of Finance (MoF) to launch a new Special Liquidity Scheme for Non-Banking Financial Companies (NBFCs) and Housing Finance Companies (HFCs). The scheme aims to improve the liquidity position of the NBFCs/HFCs.

Proposed Scheme:

- The Government has proposed a framework for addressing the liquidity constraints of NBFCs/HFCs through a Special Liquidity Scheme.
- As per the scheme, a Special Purpose Vehicle (SPV) would be set up to manage a Stressed Asset Fund (SAF) whose special securities would be guaranteed by the Government of India (GoI) and purchased by the Reserve Bank of India (RBI) only.
- The SPV will proceed with the sale of such securities to acquire short-term debt of NBFCs/HFCs.
- The Scheme will be administered by the Department of Financial Services, MoF. GoI will issue the detailed guidelines.
- A large Public Sector Bank would set up an SPV to manage a stressed asset fund that would issue interest-bearing special securities guaranteed by the Government of India, to be purchased by RBI only.
- The SPV would issue securities as per requirement subject to the total amount of securities outstanding not exceeding Rs.30,000 crore to be extended by the amount required as per the need.
- The Securities that are issued by the SPV would be purchased by RBI. And the proceeds would be used by the SPV to acquire the debt of at least investment grade of the short duration of eligible NBFCs/HFCs.

3.9 RBI cuts repo rate to a record low by 40 bps

The Reserve Bank of India (RBI) cuts repo rate by 40 basis points (bps) to 4% from 4.4% on 22 May.

The Central Bank also adjusted the reverse repo rate to 3.35% from 3.75%. The announcement was made by RBI Governor Shaktikanta Das.

Highlights:

- The repo reduction marked the lowest repo rate or the key interest rate at which the RBI lends short-term funds to commercial banks. This is the reduction that has been recorded since 2000.
- The reduction in the key interest rate will allow banks to reduce the Equated monthly installments (EMI) burden for their borrowers.
- RBI also extended the loan moratorium, which allows banks to defer EMI payments by their customers, by another three months till August 2020.

Background:

On 27 March 2020, RBI slashed the benchmark interest rate by 75 bps and also announced a 3-month moratorium to be given by banks to provide relief to borrowers whose income has been hit due to the lockdown. RBI also introduced several steps to ease the pressure faced by borrowers, lenders, and other entities. RBI took more initiatives to deal with the COVID-19 pandemic.

3.10 SBI reduces benchmark lending rate by 15 basis points

State Bank of India (SBI) slashed the benchmark lending rate by 15 basis points (bps). With the newly announced cut, the MCLR (Marginal Cost of Funds based Lending Rate) reduced to 7.25%, from 7.40% with effect from 10 of May.

SBI Wecare Deposit:

- As a measure to safeguard the interests of senior citizens, the bank has introduced a new product 'SBI Wecare Deposit' in the retail term deposit segment.
- Under the new product, an additional 30 bps premium will be payable for senior citizen's retail term deposits with Five Years and above tenure only. This scheme would be open until 30 September 2020.
- SBI also slashed its interest rates on retail term deposits by 20 bps for up to 3 years tenure, effective from 12 of May.

3.11 SC places cooperative banks under Sarfaesi Act on a par with other lenders

The Supreme Court (SC) brought cooperative banks under the Securitization and Reconstruction of Financial Assets and Enforcement of Security Act of 2002 (Sarfaesi Act) that empowers lenders to seize and sell defaulters' assets.

Sarfaesi Act:

- The move by the Apex Court aims to boost the cooperative banks that play a vital role in financial inclusion across large swathes of India.

- The Cooperative Banks come under the category of Banks as defined under Section 2(1)(c) of the Sarfaesi Act. Hence, the recovery procedures mentioned under the law will be applied to the Cooperative Banks as well.
- Under Sarfaesi Act, the secured creditors can take possession of the assets of a borrower who fails to pay dues within 60 days of demanding repayment.
- The judgment stated that Cooperative Banks were bound by the provisions of the Banking Regulation Act, 1949, and all the other legislation applicable to banks under the RBI Act. Now, the cooperative banks will have to comply with these rules.
- Cooperative banks will now be involved in banking activities that are covered u/s 5(c) & 56(a) of the Banking Regulation Act.
- As per the Reserve Bank of India (RBI) report, as of 31 March 2018, there are 1,551 urban cooperative banks (UCBs), and 96,612 rural cooperative banks (as on 31 March 2017). The rural cooperative banks account for 65.8% of the total asset size of all cooperative banks.

3.12 IMPS transfers in April dive to 2-year low due to lockdown

Data from the National Payments Corporation of India (NPCI) stated that April Immediate Payment System (IMPS) numbers have reduced to a two-year low. The dive in the retail interbank transfers is due to the COVID-19 lockdown.

Highlights:

- Transactions using the IMPS platform in April stood at 12.2 crore, while 24.7 crore transactions were done in February 2020.
- The platform is used mostly by migrant labour and small businesses.
- In the case of Unified Payment Interface (UPI), an app-based payment, there has been a significant drop as well from 132 crore in February to less than 100 crore in April.
- As the limit of IMPS is Rs.2 lakh, it is mostly used by small businesses.
- More than the limit, one has to use RTGS. Hence, larger corporates and mid-cap companies prefer RTGS for bulk payments such as salary credits to employees and vendor payment.

3.13 Finance Minister launched INR-USD Futures and Options contracts in the International Exchanges at GIFT-IFSC

Union Minister for Finance and Corporate Affairs Nirmala Sitaraman launched INR-USD Futures and Options contracts on the two International Exchanges, namely BSE's India INX and NSE's NSE-IFSC, at GIFT International Financial Services Centre (IFSC) at Gandhinagar through video conference on 8 May.

Background:

- The launch of INR-USD contracts at the exchanges in GIFT-IFSC is a step in bringing the international financial centres to India.
- Earlier, the significant market share in financial services related to India has moved to other international financial centres.
- The move will be available 22 hours across all time zones for all global participants from GIFT IFSC.
- It is expected that trading of INR-USD contracts will bring volumes to India.
- The move would also bring larger global participation in India through IFSC and connect India's IFSC globally.



4. ENVIRONMENT

4.1 IDEAthon ON 'THE FUTURE OF RIVER MANAGEMENT'

The **National Mission for Clean Ganga (NMCG)** under the **Ministry of Jal Shakti and National Institute of Urban Affairs (NIUA)** organized an **IDEAthon** on “**The future of River Management**” to explore how the COVID-19 crisis can shape River Management strategies for the future.

About the IDEAthon

- The IDEAthon has been organized by the National Mission on Clean Ganga under the Ministry of Jal Shakti and National Institute of Urban Affairs (NIUA).
- The IDEAthon examined how the social angle of rivers can be leveraged on to address other crises.
- It also dealt with the following key questions:
 - What lessons for river management has the pandemic taught us?
 - And what response mechanisms are needed in the event of a river crisis?
- The IDEAthon sought to brainstorm the learnings from COVID-19 pandemic, the following lockdown and its impact on river management.

About the efforts

- National Mission for Clean Ganga had initiated this IDEAthon to garner more attention towards river management and also highlight the interconnectivity of Cities with the River.
- With an intent to mainstream River Management in a city's Urban Planning framework, NMCG has been developing a template for an Urban River Management Plan with the National Institute of Urban Affairs.
- It introduced 'Ganga Quest' (an online quiz at gangaquest.com) as one of the initiatives to engage people with knowledge on River Ganga which has evoked a huge response, in the wake of the lockdown, with more than 600,000 students and others joining now.
- NMCG is also working in developing the River Basin Organization and also River Basin Planning and Management Cycle to develop an adaptive framework under Namami Gange for Ganga river basin management.

4.2 BAMBOO CONCLAVE

Recently the Bamboo Conclave was held through a Video Conference which saw an active participation of Union Minister of State (Independent Charge) Development of North Eastern Region (DoNER), MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space.

About the objective

The major aim of the Bamboo Conclave was to discuss the importance of Bamboo, which will provide an opportunity for India to emerge as an economic powerpost COVID-19.

About the efforts

- Over a span of last 6 years, the Government has accorded highest priority to the development of the North Eastern region, which resulted in a boost to the bamboo sector which it had never received since independence.
- It is noteworthy to mention that the Northeast consists of 60% of India's reserve of Bamboo.
- Further, with the amendment of the 100 year old, Indian Forest Act, 1927 by the Government, home grown bamboo has been exempted from the purview of the Act in order to enhance livelihood opportunities through bamboo.

4.3 ZANSKAR RIVER

Wadia Institute of Himalayan Geology (WIHG), an autonomous institute under the Department of Science & Technology, Govt. of India, studied rivers in Ladakh Himalaya, bringing out 35 thousand-year history of river erosion and identified hotspots of erosion and wide valleys that act as buffer zones.

About the study

- The Ladakh Himalaya forms a high altitude desert between Greater Himalayan ranges and Karakoram Ranges.
- The Indus and its tributaries are major rivers flowing through the terrain.
- In the study published, Zaskar catchment was explored by the WIHG team to understand the landform evolution in the transitional climatic zone.

About the river

- The Zaskar River is a north-flowing tributary of the Indus.
- It is one of the largest tributaries of the upper Indus catchment, draining orthogonally through highly deformed Zaskar ranges.
- Two prominent tributaries of Zaskar River are the Doda and Tsrappingti Chu, which confluence at Padam village in the upper valley to form the Zaskar River.

4.4 STYRENE

- A gas leak has claimed at least eight lives and affected thousands of residents in Visakhapatnam in Andhra Pradesh.
- The source of the leak was a styrene plant owned by South Korean electronics giant LG, located at RRV Puram near Gopalapatnam, about 15 kms from the coast City.

About the gas

- Styrene is a flammable liquid that is used in the manufacturing of polystyrene plastics, fiberglass, rubber, and latex.

- Styrene is also found in vehicle exhaust, cigarette smoke, and in natural foods like fruits and vegetables.
- Short-term exposure to Styrene can result in respiratory problems, irritation in the eyes, irritation in the mucous membrane, and gastrointestinal issues.
- Long-term exposure could drastically affect the central nervous system and lead to other related problems like peripheral neuropathy. It could also lead to cancer and depression in some cases.
- Symptoms include headache, hearing loss, fatigue, weakness, difficulty in concentrating etc.

4.5 SCIENTISTS WARNS ABOUT RISE IN OCEAN LEVEL BY 2100

Recently, scientists have warned about a rise in the level of oceans by as much as 1.3m by 2100 if the Earth's Surface **warms another 3.5 degrees Celsius**.

Background

- According to the scientists, by 2300, ice sheets covering West Antarctica and Greenland will have shed trillions of tonnes in mass.
- Sea levels could then go up by more than 5 meters under that temperature scenario.
- As a result of this rise in Ocean level, the planet's coastline will be redrawn.

About the present scenario

- About 10% of the world's population today live on land less than 5 meters above the high tide line.
- Across the 20th century, the rise in sea level is caused mainly by melting glaciers and due to expansion of Ocean waters as it warms.
- But over the last two decades, the main driver has become the melting and disintegrating of Earth's two ice sheets.
- Greenland and Antarctica are shedding at least 6 times more ice today than during the 1990s.
- From 1992 through 2017 they together lost about 6.4 trillion tonnes in mass.
- It is also to be kept in mind that the Greenland and West Antarctica ice sheets hold enough frozen water to lift oceans about 13 meters.
- East Antarctica, which is more stable, holds another 50 meters worth capacity.
- Over the last decade, the sea level has gone up about 4 mm per year.
- Moving into the 22nd century, the waterline could rise 10 times faster as per the UN Intergovernmental Panel on Climate Change (IPCC).

4.6 SwasthVayu

CSIR-National Aerospace Laboratories (NAL), Bengaluru, a constituent of lab of CSIR has developed a BiPAP Non Invasive Ventilator “**SwasthVayu**” for COVID -19.

Highlights

- BiPAP Non-Invasive ventilator is a microcontroller-based precise closed-loop adaptive control system with a built-in biocompatible “3D printed manifold & coupler” with HEPA filter (Highly Efficient Particulate Air Filter).
- These unique features help to alleviate the fear of the Virus spread.
- It has features like Spontaneous, CPAP, Timed, AUTO BIPAP modes with provision to connect Oxygen concentrator or Enrichment unit externally.
- The major advantage of this machine is that it is simple to use without any specialized nursing, cost effective, compact and configured with majority of indigenous components.
- The portable ventilator, named SwasthVayu, was developed in a record 36 days.

4.7 AIR POLLUTION

According to analysis by the **Centre for Research on Energy and Clean Air (CREA)**, for the first time in four decades, **emissions of toxic carbon dioxide have declined in the country** — thanks to an economic slowdown, growth of clean energy and the ongoing lockdown.

About the analysis

- According to the analysis, CO₂ emissions in the country fell by around 15% in March, and are likely to have fallen by 30% last month, year-on-year.
- Using the latest consumption data for coal, oil and gas, the analysts concluded that CO₂ emissions fell by 30 million tonnes in the financial year 2019-20 compared to the previous fiscal.
- Power and transportation sectors are the major contributors of CO₂ pollution in the country.
- The fall in the consumption of fossil fuels has led to the decline in CO₂ emissions.
- Power generated from coal-fired plants fell by 15% in March, and 31% in the first three weeks of April.
- In contrast, renewable energy (RE) generation increased by 6.4% in March, and saw a slight decrease of 1.4% in the first three weeks of April.
- Not just coal, consumption of oil too has witnessed a decline.
- The already-slow demand in growth of oil consumption fell by 18% this March, compared to the previous year.

4.8 PM CARES FUND

PM CARES (Prime Minister's Citizen Assistance and Relief in Emergency Situations) Fund Trust decided to allocate Rs. 3100 Crore for fight against COVID-19.

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

GRAPHICS

About the earmarking

- Out of Rs 3100 crore, a sum of approximately Rs.2000 crore will be earmarked for the purchase of 50000 'Made-in-India' ventilators, Rs. 1000 crores will be used for care of migrant labourers and Rs.100 crores will be given to support vaccine development.
- The trust formed on 27th March 2020 is headed by Hon'ble Prime Minister (ex-Officio) and other ex-officio Members of the trust are Defence Minister, Home Minister and Finance Minister.

About the relief measures

- The States/UTs will be given a lump sum assistance of total Rs. 1000 Crore from PM CARES Fund for the welfare of the migrants and poor.
- State/UT-wise funds will be released on the weightage of
 - Population of the State/UT as per 2011 Census – 50%, weightage
 - Number of positive COVID-19 cases as on date – 40% weightage and
 - Equal share (10% weightage) for all states/UTs to ensure basic minimum sum for all states.
 - The fund will be released to the District Collector/District Magistrate/Municipal Commissioner through the State Disaster Relief Commissioner of the States/UTs concerned.

4.9 NATIONAL DISASTER MANAGEMENT AUTHORITY

- The first week in which factories reopen after the national lockdown must be used as a trial period in which safety protocols are ensured and high production targets are not set, the National Disaster Management Authority (NDMA) said in detailed guidelines issued.
- These guidelines came days after 12 people were killed in an industrial accident in Visakhapatnam that may have been caused by the long duration of inactivity at the facility.

Background

- Due to several weeks of lockdown and the closure of industrial units during the lockdown period, it is possible that some of the operators might not have followed the established SOP (standard operating procedure).
- As a result, some of the manufacturing facilities, pipelines, valves, etc may have residual chemicals, which may pose risk.
- The same is true for storage facilities with hazardous chemicals and flammable materials.
- Such units should consider the first week of restarting any machinery or chemical unit as the "trial" or "test run" period and "not try to achieve high production targets".

About the guidelines

- When Lockout/Tagout procedures are not in place, many energy sources can prove to be hazardous to operators/supervisors who are servicing or maintaining electrical, mechanical or chemical equipment.

- When heavy machinery and equipment are not maintained periodically, they can become dangerous for the operators/engineers. Combustible liquids, contained gaseous substances, open wires, conveyor belts and automated vehicles make manufacturing facilities a high-risk environment.
- Improper enforcement of safety codes and improperly labelled chemicals can further pose serious health hazards.
- The NDMA's directives is with a clear intention to ensure precautionary measures for complete safety and security of labour, employees and the environment.
- The NDMA guidelines said that employees should be made aware of the need to identify abnormalities such as strange sounds or smells, exposed wires, vibrations, leaks, smoke, abnormal wobbling, irregular grinding or other potentially hazardous signs that indicate the need for an immediate maintenance or, if required, a shutdown.
- The guidelines also asked the industry to take the help of local administration in case of any difficulty, and district magistrates were told to ensure that in such instances the industrial unit may be facilitated to run end-to-end operations in the interest of industrial security.
- NDMA further detailed the steps that specific industry needs to take when they reopen. For example, storage or raw materials units have been asked to "inspect for any signs of spills, wear and tear during the lockdown" as well as check for "already opened storage vessels/containers/bags/silos for possible oxidation/chemical reaction/ rusting/ rotting etc".
- Manufacturing units were told to carry out a complete safety audit of the entire Unit before taking up starting activities and they should first clean the pipelines, equipment and discharge lines, and factories working 24 hours were asked to consider a one-hour gap between shifts, except those factories or plants that require continuous operations.
- They were also asked to operate with 33% managerial and administrative staff as per MHA guidelines; but while deciding which particular person to be included in 33% at any given point of time, overriding priority be given to personnel dealing with safety, and to prepare accommodation to isolate workers if needed.
- The reopening of factories was permitted by the easing of restrictions to the national lockdown from May 4 for all zones as long as factories and industrial units were access-controlled, with employers required to put in place social distancing rules for workers.

4.10 TROGLOMYCES TWITTERI

People often use social media platforms to keep themselves entertained but in a bizarre incident, scientists have discovered a new species of parasitic fungus on the micro-blogging platform Twitter.

About the research

- According to the study, published in the journal MycoKeys, the researchers spotted an image of a millipede while scrolling through the site and noticed a few tiny dots near the creature's head, something that has never been seen on the American millipedes.
- The newly discovered parasitic fungus has now been given its official Latin name, *Troglomyces twitter*.

Highlights

- The research team discovered several specimens of the same fungus on a few of the American millipedes in the Natural History Museum's enormous collection - fungi that had never before been documented.
- This confirmed the existence of a previously unknown species of Laboulbeniales - an order of tiny, bizarre and largely unknown fungal parasites that attack insects and millipedes.
- The researchers point out that discovery is an example of how sharing information on social media can result in completely unexpected results.
- This is the first time that a new species has been discovered on Twitter.
- It highlights the importance of these platforms for sharing research - and thereby being able to achieve new results.
- Social media is generally playing a larger and larger role in research and stresses that the result was possible because of her access to one of the world's largest biological collections.

4.11 PINANGA ANDAMANENSIS

Recently, a rare palm, *Pinanga andamanensis*, has been successfully cultivated at Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI) based at Palode, Thiruvananthapuram (Kerala).

About the palm

- It is a rare palm endemic to South Andaman Island.
- Its entire population of some 600 specimens naturally occurs only in a tiny, evergreen forest pocket in South Andaman's Mount Harriet National Park.
- Endemic species are those plants and animals that exist only in one geographical region.
- The name is derived from 'Penang', the modern-day Malaysian state.
- Penang itself has its origins in Pulau Pinang which means Island of the Areca Nut Palm.
- It has strong resemblance with the areca palm tree (widely used for bright interiors).
- It has a small gene pool which means the species is vulnerable to natural calamities such as cyclones, earthquakes.

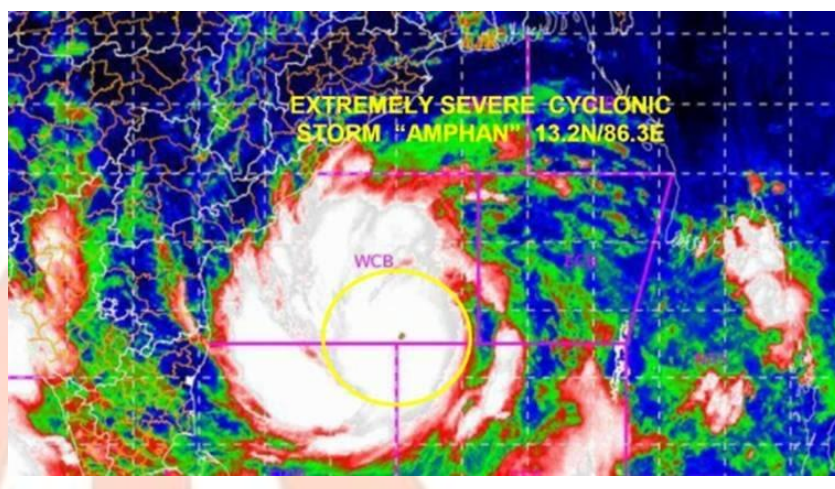
- JNTBGRI scientists term it a critically endangered species and one of the least known among the endemic palms of the Andaman Islands.
- Thiruvananthapuram has been referred as its second home as the species has started flowering in this Institute.
- JNTBGRI will resume seed germination experiments for mass multiplication as part of the conservation strategy.

4.12 CYCLONE AMPHAN

The Extremely Severe Cyclonic Storm 'AMPHAN' (pronounced as UM-PUN) intensified into a Super Cyclonic Storm on 18th May, 2020.

Highlights

- Extremely severe cyclone Amphan (pronounced as Um-Pun) over the central parts of the South Bay and adjoining Central Bay of Bengal has spun into a class-topping super cyclone after howling winds around its core broke the threshold speeds.
- Amphan is only the third pre-monsoon super cyclone to form in the Bay after 1990, after the Andhra Pradesh super cyclone (May 4-9, 1990, no name) and the Bangladesh super cyclone (April 24-May 2, 1991, Gorky).
- According to IMD's classification of storms based on intensity, super cyclone is an intense low-pressure system represented on a synoptic chart by more than four closed isobars (concentric circles) and in which the wind speed at surface level is 222 km/hr (category 4 or 5 as per Saffir-Simpson scale storm intensity).



4.13 WORLD BEE DAY 2020

- World Bee Day 2020 is being celebrated on May 20 under the theme "Save the Bees."
- To raise awareness of the importance of Bees and other pollinators, such as butterflies, bats and hummingbirds, the threats they face and their contribution to sustainable development, the UN designated 20 May as World Bee Day.

About the day

- 20th May coincides with the birthday of Anton Janša, who in the 18th century pioneered modern beekeeping techniques in his native Slovenia and praised the bees for their ability to work so hard, while needing so little attention.

- Recognizing the dimensions of the pollination crisis and its links to biodiversity and human livelihoods, the Convention on Biological Diversity has made the conservation and sustainable use of pollinators a priority.
- In 2000, the International Pollinator Initiative (IPI) was established at the Fifth Conference of Parties (COP V) as a cross-cutting initiative to promote the sustainable use of pollinators in agriculture and related ecosystems.

4.14 INTERNATIONAL DAY FOR BIOLOGICAL DIVERSITY

The International Day for Biodiversity is observed on May 22 to raise awareness on various issues related to threats that stare biodiversity in the face.

Background

- The United Nations celebrates the International Day for Biological Diversity annually with a unique theme.
- The theme for the year 2020 is "Our solutions are in nature" which emphasizes hope, solidarity and the importance of working together at all levels to build a future of life in harmony with nature.

About the day

- The theme, according to the UN, has covered three "essential topics" during the week leading up to the observance: 18 May covered the importance of knowledge and science; 19-21 May raised awareness of the importance of biodiversity; and finally, the day of the observance, will issue a call to action.
- 2020 is a year of reflection, opportunity, and solutions. It is expected, from each of us, that we will "Build Back Better" by using this time to increase the resilience of nations and communities as we recover from this pandemic.
- The international organisation also warned that loss of biodiversity threatens us all, including our health.



4.15 ECOLOGICALLY SENSITIVE AREA (ESA) OF WESTERN GHATS

Union Minister of Environment interacted with Chief Ministers & State Government Officers of six states viz, Kerala, Karnataka, Goa, Maharashtra, Gujarat, and Tamil Nadu to discuss issues relating to notification of Ecologically Sensitive Area (ESA) pertaining to the Western Ghats.

About the rules

- To protect the biodiversity of Western Ghats while allowing for sustainable development of the region, the Government of India had constituted a High-Level Working Group under the Chairmanship of Dr. Kasturirangan.
- The Committee had recommended that identified geographical areas falling in the six States of Kerala, Karnataka, Goa, Maharashtra, Gujarat, and Tamil Nadu may be declared as Ecologically Sensitive Areas.
- A draft notification was issued in October 2018 mentioning the areas to be notified in the ESA.
- The states expressed their desire to expedite early notification while protecting the interest of ecology and environment.



4.16 WORLD TURTLE DAY

World Turtle Day is celebrated every year on May 23, with the purpose of increasing attention and knowledge about turtles and tortoises, and draw enough awareness from humans about the measures that should be taken to help them survive and thrive in their natural environment, without any human interruptions.

Background

- People usually celebrate this day by dressing up as turtles to raise awareness about the destruction of their natural habitat.
- People also rescue turtles from roads and highways and return them to their natural habitats on this day.
- Many lessons and activities are also done in schools to raise awareness about this day among school children.

Facts about Turtles

- Turtles belong to one of the oldest reptile groups in the world. Their origin dates back to the time of Dinosaurs, which is nearly 200 million years back, which makes them significantly older than snakes, Crocodiles and Alligators.
- The shell of a Turtle is actually a part of its skeleton, and is made up of nearly 50 bones. The shell makes up a part of the turtle's rib cage and spine. The shell of a turtle actually grows with its age, just like a human skeleton!
- Despite what most people believe, turtles can never come out of their shells. Their shells grow with them and it's impossible for them to outgrow their shells. Sea turtles, unlike other turtles, can't even retract their flippers and head back into their shells.
- Turtles are very fond of jellyfish, even though some species are poisonous.
- Turtles breathe air and lay their eggs on land, which makes them amniotes. Even though they spend most of their lives underwater, they still lay their eggs on land. Most of the sea creatures are anamniotes, which means they lay their eggs underwater.
- Turtles are cold-blooded, which results to an incredibly long life span. Another reason for their long life span is that they have very slow metabolism and can survive without food and water for a long time. They can also survive in harsh conditions, which also adds to their life span.
- There are a total of 300 species of turtles in the entire world, out of which 129 species are endangered. This is because of constant human interruptions in their natural habitat. They are also poached by humans and are pushed into illegal pet trade.

4.17 NEW PLANT SPECIES FOUND IN WESTERN GHATS

A team of scientists of the Botanical Survey of India (BSI) have reported the discovery of three new plant species in the evergreen forest patches of the southern end of the Western Ghats in Kerala and Tamil Nadu.

About *Eugenia sphaerocarpa*:

- It belongs to the Myrtaceae or Rose apple family.
- A good population of *Eugenia sphaerocarpa* is growing in the Kakkayam area of the Malabar wildlife sanctuary in Kerala above 800m.

- The epithet 'sphaerocarpa' denotes to the large, showy lemon-yellow spherical fruits.
- The fruits of *Eugenia* species are known for their palatability.

About *Goniothalamus sericeus*:

- It belongs to the Annonaceae family of custard apple.
- A small number of *Goniothalamus sericeus* plants has been found in the Kanyakumari wildlife sanctuary in Tamil Nadu at an altitude of 1400m.
- Mature flowers with characteristic greenish-yellow to beige petals are fragrant while the fruits are very showy and an attractive golden yellow in colour.
- *Sericeus* refers to the presence of dense silky hair on petals.

About *Memecylon nervosum*:

- It belongs to the Melastomataceae (Kayambo or Kaasavu in local parlance) family.
- A small population of *nervosum* was also found at the Kanyakumari wildlife sanctuary in Tamil Nadu at an altitude between 700-900m.
- The species has showy purplish-blue flowers and mauve to purplish red fruits.
- *Nervosum* refers to the presence of prominently raised lateral and intramarginal veins on the lower surface of the lamina.

4.18 CICADAS

A BROOD OF PERIODICAL CICADAS, NOISY INSECTS THAT BREED UNDERGROUND FOR AS LONG AS 13-17 YEARS, ARE EXPECTED TO EMERGE INTO SOME STATES ON THE EAST COAST OF THE US THIS YEAR.

About Cicadas

- Cicadas are insects that spend most of their lives underground and emerge from the soil mainly to mate.
- The insects are found in the America's as well as New Zealand and Australia.
- There will be major outbreaks of periodical Cicadas in 2020 and 2021.
- There are three species of 17-year Cicadas and three species of 13-year ones.
- The name 13 and 17 year refers to the number of years that Cicada nymphs take to reach adulthood. It is not clear why their development period is so long.
- After emerging from the ground in billions, they shed their exoskeletons or outer skins to take their winged form.
- The lifespan of adult ones is short, about two to four weeks during which time they feed relatively little and mate.
- This year, the grouping dubbed Brood IX will emerge after spending 17 years underground, into states including Southwest Virginia, parts of North Carolina and West Virginia.

- There is an expectation of the emergence of over 1.5 million cicadas per acre.

4.19 **SILVER FISH**

- A new species of small freshwater fish of the family Cyprinidae has come up in Velankanni in Tamil Nadu.
- The silver-hued fish has been christened *Puntius sanctus* — ‘sanctus’ is Latin for holy — after the popular pilgrim town.

About the Fish

- The fish has been identified and named by Mathews Plamoottil, Head of the Department of Zoology, BJM Government College, Chavara, in Kollam.
- His research was funded by the Science and Engineering Research Board (SERB) of the Department of Science and Technology.
- Encountered in a small waterbody in Venlankanni, *Puntius sanctus* is small, it grows to a length of 7 cm. It found use both as food and as an aquarium draw, Dr. Plamoottil said.
- The *Puntius* species are known locally as ‘Paral’ in Kerala and ‘Kende’ in Tamil Nadu.
- They are purely freshwater fishes.
- Its physical characteristics included a protractible mouth, a pair of maxillary barbels (a sensory organ near the snout), 24-25 lateral line scales and 10 pre-dorsal scales.
- The new fish is now deposited in Government of India museum (Zoological Survey of India) at Pune.
- It has also been registered with ZooBank of the International Commission of Zoological Nomenclature, the official authority for naming animals.

4.20 **CHARRU MUSSELS**



Context

Charru mussel (Scientific name: *Mytella strigata*), an invasive species native to the South and Central American coasts, is spreading quickly in the backwaters of Kerala.

Background

- Mussel is a common name for numerous bivalve mollusks belonging to the marine family Mytilidae and to the freshwater family Unionidae.
- Mollusks are soft-bodied invertebrates of the phylum Mollusca, usually wholly or partly enclosed in a calcium carbonate shell secreted by a soft mantle covering the body.

Highlights

- Worldwide, they are most commonly found in cool seas.
- In India, two species of marine mussels, green mussel (*Perna viridis*), and the brown mussel, (*P. indica*) are found in coastal areas.
- Farming of green mussels is now established as a commercial practice in India.
- The Charru mussel is native to the South and Central American coast.
- Their colour varies from black to brown, purple or dark green.
- They can survive in a range of salinity and temperature but cannot survive beyond 36-degree Celcius.

4.21 HERBAL ROADS PROJECT

- Uttar Pradesh government will develop 800 km roads as Herbal roads in the State.
- These herbal roads will have medicinal and herbal trees – like Peepal, Neem, Sehjan along with other herb varieties like Brahmi, Ashvagandha and Jatropa – along with the land on their both sides.

About the Mission

- These plants will provide the raw material for the medicines and will also help in curbing the erosion of land.
- These 800-kilometer roads will be along national and State highways passing through the State and the herbal garden along with them will keep airborne, bacterial, and other diseases at bay.

4.22 SAHARAN CHEETAH FILMED FOR THE FIRST TIME IN DECADES

- For the first time in decades, Algerian naturalists have filmed a Saharan Cheetah, a subspecies listed as critically endangered on the IUCN Red List.
- The animal was spotted in the Hoggar Mountains national park in the vast country's desert south.

About the Saharan Cheetah

- The Northwest African Cheetah (*Acinonyx jubatus hecki*), also known as the Saharan Cheetah, is a Cheetah subspecies native to the Sahara and the Sahel.
- It is listed as Critically Endangered on the IUCN Red List.
- In 2008, the population was suspected to number less than 250 mature individuals.

- The Saharan Cheetah's range is now limited to isolated pockets across the Sahara and Sahel from Mali in the west to the Central African Republic in the east.
- The subspecies was last seen in the Hoggar Mountains in 2008-10 when four individuals were recorded by camera traps.
- In 2012, the International Union for Conservation of Nature estimated the remaining population in Algeria at just 37 individuals.
- Cheetahs can subsist without direct access to water, obtaining water indirectly from the blood of their prey.
- The Cheetahs in the Sahara, where daytime temperature goes upto 40 degrees Centigrade, exhibit several behavioral adaptations to this harsh climate. These adaptations includes:
 - They are predominantly nocturnal and active between sunset and early mornings;
 - They travel larger distances.
 - Occur at a lower density than cheetahs living in savannas.



5. SCIENCE & TECHNOLOGY

5.1 STUDY OF EARTH MAGNETOSPHERE

Scientists at the Indian Institute of Geomagnetism (IIG) an autonomous institution of the Department of Science and Technology have developed a generalized one-dimensional fluid simulation code capable of studying a wide spectrum of coherent electric field structures in Earth Magnetosphere.

About the magnetosphere

- A magnetosphere is a region of space surrounding an astronomical object in which charged particles are affected by that object's magnetic field.
- It is created by a star or planet with an active interior dynamo.
- Planets having active magnetospheres, like the Earth, are capable of mitigating or blocking the effects of solar radiation or cosmic radiation, that also protects all living organisms from potentially detrimental and dangerous consequences.
- The Earth's magnetosphere is a vast region which has a finite number of satellites hurtling through this realm.
- Hence, the in situ observations are finite and discrete.
- The morphology of the plasma processes around the satellite can be understood quite well.
- However, when they leave the observational domain of one satellite to enter into another, a vast blind arena is created.

5.2 PULSE OXIMETER

- According to some experts, a medical device called the 'Pulse Oximeter' can be used for testing those who have COVID-19 infection, or those who are under suspicion.
- A Pulse Oximeter is a small, lightweight device that is widely used to monitor the amount of oxygen carried in the body.

About the tool

- This tool attaches painlessly to your fingertip without the use of any instrumental equipment like a syringe, etc, and sends two wavelengths of light through the finger to measure the pulse rate and the amount of oxygen present in a person's system.
- The device is generally used to check the health of patients who have known conditions that affect blood oxygen levels, such as heart and lung conditions, and for those who show symptoms such as shortness of breath.

Highlights

- The device, which is used to measure the levels of oxygen in the blood, is recommended for the early detection of 'Covid pneumonia', a potentially deadly condition seen among the most severe coronavirus cases.

- This sooner and more effective detection ensures that more lives are saved.
- Using the device, those who have Covid-19 or those suspected of having it, can check their oxygen levels early on.
- A fall in oxygen levels, caused by the silent hypoxia, can serve as a signal for seeking additional treatment immediately, and not wait for a coronavirus test.

5.3 DRAFT GUIDELINES FOR SATELLITE TV CHANNELS

The Ministry of Information and Broadcasting (MIB) has drafted new policy guidelines for **uplinking and downlinking of television channels** with broadcasting technology and the market scenario in the broadcasting industry has gone through a major change in this decade.

About the guidelines

- For any of the 11 violations, the penalty ranges from warning, prohibition to broadcast up to 10 days and even cancellation of permission.
- All channels have to take security clearance from the Ministry of Home Affairs (MHA), which was the case earlier too.
- Once granted, the clearance is valid for 10 years.
- However, the MHA can withdraw the clearance which would mean that the permission to uplink would stand terminated automatically.
- A welcome change is the relaxation offered for non-news category channels to broadcast live events.
- Instead of seeking permission, now the channel merely has to register online at Broadcast Seva with the necessary document five days prior to the telecast.

5.4 DEMO-2 MISSION

- NASA is set to launch American Astronauts on an American rocket from American soil to the International Space Station.
- The mission comes as a part of NASA's Commercial Crew Program and is set for May 27, this year.

Background

- According to the American space agency, NASA astronauts Robert Behnken and Douglas Hurley will fly on SpaceX's Crew Dragon spacecraft, lifting off on a Falcon 9 rocket at 4:32 p.m. EDT May 27, from Launch Complex 39A in Florida. Both the astronauts will fly for an extended stay at the space station for the Demo-2 mission.
- However, the specific duration of the mission is to be determined.

About the mission

- Crew Dragon, the Space-X spacecraft will be used to take them into space.

- It will be only the fifth class of US spacecraft to take human beings into orbit, after the Mercury, Gemini, Apollo and Space Shuttle programs.
- This mission holds key importance for the United States as it is being conducted even after this Covid-19 pandemic.
- The mission is a major milestone for SpaceX, which is a private company founded by Elon Musk, who is the founder of Tesla.
- It has established itself as the leader in the private space sector mainly due to its reusable rocket, the Falcon 9.

5.5 UV DISINFECTION TOWER DEVELOPED BY DRDO

Defence Research and Development Organisation (DRDO) has developed an Ultra Violet (UV) Disinfection Tower for rapid and chemical-free disinfection of high infection-prone areas.

About the tower

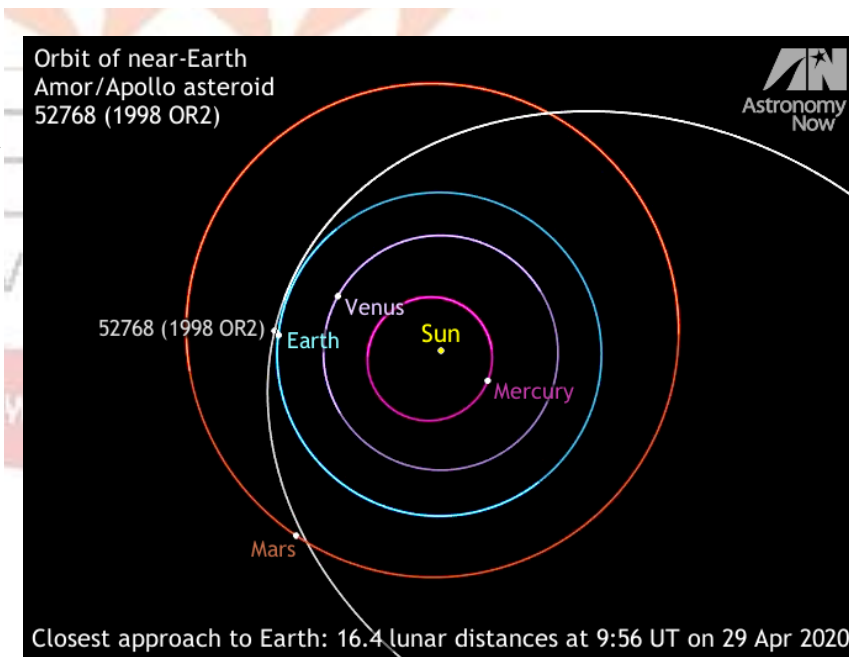
- The equipment developed by DRDO is named as “UV blaster”.
- It is basically a UV based area sanitizer designed and developed by Laser Science & Technology Centre (LASTEC), the Delhi based premier laboratory of DRDO with the help of M/s New Age Instruments and Materials Private Limited, Gurugram.
- This newly developed UV Blaster is useful for high tech surfaces like electronic equipment, computers and other gadgets in laboratories and offices that are not suitable for disinfection with chemical methods.

5.6 ASTEROID 1998 OR2

- On 29 April 2020, the asteroid (52768) 1998 OR2 passed at a distance of 0.042 AU (6.3 million km) from Earth.
- (52768) 1998 OR2 (provisional designation 1998 OR2) is an asteroid on an eccentric orbit with a diameter of 2 kilometers.

Highlights

- It is a member of the dynamical Amor group of near-Earth asteroids.
- It was discovered in 1998, by astronomers of the Near-Earth Asteroid Tracking (NEAT) program at the Haleakala Observatory, Hawaii.



- It is one of the brightest and therefore largest potentially hazardous asteroids known to exist.

5.7 CORONAVIRUS ‘COPY MACHINE’

- Researchers have reported that they have determined the 3D structure of the coronavirus “copy machine”.
- This makes it possible to investigate how drugs such as Remdesivir work.

About the machine

- Once the novel coronavirus SARS-CoV2 invades a human cell, the crucial next stage is replication, when it creates copies after copies of itself.
- For this, the virus uses its “copy machine”, which is an enzyme with this function.
- The first stage of infection is the virus entering the human cell.
- On the surface of the virus is a spike-shaped protein, the so-called “corona”, which binds itself to a human cell enzyme, ACE2.
- The virus then acidifies compartments on the cell surface, enters, and then begins to replicate using the body’s own mechanism.
- SARS-CoV2 is made of a single strand of RNA, which is what is copied and recopied.
- Enzymes that enable the creation of RNA (or DNA) are called polymerases; in the case of SARS-CoV2, the polymerase is called RdRp, also named nsp12.
- It is the polymerase whose structure researchers have now described.

5.8 FLYTNOW – AN INTERNET OF DRONES (IoD) PLATFORM

FlytNow- an Internet of Drones (IoD) platform that allows seamless integration of intelligent fleets of drones with cloud-based business applications has been built recently by FlytBase, an enterprise drone automation company.

About FlytNow

- This Internet of Drones (IoD) platform assists the Police officials to stream live multi-video feeds from multiple drones to their control room, thus providing situational awareness and enabling them to respond quickly to emergencies.
- The system also allows drone operators to help the police while remaining in the safety of their homes, eliminating the need to be present on the field.
- Whenever a request was triggered, operators could fly a drone from their home terrace and stream the video feed directly to the central dashboard.
- FlytNow has also enabled police authorities to keep strict vigilance over the lockdown situation due to Covid-19.
- FlytNow is currently being used by Police of many States including Maharashtra, Gujarat, Karnataka and Andhra Pradesh.

5.9 NSafe

An IIT Delhi startup ‘Nanosafe Solutions’ has launched an antimicrobial and washable face mask ‘NSafe’, which is reusable up to 50 launderings, thus greatly cutting down the cost of use.

About the mask

- NSafe mask has 99.2% bacterial filtration efficiency (at 3 microns) and complies with ASTM standards of breathability and splash resistance.
- It is believed to be the first fabric based antimicrobial face mask launched in India.
- NSafe mask enhances protection to the wearer through three different mechanisms: mechanical filtration, antimicrobial decontamination and repulsion of aerosol droplets.

5.10 LUHMAN -16

- Cloud bands has been identified by a group of international astrophysicists on the surface of Luhman 16A, one of a pair of LUHMAN-16 binary brown dwarf in the Vela constellation.
- Understanding the cloud system over a brown dwarf can shed light on the pressure, temperature and climate on the surface of the celestial body.

Highlights

- Luhman 16 is a binary star system, the third closest system to the Sun after Alpha Centauri and Barnard’s star.
- At a distance of about 6.5 light years from the Sun, this pair of brown dwarfs referred to as Luhman 16A and Luhman 16B orbit each other, casting a dim light.
- In the newest study of Luhman 16, researchers have found the actual structure of the clouds — that they form bands over one of the pair (Luhman 16A) of brown dwarfs.

5.11 hmAbs

Council of Scientific and Industrial Research (CSIR) through its New Millennium Indian Technology Leadership Initiative (NMITLI) programme has approved a project towards development of human monoclonal antibodies (hmAbs) that can neutralize SARS-CoV-2 in patients.

About the project

- The project aims to generate hmAbs to SARS-CoV-2 from convalescent phase of COVID-19 patients and select high affinity and neutralizing antibodies.
- The project also aims to anticipate future adaptation of the virus and generate hmAbs clones that can neutralize the mutated virus so that could be readily used for combating future SARS-CoV infections.

- The project will be implemented by National Centre for Cell Science (NCCS), IIT-Indore and PredOmix Technologies Pvt. Ltd. with Bharat Biotech International Ltd. (BBIL) as the commercialization partner.

5.12 NATIONAL TECHNOLOGY DAY

- May 11 is observed as the National Technology Day.
- It is celebrated to mark the day on which India successfully test-fired its first nuclear bombs in 1998.

Background

- Between May 11 and May 13, 1998, five devices were tested during the nuclear tests in Rajasthan's Pokhran.
- India is currently among eight countries in the world that have a publicly known nuclear weapons program.

Developing nuclear weapons

- At the time of India's independence, the Country's leaders were opposed to fully embracing nuclear weapons.
- Just two years before in 1945, the world had witnessed the horrific nuclear bombings of Hiroshima and Nagasaki.
- Mahatma Gandhi called the use of nuclear weapons morally unacceptable.
- This future beckoned early, as India's defeat in the 1962 Sino-Indian War gave rise to legitimate fears about national security.
- Then in 1974, India conducted its first nuclear test, codenamed "Smiling Buddha", at Pokhran in Rajasthan.
- Then-Prime Minister Indira Gandhi called the test a "peaceful nuclear explosion."
- India demonstrated to the world that the country could defend itself in an extreme situation and chose not to immediately weaponise the nuclear device it tested at Pokhran.

About Pokhran II tests

- India's fence-sitting finally ended when it detonated another device in 1998, again at Pokhran.
- Then-Prime Minister Atal Bihari Vajpayee publicly declared India's status as a nuclear weapons power.
- The tests were conducted by former President Dr APJ Abdul Kalam who led the scientific team that made preparations for the tests.
- Assigned the code name Operation Shakti, the mission was initiated on May 11, 1998.
- The tests consisted of 5 detonations, the first being a fusion bomb while the remaining four were fission bombs.

- One fusion and two fission bombs were tested on May 11, and two more fission bombs on May 13.
- With the tests, India achieved its objective of building fission and thermonuclear weapons with yields up to 200 kilotons.
- After Pokhran-II, Vajpayee had declared India a nuclear State — then the sixth country in the world to join this league.
- Unlike in 1974, India had this time chosen to actively develop its nuclear capabilities, and the tests followed economic sanctions by the United States and Japan. The sanctions were later lifted.

5.13 DEFENCE RESEARCH ULTRAVIOLET SANITISER

Hyderabad based Research Centre Imarat (RCI), a DRDO lab, has developed an automated contactless UVC sanitisation cabinet, called Defence Research Ultraviolet Sanitiser (DRUVS).

About the benefits

- It has been designed to sanitise mobile phones, iPads, laptops, currency notes, cheque leafs, challans, passbooks, paper, envelopes, etc.
- It provides 360 degree exposure of UVC to the objects placed inside the cabinet.
- The proximity sensor switches, clubbed with drawer opening and closing mechanism, makes its operation automatic and contactless.

About NOTESCLEAR

- The RCI has also developed an automated UVC currency sanitising device, called NOTESCLEAR.
- It picks the notes one by one and makes them pass through a series of UVC lamps for complete disinfection.

5.14 NEW GI TAGS

- Jharkhand's Sohrai Khovar portray and Telangana's Telia Ruma got the Geographical Indication (GI) tag by the Geographical Indications Registry headquartered in Chennai.
- The software for the portrayal was made by Sohrai Kala Mahila Vikas Sahyog Samiti Limited whereas the appliance for Telia Ruma was made by the Consortium of Puttapaka Handloom Cluster-IHDS.

About Sohrai Khovar painting

- The Sohrai Khovar painting is a traditional and ritualistic mural art being practised by local tribal women during local harvest and marriage seasons using local, naturally available soils of different colours in the area of Hazaribagh district of Jharkhand.
- Telia Ruma cloth involves intricate handmade work with cotton loom displaying a variety of designs and motifs in three particular colours — red, black and white.
- The Sohrai Khovar portrayal is primarily being practised solely within the district of Hazaribagh.
- However, lately, for promotional functions, it has been seen in different elements of Jharkhand.

- Traditionally painted on the partitions of mud homes, they're now seen on different surfaces, too.
- The fashion contains a profusion of traces, dots, animal figures and crops, typically representing spiritual iconography.
- In recent years, the partitions of necessary public locations in Jharkhand, such as the Birsa Munda Airport in Ranchi, and the Hazaribagh and Tatanagar Railway Stations, amongst others, have been adorned with Sohrai-Khovar work.

About the Telia Rumal

- Details offered within the software filed with the Geographical Indications Registry reveals that Telia Rumal can solely be created utilizing the normal handloom course of and never by some other mechanical means as in any other case, the very high quality of the Rumal could be misplaced.
- During the Nizam's dynasty, Puttapaka, a small, backward village of the Telangana area of Andhra Pradesh had about 20 households engaged in handloom weaving, who have been patronised by wealthy Muslim households and the Nizam rulers.
- The officers working within the court docket of the Nizam would put on the Chituki Telia Rumal as a symbolic illustration of standing.
- Telia Rumals are provided on the dargah of Ajmer Sharif in Rajasthan, with some devotees providing 50 and even 100 clothes.
- Telia Rumals have been worn as a veil by princesses on the erstwhile Court docket of the Nizam of Hyderabad; and as a turban material by Arabs within the Middle East.

5.15 DIRECT SEEDING OF RICE

The two granary states of Punjab and Haryana could face a shortage of an estimated 10 lakh laborers, mainly seasonal migrants from Bihar and Uttar Pradesh, to undertake transplantation of paddy in the upcoming Kharif season. With lockdown relaxations not extending to trains to ferry these laborers who usually arrive by early June, farmers are now being encouraged to adopt 'direct seeding of rice' (DSR) in place of conventional transplanting.

About its difference from a normal transplant

- In transplanting, farmers prepare nurseries where the paddy seeds are first sown and raised into young plants.
- These seedlings are then uprooted and replanted 25-35 days later in the main field.
- The nursery seedbed is 5-10% of the area to be transplanted.
- In DSR, there is no nursery preparation or transplantation.
- The seeds are instead directly drilled into the field by a tractor-powered machine.
- The Punjab Agricultural University (PAU) in Ludhiana has developed a 'Lucky Seed Drill' that can both sow seeds and simultaneously spray herbicides to control weeds.

- This machine is different from the more popular ‘Happy Seeder’, used to directly sow wheat on combine-harvested paddy fields containing leftover stubble and loose straw.

About the advantages

- The most obvious one is water savings.
- The second savings, relevant in the present context, is that of labour.
- About three labourers are required to transplant one acre of paddy in a single day.
- As against this, the cost of herbicides under DSR will not exceed Rs 2,000 per acre.

5.16 COBAS 6800

- Union Health Minister dedicated to the nation COBAS 6800, the first automated testing machine procured by the Government for testing of COVID-19 cases.
- The machine has been installed at the NCDC.

About the features

- The NCDC has been now equipped with the COBAS 6800, a fully automated, high-end machine for performing real-time PCR testing COVID-19 in the service of the nation.
- COBAS 6800 will provide quality, high-volume testing with a high throughput of around 1,200 samples in 24 hours.
- COBAS 6800 is a sophisticated machine enabled with robotics that minimises the chance of contamination as well as the risk of infection to the health care workers since it can be operated remotely with limited human intervention.
- As the machine requires a minimum BSL2+ containment level for testing, it cannot be placed at just any facility.
- COBAS 6800 can also detect other pathogens like viral Hepatitis B and C, HIV, MTb, both rifampicin and isoniazid resistance, Papilloma, CMV, Chlamydia, Neisseria, etc.

5.17 INTELLECTUAL PROPERTY FACILITATION CELL

In a major step towards rapid mass production of the Medical Personal Protective Equipment (PPE) developed by the Indian Navy, a patent has been successfully filed by the Intellectual Property Facilitation Cell (IPFC) of Ministry of Defence, in association with National Research Development Corporation (NRDC), of Ministry of Science & Technology.

Highlights

- The low cost PPE has been developed by a Doctor of Indian Navy, posted at the recently created Innovation Cell at Institute of Naval Medicine (INM), Mumbai.
- The PPE developed by the Navy is made of a special fabric which affords high level of protection along with high ‘breathability’ as against other PPEs.

- The team of Innovators from Navy is working in close coordination with IPFC which was set up under Mission Raksha Gyan Shakti (which was launched in 2018).

5.18 LIGHT WEIGHT CARBON FOAM

Researcher from CSIR-Advanced Materials and Processes Research Institute, Bhopal is developing porous carbon materials which have the potential to replace lead grid in lead-acid batteries.

About the carbon foam

- The lightweight carbon foam has a density of less than 0.3g/cc, high porosity of over 85%, good mechanical strength.
- The foam is highly resistive to corrosion, has good electrical and thermal conductivity with high surface area.
- The foam has potential applications in various fields due to which it has attracted a lots of attention.
- The carbon foam developed under the INSPIRE fellowship will also be cost-effective for the removal of arsenic, oil and other metals from contaminated water.
- These carbon foams are non-toxic, easy to fabricate, affordable, and insoluble in water.
- The raw material for the fabrication of Carbon foam is easily available everywhere.
- There is no requirement of any costly equipment for the fabrication of Carbon foam and filtration.
- Such materials can be safely used in remote areas where power supply is scarce.
- It can also be useful for heat sinks in power electronics, electromagnetic interference shielding in aerospace, hydrogen storage and electrode for lead-acid batteries and water purification systems.

5.19 BIODEGRADABLE METAL IMPLANTS

Scientists at the International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), under the Department of Science & Technology (DST) has developed new generation Iron-Manganese based alloys for biodegradable metal implants for use in humans.

About the metal implants

- Iron-Manganese based alloy Fe-Mn (having Mn composition of more than 29% by weight) is a promising biodegradable metallic implant which exhibits single austenitic phase (non-magnetic form of iron) with MRI compatibility.
- The alloy also showed a degradation rate in the range of 0.14-0.026 mm per year in the simulated body fluid, which means that the Fe-Mn alloy exhibits mechanical integrity for 3-6 months and completely disappears from the body in 12-24 months.
- The newly developed Fe-Mn based alloys are suitable for biodegradable stent and orthopedic implant applications.

About the significance

- These Biodegradable materials (Fe, Mg, Zn, and polymer) can participate in the healing process and then degrade gradually by maintaining the mechanical integrity without leaving any implant residues in the human body.
- These are better alternatives to currently used metallic implants which remain permanently in the human body and can cause long-term side effects like systemic toxicity, chronic inflammation, and thrombosis.

5.20 ASHWAGANDHA AGAINST COVID-19

Researchers of IIT-Delhi in collaboration with Japan's National Institute of Advanced Industrial Science and Technology (AIST) have recently found that the ayurvedic herb Ashwagandha has "therapeutic and preventive value" against Covid-19 infection.

About the findings

- Drug designing, devising and development using informatics and experimental tools across the world has been triggered by the publication of the coronavirus genome and structure.
- Researchers from IIT-Delhi and AIST have used Ashwagandha and propolis based compounds in order to target the main enzyme of coronavirus, known as the Main protease or Mpro.
 - Main protease or Mpro plays a key role in mediating viral replication.
 - Enzymes are biological molecules (typically proteins) that regulate the rate of virtually all of the chemical reactions that take place within living organisms. E.g digestion.
 - Replication is the process by which a DNA molecule is copied to produce two identical DNA molecules.
 - In replication whenever a cell divides, the two new daughter cells contain the same genetic information, or DNA, as the parent cell.
- The researchers have found that Withanone (Wi-N), a natural compound derived from Ashwagandha and Caffeic Acid Phenethyl Ester (CAPE), an active ingredient of New Zealand propolis, have the potential to interact with and block the activity of Mpro.
- Recently, the Indian government has also set up a task force to launch its clinical research studies on some Ayurvedic medicines that can be used to boost the immune system and control coronavirus.
- The government has also launched the 'AYUSH Sanjivani' App.
- The app intends to generate data on usage of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa-rigpa, and Homoeopathy) advocacies and measures among the population and its impact in the prevention of Covid-19.

5.21 BENGALURU 'BOOM'

- The ‘loud sound’ heard in Bengaluru which puzzled lakhs of city dwellers, was revealed to have emanated from an IAF test flight involving a supersonic profile.
- The sound effect caused due to such high-speed flights is known as ‘sonic boom’.

Background

- The sonic boom was probably heard while the aircraft was decelerating from supersonic to subsonic speed between 36,000 and 40,000 feet altitude.
- In a statement, the Ministry of Defence’s PRO confirmed that the aircraft belonged to the Aircraft Systems and Testing Establishment (ASTE) and had flown in allocated airspace outside City limits.

About the sonic boom

- Sound travels in the form of waves which are emitted outwards from its source.
- In air, the speed of these waves depends on a number of factors, such as the temperature of the air and altitude.
- From a stationary source, such as a television set, sound waves travel outwards in concentric spheres of growing radii.
- When the source of sound is moving – e.g, a truck– the successive waves in front of the truck get closer together, and the ones behind it spread out.
- This is also the cause of the Doppler effect– in which bunched waves at the front appear at a higher frequency to a stationary observer, and spread out waves that are behind are observed at a lower frequency.
- As long as the source of the sound keeps moving slower than the speed of sound itself, this source– say a truck or a plane – remains nested within the sound waves that are travelling in all directions.

Highlights

- When an aircraft travels at supersonic speed – meaning faster than sound (>1225 kmph at sea level) – the field of sound waves moves to the rear of the craft.
- A stationary observer thus hears no sound when a supersonic flight approaches, since the sound waves are at the rear of the latter.
- At such speeds, both newly created as well as old waves, are forced into a region at the aircraft’s rear called a ‘Mach cone’, which extends from the craft and intercepts the Earth in a hyperbola-shaped curve, and leaves a trail called the ‘boom carpet’.
- The loud sound that is heard on the Earth when this happens is called a ‘sonic boom’.
- When such aircraft fly at a low altitude, the sonic boom can become intense enough to cause glass to crack or cause health hazards.
- Overland supersonic flights have thus been banned in many countries.

5.22 SPACE DEMO-2 MISSION

NASA's SpaceX Demo-2 test flight will lift off for the International Space Station (ISS), becoming the first crewed flight to launch from American soil since the conclusion of the space shuttle era in 2011.

About the mission

- The Demo-2 mission is part of NASA's Commercial Crew Program, and will see astronauts Robert Behnken and Douglas Hurley fly on SpaceX's Crew Dragon spacecraft.
- The craft will lift off from a Falcon 9 rocket, from Florida.
- NASA's Commercial Crew Program has worked with several American aerospace industry companies to facilitate the development of US human spaceflight systems since 2010, with the aim of developing reliable and cost-effective access to and from the ISS.
- Essentially, the lift-off on May 27 is a flight test to certify if SpaceX's crew transportation system can be used to ferry crew to and from the space station regularly.
- This is the final flight test for the system and intends to validate its different components, including the spacecraft (Crew Dragon), the launch vehicle (Falcon 9), the launch pad (LC-39A) and the operations capabilities.
- After its launch, the Crew Dragon will perform a series of phasing manoeuvres to gradually approach and autonomously dock with the ISS on May 28.
- After docking, the two astronauts will go aboard the ISS.
- They will perform tests of the Crew Dragon and conduct research with Expedition 63, the space station crew currently in residence at ISS.
- The Crew Dragon spacecraft being used for this mission can stay in orbit for up to 110 days, though the specific duration is yet to be determined.
- If SpaceX spacecraft are used regularly, they will need to stay in orbit for a period of at least 210 days as per NASA's requirements.
- Once the mission is over, astronauts Behnken and Douglas will board the Crew Dragon, which will automatically undock, depart from the station and re-enter the Earth's atmosphere.

About the commercial crew program

- The main objective of this program is to make access to space easier in terms of its cost, so that cargo and crew can be easily transported to and from the ISS, enabling greater scientific research.
- Secondly, by encouraging private companies such as Boeing and SpaceX to provide crew transportation services to and from low-Earth orbit, NASA can focus on building spacecraft and rockets meant for deep space exploration missions.
- Boeing and SpaceX were selected by NASA in September 2014 to develop transportation systems meant to transfer crew from the US to the ISS.

- “These integrated spacecraft, rockets and associated systems will carry up to four astronauts on NASA missions, maintaining a space station crew of seven to maximize time dedicated to scientific research on the orbiting laboratory,” the NASA website says.

5.23 AGAPPE CHITRA MAGNA

- The Government of India announced the commercial launch of Agappe Chitra Magna.
- Agappe Chitra Magna is a magnetic nanoparticle-based RNA extraction kit for use during testing for the detection of COVID-19.

About the device

- It was developed by Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Trivandrum, an Institute of National Importance of the Department of Science and Technology (DST) along with Agappe Diagnostics Ltd, an in vitro diagnostics manufacturing company based in Cochin.
- The commercial launch of the kit can help increase the rate of testing and bring down its costs, a crucial step for combating the pandemic.

About its working

- It uses an innovative technology for isolating RNA using magnetic nanoparticles to capture the RNA from the patient sample.
- The magnetic nanoparticle beads bind to the viral RNA and, when exposed to a magnetic field, give a highly purified and concentrated RNA.
- As the sensitivity of the detection method is dependent on getting an adequate quantity of viral RNA, this innovation enhances the chances of identifying positive cases.

5.24 PLATFORM FOR DETECTING CARCINOGENIC COMPOUNDS IN FOOD

Institute of Advanced Study in Science and Technology (IASST), Guwahati, has developed an electrochemical sensing platform for detecting carcinogenic or mutagenic compounds found in food.

About the platform

- The study is for the detection of carcinogenic or mutagenic compound N-nitrosodimethylamine (NDMA) and N-nitrosodiethanolamine (NDEA) sometimes found in food items like cured meat,



bacon, some cheese, and low-fat milk.

- It was achieved by developing a modified electrode by immobilizing carbon nanomaterials (carbon dots) in DNA.
- Most of the techniques used for detection of Nitrosamine have detection limits in μM .
- In this study published, the detection limit was determined to be $9.9 \times 10^{-9} \text{ M}$ and $9.6 \times 10^{-9} \text{ M}$ for NDMA and NDEA, respectively.

About its working

- The electrochemical biosensor platform was developed using the ability of NDMA and NDEA, to alter the DNA.
- The Carbon dots (CDs), a carbon-based nanomaterial, was used, which is already established as a biocompatible and environmentally friendly material.
- Naturally derived chitosan, (natural biopolymer obtained from the shells of shrimp, lobster, and crabs) is an environmentally-friendly sustainable material that was used to synthesize carbon dots.
- As this is an electrochemical sensor, electrodes were developed by depositing carbon dots (carbon nanoparticles) and then immobilizing bacterial DNA on them. This electrode system was used to measure the current peak.
- Both NDMA and NDEA alter the chemical structure of DNA present in the electrode, making it more conducting, which ultimately results in the increased current peak.

About the need for such platform

- According to the scientists, with changing food habits of urban Indians, they are exposed to harmful chemicals belonging to the Nitrosamine family in cured meats, bacon, some cheese, low-fat dry milk, and fish.
- Such chemicals include carcinogenic ones like NDMA and NDEA, which may also alter the chemical composition of our DNA.
- Hence it is important to develop detection techniques to detect them.

5.25 ANTARCTIC IMPULSIVE TRANSIENT ANTENNA

- The news that a NASA experiment has indicated the possibility of a parallel universe has created headlines across the world.
- Antarctic Impulsive Transient Antenna or ANITA - an experiment maintained by researchers at NASA - has suddenly come into the limelight as the cosmic-ray shower that is key to the new discovery was a part of NASA's ANITA and IceCube experiment taking place in Antarctica.

Background

- ANITA, a stratospheric balloon payload flying over the Antarctic.
- This balloon was designed to detect cosmic-ray air showers through radio-wave signals.

- These signals were detected to have been bouncing off the ice and were to be tracked as they were on their way down or back up after the bounce off the ice shelf.
- Scientists were intrigued when during flights in December 2006 and December 2014, ANITA detected a fountain of high-energy particles erupting from the ice - much like an upside-down cosmic-ray shower.

About ANITA

- It is an experiment that is maintained by NASA.
- It involves an array of radio antennas attached to a helium balloon which flies over the Antarctic ice sheet at 37,000 meters.
- To get a gauge of exactly how high is that, know that commercial flights fly almost a fourth of that height.
- The height is important here to shut out all other "noises" so that the ANITA antennas can "listen" to the cosmos and detect high-energy particles, known as neutrinos, which constantly bombard the planet.

About Neutrinos

- Neutrinos are high-energy particles that pose no threat to us and pass through most solid objects without anyone even noticing.
- Neutrinos constantly bombard Earth and as per some estimates emerging from studies, 100 trillion neutrinos pass through your body every second!
- Rarely do they interact with matter.
- But if they do smash into an atom, they produce a shower of secondary particles we can detect, which allows us to probe where they came from in the universe.
- ANITA detects Neutrinos pinging in from space and colliding with matter in the Antarctic ice sheet.

Significance

- During the first three flights of the Antarctic Impulsive Transient Antenna (ANITA) experiment, the collaboration detected several neutrino candidates.
- Two of these candidate events were consistent with an ultra-high-energy up-going air shower and compatible with a tau neutrino interpretation.
- A third Neutrino candidate event was detected in a search for Askaryan radiation in the Antarctic ice, although it is also consistent with the background expectation.
- When ANITA reported signals that looked like extremely high-energy neutrinos, physicists were puzzled.

- These neutrinos had arrived at an angle that suggested they had just travelled through most of the planet, which is not expected for neutrinos at these energies.

5.26 FACEBOOK SHOPS

Facebook founder Mark Mark Zuckerberg announced the launch of Facebook shops a platform that small mom-and-pop stores across the world could leverage to sell things directly across its apps, such as WhatsApp, Instagram and Facebook too.

Background

- The launch of this platform coincides with the plans of many other global conglomerates to launch themselves in the Medium, Small and Micro Enterprises (MSME) segment, by providing some kind of platform or training space.
- While it is unclear if Facebook Shops would be launched in India as well, it does raise a few questions.

Impacts

- For small store owners in developing countries in Asia, Africa, and Latin America, the launch of this platform could mean easy access to the large customer base of the social media giant, Facebook.
- With WhatsApp and Instagram, the trio makes a formidable presence on the internet.
- The three apps together also have a large captive user base that could be used by small mom-and-pop stores to expand their presence in their local markets.
- For example, Facebook-owned WhatsApp's ability to offer consumers easy access to the nearest kiranas, or grocery stores, which can provide products and services to their homes, can help the latter increase their revenue multi-fold.

5.27 SPIRAL GALAXY NGC 3895

- NASA's Hubble telescope released an image of a spiral galaxy, NGC 3895, that, in colour and shape, resembles a coffee made by a barista.
- The galaxy's existence was known earlier as well and it has been captured by the telescope in the past as well.
- However, the current image is trending online for its aesthetic beauty.

About the spiral galaxy NGC 3895

- The Hubble Space Telescope released the image under the title "One Large Stellar Latte To Go".
- The galaxy, located at a distance of over 161 million light-years, is a part of Ursa Major.
- It was discovered by German-born British astronomer William Herschel on March 18, 1790.
- The galaxy has a diameter of approximately 45,000 light-years.

About the Spiral Galaxy

- Most spiral galaxies consist of a flat, rotating disk containing stars, gas and dust, and a central concentration of stars known as the bulge.
- These are often surrounded by a much fainter halo of stars, many of which reside in globular clusters.
- Together with irregular galaxies, spiral galaxies make up approximately 60% of galaxies in today's universe.
- They are mostly found in low-density regions and are rare in the centers of galaxy clusters.

5.28 VAMS SafeGuard

VAMS (Visitor Authentication & Management Systems) Global, a Mumbai based startup offering specialized solutions for Corporates & Commercial Buildings, has developed the world's 1st contactless Visitor Management Software called 'VAMS SafeGuard'.

Background

- The software checks body temperature, scans faces with mask compliance & monitors social distancing on the premise.
- It scans and records one person at a time from a distance of 18 inches in less than 3-5 seconds.

About VAMS SafeGuard

- With the help of AI (Artificial Intelligence), the software enables entry of visitors, who are only complying to all coronavirus (COVID) protection measures.
- The embedded face & palm recognition sensors equipped in the software provide 100 % hands-free user authentication for various uses including time and attendance, access control, visitor management, event management, contractor module along with others.
- In addition, it has also tasked with monitoring visitors, contractors, pre appointments, Aarogya Setu Declaration, customised questionnaire for visitors for traceability and emergency notification in order to ensure the compliance of social distancing.

About the benefits

- The software can be deployed in pharmaceuticals, hospitality, manufacturing, transportation and logistics, educational institutions, commercial and residential buildings.

5.29 NUMBER-18 - FLYING BULLETS

- The Indian Air Force (IAF) is set to operationalize its squadron called the Number-18 - Flying Bullets with a fleet of the Light Combat Aircraft, LCA Tejas at its Sulur base near Coimbatore.
- It was launched by the Chief of the Air Staff, Air Chief Marshal R K S Bhadauria on May 27, 2020.

About the Aircraft

- It will be the second Indian Air Force squadron to operate with the modern multi-role light fighter aircraft.
- The No.18 Squadron was formed in 1965 and has the distinction of being the first to land and operate from Srinagar.
- It has also produced a Param Veer Chakra awardee during the 1971 war with Pakistan.
- It has been revived on the 1st April this year at the Sulur base.
- The LCA Tejas is a tailless, fourth generation, compound delta-wing aircraft developed by Hindustan Aeronautics Limited.
- The supersonic combat aircraft is considered the lightest and the smallest of its kind.

5.30 **TIANWEN-1**

In July, China will launch its first Mars mission, the 'Tianwen-1', which is expected to land on the Red Planet's surface in the first quarter of 2021.

About the mission

- Tianwen-1, an all-in-one orbiter, lander and rover will search the Martian surface for water, ice, investigate soil characteristics, and study the atmosphere, among other objectives.
- The Tianwen-1 mission will lift off on a Long March 5 rocket.
- The success of the mission will make China the third country to achieve a Mars landing after the USSR and the United States.
- The Chinese mission is expected to take off in late July, around the same time when NASA is launching its own Mars mission– the ambitious 'Perseverance' which aims to collect Martian samples and bring them back to Earth in a two-part campaign.

About the previous missions

- The USSR in 1971 became the first country to carry out a Mars landing– its 'Mars 3' lander being able to transmit data for 20 seconds from the Martian surface before failing.
- The second country to reach Mars's surface, the US, holds the record for the most number of Mars landings. Since 1976, it has achieved 8 successful Mars landings, the latest being the 'InSight' in 2019 (launched in 2018).
- India and the European Space Agency have been able to place their spacecraft in Mars's orbit. India's Mars Orbiter Mission (MOM) or 'Mangalyaan' was able to do so in September 2014, almost a year after its launch from the Satish Dhawan Space Centre in Andhra Pradesh.

5.31 **CENTRAL INSTITUTE OF PLASTICS ENGINEERING AND TECHNOLOGY (CIPET)**

Central Institute of Plastics Engineering and Technology (CIPET) will take up Research and Development initiatives in the areas of Health Care, like Manufacturing and Certifying PPE to deal with COVID-19 pandemic.

About CIPET

- Central Institute of Plastics Engineering and Technology (CIPET) functions under the Ministry of Chemicals and fertilizers.
- It was established in 1968 by Government of India with the assistance of the United Nations Development Programme (UNDP) at Chennai.
- The main objective of setting up of the institute was to develop manpower in different disciplines of Plastics Engineering & Technology.

5.32 WFIRST TELESCOPE OF NASA RENAMED

- In a recent move, NASA has renamed its Wide Field Infrared Survey Telescope or WFIRST Telescope in honor of Nancy Grace Roman, NASA's first chief of astronomer, who paved the way for space telescopes focused on the broader universe.
- WFIRST Telescope is a next-generation space telescope set to launch in 2025.

About the Telescope

- The WFIRST Telescope is now named the Nancy Grace Roman Space Telescope or Roman Space Telescope.
- It will investigate long-standing astronomical mysteries such as the force behind the universe's expansion, and search for distant planets beyond our solar system.
- It is a NASA infrared space observatory which is currently under development and is set to launch in 2025.

About the Science objectives

The science objectives of Roman aim to address cutting-edge questions in cosmology and exoplanet research, including:

- Answering basic questions about dark energy, complementary to the ESA EUCLID mission.
- Completing a census of exoplanets to help answer new questions about the potential for life in the universe.
- Establishing a guest investigator mode, enabling survey investigations to answer diverse questions about our galaxy and the universe.
- Providing a coronagraph for exoplanet direct imaging that will provide the first direct images and spectra of planets around our nearest neighbors similar to our own giant planets.

5.33 NEW TROJAN ASTEROID DISCOVERED NEAR JUPITER

A very rare type of space object, which is something between an asteroid and a comet has been discovered by astronomers. It has been called an Active Asteroid. This is the first Jupiter Trojan astronomer to have ever seen spewing out gas as a comet would.

About the Trojan Asteroid

- The newly discovered asteroid named 2019 LD2 has an orbit like an asteroid but the tail of a comet.
- While not entirely unknown, what makes 2019 LD2 special is that it shares Jupiter's orbit in an asteroid swarm known as the Jupiter Trojans.
- The newly discovered Trojan asteroid has been called an active asteroid.

About the Active Asteroid

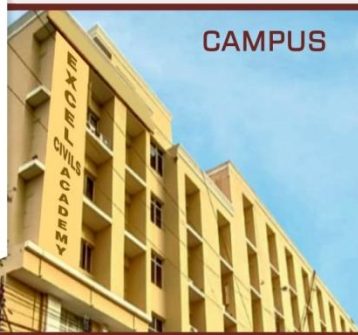
- Active asteroids are small Solar System bodies that have asteroid-like orbits but show comet-like visual characteristics i.e., they show comae, tails, or other visual evidence of mass-loss (like a comet), but their orbit remains within Jupiter's orbit (like an asteroid).
- The first active asteroid discovered is 7968 Elst–Pizarro.
- Unlike comets, which spend most of their orbit at Jupiter-like or greater distances from the Sun, active asteroids follow orbits within the orbit of Jupiter that are often indistinguishable from the orbits of standard asteroids.
- Some active asteroids show signs that they are icy in composition like a traditional comet, while others are known to be rocky like an asteroid.

5.34 ERRA MATTI DIBBALU

- A 2 MW Solar Photovoltaic Plant was commissioned at INS Kalinga, Visakhapatnam.
- The plant is the largest in the Eastern Naval Command (ENC) and has an estimated life of 25 years.

Highlights

- INS Kalinga has taken significant strides in Green Initiatives since it's setting up in the early 1980s, including afforestation, numerous plantation drives, coastal cleanup drives and protection of the Geo-Heritage site "Erra Matti Dibbalu".
- Erra Matti Dibbalu also known as Red Sand Hills, a notified National Geo-heritage Monument, is situated at the outskirts of Visakhapatnam City.
- It is located very near to the Bay of Bengal and is one of Visakhapatnam's many heritage sites.



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