

**EVERYDAY CURRENT AFFAIRS – NOVEMBER 15,
2020**

STATES

- **The State Government of Manipur - has issued a government order stating that hunting, sale and rearing of Amur Falcons are banned in the state.**



- ✓ People violating the order are liable to be punished under Manipur Wildlife (Protection) Act, 1972.
- ✓ Amur Falcons are long distance migratory birds that arrive in Manipur and Nagaland for roosting.
- ✓ They are Siberian birds that reach the North East for about two months at the onset of winter.
- ✓ After the completion of winter, they leave for South Africa.
- ✓ In the process, they traverse over 29,000 km migratory route between Siberia and South Africa
- ✓ With the funds from Wildlife Institute of India and Union Ministry of Environment, Forest and Climate change, the Manipur forest Department is implementing the satellite tagging project for the tracking of Amur falcons
- ✓ The satellite tagging project to study the movement of Amur falcons was begun after mass killing of the birds in 2015
- ✓ In 2019, around 10 Amur Falcons were satellite tagged, out of which only two with satellite tags have reached back.

- ✓ Nagaland is known as the “Falcon Capital of the world”.
 - ✓ Doyang Lake in Nagaland is a stop over to the falcons
 - ✓ The International Union for Conservation of Nature (IUCN) status of the Amur Falcons birds is under “Least Concern” category
 - ✓ They are protected under the “Indian Wildlife Protection Act, 1972” and also under the Convention on Migratory Species to which India is a signatory.
 - ✓ The Amur Falcons spend around three to four weeks in India.
 - ✓ They got their name based on the tenth longest river of the world called the Amur river.
 - ✓ The river forms border between China and Russia.
- **Karnataka Bank Ltd. - has launched the National Common Mobility Debit (NCMC) card.**

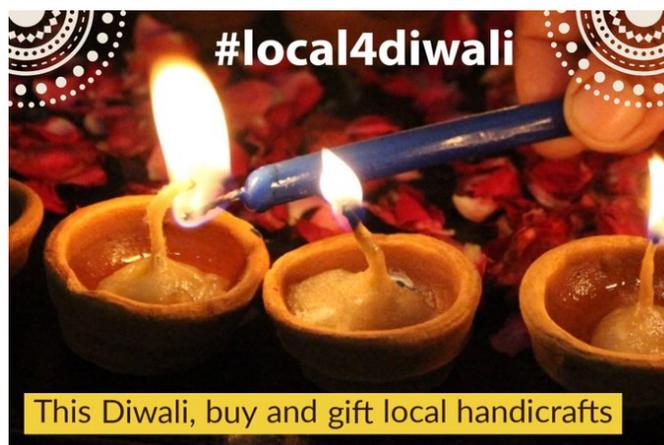


- ✓ It is the first-ever contactless debit-cum-prepaid Rupay Card of the bank and is an inter-operable transport card with various benefits
- ✓ This debit card has been launched in line with the vision of the Ministry of Housing and Urban Affairs.
- ✓ Using this card, people will be able to make payments through its ‘Tap & Go’ facility without inserting or dipping the debit card at the PoS terminals, as it is a completely contactless card.
- ✓ NCMC Rupay debit card will support small offline payments through its ‘wallet’ feature with the help of a value stored in the chip of the card.
- ✓ Karnataka Bank Ltd is a private sector bank of the country headquartered in Mangalore, Karnataka.
- ✓ In June 2020, the Karnataka Bank launched ‘KBL Micro Mitra’ for providing financial assistance upto 10 lakhs to micro manufacturing and service enterprises

NATIONAL

- **Indian Railway Catering and Tourism Corporation (IRCTC) - will be commencing ‘Bharat Darshan–Dakshin Bharat Yatra’ from December 12.**
- ✓ The Bharat Darshan Yatra will start from Hyderabad and Secunderabad and conclude on December 18.

- ✓ The theme of this yatra will be 'Show India to Indians'.
 - ✓ The facility of boarding and de-boarding this tourist train will be available at Secunderabad, Khammam, Nellore, Vijayawada, Warangal, Ongole, and Renigunta.
 - ✓ In January 2019, IRCTC also started booking for Shirdi Sai Baba darshan tickets on its website.
- **On November 11, the Ministry of Food Processing Industries - announced a 50% transport subsidy for 41 notified fruits and vegetables from the Himalayan and the North Eastern states under Operation Greens**
- ✓ Earlier, these notified fruits and vegetables were provided with rail subsidies under the Kisan Rail Scheme.
 - ✓ The Operation Greens was launched in 2018.
 - ✓ Operation Greens is a price fixation scheme that provides right price to the farmers for their produce.
 - ✓ The scheme aims to promote processing facilities, strengthen Farmer Producer Organizations and professional management of agri-produce.
 - ✓ It mainly focuses on tomatoes, onions and potatoes (TOP) by connecting farmers and consumers ensuring price stabilization
 - ✓ It intends to reduce post-harvest losses by creating farm gate infrastructure and by creating appropriate storage capacity linking consumption centres.
 - ✓ The Operation Greens aims to achieve the above objectives through two methods - Short Term Price Stabilisation measures and Long term Integrated value chain development projects.
 - ✓ Kisan Rail Scheme was announced by Finance Minister Nirmala Sitaraman during her Budget 2020-21 to transport agricultural products such as fruits and vegetables.
 - ✓ Under the scheme, trains with frozen containers are to be launched to build cold supply chain of fish, perishables, milk and meat.
- **The Union Ministry of Textiles - has launched a campaign for Diwali - "Local4Diwali"**



- ✓ The campaign has been launched to promote the Indian handicrafts, which is the cultural heritage of the country and livelihood for many skilled artisans.
 - ✓ The Indian handicrafts sector is a major sector of women empowerment, as around 55% of the workers and artisans employed in this sector are women.
 - ✓ The main aim of the #Local4Diwali campaign is to urge people to buy and gift Indian handicraft products on this Diwali.
 - ✓ This campaign will help the handicraft artisans and workers in increasing their sales and promoting their business.
- **The flagship programme of the Minority Affairs Ministry, Hunar Haat - has been restarted after a gap of around seven months due to the Covid-19 pandemic from November 11.**



- ✓ Union Minister for Minority Affairs Mukhtar Abbas Naqvi relaunched 'Hunar Haat' at Delhi Haat, Pitampura.
- ✓ The Hunar Haat is being organized by the IITF, Pragati Maidan with the setting up of over 100 stalls from November 11 to 22.
- ✓ The theme of this Hunar Haat is "Vocal for Local".
- ✓ Accordingly, local products made from Metal, Maati (clay), and Machiya (wooden and jute products) are the major attractions of the event.
- ✓ Further, products made from cane-bamboo and pottery work were also displayed at the event.
- ✓ The Hunar Haat provided more than 5 lakh jobs to craftsmen, artisans and others in the last 5 years.
- ✓ At present, people will also be able to buy the hunar haat products online.
- ✓ Hunar Haat is an exhibition of traditional products and handicrafts launched by Ministry of Minority Affairs in 2017.
- ✓ It was launched under 'Upgrading the Skills and Training in Traditional Arts/ Crafts for Development' (USTTAD) scheme.
- ✓ As of now, the Minority Affairs Ministry has organised over 2 dozen Hunar Haats and provided lakhs of job opportunities.
- ✓ Going forward, the Hunar Haat will be organized in Chandigarh, Jaipur, Lucknow, Indore, Hyderabad, Mumbai, New Delhi, Surat, Kota and Ranchi.

- **The IIT Alumni Council - has launched a new initiative “MegaScope” for personalized healthcare.**
 - ✓ It includes testing, data analysis and genomics to precisely diagnose infections and to prescribe personalised medicines instead of common medicines.
 - ✓ MegaScope will add host genome ‘data mapping’ along with Artificial Intelligence, machine learning and data backbone to the MegaLab initiative.
 - ✓ The main aim of MegaScope is to improve accuracy of testing, prediction of likely disease severity and progression, enhance efficiency of treatment and avoid casualties.
 - ✓ The RT–PCR only tests the presence of virus, but it does collect any data on the human body.
 - ✓ If host genome data is added and correlated then it will be possible to find which person requires hospitalisation, who requires quarantine, etc.
 - ✓ In July 2020, the IIT Alumni Council announced to set up a mega Covid-19 testing laboratory called ‘Mega Lab’ in Mumbai.
 - ✓ Under the initiative around 10 million RT-PCR tests are to be conducted per month.

- **The Finance Ministry - has approved the creation of country’s first-ever national database for migrant labourers employed in unorganised sector.**
 - ✓ This will provide a platform to migrant workers, so that the government’s programmes for this sector of workers reach them properly.
 - ✓ According to the Ministry of Labour and Employment, the National Database of Unorganised Workers (NDUW) will maintain the database of all the migrant workers using the 12-digit Aadhaar number.
 - ✓ The database will help the government in implementing social security schemes, providing jobs as per the skills of the workers and giving other benefits to the unorganized labourers easily.
 - ✓ It can also help in keeping a track of workers’ movement in pandemic situations like Covid-19.
 - ✓ The total cost of the project is expected to be approximately Rs 650 crore.
 - ✓ Workers in unorganized sector will be encouraged to enroll on the website for the database through Common Service Centres.
 - ✓ The initiative has been started following the problems faced by migrant labourers in Covid-19 pandemic.

- **The Ministry of Power - has released an official notification that mandates all the Electricity Distribution Companies (DISCOMs) to comply Energy Conservation (EC) Act, 2001.**
 - ✓ Accordingly, all the DISCOMs will now be governed under the various provisions of EC Act like Energy Accounting & Auditing, Implementation of energy conservation & efficiency measures, identification of Energy Losses, Appointment of Energy Manager, etc.

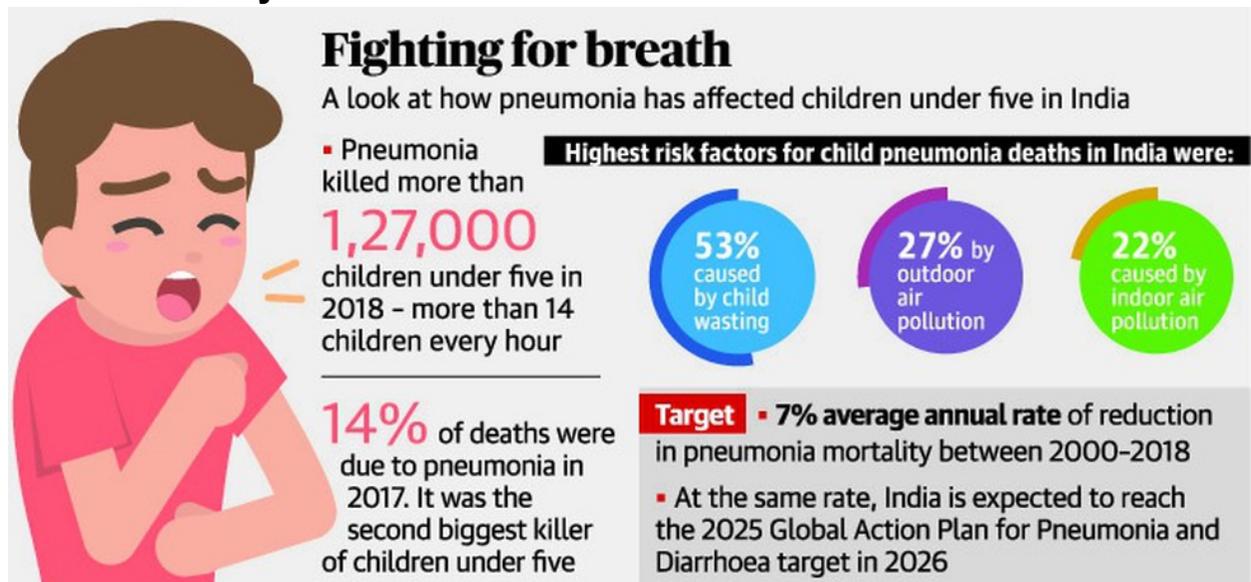
- ✓ This notification was prepared in consultation with Bureau of Energy Efficiency (BEE).
 - ✓ Henceforth, all entities having issued distribution license by State/Joint Electricity Regulatory Commission under the Electricity Act, 2003 (36 of 2003) are now notified as Designated Consumers (DCs).
 - ✓ With this, the number of DISCOMs covered under EC Act will increase to 102 to 44.
 - ✓ Before this, DISCOMs with annual energy losses equal to or above 1000 MU were only covered as DCs.
 - ✓ The latest amendment will ensure the collection of quarterly data of DISCOMs and suggest measures for improving their efficiency
 - ✓ This monitoring process of DISCOMs will also bring transparency in the distribution sector and improve their performances by reducing their losses, implementing solutions and thereby improving their financial state.
- **Union Minister for Jal Shakti, Gajendra Singh Shekhawat - virtually inaugurated the Australia-India Water Centre (AIWC) on November 6, 2020**



- ✓ This Water Centre is led by IIT Guwahati from Indian side and University of Western Sydney from the Australian side.
- ✓ Overall, the centre has 21 partners from India and Australia
- ✓ Dan Tehan, Education Minister, Australia was present at the virtual inauguration of Australia-India Water Centre (AIWC).
- ✓ The Water Centre will focus on collaboration on different aspects related to water security.
- ✓ It will help in fighting against the common water challenges and issues faced by both the countries like floods, droughts, water security, climate change, over-exploitation of water, degradation of water quality, etc.
- ✓ During the occasion, both the countries signed a MoU which is valid for a period of five years
- ✓ The agreement will bring collaboration in capacity building, technology transfer focusing on water security, river health, safe drinking water, etc.

- ✓ Further, both the countries will work together in the field of water research, student and staff exchanges, for a joint Master's level course in water futures, workshops, short-term trainings, conferences, etc
- ✓ This Water Centre will help the Indian and Australian authorities for a long-time collaboration in the field of research and education between the two countries.
- ✓ The setting up of the centre follows a joint declaration given by the Prime Minister Narendra Modi and Australian PM Scott Morrison in a virtual summit in June 2020
- ✓ During the summit, the leaders said that "Water security" is a major challenge for both the countries and decided to strengthen the technical and policy cooperation to improve the management of water and sustainable development.

➤ **The International Vaccines Access Centre - released the 11th Annual Pneumonia and Diarrhoea Progress Report on the occasion of the World Pneumonia Day on November 12**



SOURCE: SAVE THE CHILDREN, UNICEF AND EVERY BREATH COUNTS COALITION

- ✓ According to the report, India has made significant progress in vaccination coverage to prevent Diarrhoea and Pneumonia.
- ✓ India has achieved the global target of 90% coverage of three of five vaccines, as per the report.
- ✓ The 5 vaccines are DPT Vaccine, Measles vaccine, PCV vaccine, Rotavirus vaccine and Haemophilus Influenzae Type B vaccine.
- ✓ DPT refers to Diphtheria, Pertussis and Tetanus vaccine, while PCV indicates Pneumococcal Conjugate Vaccine.
- ✓ As per the report, India has completed the 100-day agenda of un-precedented national scale up of Rotavirus vaccine.
- ✓ This has helped to protect 26 million children born with cases of rotavirus diarrhoea.
- ✓ The coverage of rotavirus vaccine in India has increased from 35% in 2018 to 53% 2019.
- ✓ The coverage of PCV vaccine has increased from 6% in 2018 to 15% in 2019.

- ✓ The report tracked the progress of the following indicators – Breastfeeding, Immunisation, Antibiotics, Oral Rehydration Solution and Zinc Supplementation
- ✓ Of the 15 countries that were focussed by the report, India is one among the four that exceeded targets of exclusive breastfeeding, while failing to reach all other four targets
- ✓ Only 51% of children in India received Oral Rehydration Solution and only 20% received Zinc.
- ✓ These two are considered as the most effective treatments in preventing deaths from diarrhoea in children.
- ✓ India accounts to 20% of deaths due to pneumonia in the world.
- ✓ Uttar Pradesh and Madhya Pradesh are the estimated to have majority of Pneumonia cases of the country, especially in children of age under 5.

INTERNATIONAL

- **On November 10, Armenia and Azerbaijan - signed a peace deal to end the ongoing conflict between the countries.**



- ✓ The peace deal between the countries was brokered by Russia
 - ✓ It was signed by Azerbaijani President Ilham Aliyev, Armenian Prime Minister Nikol Pashinyan and Russian President Vladimir Putin.
 - ✓ As per the deal, the countries will maintain positions in the areas where they currently hold, indicating a significance gain to Azerbaijan
 - ✓ Azerbaijan has already reclaimed over 15-20% of its lost territory in the conflict.
 - ✓ Also, under the agreement, around 2000 Russian peace keepers are to be deployed, while the military operations of the countries are to be suspended.
 - ✓ The two sides will exchange prisoners and the refugees are to return to their regions.
- **The United Nations - has created a new alliance to prevent Covid-19 food crisis.**

- ✓ It was proposed by Italy and launched by the Food and Agriculture Organization (FAO)
- ✓ The Food coalition was inaugurated by the Italian Prime Minister Giuseppe Conte and Netherlands Deputy Prime Minister.
- ✓ Both Italy and Netherlands have agreed to deliver the financial resources and technical support to the coalition.
- ✓ Italy has initially contributed 1.2 million USD to the Food coalition
- ✓ The Covid-19 pandemic is expected to render 130 million people under hunger category by the end of 2020.
- ✓ This is over and above around 690 million people, who went hungry in the year 2019, as per the State of Food Security and Nutrition Report
- ✓ The new United Nations alliance will serve as a platform to support measures to increase resilience of agricultural food system and ensure food access
- ✓ Further, the coalition will mobilise resources, innovation and expertise to frame solution-oriented plans and programmes for coordinated response against Covid-19 pandemic

INDIA AND NEIGHBOURS

- **India - has received the first commercial shipment from Bangladesh through Inland Water Route on November 9, 2020.**



- ✓ The shipment was received in the Assam's Karimganj on the 'Protocol for Inland Water Trade and Transit' (PIWTT) route.
 - ✓ India and Bangladesh have a 'Protocol on Trade and Transit' through inland waterways.
 - ✓ The protocol was first signed in 1972 and renewed in 2015.
 - ✓ It allows making mutual arrangements for using the waterways of both the countries for commerce and trade activities
 - ✓ The protocol now has a provision of automatic renewal after 5 years.
- **On November 11, Indian Army - gifted twenty trained horses and mine detection dogs to Bangladesh Army.**



- ✓ The dogs were trained by the Veterinary Corps and Remount of the Indian Army.
 - ✓ The Indian Army also trained the Bangladesh Army in training the experts to handle the horses and dogs.
 - ✓ The Chief of Brahmastra Corps participated in the presentation event, which was held at Petrapole-Benapole Integrated Check Post in India-Bangladesh border.
 - ✓ The Brahmastra Corps or XVII Corps was built as a quick action reaction force to counter the Chinese along Line of Actual Control.
 - ✓ The headquarters of the force is located in Panagarh, West Bengal.
 - ✓ It operates under the Eastern Command of the Indian Army.
 - ✓ The force usually participates in Exercise HimVijay, that is held in the high-altitude areas of Arunachal Pradesh.
 - ✓ It was held for the first time in October 2019 with the participation of around 4000 soldiers
 - ✓ It was then considered as the biggest mountain combat exercise of the Indian Army.
 - ✓ India and Bangladesh engage in military exercises such as Exercise Bongosagar and Sampriti.
 - ✓ Sampriti is held between the Indian and Bangladesh Armies, while Bongosagar is held between the navies of the countries.
- **The Pakistan Gurudwara body, PSGPC (Pakistan Sikh Gurudwara Parbandhak Committee) – has recently celebrated the first anniversary of the inauguration of Kartarpur Corridor on November 9**
- ✓ The Corridor connects Dera Baba Nanak in India with Gurudwara Darbar Sahib in Pakistan
 - ✓ The corridor is closed at present from Indian side due to Covid-19 pandemic.
 - ✓ Every year, around 3000 people from India reach the site through the corridor to commemorate the birth anniversary of Guru Nanak.

- ✓ On November 6, India condemned Pakistan over the latter's decision to transfer the management and maintenance of Kartarpur Sahib Gurudwara to a non-Sikh body.



- ✓ Pakistan has transferred the management and maintenance of the shrine from PSGPC to an administrative control of Evacuee Trust Property Board, which is a non-Sikh body.
- ✓ According to India, the decision is against the spirit of Sikh community at large.

COMMITTEES

- **On November 11, the Central government – announced the setting up of a 22-member inter-ministerial committee to strengthen capital goods sectors.**
- ✓ This will help India achieve its goal of becoming a 5 trillion USD economy.
- ✓ The committee will look into issues pertaining to Capital goods Sector, which includes global value chains, skill training, global standards, custom duties
- ✓ The Capital Goods Sector of India consists of several key industries involving construction, engineering, infrastructure, consumer goods.
- ✓ The sector had an overall production of 13.6 billion USD in 2018-19.
- ✓ It provides 1.4 direct employment opportunities and 7 million indirect employment opportunities.
- ✓ The capital goods in India has a market size of 43.2 billion USD.
- ✓ The details of 10 sub sectors that constitute the capital goods sector along with their market size is as mentioned –
 - ✓ Heavy Electrical Equipment - 24.2 billion USD
 - ✓ Earth Moving and Mining Machinery - 3.3 billion USD
 - ✓ Process Plant Equipment - 3.7 billion USD
 - ✓ Printing Machinery - 3.01 billion USD
 - ✓ Food Processing Machinery - 2.4 billion USD
 - ✓ Textile Machinery - 1.8 billion USD
 - ✓ Dies, moulds and press tools - 2.3 billion USD
 - ✓ Metallurgical Machinery - 0.4 billion USD
 - ✓ Plastic Machinery - 0.5 billion USD
 - ✓ Machine Tools - 1.4 billion USD

CONFERENCES & SUMMITS

- **Indian Health and Family Welfare Minister Dr Harsh Vardhan - attended the 10th BRICS Health Ministers Conference virtually**



- ✓ During the meeting, the minister mentioned the response strategy of India for Covid-19.
 - ✓ He also talked about the technological innovations developed by India to fight the pandemic like Aarogya Setu App, ITIHAS system, etc.
 - ✓ Earlier, the 9th BRICS Health Ministers Conference was held in Curitiba, Brazil on October 25, 2019
 - ✓ The BRICS 2020 Summit is scheduled to be held virtually due to Covid-19 on November 17, 2020.
 - ✓ Russia will be the host of this 12th edition of this summit.
 - ✓ Originally, BRICS 2020 summit was to be held from July 21 to 23, 2020 in Saint Petersburg but was postponed due to pandemic.
 - ✓ Recently, Finance Minister Nirmala Sitharaman attended 1st BRICS Finance Ministers and Central Bank Governors (FMCBG) conference and also favored the expansion of the membership of New Development Bank.
 - ✓ Earlier, the 11th BRICS summit was held in Brazil from November 13-14, 2019.
 - ✓ BRICS started in 2001 as BRIC, an acronym coined by Goldman Sachs for Brazil, Russia, India, and China
 - ✓ The first BRICS meeting was held at Yekaterinburg, Russia on June 16, 2009.
 - ✓ South Africa joined the group of nations in 2011
 - ✓ BRICS nations have also developed a development bank known as New Development Bank in 2014.
 - ✓ It was formerly known as BRICS Development Bank.
- **On November 10, India - attended first BRICS Finance Ministers and Central Bank Governors' meet.**
 - ✓ The Finance Minister Nirmala Sitaraman represented India at the meet.
 - ✓ During the meet, the finance ministers observed that BRICS members have delivered significant initiatives at G20 Action Plan in response to Covid-19.



- ✓ Also, the leaders highlighted that G20 debt service suspension initiative ensured immediate support to the Covid-19 affected countries
- ✓ During the meet, the ministers also discussed on the expansion of the membership of New Development Bank
- ✓ The New Development Bank was set up at Fortaleza Summit in 2014.
- ✓ The Contingent Reserve Arrangement (CRA) of BRICS aims to support its member countries during the event of crisis in their balance of payments.
- ✓ The total amount of resources allocated to CRA is 100 billion USD.
- ✓ The individual commitments are as follows
 - ✓ China: 41 billion USD
 - ✓ Brazil: 18 billion USD
 - ✓ Russia: 18 billion USD
 - ✓ India: 18 billion USD
 - ✓ South Africa: 5 billion USD

SCIENCE, TECHNOLOGY & ENVIRONMENT

- **On November 14, SpaceX's Crew Dragon spacecraft - will lift off from NASA's Kennedy Space Center in Florida under its Crew-1 Mission**
- ✓ The spacecraft will carry a crew of four people to the International Space Station (ISS) for a 6-month-long mission.
- ✓ Incidentally, just before the mission, NASA has provided its first spacecraft certification by certifying SpaceX's Crew Dragon capsule and the Falcon 9 rocket.
- ✓ After this certification, SpaceX will be able to operate regular flights to the ISS hereafter.
- ✓ Earlier, NASA selected Boeing and SpaceX to develop transportation systems for transferring crew from the US to the ISS in September 2014.
- ✓ These spacecrafts are designed to carry up to 4 astronauts on NASA missions, maintaining a space station crew of seven.
- ✓ In May 2020, NASA lifted off SpaceX Demo-2 test flight for the ISS.
- ✓ It became the first crewed flight to launch from US after the conclusion of the space shuttle era in 2011.
- ✓ The Crew-1 mission is part of the Commercial Crew Program of NASA.

- ✓ The aim of the mission is to reach space at lesser cost, so that cargo and crew are easily transported to and from the ISS and enable greater scientific research.



- ✓ The mission will launch the NASA astronauts Shannon Walker, Michael Hopkins, Victor Glover and Soichi Noguchi from Launch Complex 39A at the Kennedy Space Center.
 - ✓ The Crew-1 mission will be SpaceX Crew Dragon spacecraft's first operational flight on a Falcon 9 rocket to the ISS.
 - ✓ It is the first of the 3 scheduled flights scheduled in 2020-2021.
 - ✓ The Crew-1 team will join the Expedition 64 members, which is presently in the ISS, and conduct microgravity studies after delivering new science hardware and experiments that they will be carrying with them.
- **Tata Medical and Diagnostics Ltd (TataMD) – has launched “TataMD CHECK” which is a novel diagnostic testing for Covid-19.**

TataMD CHECK

1. **World's first** CRISPR Cas-9 based COVID-19 testing
2. Paper-strip based simple test that delivers results in **45-50 minutes** in a laboratory
3. The test is traceable, transparent, and trusted, with digital quality control and **AI-based result reporting tool**

TATA MD CHECK
CRISPR BASED COVID-19 TEST
Powered by FELUDA

- ✓ It is the world's first CRISPR CaS-9 based diagnostic tool and is powered by FELUDA.
- ✓ CRISPR Cas-9 is a technology developed in India by CSIR- IGIB for COVID-19 testing.
- ✓ TataMD CHECK has been approved by Drug Controller General of India (DCGI) and Indian Council of Medical Research (ICMR).
- ✓ This new diagnostic testing for Covid-19 has been developed within a short span of 100 days of the licensing of technology.

- ✓ TataMD CHECK is a simple paper-strip based testing process requiring standard laboratory equipment and gives image-based visual results.
 - ✓ One of the most important advantages of TataMD CHECK is the ability to provide quick results without needing highly trained staff
 - ✓ The testing will have a reaction time of 45-50 minutes in lab and the total testing time starting from extraction of RNA sample to results is 75 minutes.
 - ✓ The simplicity of testing will make it available in the remote areas also.
 - ✓ TataMD CHECK testing kit will be manufactured in Chennai, Tamil Nadu in a quality-controlled production facility.
 - ✓ At present, the production plant has a capacity of producing 1 million kits in a month.
 - ✓ TataMD is the healthcare venture of Tata Group.
- **On November 6, China launched - world's first 6G experimental satellite into its orbit along with 12 other satellites.**



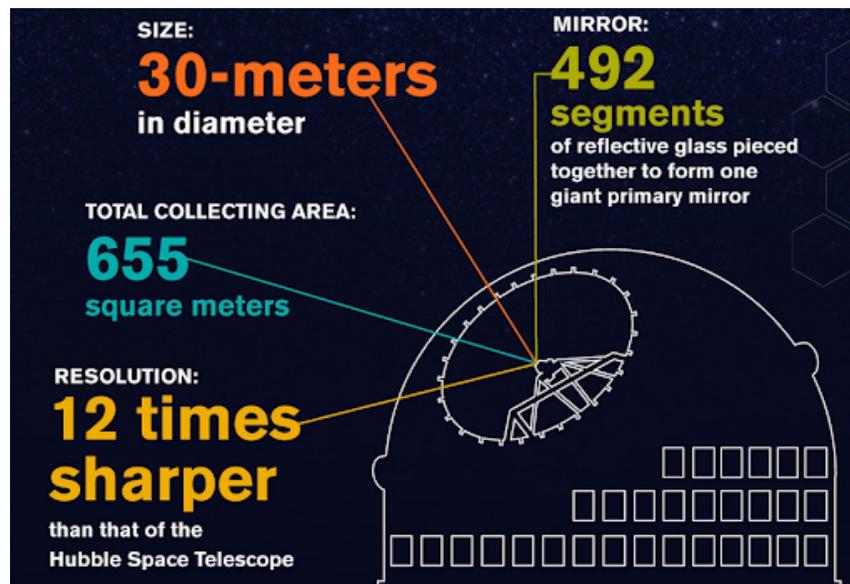
- ✓ The satellite weighs 70 kg approximately and will test the technology of Tetrahertz waves in space.
- ✓ The satellites carry technologies used for forest fire prevention and crop disaster monitoring.
- ✓ The 6G band lies between the 5G millimetre wave frequency and terahertz frequency.
- ✓ The 6G is more sophisticated than the 5G range in terms of speed and lossless transmission, especially in space.
- ✓ The research for 6G was recently launched by the ITU in March 2020 during its 34th ITU Working Group meet.
- ✓ The research works are to begin by 2021.
- ✓ The 6G technology will be more related to Artificial Intelligence communication involving the interface between machines and humans
- ✓ At present, there are only 82 commercial networks in the world using 5G.
- ✓ They are mainly located in US, UK and Australia.

- ✓ The Government of India is to carry out 5G spectrum auction in the first quarter of 2021 involving around 8,300 megahertz of airwaves
- ✓ The range of 5G connectivity is not good as the 5G waves can travel only very short distances.
- ✓ The initial costs of 5G are high, as it consumes more power and hence the battery drain in devices using 5G will be faster.
- ✓ Further, the upload speeds in 5G do not match with the download speeds.
- **A team of researchers from Taiwan's Academia Sinica - have discovered a "hidden gene" in the novel coronavirus.**
- ✓ This hidden gene in SARS-CoV-2, virus causing Covid-19, may have contributed to its unique biology and potential of the pandemic.
- ✓ The discovery of a 'hidden' gene in a virus that already has 15 genes in total could have a significant impact on the fight against the virus.
- ✓ The lead author of the study is Chase Nelson who is a postdoctoral researcher at Academia Sinica and a visiting scientist at the American Museum of Natural History.
- ✓ The researchers have found a new overlapping gene, ORF3d, in SARS-CoV-2.
- ✓ The team also found that this gene is present in previously discovered pangolin coronavirus.
- ✓ Overlapping genes are hard to find, and it is difficult to spot them using scientific computer programs also.
- ✓ This is because RNA viruses have a high mutation rate, so they tend to keep their gene count low to prevent a large number of mutations.
- **The Indian Astronomers - have collaborated with 2020 Physics Nobel Laureate Prof Andrea Ghez on the "Thirty Meter Telescope Project".**



- ✓ The telescope is being installed at Hawaii and will enable to see deeper into space and observe cosmic objects with unprecedented sensitivity to provide a better understanding of the universe.
- ✓ The Thirty Meter Telescope Project is an international partnership project between India, China, Japan, California and Canada.

- ✓ It is extremely large telescope, which is designed for Ultra Violet to mid infra red observations.
- ✓ It has 30 metres prime mirror diameter and is three times as wide as the largest existing visible light telescope in the world.



- ✓ The three major instruments to be included in the telescope are Infrared Imaging Spectrometer, Wide Field Optical Spectrometer and Infrared Multi Object Spectrometer.
 - ✓ The proposed site 'Mauna Kea' to construct the Thirty Meter Telescope was a dormant volcano in Hawaii and considered sacred to the indigenous Hawaiians.
 - ✓ It is being objected by the local communities in the region and hence the project has not made any significant progress.
 - ✓ In this scenario, India has suggested for change of location.
 - ✓ The alternate to the location is Observatorio del Roque de los Muchachos in Canary Islans, Spain.
 - ✓ Mauna Kea was chosen as it offers best imaging possibilities and stable weather.
 - ✓ Also, it has necessary infrastructure to manage telescopes as it already hosts several telescopes.
 - ✓ India has committed to offer \$200 million for the project, which is one tenth of the proposed cost.
 - ✓ Further, India has proposed to contribute 83 of the 492 precisely polished mirror needed for the project.
- **The National Aeronautics and Space Administration (NASA) - recently announced that the Earth Mass has deviated in August 2020 as compared to that of 2004-09.**
- ✓ According to NASA, the sea level increase may be due to the change in earth mass.
 - ✓ The change in earth mass is mainly caused due to land movement relative to sea.

- ✓ This change in land movement was more in snow and ice-covered regions. This is because of the disappearance of the ice cover indicating the loss of the surface mass of the earth.
- ✓ NASA released maps showing how several factors affect the sea level increase.
- ✓ The move of land is caused due to natural factors or the human driven factors
 - ✓ The natural drivers include the shifting of tectonic plates and compression of buried ocean sediments etc., producing gradual motion of milli metres per year.
 - ✓ The human driven factors such as ground water extraction, oil production and drying of peat soils also cause land motion at the rate of centimetres per year.
- ✓ The Global Navigation Satellite System (GNSS) helped analyse land movement.
- ✓ The changes in the mass of earth were mainly because changes in amount of water, ice and snow.
- ✓ These changes were calculated by GRACE Mission, which was a joint mission by NASA and Germany.
- ✓ GRACE mission found that there were mass losses of Greenland ice sheet between 2002 and 2016.
- ✓ Also, the mission found that between 2002 and 2017, there were mass losses of 1.2 milli metres per year.
- ✓ The losses in ice masses in Greenland were more than that of Antarctica. Greenland lost around 200 Gigatonnes of ice per year from its coastal glaciers alone.

SPORTS

- **The Ministry of Sports - has approved 6 Khelo India Centres of Excellence in six different states with an allocation of over 64 crores of financial support**
- ✓ These centres will serve as a platform to upgrade the existing sports infrastructure in all states and Union Territories.
- ✓ The aim of creating these excellence centres is to create a strong and healthy sports ecosystem in the country.
- ✓ The six Khelo India Centres of Excellence approved by the Ministry of Sports along with financial support extended to them is as follows-
 - ✓ States Sports Academy, Sarusajai, Assam with a financial support of Rs 7.96 crore.
 - ✓ J N S Complex, Shillong, Meghalaya with a financial support of Rs 8.39 crore
 - ✓ New Sports Complex Silvassa, Daman & Diu with a financial support of Rs 8.05 crore.
 - ✓ MP State Academy, Madhya Pradesh with a financial support of 19 crore.
 - ✓ Shree Shivchhatrapati Sports Complex, Balewadi, Pune with a financial support of 16 crore.
 - ✓ Paljor Stadium, Gangtok, Sikkim with a financial support of Rs 7.91 crore.

- ✓ Each Khelo India centre of excellence will provide world-class training in a specific sport and will become the main training facility of the particular sport across the country.
- ✓ Elite players of a particular sport will provide training at these centres.
- ✓ Each centre will be given support for 14 Olympic sports and each state and UT will be provided financial support for maximum three sports.
- ✓ While speaking about the initiative, Union Minister of Youth Affairs and Sports, Kiren Rijiju said that these centres will support players to come closer to the government's objective of bringing India in top 10 countries in Olympics 2028

PM KUSUM SCHEME – AN UPDATE

- **On November 13, the Ministry of New and Renewable Energy - has announced amendments in the implementation guidelines of Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme.**



- ✓ Accordingly, the new target of the scheme has been enhanced to achieve solar capacity of 30.8 GW by 2022 with a revised central financial support of Rs 34,035 crores.
- ✓ Initially the target of the scheme was set to achieve 25,720 MW by 2022.
- ✓ It is a scheme for farmers to support installation of solar pumps, grid-connected solar and other renewable power plants across the country
- ✓ The scheme was approved by Cabinet Committee on Economic Affairs (CCEA) on February 19, 2019.
- ✓ In September 2020, the Union Ministry of New and Renewable Energy proposed to invite bids for the year 2020-21 targeting 4.5 lakh standalone solar pumps.
- ✓ In the first year of the scheme, the target was 1.75 lakh solar pumps.
- ✓ The tendering process is being done by EESL.
- ✓ The scheme consists of 3 components – component A, B and C and the amendments have been made in all the 3 components
- ✓ The first component provides for the installation of decentralized ground mounted grid connected renewable power plants, the second one for the installation of standalone solar-powered agriculture pumps and the third component for the solarisation of grid-connected agriculture Pumps.

Amendments in PM KUSUM Scheme

<p>Component A - To install 10,000 MW of decentralised ground mounted grid connected renewable power plants</p>	<ul style="list-style-type: none"> • Solar plants can now also be installed on Pasturelands and marshy lands owned by farmers. • Size of solar plant has been reduced for increasing participation of small farmers - Now, solar power projects smaller than 500 kW will be allowed. • Completion period have been increased from 9 to 12 months. • There will be no penalty for shortfall in generation.
<p>Component B - To install 17.5 lakh standalone solar power agricultural pumps with capacity up to 7.5 HP</p>	<ul style="list-style-type: none"> • MNRE will keep 33% of eligible service charges for national Information, Education and Communication (IEC) activities. • Central Financial Assistance will be allowed for solar pump capacity of higher than 7.5 HP considering up to 5 HP capacities to be set up and used by Farmer Producer Organisations (FPO)/Water User Associations (WUA)/Primary Agriculture Credit Societies (PACS) or for cluster based irrigation system. • MNRE has also amended the eligibility of participation in the centralized tender. • As per amended guidelines, a separate bid price for solar water pumping system with Universal Solar Pump Controller (USPC) will be invited and subsidy will be made available for these pumps as per the benchmark price of solar pumps without USPC.
<p>Component C - To solarise 10 lakh grid connected agriculture pumps</p>	<ul style="list-style-type: none"> • Ministry will use 33% of service charges for IEC activities. • The provision has been made for the release of service charges to implementing agencies for preparatory activities

- ✓ Recently, Indian Renewable Energy Development Agency Ltd. (IREDA) signed an agreement with MNRE for setting up key targets for 2020-21.
- ✓ The PM-KUSUM scheme is to benefit more than 17.5 lakh farmers over a period of four years
- ✓ The solar pumps installed under the scheme will provide a reliable source of irrigation and also help reduce harmful pollution caused due to the diesel pumps.

OPERATION THUNDER – A REPORT

- **The INTERPOL and the World Customs Organization - conducted Operation Thunder, 2020 across 103 countries around the world**
- ✓ The Operation Thunder was conducted against environmental crimes and held between September 14, 2020 and October 11, 2020



- ✓ It resulted in large seizures of protected forestry and wildlife specimen, leading to arrests and investigations world-wide including India.
- ✓ In India, the India Customs along with INTERPOL and WCO seized 18 tonnes of red sandalwood that were destined for UAE.
- ✓ The seizures included 1.3 tonnes of ivory, 1 tonnes of pangolin scales, 1,700 killed pangolins, 87 truckloads of timber, 56,200 kg of marine products and 15,878 kg of plants.
- ✓ The operation recovered 45,000 live animals, which included 1,400 turtles, 6,000 tortoise eggs, 1,600 birds, 1,800 reptiles.
- ✓ According to INTERPOL, wildlife and forestry crime is the fourth largest illegal trade in the world, estimated at \$20 billion per year
- ✓ The Operation Thunder is being held since 2017.
- ✓ Under the operation, the participating countries focused on conserving particularly vulnerable species protected under CITES (Convention on International Trade in Endangered Species in Wild Fauna and Flora).

Other Operations of INTERPOL protecting the wildlife

Project Predator	The project was commenced in 2010. It focuses on big cats and other wildlife. It supports its member countries to organise intelligence gathering, transnational operations, providing investigative support, etc.
Project Wisdom	The project concentrates on elephants and rhinoceros alongwith

	<p>the prevention of their hunting White Rhino horn is reduced to powder and used in traditional medicines. Ivory is carved out and sold as artifact.</p>
Operation Thunderbird	<p>It targets illegal trade in timber and wildlife. It is being implemented since 2017.</p>
Operation Worthy II	<p>It focuses on ivory trafficking in Africa. It is being conducted since 2015.</p>
Operation PAWS	<p>PAWS is Protection of Asian Wildlife Species. It is being in force since 2015.</p>

