adda247

UPSC

MONTHLY
CURRENT AFFAIRS
CAPSULES

JUNE 2021

e-Book June 2021

It is the time to start and target the UPSC Civil Service Examination preparation for Prelims 2021. To ease the preparation we are providing monthly basis important news (section wise) and with that some expected questions, best strategy to prepare and tips for the beginners.

"Every day is a chance to begin again. Don't focus on the failures of yesterday, start today with positive thoughts and expectations." - Catherine Pulsifer

Contents

National News

Pune Metro Rail project

Why in news?

The Government of India (GoI) and European Investment Bank (EIB) on 7 May, 2021 signed the finance contract for the second tranche of Euro 150 million for the Pune Metro Rail project through a virtual signing ceremony.

Key points are:
- The signing ceremony was held in the presence of H.E. Mr. Francisco Andre, Secretary of State for Foreign Affairs and Cooperation, Portugal and H.E. Mr. Werner Hoyer, President EIB.
- K. Rajaraman, Additional Secretary, Department of Economic Affairs, Ministry of Finance, signed the loan on behalf of the Government of India, and Mr. Christian Kettel Thomsen, a Vice-President, signed the loan on behalf of EIB.
- EIB had approved the total loan of Euro 600 million to fund the Pune Metro Rail project. The Finance Contract for the first tranche of Euro 200 million was signed between GoI and EIB on 22.7.2019.
- The project aims to provide an efficient, safe, economic, and pollution-free Mass Rapid Transit System in a densely populated areas in the city of Pune served with heterogeneous traffic options.
- The financing from EIB will help to fund the construction and operation of Corridor 1 (North-South) – Pimpri Chinchwad Municipal Corporation (PCMC) to Swargate and Corridor 2 (West-East) –Vanaz (Kothrud) to Ramvadi, totaling about 31.25 kilometers (km) and related purchase of a related fleet of metro cars.
- Further, the project will serve a large population consisting working class in providing urban mobility for their livelihood. The Maharashtra Metro Rail Corporation Ltd. (MAHAMETRO) is the implementing agency for this project.

DCGI approves anti-COVID drug developed by DRDO for emergency use

Why in news?

An anti-COVID-19 therapeutic application of the drug 2-deoxy-D-glucose (2-DG) has been developed by the Institute of Nuclear Medicine and Allied Sciences (INMAS), a lab of Defence Research and Development Organisation (DRDO), in collaboration with Dr Reddy's Laboratories (DRL), Hyderabad.

Key points are:
- Clinical trial results have shown that this molecule helps in faster recovery of hospitalised patients and reduces supplemental oxygen dependence.
- Higher proportion of patients treated with 2-DG showed RT-PCR negative conversion in COVID patients. The drug will be of immense benefit to the people suffering from COVID-19.
- Pursuing Prime Minister Shri Narendra Modi's call for preparedness against the pandemic, DRDO took the initiative of developing an anti-COVID therapeutic application of 2-DG.
- In April 2020, during the first wave of the pandemic, INMAS-DRDO scientists conducted laboratory experiments with the help of the Centre for Cellular and Molecular Biology (CCMB), Hyderabad, and found that this molecule works effectively against the SARS-CoV-2 virus and inhibits the viral growth.
- Based on these results, the Drugs Controller General of India's (DCGI) Central Drugs Standard Control Organization (CDSCO) permitted a Phase-II clinical trial of 2-DG in COVID-19 patients in May 2020.
- The DRDO, along with its industry partner DRL, Hyderabad, started clinical trials to test the safety and efficacy of the drug in COVID-19 patients. In Phase-II trials (including dose-ranging) conducted from May to October 2020, the drug was found to be safe in COVID-19 patients and showed significant improvement in their recovery.

- Phase IIa was conducted in six hospitals and Phase IIb (dose-ranging) clinical trial was conducted at 11 hospitals all over the country. Phase-II trial was conducted on 110 patients.
- Inefficacy trends, the patients treated with 2-DG showed faster symptomatic cure than Standard of Care (SoC) on various endpoints.
- A significantly favourable trend (2.5 days difference) was seen in terms of the median time to achieving normalisation of specific vital signs parameters when compared to SoC.
- Based on successful results, DCGI further permitted the Phase-III clinical trials in November 2020. The Phase-III clinical trial was conducted on 220 patients between December 2020 to March 2021 at 27 COVID hospitals in Delhi, Uttar Pradesh, West Bengal, Gujarat, Rajasthan, Maharashtra, Andhra Pradesh, Telangana, Karnataka, and Tamil Nadu.
- The detailed data of the phase-III clinical trial was presented to DCGI. In the 2-DG arm, a significantly higher proportion of patients improved symptomatically and became free from supplemental oxygen dependence (42% vs 31%) by Day-3 in comparison to SoC, indicating an early relief from Oxygen therapy/dependence.
- The similar trend was observed in patients aged more than 65 years. On May 01, 2021, DCGI granted permission for the Emergency Use of this drug as an adjunct therapy in moderate to severe COVID-19 patients.
- Being a generic molecule and analogue of glucose, it can be easily produced and made available in plenty in the country.
- The drug comes in powder form in sachet, which is taken orally by dissolving it in water. It accumulates in the virus-infected cells and prevents virus growth by stopping viral synthesis and energy production. Its selective accumulation in virally infected cells makes this drug unique.
- In the ongoing second COVID-19 wave, a large number of patients are facing severe oxygen dependency and need hospitalisation. The drug is expected to save precious lives due to the mechanism of operation of the drug in infected cells. This also reduces the hospital stay of COVID-19 patients.

DETER committees formed in Bengaluru

Why in news?
To manage the Covid pandemic at the local level, the Karnataka state government has formed Decentralized Triage and Emergency Response (DETER) Committees at ward levels in Bengaluru.
Key points are:
- The objective is to strengthen government response and management of the coronavirus pandemic.
- These teams will emphasise on the distribution of localised action in a decentralised system of disaster response.
- They will be run in synergy with officials, ward committee members, government officers, representatives of the peoples, volunteers from resident welfare associations, civil society organisations, and disaster-support initiatives.
- They will act as the first point contact for those infected with Covid-19.
- The Karnataka government has formulated a '3E Strategy' for WDCs to micromanage Covid-19 in a comprehensive manner. The 3E Strategy is explained as follows: Efficient admission to hospitals facilitated by community triage services; Efficient discharge from hospitals enabling efficient bed-turnover; Empowering hospitals, doctors, and their management with supportive supervision.
- This is expected to improve supervision for better ward-level Covid governance.

Puducherry becomes 'Har Ghar Jal' UT

Why in news?
Puducherry has become 'Har Ghar Jal' UT by ensuring that every rural home in the Union Territory gets a household tap connection.
Key points are:
- With this, the UT becomes the fourth State/UT after Goa, Telangana and Andaman & Nicobar Islands to provide assured tap water supply to every rural home under Union Government's flagship programme, Jal JeevanMission.
- Despite challenges faced due to CoVid-19 pandemic, Jal Jeevan Mission is being implemented in partnership with States/ UTs to provide safe tap water in adequate quantity of prescribed quality on a regular and long-term basis to every rural home by 2024.

- Puducherry's achievement is another timely indicator of JJM's success as people living in rural areas can practice regular handwashing at home and maintain physical distancing by avoiding crowds at public stand posts.
- Though the achievement got delayed due to Assembly elections, but the efforts of the UT Administration is praiseworthy.
- Further, the State of Punjab and the UTs of Dadra & Nagar Haveli and Daman & Diu have also crossed the milestone of covering 75% of rural homes with assured tap water supply
- 26.31 lakh households (76%) of Punjab out of 34.73 lakh have tap water supply and the State of Punjab plans for 100% coverage of all rural households by 2022.
- All 1.16 lakz rural households in Puducherry have a tap water supply now. The UT has achieved the 'Har Ghar Jal' status much ahead of the target fixed. During Annual Action Plan finalization of the UT in April, 2021.
- It was urged to utilize various funds available through the convergence of different programmes like MGNREGS, JJM, SBM (G), 15th FC Grants to PRIs, District Mineral Development Fund, CAMPA, CSR Fund, Local Area Development Fund, etc. at the village level and the Village Action Plan (VAP) are to be prepared by dovetailing these resources for achieving long-term drinking water security.
- The UT is also planning to get NABL accreditation/ recognition for its water quality testing laboratories and take up testing of all drinking water sources on a campaign mode.
- The UT of Puducherry is now planning for effective treatment & reuse of greywater coming out of homes. The UT is actively working towards water source sustainability.
- The four regions, namely Pondicherry Region, Karaikal, Yanam and Mahe region are at different locations, geographically separated from each other. Puducherry is blessed with various rivers and tributaries.
- Five rivers in Puducherry district, seven in Karaikal district, two in Mahe district and one in Yanam district drain into the sea, but none originates within the territory.

- Puducherry has 84 irrigation tanks and more than 500 ponds which are the lifeline for groundwater recharging systems, drinking water and agriculture. Puducherry has been consistently working towards de-silting of ponds & rejuvenation of its local water bodies, which is crucial for drinking water supply schemes.

MLA-LAD Scheme

Why in news?

Recently, Rajasthan Government has approved a proposal to provide Rs. 3 crore each from the MLA Local Area Development (LAD) Fund to mobilise resources for Covid-19 Vaccination of the people in the age group of 18 to 44 years.

Key points are:

- For meeting the expenses, the fund for each legislator has been increased from Rs. 2.25 crore to Rs. 5 crore a year.
- It is the States' version of a central government scheme – Members of Parliament Local Area Development Scheme (MPLAD).
- The objective of this scheme is to create local need-based infrastructure, to create assets of public utility and to remove regional imbalances in development.
- This scheme is implemented in rural areas as well as urban areas of a state.
- MLAs do not receive any money under this scheme. The government transfers it directly to the respective local authorities.
- The legislators can only recommend works in their constituencies based on a set of guidelines.
- Amounts per MLA varies across the states. Delhi has the highest allocation under MLALAD; each MLA can recommend works for up to Rs. 10 crore each year.
- The guidelines for use of MLA-LAD funds differ across states. For example, Delhi MLAs can recommend the operation of fogging machines (to contain dengue mosquitoes), installation of CCTV cameras, etc.
- After the legislators give the list of developmental works, they are executed by the district authorities as per the government's financial, technical, and administrative rules.

Vaccine hesitancy

Why in news?

Authorities in rural and remote districts of Chhattisgarh are engaging tribal activists among others as a strategy to remove vaccine hesitancy among the villagers in the fight against Covid.

Key points are:

• Vaccine hesitancy is defined by WHO as a "delay in acceptance or refusal of vaccines despite availability of vaccination services". It was one of 10 threats to global health this year.

• People believe fake news faster than genuine information in these times. They either believe the vaccine is going to kill them or make them impotent.

• Through posters and folk songs, the administration is trying to attract the rural and tribal populace.

• They are going to make it mandatory for the panch and other village representatives to get themselves and their families vaccinated.

• Similarly, the employers will be mandated to get their employees vaccinated.

• A vaccine is one of the essential weapons in the armamentarium in our war against the pandemic. Any hesitation in accepting the vaccine will have a negative consequence on our effort to control the pandemic.

Spread of Covid Infection in Vulnerable Tribal Groups

Why in news?

Many members of eight different Particularly Vulnerable Tribal Groups (PVTGs) got infected in the second wave of Covid-19 in Odisha.

Key points are:

• The infected PVTGs include the Bonda tribe of Malkangiri hills and Dongaria Kondh tribe of Niyamgiri hills.

• According to the 2011 Census, Odisha's share of the country's total tribal population was 9%.

• The Tribals constitute 22.85% of the State's population.

• In terms of the numbers of its tribal population, Odisha occupies the third position in India.

• Of the 62 tribal groups residing in Odisha, 13 are recognised as PVTGs.

• The 13 PVTGs in Odisha are: Bonda, Birhor, Chuktia Bhunjia, Didayi, Dungaria Kandha, Hill Kharia, Juang, Kutia Kondh, Lanjia Saora, Lodha, Mankirdia, Paudi Bhuyan and Saora.

• Tribal populations are found in the entire seven districts of Kandhamal, Mayurbhanj, Sundargarh, Nabarangpur, Koraput, Malkangiri, and Rayagada, and in parts of 6 other districts.

The Government classifies PVTGs on their:

Relative physical isolation,

Stagnant or declining population,

Low levels of literacy,

Absence of written language,

Pre-agricultural stage of economy, such as hunting, food gathering, shifting cultivation and terrace cultivation.

Important takeaways for all competitive exams

In November 2015, the Prime Minister of India inaugurated the statue of Basaveshwara along the bank of the River Thames at Lambeth in London. Basava Jayanthi is observed on 14 May as the birth anniversary of Jagadguru Basaveshwara.

Spread of Covid Infection in Vulnerable Tribal Groups

Why in news?

Many members of eight different Particularly Vulnerable Tribal Groups (PVTGs) got infected in the second wave of Covid-19 in Odisha.

Key points are:

• The infected PVTGs include the Bonda tribe of Malkangiri hills and Dongaria Kondh tribe of Niyamgiri hills.

• According to the 2011 Census, Odisha's share of the country's total tribal population was 9%.

• The Tribals constitute 22.85% of the State's population.

• In terms of the numbers of its tribal population, Odisha occupies the third position in India.

• Of the 62 tribal groups residing in Odisha, 13 are recognised as PVTGs.

• The 13 PVTGs in Odisha are: Bonda, Birhor, Chuktia Bhunjia, Didayi, Dungaria Kandha, Hill Kharia, Juang, Kutia Kondh, Lanjia Saora, Lodha, Mankirdia, Paudi Bhuyan and Saora.

• Tribal populations are found in the entire seven districts of Kandhamal, Mayurbhanj, Sundargarh, Nabarangpur, Koraput, Malkangiri, and Rayagada, and in parts of 6 other districts.

The Government classifies PVTGs on their:

Relative physical isolation,

Stagnant or declining population,

Low levels of literacy,

Absence of written language,

Pre-agricultural stage of economy, such as hunting, food gathering, shifting cultivation and terrace cultivation.

Important takeaways for all competitive exams

In November 2015, the Prime Minister of India inaugurated the statue of Basaveshwara along the bank of the River Thames at Lambeth in London. Basava Jayanthi is observed on 14 May as the birth anniversary of Jagadguru Basaveshwara.

Indian Navy Develops Oxygen Plant on Wheels

Why in news?

Mobile Oxygen Generation Plants, termed 'Oxygen on Wheels' designed and developed by Naval Dockyard Visakhapatnam under the Eastern Naval Command (ENC) were inaugurated by Vice Adm AB Singh, Flag Officer Commanding-in-Chief ENC on 20 May 2021.

Key points are:

• The Naval Dockyard Technical team conceived and developed two Oxygen Generation Plants each with 100 Litres per minute capacity, designed to provide a direct feed to any hospital's pipeline system.

• The Oxygen Plants, mounted on trailers, can easily be transported to remote hospitals and connected to the hospital's fixed Oxygen piping system – to serve as the main feed for up to 16 beds.

• The Oxygen System can also serve as a backup to prevent incidents of low oxygen pressure in the hospitals.

• Such a system has been conceived and implemented to support the State Govt. efforts during the ongoing Oxygen crises, especially in smaller hospitals and rural areas that may not have the requisite infrastructure.

DST invites applications from startups and companies for developing new technologies and innovative products

Why in news?

As a rapid response to support startup-driven solutions for tackling the current challenging, second wave of COVID 2.0 in the country, Indian startups and companies have been invited to apply for developing new technologies and innovative products that can enable our country to fight the crisis.

Key points are:

• NIDHI4COVID2.0, a new initiative under which the companies can apply, will fund eligible startups & companies registered in India offering promising solutions in the thrust areas of oxygen innovation, portable solution, relevant medical accessories, diagnostic, informatics, or any other solution that addresses/mitigate various challenges faced by country/society due to the severe impact of COVID-19.

• The initiative is a special drive of the National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology (DST), Government of India

(GoI) for supporting indigenous solutions and innovative products to combat the crisis that the country is currently facing due to the pandemic.

- Development and manufacturing (import substitution) of the products parts currently being imported for the devices like Oxygen Concentrators and so on would also be considered for Seed Support through DST supported network of TBIs.
- Promising startups will be provided with financial and mentoring support for scaling up their products/technologies to the next level and speeding up their processes, helping them reach the product deployment stage as fast as possible.
- This initiative has been built based on NSTEDB's past experience of implementing Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH) and also through special calls through National Initiative for Developing and Harnessing Innovations – Seed Support System (NIDHI – SSS) from Technology business incubators (TBI) to support Startups in 2020.
- In the current situation, startups can play a major role in bringing new technologies and products in the market, thus making our country stronger at various fronts against the ongoing war on COVID.
- Some of the startups already have promising technologies but need mentoring, financial, and marketing support to go to the next level.
- Thus, DST's attempt through this new initiative is to scout and support deserving startups with much-needed support to scale up their technologies, helping them reach the product deployment stage as fast as possible.

Gap between the doses of COVISHIELD increases

Why in news?
Recently, the Government of India increased the gap between the two doses of the COVISHIELD Vaccine
Key points are:
- The gap was increased from six to eight weeks to twelve to sixteen weeks.
- This is the second time in three months, the gaps between the doses of COVISHIELD have been widened.
- In March 2021, the Union Territories and State Governments were asked to increase the gap from twenty-eight days to six to eight weeks.
- The COVID-19 Working Group recommended increasing the gap based on real-life evidence from the UK.
- The recommendations were agreed by NEGVAC (National Expert Group on Vaccine Administration). Currently, the gap between the doses are four to six weeks.
- The protection against the vaccines increased if the gap between the doses are increased. In Canada, the gap between the doses is three to four months.
- A Lancet study says that the protection (efficacy) against COVID-19 increased from 55.1% to 81.3% if the gap between the doses was increased from six to eight weeks to twelve to sixteen weeks.
- The immunity to COVID-19 plateaued after the first dose. Thus, the second dose is essential to boost immunity to higher levels. The COVID-19 recovered people should get a booster dose after six months.

Connected Commerce: Creating a Roadmap for a Digitally Inclusive Bharat'

Why in news?
NITI Aayog and Mastercard on 10 May, 2021 released a report titled 'Connected Commerce: Creating a Roadmap for a Digitally Inclusive Bharat'.
Key points are:
- The report identifies challenges in accelerating digital financial inclusion in India and provides recommendations for making digital services accessible to its 1.3 billion citizens.
- The report was released by NITI Aayog's Vice Chairman Dr Rajiv Kumar, CEO Amitabh Kant, and Ajit Pai, Distinguished Expert and Head,

Economics and Finance Cell, along with Ravi Aurora, Senior Vice President and Group Head, Global Community Relations, Mastercard.

- Based on five roundtable discussions held in October and November 2020, the report highlights key issues and opportunities, with inferences and recommendations on policy and capacity building across agriculture, small business (MSMEs), urban mobility and cybersecurity.
- Experts from the government, banking sector, the financial regulator, fintech enterprises, and various ecosystem innovators participated in the discussions led by NITI Aayog and supported by Mastercard.
- NITI Aayog was a knowledge partner in this endeavour. The series of workshops and the outcome report were curated by business advisory firm FTI Consulting. The report reflects the discussions held during the roundtables.

Key issues addressed during the knowledge series were:

- Acceleration of digital financial inclusion for underserved sections of Indian society.
- Enabling SMEs to 'get paid, get capital and get digital' and access customers, and ensure their continued resilience.
- Policy and technological interventions to foster trust and increase cyber resilience.
- Unlocking the promise of digitization in India's agriculture sector.
- The essential elements of a digital roadmap to make transit accessible for all citizens.

Key recommendations in the report include:

- Strengthening the payment infrastructure to promote a level playing field for NBFCs and banks.
- Digitizing registration and compliance processes and diversifying credit sources to enable growth opportunities for MSMEs.
- Building information sharing systems, including a 'fraud repository', and ensuring that online digital commerce platforms carry warnings to alert consumers to the risk of frauds.
- Enabling agricultural NBFCs to access low-cost capital and deploy a 'phygital' (physical + digital) model for achieving better long-term digital outcomes. Digitizing land records will also provide a major boost to the sector.

- To make city transit seamlessly accessible to all with minimal crowding and queues, leveraging existing smartphones and contactless cards, and aim for an inclusive, interoperable, and fully open system such as that of the London 'Tube'.

Ministry of Tribal Affairs and Microsoft sign MoU on Joint initiative for Digital Transformation of Tribal Schools

Why in news?

With a vision to build an inclusive, skills-based economy, the Ministry of Tribal Affairs (MTA) on 17 May, 2021 inked a Memorandum of Understanding (MOU) with Microsoft to support the digital transformation of schools such as Eklavya Model Residential Schools (EMRS) and Ashram Schools, among others under the Ministry at an online event 'Empowering Youth For Success'.

Key points are:

- Under the affirmative action initiative, Microsoft will make the AI curriculum available to tribal students in both English and Hindi at all EMRS schools under the Ministry to skill educators and students in next-generation technologies including Artificial Intelligence.
- The event was graced by the Union Minister of Tribal Affairs, Sh. Arjun Munda; Union Minister of State for Tribal Affairs Smt Renuka Saruta; Secretary, Tribal Affairs, Sh Anil Jha and Shri Navtez Bal, Executive Director- Public Sector, Microsoft India and senior officers of the Ministry and EMRS.
- This program will prove beneficial in terms of readiness, preparedness of our students at various international forums. Through these programs, our students would get the required skill set through digital transformation and this would open a new chapter with AI and coding being a part of the curriculum.
- Under this program in the first phase, 250 EMRS schools have been adopted by Microsoft out of which 50 EMRS schools will be given intensive training and 500 master trainers would be trained in the first phase.

- Teachers across states in India will be trained in a phased manner for using productivity technologies like Office 365 and AI applications in teaching, helping them deliver blended or remote learning experiences to students in a more personalized, productive, and secure manner.
- Teacher training will introduce them to the world of virtual collaboration and how teaching can be augmented with virtual field trips or remote sessions with experts.
- The program will also offer opportunities for teachers to earn professional e-badges and e-certificates from the Microsoft Education Centre.
- Under the partnership, students from schools under the Ministry will be mentored on projects that involve AI applications for societal good and the UN's Sustainable Development Goals (SDGs).
- Students will also be trained and exposed to gamified environments on Minecraft to help build design thinking skills. To enable inclusion and access, Microsoft will make the AI curriculum available to the schools and students in both English and Hindi.
- The initiative will also enable the professional development of educators, enabling them to use technology in classrooms.
- Microsoft will work closely with schools across states under the Ministry of Tribal Affairs to accelerate digital transformation.
- These schools will be equipped with the technology, training, and tools required to transform them into Microsoft Showcase Schools, which embody technological innovation in teaching, use productivity insights for decision making, and create accessible and personalized learning experiences for every student.

Legislative Council

Why in news?
Recently, the West Bengal government has decided to set up a Legislative Council (Vidhan Parishad).
Key points are:
- For setting up the Council, a Bill has to be introduced in the Assembly and then a nod from the Governor is required. The Legislative Council in the State was abolished in 1969.
- India has a bicameral system of legislature.

- Just as Parliament has two Houses, the states can also have a Legislative Council in addition to the Legislative Assembly through Article 169 of the Constitution.
- Six States having a Legislative Council: Andhra Pradesh, Telangana, Uttar Pradesh, Bihar, Maharashtra, Karnataka.
- In 2020, Andhra Pradesh Legislative Assembly passed the resolution for abolition of the Legislative Council. This resolution is yet to be cleared by the Parliament of India to finally abolish the council.
- In 2019, the Jammu & Kashmir Legislative Council was abolished through the J&K Reorganisation Bill, 2019, which reduced the State of J&K to the Union Territories of J&K and Ladakh.

Cyclonic Storm " Tauktae "

Why in news?
According to the National Weather Forecasting Centre of the India Meteorological Department (IMD):

The Cyclonic Storm "Tauktae" (pronounced as Tau'Te) over east-central and adjoining southeast the Arabian Sea moved north-north-westwards with a speed of about 11 kmph during past 06 hours and lay centred at 0830 hours IST on the 15th May, 2021 over east-central and adjoining southeast Arabian Sea near latitude 12.8°N and longitude 72.5°E, about190 km north-northwest of Amini Divi, 330 km south-southwest of Panjim-Goa, 930km south-southeast of Veraval (Gujarat) and 1020 km south-southeast of Karachi (Pakistan).

Key points are:
It is very likely to intensify further into a Severe Cyclonic Storm during the next 6 hours and into a Very Severe Cyclonic Storm during the subsequent 12 hours. It is very likely to move north-north-westwards and cross Gujarat coast between Porbandar & Naliya around 18th May Afternoon/evening.

MyGov launches innovation challenge for creating Indian Language Learning App

Why in news?
MyGov, the citizen engagement platform of the Government of India, in partnership with the Department of Higher Education has launched an Innovation Challenge for creating an Indian Language Learning App.

Key points are:

- This Innovation Challenge has been launched to take forward Prime Minister Narendra Modi's vision of celebrating India's cultural diversity through greater interaction among its constituent parts.
- MyGov has launched the Innovation Challenge to create an app that will enable individuals to learn simple sentences of any Indian language and acquire work.
- The objective of this challenge is to create an app that will promote regional language literacy, thereby creating greater cultural understanding within the country.
- The key parameters that will be looked into will include ease of use, simplicity, Graphical User Interface, gamification features, UI, UX, and superior content, which makes it easy and fun to learn an Indian language.
- The Innovation Challenge is open to Indian individuals, startups and companies.
- MyGov envisions the app to be multi-modular, with the capacity to teach through the written word, voice, and video/visuals. App developers can propose multiple interfaces for the engagement of learners.
- The Innovation Challenge closes on 27 May 2021. Upon evaluation of submission of prototypes, the top 10 teams will be invited to make presentations and the top 3 will be selected by a jury.
- The top 3 will receive funding of INR 20, 10, and 5 lakhs to make the apps better.
- The solutions would be evaluated based on broad parameters such as Innovation, Scalability, Usability, Interoperability, Ease of deployment/roll-out, and Campaign.

Juvenile Justice (JJ) Act, 2015

Social media posts appealing for the adoption of children orphaned during COVID-19 are illegal, warn experts.

Key points are:

- Activists warn that such posts are illegal under Section 80 and 81 of the Juvenile Justice (JJ) Act, 2015, which prohibit offering or receiving children outside the processes laid down under the Act as well as their sale and purchase.

- Such acts are punishable with three to five years in jail or ₹1 lakh in fine.
- If someone has information about a child in need of care, then they must contact one of the four agencies: Childline 1098, or the district Child Welfare Committee (CWC), District Child Protection Officer (DCPO) or the helpline of the State Commission for Protection of Child Rights.
- Following this, the CWC will assess the child and place him or her in the immediate care of a Specialised Adoption Agency.
- When there is a child without a family, the State becomes the guardian.
- Adoption is only one of the options, it is not the only option. Such children will have uncles or aunts who can look after them. Children may desire contact with their own family and to remain within the same heritage. In such circumstances, it is very important to guard the rights of the children involved.
- This is the time to focus on kinship care. The Ministry of Women and Child Development and all concerned State departments should immediately roll out a kinship care programme and make it part of foster care provisions under the JJ Act.

TDB National Award 2021

Why in news?

A Bangalore-based startup has received the National Award 2021 from the Technology Development Board (TDB) for developing a commercial solution for the conversion of CO_2 to chemicals and fuels.

Key points are:

- Breathe Applied Sciences, a startup incubated at Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) developed efficient catalysts and methodologies for the conversion of CO_2 to methanol and other chemicals.
- It has led to improvisation of process engineering to enhance the production of chemicals and fuels from anthropogenic CO_2 generated from various sources including coal and natural gas power generation sectors, steel industry, cement industry, and chemical industries, and integrating multiple components involved in the CCUS (Carbon capture, utilization, and sequestration) to

develop a complete solution for the environmental issues due to global warming.

- The research was carried out by Prof. Sebastian C Peter and his group from the New Chemistry Unit at JNCASR. He is also a co-founder and director of Breathe Applied Sciences which was started from the generous funding from DST Nano Mission.
- The startup signed an agreement with JNCASR, an autonomous institute of the Department of Science and Technology for the transfer of technology based on lab-scale research on reducing CO2 to methanol and other useful chemicals and fuels.
- The MOU helped in the smooth translation of the research in the area of CO2 reduction to useful chemicals and fuels from the laboratory scale to pilot scale economically.
- "In the pilot mode, the current capacity of CO2 conversion is 300 kg per day, which can be scaled up to several 100 tons in an industrial scale. It will take some time to reach the level of industrial production. A few industry sectors are in discussion with Breathe for the potential use of our developed technology soon" said Prof. Sebastian C Peter.

Merger of DCCBs with StCBs

Why in news?

Reserve Bank of India will consider merger of District Central Co-operative Banks (DCCBs) with State Cooperative Banks (StCBs) if the concerned state government will make any proposal.

Key points are:

- RBI has notified the guidelines for merging DCCBs with StCBs as two-tier Short-term Co-operative Credit Structure (STCCS).
- Banking Regulation (Amendment) Act, 2020 has also been notified in effect from April 1, 2021 for these banks. The merger of such banks will be finally be sanctioned by the Reserve Bank of India.
- As per the guidelines, RBI will consider proposals of merger "when the state government will make it" after studying detailed legal framework.
- Guideline mention, there should be an additional capital infusion strategy and assurance with respect to financial support.
- Business model should be projected with clear profitability.
- It also proposed a governance model for merging banks.

- Scheme of amalgamation will be approved by the requisite majority of shareholders. NABARD in association with RBI will also examine and recommend proposals made by the state government.

COVID-19 home test kit 'CoviSelf' gets approval

Why in news?

In wake of the rising coronavirus cases in the country and the mounting pressure on the laboratories to meet the testing target, the Indian Council of Medical Research (ICMR) approved the first test kit for COVID-19.

Key points are:

- The approved home-based rapid antigen testing (RAT) kit costs just ₹250 and gives results within 15 minutes.
- As per experts, home based-test kits can be useful to detect runaway infection and early detection in places where the infection rate is high. These test kits are being used in developed countries like the US and UK.
- The country's first self-use test kit is manufactured by Pune-based Mylab Discovery Solutions.
- It is a rapid antigen test kit (RAT) named CoviSelf. Rapid antigen tests are generally considered less sensitive than lab-based RT-PCR tests.
- This means it can show false negatives in case of low or mild infection. The results are more accurate in case of a high viral load.
- The Drug Controller General of India (DCGI) has approved the market availability of the home test kit and it is likely to hit the markets within a week.
- The test kit is considered to be extremely simple to use and is a non-biohazard. It also comes with a disposal bag.
- As per the directive of the ICMR, the test kit should only be used by those who have COVID-19 symptoms or have come in contact with laboratory-confirmed positive cases.
- In case you have symptoms but test negative with the RAT kit, you should get an RT-PCR test from the lab. Individuals who will test positive through the RAT kit would be considered as true positives and would not require repeat testing.
- In case of a positive result, individuals would be treated as suspect COVID-19 cases and are advised to follow home isolation protocol.

Pradhan Mantri Swasthya Suraksha Yojana

Why in news?

New AIIMS started under Pradhan Mantri Swasthya Suraksha Yojana are providing advanced COVID Care in States.

Key points are:

- Pradhan Mantri Swasthya Suraksha Yojana (PMSSY), a Central Sector Scheme, was announced in August 2003 to address imbalances in the availability of tertiary care hospitals and improve medical education in the country.
- The scheme received a fresh impetus to fulfil Prime Minister Narendra Modi's vision of quality medical education in the underserved States, and many new All India Institutes of Medical Sciences are being set up under the Pradhan Mantri Swasthya Suraksha Yojana.
- So far setting up of 22 new AIIMS has been approved under the scheme, out of which six AIIMS at Bhopal, Bhubaneswar, Jodhpur, Patna, Raipur, and Rishikesh are already fully functional.
- In another seven AIIMS, OPD facility and MBBS classes have started while in five more institutes only MBBS classes have started.
- These regional AIIMS, set up or being set up under PMSSY, have played a very significant role in the management of COVID since the beginning of the pandemic early last year.

Buddha Purnima

Why in news?

Buddha Purnima, also known as Buddha Jayanti, is an auspicious day that marks the birth anniversary of Gautam Buddha, the founder of Buddhism. It falls on a full moon night, usually between April and May, and it is a gazetted holiday in India. This year it will be observed on Wednesday, May 26.

Key points are:

- It is believed that this was also the day he attained enlightenment.
- The teacher known as the Buddha lived in northern India sometime between the mid-6th and the mid-4th centuries before the Common Era.
- In ancient India, the title buddha referred to an enlightened being who has awakened from the sleep of ignorance and achieved freedom from suffering.

- According to the various traditions of Buddhism, buddhas have existed in the past and will exist in the future.
- Some Buddhists believe that there is only one buddha for each historical age, others that all beings will become buddhas because they possess the buddha nature (tathagatagarbha)
- He is said to have lived for 80 years. His family name was Gautama (in Sanskrit) or Gotama (in Pali), and his given name was Siddhartha (Sanskrit: "he who achieves his aim") or Siddhattha (in Pali).
- He is frequently called Shakyamuni, "the sage of the Shakya clan."
- In Buddhist texts, he is most commonly addressed as Bhagavat (often translated as "Lord"), and he refers to himself as the Tathagata, which can mean both "one who has thus come" and "one who has thus gone."
- Traditional sources on the date of his death—or, in the language of the tradition, his "passage into nirvana"—range from 2420 to 290 BCE.
- Scholarship in the 20th century limited that range considerably, with opinion generally divided between those who believed he lived from about 563 to 483 BCE and those who believed he lived about a century later.

WhatsApp sued the Indian Government

Why in news?
As the new IT (Digital Media) Rules of India came into force, WhatsApp has sued the Indian Government in Delhi Court and asked to block regulations.

Key points are:
WhatsApp sued the government because, it is believed, the law will compel social media units to break privacy protections.

- Thus, the lawsuit has asked Delhi High Court to declare "one of the new rules" is a violation of privacy rights as per the Indian constitution because it requires social media companies to identify "the first originator of information" if the authorities ask.
- Further, if WhatsApp starts identifying the wrongdoers it will break the encryption policy of the app.
- According to new rules, now resident grievance officer will be appointed under a larger grievance redressal mechanism.
- There will be active monitoring of content on social media platforms and monthly compliance reports will be made for Indian users.
- Now, authorities in India can also ask these platforms to identify the origin of any message.
- Indian government has implemented the "new Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021".
- New guidelines were released in February and provided three months' time to social media platforms like WhatsApp, Facebook, Koo, Instagram and Twitter to comply with it.

National Register of Citizens (NRC)

Why in news?
Assam Chief Minister Himanta Biswa Sarma has said that his coalition government favoured 20% reverification of the updated list of citizens in districts that shared a border with Bangladesh and 10% in the remaining districts.

Key points are:
- In 2014, the SC ordered the updation of the NRC, in accordance with the Citizenship Act, 1955 and Citizenship Rules, 2003 in all parts of Assam. The process officially started in 2015.

- The Supreme Court had monitored the exercise of updating the NRC of 1951 in Assam. About 19.06 lakh out of 3.3 crore applicants were excluded from the updated draft.
- NRC is an official record of those who are legal Indian citizens. It includes demographic information about all those individuals who qualify as citizens of India as per the Citizenship Act, 1955.
- The register was first prepared after the 1951 Census of India and since then it has not been updated until recently.
- So far, such a database has only been maintained for the state of Assam.

Jagrut Tripura

Why in news?
Recently, the Tripura Government has launched an online portal named Jagrut Tripura. It is to help the people of the state avail benefits from the various schemes that have been launched by the State as well as the Central Government.

Key points are:
- At least 109 schemes from various departments have been made available through this platform.
- This digital platform has been launched by the Chief Minister of Tripura Biplab Kumar Deb.
- Through this platform business owners whose business was impacted due to the COVID-19 pandemic can also be supported.
- The 109 schemes are divided into several categories and they are
  Education- 43 schemes.
  Small Business- 16 schemes
  Agriculture- 14 schemes.
  Pension – 12 schemes.
  Health and Medical- 10 schemes.
  Housing- 7 schemes.
  Social Services- 6 schemes.
  Fisheries- 1 schemes.
- The online portal has been developed by a company of the Jio Group named EasyGov.
- This digital platform falls under one of the many initiatives that have been undertaken by the state government of Tripura under its Atmanirbhar Tripura initiative.

Digitally Inclusive Bharat

Why in news?

The NITI Aayog and Mastercard have released a report titled 'Connected Commerce: Creating a Roadmap for a Digitally Inclusive Bharat'.

Key points are:

- The report identifies challenges in accelerating Digital Financial Inclusion (DFI) in India and provides recommendations for making digital services accessible to its 1.3 billion citizens.
- Lot of effort has been put to attain DFI and much success on the supply side of DFI has been seen (e-governance, the JAM trinity, Goods and Services Tax, Direct Benefit Transfer (DBT) schemes).
- However, the break in the digital financial flow comes at the last mile, where account holders mostly withdraw cash for their end-use.
- Agriculture, with its allied sectors, provides livelihood to a large section of the Indian population. Over the years, agriculture's contribution to national GDP has declined from 34% in 1983-84 to just 16% in 2018-19.
- Most agri-techs have not succeeded in digitizing financial transactions for farmers or enabling formal credit at lower rates of interest by leveraging transaction data.
- Micro, Small and Medium Enterprises (MSMEs) have been a key growth driver for the Indian economy. According to a 2020 Report, the category employed some 110 million people, or over 40% of India's non-farm workforce.
- The lack of proper documentation, bankable collateral, credit history and non-standard financials force them to access informal credit at interest rates that are double of those from formal lenders.
- The surge in digital transactions has increased the risk for possible security breaches, both for consumers and businesses.
- A Medici report of June 2020 says 40,000 cyber-attacks targeted the IT infrastructure of the banking sector in India.
- With the onset of the pandemic, there is an increasing need for transit systems to be further integrated with contactless payments in India.
- Globally, the trend is toward open-loop transit systems, with interoperable payment solutions allowing travelers to switch between different modes of transport with a connected payments network.

In New IT Rules 2021, Traceability Provision

Why in news?

Recently, messaging platform WhatsApp has moved the Delhi High Court to challenge the traceability provision in the New IT Rules 2021.

Key points are:

- Earlier the Ministry of Electronics and IT (MeitY) had sent a notice to WhatsApp asking it to withdraw a controversial update to its privacy policy which might be a threat to Data Protection of Indians.
- Traceability Provision requires intermediaries to enable identification of the first originator of information on their platforms.
- Rule 4(2) of the Intermediary Rules states that a significant social media intermediary providing services primarily in the nature of messaging shall enable the identification of the first originator of the information on its computer resource as may be required by a judicial order or an order passed by a competent authority under the Information and Technology (IT) Act 2000.
- Failure to comply with this requirement would take away the indemnity provided to social media intermediaries under Section 79 of the IT Act.
- The concerns raised is that this breaks end-to-end encryption and impermissibly infringes upon users' fundamental Rights to privacy and Freedom of speech.
- Article 19(1)(a) of the Indian Constitution guarantees the freedom of speech and expression.
- The right to privacy is protected as an intrinsic part of the right to life and personal liberty under Article 21 and as a part of the freedoms guaranteed by Part III of the Constitution (Puttaswamy Judgement 2017).
- States throughout the world have recognised the "important benefits" of end-to-end encryption and the dangers of undermining that security protocol.

New Rules for Increased FDI in Insurance Sector

Why in news?

Recently, the Ministry of Finance amended Indian Insurance Companies (Foreign Investment) Rules, 2015 and clarified the final rules for increased FDI (Foreign Direct Investment) in the Insurance Sector.

Key points are:

- Parliament had passed the Insurance Amendment Bill 2021 to increase the FDI limit in the insurance sector to 74% from 49%.
- The Ministry of Finance has notified 'Indian Insurance Companies (Foreign Investment) Amendment Rules, 2021'.
- Management Persons to be Resident Indian Citizens: For an Indian insurance company having foreign investment – the majority of its directors, key management persons, and at least one among the chairperson of its Board, its managing director, and its chief executive officer – will be a resident Indian citizen.
- Meaning of Foreign Investment: Total foreign investment here would mean the sum of both direct and indirect foreign investment.
- Direct investment by a foreigner will be called Foreign Direct Investment, while investment by an Indian company (which is owned or controlled by foreigners) into another Indian entity is considered as Indirect Foreign Investment.
- The increase in foreign ownership to 74% can result in an inclusion of global best practices in terms of insurance products going forward. It will also help in bringing down the cost of insurance products in India.
- It is good for Indian Promoters, it will let them keep control of management and board, the additional capital inflow will help them with funds to push for growth.
- It will benefit small insurance players or the ones where the sponsors don't have the ability to put in more capital and hence it will benefit in strengthening them and increasing competition across the industry.
- It is likely to help local private insurers grow fast and expand their presence across India, which has one of the lowest insurance penetration levels globally.
- Insurance penetration in India is currently at 3.7% of the Gross Domestic Product (GDP) compared to the world average of 6.31%.
- Growth in the life insurance sector has slowed to 11-12% currently from 15-20% until fiscal 2020, as the pandemic pushed customers to save cash instead of spending on stocks or life insurance policies.

- As of 31st March, 2021, there were only 24 life and 34 non-life direct insurers in India, whereas there were 243 life insurance companies (1956) and 107 non-life insurance companies (1973) at the time of nationalisation.

Internal restructuring of IBM Corporation

Why in news?
The Competition Commission of India (CCI) receives notice under Green Channel filed by Kyndryl Holdings LLC and Grand Ocean Managed Infrastructure Services Private Limited in relation to the internal restructuring of IBM Corporation and is deemed approved.

Key points are:

- International Business Machines Corporation (IBM Corporation/ Seller) plans to spin off its global MIS Business into a new public company, within the framework of an International corporate internal re-organization.
- The target structure will be achieved by a separation of the said MIS Business into newly incorporated companies i.e. Kyndryl Holdings LLC (Kyndryl) and Grand Ocean Managed Infrastructure Services Private Limited (Ocean India) (collectively referred as Acquirers) (Proposed Transaction).
- IBM Corporation is, inter alia, engaged in the provision of managed infrastructure services i.e. MIS Business in various countries including India.
- In India, the MIS Business is presently housed in Network Solutions Private Limited (NetSol) and IBM India, which are indirect wholly-owned subsidiaries of IBM Corporation.
- The MIS Business is the business of the infrastructure services unit of IBM Corporations Global Technology Services segment, including the Security, Regulatory and Risk Management Services and Identity Management Services offerings of the Security Services unit of IBM Corporation's Cloud and Cognitive software segment, but excluding the Public Cloud Platform offering of the Infrastructure Services unit.
- The Acquirers are presently not engaged in any business activity and have been incorporated only to implement the Proposed Transaction. Post the Proposed Transaction, the Acquirers will house and operate the MIS Business of the IBM Corporation.

Cyclone Yaas

Why in news?

Eastern Railways suspended 25 trains between May 24 and May 29 in view of cyclone Yaas. Cyclone Yaas is expected to hit coastal areas of Odisha and West Bengal on Wednesday (26 May, 2021), barely a week after Cyclone Tauktae wreaked havoc on the western coast and left behind a trail of destruction.

Key points are:

- Eastern Railways has suspended 25 trains between May 24 and May 29 in view of Cyclone Yaas. The armed forces Sunday airlifted 950 NDRF personnel and 26 helicopters are on standby.
- Currently, a system is developing in the east-central Bay of Bengal. On Sunday morning, it turned into a depression (wind speed 45 to 55 km/hr gusting to 65 kms/hr) and was located 560 kms north-northwest of Port Blair, 590 kms east-southeast of Paradip and 690 kms south-southeast of Balasore in Odisha.
- The India Meteorological Department (IMD) has said that the system will intensify into a cyclonic storm by Monday morning. Once realised, it will be called Cyclone Yaas, named by Oman and signifies a tree bearing fragrant flowers.

"Sanjeevani Pariyojana"

Why in news?

Haryana to launch Anti-Covid "Sanjeevani Pariyojana" for quick medicare access at home. That is Haryana will launch on Monday an anti-Covid "Sanjeevani Pariyojana" to provide for supervised and quick medical care at home largely for people in rural areas with mild to moderate symptoms of the disease.

Key points are:

- "Sanjeevani Pariyojana" will extend medical care to rural areas where awareness of the second wave of COVID-19 and how to treat it remains low, an official spokesperson said in Chandigarh on Sunday.
- "The initiative will comprise an Integrated Command and Control Centre for managing critical resources like hospital beds availability, oxygen supply, ambulance tracking and door-to-door awareness campaign to enable a bird's eye view of the entire healthcare system for the district

administration," the spokesperson said.Chief Minister ML Khattar will roll out the initiative on May 24, through video conferencing, he added.

- "Besides, a Covid hotline will augment existing call centre capabilities to support basic triaging and guidance for patients with suspected or clinically diagnosed COVID-19," he said.
- The initiative will expand the scope of medical advice beyond qualified doctors by mobilizing 200 final year and pre-final year medical students, besides interns, and connecting them to consultants and experts, he said.
- This effort will enhance telemedicine/virtual health capabilities to provide treatment and monitoring for mild to moderate cases of COVID-19 from the point of their first visit till discharge facilitating activities such as consultations, investigation reports, upshifting the patient and monitoring test results," he added.
- Besides, community health centres or field hospitals at district or sub-district level, for patients with moderate symptoms in need of oxygen support, equipped with oxygen concentrators and advanced medical centres at larger government, civil or private hospitals equipped with ICU facilities for critical patients.

Narada Case

Why in news?

The Central Bureau of Investigation (CBI) has approached the Supreme Court against a Calcutta High Court direction to place under house arrest four Trinamool Congress leaders accused in the Narada sting tapes case.

Key points are:

- On Friday, following a split verdict on the bail of Sovan Chatterjee, Subrata Mukherjee, Firhad Hakim and Madan Mitra, a Division Bench of the High Court ordered them to be put under house arrest while referring the case to a Bench of five judges.
- The four have been in custody since May 17.
- The agency moved the Supreme Court some time before midnight on Sunday.
- The judges of the High Court Division Bench — presided by Acting Chief Justice Rajesh Bindal — had differed in its opinion over vacating a stay given by it on the bail granted by a CBI court to

Ministers Mukherjee and Hakim, TMC MLA Mitra and former Kolkata Mayor Chatterjee.

- The Bench, also comprising Justice Arijit Banerjee, finally directed that the leaders, placed under judicial remand so far, would remain in house confinement for now.
- Solicitor General Tushar Mehta, representing the CBI, had pleaded for a stay on the execution of the order.
- The IMD Sunday said the cyclone is likely to make landfall on May 26 evening between Paradip in Odisha and Sagar Islands in West Bengal after intensifying into a 'very severe cyclonic storm' with wind speed between 155 and 165 kmph. It will bring heavy rain in coastal areas from Tuesday.

"Green Urja Award"

Why in news?

Indian Renewable Energy Development Agency Ltd. IREDA has been conferred with the "Green Urja Award" for being the Leading Public Institution in the Financing Institution for Renewable Energy this year by the Indian Chamber of Commerce (ICC).

The award was received by Pradip Kumar Das, Chairman & Managing Director (CMD), IREDA from Dr. Ajay Mathur, Director General, International Solar Alliance in presence of Anil Razdan, Chairman, ICC National Expert Committee on Energy in a virtual ceremony held on 11 May, 2021.

Key points are:

- IREDA gets the award for the pivotal and developmental role it plays in Green Energy Financing.
- Appreciating the members of the jury for selecting IREDA, Shri Das said that he is honoured to receive this award on behalf of IREDA.
- The award recognises our immense contribution in the development of Renewable Energy Sector in line with the Hon'ble Prime Minister's vision of Atma Nirbhar Bharat.
- Further, Shri Das expressed his gratitude to Hon'ble Union Minister of Power, New and Renewable Energy, Shri R K Singh who has been instrumental in guiding and facilitating IREDA with his fast decision-making approach for the overall growth of the Power and RE sector.

- Despite the pandemic time, IREDA has ended the year 2020-21 ended on a strong note and disbursed the second-highest (from the date of inception) amount of loan amounting to Rs. 8827 crore, which indicates that IREDA has the ability to translate this problem into an opportunity.
- On this occasion, CMD, IREDA also highlighted unique initiatives taken by IREDA to contain the first and second waves of COVID-19. It has constituted an exemplary 'COVID Care Response Team' that is continuously taking care of COVID-19 positive employees and their family members starting from June 2020 resulting into 'ZERO' employees who are COVID infected/under treatment as on 11th May 2021.
- At this point when the whole world is struggling to cope up with the pandemic, IREDA could successfully ensure a safe and healthy environment for its employees by adopting a proactive and timely COVID management approach.
- IREDA under the administrative control of the Ministry of New & Renewable Energy (MNRE) is the only dedicated institution for financing Renewable Energy (RE) & Energy Efficiency (EE) projects in India.
- Since, its inception the company has played a catalytic role in developing market for financing RE & EE projects. IREDA has over the years sanctioned loans aggregating to Rs. 96,601 crores, disbursed Rs. 63,492 cores and supported more than 17,586 MW of RE capacity in the country till date.

NPCI refuses to ban cryptocurrency trades in India

Why in news?

National Payments Corporation of India (NPCI) has refused to ban cryptocurrency transactions. Further, it has put the onus on banks whether to ban transactions of cryptocurrency trades or not. It told banks to take a decision based on the advice of their legal and compliance departments.

Key points are:

- The National Payments Corporation of India (NPCI) serves as an umbrella body for the operation of retail payment in India.
- This organization was established by the Reserve Bank of India along with the Indian Bank's

Association under the provisions of the Payment and Settlement Systems Act, 2007.

- Presently, NPCI is promoted by ten major promoter banks.
  NPCI can operate the following payment systems:
  National Financial Switch (NFS).
  Immediate Payment System (IMPS).
  Affiliation of RuPay Cards (debit cards/ prepaid cards) issued by banks and co-branded credit cards issued by non-banking financial companies (NBFCs) or any other entity approved by the RBI.
  National Automatic Clearing House (ACH).
  Aadhaar Enabled Payments System (AEPS).
  Operation of Cheque Truncation System.
- NPCI's decision is based on the Supreme Court's March 2020 ruling which set aside a directive by the Reserve Bank of India from April 2018 to ban banks and finance companies for "dealing in virtual currencies or providing services to facilitate" anyone trading in crypto.
- NCPI has not blocked the trades given that the RBI did not come out with any directive following the Supreme Court ruling.

It is in demand because:
- Funds transfer between two parties will be easy without the need of third party like credit/debit cards or banks.
- It is a cheaper alternative compared to other online transactions.
- Payments are safe and secured and offer an unprecedented level of anonymity.
- Modern cryptocurrency systems come with a user "wallet" or account address which is accessible only by a public key and pirate key.
- The private key is only known to the owner of the wallet.
- Funds transfer are completed with minimal processing fees.

AYUSH-64

Why in news?

As a token of its commitment to serve the out of hospital COVID patients, the Ministry of Ayush has started free distribution of AYUSH 64 at many locations in Delhi since last Saturday. From Monday onwards, many more centres will become operational. Those COVID-19 patients who are in home isolation or are staying at some government/NGO arranged isolation centres can benefit from this initiative of the Ministry of Ayush.

Key points are:
- Patients or their representatives can visit these centres with the hard or soft copies of patient's RT PCR positive report and Aadhar Card to get a free pack of AYUSH 64 tablets. Replenishment, if and when required, will also be provided free of cost.
- It may be noted AYUSH 64 is a polyherbal formulation that has been found useful in the treatment of asymptomatic, mild, and moderate COVID-19 infection.
- AYUSH-64 is recommended in National Clinical Management Protocol based on Ayurveda and Yoga which is vetted by the National Task Force on COVID Management of ICMR and Guidelines for Ayurveda Practitioners for COVID-19 Patients in Home Isolation.

The seven centres where AYUSH 64 will be available are:

All India Institute of Ayurveda (AIIA), Sarita Vihar.
Morarji Desai National Institute of Yoga, Ashoka Road.
Regional Research Institute of Unani Medicine, Abul Fazal Enclave Part-1, Jamia Nagar, Okhla.
Unani Medical Centre, Safdarjung Hospital.
Unani Speciality Clinic, Jamia MIllia Islamia.
Central Ayurveda Research Institute, Punjabi Bagh.
Central Council for Research in Yoga and Naturopathy, Janakpuri.

Covid Air Support Management Cell (CASMC)

Why in news?

The Indian Air Force (IAF) is operating a Covid Air Support Management Cell (CASMC) at Palam Air Base since 27 April 2021.

Key points are:

- The primary task of the cell is to efficiently coordinate for the distribution of all the relief aid coming from foreign countries.
- The cell is operational round the clock. Resources have been coordinated to cater for surge operations which include manpower, ground handling, and loading eqpt and vehicles like flat top trailers and fork lifters.
- One C-130 and two AN-32 transport aircraft are operating at Palam from 28 April 2021 to airlift load on short notice across the country.
- A mock drill for such an emergency airlift was also carried out on 29 April 2021, to streamline coordination amongst various stakeholders.

Centre releases Rs. 8923.8 crore to Panchayats in 25 States

Why in news?

The Department of Expenditure, Ministry of Finance has released an amount of Rs. 8,923.8 crore to 25 States for providing grants to the Rural Local Bodies (RLBs). The grants are meant for all the three tiers of Panchayati Raj Institutions – village, block, and district.

Key points are:

The released amount may be utilised by the RLBs, among other things, for various prevention and mitigation measures needed to combat the COVID-19 pandemic. Thus, it will augment resources to the three tiers of Panchayats for fighting the contagion.

- The state-wise amount of the grant released is enclosed.
- As per the recommendations of the 15th Finance Commission, the first installment of untied grants was to be released to the States in the month of June, 2021.
- However, in view of the ongoing COVID-19 pandemic situation and at the recommendation of the Ministry of Panchayati Raj, the Ministry of Finance has decided to release the grant in advance of the normal schedule.

- Moreover, the 15th Finance Commission had imposed certain conditions for the release of untied grants.
- The conditions include online availability of accounts of a certain percentage of Rural Local Bodies in the public domain. But taking into consideration the prevailing circumstances, this condition has been waived for release of the first installment of untied grants.
- The first installment of untied grants was to be released to the States in the month of June, 2021 include Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Mizoram, Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh, Uttarakhand, and West Bengal.

ESIC installs oxygen plants at two hospitals in Delhi NCR

Why in news?

The ESIC under the Ministry of Labour and Employment has installed oxygen generation plants at two hospitals in the Delhi NCR area.

Key points are:

- A 440 LPM capacity plant has been installed at the ESIC Hospital and Medical College in Faridabad, while another plant of 220 LPM capacity was commissioned at ESIC Hospital in Jhilmil, New Delhi.
- This will enable these hospitals to augment the availability of their ICU and Ventilator beds.
- The Corporation is actively helping fight the battle against Covid-19 by quickly converting it 30 hospitals all over the country into Covid Dedicated facilities. These hospitals have around 4200 beds, including 300 ICU beds and 250 ventilator beds.
- The facility has been made available to all citizens of the country. A dashboard has also been started to facilitate beneficiaries to know about the availability of beds in these hospitals.

The idea of Placing House Arrest

Why in news?

The Supreme Court has asked the legislature to think over the idea of placing convicts under house arrest to avoid overcrowding of prisons.

Key points are:

It so asked by honourable Supreme Court because:

• Overcrowding of prisons occupancy rate in prisons climbed to 118.5% in 2019, and also increasing number of undertrials about 3,30,487 in 2019, which constituted 69.05% of the total number of prisoners.

• A very large sum (₹6818.1 crore) was the budget that has been spent on prisons and also the spread of COVID-19.

• The 206-page judgment was based on a plea for default bail filed by activist Gautam Navlakha on the ground that he had spent several days on house arrest.

COVID-19 Containment & Management in Peri-Urban, Rural, and Tribal Areas

Why in news?

The Government of India has focused on the COVID-19 Containment & Management in Peri-urban, Rural & Tribal areas along with the Effective Clinical Management of COVID, including the black Mucor-mycosis fungi which are being recorded in a growing number of states.

Key points are:

• The Government keeps the importance in the context of the rural hinterland of the country recording a very high number of cases with increasing fatality and positivity rate, combined with low reported levels of testing.

• With the gradual ingress of COVID infection in rural and peri-urban areas, the importance to ensure community-based services and PHC services to manage the situation was highlighted.

• Mechanism for surveillance, screening, isolation and referral of cases from such areas, monitoring of Home Isolation cases and providing them with information pamphlets, ramping up of facilities in all the three subsequent levels of COVID-19 Healthcare; CCCs, DCHCs, and DCHs was discussed at length.

• Training of volunteers using the IGOT Diksha portal module and risk communication using IEC campaigns was also stressed. The States were exhorted to share their best practices, and leverage their existing capacity in tele-consultation.

Power Sector CPSUs join hands with the community in the fight against COVID Pandemic.

Why in news?

The CPSUs under the Ministry of Power like NHPC, NTPC, and RECL are working out multipronged strategies for reaching out to every employee situated across India and also to the neighbouring community in the fight against the COVID pandemic.

Key points are:

• The CPSUs have together set up COVID Care facilities at more than 200 locations which act as Isolation Centres for their own employees as well as the contractual employees and their families besides setting up Covid Care Centres with Oxygen facilities in areas with higher infection rate to cater to the needs of moderately infected persons, thereby reducing the patient load on the otherwise already over-stressed private and Government Health Care infrastructure.

• The CPSUs have been proactively taking initiatives in setting up Isolation centres, distribution of masks, sanitizers, providing Oxygen beds, organizing Vaccination camps at various location in the National Capital Region (NCR) besides discharging their responsibilities towards the citizens by providing Oxygen concentrators, setting up Oxygen Plants, etc.

Indian Railways has commissioned Wi-Fi at 6,000th Railway station.

Why in news?

Indian Railway is continuing to extend the Wi-Fi facility at far flanged stations to connect the passengers and the general public with digital systems.

Key points are:

- Indian Railways have started its Journey by providing Wi-Fi facility at 1st Railway station Mumbai in January 2016.
- Thereafter, provided 5000th Railway station, at Midnapore in West Bengal and reached 6000th Railway station at Hazaribagh on 15th May 17, 2021.
- Also, on the same day Jarapada station in Angul District of state of Odisha was also provided with Wi-Fi.
- Provision of Wi-Fi facilities at Railway stations on self-sustainable basis with no cost to the Railways.
- This facility was provided with the help of RailTel, a PSU under Ministry of Railways. This task was carried out in partnership with Google, DOT (under USOF), PGCIL and Tata Trust.

International News

India-UK virtual summit

Why in news?

The Prime Minister of India, Narendra Modi, and the UK Prime Minister Boris Johnson agreed on a common vision of a new and transformational Comprehensive Strategic Partnership between the UK and India and adopted an ambitious India-UK Roadmap to 2030 to steer cooperation for the next 10 years.

Key points are:

- Both leaders met virtually on 4 May 2021 and emphasised their shared commitment to an enhanced partnership in science, education, research, and innovation and look forward to the next ministerial Science and Innovation Council (SIC).
- They welcomed the signing of the new UK-India MoU on Telecommunications/ICT and the Joint Declaration of Intent on Digital and Technology, the establishment of new high-level dialogues on tech, new joint rapid research investment into Covid19, a new partnership to support zoonotic research, new investment to advance understanding of weather and climate science, and the continuation of the UK-India Education and Research Initiative (UKIERI).
- They agreed to expand and enhance the existing UK-India vaccines partnership, highlighting the successful collaboration between Oxford University, Astra Zeneca and the Serum Institute of India on an effective Covid19 vaccine that is 'developed in UK', 'Made in India' and 'distributed globally'.
- They emphasized that the international community should learn lessons and agreed to

work together to reform and strengthen WHO and the global health security architecture to strengthen pandemic resilience.

As per PIB, some of the key points to strengthen STI cooperation between two countries are:

- Enhance cooperation between India and the UK on strengthening the role of women in STEMM at schools, universities, and research institutions and creating an enabling environment for equal participation of women in STEM disciplines through collaboration on new initiatives like Gender Advancement for Transforming Institutions (GATI) project.
- Develop collaborations between Industry, Academia, and the Government to foster innovation among school students by focusing on teacher training, mentoring, and sharing of global best practices through initiatives like the India Innovation Competency Enhancement Program (IICEP).
- Build on the two countries' existing bilateral research, science, and innovation infrastructure and governmental relationships to continue to support high-quality, high-impact research and innovation through joint processes. Position the UK and India as mutual partners of choice and a force for good in the world in areas of shared priority, including health, the circular economy, climate, clean energy, urban development, and engineering healthier environments, waste-to-wealth, manufacturing, cyber-physical systems, space, and related research.
- Forge partnership across the pipeline of research and innovation activity, from basic research to applied and interdisciplinary research and through to translation and commercialisation

across government departments to optimise impact, utilize expertise and networks and minimise duplication.

- Leverage and build on existing, long-standing bilateral partnerships such as on education, research, and innovation, to stimulate a joint pipeline of talent, excellent researchers, and early-career innovators and explore new opportunities for student and researchers exchanges by establishing joint centres and facilitating access to state-of-the-art facilities.

- Work together to share knowledge and expertise regarding artificial intelligence, scientific support to policies and regulatory aspects including ethics, and promote dialogue in research and innovation. Through Tech Summits, bring together tech innovators, scientists, entrepreneurs and policymakers to work together on challenges including the norms and governance of future tech under the cross-cutting theme of 'data'.

- Grow programmes such as the Fast Track Start-Up Fund to nurture innovation-led, sustainable growth and jobs, and tech solutions that benefit both countries. Explore partnerships with joint investment to enable the growth of technology-enabled innovative businesses and increase the number of start-ups and MSMEs growing and scaling-up internationally, for example in relation to climate and the environment, med-tech devices, industrial biotech and agriculture, and sustainable development, helping to achieve the Global Goals by 2030.

MoU between India and Oman

Why in news?

Recently, India and Oman renewed the Memoranda of Understanding (MoUs) on military cooperation as well as on maritime security.

Key points are:

- The Sultanate of Oman is a strategic partner of India and an important speaker at the Gulf Cooperation Council (GCC), Arab League and Indian Ocean Rim Association (IORA) fora.
- India is a member of IORA but not a member of GCC and Arab League.
- India and Oman are linked by geography, history and culture and enjoy warm and cordial relations, which are attributed to historical maritime trade

linkages, the intimacy of the Royal family with India and the seminal role played by the Indian expatriate community in building Oman, which is acknowledged by the Omani Government.

- Institutional mechanisms like Joint Commission Meeting (JCM) and Joint Business Council (JBC) oversee economic cooperation between the two.
- In West Asia, Oman is one of India's oldest defence partners and an ally in anti-piracy campaigns.
- India has supplied rifles to Oman. Also, India is considering setting up a defence production unit in Oman.
- India and Oman conduct regular biennial bilateral exercises between all three services.
  Army exercise: Al Najah
  Air Force exercise: Eastern Bridge
  Naval Exercise: Naseem Al Bahr
- Oman is at the gateway of the Strait of Hormuz through which India imports one-fifth of its oil imports.
- The berth rights given by Oman to Indian vessels is important for the Indian Navy to carry out anti-piracy operations in the Gulf of Aden.
- India signed a pact with the country in 2018 to access the Duqm port of Oman.
- India is working closely with Oman to enhance strategic depth in the region and add heft to its Indo-Pacific vision in the Western and Southern Part of Indian Ocean.
- India needs its support to counter the growing Chinese foothold in the region.

India and South Africa proposed for IP waiver

Why in news?

India and South Africa proposed for IP waiver at the World Trade Organisation in 2020. This has now been backed by the United States.

Key points are:

- The US will further negotiate at the World Trade Organisation to waive Intellectual property for COVID-19 vaccines.
- This will help in the large-scale production of COVID-19 vaccines in middle-income countries.
- IP right is a monopoly granted by a government to an inventor. It means that the others cannot copy their invention. It can be a process patent or a product patent.

- The developing countries are arguing that intellectual property is an obstacle in increasing the production of vaccines.
- The production of COVID-19 vaccines in middle-income countries has been happening through licensing or technology transfer agreements. Thus, in order to ramp up the production of COVID-19 vaccine production, it is essential to waive off (remove) the Intellectual Property Rights for the COVID-19 vaccine.
- In simple terms, an IPR waiver means that when a company has produced a vaccine, the others can immediately copy its composition, produce their own. By this the vaccine production will increase and also the vaccine cost will come down.
- 100 countries of the 164 members are in favour of waiving the IP. Recently Australia and New Zealand also agreed on the waiver.

99 of 100 cities with environmental risk are in Asia

Why in news?
A private firm Verisk Maplecroft has found that Asian cities face the greatest risk from environmental issues. This includes natural disasters and air pollution.
Key points are:
- Around 576 cities in different parts of the world were scored based on the following factors:
  Water Quality
  Heat Stress
  Vulnerability to Climate Change
  Water Scarcity
  Economies and infrastructure to natural hazards such as tsunamis, earthquakes, and landslides
- Of the hundred most vulnerable cities, ninety-nine are located in Asia.
- Of the 100, around thirty-seven are in China and fourty-three are in India. China and India are the first and third-largest greenhouse gas emitters in the world.
- Around 1.5 billion people spread out in 414 cities of the world are living at high risks of water shortage, pollution, natural hazards, extreme heat, and other physical impacts of climate change.
- India is home to thirteen of the top twenty riskiest cities. This was mainly due to air and water pollution.
- Jakarta topped the list and was the riskiest city in the world.

- The flood-prone cities of China namely Dongguan and Guangzhou topped the list of cities that are facing threats from natural hazards. They were followed by Osaka and Tokyo of Japan. The Japanese cities are vulnerable to typhoons and earthquakes.
- Lima is the only city outside Asia to enter in top hundred riskiest cities in the world.
- Glasgow was ranked as the safest city.
  Important takeaways for all the competitive exams
  Dr. Shakuntala Haraksingh Thilsted, a global nutrition expert of Indian descent has won the prestigious World Food Prize 2021.

More scrutiny of Israel rights record sought

Why in news?
Member states of the Organization of Islamic Cooperation are calling on the UN Human Rights Council to set up a permanent commission to report on human rights violations in Israel, Gaza, and the West Bank. If passed, it would mark an unprecedented level of scrutiny authorised by the UN's top human rights body.
Key points are:
- UNHRC is the Council that was created by the United Nations General Assembly in 2006. It replaced the former United Nations Commission on Human Rights.
- The Office of the High Commissioner for Human Rights (OHCHR) serves as the Secretariat of the Human Rights Council.
- OHCHR is headquartered in Geneva, Switzerland.
- The UNHRC has 47 members serving at any time with elections held to fill up seats every year, based on allocations to regions across the world to ensure geographical representation.
- Each elected member serves for a term of three years.
- Countries are disallowed from occupying a seat for more than two consecutive terms.
- The Council's Membership is based on equitable geographical distribution. Seats are distributed as follows:
  African States: 13 seats.
  Asia-Pacific States: 13 seats.
  Latin American and Caribbean States: 8 seats.
  Western European and other States: 7 seats.
  Eastern European States: 6 seats.

- The UNHRC passes non-binding resolutions on human rights issues through a periodic review of all 193 UN member states called the Universal Periodic Review (UPR).
- It oversees the expert investigation of violations in specific countries (Special Procedures).

International Day of Families

Why in news?

Every year, the International Family Day is celebrated on May 15. It is also called the World Family Day.

Key points are:

- The theme for International Day of Families 2021 is Families and New Technologies.
- The World Family Day was introduced in the United Nations in 1993. This was done to emphasis the role of the families in shaping the individuals.
- The United Nations is to celebrate International Year of Families in 2024.
- There is a need to explain about the importance of families to the global citizens in the current scenario. The current scenario is as follows:
- Family homelessness is increasing. In European countries, the total homeless population is more than 20%.
- Only 57% of married women in the world are able to make decisions about sexual relations, reproductive health services and use of contraceptives.
- These are issues related to families. The International Day of Families help to address these issues and increase the knowledge of demographic, social and economic processes affecting families.

Israel- Hamas ceasefire

Why in news?

A Ceasefire came into force in Gaza Strip, bringing a halt to the fiercest fighting between Israel and Hamas.

Key points are:

- The Egypt brokered ceasefire began early this morning, ending the 11-day fighting.
- The Security Cabinet of Israel had approved a ceasefire in the Gaza Strip, bringing a potentially tenuous halt to the most aggressive fight in decades.
- The Cabinet said it had voted unanimously in favour of a mutual and unconditional truce proposed by mediator Egypt.
- The development came a day after US President Joe Biden urged Israeli Prime Minister Benjamin Netanyahu to seek de-escalation, and amid mediation bids by Egypt, Qatar and the United Nations.
- A Hamas official told media that the ceasefire would be mutual and simultaneous. Palestinians poured onto the streets of Gaza soon after the truce began. Both Israel and Hamas have claimed victory in the conflict.
- Since the fighting began on May 10, health officials in Gaza say 240 Palestinians, including 65 children and 39 women, have been killed and more than 1,900 wounded in aerial bombardments.
- Israel says it has killed at least 160 combatants in Gaza.
- Authorities put the death count in Israel at 12, with hundreds of people treated for injuries in rocket attacks that have caused panic and sent people rushing into shelters.

World Agri-Tourism Day

Why in news?

Every year the World Agri-Tourism Day is celebrated on May 16.

Key points are:

- This year, on the fourteenth World Agri-Tourism Day, Government of Maharashtra, Agri-Tourism Development Corporation is to organise International Conference on Agri-Tourism.
- The theme of the day is Rural Women Sustainable Entrepreneurship Opportunities through Agri Tourism.

- Agri Tourism Development Corporation was established in 2005.
- It mainly implements the Agri Tourism Project. The project is implemented in a village near Pune on about 28 acres.
- The Agriculture Tourism Development Corporation survey says that around 0.56 million tourists visited the Agri-Tourism Centres. This increased to 0.61 million in 2019 and 0.78 million in 2020.
- This year, National and international stakeholders from South Africa, Scotland and Philippines are to participate in the conference. They are to discuss on agri-tourism, sustainable opportunities for women, etc.
- In Agri-Tourism the urban tourists stay in farmers home. During their stay they engage in farming activities, tractor ride, bullock cart ride.
- Also, they enjoy folk songs and dances. They buy fresh farm produce.
- In return, the farmers greet the tourists, provide accommodation and entertain them during their stay.
- This acts as an additional income for the farmers. Also, it employs the local youths as tourist guides. This way the programme provides employment opportunities as well.

China defends CPEC

Why in news?
China has again defended its China-Pakistan Economic Corridor (CPEC) project, by terming it an economic initiative.
Key points are:
- CPEC is a USD 60 billion project of China with Pakistan. While India do not support the project as it passes through the Pakistan-occupied Kashmir (PoK) region of India.
- China again has disregarded India's protests stating that the project has not affected its principled stand on the Kashmir issue.
- India opposes CPEC project because up-gradation works to Karakoram Highway are happening in Gilgit-Baltistan which is contested between India and Pakistan.
  About CPEC
  China–Pakistan Economic Corridor (CPEC) project, launched in 2013, comprises of several infrastructure projects which are under construction throughout Pakistan.

CPEC projects is worth $62 billion project as of 2020. The project was launched to rapidly upgrade the required infrastructure in Pakistan and strengthen its economy by constructing modern transportation networks, energy projects, and special economic zones.

India to push for WHO, EU approval for Covaxin

Why in news?
Faced with concern that Indians receiving the Covaxin vaccine may not get relaxation in travel restrictions, the government has decided to help ensure that Hyderabad-based Bharat Biotech receives clearances from both the World Health Organisation (WHO) and subsequently, the EU's European Medicines Agency (EMA).
Key points are:
- The Ministry of External Affairs (MEA) has been tasked with studying the matter and help get Covaxin a place in WHO's Emergency Use List (EUL).
- EU member countries recently approved a proposal to allow "fully vaccinated" tourists from countries outside Europe under certain criteria. While the travellers getting AstraZeneca's Covishield would be included on the WHO and EU's listings, if travel from India is accepted, those who have taken Covaxin would not.
- Covaxin on the WHO's EUL would be a big boost, and a first for an Indian-developed and produced the vaccine.
- The WHO Emergency Use Listing Procedure (EUL) is a risk-based procedure for assessing and listing unlicensed vaccines, therapeutics, and in vitro diagnostics with the ultimate aim of expediting the availability of these products to people affected by a public health emergency.
- This will assist interested UN procurement agencies and the Member States in determining the acceptability of using specific products, based on an essential set of available quality, safety, and efficacy, and performance data.
- The EUL concerns three product streams (vaccines, therapeutics, and in vitro diagnostics), each of which has specific requirements for products to be eligible for evaluation under the EUL procedure.

First BRICS Employment Working Group Meeting

Why in news?

The first BRICS Employment Working Group was held virtually. It was hosted by India. India assumed BRICS Presidency in 2021.

Key points are:

*   The member countries discussed promoting social security agreements among BRICS Nations, participation of women in labour force, formalisation of labour markets.
*   The members that participated in the meeting were BRICS countries and also members from International Labour Organisation and International Social Security Agency.
*   The members agreed to conduct dialogues and discussions with each other to solve the issue of the Social Security Agreement. Upon reaching conclusions, they will take it forward to signing agreements. The ILO and the ISSA are to provide technical support.
*   The member countries also agreed to create a multilateral framework for the same.
*   The countries discussed how COVID-19 has informalized the labour market.
*   The counties agreed to promote women in productive and decent work. They also agreed to extend the social security cover to women workers in the informal sector. They also discussed the participation of women in labour force.

4th India-Swiss Financial Dialogue

Why in news?

The 4th India-Swiss Financial Dialogue was held on 11 May, 2021 virtually through video conferencing.

Key points are:

*   Shri Ajay Seth, Secretary Economic Affairs led the Indian delegation.
*   The delegation from the Swiss side was led by Ms. Daniela Stoffel, State Secretary, State Secretariat for International Finance, Switzerland.
*   The Indian delegation included representatives from the Department of Economic Affairs, Department of Revenue, Department of Financial Services and Ministry of External Affairs.
*   The Dialogue, inter-alia, covered sharing of experiences by both countries for collaboration on various aspects including investments, International Financial Services Centre Authority (IFSCA), National Investment and Infrastructure Fund (NIIF), FinTech, sustainable finance and cross border financial services.
*   Further, matters relating to G20, IMF and tax challenges arising from the digitilisation of the economy was discussed along with infrastructure financing. Both the countries shared views and perspective on their respective countries and global economic scenario.
*   Both sides emphasised the importance of coordinated bilateral action on a clean and resilient post-COVID world.
*   The Dialogue concluded on a positive note for sustained future collaboration between both countries in the areas of mutual interest.
*   India and Switzerland have had cordial and friendly relations based on shared values of democracy and rule of law. India's policy of non-alignment and Switzerland's traditional policy of neutrality has led to a close understanding between the two countries.
*   Both the countries have several bilateral dialogue mechanisms in place and this Financial Dialogue remains amongst the most important.

To meet FATF demands, Pakistan government has to set new rules

Why in news?

Pakistan, in order to exit from the grey list of the FATF, is set to introduce new rules relating to money laundering and terror financing cases.

Changes being made include the transfer of investigations and prosecution of anti-money laundering (AML) cases from police, provincial anti-corruption establishments (ACEs) and other similar agencies to specialised agencies.

Key points are:

*   Based on these measures, the FATF would conclude if Pakistan has complied with three outstanding benchmarks, out of 27, that blocked its exit from the grey list in February this year.
*   Pakistan was put on the grey list by the Paris-based Financial Action Task Force (FATF) in June 2018 and the country has been struggling to come out of it.

- The Financial Action Task Force (FATF) is an inter-governmental body established in 1989 on the initiative of the G7.
- It is a "policy-making body" which works to generate the necessary political will to bring about national legislative and regulatory reforms in various areas.
- The FATF Secretariat is housed at the OECD headquarters in Paris.
- Initially it was established to examine and develop measures to combat money laundering.
- In October 2001, the FATF expanded its mandate to incorporate efforts to combat terrorist financing, in addition to money laundering.
- In April 2012, it added efforts to counter the financing of proliferation of weapons of mass destruction.
- The FATF currently comprises 37 member jurisdictions and 2 regional organisations, representing most major financial centres in all parts of the globe. It also has observers and associate members.

Important takeaways for all competitive exams:
Important ties between India and Nepal:
- The Kalapani issue
- Surya Kiran Military Exercise
- Sale of Darjeeling Tea affects illegal Nepal tea
- Madhesi and Terai Rights Movement
- Madhesi Crisis in Nepal

Net Zero Emissions (NZE) Roadmap named 'Net-Zero by 2050'.

Why in news?
Recently, the International Energy Agency (IEA) released its Net Zero Emissions (NZE) Roadmap – named 'Net Zero by 2050'.
Key points are:
- It is the World's first comprehensive energy roadmap that comes ahead of the United Nations Conference of the Parties (COP) 26 climate change convention in Glasgow, Scotland in November 2021.
- 'Net zero emissions' refers to achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere.
- Climate pledges by governments to date even if fully achieved would fall well short of what is required to bring global energy-related carbon dioxide (CO_2) emissions to net zero by 2050 and give the world an even chance of limiting the global temperature rise to 1.5 °C.
  The Roadmap aims;
- To examine the impacts of announced NZE pledges and what they might mean for the energy sector.
- To develop a new energy-sector pathway towards achieving NZE globally by 2050.
- To set out key policy recommendations for governments to act upon in the near-term, and a long-term agenda for change to achieve net-zero goals, including with a view to reaching other Sustainable Development Goals.
- Universal international cooperation, in which all countries contribute to net zero, with an eye to a 'just transition' and where advanced economies lead.

Iran- Farzad-B Gas Field

Why in news?
Recently, Iran gave the Farzad-B Gas Field to Petropars, a domestic gas producer.
Key points are:
- This is a setback for India's energy ties with Iran as ONGC Videsh Ltd (OVL) had discovered the gas field in 2008 and has been part of the ongoing cooperation on that front.
- Farzad-B Gas Field is located in the Persian Gulf (Iran).
- The contract for exploration of the field was signed in 2002 by an Indian consortium comprising ONGC Videsh, Indian Oil Corporation, and Oil India.
- The contract expired in 2009 after the declaration of commerciality of the field, based on the gas discovery.
- It has gas reserves of more than 19 trillion cubic feet. ONGC has invested approximately USD 100 million.
- The major dispute between India and Iran was over setting up of two pipelines, and also over money to be quoted on the development plan.
- Around 75% of the deal was finalised by May 2018, when the US unilaterally withdrew from the nuclear deal and announced sanctions on Iran.
- In January 2020, India was informed that in the immediate future, Iran would develop the field on its own and would like to involve India appropriately at a later stage.

Jerusalem Crisis

Why in news?

Tensions have been building up in Jerusalem since the start of Ramzan in mid-April between Israeli forces and Palestinians. Recently, Israeli armed forces stormed Al-Aqsa Mosque in the Haram esh-Sharif in Jerusalem. In retaliation, Hamas, the Islamist militant group that runs Gaza, fired dozens of rockets.

Key points are:

- Jerusalem has been at the centre of the Israeli-Palestinian conflict.
- According to the original 1947 UN Partition Plan, Jerusalem was proposed to be an international city.
- But in the first Arab Israel war of 1948, the Israelis captured the western half of the city, and Jordan took the eastern part, including the Old City that houses Haram esh-Sharif.
- Al-Aqsa Mosque, Islam's third holiest site, and the Dome of the Rock are situated within Haram esh-Sharif (Noble Sanctuary).
- Israel captured East Jerusalem from Jordan in the 1967 Six-Day War and annexed it later.
- Israel sees the whole city as its "unified, eternal capital", a claim endorsed by Donald Trump when he was U.S. President but not recognised by most other countries. Palestinian leaders across the political spectrum have maintained that they would not accept any compromise formula for a future Palestinian state unless East Jerusalem is its capital.

Israel-Palestine: Al-Aqsa Mosque & Sheikh Jarrah

Why in news?

Recently, Israeli armed forces attacked Al-Aqsa Mosque in the Haram esh-Sharif in Jerusalem, ahead of a march by Zionist nationalists commemorating Israel's capture of the eastern half of the city in 1967.

Key points are:

- The threatened eviction of dozens of Palestinian families in the East Jerusalem neighborhood of Sheikh Jarrah escalated the crisis further.
- Zionism is a worldwide Jewish movement that resulted in the establishment and development of the state of Israel and that now supports the state of Israel as a Jewish homeland.

About Al-Aqsa Mosque

- It is one of the holiest structures in the Islamic faith. It sits inside a 35-acre site known by Muslims as Haram al-Sharif, or the Noble Sanctuary, and by Jews as the Temple Mount.
- The site is part of the Old City of Jerusalem, sacred to Christians, Jews and Muslims.
- It is believed to have been completed early in the eighth century and faces the Dome of the Rock, the golden-domed Islamic shrine that is a widely recognized symbol of Jerusalem.
- The United Nations Educational, Scientific and Cultural Organization, UNESCO, has classified the Old City of Jerusalem and its walls as a World Heritage Site.

Israel: Iron Dome Air Defence System

Why in news?

Israel used its Iron Dome air defence system in recent violent clashes over Jerusalem.

Key points are:

- It is a short-range, ground-to-air, air defence system that includes radar and Tamir interceptor missiles that track and neutralise any rockets or missiles aimed at Israeli targets.
- It is used for countering rockets, artillery & mortars as well as aircraft, helicopters, and Unmanned Aerial Vehicles (UAV).
- It is capable of being used in all weather conditions, including during the day and night.
- It was developed by the state-run Rafael Advanced Defense Systems and Israel Aerospace Industries and was deployed in 2011.

- Rafael claims a success rate of over 90%, with more than 2,000 interceptions, however, experts agree the success rate is over 80%.
- It can protect deployed and manoeuvring forces, as well as the Forward Operating Base (FOB) and urban areas, against a wide range of indirect and aerial threats.
- The Iron Dome has three main systems that work together to provide a shield over the area where it is deployed which are:
- Radar: It has detection and tracking radar to spot any incoming threats.
- Weapon Control: It has battle management and weapon control system (BMC),
- Missile Fire: It also has a missile-firing unit. The BMC basically liaises between the radar and the interceptor missile.

Israel, Hamas agree to a ceasefire to end days of deadly fighting

Why in news?
Israel and the Palestinian militant group Hamas have agreed to a ceasefire, bringing to an end 11 days of bombardment, the heaviest flareup since the 2014 Gaza War, which has left over 240 people dead and threatened to destabilise the volatile region.

The ceasefire, which followed mounting pressure from the US, Egypt and other international brokers to halt the violence, came into effect on Friday.
Key points are:
- UN chief Antonio Guterres welcomed the ceasefire between Gaza and Israel after 11 days of deadly hostilities and stressed that Israeli and Palestinian leaders have a responsibility beyond the restoration of calm to start a "serious dialogue" to address the root causes of the conflict.
- Israel and Hamas agreed to a ceasefire on Thursday, halting a bruising 11day war that caused widespread destruction in the Gaza Strip.
- The 11-day war left more than 200 dead the vast majority of Palestinians and brought widespread devastation to the already impoverished Hamas-ruled Gaza Strip.
- But the rocket barrages that brought life to a standstill in much of Israel were seen by many Palestinians as a bold response to perceived Israeli abuses in Jerusalem, the emotional heart of the conflict.

Vineyard Wind Project

Why in news?
Vineyard Wind Project is the first major Offshore wind farm that is to power 400,000 homes. The project aims to install 84 turbines in the Atlantic Ocean.
Key points are:
- It is to be set up 12 Nautical miles off the coast of Matha's Vineyard.
- The project is capable of producing 800 MW of electricity. It is a 2.8 billion USD project.
- Currently, there are two major wind farms in the US. They are located off the coasts of Rhode Island and Virginia. And are currently some of the largest wind energy producing farms in the US. The size of the Vineyard project is huge that it will make these two projects look small.
- Apart from the Vineyard project, there are a dozen offshore wind projects planned along the East Coast.
- When all the projects are installed, it is estimated that more than 2,000 turbines will be churning the wind energy along the coast between North Carolina and Massachusetts.
- The US Administration has pledged to build 30,000 MW offshore wind projects by 2030.
- The White House is to allocate 12 billion USD of capital investments to achieve this.
- These steps are to support 77,000 direct and indirect jobs.
- The Electricity generated by the Vineyard Project is to travel through cables buried six feet below the ocean floor.
- The electricity is to be taken to Cape Cod. A substation is to be set up in Cape Cod.
- The project is to start delivering electricity by 2023.

Indo-US Dialogue on Public Health

Why in news?
Dr. Harsh Vardhan, Union Minister for Health and Family Welfare digitally interacted with Mr. Xavier Becerra, US Secretary of Health & Human Services on 7 May, 2021.
Key points are:
- In agreement with Mr. Becerra's propositions, Dr. Harsh Vardhan said, "Both nations have developed a strong collaboration in the area of public health which extends to build and enhance the co-operation and support in the unprecedented times of the COVID-19 pandemic."

- In this regard, he also observed, "It is highly appreciable to learn that the statements of solidarity between us are quickly manifesting as practical forms of support to enhance healthcare support and fight the pandemic. We are thankful and highly appreciate the support of the United States of America for medical supply."
- Secretary Becerra recounted the crisis in his country brought about by COVID-19 and expressed his empathy towards the suffering of Indians. He also assured of President Biden's unwavering commitment to engage, collaborate and fight COVID-19 together.
- Shri Lav Agarwal, Jt. Secretary (International Health Co-operation), India, Dr. Rochelle Paula Walensky, Director of the Centers for Disease Control and Prevention and Administrator, Agency for Toxic Substances and Disease Registry, USA, Dr. Loyce Pace, Executive Director of the Global Health Council and Member, President Joe Biden's COVID-19 Advisory Board, USA, Ms. Sarah Desperes, Counsellor to the Health Secretary, USA, Dr. Preetha Rajaraman, U.S. Health Attaché for India were also present at the meeting.

Prime Minister of Nepal loses Vote of Confidence

Why in news?
Recently, the President of Nepal Bidhya Devi Bhandari prorogued the Parliament after Prime Minister Oli lost a vote of confidence.
Key points are:
- Proroguing means to discontinue a session of parliament or legislative assembly.
- At the Nepali Parliament, a vote of Confidence was placed. The parliament has 271 members. Oli secured 93 votes in favour and 124 against.
- Recently, the Communist Party of Nepal (Maoist Centre) withdrew its support to the Government of Nepal. According to the party, Oli breached the constitution and is a threat to democracy in Nepal.
- The bilateral relations between India and Nepal weakened under Oli's leadership. Under his leadership, in May 2020, Nepal released a new political map that claimed Limpiyadhura, Kalapani and Lipulekh of Uttarakhand as a part of Nepal territory.

G7 Foreign Ministers' Meet

Why in news?
Recently, Foreign Ministers from the Group of Seven (G7) countries (USA, UK, Canada, France, Germany, Italy and Japan) held a meeting in London, UK. The 47th G7 Summit will be held in June 2021. The UK is the host country.
Key points are:
- Australia, India, South Korea, South Africa, and the Chair (Brunei Darussalam) of the Association of Southeast Asian Nations (ASEAN). Australia, India, South Korea, and South Africa will also join the G7 Summit in June.
- Russia's Irresponsible and Destabilising Behaviour: This includes the large build-up of Russian military forces on Ukraine's borders and in illegally annexed Crimea.
- Related to China: Human rights violations and abuses in Xinjiang and in Tibet, especially the targeting of Uyghurs, members of other ethnic and religious minority groups.
- Called on China to respect Hong Kong's high degree of autonomy and rights and freedoms (Basic Law).
- Condemned the military coup in Myanmar.
- Support for the centrality of ASEAN on the Indo-Pacific.
- Reiterated the importance of maintaining a free and open Indo-Pacific which is inclusive and based on the rule of law, democratic values, territorial integrity, transparency, the protection of human rights and fundamental freedoms, and the peaceful resolution of disputes.
- International Rules-based Order: This can be described as a shared commitment by all countries to conduct their activities in accordance with agreed rules that evolve over time, such as international law, regional security arrangements, trade agreements, immigration protocols, and cultural arrangements.

Important takeaways for all competitive exams:
Cryptocurrency work on blockchain technology. Examples are Bitcoin, Ethereum etc.

International Nurses Day

Why in news?

International Nurses Day is celebrated on 12 May every year.

Key points are:

- The birth anniversary of Florence Nightingale is celebrated as International Nurses Day.
- The day is celebrated to mark the contributions made by the nurses to society.
- The theme of International Nurses Day 2021 is Nursing the World to Health.
- International Nurses Day has been celebrated by the International Council of Nurses since 1965.
- Every year, on International Nurses Day, the International Council of Nurses distributes educational and public information materials to be used by nurses everywhere.

Science and Technology and Environment

Saturn's interior structure

Why in news?

The scientists at the John Hopkins University have simulated the interior of Saturn.

Key points are:

- The simulations say that a thick layer of Helium rain influences the magnetic field of the planet.
- The scientists have created two powerful computer simulations of the magnetic field of NASA based on the data from the Cassini mission. The simulations will help the scientists measure the rate at which Saturn rotates. This has been one of the several problems that vexed (difficult) scientists for decades.
- The center of Saturn is a dense core of metals such as iron and nickel. This dense core is surrounded by rocky materials. Further, it is enveloped by liquid metallic hydrogen inside a layer of liquid hydrogen. Its core is almost similar to the core of Jupiter but considerably smaller.
- Saturn stands out in the Solar system as its magnetic field is almost perfectly symmetrical around its rotational axis. The Cassini Mission of NASA helped scientists to understand the deep interior of the planet where the magnetic field is generated.

Important takeaways for all competitive exams:

A joint space mission of the European Space Agency, NASA, and Italian Space Agency is Cassini. It was called Cassini-Huygens mission. The first space probe to enter the orbit of Saturn is Cassini and it is also the fourth space probe to visit Saturn.

Global Methane Assessment

Why in news?

The United Nations recently launched the Global Methane Assessment. It was released by Climate and Clean Air Coalition (CCAC) and the United Nations Environment Programme. The Climate Clean Air Coalition is a global partnership of governments and non-state partners

Key points are:

- The report says that human-caused methane emissions can be reduced by 45% in 2020-30. These reductions will help to avoid 0.3 degrees Celsius of global warming by 2045.
- The Global Methane Assessment identifies solutions that is capable of reducing methane emissions by 30% by 2030. These solutions mainly target the fossil fuel sector. They are as follows:
- The potential to reduce methane levels are the highest in the waste sector in India and Europe.
- In China, the potential is in livestock and coal production.
- In Africa, it is in livestock and oil and gas.
- Apart from these targeted measures, additional measures such as renewable energy, reduction in food loss and waste, increasing residential and commercial energy efficiency will help to reduce methane emissions
- Methane is responsible for 30% of warming since the pre-industrial era.
- The human-caused methane emissions come from oil and gas processing, fossil fuels, landfills and waste, and agriculture.
- In spite of the economic slow down caused by the COVID-19 pandemic, data from the United States National Oceanic and Atmospheric Administration (NOAA) show that the amount of

methane in the atmosphere reached record levels in 2020.

- Carbon dioxide stays in the atmosphere for centuries. Unlike Carbon Dioxide, methane breaks down quickly. Meaning, very few actions can rapidly reduce the rate of global warming caused by methane.
- Methane accounts to one-fifth of global greenhouse gas emissions.

New NASA Earth System Observatory

Why in news?
NASA will design a new set of Earth-focused missions to provide key information to guide efforts related to climate change, disaster mitigation, fighting forest fires, and improving real-time agricultural processes.
Key points are:
- With the Earth System Observatory, each satellite will be uniquely designed to complement the others, working in tandem to create a 3D, holistic view of Earth, from bedrock to atmosphere.
- The observatory follows recommendations from the 2017 Earth Science Decadal Survey by the National Academies of Sciences, Engineering and Medicine, which lays out ambitious but critically necessary research and observation guidance.

Areas of focus for the observatory include:
Aerosols: Answering the critical question of how aerosols affect the global energy balance, a key source of uncertainty in predicting climate change.

Cloud, Convection, and Precipitation: Tackling the largest sources of uncertainty in future projections of climate change, air quality forecasting, and prediction of severe weather.
Mass Change: Providing drought assessment and forecasting, associated planning for water use for agriculture, as well as supporting natural hazard response.

Surface Biology and Geology: Understanding climate changes that impact food and agriculture, habitation, and natural resources, by answering open questions about the fluxes of carbon, water, nutrients, and energy within and between ecosystems and the atmosphere, the ocean, and the Earth.

Surface Deformation and Change: Quantifying models of sea-level and landscape change driven by

climate change, hazard forecasts, and disaster impact assessments, including dynamics of earthquakes, volcanoes, landslides, glaciers, groundwater, and Earth's interior.

- NASA is currently initiating the formulation phase for the observatory.
- Among its first integrated parts is NASA's partnership with the Indian Space Research Organisation (ISRO), which brings together two different kinds of radar systems that can measure changes in Earth's surface less than a half-inch.
- This capability will be utilized in one of the observatory's first missions intended as a pathfinder, called NISAR (NASA-ISRO synthetic aperture radar).
- This mission will measure some of the planet's most complex processes such as ice-sheet collapse and natural hazards such as earthquakes, volcanoes, and landslides.
- NISAR can assist planners and decision-makers with managing both hazards and natural resources in the future.

World's largest iceberg breaks off of Antarctica

Why in news?
Recently, an iceberg calved off from the continent of Antarctica. This iceberg is now the largest iceberg in the world. It has been named A-76.
Key points are:
- The satellites confirmed the observations made by British Antarctic Survey. The British Antarctic Survey was the first to notice the breakaway.
- Every time an iceberg calves out from Antarctica, it adds up to the rising sea levels. However, in this case, the ice shelf from which this berg carved out was already floating on water. The Ice Shelf from which A-76 calved out is called Ronne Ice Shelf.
- The Ice Berg is 170 kilometres long and 25 kilometres wide. The iceberg was spotted by a European Space Agency satellite called Copernicus Sentinel. It is a two-satellite constellation that orbits the earth's poles.
- The Ice Berg is now floating on the Weddell Sea. The Weddell Sea is a large bay in the Western Antarctic.

CCoV-HuPn-2018 Coronavirus

Why in news?
CCoV-HuPn-2018 Coronavirus, with is origin in dogs, was detected among patients hospitalised with pneumonia in 2017-2018 in Malaysia.

Key points are:

- As per the study, it may be the eighth unique coronavirus known cause disease in humans, once confirmed as pathogen. However, it does not poses pandemic risks currently.
- Researchers had tested nasal swab samples of 301 pneumonia patients at a hospital in east Malaysian state of Sarawak.
- Eight of the samples including samples of children under 5 years old, were tested positive for canine coronavirus.
- Its genomic sequencing a new strain, named CCoV-HuPn-2018, was found which had similar characteristics like coronaviruses causing infections in cats and pigs. However, it resembles mostly to one that infected dogs.
- Virus also comprised a genetic deletion, or mutation which was not found in any canine coronaviruses however, it was present in human strains like SARS-COV and SARS-COV-2.
- This virus causes COVID-19 (coronavirus disease 2019) and other respiratory illness. It is a positive-sense single-stranded RNA virus. It is contagious in humans.
- Its successor in SATS-CoV-1, which had caused 2002–2004 SARS outbreak. It has zoonotic origins and is genetically similar to bat coronaviruses.

UN bodies set up "One Health" panel

Why in news?
The World Health Organization and three other international bodies have formed a team of experts to help develop a global plan to prevent the spread of diseases from animals to humans.

Key points are:

- This initiative was launched by France and Germany in 2020, but held its first meeting in May 2021.
- The panel will advise WHO, World Organization for Animal Health, Food & Agriculture Organization, and United Nations Environment Programme on developing "risk assessment & surveillance frameworks" and help in establishing a "good practices to prevent and prepare for zoonotic outbreaks like Covid-19".
- Panel will look after the potential transmission risks in food production & distribution, urbanisation & construction of infrastructure, international travel & trade and activities leading to biodiversity loss & climate change
- Panel was set up in the backdrop of the outbreak of the COVID-19 pandemic.
- It is believed that coronavirus or SARS-CoV-2 virus was originated in wildlife trading networks in China and Southeast Asia. The closest genetic match of coronavirus has been found in bats.

Kyasanur Forest Disease

Why in news?
ICMR-NIV develops new point-of-care testing for Kyasanur forest disease. A new point-of-care test has been found to be highly sensitive in the rapid diagnosis of Kyasanur forest disease (KFD), also known as monkey fever, which is an emerging public health problem in the country.

Key points are:

- The point-of-care test would be useful in quick patient management and controlling further spread of the virus, said Dr Pragya Yadav, head of department of maximum containment facility, ICMR-NIV, and one of the researchers in the study.
- Developed by ICMR-National Institute of Virology, scientists said the use of such point-of-care tests would be beneficial for the diagnosis of KFD as the outbreaks mainly happen in remote areas, where there is lack of well-equipped sample handling and laboratory testing facilities.
- The point-of-care test would be useful in quick patient management and controlling further spread of the virus, said Dr Pragya Yadav, head of department of maximum containment facility, ICMR-NIV, and one of the researchers in the study.
- While the study has been approved for use in International Journal of Infectious Diseases, a pre-proof has been published online recently. ICMR-NIV, Pune, collaborated with Molbio Diagnostics Pvt Ltd, Goa, which has developed the microchip-based TruenatTM KFD Point of Care Test (PoCT).

- The point-of-care test includes a battery-operated PCR analyser, which is a portable, lightweight and universal cartridge-based sample pre-treatment kit and nucleic acid extraction device that aid in sample processing at the point of care.
- "In the present study, we have evaluated the microchip-based TruenatTM KFD Point of Care Test for the rapid diagnosis of KFD," Dr Yadav said.
- The study involved 145 clinical specimens, including human serum, monkey necropsy tissues and tick pool specimens to validate TruenatTM KFD PoCT for diagnosis of KFD.
- The PoCT was found to be highly sensitive, specific with a limit of detection of up to 10 copies of KFD viral RNA, the study found. Results on screening of human, monkey and tick specimens demonstrated 100 per cent concordant with the compared assays.
- This disease was first identified in Kyasanur forest of Shimoga district in Karnataka during an investigation of monkey mortalities in 1957.
- The disease is caused by a Kyasanur Forest disease virus, which primarily affects humans and monkeys.
- In nature, the virus is maintained mainly in hard ticks, monkeys, rodents and birds and transmitted via the bite of Haemaphysalis ticks and contact with carcasses of dead monkeys.

No link between 5G technology and the spread of COVID-19

Why in news?
It has come to the notice of the Department of Telecommunications (DoT), Ministry of Communications that several misleading messages are being circulated on various social media platforms claiming that the second wave of coronavirus has been caused by the testing of the 5G mobile towers. As per a press statement issued by DoT these messages are false and absolutely not correct.

Key points are:
- The press statement informs that the general public is hereby informed that there is no link between 5G technology and the spread of COVID-19 and they are urged not to be misguided by the false information and rumours spread in this matter.

- The claims linking the 5G technology with the COVID-19 pandemic are false and have no scientific basis.
- Moreover, it is informed that the testing of the 5G network has not yet started anywhere in India. Hence, the claim that 5G Trials or networks are causing coronavirus in India is baseless and false.
- Mobile towers emit non-ionizing Radio frequencies having very minuscule power and are incapable of causing any kind of damage to living cells including human beings.
- Department of Telecommunications (DoT) has prescribed norms for exposure limit for the Radio Frequency Field (i.e. Base Station Emissions) which are 10 times more stringent than the safe limits prescribed by International Commission on Non-Ionizing Radiation Protection (ICNIRP) and recommended by WHO.
- DoT has a well-structured process so that TSPs strictly adhere to these prescribed norms.
- However, any citizen having any apprehension about any mobile tower emitting radio waves beyond the safe limit prescribed by the department, a request for EMF measurements/testing can be made on the Tarang Sanchar portal.
- To allay the fear of the general public regarding the health effects of EMF emission from mobile tower, DoT has been taking several steps to generate awareness among the public about EMF radiation such as Nation-wide Awareness Programme, distribution of pamphlets/ information brochure on various topics related to EMF, publishing detailed information on EMF related issues on the website of DoT, advertisements in newspapers, the launch of "Tarang Sanchar" portal, etc.

- The field units of DoT have also been organizing public awareness events so that more and more people are made aware of the scientific facts on the health effects of EMF emissions from mobile towers.

Medication and Care for Mild COVID-19 Patients

Why in news?

AIIMS doctors provide guidance on Medication and Care for Mild COVID-19 Patients.

Key points are:

- The commonly observed symptoms among COVID-19 patients are fever, dry cough, tiredness, and loss of taste or smell.
- Irritation in the throat, headache, body ache, diarrhea, rash on the skin, and redness in the eyes are also observed in rare cases.
- If you observe any of these symptoms, you should immediately isolate yourself from others. This was informed by Dr. Neeraj Nishchal of AIIMS Delhi, during a webinar on "Medication and Care in Home Isolation", for patients who are tested positive for COVID-19.
- The webinar was organized by The Centre of Excellence of the Union Health and Family Welfare Ministry.
- 80 percent of infected patients experience very mild symptoms. If the RT-PCR test comes out to be negative, but symptoms are present, it is recommended to go for another test. Whether hospitalization is required is to be decided based on the intensity of the disease.
- The medications are to be taken in proper quantity and at accurate timing. Knowing about the medicine is not enough; patients should also know how and when they are to be taken, only then would it prove to be beneficial, said Dr. Neeraj.
- The decision of home isolation for patients above 60 years and with co-morbidities like Hypertension, Diabetes, Heart Disease, chronic ailments related to kidneys and lungs, should be taken only after consulting doctors.
  Here are some measures COVID-19 positive patients need to take, as part of managing the infection.
- Regular medicines should be taken, requirements for sanitization and cleanliness should be met. Medical grade masks should be stocked in advance.

- We should plan for daily essentials and prepare a list of contact numbers for health-related information, health workers, hotlines, etc. Along with this, contact numbers of friends, other family members, and neighbours should also be kept handy for emergency situations. Proper care and planning should be done also for the children in the family.
- Mild and asymptomatic patients should be kept in home isolation. Such patients should take utmost care to keep a safe distance from other family members, especially children. Medicines required frequently should be easily accessible by the patients.
- Proper and regular communication between caregiver and doctor is necessary. Positive patients should always wear a three-layered mask. Masks should be discarded after proper sanitization every 8 hours. The patient and caregiver both should wear N-95 masks while interacting with each other.
- Pulse Oximeter should be used to monitor oxygen levels in the body, very carefully. Artificial nails or nail polish should be removed before use and the patient's hand should be warmed if it is cold. Take rest for at least five minutes before testing.
- If the observation is constant for five seconds, the figure indicates oxygen level in your body. Remdesivir should never be taken at home. Positive attitude and regular exercise are a must for patients in home isolation, said Dr. Neeraj.
- If the oxygen level goes below 94, patients should be admitted, said Dr Manish of AIIMS Delhi, speaking about "Revised Guidelines for Mild COVID-19 patients during treatment'. While checking oxygen level, age of the patient and other chronic disease should be kept in mind.
- Informing about the use of Ivermectin, Dr. Manish said that its use depends on the immunity level and other patient-specific conditions. The same holds for the use of Paracetamol. Hence it one should only the medication advised by doctors.
- While informing about Fabiflu, he said, Maharashtra government's guidelines regarding COVID-19 treatment mention use of Fabiflu. The recommendation is based on the research done by Glenmark on 150 patients but Ivermectin is not included in the guidelines.

- Many patients insist on the use of Azithromycin, but the guidelines clearly discourage the use of these tablets. Same instructions are given about Revidox. It is not recommended to use Revidox in home isolation, said the doctor.

SPOT (Scalable and Portable Testing)

Why in news?

SPOT is Scalable and Portable Testing. The US scientists have invented a new COVID-19 Saliva Testing method called SPOT.

Key points are:

- SPOT was invented by a research team from the Carle Illinois College of Medicine.
- The SPOT gives COVID-19 test results in thirty minutes. The cost of the device is 78 USD.
- Apart from these the reagents and other testing devices are estimated to cost 6 to 7 USD. The device can be operated by anyone with minimal training.
- The test is very much similar to that of the RT-PCR. But it uses Reverse Transcriptase Loop-Mediated Isothermal Amplification (RT-LAMP).
- However, it does not need complex machinery or expertise. It can be completed quickly and is more accurate.
- The researchers tested 104 clinical samples using SPOT. Of these it accurately identified twenty-eight of thirty COVID-19 positive samples and 73 out of 74 COVID-19 negative samples.

Monoclonal antibody therapies

Why in news?

India is facing shortages of the two monoclonal antibody therapies – Itolizumab and Tocilizumab.

Key points are:

- Monoclonal antibodies are artificially created antibodies that aim to aid the body's natural immune system. They target a specific antigen a protein from the pathogen that induces an immune response.
- Monoclonal antibodies can be created in the lab by exposing white blood cells to a particular antigen.
- To increase the quantity of antibodies produced, a single white blood cell is cloned, which in turn is used to create identical copies of the antibodies.

- In the case of Covid-19, scientists usually work with the spike protein of the SARS-CoV-2 virus, which facilitates the entry of the virus into the host cell.
- In a healthy body, the immune system is able to create antibodies — tiny Y-shaped proteins in our blood that recognise microbial enemies and bind to them, signalling the immune system to then launch an attack on the pathogen.
- However, for people whose immune systems are unable to make sufficient amounts of these antibodies, scientists provide a helping hand-using monoclonal antibodies.

Johnson and Johnson COVID Vaccine in India

Why in news?

Biological E is to produce Johnson and Johnson COVID-19 vaccine along with its own vaccine. This is to boost the overall vaccine production in the country.

Key points are:

- A new Vaccine partnership was unveiled at the first Quad Summit.
- The four Quad countries namely India, Australia, US and Japan decided to pool their resources.
- They also decided to roll out 1 billion COVID-19 vaccines by 2022. According to the plan, the United States International Development Finance Corporation is to assist the Biological E.
- Johnson and Johnson Vaccine has been approved by United States Food and Drug Administration and the World Health Organisation.
- In India, Johnson and Johnson has sought permission to conduct clinical trials.
- It is an adenovirus vector-based COVID-19 vaccine. It is a single-dose vaccine. The other adeno virus-based vaccines such as Moderna and Pfizer are two-dose vaccines.
- The Biological E of India is to produce 600 million Johnson and Johnson Vaccine doses annually.
- It is to produce the Johnson and Johnson Vaccine along with its own vaccine. However, the manufacturing units of the vaccines will be different.
- Also, the Johnson and Johnson vaccine production is to be funded by the US.
- Biological E has plans to produce 75 million to 80 million doses of its own vaccine in Hyderabad. The drug was developed by Baylor College of Medicine in Houston.

Breakthrough Infection

Why in news?

Recently, public health experts announced that the increase in "breakthrough infections" in the country may be due to the mutant varieties.

Key points are:

- The Breakthrough infections are those where the COVID-19 virus (or any other virus) is detected in a person who has received two (or prescribed number) doses of vaccines. The person gets infected with the COVID-19 virus after the second dose.
- According to the Indian Council of Medical Research, around two to three breakthrough infections occur per 10,000 infections.
- In the US, 5,814 COVID-19 breakthrough infections were found out of 75 million vaccinated people.
- Causes of breakthrough infection are age, antibody interference, virus evolution, poor quality vaccine, etc.
- Appropriate vaccine dosages are essential. The vaccine dosages are fixed based on age and weight. If patients receive a lower dose than the recommended then there will be no adequate immune response.
- Vaccines with weaker strains that is of poor quality will fail to ensure future immunity.

Iran launched its supercomputer

Why in news?

Recently, Iran launched its supercomputer called Simorgh. This supercomputer is a hundred times more powerful than the previous Iranian supercomputers.

Key points are:

- The Supercomputer has been named after the phoenix-like bird called the Simurgh.
- The Simorgh Supercomputer was developed by the Amirkabir University of Technology in Tehran, the capital of Iran.
- It is located at the Iranian High-Performance Computing Research Centre.
- The performance capacity of the simorgh Supercomputer is 0.56 petaflops. It is to reach 1 petaflops in two months. In its subsequent levels, it is to reach a speed of 10 petaflops.

- It comprises of 42 racks in an area of 250 square metres. In future, this is to be upgraded to 400 square metres.
- The total budget of the supercomputer is expected to be 9 million USD.
- The Supercomputer is to be used for image processing, artificial intelligence workload, traffic, and weather data. It will also be used for cloud hosting local private firms.
  Important takeaways for all competitive exams
  The Whitley Award 2021 was won by Nuklu Phom of Nagaland. Whitley Awards are also known as "Green Oscar".

Anti-Covid drug 2-DG launched

Why in news?

Minister of Defence, Shri Rajnath Singh and Minister of Health and Family Welfare, Dr. Harsh Vardhan on 17 May, 2021 jointly launched the new COVID drug 2-DG at DRDO Bhawan.

Key points are:

- The anti-COVID-19 therapeutic application of the drug 2-deoxy-D-glucose (2-DG) has been developed by the Institute of Nuclear Medicine and Allied Sciences (INMAS), a lab of Defence Research and Development Organisation (DRDO), along with Dr Reddy's Laboratories (DRL), Hyderabad.
- In the COVID infected cells, it inhibits virus synthesis and energy production for the process.
- The drug will go to the selective cells and prevent the synthesis of the virus and reduce recovery time.
- Dr. Harsh Vardhan said that due to the efforts of the Defense Ministry and DRDO, several PSA plants have been successfully installed in Delhi and across the country.

ACCR Portal and 3rd version of Ayush Sanjivani App

Why in news?

Ayush Ministry marked yet another milestone on Thursday (27 May, 2021) by launching its' Ayush Clinical Case Repository (ACCR) portal and the third version of AyushSanjivani App in a virtual event.

Key points are:

- Minister of State (IC) for Youth Affairs and Sports and Ayush, Shri Kiren Rijijulaunched the portal as well as the new version of Sanjivani app.
- ACCR portal of successful clinical cases and the Sanjivani App will prove to be critical steps and

serve to neutralise the negative voices downplaying the contribution of India's traditional medicine systems.

- Ayush Secretary, Vd. Rajesh Kotecha said that the repository and the upgraded version of Sanjivani app are a part of a much larger digital health mission. "With the help of this repository and the app, Ayush will be able to take the scientific work further on AYUSH 64, KabasuraKudaneer etc.", the Secretary reiterated.
- It will serve as a platform to support both Ayush practitioners and the general public.
- This portal will greatly help in data mining and it will be for the first time that we will come to know how Ayush practitioners have actually responded to Covid-19 pandemic.
- It will document the strengths of Ayush systems for the treatment of various disease conditions.
- App would help Ayush to present itself more aggressively by utilising the scientific data gained through it.

OSIRIS-REx Mission

Why in news?
Recently, NASA's OSIRIS-REx spacecraft departed from asteroid Bennu, and started its two-year-long journey back to Earth.

Key points are:

- OSIRIS-REx is NASA's first mission to visit a near-Earth asteroid, survey its surface and collect a sample from it.
- The Mission is the United States' first asteroid sample return mission, aiming to collect and carry a pristine, unaltered sample from an asteroid back to earth for scientific study.
- The OSIRIS-REx (Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer) spacecraft was launched in 2016 for the journey to Bennu.
- The mission is essentially a seven-year-long voyage and will conclude when at least 60 grams of samples are delivered back to the Earth (in 2023).
- As per the National Aeronautics and Space Administration (NASA), the mission promises to bring the largest amount of extraterrestrial material back to the Earth since the Apollo era.
- Apollo was the NASA program that resulted in American astronauts' making a total of 11 space flights and walking on the moon (1968-72).

- The spacecraft contains five instruments meant to explore Bennu including cameras, a spectrometer, and a laser altimeter.
- Recently, the spacecraft's robotic arm called the Touch-And-Go Sample Acquisition Mechanism (TAGSAM), made an attempt to "TAG" the asteroid at a sample site and collected a sample.

60 Starlink Broadband Satellites are launched by SpaceX

Why in news?
Elon Musk's aerospace company. SpaceX launched 60 Starlink Broadband Satellites with Falcon 9 first stage booster into orbit. Satellites were launched from Space Launch Complex 40 in Florida.

Key points are:

- It was 13th Starlink launch in 2021 for SpaceX. 70 meters tall, Falcon 9 rocket was successfully lift-off marking the fourth time SpaceX launched a batch of Starlink satellites in a bid to expand flourishing broadband constellation.
- SpaceX will launch its next mission dubbed as "space station resupply mission" on June 3, 2021.
- This two-stage-to-orbit had also launched Sentinel-6A mission earlier.
- It was the 85th landing by SpaceX's reusable launch system development program.
- SpaceX has been developing technologies since several years to provide a system of rapid reusable launch of space vehicles.
- Usually, the first stage of Vehicle does not return after a launch but SpaceX has developed a technology through which vehicle returns, few hours after mission is launched, for reuse.
- Starlinks is a satellite internet constellation, constructed by SpaceX, providing satellite Internet access. Constellation comprises thousands of mass-produced small satellites in low Earth orbit (LEO).
- These satellites communicate with designated ground transceivers. The development of Starlink started in 2015 and its Two prototype test-flight satellites were launched in 2018. In May 2019, it deployed 60 operational satellites.

Black Fungus (Mucormycosis)

Why in news?

Mucormycosis, a rare but serious fungal infection, is being detected relatively frequently in Covid-19 patients across India.

Key points are:

- The disease, also known colloquially as "black fungus", was made notifiable by the government on Thursday, making it mandatory for states to report both suspected and confirmed cases to the Integrated Disease Surveillance Programme (IDSP).
- The disease manifests in the skin, affects lungs and brain, and can lead to loss of the upper jaw or eye.
- It has been declared a notified disease in Haryana, the national COVID-19 task force has issued an advisory and the Union Health Ministry has asked states/UTs to declare Black Fungus as an epidemic.
- Infection is caused by mucormycetes, a group of molds or fungus abundant in the environment.
- It mainly affects sinuses/lungs of people with health problems or on medicines that lower body's ability to fight germs or sickness, including those with diabetes, cancer, organ transplant, hospitalised or recovering COVID-19 patients (Treated with steroids and other anti-inflammatory drugs).
- Symptoms are pain, redness around eyes and/ or nose, fever, headache, coughing, shortness of breath, bloody vomits and altered mental status.

White Fungus cases are also on rise

Why in news?

After black fungus infection being called an epidemic and a notifiable disease in some states, medical experts have cited alarms over the discovery of a white fungal infection.

Key points are:

- Considered to be more deadly and lethal than black fungus, reports suggest that at least 4 cases pertaining to the white fungus infection have been detected in Patna, Bihar and many more might be undiagnosed at this stage.
- Both white and black fungus infections are caused by fungi moulds, called 'mucormycetes' present in the environment.

- While the disease isn't contagious, a person is said to be vulnerable to the infection since these moulds can be easily inhaled by a patient, which can further spread to vital organs and cause complications.
- Both white and black fungus infections are caused by fungi moulds, called 'mucormycetes' present in the environment. While the disease isn't contagious, a person is said to be vulnerable to the infection since these moulds can be easily inhaled by a patient, which can further spread to vital organs and cause complications.
- It is important to note that any immunocompromised person can contract the infection if they come in contact with any surface that contains these moulds, such as water and other unsanitary environments.
- While black fungus infection is hazardous, what makes white fungus infection even more lethal is the manner in which it spreads and causes profound damage to the vital organs- capable of impacting the brain, respiratory organs, digestive tract, kidneys, nailbed or even the private parts.
- As with many infections, a white fungus infection causes the most damage to a person who has a low immune threshold. Thus, a person with low immunity, or already at risk of other comorbidities, or using immuno-suppressant medications has a high risk of catching the white fungal infection.
- People suffering from conditions like diabetes, cancer and other comorbidities, which require continuous steroid usage could also face the risk of catching the infection.

- As seen in maximum cases right now, most people detected with the white fungus infection showcased respiratory symptoms similar to COVID-19, but ended up testing negative for the virus.
- Expert opinions suggest that getting X-ray or chest scans can accurately predict how severe the disease is, and how vital organs might be affected.
- Symptoms of the disease could also present similarly to that of the black fungus infection in cases. However, for those suffering from severe infection, when the fungus spreads to the lungs, more complicated symptoms may be seen.
- While there is not enough information available on the matter, most doctors suggest that white fungus can affect the chest and the lungs, and hence, a person can experience symptoms like cough, chest pain, breathlessness.
- Apart from the same, the infection can also cause many other inflammatory symptoms, such as swelling, infections, persistent headaches and pains.
- Additionally, patients under-recovery from coronavirus can also face the risk of complications because of underlying conditions and therapies.
- Reports suggest that most patients diagnosed with white fungus are being treated with antifungal medication and are recovering well.
- Thus, the only line of treatment known includes fungal medications. However, since there is a shortage of medications, early detection of cases is required.

Third Arctic Science Ministerial

Why in news?
The Ministry of Earth Science recently announced that India participated in the Arctic Science Ministerial meeting. The Union Minister Dr Harsh Vardhan represented India at the meeting.

Key points are:
The theme of 2021 Arctic Ministerial Meeting was: Knowledge for the Sustainable Arctic.

- India shared plans for research and long-term cooperation in the Arctic during the meet.
- India promised to continue its contributions to the Sustained Arctic Observational Network.
- India also announced that it will deploy open ocean mooring in the Arctic for long term monitoring of upper ocean variables and marine meteorological parameters. Mooring is a collection of devices connected to a wire and anchored to the seafloor.
- India proposed to host the next or future Arctic Science Ministerial meet.
- The first two Arctic Science Ministerial meeting were held in USA in 2016 and in Germany in 2018.
- This meeting that was held in 2021 was organised by Japan and Iceland and is the first meeting to be held in Asia.
- It aims to provide opportunities to various stakeholders such as governments, academia, policymakers to enhance collective understanding of the Arctic region.

Important takeaways for all competitive exams:
Since 2013, India is an "Observer" in the Arctic Council. In 1920, India's engagement in the Arctic region started with the signing of the Svalbard Treaty of Paris. In 2008, India constructed a permanent research station in the Arctic region. It is called Himadri. Himadri is located at NyAlesund, Norway.

Lumpy Skin Disease

Why in news?
Lumpy Skin Disease is a viral illness that causes prolonged morbidity in cattle and buffaloes. The Bihar government sounded an alert and issued an advisory about the likely spread of the disease. In India, which has the world's highest 303 million heads of cattle, the disease has spread to 15 states within just 16 months.

Key points are:
- It is caused by the poxvirus Lumpy skin disease virus (LSDV).
- It appears as nodules of two to five centimetre diameter all over the body, particularly around the head, neck, limbs, udder (mammary gland of female cattle), and genitals. The lumps gradually open up like large and deep wounds.
- It spreads through mosquitoes, flies, and ticks and also through saliva and contaminated water and food.
- LSD is endemic to Africa and parts of West Asia, where it was first discovered in 1929.
- In Southeast Asia, the first case of LSD was reported in Bangladesh in July 2019.
- In India, it was first reported from Mayurbhanj, Odisha in August 2019.
- There is no treatment for the virus, so prevention by vaccination is the most effective means of control.

Human Para Influenza Viruses (HPIV)

Why in news?

Scientists have recently found out a new way to block the attachment of HPIV (Human Para Influenza Viruses).

Key points are:

- The HPIV is the leading cause of death in childhood respiratory infections. More than 30% to 40% of children die due to respiratory illness.
- The HPIV latches onto the cells and injects genetic materials into the cells. This is done so that the genetic material injected starts making new viruses. The scientists have now found a way to block this entry. This method is highly efficient in blocking HPIV-3.
- The virus uses a specialised fusion protein that resembles a three-sided corkscrew to enter human cells. Earlier cholesterol and beta-amino acids were found to block the HPIV. However, they were not efficient. Scientists have now created a new peptide combining the previously found cholesterol and beta-amino acids.
- Gellman's lab discovered that modified beta-amino acids containing peptides can block viruses.
- Moscona Protto lab earlier hooked the peptide to a molecule of cholesterol. This created a greasy cell membrane that blocked the virus.
- When the above two methods were combined, the anti-viral efficacy tripled.

SpaceX's Starship landing

Why in news?

Serial number 15 (SN15), a prototype of the futuristic Starship rocket developed by Elon Musk's SpaceX company. It was able to launch and successfully land on Wednesday, heralding a new era in space exploration for NASA.

Key points are:

- The latest successful landing is a relief for NASA and SpaceX, as four previous prototypes of Starship had failed to do so, getting destroyed during or soon after touchdown at the southeastern tip of Texas, near Brownsville.
- Reusability is at the heart of making interplanetary travel accessible, SpaceX believes since a majority of the launch cost is attributed to the expense of building a rocket that is ultimately designed to burn up during re-entry.

- Starship can deliver satellites further and at lower marginal costs than Falcon vehicles and it can ferry both cargo and crew to the International Space Station (ISS).
- Once developed, Starship is also expected to help carry large amounts of cargo to the Moon, for human spaceflight development and research.
- Beyond the Moon, the spacecraft is being designed for carrying crew and cargo for interplanetary missions as well.

About Starship

- It is full-scale, stainless steel, bullet-shaped rocketship built by SpaceX.
- The spacecraft has been described as a game-changer for space travel, being a fully reusable transportation system for crew and cargo to the Earth's orbit, Moon and Mars.
- SpaceX has described Starship as "the world's most powerful launch vehicle" with an ability to carry over 100 metric tonnes to the Earth's orbit.

National Technology Day

Why in news?

The Prime Minister, Shri Narendra Modi has praised the scientists and those passionate about technology on National Technology Day which is celebrated on 11 May every year.

Key points are:

- This day serves as a reminder of India breaking into the elite group of nations with nuclear weapons.
- On May 11, 1998, India conducted three successful nuclear tests at the Indian Army's Pokhran Test Range in Rajasthan under Operation Shakti. Two more nuclear tests were conducted on May 13.
- The tests were led by late President Dr. APJ Abdul Kalam. The National Technology Day was observed for the first time on May 11, 1999.
- The National Technology Day 2021 theme is "Science and Technology for a Sustainable Future".
- In 2020, the theme was 'Rebooting the Economy through Science, Technology and Research Translations' titled 'RESTART'.
- Also, on National Technology Day, India's first-ever indigenous aircraft, Hansa-1, took flight and the DRDO tested the surface-to-air Trishul missile. It is a short-range missile with a quick reaction time.

Person in News

Shri N.Rangasamy

Why in news?

The Prime Minister, Shri Narendra Modi has congratulated Shri N.Rangasamy Ji on taking oath as Puducherry CM.

In a tweet, the Prime Minister said:

"I would like to congratulate Shri N.Rangasamy Ji on taking oath as Puducherry CM. Best wishes for the tenure ahead.

Shri M K Stalin

Why in news?

The Prime Minister, Shri Narendra Modi has congratulated Shri M K Stalin on being sworn as Tamil Nadu Chief Minister.

In a tweet, the Prime Minister said :

"Congratulations to Thiru @mkstalin on being sworn-in as Tamil Nadu Chief Minister."

Shesh Narayan Singh

Why in news?

The Prime Minister, Narendra Modi has expressed grief over the death of the senior journalist Shesh Narayan Singh ji.

The Prime Minister said that he will always be remembered for his significant contribution to the world of journalism. PM Narendra Modi conveyed his condolences to the family.

Times Group Chairperson Smt Indu Jain

Why in news?

The Prime Minister, Shri Narendra Modi has condoled the demise of Times Group Chairperson Smt Indu Jain ji.

In a tweet, Shri Modi said :

"Saddened by the demise of Times Group Chairperson Smt. Indu Jain Ji. She will be remembered for her community service initiatives, passion towards India's progress and deep-rooted interest in our culture. I recall my interactions with her. Condolences to her family. Om Shanti."

Shri Kantisen Shroff

Why in news?

The Prime Minister, Shri Narendra Modi has expressed sadness over the demise of Shri Kantisen Shroff (Kaka).

In a tweet, The Prime Minister called Shri Kantisen Shroff, a kind hearted man of Gujarat who in addition to being a successful industrialist, contributed a lot for the upliftment of small artisans.

V Tejaswini Bai

Why in news?

The Ministry of Youth Affairs & Sports (MYAS) has approved an amount of Rs 2 Lakh for Karnataka's V Tejaswini Bai, who won the Arjuna Award in 2011 and was a member of the Women's Kabaddi team that won gold medals at the 2010 and 2014 Asian Games respectively.

Key points are:

- The financial assistance has been approved from the Pandit Deendayal Upadhyay National Welfare Fund for the Sportspersons, under the ongoing jointly collaborated initiative from the Sports Authority of India, Indian Olympic Association and the MYAS to support ex-international athletes and coaches amid ongoing Covid-19.

- Tejaswini and her husband contracted Covid-19 on May 1. While she has a little cough but is on the path of recovery at home, her husband Naveen succumbed to the virus on May 11. "He was just 30 but he was panicking a lot after the death of his father. It was the fear and stress that took his life," Tejaswini mentioned.

- On the financial assistance, she added, "I was not expecting this but the Sports Ministry, SAI and IOA took very prompt action to take this decision of giving us the assistance. This is the first time that we have been given such support. Many people like us have financial problems and if we get the proper help, it feels good."

- Tejaswini informed that she came to know about the initiative from the Karnataka Sports committee member and former Arjuna Awardee Mr Honnaappa Gowda and now wants to invest the money to safeguard the future of her child. "I have to take care of my 5 months old baby and also invest on her future from this money. I am the only parent now and will have to do something for my child," she said.

Energy Commission chairman Dr. Srikumar Banerjee

Why in news?

The Prime Minister, Narendra Modi has expressed grief over the passing away of Former Atomic Energy Commission chairman Dr. Srikumar Banerjee.

In a tweet, the Prime Minister said, "Dr. Srikumar Banerjee will be remembered for his pioneering contributions to Indian science, especially in the areas of atomic energy and metallurgy. He was also an outstanding mentor and institution builder. Saddened by his passing away. Condolences to his family. Om Shanti."

Guillermo Lasso

Why in news?

Guillermo Lasso inaugurated as the first right-wing Ecuador president in 14 years.

Key points are:

- Conservative Guillermo Lasso assumed the presidency of Ecuador on 24 May, 2021 the country's first right-wing leader in 14 years.
- The 65-year-old former banker beat left-wing economist Andres Arauz in a second-round run-off last month and succeeds the hugely unpopular Lenin Moreno.
- Lasso was sworn into office by Guadalupe Llori, the president of the National Assembly.
- He inherits an oil-producing country battling economic and health crises with the coronavirus pandemic having infected almost 420,000 people and killed more than 20,000, according to an AFP count.
- Amongst the foreign dignitaries to attend his inauguration was Jair Bolsonaro of Brazil, Haiti's Jovenel Moise, and Luis Abinader of the Dominican Republic, as well as Spain's King Felipe VI.
- His first challenge will be to rejuvenate an economy that contracted by 7.8 percent in 2020 and where overall debt stands at 63 percent of GDP.
- Lasso is a believer in the free-market economy and has named Simon Cueva, a former employee of the International Monetary Fund, as his economy and finance minister.

- He at least begins with an approval rating of 60 percent, according to pollsters Cedatos, and a lesson from his predecessor whose popularity plummeted from 53 percent to just nine percent during his four-year reign.
- His victory by almost five percentage points over Arauz was seen as a rejection of the politics of Correa, who currently lives in Belgium avoiding an eight-year sentence for corruption.

Veer Savarkar Jayanti

Why in news?

The Prime Minister, Narendra Modi has paid tributes to Veer Savarkar on his Jayanti. Today is the birth anniversary of Swatantraveer Savarkar

Key points are:

- Whole nation remembers him on this day for his heroic acts and selfless contribution to our nation.
- He is remembered as a lawyer, a poet, an author, a social reformist, a freedom fighter among other things.
- He was a versatile person with a command in every subject matter he dealt with. Hence, it becomes speak about his life in a few hundred words.
- When he was confined to a cellular jail in Andaman in 1911, which required him to perform rigorous physical work, he never veered away from his ultimate goal and thus utilised that period in producing powerful literary works including various everlasting poems like Sagara pran talamalala, ne majasi ne-parat matrubhumila etc.
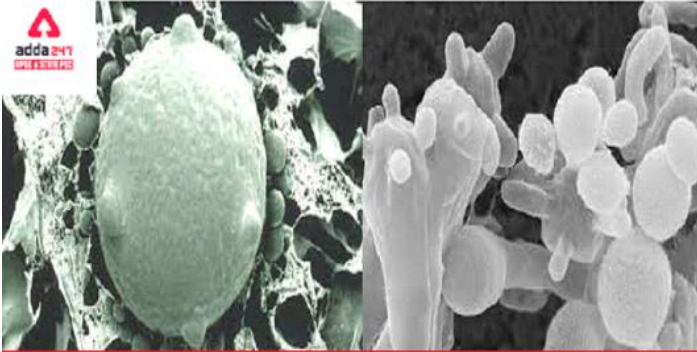
- Savarkar had unique qualities with very straightforward thoughts based on rational and scientific thinking.
- He had unapologetic, uncompromising nationalism.

- Savarkar's patriotism was also demonstrated by his unique characteristic as a social reformer.
- He was bold enough to face, question and fight the negativities of society that were stopping Indians from attaining true freedom.

What is White Fungus and why it is more dangerous than Black Fungus?

What is White Fungus and why is it dangerous?

Central Government asks states to notify black fungus an epidemic. Black fungus is also known as mucormycosis. Nowadays, some cases of white fungus have been reported which is also a fungal infection.

Where new cases of White Fungus has been found?
The new cases of White Fungus have been found in Patna, Bihar. Dr. Arunesh Kumar, senior consultant and head of respiratory medicine/pulmonology, Paeas Hospital said that infection via white fungus is more dangerous than black fungus.

Why is White Fungus more dangerous than black fungus?
As per experts, White Fungus is more dangerous than black fungus because it damages various parts of the body and spreads in the lungs. It also shows severe effects on the kidney, mouth, skin, and brain. Young children are also being affected by White Fungus.

According to some doctors, the white fungus also infects the lungs and an infection similar to COVID-19 is detected then HRCT is performed on the infected patient.

As per the Chief of Microbiology at PMHC, Dr. S. N Singh said that around four persons infected by White Fungus showed coronavirus-types of symptoms but they were not COVID-19 positive. But patient's lungs were found infected and after tests when they were provided with anti-fungal medicines they recovered.

He further said that just like back fungus, the white fungus is also more dangerous for those who have weak immunity.

Who is at more risk of getting infected by White Fungus?
As per Dr. S. N Singh, diabetes patients and those who are taking steroids for a long period of time are more at risk of getting infected with White Fungus. It is also affecting coronavirus patients who are on oxygen support. It directly affects the lungs of these patients. Against white fungus, cancer patients are also on alert as per doctors. It also infects children and woman as according to the doctors it is the main reason for Leucorrhoea

Dr. Singh said that it is easy to prevent the infection caused by the White Fungus by sanitising the oxygen or ventilator properly.

Symptoms of White Function infection
As discussed above the symptoms of White Fungus is similar to the COVID0-19 infection. It attacks the lungs and so the HRCT test can confirm the rare fungal infection in the infected patients.

Symptoms can be cough, fever, diarrhoea, dark spots on the lungs, reduced oxygen level, etc.

How White Fungus spread in the body?
As per the professor of AIIMS Dr. Kaushal Verma, the White Fungus begins from the tongue or private parts due to which it makes the tongue white. It then spreads to other organs like lungs, brains, food pipes, etc.

Why are children at greater risk of White Fungus?
The White Fungus infects children and women as per doctors and so is considered dangerous as it is the main reason for Leucorrhoea.

In fact, the disease occurs in the newborn in the form of diaper candidiasis in which cream coloured spots appear and in young children it causes oral thrust.

What is 5G, its testing and claims linked with COVID-19?

What is 5G, its testing and claims linked with COVID-19?

The latest wireless mobile phone technology that was first deployed in 2019 is 5G or fifth generation. But nowadays, the next-generation mobile networks are in some ways responsible for the disease. What is your opinion about it?

Have a look at the article below for more details about 5G technology, potential health risks from 5G, etc.

It is expected that 5G will increase performance and a wide range of new applications like strengthening e-Health including telemedicine, remote surveillance, telesurgery, etc.

The main difference between 5G and previous technologies are:

5G acts as an evolution in telecommunication standards. To increase performance, it will extend into higher frequencies of about 3.5 GHz and up to a few tens of GHz.

Frequencies that are higher are new to mobile phone networks but are mostly used in various applications including point-to-point radio links and body scanners for security checks.

At such higher frequencies, networks of 5G will use a greater number of base stations and of connected objects. It will also employ beam-forming antennas to focus signals more efficiently towards the device in use, rather than having the signal spread in broad directions as in current base station antennas.

The potential health risks from 5G are:

According to WHO, to date and after a lot of research there are no adverse effects that are linked with exposure to wireless technologies. The conclusions related to health are drawn from the studies that are performed from across the entire radio spectrum but, so far, only a few studies have been carried out at the frequencies to be used by 5G.

Between radiofrequency fields and the human body, tissue heating is the main mechanism of interaction. The exposure of radiofrequency levels from current technologies results in negligible temperature rise in the human body.

According to WHO, as frequency increases, there is less penetration into the tissues of the body, and absorption of the energy becomes more confined to the surface of the body whether skin or eye. It is provided that the overall exposure remains below international guidelines, no consequences for public health are anticipated.

On the electromagnetic fields, two international bodies produce exposure guidelines. Several countries adhere to the guidelines recommended by:

- The International Commission on Non-Ionizing Radiation Protection and,
- The Institute of Electrical and Electronics Engineers, through the International Committee on Electromagnetic Safety.
  Let us inform you that these guidelines are not technology-specific. They cover radio frequencies up to 300 GHz, including the frequencies under discussion for 5G.

What is WHO doing?

WHO is conducting a health risk assessment from the exposure to radio frequencies that covers the entire radiofrequency range, including 5G, to be published by 2022.

The scientific evidence will also be reviewed by the WHO that is related to the potential health risks from 5G exposure as the new technology is deployed and as more public health-related data become available.

Also, in 1996, WHO established the International Electromagnetic Fields (EMF) Project.

The project looks into the health impact due to the exposure to electric and magnetic fields in the frequency range from 0 to 300 GHz and advises national authorities on EMF radiation protection.

Further, WHO advocates research into the possible long-term health impacts of all aspects of mobile telecommunications. The Organisation develops public information materials and promotes dialogue among scientists, governments, and the public to increase understanding around health and mobile communications.

Claims regarding the linkage of 5G to the coronavirus or COVID-19

We can't ignore that 5G is the next generation of mobile networks that promises much faster speeds and connectivity. So how can it be linked with the spread of coronavirus?

There are several claims regarding it. But it is important to understand that the opposition to 5G networks has been there before the coronavirus pandemic. Various anti-5G and stop 5G groups are there on platforms like Facebook. Several oppositions claim that as 5G is more powerful then it will cause more harmful radiation to humans, 5G towers may cause cancer, and so on.

Various claims also state that satellites are being launched for 5G that will emit some more powerful radiation onto the Earth. Also, the 5G rollout does not need satellites.

There is no evidence that cellphone towers cause any kind of harm to the human body. And it has been seen that with the coronavirus spread new kinds of links are being made. On other platforms, conspiracy theorists argue by saying that 5G's radiation weakens the immune system so it helps in the spread of the coronavirus quickly. But, it can't be ignored that still, India doesn't have 5G and there are thousands of cases of coronavirus.

As per the tweet of the US singer Keri Hilson, the conspiracy theory angles to her 4.2 million followers, which claimed that once China's 5G system went live on November 1, 2019, the deaths started, and that it had nothing to do with the virus. Later, she deleted the tweet claiming the management asked her to do so, but the idea itself has stuck.

Till now there is no such kind of scientific evidence that links 5G to the coronavirus or any other kind of disease. 5G will also not weaken the immune system and also it does not cause cancer. In fact, one can draw parallels with this to the anti-vaccine movement, though that is considerably larger on social media platforms.

It is also said that the new pandemic presents an excellent opportunity to other platforms to exploit this false claim. The time is unprecedented with so little knowledge about the coronavirus and how it will continue to impact the world. Also, false theories are easy to accept rather than the harsh truth.

Source:who,indianexpress

Expected Questions and Answers for UPSC 2021 Prelims

1. **Consider the following statements regarding the Indian Bankruptcy and Insolvency Code (IBC).**
   1. The IBC was enacted in 2016, replacing a host of laws.
   2. The Code also consolidates provisions of the current legislative framework to form a common forum for debtors and creditors of all classes to resolve insolvency.

   Which of the following statement(s) is/are correct?

   (a) Only 1
   (b) Only 2
   (c) Both 1 and 2
   (d) Neither 1 nor 2
   Ans. (c)

2. **Which of the following is the second most commonly used fertilizer in India?**
   (a) Urea
   (b) Di-Ammonium Phosphate (DAP)
   (c) P&K
   (d) Phosphorus
   Ans. (b)

3. **Consider the following statements.**
   1. Insolvency is a situation where individuals or companies are unable to repay their outstanding debt.

   2. Bankruptcy is a legal declaration of one's inability to pay off debts.

   Which of the following statement(s) is/are correct?
   (a) Only 1
   (b) Only 2
   (c) Both 1 and 2
   (d) Neither 1 nor 2
   Ans. (c)

4. **Which of the following country hosted the 7th meeting of the BRICS Astronomy Working Group (BAWG)?**
   (a) India
   (b) Brazil
   (c) Russia
   (d) South Africa
   Ans. (a)

5. **How many sites in India have been added in the tentative list of UNESCO world heritage sites?**
   (a) Two
   (b) Four
   (c) Six
   (d) Eight
   Ans. (c)

6. **Consider the following statements regarding a Covid-19 antibody detection kit called 'Dipcovan'.**
   1. The Dipcovan kit can detect both spike as well as nucleocapsid (S&N) proteins of SARS-CoV-2 virus with a high sensitivity of 97 % and specificity of 99%.

   2. The kit has a shelf life of 12 months.

   Which of the following statement(s) is/are correct?
   (a) Only 1
   (b) Only 2
   (c) Both 1 and 2
   (d) Neither 1 nor 2
   Ans. (a)

7. **What is the 'Vax and Scratch' programme?**
   1. It is a new vaccination programme that will provide free lottery tickets to those individuals over the age of 18 years who choose to get vaccinated from one of the ten state-run sites.
   2. It is a programme started in Singapore.

Which of the following statement(s) is/are correct?
(a) Only 1
(b) Only 2
(c) Both 1 and 2
(d) Neither 1 nor 2
Ans. (a)

8. **What is the theme of International Day for Biological Diversity 2021?**
   (a) "We're part of the solution".
   (b) "Our solutions are in nature".
   (c) "Our Biodiversity, Our Food, Our Health".
   (d) "Celebrating 25 Years of Action for Biodiversity".
   Ans. (a)

9. **Consider the following statements regarding the Kalakshetra.**
   1. It is a centre for artistic endeavour.
   2. Founded in 1930 by the vibrant visionary Rukmini Devi Arundale.

   Which of the following statement(s) is/are correct?
   (a) Only 1
   (b) Only 2
   (c) Both 1 and 2
   (d) Neither 1 nor 2
   Ans. (a)

10. **What is Bao-dhaan?**
    1. It is an iron-rich rice variety grown in the Brahmaputra valley of Assam.
    2. The first consignment of this 'red rice' variety was sent to the US from Assam recently.

    Which of the following statement(s) is/are correct?
    (a) Only 1
    (b) Only 2
    (c) Both 1 and 2
    (d) Neither 1 nor 2
    Ans. (c)

11. **Consider the following statements regarding the Treaty of Bassein.**
    1. The Treaty of Bassein (Now called Vasai) was a pact signed on December 31, 1802, between the British East India Company and Baji Rao II, the Maratha Peshwa of Pune (Poona) after the Battle of Poona.
    2. The treaty was a decisive step in the dissolution of the Maratha Confederacy, which led to the East India Company's usurpation of the Peshwa's territories in western India in 1818.

Select the correct answer by using the given options:
(a) Only 1   (b) Only 2
(c) Both 1 and 2   (d) None of the above
Ans. (c)

12. **Consider the following statements regarding the administrative and judicial reforms of Warren Hastings.**
   1. Establishment of a Board of Revenue at Calcutta.
   2. Appointment of Indian Judges in Criminal Courts.
   3. Abolishing the judicial functions of the Zamindars.

   Select the correct answer from the codes given below:
   (a) 1 and 2 only   (b) 2 only
   (c) 1 and 3 only   (d)1, 2 and 3
   Ans. (d)

13. **What is called Dharamchakra?**
   (a) A chakra which is a weapon of Lord Vishnu in Hindu Mythology.
   (b) A chakra that has 24 spokes in the central white band in the Indian Flag.
   (c) The first sermon of Mahavira Jain.
   (d) None of the above
   Ans. (b)

14. **Who among the following leaders has observed that 'Directive Principles of State Policy are like a cheque on a Bank payable at the convenience of the bank'?**
   (a) Pt. Jawahar Lal Nehru
   (b) Prof. K T Shah
   (c) Dr. B R Ambedkar
   (d) KM Munshi
   Ans. (b)

15. **Which among the following statements is not correct?**
   (a) Life Divine is a work of Shri Aurobindo Ghosh.
   (b) In 1765 British acquired the Diwani of Bengal, Bihar, and Orissa.
   (c) Phoenix Ashram was founded by Mahatma Gandhi.
   (d) All the above statements are correct.
   Ans. (d)

16. **Narrow water area attached with a mainland in the form of channels, known as "Kayals" are found in-**
   (a) Kerala   (b) Karnataka
   (c) Odisha   (d) Maharashtra
   Ans. (a)

17. **Six sites added to India's tentative list of UNESCO world heritage sites.**
   1. Maratha military architecture in Maharashtra.
   2. Hire Bengal megalithic site in Karnataka.
   3. Bhedaghat-Lametaghat of Narmada Valley in Madhya Pradesh.
   4. Ganga Ghats in Varanasi, Uttar Pradesh.
   5. Temples of Kancheepuram in Tamil Nadu.
   6. Satpura Tiger Reserve in Madhya Pradesh.

   Which above the following sites are not in the list of UNESCO world heritage sites? Choose from the given options.
   (a) 1, 2, 5 and 6   (b)1, 2, 3, 4, 5 and 6
   (c) 2, 3 and 4   (d) None of these
   Ans. (d)

18. **Consider the following statements regarding 'A-76'.**
   1. It is an Iceberg that is recently calved off from the continent of Antarctica. This iceberg is now the largest iceberg in the world.
   2. The iceberg was spotted by a European Space Agency satellite called Copernicus Sentinel.

   Select the correct answer by using the given options:
   (a) Only 1   (b) Only 2
   (c) Both 1 and 2   (d) Neither 1 nor 2
   Ans. (c)

19. **Which bank has launched the digital platform 'Merchant Stack' to provide banking services to retail merchants?**
   (a) ICICI Bank   (b) HDFC Bank
   (c) State Bank of India   (d) Yes Bank
   Ans. (a)

20. **The CCEA approved the strategic disinvestment of which bank, owned by the Government of India and LIC?**
   (a) Bank of Baroda   (b) IDBI Bank
   (c) Canara Bank   (d) Syndicate Bank
   Ans. (b)

21. **Read the following statements regarding 'Damini' and choose the correct option.**
    (a) The Uttar Pradesh State Road Transport Corporation (UPSRTC) launched a helpline for women called 'Damini', to improve the safety of women in public road transport. This scheme is launched as a part of the Central Government initiative of 'Nirbhaya Scheme'.
    (b) The helpline number subscribed for this scheme is '81142-77777', which will have both calling and WhatsApp service.
    (c) The helpline will be handled by women officers at the headquarters and zonal offices of UPSRTC, which will be operational from 9 am to 6 pm daily.
    (d) All the above options are correct.
    Ans. (d)

22. **Consider the following statements regarding a scheme 'SERVICE'.**
    1. Union Minister for Petroleum & Natural Gas and Steel has recently launched a volunteer scheme 'SERVICE' for the employees of the Indian PSU Steel Authority of India Limited (SAIL).
    2. SAIL Employees Rendering Volunteerism & Initiatives for Community Engagement (SERVICE) is made operational from the foundation day of the company, which is on January 24.
    3. Under the scheme, the employees are encouraged to voluntarily indulge themselves in social activities, with the main focus on education, health, and women empowerment.
    Choose the correct answer by using the given options.
    (a) 1, 2 and 3   (b) 2 and 3
    (c) 3 only   (d) 1 and 2
    Ans. (a)

23. **The famous Indo-Greek ruler Menander I was set up his capital at which of the following places?**
    (a) Sialkot   (b) Pathankot
    (c) Kabul   (d) Rajkot
    Ans. (a)

24. **Which among the following sites of Indus Valley Civilisation the rows of distinctive fire altars with the provision of ritual bathing have been found?**
    (a) Harappa   (b) Mohen-jo-daro
    (c) Kalibangan   (d) Lothal
    Ans. (c)

25. **Consider the following statements regarding the French East India Company.**
    1. It was a government-backed concern.
    2. It was chartered by King Louis XIV.
    3. It was abolished in 1769, two decades earlier than the French Revolution.
    Choose the correct option from the codes given below.
    (a) 1 only   (b) 2 and 3 only
    (c) 1 and 3 only   (d) 1, 2 and 3
    Ans. (d)

26. **In which of the following years Vijay Laxmi Pandit became the first woman President of the United Nations General Assembly (UNGA)?**
    (a) 1949   (b) 1951
    (c) 1953   (d) 1959
    Ans. (c)

27. **Which among the following acts was the first attempt to regulate the affairs of English East India Company in India?**
    (a) The Regulating Act 1773
    (b) Charter Act 1813
    (c) Pitts India Act 1784
    (d) Charter Act of 1833
    Ans. (a)

28. **Which of the following institutes has demonstrated the conversion of Nitrogen Generator into Oxygen Generator?**
    (a) IIT Delhi   (b) IIT Bombay
    (c) IIT Madras   (d) IIT Guwahati
    Ans. (b)

29. As per the India Meteorological Department on Climate of India Arabian Sea on India's west coast saw a 400% rise in cyclones, a record that is repeated only after 1902. Which five cyclones hit the Arabian Sea in 2019?
(a) Vayu, Pabuk, Kyarr, Bulbul and Pavan
(b) Vayu, Pabuk, Kyarr, Bulbul and Fani
(c) Pabuk, Vayu, Kyarr, Bulbul and Fani
(d) Vayu, Hikka, Kyarr, Maha and Pavan
Ans. (d)

30. Large deposits of natural uranium have been found in the Tummalapalle belt in which among the following states of India?
(a) Andhra Pradesh   (b) Telangana
(c) Kerala   (d) Tamil Nadu
Ans. (a)