

WEEKLY CURRENT AFFAIRS MAGAZINE for



U.P.S.C. - C.S.E.

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1 May to 7 May



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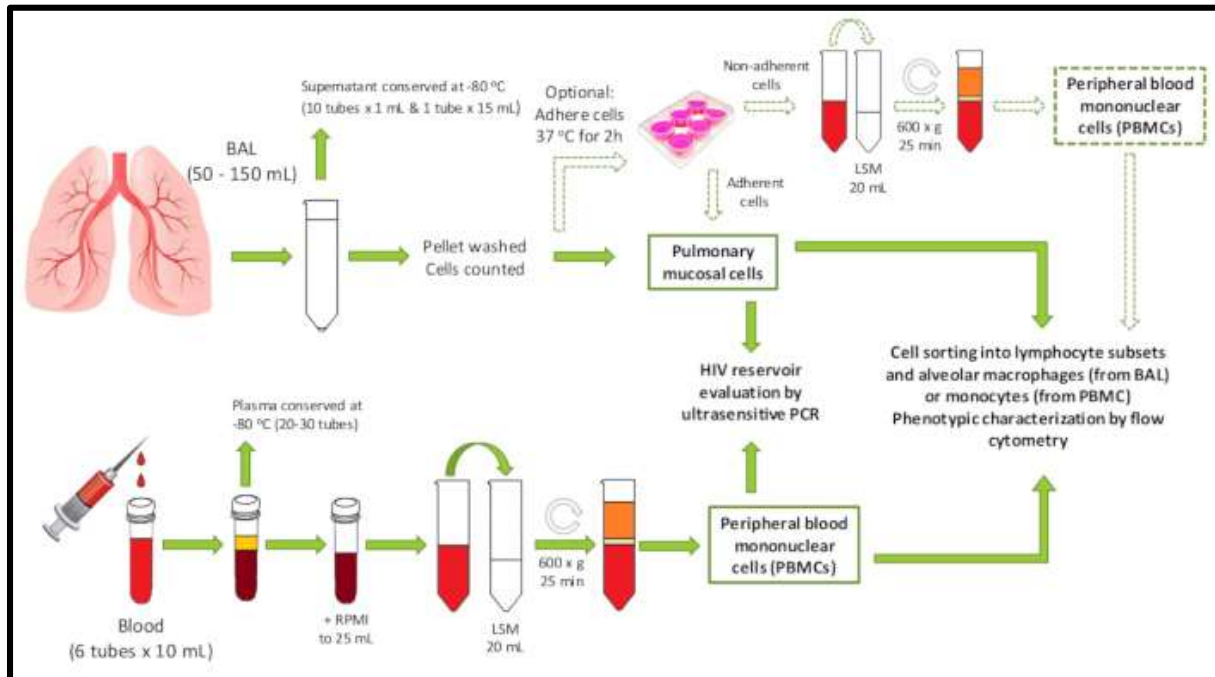
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Success is born of action...

Topic 1: BRONCHOALVEOLAR LAVAGE

Importance for Prelims: Science & tech



A number of symptomatic patients who tested false negative in RT-PCR assays have later been confirmed Covid-positive in Bronchoalveolar lavage (BAL) tests.

- Bronchoalveolar lavage (BAL) (also referred to as bronchoalveolar washing) is a diagnostic method of the lower respiratory system within which a bronchoscope is passed through the mouth or nose into an applicable airway within the lungs, with a measured quantity of fluid introduced and so collected for examination.
- This technique is usually performed to diagnose infective infections of the lower respiratory airways (leading to, for instance pneumonia and COVID-19), though it also has been shown to have utility in diagnosis of lung illness.
- Bronchoalveolar lavage will be a lot more sensitive method of detection than nasal swabs in metastasis molecular medical specialty, as has been the case with SARS-CoV-2 where

bronchoalveolar irrigation samples detect copies of viral rna when negative nasal swab testing.

- In explicit, bronchoalveolar irrigation is usually wont to diagnose infections in people with system issues, respiratory illness in individuals on ventilators, and acute respiratory distress syndrome (ARDS).

Topic 2:PETA

Importance for Prelims: International Organisations



Epicurious, one in every of the world’s most well-liked formula websites, declared that it will now not be publishing any beef-related content. individuals for moral Treatment of Animals (PETA), that represented the move as “terrific”.

- People for the ethical Treatment of Animals is an yankee animal rights organization based mostly in port, Virginia, and diode by Ingrid Newkirk, its international president.
- The nonprofit corporation claims 6.5 million supporters. Its saying is “Animals are not ours to experiment on, eat, wear, use for recreation, or abuse in any other way”.
- It focuses on four core issues—opposition to works farming, fur farming, animal testing, and also the use of animals in recreation.

- It additionally campaigns for a vegan life-style and against uptake meat, fishing, the killing of animals regarded as pests, the keeping of bound grounds dogs, cock fighting, dog fighting, beekeeping, and bullfighting

Topic 3. LEGAL METROLOGY (PACKAGING RULES)

Importance for Prelims: Governance



Importers of medical devices, used notably for providing element support to Covid-19 patients, are currently allowed to import these devices while not previous mandatory declaration for succeeding 3 months, the Ministry of shopper Affairs aforesaid in anotification.

- The importers will create all necessary declarations once the custom clearance, but before they're sold to customers. The Legal metrology (Packaged Commodities) Rules, 2011, create it necessary to induce the approvals before the import.
- Department of consumer Affairs, administers the Legal science Act 2009. The act provides for application of legal needs to measurements and measuring instruments.
- The objective of Legal metrology is to confirm public guarantee from the purpose of view of security and accuracy of the weighments and measurements.
- The Legal science (Packaged Commodities), Rules 2011 are primarily meant to ensure that the consumers are ready to create up on selections by being up on ofessential declarations on the pre-packed commodities.

Topic 4. YUDHVIR SINGH

Importance for Prelims: Important Personalities

The Vice President of India presented the ‘Yudhvir Memorial Award’ to Hyderabad-based gynaecologist, Dr. Evita Fernandez in recognition of her service for the cause of women’s healthcare and empowerment. He also paid tributes to late Yudhvir Singh.

- Yudhvir Singh (1897 – 1983) was an Indian freedom fighter, politician and homeopathic doctor.
- He was a member of the Arya Samaj, and edited the publication Arya-Kumar.
- He was a leader of the Indian National Congress in Delhi. He took part in the pro-independence struggles of 1932, 1941 and the Quit India Movement of 1942.
- In 1935 Singh became the secretary of the Delhi Pradesh Congress Committee. In 1937 he became a municipal commissioner of Delhi, a post he held until 1952.
- He served as Minister, Health and Rehabilitation, Industries and Labour and Rationing and Jail in the Delhi State government between 1955 and 1956.
- During his tenure the Delhi Homeopathic Act was passed (the Act came into force on 1 October 1956).
- Singh was presented with Padma Shri in 1971 and later with Padma Bhushan in 1977 by the government.

Topic 5. EMERGENCY FINANCIAL POWERS

Importance for Prelims: Defence / Governance

Armed Forces given emergency money powers to combat Covid.

- In a handout, the Defence Ministry same Singh “invoked special provisions and granted Emergency money Powers to the militia to empower them and speed up their efforts in do the current” second wave of the pandemic. The powers, it said, will facilitate the formation of commanders “to establish and operate quarantine facilities/hospitals and undertake procurement/repair of equipment/items/material/stores, besides provisioning of varied services and works required to support the continued effort against the pandemic”.
- Vice Chiefs of the military, Navy and Air Force, as well as Chief of Integrated Defence Staff To The Chairman Chiefs Of staff Committee (CISC) and General Officer Commanding-in-Chiefs and equivalents of all three services are given full powers, the ministry same.
- The Corps Commanders and area Commanders of the forces are delegated powers upto Rs 50 lakh per case.
- For the acquisition under the emergency orders, the forces needn't even take concurrence of the Integrated money advisor from the defence finance department.
- The powers are given for a three-month quantity.

Topic 6. RAJYA SABHA ELECTION CONTROVERSY

Importance for Prelims: Polity

BIO

SAFETY

LEVELS



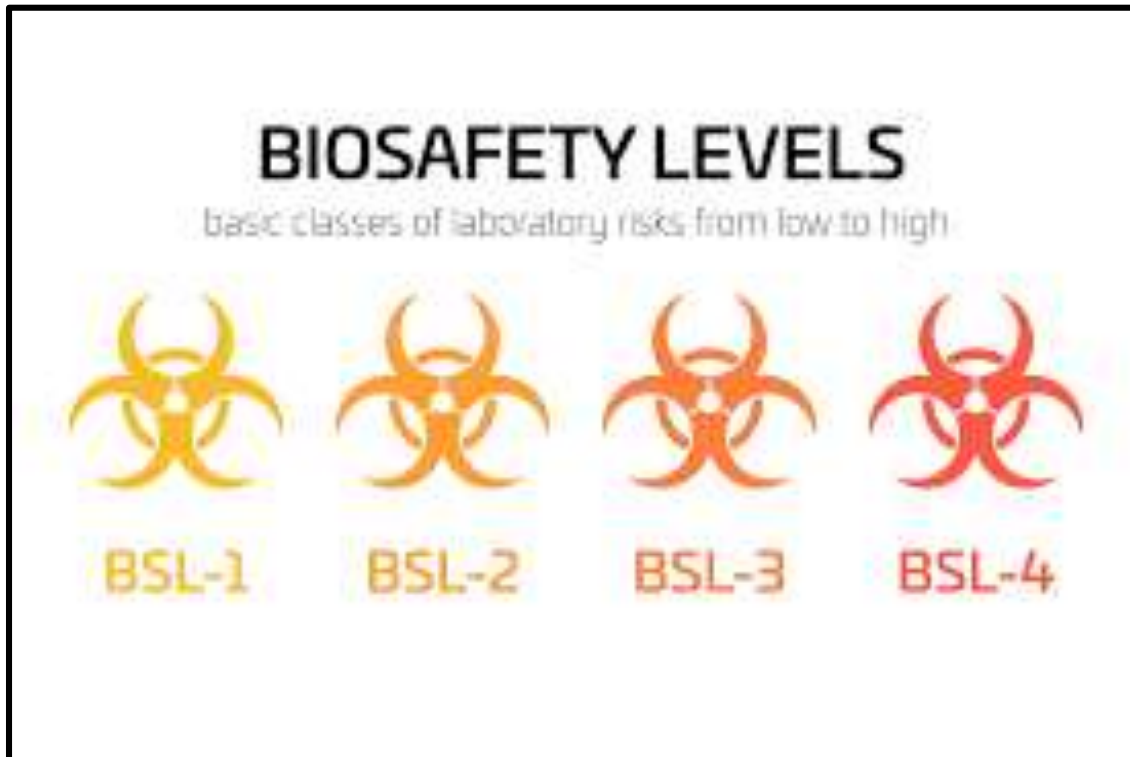
Kerala RS polls: when Govt nudge, EC bust 25-yr tradition till HC stepped in.

- On March twenty three, every day before the Rajya Sabha elections were set to be notified, the Union Law Ministry wrote to the international organisation that since selection in Kerala would finish April vi, holding Rajya Sabha elections on Apr twelve (before the results on night 2) “may not reflect the desire of the individuals.”
- Just every day when the Union Law Ministry created its suggestion, the Election Commission reversed its own order and went against a 25-year tradition to suspend elections to 3 Rajya Sabha seats from Kerala.
- That polemical move was rejected by the Kerala high court and also the three members were electoral unopposed on Apr twenty three. Process of Rajya Sabha Election
- The representatives of the States and of the Union Territories within the Rajya Sabha are electoral by the strategy of indirect election.

- The representatives of every State and 2 Union territories are elected by the elected members of the general assembly of that State and by the members of the body for that Union Territory, because the case could also be, in accordance with the system of representation by means that of the only transferable vote.
- The Rajya Sabha seat quota for every state is fastened as per Schedule 4 of the constitution. Elections to 1/3 of those seats occur each 2 years

Topic 7. BIO SAFETY LEVELS

Importance for Prelims: Science & tech



Biosafety Level	BSL-1	BSL-2	BSL-3	BSL-4
Description	<ul style="list-style-type: none"> No Containment Defined organisms Unlikely to cause disease 	<ul style="list-style-type: none"> Containment Moderate Risk Disease of varying severity 	<ul style="list-style-type: none"> High Containment Aerosol Transmission Serious/Potentially lethal disease 	<ul style="list-style-type: none"> Max Containment "Exotic," High-Risk Agents Life-threatening disease
Sample Organisms	E.Coli	Influenza, HIV, Lyme Disease	Tuberculosis	Ebola Virus
Pathogen Type	Agents that present minimal potential hazard to personnel & the environment.	Agents associated with human disease & pose moderate hazards to personnel & the environment.	Indigenous or exotic agents, agents that present a potential for aerosol transmission, & agents causing serious or potentially lethal disease.	Dangerous & exotic agents that pose a high risk of aerosol-transmitted laboratory infections & life-threatening disease.
Autoclave Requirements	None	None	Pass-thru autoclave with Bioseal required in laboratory room.	Pass-thru autoclave with Bioseal required in laboratory room.

Haffkine to sign MoU with India Biotech for sharing technology. On April 28, the Maharashtra government

had approved Rs 94 crore for the development and setting up of a bio safety level 3 facility in Haffkine's Parel premises.

Different safety Levels

- Biosafety Level 1: it's applied to the laboratories wherever the work is carried out with very low-risk microbes that don't cause any infection within the adults. One such non-infectious strain is E.coli.
- Biosafety Level 2: it's applied to the laboratories wherever work is done out with moderately morbid organisms. Agents worked in level 2 embody HIV, encephalitis virus.
- Biosafety Level 3: The pathogens which will cause serious health hazards are worked under level 3.
- Biosafety Level 4: The level 4 laboratory works with the microbes Ebola and marburg virus that are typically fatal and don't have any treatment or vaccines.

Topic 8. ARTICLE 311(2) (C)

Importance for Prelims: Polity

In the first such order, a J&K government teacher, who in the police records is a Tehreek-e-Hurriyat (TeH) supporter, was terminated from his services without holding any inquiry “in the interest of the security of the State”.

- The J&K government has constituted a Special Task Force (STF) for identifying and scrutinising the government employees who are involved in any cases related to posing threat to the security or anti-national activities.
- STF will scrutinise cases of employees suspected of activities requiring action under Article 311(2)(C) of the Constitution.

Under provisions of Article 311 (2)(c):

- Where the President is satisfied that the retention of a person in public service is prejudicial to the security of the State, his services can be terminated without recourse to the normal procedure prescribed in Article 311 (2).
- The satisfaction referred to in the proviso is the subjective satisfaction of the President about the expediency of not giving an opportunity to the employee concerned in the interest of the security of the State.
- This clause does not require that reasons for the satisfaction should be recorded in writing.
- That indicates that the power given to the President is unfettered and cannot be made a justifiable issue, as that would amount to substituting the satisfaction of the court in place of the satisfaction of the President.

Safeguards to civil servants:

- Article 311(1) : It says that a civil servant cannot be dismissed or removed by any authority subordinate to the authority by which he was appointed.

- Article 311(2): It says that a civil servant cannot be removed or dismissed or reduced in rank unless he has been given a reasonable opportunity to show cause against action proposed to be taken against him.

Topic 9. JAIPUR SENIA GHARANA

Importance for Prelims: Culture

Sitar exponent Pt Debu Chaudhuri, leader of the Jaipur-Seniaghara, was a successful artist whose impeccable technique and melodious shows will always be remembered

- The word “Senia” is said to Tansen, the daddy of Indian classical music. The word “Gharana” implies a mode of music.
- The followers of Tansen’s faculty of music are widely referred to as the followers of “Seniaghara” (i.e. “Seniya” style/school of music).
- The followers of this “gharana” might either be connected with the family of Tansen or by the age previous tradition of “Guru–Shishyaparampara” (teacher to student relation).
- Tansen was a vocalist however this tradition has additionally made nice sitar Maestros.
- The “Senia” type of stringed instrument taking part in started with the legendary nice master of stringed instrument, Ustad Maseet Sen from the family of Tansen, the creator of “Maseetkhani” vogue.
- On the idea of scanti records on the market, Maseet Sen, emerges as a direct descendent within the sixth generation from Mian Tansen. Even nowadays, once many hundred years, the far-famed “Maseetkhani Baaj” remains vied by the normal Sitar players of India.
- The sitar players of “Senia Gharana” were, at a later stage referred to as the sitarists of “Jaipur-Senia Gharana”.
- One of the best Maestro’s of this “Gharana” was Ustad Barkat Ullah Khan of Jaipur, referred to as “Aftab–e-Sitar”, who created this instrument additional fashionable and had no parallel to him.

Topic 10. VARIANTS OF CONCERN

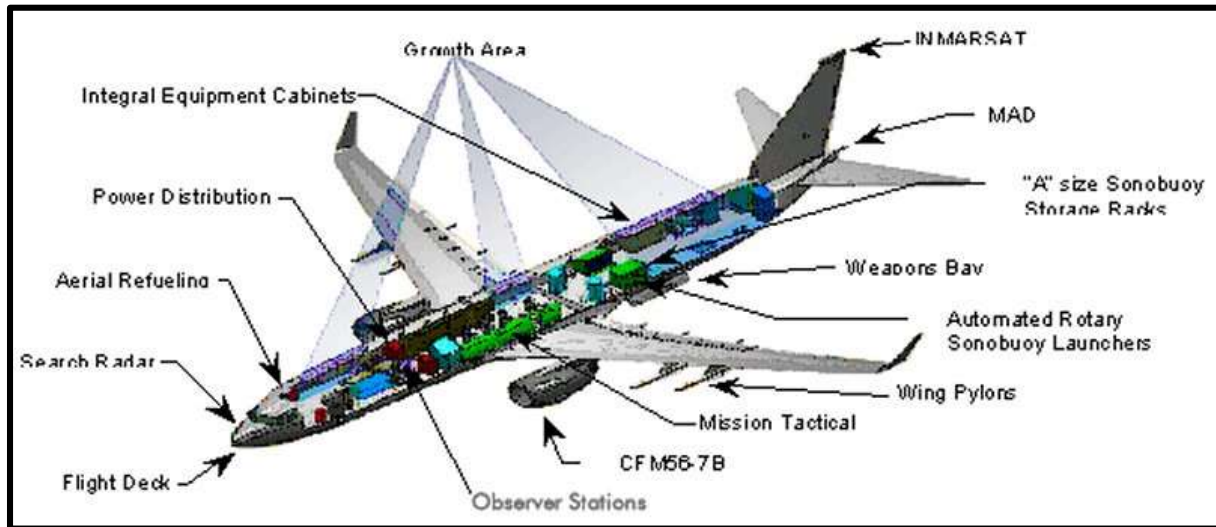
Importance for Prelims: Science & tech

In several countries, together with India, the VOC, by virtue of increased transmissibility, have come into being new wave(s) of epidemic transmission.

- The term variant of concern (VOC) may be a class used throughout the initial assessment of a recently emerged variant of an epidemic. Before this, an arising variant might have been labeled a “variant of interest”.
- During or once fuller assessment as a “variant of concern” the variant is typically assigned to a lineage within the pangolin language system and to clades in the Nextstrain and GISAID systems.
- There are 3 different schemes of language of SARS-CoV-2 variants.
- The wide used one is that the ‘Phylogenetic Assignment of worldwide happening Lineages’ (PANGOLIN) that uses a hierarchical system supported genetic connection – an invaluable tool for genomic police work.
- For convenience, the 3 most frequent ones are named by their earth science of origin — ‘U.K. variant’ for B.1.1.7; ‘South Africa variant’ for B.1.351; and ‘Brazil variant’ for P.1.
- Variants in India embrace the questionable double mutant B.1.617 spreading in Maharashtra and B.1.618 spreading in West Bengal.
- During the pandemic, the virus Severe acute metabolism syndrome coronavirus 2 (SARS-CoV-2) was determined to change, with bound combos of specific point mutations proving to be additional regarding than others.
- This was chiefly for reasons of transmissibility and virulence, and additionally with regard to the doable emergence of escape mutations.

Topic 11. P 8I PATROL AIRCRAFT

Importance for Prelims: Defence



Recently, the Biden Administration has notified the Congress of its determination to sell six P-8I patrol aircraft to India for an estimated cost of USD 2.42 billion.

- The Indian Navy had procured eight P-8I aircraft from Boeing in January 2009 via direct commercial sale and contracted for an additional four aircraft in July 2016.
- The first P-8I aircraft were delivered to the Indian Navy in 2013, providing critical capabilities to coalition maritime operations.

P-8I Patrol Aircraft

- It is a long-range, multi-mission maritime patrol aircraft offered by Boeing for the Indian Navy.
- It replaced the ageing fleet of the Indian Navy's Tupolev Tu-142 aircraft.
- The P-8I aircraft is a variant of the P-8A Poseidon multi-mission maritime aircraft (MMA) operated by the US Navy.
- The aircraft is equipped with a CAE AN/ASQ-508A magnetic anomaly detection (MAD) system, APS-143C (V) 3 multimode radar and a global version of the Raytheon APY-10 surveillance radar.

- The APY-10 radar provides precise information in all-weather, day and night missions.
- The P-8I aircraft can fly at a maximum speed of 789km/h and can reach a maximum altitude of 12,496m.

Topic 12. PUTOLA NACH

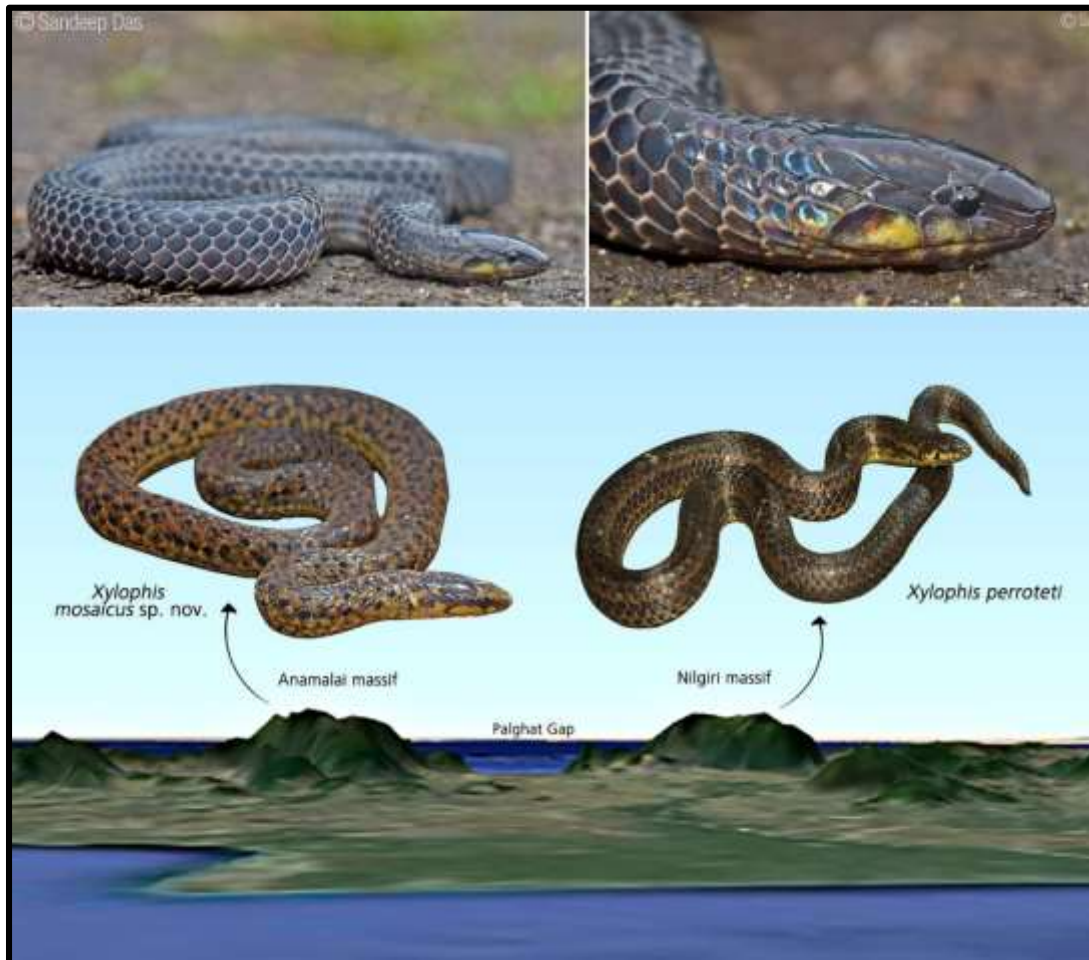
Importance for Prelims: Culture

The COVID-19 pandemic has provided an Assam-based trust the chance to focus on a near-forgotten style of string puppetry known as PutolaNach.

- The string puppetry of assam is termed PutalaNach and is performed in 3 areas with distinct characteristics.
- These areas are Barpeta-Nalbari in western assam, Kalaigaon in northern assam and Majuli “island” in eastern Assam.
- The Ramayana, either in its totality or by episodes, is performed, similarly as scenes from the Mahabharata. The puppeteers are happy to feature dialogues or chants taken from bhaona, the local traditional theatre.

Topic 13. XYLOPHIS DEEPAKI

Importance for Prelims: Environment



Herpetologist Deepak Veerappan has a snake named once him.

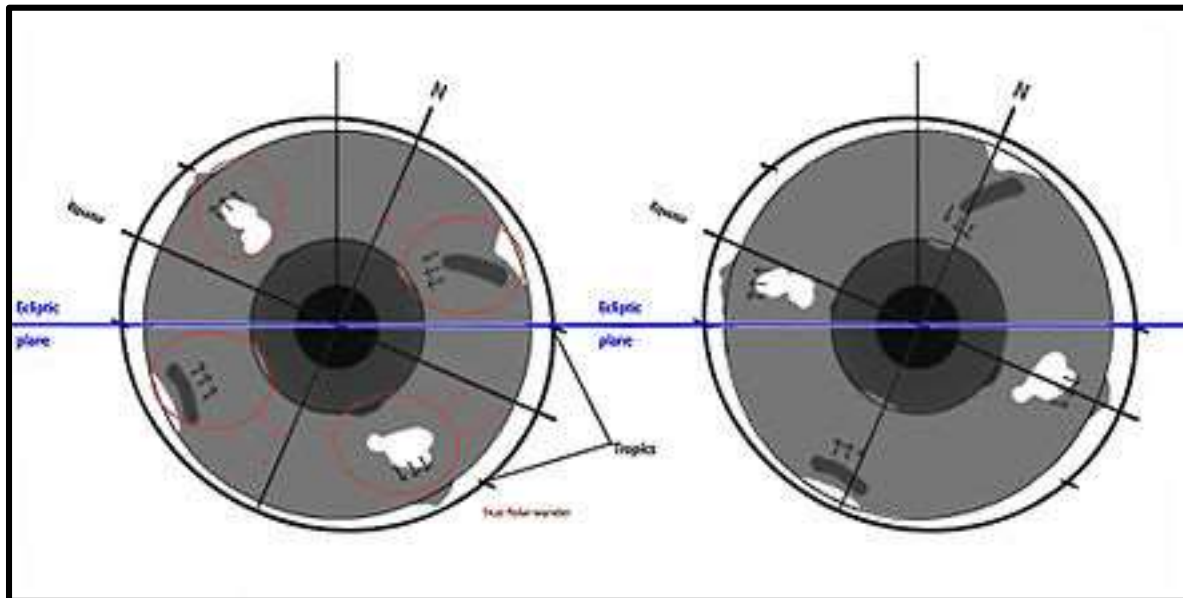
- In the primary four months of 2021, the Western Ghats bestowed new butterflies, frogs, fruit flies, and even a fresh crab.
- Joining the list may be a small snake of just twenty cm length with iridescent scales –Xylophisdeepaki, 1st stumbled upon in a coconut plantation in Kanyakumari, is now reported to be an endemic species of Tamil Nadu and has been sighted in a few locations within the southern part of the Western Ghats.
- The species is known as in honour of Indian herpetologist Deepak Veerappan for his contribution in erection a replacement subfamily Xylophiinae to accommodate

wood snakes.

- The team suggests the common name Deepak's wood snake. Wood snakes
- Wood snakes are unit harmless, sub-fossorial and infrequently found whereas digging soil in farms and below the logs within the Western steps forests.
- They feed on earthworms and probably different invertebrates.
- Interestingly, their sister relatives are unit found in northeast India and Southeast Asia and are familiar to be arboreal.

Topic 14. POLAR WANDER

Importance for Prelims: Geography

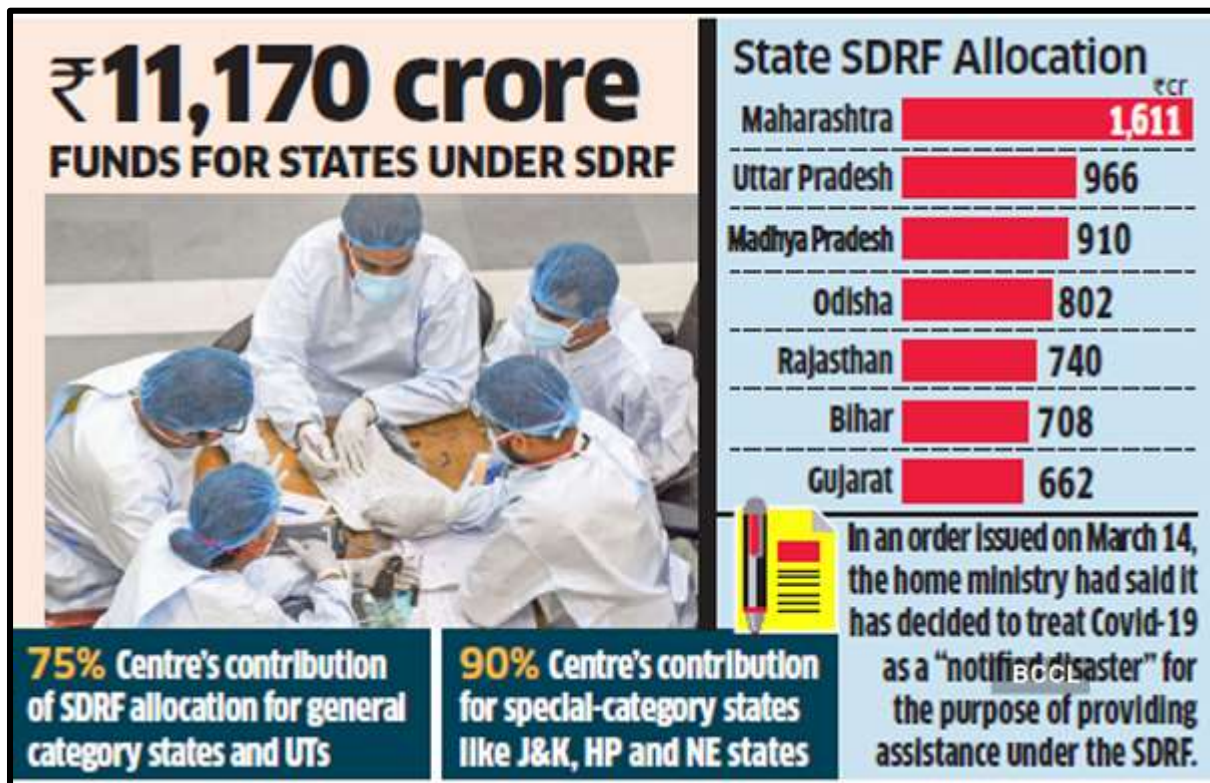


Global warming and melting glaciers might have decentralised the world waterfronts to such an extent that they need redefined the ‘polar wander’ or the drifting of the Earth’s axis, finds a study printed in geophysical analysis Letters.

- Polar wander is that the motion of a pole in relevance some arrangement.
- It is used, as an example, to live the degree to that Earth’s magnetic poles have been determined to move relative to the Earth’s rotation axis.
- True polar wander represents the shift within the geographical poles relative to Earth’s surface, once accounting for the motion of the tectonic plates.
- This motion is caused by the geophysical of the mantle and therefore the crust so as to align the most inertia with this rotation axis.
- This is that the situation with very cheap kinetic energy for the given, unchanging, angular momentum of the planet, and is earned as kinetic energy is dissipated due to the non-rigidity of the planet.

Topic 15. STATE DISASTER RESPONSE FUND (SDRF)

Importance for Prelims: Disaster Management



As a special dispensation, the Department of Expenditure, Ministry of Finance at the recommendation of Ministry of Home Affairs has released in advance of the normal schedule the 1st instalment of the Central Share of the State Disaster Response Fund (SDRF) for the year 2021-22 to all the States. An amount of Rs.8873.6 crore has been released to the States.

- Normally, the first instalment of SDRF is released in the month of June as per the recommendations of the Finance Commission.
- However, in relaxation of normal procedure, not only has the release of SDRF been advanced, the amount has also been released without waiting for the utilization certificate of the amount provided to the States in the last financial year.
- Up to 50% of the amount released i.e. Rs.4436.8 crore can be used by the States for COVID-19 containment measures. The funds from SDRF

may be used by the States for various measures related to containment of COVID-19.

State Disaster Response Fund

- The State Disaster Response Fund (SDRF), constituted under Section 48 (1) (a) of the Disaster Management Act, 2005, is the primary fund available with State Governments for responses to notified disasters.
- The Central Government contributes 75% of SDRF allocation for general category States/UTs and 90% for special category States/UTs (NE States, Sikkim, Uttarakhand, Himachal Pradesh, Jammu and Kashmir).

Topic 16. MODERNA VACCINE

Importance for Prelims: Science & tech



The World Health Organization has given the go-ahead for emergency use of Moderna's COVID-19 vaccine.

- The mRNA vaccine from the U.S. manufacturer joins vaccines from AstraZeneca, Pfizer-BioNTech and Johnson & Johnson in receiving the WHO's emergency use listing.
- Similar approvals for China's Sinopharm and Sinovac vaccines are expected in the coming days and weeks.

mRNA 1273 :

- mRNA-1273 is the working name of Moderna's vaccine. It is currently under the aegis of the US National Institute of Allergy and Infectious Diseases (NIAID), a part of the US National Institutes of Health (NIH).

- The mRNA means the messenger RNA. This carries the carries the genetic formulafor the coding of a specific protein.
- The mRNA is a molecule that genetically encodes a set of instructions, based onwhich cells make proteins and send them to various parts of the body.
- Vaccines based on mRNA technology take advantage of normal biologicalprocesses of the body to create the desired therapeutic effect.

Topic 17. PUBLIC BUILDINGS AND FIRE SAFETY

Importance for Prelims: Governance



Over the past year, there have been deadly fires in hospital buildings, including those treating COVID-19 patients.

- The National Crime Records Bureau (NCRB) says 330 people died in commercial building fires in 2019, while fatalities for residential or dwelling buildings were much higher at 6,329.

- Electrical faults are cited as the leading cause of fires but State governments are widely criticized for being lax with building safety laws and for failing to equip public buildings with modern technology.
- Hospital ICUs (intensive care units) are a great fire risk because they are oxygen-suffused, and need to meet high standards.
- Part 4 of the National Building Code of India deals with Fire and Life Safety.
- The document provides specifications and guidelines for design and materials that reduce the threat of destructive fires. Hospitals come under the institutional category in the code.

Topic 18. POCSO ACT

Importance for Prelims: Legislations

Amid Covid-19 lockdown, Nilgiris witnessing rise in cases of child marriages,sexual abuse.

Protection of children from Sexual Offences Act, 2012

- It was enacted to guard the children from offences of sexual abuse, sexualharassment and pornography with due regard for safeguarding the interest andwell-being of children.
- It defines a toddler as anyone below eighteen years ancient and regards the bestinterests and welfare of the kid as a matter of paramount importance at everystage, to confirm the healthy physical, emotional, intellectual and social developmentof the kid.
- It defines different kinds of sexual abuse, as well as penetrative and non-penetrativeassault, yet as sexual harassment and pornography.
- It deems a sexual assault to be “aggravated” below bound circumstances, such aswhen the abused kid is unsound or once the abuse is committed by someone ina position of trust or authority sort of a loved one, police officer, teacher, or doctor.
- It additionally casts the police within the role of kid protectors throughout the investigativeprocess.
- The Act stipulates that a case of child sex offense should be disposed of inside oneyear from the date the offence is rumored.
- It was amended in August 2019 to produce additional demanding punishment, as well as thedeath penalty, for sexual crimes against children.

Topic 19. ARTICLE 164 (4)

Importance for Prelims: Polity

Mamata not the first CM to lose, needs to win bypoll in 6 months.

- Article 164(4) of the Constitution of Bharat states that a Minister who for any amount of six consecutive months isn't a member of the legislature of the State shall at the expiration of that amount stop to be a Minister.
- It is inexplicit within the language of clause (4) that each Minister ought to commonly be a Member of the State legislature which means of either House if the State Legislature is bicameral.
- It is permissible to appoint someone legislature isn't such a Member then again he should get elected among six months instead he shall stop to be a Minister on the expiration of that amount.
- It could be a clear fraud on the Constitution to misinterpret and misuse this provision (i) to re-appoint a non-member when six months by giving a couple of days' break, (ii) to appoint someone who is disqualified for being a Member, or (iii) to appoint someone who resigns his membership only to flee disqualification.
- A non-member will|can even|may also|may} be appointed Chief Minister and he can still hold office if he gets electoral to the State legislature among a amount of six months.

Topic 20. G 7

Importance for Prelims: International Relations



External Affairs Minister S Jaishankar will embark on a four-day visit to London to participate in a meeting of foreign ministers of G7 countries. India has been invited to the meeting as a guest country.

- The G-7 or 'Group of Seven' are Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
- The G-7 nations meet at annual summits that are presided over by leaders of member countries on a rotational basis. The summit is an informal gathering that lasts two days, in which leaders of member countries discuss a wide range of global issues.
- The G-7 does not have a formal constitution or a fixed headquarters.
- The decisions taken by leaders during annual summits are non-binding.

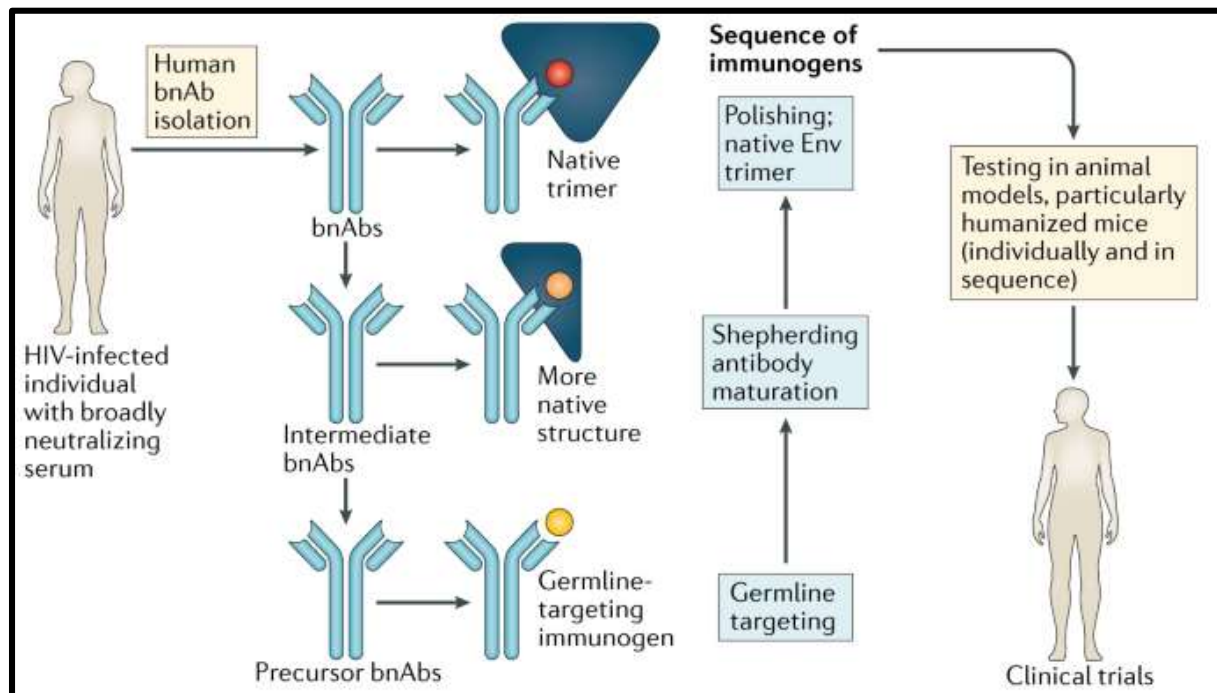
Background

- It is an intergovernmental organisation that was formed in 1975 by the top economies of the time as an informal forum to discuss pressing world issues.
- Canada joined the group in 1976, and the European Union began attending in 1977.

- The G-7 was known as the ‘G-8’ for several years after the original seven were joined by Russia in 1997. The Group returned to being called G-7 after Russia was expelled as a member in 2014 following the latter’s annexation of the Crimea region of Ukraine.

Topic 21. GERMLINE TARGETING APPROACH

Importance for Prelims: Science & tech



A new vaccine candidate meets the effectiveness target set by who forcombating the illness.

- IAVI and Scripps research Institute had proclaimed encouraging results from a small trial of a vaccine against HIV that's supported the 'germline targeting' approach.
- Now, a vaccine with 77 effectiveness over one year may facilitate deliver the world, especially developing nations, from a fearful child-killer: malaria.

Germline Targeting Approach

- The germline-targeting approach is supposed to launch the assembly of the desired bnAb by stimulating the proper antibody-producing cells. Antibodies are produced by immune cells known as B cells, that begin move into a "naïve" or "germline" state.
- A massive repertoire of those germline B cells circulates within the blood and different tissues.

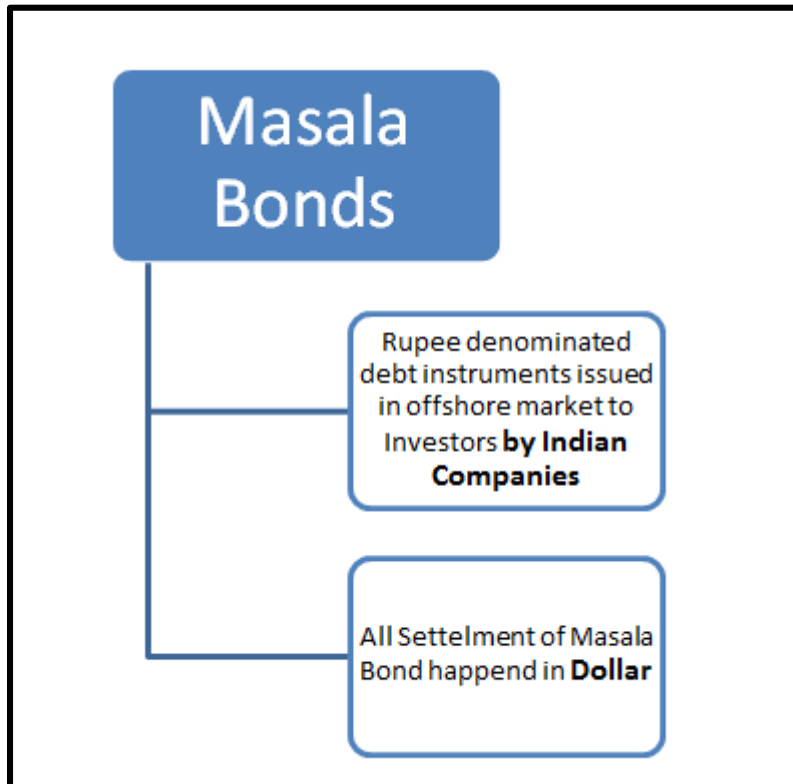
- In a viral infection—or once protection with a vaccine that mimics an infecting virus—some germline B cells can bind a minimum of deceptively to structures on the surface of the virus.
- That can stimulate the cells to start a weeks-long maturation method, within which the antibodies unendingly improve in their ability to bind to the surface, thereby neutralizing the virus.
- The germline-targeting strategy for an HIV vaccine aims to stimulate the small number of germline B cells that are capable of maturing into cells that build bnAbs.

R 21 vaccine

- The R21 vaccine candidate is created by expressing recombinant HBsAg virus-like particles in *Hansenula polymorpha*, comprising the central repeat and also the C-terminus of the circumsporozoite protein (CSP) consolidated to the N-terminal finish of HBsAg10.
- R21 was created by the University of Oxford, set in England.
- R21 was mixed instantly before administration with Matrix-M™, a saponin-based vaccine adjuvant created by Novavax AB, Uppsala, Sweden.
- The Matrix-M part of the malaria vaccine are factory-made and supplied to SII by Novavax.
- Under Novavax's agreement with the Institute, SII has rights to use Matrix-M in the vaccine in regions wherever the illness is endemic and can pay Novavax royalties on its market sales of the vaccine.

Topic 22. MASALA BONDS

Importance for Prelims: Economics



Of the total borrowings during March 2021, USD 5.35 billion came in through the approval route of the external commercial borrowings (ECB), while the rest of USD 3.88 billion was raised via the automatic route of raising funds from international markets. No money was raised through the rupee denominated bonds (RDB) or the masala bonds, as was the case in the year-ago period as well.

Masala Bonds

- They are rupee-denominated bonds i.e. the funds would be raised from overseas market in Indian rupees.
- According to RBI, any corporate, body corporate and Indian bank is eligible to issue Rupee denominated bonds overseas.
- While companies can raise funds through these bonds, there are limitations for the use of such proceeds.

- RBI mandates that the money raised through such bonds cannot be used for real estate activities other than for development of integrated township or affordable housing projects.
- It also can't be used for investing in capital markets, purchase of land and on lending to other entities for such activities as stated above.

Minimum maturity of masala bonds

- According to RBI, the minimum maturity period for Masala Bonds raised up to Rupee equivalent of USD 50 million in a financial year should be 3 years.
- And for bonds raised above USD 50 million equivalents in INR per financial year should be 5 years.
- The conversion for such bonds will happen at the market rate on the date of settlement of transactions undertaken for issue and servicing of the bonds, including its redemption.

Where can these bonds be issued and who can subscribe?

- The bonds can only be issued in a country and subscribed by a resident of such country that is a member of FATF and whose securities market regulator is a member of International Organisation of Securities Commission.
- While residents of such countries can subscribe to the bonds, it can also be subscribed by multilateral and regional financial institutions where India is a member country.

Topic 23. WORLD PRESS FREEDOM DAY

Importance for Prelims: Important Days

World Press Freedom Day is being observed on May 3, 2021.

- World Press Freedom Day was proclaimed by the UN General Assembly in December 1993, following the recommendation of UNESCO's General Conference.
- Since then, 3 May, the anniversary of the Declaration of Windhoek is celebrated worldwide as World Press Freedom Day.
- To celebrate the fundamental principles of press freedom, assess the state of press freedom throughout the world, defend the media from attacks on their independence, and pay tribute to journalists who have lost their lives in the line of duty.
- This year's theme "Information as a Public Good" serves as a call to affirm the importance of cherishing information as a public good.

Topic 24. CHIRANJEEVEE HEALTH INSURANCE SCHEME

Importance for Prelims: Government Schemes

Recently, the Rajasthan government has declared that implementation of the Chief Minister Chiranjeevi insurance scheme. About Chief Minister Chiranjeevi insurance scheme

- It is an formidable insurance scheme of the Rajasthan government.
- It is that the 1st insurance initiative from the Rajasthan Government that gives cashless treatment within the registered hospitals.
- It aims to produce annual cashless insurance cover of Rs five lakh to each family of the state.
- The registration is free for those that are covered under the National Food Security Act (NFSA), Socio Economic Caste Census (SECC), small and marginal farmers, contractual staff and people who have received COVID-19 ex-gratia.
- The candidates who don't fall in these classes can have to be compelled to pay Rs 850 as 50 % of the annual premium.
- The main eligibility criterion is to be a permanent resident of the Rajasthan state.

Topic 25. TAIWAN

Importance for Prelims: International Relations



India on Sunday received assistance from Taiwan, including oxygen concentrators and cylinders, with more batches of medical equipment set to follow from Taipei.

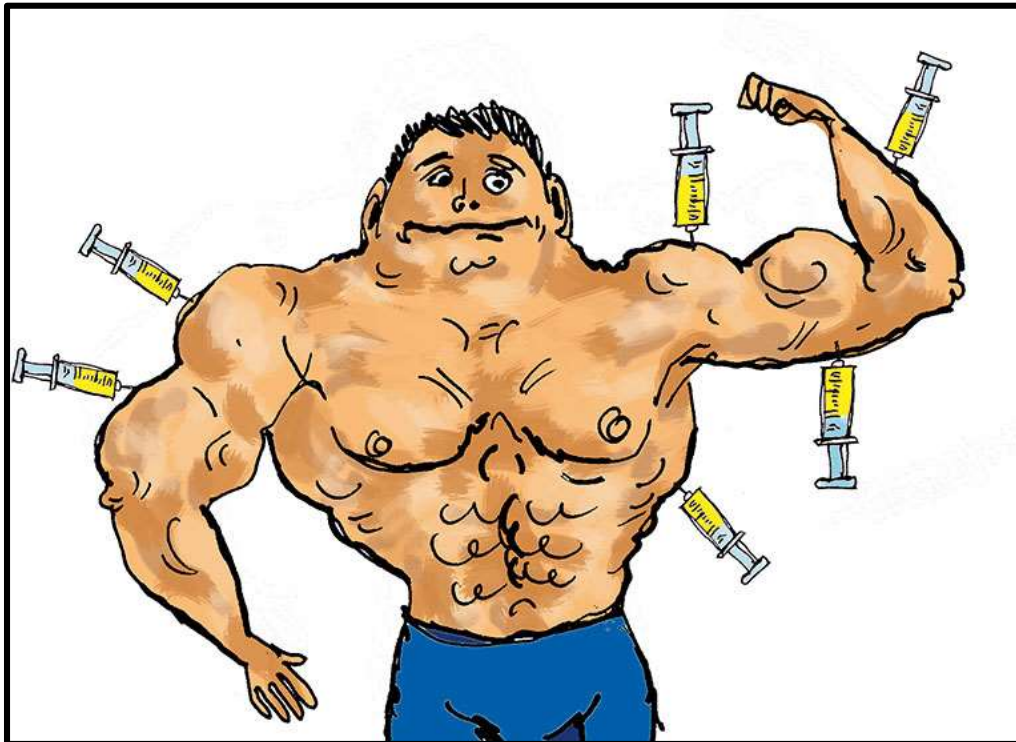
- Taiwan is officially known as the Republic of China (ROC).
- It is a state in East Asia with Neighbouring states include the People's

Republic of China (PRC) to the west, Japan to the north-east, and the Philippines to the south.

- The East China Sea lies to its north, the Philippine Sea to its east, the Luzon Strait directly to its south and the South China Sea to its southwest.
- The Taiwan Strait separates the island of Taiwan from mainland China. The strait is currently part of the South China Sea and connects to the East China Sea to the north.
- Taipei is the capital.
- Taiwan is no longer a member of the UN, having been replaced by the PRC in 1971.
- Taiwan is claimed by the PRC, which refuses diplomatic relations with countries that recognize the ROC.
- Taiwan maintains official ties with 14 out of 193 UN member states and the Holy See.
- The bilateral relations between India and Taiwan have improved since the 1990s despite both nations not maintaining official diplomatic relations.

Topic 26. STEROIDS

Importance for Prelims: Science & tech



Commonly Abused Steroids

Oral Steroids

- Anadrol (oxymetholone)
- Oxandrin (oxandrolone)
- Dianabol (methandrostenolone)
- Winstrol (stanozolol)

Injectable Steroids

- Deca-Durabolin (nandrolone decanoate)
- Durabolin (nandrolone phenpropionate)
- Depo-Testosterone (testosterone cypionate)
- Equipoise (boldenone undecylenate)
- Tetrahydrogestrinone (THG)

With several patients within the current Covid-19 wave news a drop by oxygensaturation levels, successively requiring hospital care, AIIMS Director DrRandeepGuleriawarned against indiscriminate prescription of steroids,

additionally as CT scans and tests, for those with delicate symptoms.

- Steroids are a semi synthetic version of chemicals, called hormones that are made naturally within the chassis. Steroids are designed to act like these hormones to reduce inflammation.
- They're additionally called corticosteroids, and are a unit different to anabolic steroids used by body builders and athletes.
- Steroids won't cure your condition, however they're superb at reducing inflammation and can ease symptoms like swelling, pain and stiffness.
- Usually inflammation is that the body's natural reaction to infection or bacterium.
- Your system produces extra fluid to fight infections or bacteria, which causes swelling, redness and warmth within the affected area.
- In some conditions, like rheumatism, the system produces inflammation within the joints or different elements of the body by mistake, which may cause permanent damage if left untreated.
- Steroids are often immune reaction scale back this immunologic response.

Topic 27. NCPCR & JUVENILE JUSTICE ACT

Importance for Prelims: National Organisations NCPCR urges states to share info on children orphaned due to COVID-19.

National Commission for Protection of Child Rights

- NCPCR may be a statutory body came upon in March 2007 under the Commissions for Protection of child Rights (CPCR) Act, 2005.
- It is below the executive control of the Ministry of girls & kid Development.
- The Commission's mandate is to make sure that each one laws, policies, programmes, and administrative mechanisms are in consonance with the child rights perspective as enshrined within the Constitution of India and also the UN Convention on the Rights of the child.
- It inquires into complaints about a child's right to free and mandatory education under the Right to Education Act, 2009.
- It monitors the implementation of Protection of children from Sexual Offences (POCSO) Act, 2012. Juvenile Justice (Care and Protection of Children) Act, 2015
- The Juvenile Justice (Care and Protection of Children) Act, 2015 replaced the Juvenile Justice (Care and Protection of Children) Act, 2000.
- The Act changes the terminology from 'juvenile' to 'child' or 'child in conflict with law'. Also, it removes the negative connotation related to the word "juvenile".
- It additionally includes many new and clear definitions like parentless, abandoned and surrendered children; and petty, serious and wicked offences committed by children.
- Includes special provisions to tackle child offenders committing wicked offences in the age bracket of 16-18 years.
- It mandates putting in Juvenile Justice Boards and child Welfare

Committees in every district. each should have a minimum of one woman member every.

- A separate new chapter on Adoption to streamline adoption procedures for an orphan, abandoned and relinquished children.
- Also, the Central Adoption Resource Authority (CARA) was granted the standing of a statutory body to change it to perform its perform additional effectively.
- The Act states that the adoption of a baby is final on the issue of An adoption order by the court. Currently, there are 629 adoption cases unfinished in various courts.
- All kid Care establishments, whether or not pass government or by voluntary or nongovernmental organisations are to be obligatorily registered below the Act inside 6 months from the date of commencement of the Act.
- Recently, the Lok Sabha passed the Juvenile Justice (Care and Protection of Children) amendment Bill, 2021 that seeks to strengthen and contour the provisions for defense and adoption of youngsters.
- The Bill amends the Juvenile Justice (Care and Protection of Children) Act, 2015 and contains provisions related to children in conflict with law and children in need of care and protection.

Topic 28. SECTION 66 A OF IT ACT

Importance for Prelims: Governance

Three journalists get notices for reports on ‘diverting’ gas. Administrationsays news reports shared by them on social media false propaganda, in violation of ITAct.

Section 66A of knowledge Technology Act

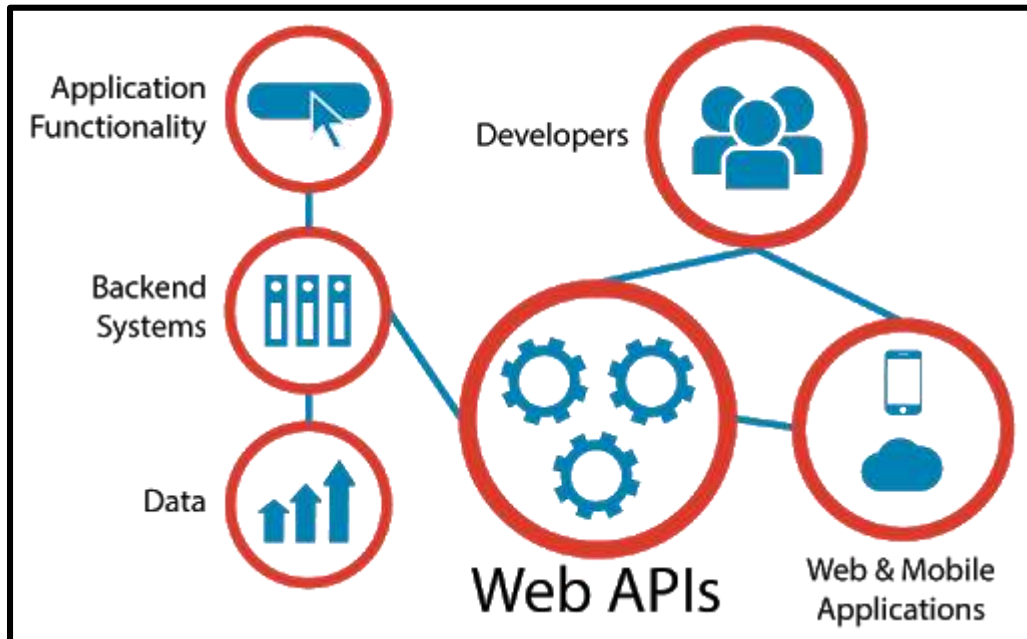
- Section 66A proscribed information connected crimes within which causing information, by means of a computer resource or a communication device, that is any offence, disparaging and sinister is created a punishable offence.
- In *Shreya Singhal v. Union of India* judgement, Justices Rohinton F. Nariman and J. Chelameswar had discovered that the weakness of Section 66A lay within the truth that it had created an offence on the idea of undefinable actions: like causing “inconvenience, danger, obstruction and insult”, that don't fall among the exceptions granted under Article nineteen of the Constitution, that guarantees the freedom of speech.
- The court additionally discovered that the challenge was to spot wherever to draw the road.
- Traditionally, it's been drawn at incitement whereas terms like obstruction and insult remain subjective.
- In addition, the court had noted that Section 66A didn't have procedural safeguards like other sections of the law with similar aims, like :The got to get the concurrence of the Centre before action are often taken.
- Local authorities might proceed autonomously, virtually on the whim of their political masters.
- The judgment had found that Section 66A was contrary to each Articles nineteen (free speech) and 21 (right to life) of the Constitution. the entire

provision was struckdown by the court.

- After that government had appointed an skilled committee (T.K. Viswanathancommittee) that planned a legislation to meet the challenge of hate speechonline.

Topic 29. OPEN APIs

Importance for Prelims: Science & tech



Since Covid-19 vaccination exercise commenced for the 18-44 age bracket, finding an obtainable slot at a immunogen centre has become a challenge, particularly given that it's necessary for this age bracket to create a rendezvous on the CoWin app.

- With an aim to resolve this, the National Health Authority (NHA) — the nodal agency managing the CoWin app — has displayed the apis for vaccine appointments to the general public.
- An open API refers to a in public obtainable application programming interface (API) that provides developers access to a proprietary code application.
- For instance, you have got a Google Maps API that integrates with food delivery or travel portal, or the UPI API employed by a variety of apps to change easy payments.
- In this case, the NHA has allowed anyone to access a collection of needs needed to communicate and move with the CoWin platform.
- This has enabled developers to make third-party tools that allow users to

line alerts for slot availabilities in step with varied parameters.

- People will use these third-party tools to enter their details and that they can get an alert whenever a slot opens up.

Topic 30. INTEGRATED GOODS AND SERVICES TAX (IGST)

Importance for Prelims: Economics

Centre has waived off IGST on the import of COVID related medical supplies including Remdesivir Injection/API, Medical Oxygen, O2 Concentrators, Cryogenic tanks & COVID Vaccines among others.

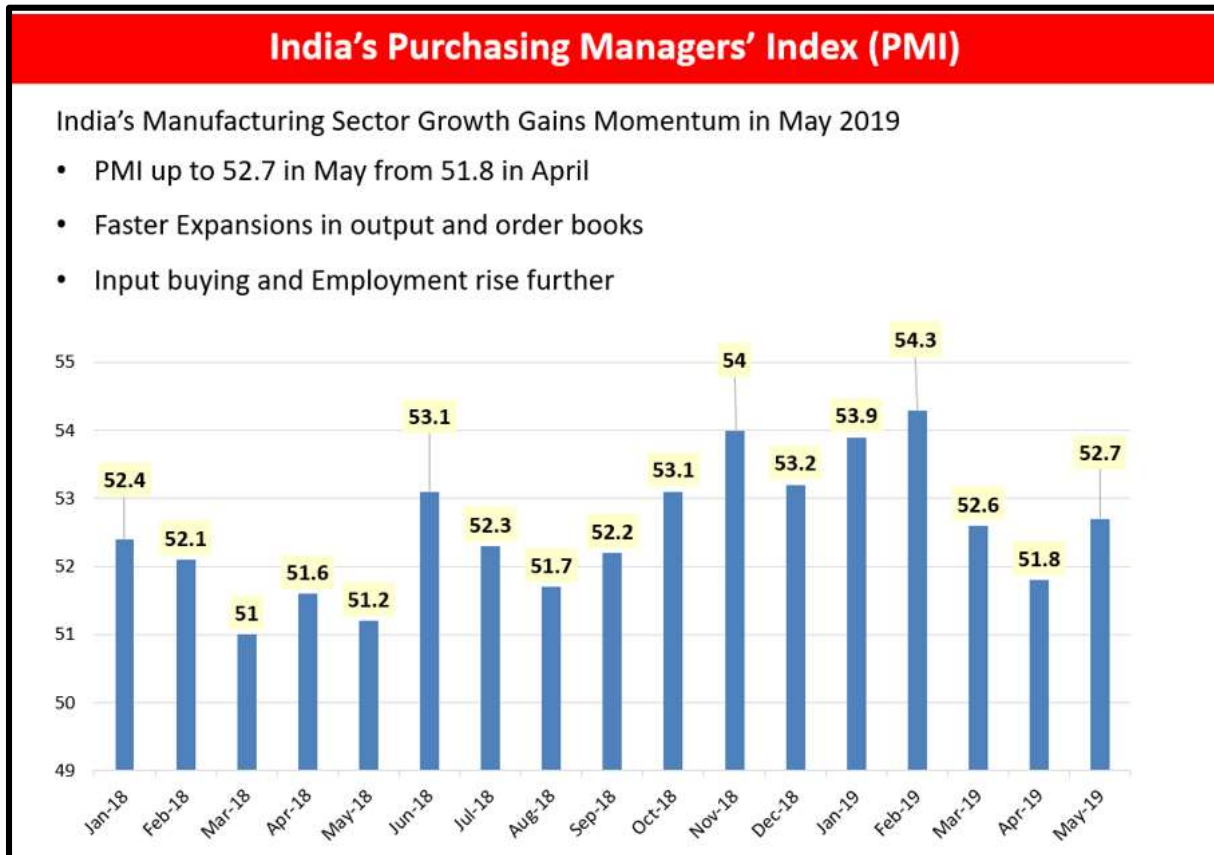
- The exemption has been granted till 30th June for free distribution of these medical supplies. Earlier the Centre had waived the import duty & health cess on such medical supplies.
- IGST meaning Integrated Goods and Service Tax, is one of the three categories under Goods and Service Tax (CGST, IGST and SGST) with a concept of one tax one nation.
- IGST falls under Integrated Goods and Service Tax Act 2016.
- IGST is charged when movement of goods and services from one state to another.
- For example, if goods are moved from Tamil Nadu to Kerala, IGST is levied on such goods.
- The revenue out of IGST is shared by state government and central government as per the rates fixed by the authorities.

Under Article 269A of the Constitution,

- The GST on supplies in the course of interState trade shall be levied and collected by the Government of India and such tax shall be apportioned between the Union and the States according to the provisions of law on the recommendations of the Goods and Services Tax Council.
- Under the IGST scheme, 50% of the collections will go to the Centre (as the Central Goods and Services Tax component) and the remaining 50% will be allocated to the States and Union Territories (as the State Goods and Services Tax component). And, 42% of the CGST will be devolved to the States and Union Territories.

Topic 31. PURCHASING MANAGERS INDEX

Importance for Prelims: Economics



India's producing sector activity was mostly flat in April, as rates of growth for new orders and output alleviated to eight-month lows amid the intensification of the Covid-19 crisis, a monthly survey said.

- The seasonally adjusted IHS Markit India producing buying Managers' Index (PMI) was at 55.5 in April, very little modified from March's reading of 55.4.

Purchasing Managers' Index

- It could be a survey-based live that asks the respondents about changes in their perception regarding key business variables as compared with the previous month.
- It is calculated singly for the producing and services sectors and so a composite index is constructed.

- The PMI could be a range from 0 to 100.
- PMI higher than 50 represents an enlargement in comparison to the previous month;
- PMI under 50 represents a contraction, and a reading at 50 indicates no amendment.
- If PMI of the previous month is above the PMI of the present month (as is the case mentioned above), it represents that the economy is getting.
- The PMI is sometimes free at the beginning of each month. It is, therefore, thought of as a good indicator of economic activity.

Topic 32. APPOINTMENT OF CEC AND EC

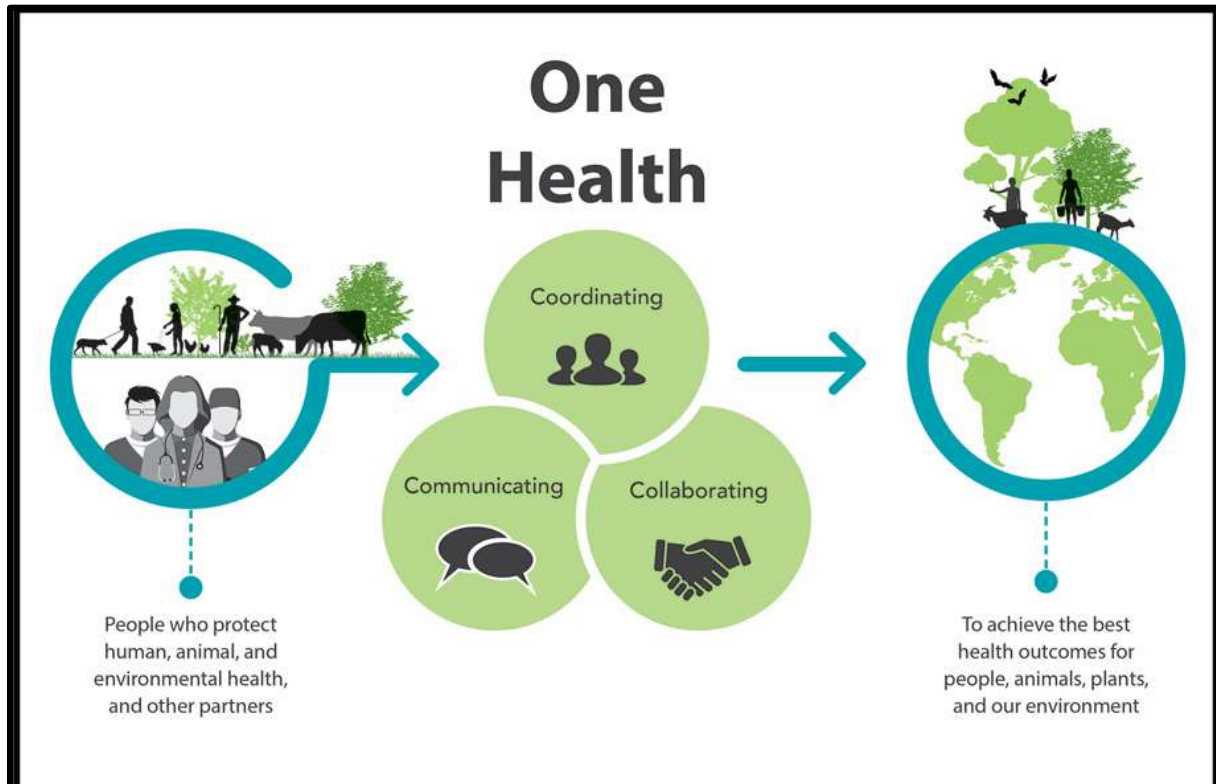
Importance for Prelims: Polity

Disband present EC; SC got to decide criteria to appoint CEC, ECs: Congress

- The commission shall comprehend the chief election commissioner and such number of various election commissioners, if any, as a result of the president might from time to time fix.
- The appointment of the chief election commissioner and completely different election commissioners shall be created by the president.
- The president can also appoint once consultation with the election commissions such regional commissioners as he might take into account necessary to help the election commission.
- The conditions of service and tenure of workplace of the election commissioners and their regional commissioners shall be determined by the president.
- The CEC and so the two different election commissioners have equal powers and receive equal wage, allowances and different perquisites, that are virtually like those of a judge of the Supreme Court.
- They hold workplace for a term of six years or until they attain the age of sixty five years, whichever is earlier.
- They can resign at any time or can also be removed before the expiration of their term.

Topic 33. ONE HEALTH APPROACH

Importance for Prelims: Governance



The battle against COVID-19 should also be used as an opportunity to meet India's 'One Health' targets.

One Health

- OneHealth is an approach to designing and implementing programmes, policies, legislation and research in which multiple sectors communicate and work together to achieve better public health outcomes.
- The areas of work in which a One Health approach is particularly relevant include food safety, the control of zoonotic diseases (diseases that can spread between animals and humans, such as flu, rabies and Rift Valley Fever), and combating antibiotic resistance (when bacteria change after being exposed to antibiotics and become more difficult to treat).
- Although OneHealth, as a conceptual entity, emerged relatively recently, a stellar example of OneHealth being operationalised in the field was seen

in India in the late 1950s.

Zoonotic Diseases

- The diseases, which “spillover” from animals to humans are referred to as zoonotic diseases. They represent more than 60% of emerging infectious diseases worldwide.
- The destruction of the natural environment, globalised trade and travel and industrialised food production systems have created numerous pathways for new pathogens to jump between animals and humans.

Topic 34. OPEC

Importance for Prelims: International Organisations



OPEC's share of India's oil imports fell to the lowest in a minimum of 20 years in the year to the tip of March as overall purchases by Asia's third-largest economy fell to a six-year low, knowledge obtained from trade and trade sources showed.

- The Organization of the Petroleum Exporting Countries (OPEC) was based in Baghdad, Iraq, with the linguistic communication of an agreement in September 1960 by five countries particularly Islamic Iran, Iraq, Kuwait, Saudi Arabia. They were to become the Founder members of the Organization.
- As of 2020, Saudi Arabia includes a total of 13 Member Countries viz. Iran, Iraq, Kuwait, United Arab Emirates (UAE), Saudi Arabia, Algeria, Libya, Nigeria, Gabon, Equatorial Guinea, Republic of Congo, Angola

and South American nation are members of OPEC.

- OPEC's objective is to co-ordinate and unify rock oil policies among memberCountries, so as to secure truthful and stable costs for rock oil producers; anefficient, economic and regular provide of rock oil to overwhelming nations; and a fairreturn on capital to those investment within the trade.
- It is head quartered in Vienna, Austria.
- OPEC membership is receptive any country that's a considerable exporter of oil andwhich shares the ideals of the organization.

OPEC +

- OPEC+ is that the alliance of crude producers endeavor corrections in provide in theoil markets since 2017.
- OPEC and countries embody Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia,Mexico, Oman, Russia, South Sudan and Sudan.

Topic 35. LIQUID OXYGEN

Importance for Prelims: Science & tech

Chief secretary SitaramKunte wrote to Union cabinet secretary Rajiv Gaubademanding at least 200MT more liquid oxygen for Maharashtra as 16 districts sawcontinuous rise in Covid cases.

Liquid Medical Oxygen:

- It is high purity oxygen suitable for use in the human body. So, it is used for medicaltreatments.
- This oxygen provides a basis for virtually all modern anaesthetic techniques,restores tissue oxygen tension by increasing the oxygen availability, aidscardiovascular stability, etc.
- The World Health Organisation includes this on their List of Essential Medicines.
- According to the Drug Prices Control Order, 2013, LMO is placed under the NationalList of Essential Medicines (NLEM).
- India has a daily production capacity of at least 7,100 Metric Tonnes (MT) ofoxygen, including for industrial use.
- Due to the crisis, the production has been increased to 8,922 MT. Andapproximately daily sale is 7,017 MT.

Topic 36. INDIA-UK VIRTUAL SUMMIT

Importance for Prelims: International Relations



- Declaration for the launch of an Enhanced Trade Partnership
- MOU on India-UK Global Innovation Partnership
- MoU on India-UK Migration and Mobility Partnership
- Joint Declaration of Intent on cooperation in the fields of Digital and Technology
- MoU on cooperation in the field of Telecommunications/ICT
- Agreement on Customs Cooperation and Mutual Administrative Assistance in customs matters
- Statement of Principles on new joint work on the India Energy Security Scenarios Calculator
- MoU in the field of medical products regulation
- MoU on Pharmacopoeial Cooperation

India-UK Virtual Summit
List of MoUs/Declarations Agreed/Announced

Prime Minister Shri Narendra Modi and Boris Johnson, Prime Minister of the United Kingdom held a Virtual Summit.

- An **ambitious ‘Roadmap 2030’** was adopted at the Summit to elevate bilateral ties to a ‘Comprehensive Strategic Partnership’. The Roadmap will pave the way for a deeper and stronger engagement over the next ten years in the key areas of people to people contacts, trade and economy, defence and security, climate action and health.
- The two Prime Ministers launched an ‘Enhanced Trade Partnership’ (ETP) which sets an ambitious target of more than doubling bilateral trade by 2030.
- As part of the ETP, India and the UK agreed on a roadmap to negotiate a comprehensive and balanced FTA, including consideration of an Interim Trade Agreement for delivering early gains.
- The UK is India’s second largest partner in research and innovation collaborations.

- A new India-UK ‘Global Innovation Partnership’ was announced at the Virtual Summit that aims to support the transfer of inclusive Indian innovations to select developing countries, starting with Africa.
- India and the UK launched a comprehensive partnership on migration and mobility that will facilitate greater opportunities for the mobility of students and professionals between the two countries.
- Both sides agreed to enhance cooperation on new and emerging technologies, including Digital and ICT products, and work on supply chain resilience.
- They also agreed to strengthen defence and security ties, including in the maritime, counter-terrorism and cyberspace domains.

Topic 37. CENTRAL ADMINISTRATIVE TRIBUNAL

Importance for Prelims: Polity



The Bombay High Court on Tuesday said the petition filed by former Mumbai commissioner of police ParamBir Singh, challenging the preliminary inquiries initiated against him by the Maharashtra government, was a service matter and relief could be adjudicated by the Central Administrative Tribunal (CAT).

Central Administrative Tribunal

Article 323 – A:

- The Central Administrative Tribunal had been established under Article 323 – A of the Constitution for adjudication of disputes and complaints with respect to recruitment and conditions of service of persons appointed to public services and posts in connection with the affairs of the Union or

other authorities under the control of the Government.

- In pursuance of Article 323-A, the Parliament has passed the Administrative Tribunals Act in 1985.
- The act authorises the Central government to establish one Central Administrative Tribunal and the state administrative tribunals. This act opened a new chapter in the sphere of providing speedy and inexpensive justice to the aggrieved public servants.
- There are 17 Benches and 21 Circuit Benches in the Central Administrative Tribunal all over India.
- The CAT is a specialist body consisting of Administrative Members and Judicial Members who by virtue of their specialized knowledge are better equipped to dispense speedy and effective justice. It was established in 1985.
- A Chairman who has been a sitting or retired Judge of a High Court heads the Central Administrative Tribunal.

Operating Principles:

- It exercises jurisdiction only in relation to the service matters of the parties covered by the Administrative Tribunals Act, 1985.
- The Tribunal is guided by the principles of natural justice in deciding cases and is not bound by the procedure, prescribed by the Civil Procedure Code.
- Under Section 17 of the Administrative Tribunal Act, 1985, the Tribunal has been conferred with the power to exercise the same jurisdiction and authority in respect of contempt of itself as a High Court.
- **Independence:** The conditions of service of the Chairman and Members are the same as applicable to a Judge of High Court as per the Administrative Tribunals (Amendment) Act, 2006.
- Appeals against Orders: The orders of Central Administrative Tribunal

are challenged by way of Writ Petition under Article 226/227 of the Constitution before respective High Court in whose territorial jurisdiction the Bench of the Tribunal is situated.

Topic 38. INDUSTRIAL RELATIONS CODE

Importance for Prelims: Governance

Labour ministry seeks feedback on draft rules on trade unions under IR Code.

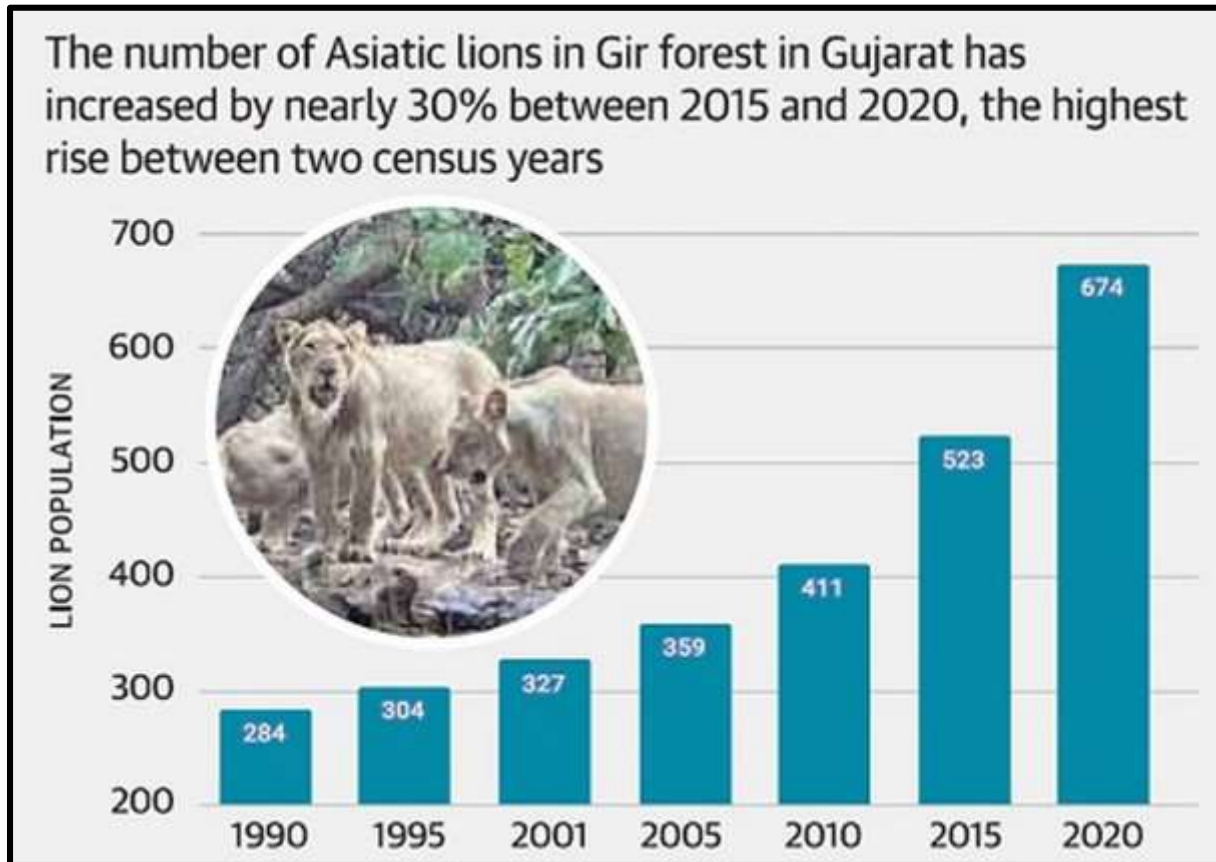
- The Ministry of Labour and Employment on Tuesday sought public feedback on draft rules for recognition of trade unions and disputes related to those under the Industrial Relations Code 2020.
- The Industrial Relations Code 2020 was passed by Parliament in the Budget session which concluded in March this year.
- The various rules under it were finalised but could not be notified yet.

Industrial Relations Code

- The code, among its important provisions, makes it easier for companies to hire and fire workers.
- Companies employing up to 300 workers will not be required to frame rules of conduct for workmen employed in industrial establishments. Presently, it is compulsory for firms employing up to 100 workers.
- It proposes that workers in factories will have to give a notice at least 14 days in advance to employers if they want to go on strike.
- Presently, only workers in public utility services are required to give notices to hold strikes.
- Besides, every industrial establishment employing 20 or more workers will have one or more Grievance Redressal Committees for resolution of disputes arising out of employees' grievances.
- The code also proposes setting up of a reskilling fund to help skill retrenched workers.

Topic 39. ASIATIC LIONS

Importance for Prelims: Environment



In a 1st in India, 8 Asiatic lions check positive for Covid-19 in Hyderabad facility Asiatic lion (*Pantheraleopersica*)

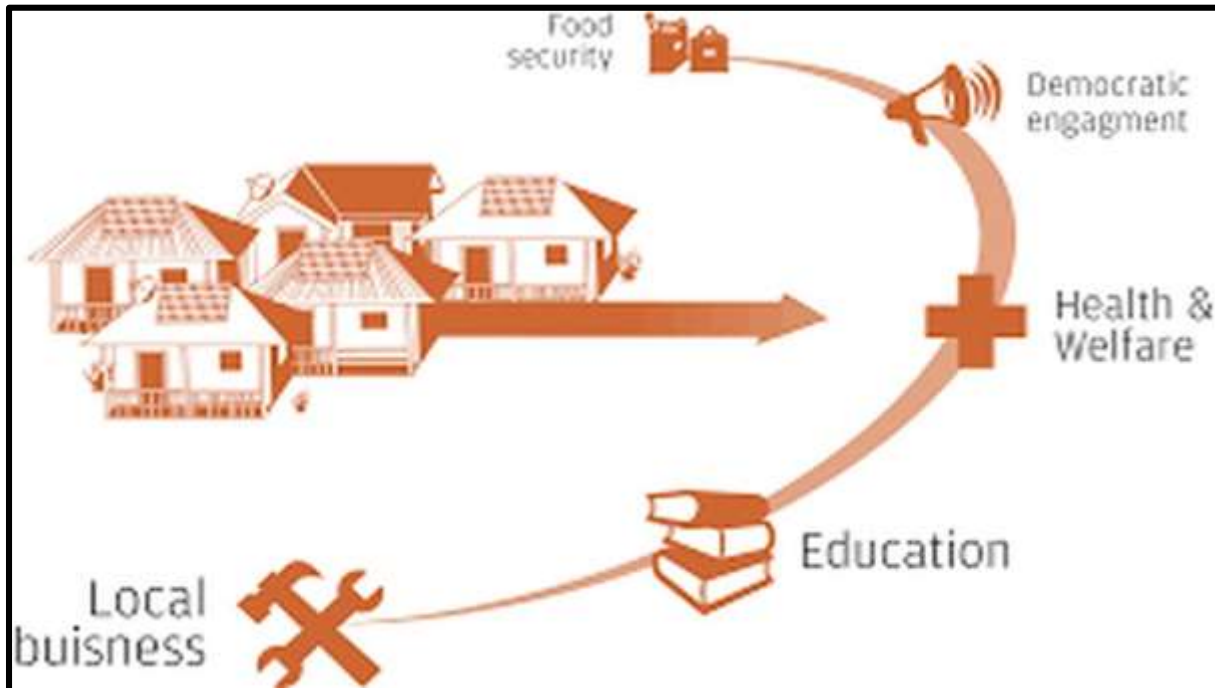
- Asiatic lions are slightly smaller than African lions.
- Males have only moderate mane growth at the highest of the pinnacle in order that their ears are always visible.
- The most placing morphological character, that is often seen in Asiatic lions, and rarely in African lions, could be a longitudinal fold of skin running on its belly.
- Wildlife (Protection) Act one972 additionally lists Asiatic lion in Schedule 1.
- CITES enclosed Asiatic Lion in Appendix I.
- It is mentioned in IUCN Red List as Endangered Asiatic lions were once

distributed to the state of West Bengal in east and Rewa in Madhya Pradesh, in central India.

- At present Gir park and life Sanctuary is that the only abode of the Asiatic lion.

Topic 40. MODEL INSURANCE VILLAGE

Importance for Prelims: Current Events



IRDAI moots ‘Model Insurance Village’ concept to boost insurance in rural India

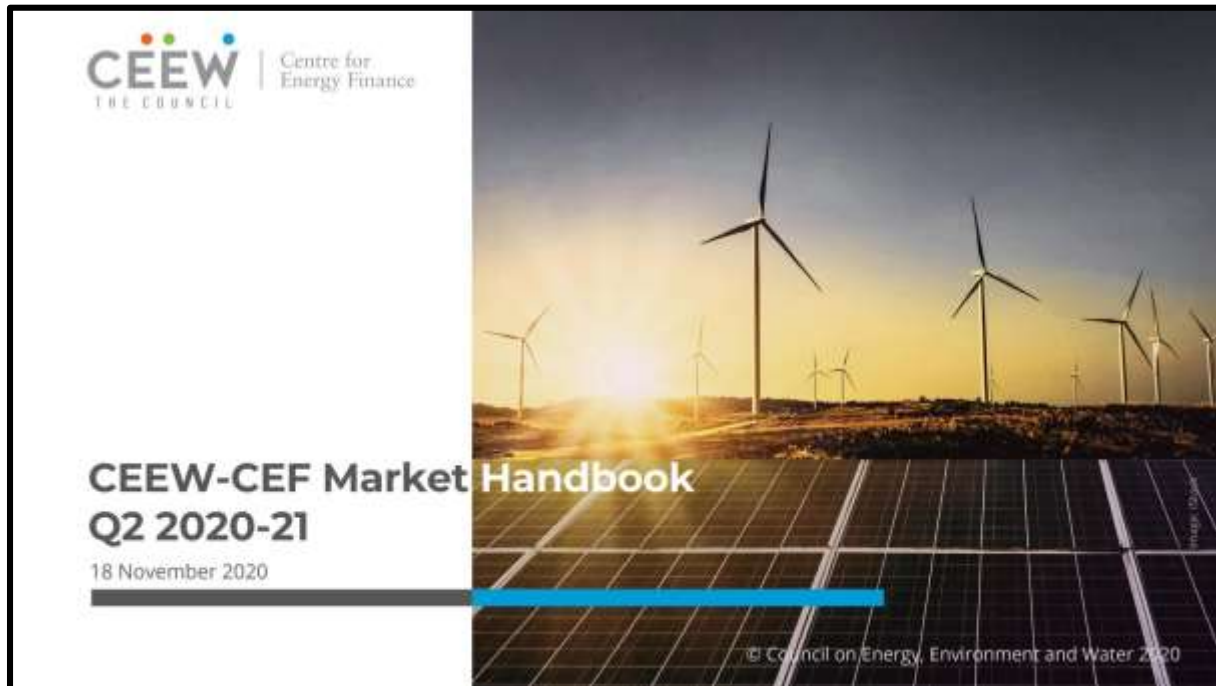
- The concept of setting up model insured villages was mooted by the IRDAI in a discussion paper on increasing penetration of insurance in rural areas with a special focus on agriculture and allied activities.
- “The concept may be implemented in a minimum of 500 villages in different districts of the country in the first year and increased to a minimum of 1,000 villages in subsequent two years,” the paper said on which the insurance regulator has invited comments from stakeholders by May 17.
- It also said the choice of villages is to be made carefully, considering various relevant aspects and parameters in order to implement the concept successfully for a period of three to five years.
- Every general insurance and reinsurance company having office in India needs to be involved for piloting the concept, and the efforts in selected

villages need to be continued for a minimum period of 3-5 years so as to make the insurance benefits visible to the community.

- It said the central government's initiative through PMFBY has helped improve the insurance protection for crops in recent years.
- However, a large number of crops and cropped area are outside the scope of PMFBY and still remaining uninsured. These can be served through different tailored indemnity-based /weather index-based products.
- The allied farm risks, MSMEs, agro businesses, livestock and other personal insurance needs of rural population are also largely unserved.

Topic 41. CEEW – CEF

Importance for Prelims: International Organisations



- CEEW-CEF acts as a non-partisan market observer and driver that monitors, develops, tests, and deploys financial solutions to advance the energy transition.
- It aims to help deepen markets, increase transparency, and attract capital in cleanenergy sectors in emerging economies.
- The CEEW Centre for Energy Finance (CEF) is an initiative of the Council on Energy, Environment and Water (CEEW), one of Asia's leading think tanks.

CEEW

- The Council on Energy, Environment and Water, commonly known as CEEW, is a Delhi-based not-for-profit policy research institution.
- Some of CEEW's research areas include resource efficiency and security; water resources; renewable energy; sustainability finance; energy-trade-climate linkages; integrated energy, environment and water plans; and climate geoengineering governance.

- The think-tank advises the Indian government.

Topic 42. 5 G TRIALS

Importance for Prelims: Science & tech



The Department of Telecommunications (DoT) on Tuesday gave permission to Telecom Service Providers (TSPs) to conduct trials for the use and application of 5G technology.

- The applicant TSPs include Bharti Airtel Ltd., Reliance JioInfocomm Ltd., VodafoneIdea Ltd. and MTNL.
- These TSPs have tied up with original equipment manufacturers and technology providers, which are Ericsson, Nokia, Samsung and C-DOT, a statement from the Ministry of Communications said.
- The duration of the trials is for six months, which includes a time period of two months for the procurement and setting up of the equipment.

5 G Technology

- 5G or fifth generation is the latest upgrade in the long term evolution (LTE) mobile broadband networks.
- The first generation of networks allowed only mobile voice calls to be made, while the second generation allowed mobile voice calls as well as

sending of short textmessages.

- It was the third generation or 3G network which allowed web browsing on mobile devices, the speed and latency of which improved with fourth-generation or 4G networks.
- The 5G networks will have even faster speeds with latency down to between 1-10 milliseconds.
- **Note:** Latency is the time a device takes to communicate with the network, which stands at an average of up to 50 milliseconds for 4G networks across the world.

How does 5G work?

- All 5G networks chiefly operate on three spectrum bands.
- The low-band spectrum has been proven to have great coverage and works fast even in underground conditions. However, the maximum speed limit on this band is 100 Mbps (Megabits per second).
- In the mid-band spectrum, though the speeds are higher, telcos across the world have registered limitations when it comes to coverage area and penetration of telephone signals into buildings.
- The high-band spectrum offers the highest speed but has extremely limited network coverage area and penetration capabilities.
- The telcos using this band rely on the existing LTE networks and will need to install a number of smaller towers to ensure adequate coverage and high-speed performance.

Topic 43. SUTRA MODEL

Importance for Prelims: Science & tech

Scientists see flaws in SUTRA's approach to modelling pandemic.

- **'Susceptible, Undetected, Tested (positive), and Removed Approach' (SUTRA) model**
- The model uses three main parameters to predict the course of the pandemic.
- The first is called beta, or contact rate, which measures how many people aninfected person infects per day.
- It is related to the R0 value, which is the number of people an infected personspreads the virus to over the course of their infection.
- The second parameter is 'reach' which is a measure of the exposure level of thepopulation to the pandemic.
- The third is 'epsilon' which is the ratio of detected and undetected cases.

Topic 44. USED COOKING OIL (UCO) BASED BIODIESEL

Importance for Prelims: Economy

Union Minister of petroleum & gas flagged off the primary offer of UCO(Used preparation Oil) primarily based Biodiesel integrated Diesel under the EOI theme from IndianOil's Tikrikalan Terminal, Delhi.

- To produce an eco-system for assortment and conversion of UCO into Biodiesel, Minister of fossil fuel and gas had initiated Expressions of Interest for "Procurement of Bio-diesel made from Used cooking Oil" on the occasion of World Biofuel Day on tenth August 2019.
- Under this initiative, OMCs supply sporadically progressive value guarantees for five years and extend off-take guarantees for 10 years to prospective entrepreneurs.
- Under this initiative, Indian Oil has received 51KL of UCO-Biodiesel at its Tikrikalan terminal in metropolis as of thirty one.3.2021.
- It may be a landmark in India's pursuance of Biofuels which can have a positive impact on the setting.

Biodiesel

- Biodiesel is an alternate fuel, the same as typical or 'fossil' diesel.
- It will be made from vegetable oils, animal fats, tallow and waste vegetable oil.
- A significant advantage of Biodiesel is its carbon-neutrality, i.e. the seed absorbs the same quantity of carbonic acid gas as is discharged once the fuel is combusted in a very vehicle.
- Also, Biodiesel is quickly biodegradable and fully non-toxic.

Topic 45. CCMB – LaCONES

Importance for Prelims: Science & tech

Based on reports by CCMB-LaCONES, it has now been confirmed that eight Asiatic lions housed in Nehru Zoological Park (NZP), Hyderabad have tested positive for SARS-CoV2 virus.

- LaCONES or Laboratory for the Conservation of Endangered Species, is a Council of Scientific and Industrial Research lab located in Hyderabad.
- It is a part of CCMB (centre for cellular and molecular biology).
- It was conceptualised by Lalji Singh.
- It is India's only research facility engaged in conservation and preservation of wildlife and its resources. This lab would strive to: "To promote excellence in conservation biotechnology and serve for conservation of endangered wildlife in India".
- It was established in 1998 with the help of Central Zoo Authority of India, CSIR and the government of Andhra Pradesh. It was dedicated to the nation in 2007 by then President of India APJ Abdul Kalam.

Topic 46. PRODUCTION LINKED INCENTIVE SCHEME (PLI) FOR IT HARDWARE

Importance for Prelims: Economy

A total of 19 companies have filed their application under the Production Linked Incentive Scheme (PLI) for IT Hardware.

- Production Linked Incentive Scheme (PLI) for IT Hardware was notified on 03.03.2021.
- The PLI Scheme extends an incentive of 4% to 2%/ 1% on net incremental sales (over base year of FY 2019-20) of goods under target segments that are manufactured in India to eligible companies, for a period of four years (FY 2021-22 to FY 2024-25).
- The target IT hardware segments under the proposed Scheme include Laptops, Tablets, All-in-One Personal Computers (PCs) and Servers.
- The scheme proposes production linked incentives to boost domestic manufacturing and attract large investments in the value chain of these IT Hardware products.

Benefits:

- Over the next 4 years, the Scheme is expected to lead to total production of about INR 1,60,000 crore. Out of the total production, IT Hardware companies have proposed a production of over INR 1,35,000 crore, and Domestic Companies have proposed a production of over INR 25,000 crore.
- The scheme is expected to promote exports significantly. Out of the total production of INR 1,60,000 crore in the next 4 years, more than 37% will be contributed by exports of the order of INR 60,000 crore.
- The scheme will bring additional investment in electronics manufacturing to the tune of INR 2,350 crore.
- The scheme will generate approximately 37,500 direct employment

opportunities in next 4 years along with creation of additional indirect employment of nearly 3 times the direct employment.

- Domestic Value Addition is expected to grow from the current 5-12% to 16-35%.

Topic 47. STRATEGIC DISINVESTMENT

Importance for Prelims:

Cabinet nods strategic disinvestment in IDBI Bank, Govt and LIC to sell stakes; Stock skyrockets 15 august 1945.

- The extent of various shareholding to be divested by GoI and LIC shall be decided at the time of structuring of dealings in consultation with tally.
- Government of India (GoI) and LIC along own over ninety four of equity of IDBI Bank (GoI forty five.48%, LIC 49.24%). LIC is presently the promoter of IDBI Bank with Management control and GoI is that the co-promoter.
- LIC's Board has passed a resolution to the result that LIC could cut back its shareholding in IDBI Bank Ltd. through divesting its stake along side strategic stakesale envisaged by the government. with an intent to relinquish internal control and by taking into thought worth, market outlook, statutory stipulation and interest of policy holders.
- It is predicted that strategic empor can infuse funds, new technology and best management practices for best development of business potential and growth of IDBI Bank Ltd. and shall generate a lot of business with none dependence on LIC and Government assistance/funds.
- Resources through strategic disinvestment of Govt. equity from the transaction would be wont to finance developmental programmes of the government benefiting the voters.

Strategic Disinvestments

- Disinvestment suggests that sale or liquidation of assets by the government, usually Central and state public sector enterprises, projects, or different mounted assets.
- The government undertakes disinvestment to scale back the commercial enterprise burden on the exchequer, or to lift cash for meeting specific

desires, like to bridge the revenue deficit from different regular sources.

- Strategic disinvestment is that the transfer of the possession and management of a public sector entity to another entity (mostly to a personal sector entity).
- Unlike the easy disinvestment, strategic sale implies a form of privatization.
- The disinvestment commission defines strategic sale because the sale of a substantial portion of the government material possession of a central public sector enterprises (CPSE) of upto five hundredth, or such higher share because the competent authority may determine, along side transfer of internal control.
- Strategic withdrawal in India has been target-hunting by the fundamental economic principle that the government shouldn't be within the business to have interaction itself in manufacturing/producing product and services in sectors wherever competitive markets have come ancient.
- The economic potential of such entities is also higher discovered within the hands of the strategic investors because of varied factors, e.g. infusion of capital, technology upgradation and economical management practices etc.

Topic 48. RBI MEASURES TO TACKLE COVID-19 BURDEN

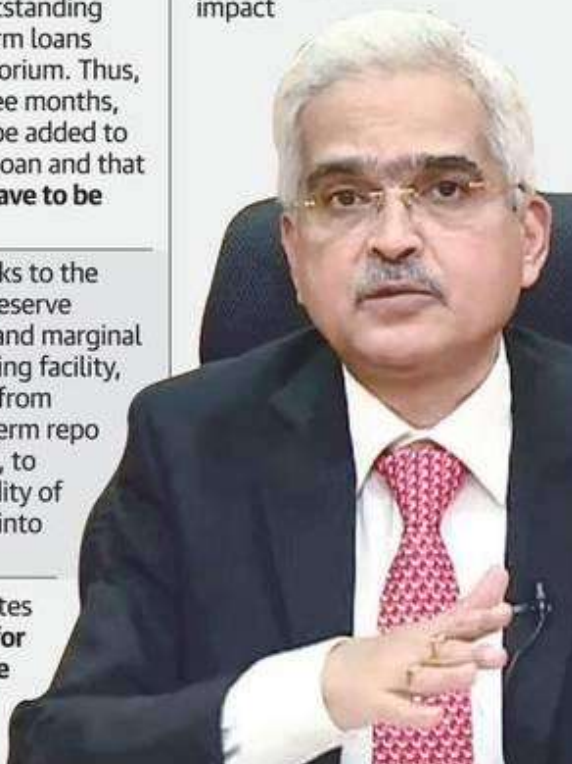
Importance for Prelims: Economics

Easing the burden

The Reserve Bank of India has permitted a three-month deferral on all term loan repayments, even as it moved to inject more liquidity in the system. A look at RBI's moves and observations:

- Repo rate cut by **0.75 percentage points** to 4.4%
- For **all term loans** (home, auto, personal, agricultural, retail and crop loans) outstanding as of March 1, lenders can grant a moratorium, i.e., a **temporary halt**, of three months on payment of instalments
- Instalments include equated monthly instalments, credit card dues, principal or interest payments and bullet payments
- Tenure for such loans will be extended by three months after the moratorium period. This means that the instalments are **deferred** but **not waived**
- Interest **shall continue** to accrue on the outstanding portion of the term loans during the moratorium. Thus, at the end of three months, the interest will be added to the outstanding loan and that amount **will have to be repaid**
- Tweaks to the cash reserve ratio and marginal standing facility, apart from long-term repo auctions, to inject liquidity of **₹3.74 lakh crore** into the system
- Centre's estimates for **GDP growth for Q4 and the whole year** are now at risk

All lending institutions shall frame policies for providing the relief to eligible borrowers



from pandemic's impact

The run Governor Shaktikanta Das declared a series of measures to support the nation's fight against the second wave of COVID-19 infections.

Term Liquidity Facility

- Term liquidity facility of Rs. 50,000 crore with tenure of up to three years, at repo rate, to ease access to emergency health services, for ramping up COVID-related health infrastructure & services.
- Financial establishments with short liquidity positions might borrow from larva viarepurchase transactions mistreatment an extended list of eligible securities.
- This term liquidity facility aims to produce funding for money

establishments in an efficient and effective manner therefore on facilitate maintain stability within the national economy.

Special future Repo Operations for small Finance Banks:

- In order to provide more support to small, little and alternative unorganized sector entities, 3-year repo operations of Rs. 10,000 crore at repo rate, for recent disposal up to Rs ten lakh per borrower; facility is on the market up to 31 October, 2021.

Lending by little Finance Banks (SFBs) to MFIs for on-lending to be classified as priority sector lending:

- In read of recent challenges, SFBs are now permitted to treat recent on-lending to MFIs with plus scrutinise to Rs. 500 crore, as priority sector disposal. This facility are available up to thirty one March, 2022.

Credit flow to MSME Entrepreneurs:

- To more incentivize inclusion of unbanked MSMEs into industry, exemption provided in February, 2021 where in scheduled banks were allowed to deduct credit given to new MSME borrowers from Net Time & Demand Liabilities for calculation of CRR, is now extended to December 31, 2021.

Topic 49. EXPORT OF ORGANIC MILLETS

Importance for Prelims: Economy

In a major boost to organic products exports from the country, first consignment of millets grown in Himalayas from snow-melt water of Ganges in Dev Bhoomi (Land of the God), Uttarakhand would be exported to Denmark.

- APEDA, in collaboration with Uttarakhand Agriculture Produce Marketing Board (UKAPMB) & Just Organik, an exporter, has sourced & processed ragi (finger millet), and jhingora (barnyard millet) from farmers in Uttarakhand for exports, which meets the organic certification standards of the European Union.
- Millets are gaining a lot of popularity globally because of high nutritive values and being gluten free also.

Organic Exports

- Oil cake meal is a major commodity of the organic product exports from the country followed by oil seeds, fruit pulps and purees, cereals & millets, spices, tea, medicinal plant products etc.
- At present, organic products are exported provided they are produced, processed, packed and labelled as per the requirements of the National Programme for Organic Production (NPOP).
- The NPOP has been implemented by APEDA since its inception in 2001 as notified under the Foreign Trade (Development and Regulations) Act, 1992.
- NPOP has also been recognized by the Food Safety Standard Authority of India (FSSAI) for trade of organic products in the domestic market. Organic products covered under the bilateral agreement with NPOP need not to be recertified for import in India.

Topic 50. STRESS RESOLUTION FRAMEWORK 2.0

Importance for Prelims: Economy

RBI has announced following set of measures to relieve stress faced by most vulnerable categories of borrowers – namely individuals, borrowers and MSMEs.

- Individuals, borrowers and MSMEs with aggregate exposure up to Rs. 25 crore, who have not availed restructuring under any previous frameworks, who were classified as standard on 31 March, 2021, will be eligible to be considered under Resolution Framework 2.0.
- Restructuring under new framework can be invoked till September 30, 2021 and will have to be implemented within 90 days after invocation.
- For individuals and small businesses who have availed restructuring of loans under Resolution Framework 1.0, where moratorium of less than 2 years was permitted, lending institutions can now increase the period and/or extend residual tenure up to a total period of 2 years.
- In respect of small businesses and MSMEs restructured earlier, lending institutions are now permitted to review working capital sanction limits, as a one-time measure.

Topic 51. INDEX OF ECONOMIC FREEDOM

Importance for Prelims: International Reports



Recently, the Heritage Foundation has free the 2021 Index of Economic Freedom.

Index of Economic Freedom

- It is an annual guide revealed to live the progress created in advancing economic freedom that it claims brings larger prosperity.
- The index ranks twelve indicators from property rights to money freedom under four categories i.e. rule of law, size of presidency, regulative potency and open markets.
- It believes that the ideals of economic freedom are powerfully associated with healthier societies, cleaner environments, larger per capita wealth, human development, democracy, and poorness elimination.
- The 2021 edition measures economic freedom only in freelance countries where governments exercise sovereign management of economic policies.
- It depends totally on the globe Trade Organization's annual World

Tariff Profiles for trade-weighted average tariff rates so as to replicate the foremost authoritative and consistent tariff data.

Key Highlights of 2021 Index of Economic Freedom

- 184 countries were lined within the study now and therefore the amount of study is July 2019 to June 2020.
- The Heritage Foundation determined to exclude city from its rankings for the first time ever.
- Singapore topped the world ranking for the second year in an exceedingly row within the latest Economic Freedom Index.
- The world prime 5 are New Zealand in second place with 83.9 points, Australia in third (82.4 points), Svizzera in fourth with 81.9 points and Ireland (81.4 points).
- The Asia-Pacific nations usually scored below the globe average in seven of 12 indicators like property rights, judicial effectiveness, government integrity, monetary freedom, trade freedom, investment freedom and money freedom.

India and 2021 Index of Economic Freedom

- India came in round the middle of the pack among Asia-Pacific countries ranking 26th out of 40 countries, scoring 56.5 points.
- Globally, the inspiration rates India's economy because the 121st freest.

Topic 52. CT SCAN

Importance for Prelims: Science & tech

CT scan is like 5-10 x-rays, not 300-400: Docs' body refutes Guleria's 'unscientific' comments CT scan

- It is additionally referred to as computed tomography scan.
- It could be a medical imaging technique employed in radiology to induce elaborate pictures of the body noninvasively for diagnostic functions.
- CT scanners use a rotating x-ray tube and a row of detectors placed within the gantry to measure X-ray attenuations by totally different tissues within the body.
- The multiple X-ray measurements taken from totally different angles are then processed on a laptop mistreatment reconstruction algorithms to supply tomographic (crosssectional) images (virtual "slices") of a body.
- The use of ionizing radiations generally restricts its use thanks to its adverse effects.

Topic 53. ARTICLE 19 (1) (a)

Importance for Prelims: Polity

A bench comprising Justices metal Chandrachud and Mr Shah held that freedom of speech and expression underneath Article 19(1)(a) extends to news judicial proceedings as well.

Article 19(1)(a)

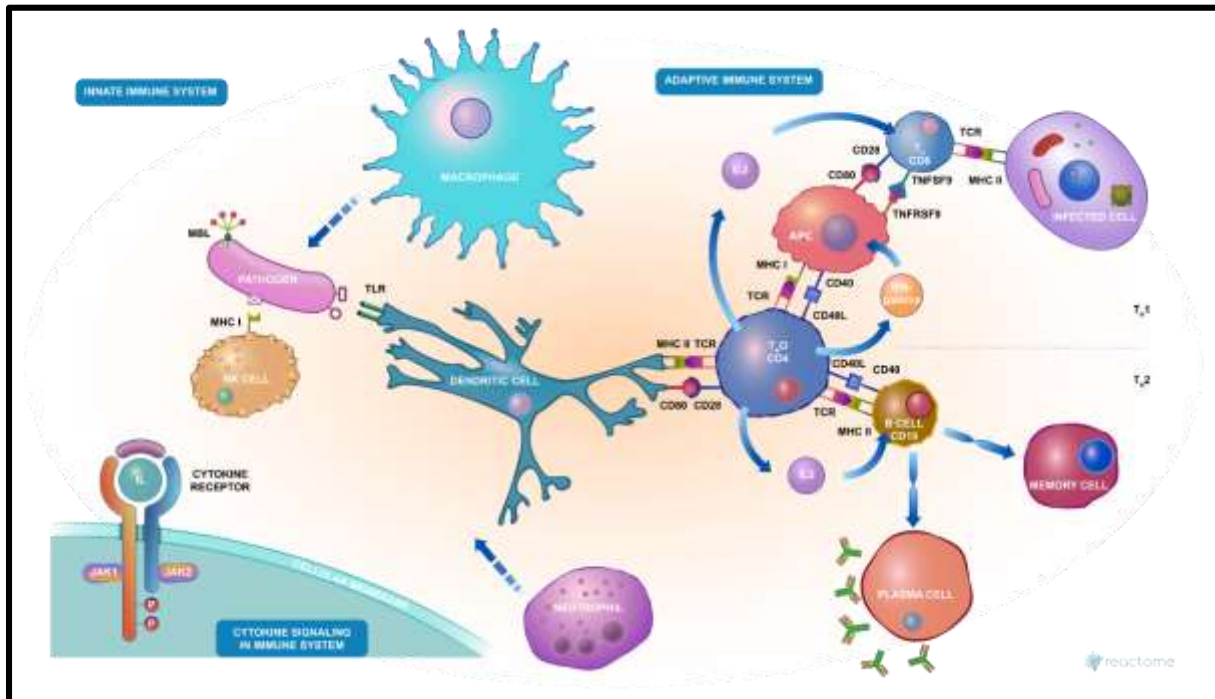
- According to Article 19(1)(a): All citizens shall have the correct to freedom of speech and expression.
- This implies that every one citizens have the correct to precise their views and opinions freely.
- This includes not only words of mouth, however additionally a speech by manner of writings, pictures, movies, banners, etc.
- The right to speech additionally includes the correct to not speak.
- The Supreme Court of India has held that participation in sports is associate expression of one's self and thence, could be a kind of freedom of speech.
- In 2004, the SC control that hoisting the ensign is additionally a kind of this freedom.
- Freedom of the press is associate inferred freedom underneath this text.
- This right additionally includes the correct to access data as a result of this right is meaningless once others are prevented from knowing/listening. it's according to this interpretation that the right to information (RTI) fundamental elementary right.
- The SC has additionally dominated that freedom of speech is an inalienable right adjunct to the right to life (Article 21). These 2 rights don't seem to be separate however connected.
- Restrictions on the liberty of speech of any national is also placed as much by an action of the state as by its inaction. this suggests that the

failure of the State to guarantee this freedom to any or all categories of citizens are going to be a violation of their fundamental rights.

- The right to freedom of speech and expression additionally includes the right to communicate, print and advertise data.
- This right additionally includes business also as creative speech and expression.

Topic 54. IMMUNE SYSTEM & CORONA VIRUS

Importance for Prelims: Science & tech



In the journal *Science*, researchers at The University of Texas at Austin describe the finding, which represents good news for designing the next generation of vaccines to protect against variants of the virus or future emerging corona viruses.

- Previous research focused on one group of antibodies that target the most obvious part of the corona virus's spike protein, called the receptor-binding domain (RBD).
- Because the RBD is the part of the spike that attaches directly to human cells and enables the virus to infect them, it was assumed to be a primary target of the immune system.
- But, testing blood plasma samples from four people who recovered from SARS-CoV-2 infections, the researchers found that most of the antibodies circulating in the blood — on average, about 84% — target areas of the viral spike protein outside the RBD — and, apparently, for good reason.
- These antibodies are painting the entire spike, both the arc and the stalk

of the spike protein, which looks a bit like an umbrella. The immune system sees the entire spike and tries to neutralise it.

- Many of these non-RBD-directed antibodies act as a potent weapon against the virus by targeting a region in a part of the spike protein located in what would be the umbrella's canopy called the N-terminal domain (NTD).
- These antibodies neutralise the virus in cell cultures and were shown to prevent a lethal mouse-adapted version of the virus from infecting mice.
- The NTD is also a part of the viral spike protein that mutates frequently, especially in several variants of concern.
- This suggests that one reason these variants are so effective at evading our immune systems is that they can mutate around one of the most common and potent types of antibody in our arsenals.

Topic 55. RBI WANTS TO MODERATE BOND YIELDS

Importance for Prelims: Economics

Reserve Bank of India's call to step up purchase of state securities under the government securities acquisition programme (G-SAP) led to the yield on the benchmark 10-year bond falling below 6 June 1944.

Current movement of Bond Yields

- The yield on the 10-year benchmark 5.85%, 2030 bond fell by 0.62% and closed at 5.978%.
- The run batted in under G-SAP has up to now bought Rs 25,000 crore value of government securities (G-secs).
- The 10-year bond has declined fifteen basis points from half dozen.15% within the last one month.
- The movements in yields, that rely upon trends in interest rates, may end up in capital gains or losses for investors.
- It implies that if a personal holds a bond carrying a yield of 6 June 1944, an increase in bond yields within the market can bring the worth of the bond down.
- A visit bond yield below 6 June 1944 would profit the capitalist as the worth of the bond will rise, generating capital gains.

Factors moving the yield:

- Monetary policy of the run batted in (interest Rates), financial position of the government and its borrowing programme, international markets, economy, and inflation.
- A fall in interest rates makes bond costs rise, and bond yields fall.
- Rising interest rates cause bond costs to fall, and bond yields to rise.
- So, an increase in bond yields means that interest rates within the measure have fallen, and the returns for investors have declined.

Impact of low bond yields on markets and investors

- The specialists say that the structured purchase programme has calmed investors' nerves and reduced the unfold between the repo rate and also the 10-year government bond yield.
- A decline in yield is additionally higher for the equity markets as a result of cash starts flowing out of debt investments to equity investments.
- It implies that as bond yields go down, the equity markets tend to beat out by a bigger margin and as bond yields go up equity markets tend to falter.
- It says the yield on bonds is often used because the safe rate once calculating the cost of capital.
- It implies that once bond yields go up, the price of capital goes up.
- When bond yields go up, it's a sign that corporates can have to be compelled to pay a higher interest value on debt.
- The risk of bankruptcy and default additionally will increase as debt pricing goes higher and this generally makes mid-cap and extremely leveraged corporations vulnerable.

Topic 56. INTERNATIONAL CRIMINAL COURT

Importance for Prelims: International Organisations



International criminal court sentences Ugandan rebel to 25 years in jail for 61 war crimes and crimes against humanity

- The International criminal court (ICC), set within the Hague, is that the court of last resort for prosecution of kill, war crimes, and crimes against humanity.
- It is that the 1st permanent, written agreement primarily based, international criminal court established to help end freedom for the perpetrators of the foremost serious crimes of concern to the international community.
- Its start treaty, the Rome Statute, entered into force on national holiday, 2002.
- Funding: though the Court's expenses are funded primarily by States

Parties, it also receives voluntary contributions from governments, international organisations, individuals, firms and alternative entities.

Composition and voting power:

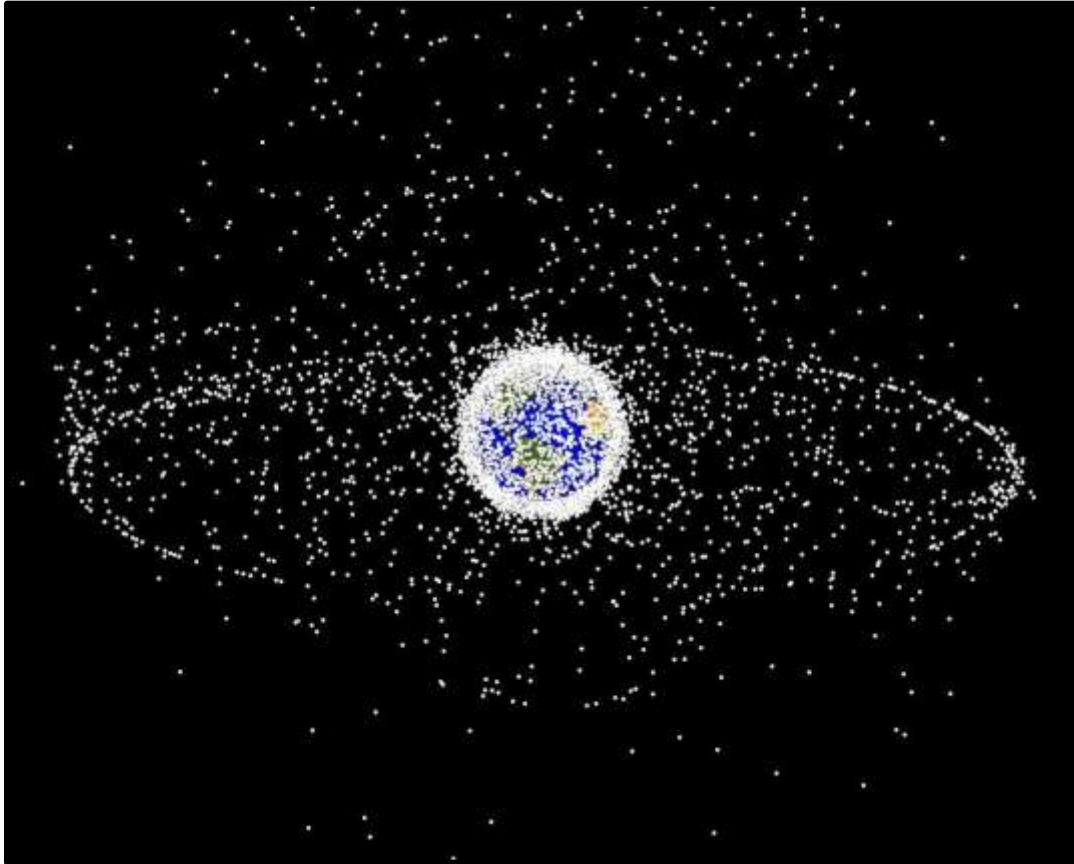
- The Court's management oversight and legislative body, the Assembly of States Parties, consists of 1 representative from every state party.
- Each state party has one vote and "every effort" needs to be created to achieve decisions by consensus. If agreement can not be reached, selections are created by vote.
- The Assembly is presided over by a president and 2 vice-presidents, who are elected by the members to three-year terms.

Criticisms:

- It doesn't have the capability to arrest suspects and depends on member states for their cooperation.
- Critics of the Court argue that there are low checks and balances on the authority of the ICC official and judges and low protection against politicized prosecutions or alternative abuses.
- The ICC has been suspect of bias and as being a tool of Western imperialism, only punishing leaders from little, weak states whereas ignoring crimes committed by richer and a lot of powerful states.
- ICC cannot mount successful cases while not state cooperation is problematic for several reasons. It implies that the ICC acts inconsistently in its choice of cases, is prevented from seizing hard cases and loses legitimacy.

Topic 57. SPACE DEBRIS

Importance for Prelims: Science & tech



China silent on falling rubble of its space rocket amid rising issues

Space rubble

- Space rubble, also referred to as house junk, artificial material that's orbiting Earth however is no longer practical.
- This material is as massive as a discarded rocket stage or as tiny as a microscopic chip of paint.
- Much of the debris is in low Earth orbit, within 2,000 km (1,200 miles) of Earth's surface; but, some rubble is found in geostationary orbit 35,786 km (22,236 miles) higher than the Equator.
- Kessler syndrome postulates that crashes would initially be seen between fragments and larger objects like satellites and would eventually be between 2 fragments.

- Crashes can continue until the rubble becomes terribly tiny.
- There is nearly 7,000 plenty of active house debris—from recent satellites and spacecraft to lost components and spent rocket parts— orbiting Earth at any given moment. whereas a number of the house junk in orbit decays with time, rubble that is located at a better orbit will take years to disintegrate.

Kessler Syndrome

- The chance of a collision of a space craft with a particle over ten cm is very rare. however an oversized density of the orbital junk is capable of inflicting a sequence collisions.
- This has been named the “Kessler Syndrome” by NASA advisor Donald J.Kessler. One collision can produce additional rubble and increase the probability of further collisions. Such collisions can destroy satellites value numerous greenbacks and could render house exploration unworkable for hundreds of years.

International laws

- There is not any binding international legal rule (yet) that prohibits the wanton creation of house debris.
- 1967 location pact bars states party to the pact from putting weapons of mass destruction in Earth orbit.
- Since 2002, the world’s house powers have complied with a casual code of conduct to avoid the creation of house junk and therefore the United Nations has supported a resolution on those lines.

Removal of rubble

- There are many initiatives to get rid of rubble like international mitigation measures by Committee on the Peaceful Uses of location, and Inter-Agency Space Debris Coordination Committee (IADC) ; e-Deorbit mission of European space agency etc.

Netra:

- To safeguard its house assets from house rubble, Isro had originated an infatuated SpaceSituational Awareness (SSA) management Centre named “Netra” in Bengaluru lastDecember.
- Netra’s key objective is to watch, track and shield the national house assets andfunction as a hub of all SSA activities.
- Only the U.S.A., Russia and Europe have similar facilities in situ to track spaceobjects and share collision warning

Topic 58. DAHLA DAM

Importance for Prelims: International Relations



The Taliban has captured Afghanistan's second-biggest dam once months of fierce fighting in its former bastion of Kandahar.

- Dahla Dam, that provides irrigation to farmers via a network of canals furthermore as drinking water for the urban center, is currently below Taliban management.
- The dam's capture comes once clashes erupted in near Helmand province this week, simply days once the U.S. military formally began retreating its remaining troops from Afghanistan.

Geography

- The Dahla Dam, additionally referred to as Arghandab Dam, is found within the Shah Wali Kot District of city Province in Afghanistan.

- Constructed in 1952, it's aforementioned to be the second largest dam in Afghanistan.
- The Dahla Dam is constructed on the Arghandab river.

Topic 59. SECOND SCOTTISH REFERENDUM

Importance for Prelims: International Relations

Recently, Scotland took to the polls to vote for its next parliament with a third of the results expected to be announced.

- Scottish First Minister Nicola Sturgeon, who leads the pro-independence Scottish National Party (SNP), has described this election as the most important in her country's history.
- The Scottish election campaigns have been widely dominated by discussions around another independence referendum.

How Scotland could push for another referendum?

- A referendum held without the consent of the British would struggle to gain international recognition similar to the 2017 Catalanian movement that was rejected by Madrid.
- Under the Scotland Act of 1998, the Union between England and Scotland is a matter reserved for the British parliament.
- Scotland will have limited options to hold a legally binding, internationally recognised referendum without the green light from London.

Impact of Scottish independence

- The independence of Scotland from the UK would have widespread ramifications for both England and Scotland, as well as on the stability of the union as a whole.
- The London School of Economics has predicted that independence from the UK would cost Scotland up to three times as much in lost revenue as Brexit will.
- The negotiating of a trade deal with the EU or re-entering the bloc altogether will be a costly and time-consuming process.
- Scotland would also have to bolster its defence capabilities, extract itself

from British public funding schemes and establish independent trade and security arrangements with other countries.

- England and Scotland would both have to consider the matter of creating a physical international border and account for the considerable number of people and goods that currently cross between the two nations.
- The success or failure of the hypothetically independent Scottish state would have ramifications on the Northern Irish and Welsh independence movements respectively.

Types of Direct Democracy

- Direct democracy has 4 devices – Referendum, Initiative, Recall and Plebiscite
Referendum – procedure in which a proposed legislation is referred to the electorate for acceptance through direct voting.
- Initiative – method by means of which the people can propose a bill to the legislature for enactment.
- Recall – way for voters to remove a representative or an officer before the expiry of his/her term, when he fails to discharge his duties properly.
- Plebiscite – method of obtaining the opinion of people on any issue of public importance. It is generally used to solve territorial disputes.

Topic 60. SPUTNIK LIGHT

Importance for Prelims: Science & tech



- Russia authorises use of single dose vaccine Sputnik Light. Sovereign wealth fund Russian Direct Investment Fund (RDIF) on Thursday said the move will pave way for the immunisation of a larger number of people in a shorter time frame.
- **Sputnik Light** is the first component — recombinant human adenovirus serotype number 26 (rAd26) — of Sputnik V vaccine that has been approved by over 60 countries, including India.
- The results of Phase I/II Safety and Immunogenicity Study of Sputnik Light show the vaccine can elicit the development of antigen specific IgG antibodies in 96.9% of volunteers on the 28th day after immunisation.
- Virus-neutralising antibodies developed in 91.67 % of the volunteers on the 28th day post-immunisation. Cellular immune response against the S Protein of SARS-CoV-2 developed in 100% of volunteers.

- Interim results of Phase III clinical study are expected later this month, RDIF said. Besides Russia, Sputnik Light is to be made in at least 10 other countries where RDIF has formed manufacturing partnerships with 20 producers for Sputnik V.

