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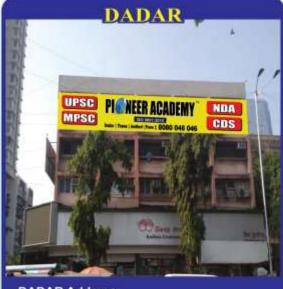
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Success is born of action...





Topic 1.NASA'S NEW COMMUNICATIONS SYSTEM LCRD

Importance for Prelims: Science and Tech

NASA launched its new Laser Communications Relay Demonstration (LCRD)

- NASA launched its new laser Communications Relay Demonstration (LCRD) — the agency's first-ever ray communications system.
- The LCRD can facilitate the agency check optical communication in space. Currently, most National Aeronautics and Space Administration spacecraft use frequence communications to send information.
- Optical communications can facilitate increase the bandwidth ten to one hundred times over RF systems.
- The LCRD payload is hosted onboard the United States Department of Defense's space check Program Satellite 6 (STPSat-6).
- It are during a geosynchronous orbit, over 35,000km higher than Earth.
- Laser VS radio Laser communications and radio waves use differentwavelengths of light.
- Laser uses infrared light and has a shorter wavelength than radio waves.
- This will help the transmission of more data in a short time.
- Advantages of optical communications Optical communications systems are smaller in size, weight, and need less power compared with radio instruments.
- A smaller size means that a lot of room for science instruments.
- Less weight means that a less costly launch.
- Less power means that less drain on the spacecraft's batteries.
- With optical communications supplementing radio, missions can have unique communications capabilities.

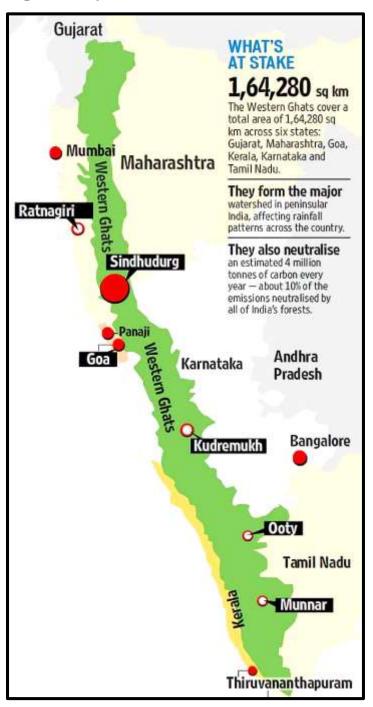






Topic 2. KASTURIRANGAN COMMITTEE ON WESTERN GHATS

Importance for Prelims: Environment



Karnataka Chief Minister informed the Centre that the state is opposed to the Kasturirangan Committee report on Western Ghats.

Recommendations of Kasturirangan committee report the The Kasturirangan committee report proposes thirty seven per cent of the







overall space of Western Ghats, that is roughly 60,000 sq. kilometres, to be declared as ecosensitive area (ESA).

- The state of karnataka has the best proportion of the ESA- 46.50 per cent. The report suggested a blanket ban on mining, quarrying, setting up of red class industries and thermal power comes.
- It conjointly stated that the impact of infrastructural projects on the forest and wildlife ought to be studied before permission is given for these activities.
- It additionally declared that the United Nations Educational Scientific and Cultural Organization Heritage tag is a chance to create world and domestic recognition of the enormous natural wealth that exists within the Western Ghats.
- The thirty-nine sites are placed across the Western Ghats and distributed across the states (Kerala 19), karnataka (10), tamil nadu (6) and maharashtra (4).

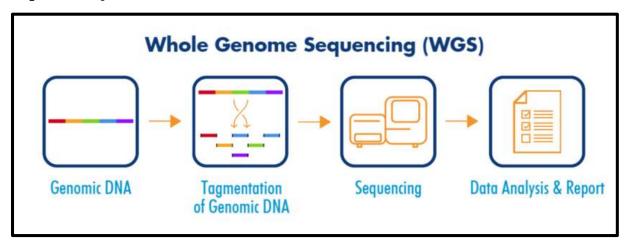






Topic 3. MICRO LABS FOR GENOMIC SEQUENCING

Importance for Prelims: Science and Tech



CSIR-IGIB and FIND plan to set up micro labs for genomic sequencing

- With the aim of taking genome sequencing to hard-to-reach locations and reducing the time to induce results from these tests, CSIRInstitute of genomics and Integrated Biology has partnered with notice, a world alliance for diagnostics.
- The idea is to decentralise genomic sequencing of SARSCoV-2 through micro labs placed nearer to wherever the RT-PCR testing takes place.
- At present, examination samples are sent to centralised labs at the Council of Scientific and Industrial Research's IGIB or others be part of to INSACOG – the Indian SARSCoV-2 genomics consortium – wherever they're run on high-throughput machines that need adequate samples to be run.
- The micro laboratory are housed during a redesigned shipping container and therefore the genome sequencing involves the additional nimble Oxford Nanopore technology.
- FIND can support and finance this initiative, for may be a year.
- The world alliance may be a co-convener of the Access to COVID-19







Tools (ACT) Accelerator – nosology pillar, and a World Health Organization collaborating centre for laboratory strengthening and diagnostic technology evaluation this may advance a 'hub-and-spoke' model of genomic surveillance comprising each MegaLabs (highthroughput sequencing) and MicroLabs (high-priority sequencing).







Topic 4. GREEN-AG PROJECT

Importance for Prelims: Agriculture

The switch to chemical-based farming and other faulty agricultural practices haveimperilled Odisha's Similipal biosphere reserve.

- The continuous exposure to faulty agricultural practices has garnered policymakers' attention, and Similipal is among the 5 landscapes chosen for the Food and Agricultural Organisation's Green-Ag project which was declared in 2018 and launched in Similipal in Oct 2021.
- Funded by world atmosphere Facility for 6 years, the project primarily aims to remodel agricultural practices whereas guaranteeing conservation of biodiversity and forest landscapes.
- The different four regions embrace Chambal in Madhya Pradesh, Dampa in Mizoram, desert areas in Jaisalmer and Barmer in Rajasthan and Corbett-Rajaji Tiger Reserve, Uttarakhand. Organic farming and agrobiodiversity conservation area unit among a portfolio of naturebased solutions projected within the Green-Ag project.
- The Green-Ag project is trying to create a multi-sectoral approach to develop synergism between the agriculture and allied areas with forest and atmosphere, at the national, state and also the district level.
- Key missions which will be targeted for strengthening embrace the National Mission on sustainable Agriculture; National livestock Mission; National Food Security Mission; National Initiative on Climate-resilient Agriculture, National Mission for agriculture and Rashtriya KrishiVikasYojana.





Topic 5. EU REGULATORS GIVE APPROVAL TO MIX VACCINES

Importance for Prelims: Science and Tech

European Union regulators endorsed the mixing two different Covid shots for initial vaccine schedules and boosters

- European Union regulators supported the mixing 2 completely different Covid shots for initial vaccine schedules and boosters, saying hybrid approaches will increase governments' flexibility in responding to the new omicron variant.
- Combining viral vector vaccines like Astra Zeneca with mRNA jabs like Pfizer generates a good level of antibodies against Covid and the next Tcell response, another a part of a person's immune defense, compared to giving doses of the same shot, consistent with information analysed by the european Medicines Agency and therefore the European Center for disease prevention and management
- Mix-and-match shot combinations are already used in a number of countries, including in the UK's booster program, and can provide countries with flexibility when managing vaccine stockpiles and shortagesas the new variant spreads.

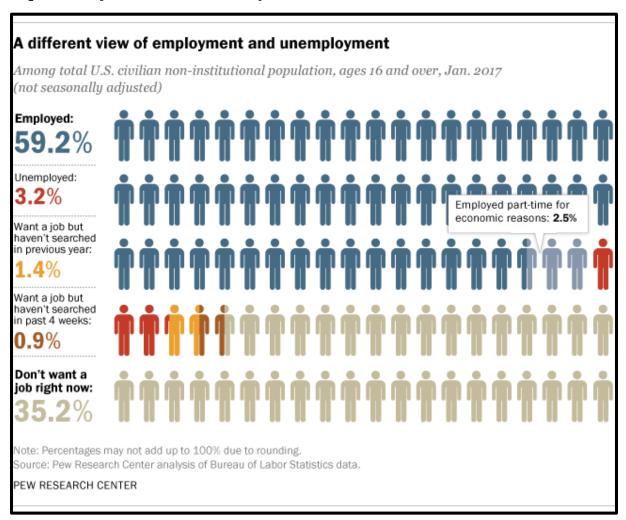






Topic 6. EMPLOYMENT VS UNEMPLOYMENT RATE

Importance for Prelims: Economy



Uttar Pradesh Chief Minister stated that the unemployment rate in the state was more than 17 per cent in the year 2016 and had now come down to four to five per cent.

The Labour Force consists of persons who are of fifteen years of age or additional and are either of the subsequent 2 categories: are utilized are idle and are willing to figure and are actively trying to find employment In different words, the Labour Force Participation Rate (or LFPR)essentially provides the percentage of the working-







age (15 years or more) population that's inquiring for a job; It represents the "demand" for jobs in an economy.

- It includes {those who|those that|people who} are employed and people who are unemployed.
- The Unemployment Rate (UER) is nothing but the number of unemployedas a proportion of the labour force.
- The Employment Rate (ER) is a combination of the UER and the LFPR.
- The ER refers to the number of employed people as a percentage of theworking-age population.
- Lower employment rates do not signal lots of new jobs, rather fewer peopledemanding them.
- LFPR in India is much lower than in other large economies. Often a fall in UER is a reflection of a fall in LFPR.
- Alow LFPR reflects poorly on the state of the economy.

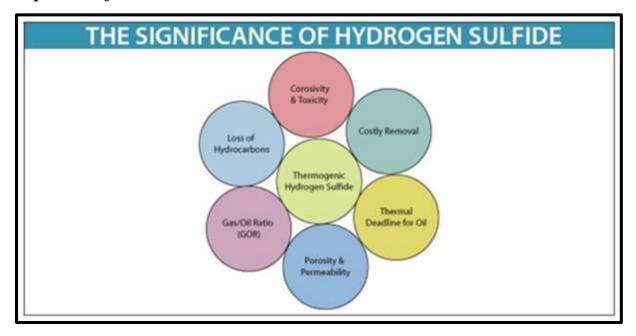






Topic 7. HYDROGEN SULPHIDE SUPPRESSES HIV

Importance for Prelims: Science and Tech



Researchers at the Indian Institute of Science (IISc.) and their collaborators have identified a key role played by hydrogen sulphide (H2S) gas in suppressing the Human Immunodeficiency Virus (HIV)

- Researchers at the Indian Institute of Science (IISc.) and their collaborators have known a key role played by hydrogen sulphide (H2S) gas in suppressing the Human immunodeficiency Virus (HIV).
- Increased H2S was found to own an immediate impact on reducing the rate at that the virus multiplies in HIV-infected human immune cells.
- Current state-of-the-art combined antiretroviral therapy (cART) is not a cure for HIV.
- It can only suppress the virus by causing it to become latent. About Hydrogen sulphide Hydrogen sulfide is a chemical compound with the formula H2S.
- It is a colorless chalcogen hydride gas with the characteristic foul







odor of rotten eggs.

- It is poisonous, corrosive, and flammable.
- Hydrogen sulfide is usually produced from the microbic breakdown of organic matter within the absence of oxygen, like in swamps and sewers; this method is usually referred to as anaerobic digestion that is completed by sulfate-reducing microorganisms.
- H2S additionally occurs in volcanic gases, natural gas, and in some sources of well water.
- The human body produces little amounts of H2S and uses it as a signal molecule.
- When high amounts of this chemical are found in the human body, damageto organs can occur with symptoms ranging from breathing difficulties to convulsions and even death.
- Hydrogen sulphide is slightly denser than air.
- A mixture of H2S and air will be explosive.
- Hydrogen sulfide burns in oxygen with a blue flame to form sulfur dioxide(SO2) and water.
- In general, hydrogen sulfide acts as a reducing agent.
- Hydrogen sulfide is slightly soluble in water and acts as a weak acid.
- Hydrogen sulfide reacts with metal ions to form metal sulfides, which are insoluble, often dark colored solids.

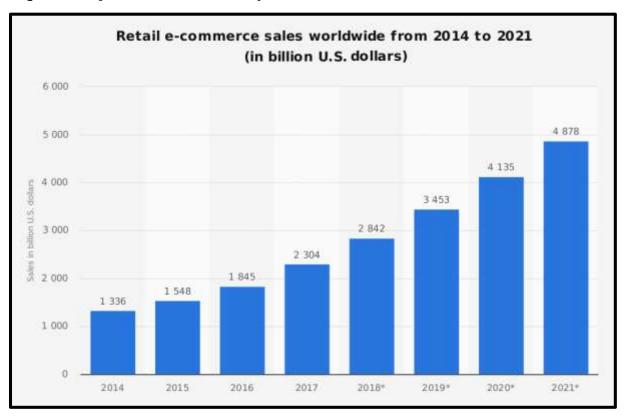






Topic 8. E-COMMERCE AT WTO

Importance for Prelims: Economy



WTO Ministerial Conference (MC12) got postponed due to the outbreak of the Covid-19 pandemic

- When e-commerce was still at a nascent stage, in Sep 1998, the work programme on e-commerce was adopted by the overall Council of the World Trade Organization.
- The programme was mostly exploratory in nature, focus on examining all trade problems regarding world ecommerce, considering the economic, monetary and development wants of developing countries.
- Under the programme, World Trade Organization members agreed to continue the observe of not imposing Customs duties on electronic transmissions.
- Also referred to as "moratorium on Customs duties", this has been







revived frequently at every Ministerial Conference and lots of World Trade Organization members, led by the United States needed the moratorium to continue in MC twelve.

- With the postponement of MC12, this can be possible to continue.
- One of the explanations for implementing the moratorium is that it's technically impossible for Customs to gather duties on digitalised product like software system.
- Change in stance India's position has modified over time.
- India, with a vibrant software business, was a proponent of liberalisation of Mode one or cross-border trade.
- However, with the expansion of e-commerce, there's a fear that developing countries, together with india, are importers and thereby losing out on impost.
- On March ten, 2020, india and south africa circulated a paper on the requirement to appreciate the scope and impact of the moratorium.
- Citing UNCTAD studies, it given the potential tariff revenue losses from product that became digitised, and that are digitisable. supported a restricted range of digitised product, namely, films, printed matter, video games, software system and music, the UNCTAD study calculable a loss of tariff revenue of over \$10 billion globally as a result of the moratorium, ninety five per cent of that is borne by developing countries.
- The study didn't consider that with growing trade agreements, tariffs are reducing.
- India itself proclaimed Early Harvest with key trading partners just like the United Kingdom and Australia in March 2022 and relaunched the India-US national trading policy Forum and, hence, the country is accessible tariff reduction.

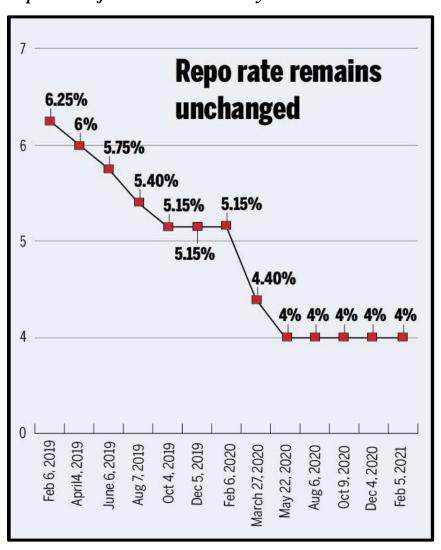






Topic 9. RBI KEEPS THE REPO RATES UNCHANGED

Importance for Prelims: Economy



The Monetary Policy Committee (MPC) of the Reserve Bank of India on Wednesday kept key policy rates unchanged for the ninth time in a row

- The bank has kept the repo rate the cost at that the Reserve Bank of India lends funds to banks — unchanged at four per cent and also the reverse repo rate — the cost at that Reserve Bank of India borrows from banks — at 3.35 per cent.
- The bank rate the cost at that Reserve Bank of India lends shortrun funds to banks sans security — additionally remains unchanged at 4.25 per cent.







- The unchanged repo rates can facilitate maintain the status quo on the prevailing low rate of interest regime for a few more time.
- This works well for borrowers because the environment of affordability can continue.







Topic 10.AMBERGRIS- THE FLOATING GOLD

Importance for Prelims: Environment



The Crime Branch of the Pimpri-Chinchwad police has arrested two persons in Pune and seized 550 grams of ambergris, also known as 'floating gold'

- It is usually referred to as whale vomit.
- It around the solid waxy substance that floats round the surface of the water body and from time to time settles on the coast.
- A sperm whale eats many thousand squid beaks each day and a beak makes it thanks to the whale's abdomen and into its process convoluted intestines wherever it becomes ambergris.
- It was known as as "preternaturally hardened whale dung" by a German physician Franz Schwediawer in 1783.







- It is process solely by an estimated one per cent of sperm cell whales.
- It contains alkaloids, acids, and a particular compound known as ambreine, that is similar to cholesterol.
- Value of ambergris it's mentioned as floating gold because one kilo of ambergris is value Rs one crore within the international market.
- The reason for its high cost is its use in the perfume market, especially tocreate fragrances like musk.
- It is believed to be in high demand in countries like Dubai that have a largeperfume market.
- The ancient Egyptians used it as incense and it is also believed to be used in some traditional medicines.
- Laws governing trade of Ambergris The sperm whale is a protected species and hunting of the whale is not allowed.
- The buying or selling of ambergris in India is prohibited under the WildlifeProtection Act 1972.
- Sperm Whale They are the largest of the toothed whales and have one ofthe widest global distributions of any marine mammal species.
- They are found in all deep oceans, from the equator to the edge of the packice in the Arctic and Antarctic.
- They are named after the waxy substance i.e. spermaceti, found in theirheads.
- It is listed as 'Vulnerable' under the IUCN Red List of Threatened Species. They inhabit all of the world's oceans.





Topic 11. WHO'S LATEST REPORT ON OMICRON VARIANT

Importance for Prelims: Science and Tech

WHO has presented an update on the current situation on Omicron

- WHO said that given the predominant circulation of the Delta variant in several countries, it's too early to draw a conclusion on the impact of the new omicron variant on the worldwide epidemiology of Covid-19.
- At constant time, World Health Organization has additionally conferred an update on the present situation on four key problems on omicron transmissibility, clinical severity, risk of reinfection and also the potential impact of the vaccines.
- WHO said that at this time, whereas "there appears to be proof that the omicron might have a growth advantage over different circulating variants, it's unknown whether or not this can translate into increased transmissibility".
- WHO underlined that presently solely limited information are available on clinical severity creating it "challenging to assess any changes in malady severity with the omicron variant".
- WHO said that initial modelling studies from south africa have found an increased risk of re-infection, adding, this info solely offers an initial assessment of the danger of re-infection.
- WHO reiterated that Interleukin-6 Receptor Blockers and corticosteroids are expected to still be effective within the management of patients with severe diseases.

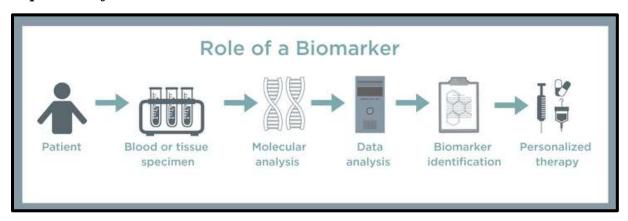






Topic 12. BIOMARKER

Importance for Prelims: Science and Tech



Australia's Queensland state has found a new omicron lineage in a traveller who arrived from South Africa

- In medicine, a biomarker may be a measurable indicator of the severity or presence of some illness state.
- More usually a biomarker is something which will be used as an indicator of a specific disease state or another physiological condition of an organism.
- According to the World Health Organization, the indicator could also be chemical, physical, or biological in nature – and also the measuring is also functional, physiological, biochemical, cellular, or molecular.
- A biomarker could also be used to see however well the body responds to a treatment for a illness or condition.
- Also referred to as molecular marker and signature molecule.
- Biomarkers facilitate in diagnosis, treating and tracking disease progress.
- They are necessary to safeguard health of a personal and supply them with correct treatment.







Topic 13. VARIABLE REVERSE REPO RATE (VRRR)

Importance for Prelims: Economy

RBI increases 14-day VRRR amount in December to shift out of overnight auctions

- RBI's rebalancing of liquidity management started in february 2020, because the central bank shifted its liquidity absorption tool out of the fixed-rate nightlong reverse repo window into VRRR auctions of longer maturity.
- In order to absorb extra liquidity within the system, the Reserve Bank of India declared conducting a VRRR program because it's higher yield prospects as compared to the fixed rate nightlong reverse repo.
- The reserve bank of india (RBI) has enhanced the quantity of variable rate reverse repo (VRRR) auctions in Dec, because it is shifting out of the fixed-rate nightlong reverse repo auction and re-establishing VRRR being as main liquidity management operations
- The amount below the 14-day VRRR auctions on a fortnightly basis has been increased to Rs 6.5 lakh crore for Dec seventeen and additional to Rs 7.5 lakh crore for Dec thirty first.
- While from Jan 2022 forwards, liquidity absorption are undertaken in the main through the auction route.
- Market participants expect the heavy liquidity withdrawal from the system can pull overnight balance rates near by repo rate, this might mean that accrual returns on a really short-run, low market risk product like nightlong and liquid funds may rise within the near months.







Topic 14. CHIEF OF THE DEFENCE STAFF (CDS)

Importance for Prelims: Security and Defence



Chief of the Defence Staff (CDS) General Bipin Rawat, his MadhulikaRawat, an Army Brigadier, and 10 others were killed when an Indian Air Force helicopter carrying them crashed into a heavily wooded area of the Coonoor ghat in the Nilgiris in western Tamil Nadu.

- CDS acts because the permanent Chairman of the Chiefs of workers Committee which is able to even have 3 service chiefs as members.
- His core propose are to foster larger operational synergy between the 3 service branches of the Indian military and keep inter-service frictions to a minimum.
- He also will head the recently created Department of Military Affairs (DoMA) within the Ministry of Defence.







- The CDS are the single-point military advisor to the Defence Minister on matters involving all 3 services and therefore the service chiefs are obliged to confine their counsel to problems pertaining to their respective services.
- As the pinnacle of DoMA, CDS is vested with the authority in prioritising inter-service procurance decisions as Permanent Chairman-Chiefs of workers Committee.
- The CDS is additionally vested with the authority to produce directives to the 3 chiefs.
- However, he doesn't get pleasure from any command authority over any of the forces.
- CDS is 1st among equals, he enjoys the rank of Secretary within the Department of Defense and his powers are confined to solely the revenue budget.
- He will perform an consultative role within the Nuclear Command Authority (NCA).
- The CDS may be a four-star officer selected from among the serving officers of the Indian armed forces.
- He are going to be the single-point military adviser to the govt. as advised by the Kargil Review Committee in 1999.
- He is additionally the Principal advisor to the Defence Minister.
- The broad mandate of the CDS includes bringing concerning "jointness" logistics, "operations, transport, training, support communications, repairs and maintenance of the 3 Services, among 3 years of the 1st CDS assuming office".
- Conditions: Not eligible to carry any government workplace once demitting the office of CDS.
- No personal employment while not prior approval for a period of 5 years







when demitting the workplace of CDS.

The age limit for the CDS's post is sixty five years with no fixed tenure outlined.





Topic 15. TWO PLANT SPECIES NOW EXTINCT IN WILD

Importance for Prelims: Environment

'Two plant species now extinct in the wild'

- Two species of plants 1st collected by botanists over one hundred twenty five years past from Meghalaya and also the Andaman Islands are currently extinct in the wild.
- Classified under the genus Boesenbergia, the species belong to the family of zingiberaceae, the ginger family of flowering plants.
- Boesenbergiarubrolutea was 1st collected from the Khasi Hills, Thera, in Meghalaya on Oct ten, 1886.
- Specimens of Boesenbergiaalbolutea were collected from the Andamans and sent to the Royal Botanic Gardens, Kew, England, in 1889.
- Possible reasons for their disappearance include climate change, human interference and overexploitation or natural calamities.
- Endemic to the locations of their discovery, Boesenbergiaalbolutea and Boesenbergiarubrolutea also are among the smallest amount explored species of the genus Boesenbergia.
- The authors have suggested listing them as 'Extinct within the Wild (EW) (IUCN 2019)' under the IUCN Red List class on the basis of field visits, examination of databases of varied herbaria, and accessible literature.

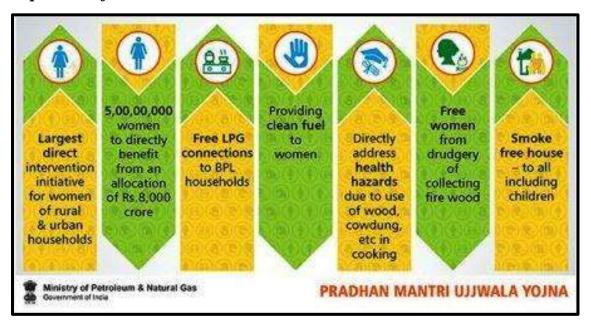






Toic 16. PRADHAN MANTRI UJJWALA YOJANA (PMUY)

Importance for Prelims: Government Schemes



High LPG prices are scorching the air pollution fight

- Pradhan Prime Minister launched the section of second MantriUjjwalaYojana (PMUY) or Ujjwala 2.0 Scheme. PMUY-I – Launched in could 2016 to supply LPG (liquefied petroleum gas) connections to poor households.
- PMUY-II: it's aimed to produce maximum profit to the migrants who live in alternative states and find it difficult to submit address proof.
- Now they'll only got to provide "Self Declaration" to avail the profit. The scheme provides a support of Rs 1600 for every LPG association to the BPL households.
- Along with a deposit-free LPG association, Ujiwala 2.0 can give the 1st refill and a hot plate freed from cost to the beneficiaries.
- Under Ujjwala 2.0, an additional 10 million LPG connections will be provided to the beneficiaries.
- Government has also fixed a target of providing piped gas to 21 lakh homesin 50 districts.







• Nodal Ministry - Ministry of Petroleum and Natural Gas (MoPNG).







Topic 17. CIVIL REGISTRATION SYSTEM

Importance for Prelims: Governance

Establishing reliable, real-time mortality surveillance is an essential element of pandemic preparedness

- The history of Civil Registration System (CRS) in india dates back to the center of the nineteenth century.
- In 1886 a Central Births, Deaths and Marriages Registration Act was promulgated to produce for voluntary registration throughout British india.
- Post-independence, the Registration of Births and Death Act (RBD Act) was enacted in 1969 to merchandise uniformity and comparability within the registration of Births and Deaths across the country and compilation of important statistics based mostly thereon.
- With the enactment of the Act, registration of births, deaths and still births has become necessary in india.
- The Registrar General, india (RGI) at the Central Government level coordinates and unifies the activities of registration throughout the country.
- However, implementation of the statute is unconditional with the State Governments.
- The registration of births and deaths within the country is functionaries completed by the appointed by the State Governments.
- Directorate of Census Operations area unit the sub-ordinate offices of workplace of the Registrar General, india and these offices are responsible of observation of operating of the Act in their







concerned State/UT.

- Civil Registration System (CRS) in india is that the unified method of continuous, permanent, mandatory and universal recording of the important events (births, deaths, stillbirths) and characteristics therefrom.
- The information generated through a whole and up-to-date CRS is essential for socio-economic planning.







Topic 18. LAW COMMISSION OF INDIA

Importance for Prelims:Polity

Law panel appointments under consideration

- The Law Commission of india could be a non-statutory body established by the govt. of India from time to time.
- The 1st Law Commission of freelance india was established in 1955 for a threeyear term. Since then, twenty another Commissions are established.
- The 1st Law Commission was established throughout the british raj era in 1834 by the Charter Act of 1833 and was chaired by lord macaulay.
- It works as an consultative body to the Ministry of Law and Justice.
- The Law Commission undertakes analysis in law and review of existing laws in india for creating reforms in that and enacting new legislations on a reference created thereto by the Central Government or suo-motu.

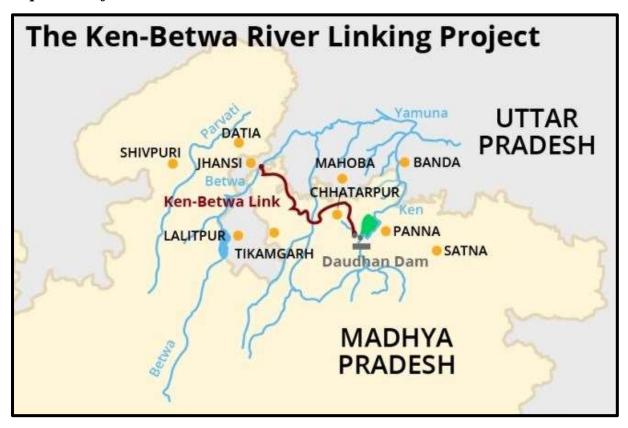






Topic 19. KEN-BETWA PROJECT

Importance for Prelims: Environment



Cabinet nod for Ken Betwa project

- Ken Betwa Link Project (KBLP): The Ken-Betwa Link Project (KBLP) is that the watercourse interlinking project that aims to transfer surplus water from the Ken watercourse in MP to Betwa in UP to irrigate the drought-prone Bundelkhand region.
- The region unfold across the districts of 2 states in the main Jhansi, Banda, Lalitpur and Mahoba districts of UP and Tikamgarh, Panna and Chhatarpur districts of MP.
- The project involves building a 77-metre tall and a 2-km wide Dhaudhan dam and a 230-km canal.
- Ken-Betwa is one of the thirty watercourse interlinking projects planned across the country.
- The project involves building a 77-metre tall and a 2-km wide Dhaudhan







dam and a 230-km canal.

- Ken-Betwa is one of the thirty watercourse interlinking projects conceived across the country.
- Ken watercourse passes through Panna tiger reserve. National Perspective arrange for interlinking of rivers:
- The National river Linking Project (NRLP) formally referred to as the National Perspective arrange, envisages the transfer of water from water 'surplus' basins where there's flooding, to water 'deficit' basins wherever there is drought/scarcity, through inter-basin water transfer projects.
- Under the National Perspective plan (NPP), the National water development Agency (NWDA), has known thirty links (16 below the peninsular part and fourteen below the himalayan Component) for the preparation of feasibility reports (FRs).
- The NPP for transferring water from water-surplus basins to water-deficit basins was ready in August 1980.





Topic 20. INDIAN BROADCASTING AND DIGITAL FOUNDATION (IBDF)

Importance for Prelims: Governance



No coercive action against digital media without our approval, says Madras HC

- The Madras supreme court asked the central government to not take any coercive action against digital media firms that are members of Indian Broadcasters and Digital Media Foundation, under key provisions of the new IT Rules, 2021, while not seeking its permission.
- About indian Broadcasting and Digital Foundation (IBDF) IBDF may be a unified representative body of the television broadcasters in India. The organisation was founded within the year 1999.
- Over 250 Indian tv channels are related to it. Recently, in May, 2021, The Indian Broadcasting Foundation (IBF), the apex body of broadcasters, was expanded to hide digital streaming platforms and renamed because the Indian Broadcasting and Digital Foundation (IBDF).
- The move brought the broadcasters and OTT (over-the-top) platforms, that had seen a considerable jump in their viewership base when the pandemic, below one roof.







- IBDF conjointly formed a self-regulatory body named as Digital Media Content regulative Council (DMCRC) for digital OTT platforms.
- DMCRC could be a second-tier mechanism at the appellate level and is similar to Broadcast Content complaint Council (BCCC), that IBF had implemented for the linear broadcasting sector method back in 2011.
- The IBDF is that the parent organisation of the Broadcasting Content Complaints Council (BCCC) that was set up within the year 2011.
- The BCCC examines content-related complaints about all non-news general entertainment channels in india.
- The info Technology (Intermediary tips and Digital Media Ethics Code) Rules, 2021 Social media intermediaries, with registered users in india above a notified threshold, are classified as significant social media intermediaries (SSMIs).
- SSMIs are needed to observe sure further due diligence like appointing sure personnel for compliance, enabling identification of the primary originator of the data on its platform under certain conditions, and deploying technology-based measures on a best-effort basis to identify certain kinds of content.
- The Rules prescribe a framework for the regulation of content by on-line publishers of reports and current affairs content, and curated audio-visual content.
- All intermediaries are needed to produce a grievance redressal mechanism for resolution complaints from users or victims.
- A three-tier grievance redressal mechanism with variable levels of selfregulation has been prescribed for publishers. Digital News Publishers Association (DNPA) it's a13-member collective of the country's biggest news media firms.
- DNPA is an organisation of the digital arms of leading media







corporations of the country, representing both print and tv entities.

Formed in 2018, the DNPA includes: IE on-line Media Services of The Indian express group, ABP Network, Amar Ujala, DainikBhaskar corp, categorical Network, HT Digital Streams, Jagran Prakashan, Lokmat Media, NDTV Convergence, TV nowadays Network, The Malayala Manorama, Times net restricted and Ushodaya Enterprises.

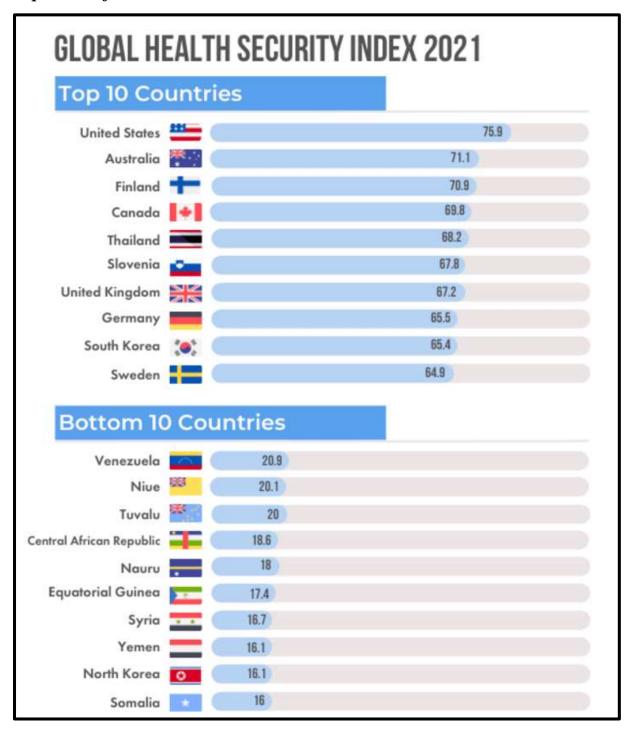






Topic 21. GLOBAL HEALTH SECURITY INDEX 2021

Importance for Prelims: Governance



World unprepared for future pandemics: Global Health Security Index 2021

The world Health Security Index is an assessment of world health security capabilities in 195 countries ready by the Johns Hopkins Center for Health Security, the Nuclear Threat Initiative (NTI) and also the







economist Intelligence Unit (EIU).

- The world remains unprepared for future epidemic and pandemic threats. Countries across all financial gain levels stay dangerously unprepared to meet future epidemic and pandemic threats, consistent with the new 2021 world Health Security (GHS) Index released Dec Eight, 2021.
- The world's overall performance on the GHS Index score slipped to 38.9 (out of 100) in 2021, from a score of 40.2 within the GHS Index, 2019.
- In South Asia, India, with a score of 42.8 (out of 100) too, has slipped by 0.8 points since 2019.
- In 2021, no country scored in the top tier of rankings and no country scoredabove 75.9, the report showed.
- It has assessed countries across six categories, 37 indicators and 171 questions, using instantly available information.







Topic 22. JUDICIAL REVIEW OF SPEAKER'S DECISION

Importance for Prelims:Polity

Supreme Court sets aside Manipur Speaker's order disqualifying three MLAs fordefection

- Constitutional courts cannot judicially review disqualification proceedings under the Tenth Schedule (anti-defection law) of the Constitution till the Speaker or Chairman makes a final judgment on deserves.
- A 28-year-old judgment of the Supreme Court within the Kihoto Hollohan versus Zachillu and others has aforementioned that "judicial review can't be accessible at a stage prior to the creating of a choice by the Speaker/Chairman and a quiatimet action wouldn't be permissible.
- Nor would interference be permissible at an intermediary stage of the proceedings."
- "The solely exception for any interlocutory interference being cases of intermediary disqualifications or suspensions which can have grave, immediate and irreversible repercussions and consequence."
- Conditions for appeal: The Feb 1992 judgment had same that even the scope of judicial review against an order of a Speaker or Chairman in antidefection proceedings would be confined to jurisdictional errors, that is, "infirmities supported violation of constitutional mandate, mala fides, non-compliance with rules of natural justice and perversity."
- The Constitution Bench had upheld the anti-defection law.
- The reason for limiting the role of courts in current defection proceedings is that the "office of the Speaker is control within the highest respect and esteem in parliamentary traditions."







- But the Speaker's decision was subject to appeal as he acted as a tribunal whereas deciding cases under the anti-defection law.
- The Speaker of the House doesn't have the power to review his own selections to disqualify a candidate.
- Ignoring a petition for disqualification isn't merely an irregularity however a violation of constitutional duties







Topic 23. WTO TRIPS

Importance for Prelims:IR



PepsiCo Controversy: Globally, India Has Always Refused to Give in on IPR onPlant Varieties

- India could be a member of multilateral trade rules, the world Trade Organisation (WTO), since 1995.
- One of the World Trade Organization agreements, specifically the Agreement on Trade-Related Aspects of intellectual property Rights (TRIPS), introduced the concept of intellectual property rights (IPR) on life forms as a world minimum standard.
- It was due to the push of the seed, drug company and biotech corporations that the trips Agreement was place within the World Trade Organization.







- The move had no social backing in india, significantly from farmers. whereas the trips Agreement still came to be, we chose to opt out of patents on plants, using Article 27(3)(b) of trips that enables World Trade Organization members to exclude plants from patentability.
- Section 3(j) of the Indian Patents Act makes it clear that plants, together with seeds, varieties and species, and essentially biological processes for production or propagation of plants aren't inventions.
- India therefore doesn't subscribe patents on plants and provides for IPR through plant variety protection (PVP) instead.
- That is that the purpose of genesis of the Protection of Plant Varieties and Farmers' Rights Act, 2001, that is an IPR law.
- The International treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) The International pact on Plant Genetic Resources for Food and Agriculture (ITPGRFA) is that the international law that recognises farmers' contributions in PGR for food and farming.
- The pact entered into force in 2004.
- It has specific provisions on Farmers' Rights in Article nine. india may be a member of the seed written agreement and has provided for farmers' rights in its domestic legislation.
- The Registrar General of the PPV&FR Authority may be a co-chair of the Technical skilled category set up under the written agreement to convey counselling to member countries on a way to effectively implement farmers' rights.
- The Registrar General is additionally the registrar in charge of farmer rights within the country. Peasant declaration Pushed by its Human Rights Council, in Dec 2018, the United Nations General







Assembly adopted a declaration on the rights of peasants and people operating in rural areas.

- This was the results of a 17-year-long method, initiated by the international peasant movement La via Campesina, supported by various social movements and allied organisations.
- Article nineteen of the declaration is devoted to farmers' seed rights. This includes the correct to save lots of, use, exchange and sell their farm-saved seed or propagating material.
- Under the declaration, states need to make sure that seed policies, plant variety protection and different intellectual property laws, respect and take into account the rights, wants and realities of smallholder farmers.
- The Indian government voted for this declaration.
- Treaty on Transnational Corporation (TNC's) This alliance for a binding treaty on Transnational Corporation (TNC's) gathers global networks and alliances, which collectively represent more than 500 groups world-wide who are determined to stop corporate human rights violations.
- In 2014, the united nations Human Rights Council adopted a resolution "to establish an open-ended intergovernmental social group on transnational companies and different business enterprises with reference to human rights, whose mandate shall be to elaborate a world lawfully binding instrument to manage, in international human rights law, the activities of transnational firms and different business enterprises."
- The Indian delegation, which includes the Ministry for company Affairs, has studied the zero draft thoroughly and is of the opinion that thorough and elaborate deliberations on various parts of the







draft are needed.

Nonetheless, it's expressed commitment to the negotiations. to understand regarding Protection of Plant Varieties & Farmers' Rights (PPV&FR) Authority, please refer Dec 2021 DPN.





Topic 24. WORLD GOLD COUNCIL (WGC)

Importance for Prelims:IR



Imports made up 86% of gold supply in 2016-20, says WGC

- The World Gold Council is that the market development organisation for the gold business.
- Its purpose is to stimulate and sustain demand for gold, give business leadership, and be the world authority on the gold market.
- It may be a non-profit association of the world's leading gold producers. Headquartered in London, the WGC covers the markets that comprise







concerning three-quarters of the world's annual gold consumption

It may be a market development organization for the gold industry which incorporates twenty five members and lots of gold mining companies also.







Topic 25. RETAIL INFLATION

Importance for Prelims: Economy

'India's retail inflation likely accelerated in Nov. to 5.1%'

- The change in the consumer price index over a period of time is referred to as CPI based inflation, or retail inflation.
- The CPI is an index measuring retail inflation in the economy by collecting the change in prices of most common goods and services used by consumers.
- The CPI is calculated for a fixed list of items including food, housing, apparel, transportation, electronics, medical care, education, etc.
- The CPI specifically identifies periods of deflation or inflation for customers in their daily living expenses.
- The CPI is used as a: macroeconomic indicator of inflation; Tool by the central bank and government for inflation targeting and for inspecting worth stability; and deflator within the national accounts.
- Consumer price index in india|Bharat|Asian country|Asian nation} In India, there area unit four client price index numbers, that are calculated, and these are as follows: CPI for Industrial employees (IW) CPI for Agricultural Labourers (AL) CPI for Rural Labourers (RL) and CPI for Urban Non-Manual employees (UNME) The Ministry of Statistics and Program Implementation collects CPI (UNME) information and compiles it however the remaining 3 are collected by the Labour Bureau within the Ministry of Labour.

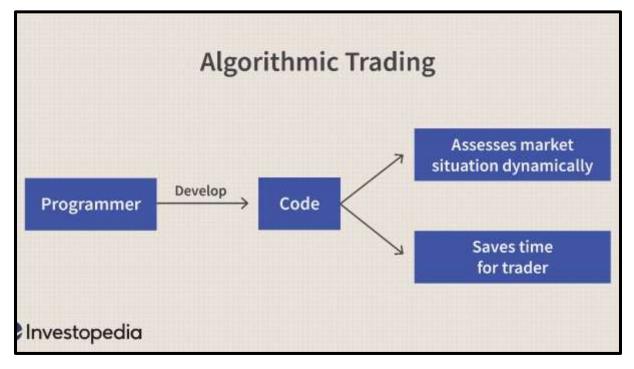






Topic 26. ALGORITHMIC TRADING

Importance for Prelims: Economy



SEBI mulls norms to regulate algo trading by retail investors

- Algorithmic trading (also known as automated trading, black-box merchandise, or algotrading) uses a computer program that follows a defined set of instructions (an algorithm) to place a trade.
- The trade, in theory, will generate profits at a speed and frequency that's not possible for an individual's dealer.
- The explain sets of instructions are supported timing, price, quantity, or any mathematical model.
- Apart from profit opportunities for the dealer, algo-trading renders markets additional liquid and trading additional systematic by ruling out the impact of human emotions on trading activities.
- algorithmic india|Bharat|Asian trading in country|Asian nation}|Bharat|Asian country|Asian nation} Algorithmic mercantilism was introduced and allowed in India in 2008 by the Securities and Exchange Board of India (Sebi).







- Initially, it started with Direct Market Access (DMA) and was restricted to institutional investors solely, however because of the price advantage and better execution, the trading community welcome it with open arms.
- Benefits of algorithmic trading Trades are carry out at the most effective attainable costs.
- Trade order placement is instant and accurate (there is a high probability of execution at the desired levels).
- Trades are timed properly and instantly to avoid vital value changes. Reduced transaction prices.
- Simultaneous automated checks on multiple market conditions. Reduced risk of manual errors once placing trades.
- Algo-trading will be back tested using accessible historical and time period information to see if it's a viable trading strategy.
- Reduced the possibility of mistakes by human traders supported emotional and psychological factors.

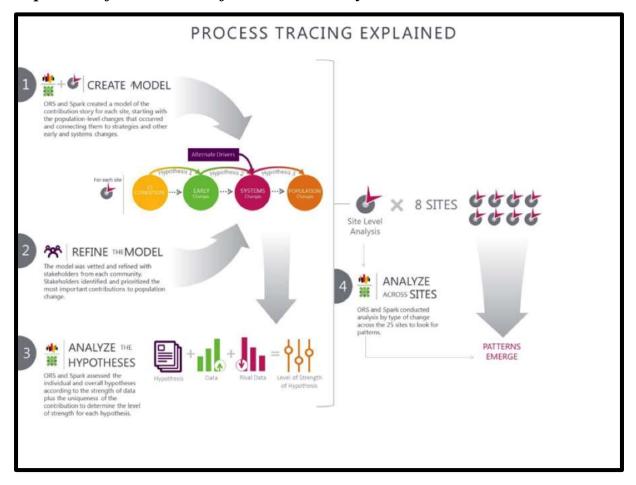






Topic 27. COLLECTIVE STRENGTH INITIATIVE

Importance for Prelims: Defence and Security



10 countries simulate cyberattack on global financial system

- Israel led a 10-country simulation of a significant cyberattack on the world economic system in an attempt to extend cooperation that would facilitate to minimize any potential harm to monetary markets and banks.
- The simulated "war game", as Israel's Finance Ministry referred to as it and planned over the past year, evolved over ten days, with sensitive information emerging on the Dark web.
- The simulation conjointly used fake news reports that within the scenario caused chaos in international markets and a run on banks.
- Participants within the initiative, known as "Collective Strength",







enclosed treasury officials from Israel, the US, the UK, United Arab Emirates, Austria, switzerland, Germany, Italy, the netherlands and thailand, also as representatives from the International monetary fund, international bank and Bank of International settlement.





Topic 28. SCHEDULED STATUS OF A BANK

Importance for Prelims: Economy

Scheduled status to Paytm Payments Bank

- Paytm Payments Bank has been given the scheduled bank status by the reserve bank of india.
- According to the bank, it's been enclosed within the Second Schedule to the reserve bank of india Act. 1934.
- With the scheduled bank standing, the bank will explore new business opportunities, as well as participation in government and different massive corporations issued request for proposals, primary auctions, fixed-rate and variable rate repos, and reverse repos scheduled banks scheduled banks are banks that are listed within the second schedule of the reserve bank of india Act, 1934.
- The bank's paid capital and raised funds should be at least Rs5 lakh to qualify as a scheduled bank.
- Scheduled banks are responsible for low-interest loans from the reserve bank of india and membership in clearinghouses.
- They should, however, meet sure needs, like maintaining an average daily CRR (Cash Reserve Ratio) balance with the central bank at the rates set by it.
- The RBI allows Scheduled Banks to raise debts and loans at bank rates. Scheduled banks consist of
 - 1. Scheduled commercial banks
 - 2. Scheduled cooperative banks

The scheduled commercial banks are divided into following categories:

1. Public sector banks(which are additional classified as







nationalised banks and state bank of india [SBI] banks);

- 2. Personal sector banks(which are any classified as recent non-public sector banks and new non-public sector banks that emerged when 1991);
- 3. Foreign banks in India; and,
- 4. Regional rural banks(which operate solely in rural areas to produce credit and different facilities to little and marginal farmers, agricultural employees, artisans, and tiny entrepreneurs).

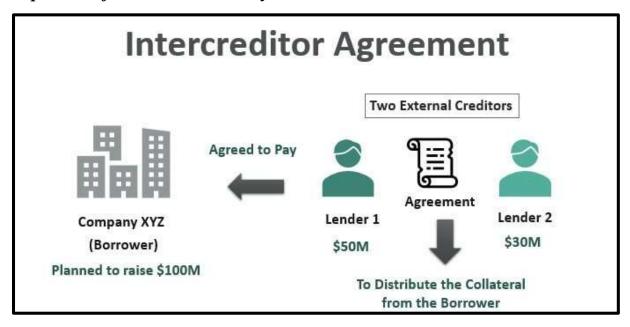






Topic 29. INTER CREDITOR AGREEMENT

Importance for Prelims: Economy



RCF: Authum resolution plan gets debenture holders nod

- ICA is an agreement among banks that have dues from a borrower in stress. The pact mandates the lead bank to formulate a resolution plan that will be executed in a time bound manner.
- It was framed under the aegis of Indian banks association, following the recommendation of Sunil Mehta Committee on stressed assert resolution.
- Around twenty two public sector banks (including india Post Payments Bank), nineteen non-public lenders and thirty two foreign banks signed the inter-creditor agreement (ICA) to means the resolution of stressed assets.
- **Applicability** The ICA is applicable to all company borrowers who have availed loans for an quantity of fifty crore or a lot of under consortium lending / multiple banking arrangements.
- The agreement is part of the planned Project Sashakt. "Sashakt" set up is







approved by the govt. to address the matter of resolution unhealthy loans.

• The objective is to use this ICA for quicker facilitation of resolution of stressed assets.







Topic 30. CRYPTO AS SECURITIES OF SPECIAL CLASS

Importance for Prelims: Economy

Treat crypto as securities of special class, says CII

- The term "security" refers to a fungible, negotiable monetary instrument that holds some kind of monetary value.
- It represents an possession position in a publicly-traded corporation via stock; a individual relationship with a governmental body or a company represented by owning that entity's bond; or rights to possession as represented by an choice.
- Securities are tradable monetary instruments wont to raise capital publically and personal markets.
- There are primarily 3 sorts of securities: equity—which provides possession rights to holders; debt—essentially loans repaid with periodic payments; and hybrids—which mix aspects of debt and equity.
- Publicly listed securities are listed on stock exchanges, wherever issuers will request security listings and attract investors by guaranteeing a liquid and regulated market during which to trade.

What are government securities?

- Government securities or G-Secs are essentially debt instruments issued by a government.
- These securities can be issued by both the central government and the stategovernments of India.







Topic 31. NO LINE OF SUCCESSION FOR CDS

Importance for Prelims: Defence and Security

No clear line of succession, CCS to decide on next CDS

- Unlike the structures for the military, wherever the second-in-command to each officer, whether within the field or as a service chief, officiates if the lead officer becomes indisposed, sources speak there's no immediate line of succession envisaged for the CDS — though there's an unofficial Vice Chief of Defence workers, who may be a threestar officer.
- For example, if a serving chief of the military, the Navy or the Air Force becomes incapable of holding his position, the Vice Chief of that force officiates because the chief till the govt appoints a fulltime chief.
- It doesn't essentially ought to be the Vice Chief, though. Sources said the appointment of the CDS/DMA Secretary is a lot of akin to that of a secretary than that of a service chief.
- There is not any deputy to the CDS, who would have instinctively officiated in his role in his absence.
- CDS may be a military officer, however could be a bureaucrat like a secretary, that is why there's no direct "line of succession".
- It is an appointment created by the political leadership.
- He is "not in active military service, however parts of bureaucracy associated with the military, that were looked after by the civilian bureaucracy, was handed over to the DMA and also the CDS as its secretary".
- The CDS was the permanent head of the Chiefs of staff Committee (CoSC), which includes the 3 service chiefs. Before the post of CDS was created, the senior-most service chief would be the chairman of CoSC.
- There is additionally the Integrated Defence staff (IDS), headed by a three-star officer from the services known as Chairman IDS to the







Chairman COSC (CISC), who enjoys the rank of a Vice Chief of a service.

- When the post of CDS was created, the CISC was expected to be created VCDS. though the CISC will stand-in for the CDS if the latter is inaccessible for ceremonial roles, this can be not for executionary powers.
- For the three-star CISC, decision making over the CoSC with four-star officers will be a problem.
- Cabinet Committee on Security The committee is chargeable for debates, discussions and appointments of/in the national security bodies.
- Major selections with respect to the significant appointments, problems with national security, defence expenditure of india are taken by the cupboard Committee on Security (CCS). CCS is chaired by the Prime Minister of india.
- The following are the members of the CCS: Prime Minister Minister of Defence Minister of Home Affairs Minister of Finance & company Affairs Minister of External Affairs.

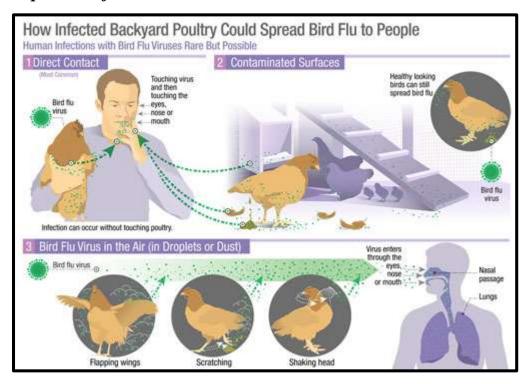






Topic 32. BIRD FLU

Importance for Prelims: Science and Tech



Bird flu triggers alert in Alappuzha

- Avian influenza (AI) could be a extremely contagious viral disease touching many species of food-producing birds (chickens, turkeys, quails, domestic fowl, etc.), also as pet birds and wild birds.
- Occasionally mammals, including humans, might contract avian influenza. influenza A viruses are classified into subtypes supported 2 surface proteins, Hemagglutinin (HA) and Neuraminidase (NA).
- For example, a virus that has an HA seven protein and NA nine protein is selected as subtype H7N9.
- Avian influenza virus subtypes include A(H5N1), A(H7N9), and A(H9N2). HPAI A(H5N1) virus occurs in the main in birds and is extremely contagious among them.
- HPAI Asian H5N1 is particularly deadly for poultry. Prevention: Strict biosecurity measures and sensible hygiene are essential in protecting







against disease outbreaks.

- Eradication: If the infection is detected in animals, a policy of culling infected and make contact with animals is generally employed in an attempt to quickly contain, management and eradicate the disease.
- extremely pathogenic avian influenza (HPAI): the 2 virus varieties known so far within the outbreaks — H5N1 and H5N8come under the class of Highly pathogenic avian influenza (HPAI), that is of major concern to those keeping birds, as a result of it leads to disease and death of fowl and causes economic havoc.
- H5N1 is a known threat to humans as well Out of the three types of influenza viruses (A, B, and C), influenza A virus is a zoonotic infection with a natural reservoir almost entirely in birds.
- Avian influenza, for most purposes, refers to the influenza A virus.
- Though influenza A is adapted to birds, it can also stably adapt and sustainpersonto-person transmission.
- Mode of transmission: Avian influenza is most often spread by contact between infected and healthy birds, though can also be spread indirectly through contaminated equipment.
- The virus is found in secretions from the nostrils, mouth, and eyes of infected birds as well as their droppings.
- HPAI infection is spread to people often through direct contact with infected poultry, such as during slaughter or plucking.

Is this influenza airborne?

- Though the virus will spread through airborne secretions, the disease itself isn't an airborne illness.
- Human to human transmission: In its present form, human-to-human









infection isn't better-known — human infections are reportable solely among people that have handled infected birds or carcasses.







Topic 33. CYCLONES IN ARABIAN SEA

Importance for Prelims: Geography

More cyclones in Arabian Sea recently, Minister tells RS

- The frequency of "very severe cyclonic storms" has extant in recent years over the arabian sea.
- However, this has not measurably increased the threat to India's western coast, as most of those cyclones were creating landfall in oman and yemen.
- A terribly severe cyclone is outlined as one with wind speeds touching 220 kmph.
- It is that the fourth highest class of cyclones, just under "extremely severe cyclones".

Factors responsible for this –

- Surface temperatures inside the Arabian Sea have augmented rapidly throughout the past century attributable to heating.
- Temp. Now is 1.2–1.4 °C over the temperature witnessed four decades past.
- These hotter temperatures support active convection, heavy rain, and intense cyclones.
- The rising temperature is to boot enabling the Arabian Sea to supply ample energy for the intensification of cyclones
- The arabian sea is additionally providing conducive wind shear for cyclones.
- For instance, the next level easterly wind drove the depression of Cyclone Ockhi from the Bay of bengal to the arabian sea. larger occurrence of El Niño Modoki.
- It could be a climate phenomenon that makes conditions that aren't







conducive for cyclogenesis within the Bay of bengal.

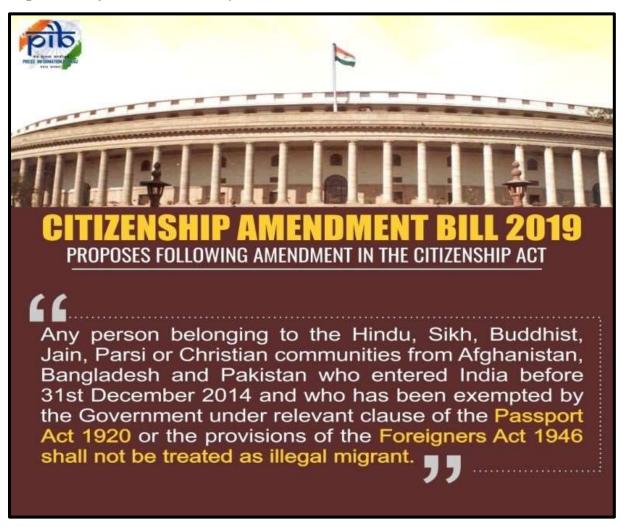
However, this condition is contributory for the formation of cyclones within the arabian sea.





Topic 34. CITIZENSHIP (AMENDMENT) ACT 2019

Importance for Prelims:Polity



Two years on, CAA rules not notified

- The Citizenship (Amendment) Act, 2019 seeks to amend the Citizenship Act, 1955. The Citizenship Act, 1955 provides numerous ways that during which citizenship could also be acquired.
- It provides for citizenship by birth, descent, registration, and naturalisation and by incorporation of the territory into india.
- In addition, it regulates the registration of Overseas citizen of india Cardholders (OCIs) and their rights.
- An OCI is entitled to some advantages like a multiple-entry, multipurpose long visa to go to india







- Key options of CAA two Citizenship on the basis of religion: The Bill amends the Citizenship Act, 1955, and for the 1st time, can grant citizenship on the basis of religion to non-Muslim communities from afghanistan, Bangladesh and Pakistan, who entered india on or before Dec 31, 2014.
- Non Muslim Communities Included: Hindu, Sikh, Buddhist, Jain, Parsi, and Christian.
- This implies that migrants, who determine themselves with any category or community apart from those mentioned here, from the higher than mentioned countries won't be eligible for citizenship.
- **Exceptions:** The provisions on citizenship for illegal migrants won't apply to 2 classes – states protected by the 'Inner Line', and areas covered under the Sixth Schedule of the Constitution
- Inner Line allow (ILP): this is often a special allow that citizens from different parts of india need to enter a state protected by the ILP regime.
- Without an ILP granted by the state government, an Indian from another state cannot visit a state that's under the ILP regime.
- **Sixth Schedule:** The Sixth Schedule relates to special provisions in administration of certain Northeastern states (Assam, Mizoram, Meghalaya and Tripura).
- It provides special powers for Autonomous District Councils (ADCs) in these states.
- Citizenship by Naturalization under The Citizenship Act, 1955, one among the wants for citizenship by naturalisation is that the applier should have resided in india throughout the last twelve months, also as for eleven of the previous fourteen years.







- The amendment relaxes the second demand from eleven years to five years as a particular condition for candidates belonging to the required six religions, and also the higher than mentioned 3 countries. further Ground for Cancelling Overseas citizen of india (OCI) Registration i.e. violation of any law notified by the central government.
- However, the Bill doesn't give any guidance on the nature of laws that the central government could notify.

