

WEEKLY CURRENT AFFAIRS MAGAZINE for



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

DECEMBER-VOL-I-2021

1 December to 7 December



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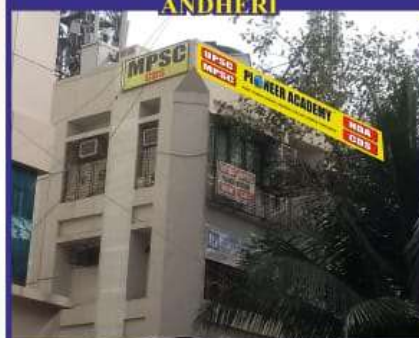
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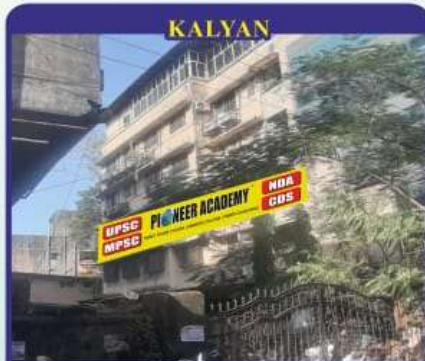
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Success is born of action...

Topic 1. GOVERNMENT OWNED CONTRACTOR OPERATED (GOCO) MODEL

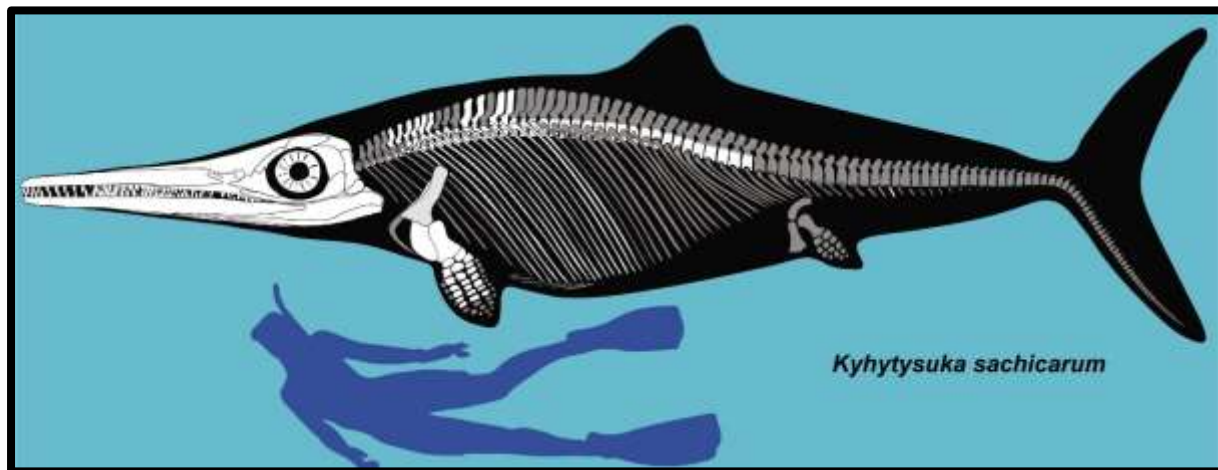
Importance for Prelims:Economy

The Army's formidable set up for modernization of the military Base Workshops (ABWs) and implementation of 'Government-owned, contractor-operated (GOCO)' model is "delayed" and also the original timeline for implementing the system irreligious in Dec 2019, the accountant and Auditor General (CAG) same in its report tabled in the Parliament.

- The GOCO model was one amongst the recommendations of the Lt. Gen. DB Shekatkar (Retd.)
- committee to reinforce combat capability and re-balancing defence expenditure.
- In GOCO model, the assets in hand by government are going to be operated by the non-public industries.
- Under the GOCO model, the non-public organization needn't build investments ashore, machinery and alternative support systems.
- The missions area unit set by government and therefore the non-public sectors square measure given full independence in implementing the missions utilization their best practices.
- The main advantage of the model is that the targets square measure achieved in lesser time-frame.
- Also, it'll boost determination among the privatized entities paying thanks to newer technologies.
- Eligibility– The service distributor shall be associate Indian registered company with a minimum of ten years of operating occurrence in connected domains and have a median annual turnover of ₹50 large integer for every of the last 3 monetary years.

Topic 2. KYHYTYSUKA SACHICARUM

Importance for Prelims: Environment



An international team of researchers has discovered a brand new marine vertebrate. The specimen, a metre-long skullcap, has been named Kyhytysukasachicarum.

- An international team of researchers has discovered a replacement marine craniate.
- The specimen, a metre-long bone, has been named Kyhytysukasachicarum.
- The name interprets to ‘the one that cuts with one thing sharp’ in AN autochthonic language from the region in central Republic of Colombia wherever the fossil was found, to honour the traditional Muisca culture that existed there for millennia.

Topic 3. GROSS DOMESTIC PRODUCT (GDP)

Importance for Prelims:Economy



Economy grows robust 8.4% in Q2

- Gross domestic product (GDP) is that the single customary indicator used across the world specify the health of a nation's economy: one single variety that represents the cost of all the finished merchandise and services manufacture within a country's borders during a specific duration.
- India's gross domestic product is calculated with 2 completely different technique, one establish economic activity (at issue cost), and also the second on expenditure (at market prices).
- The issue value technique assesses the performance of eight totally different industries.
- The expenditure-based procedure indicates however totally different square measureas of the economy are playing, like trade, investments,

and private consumption.

- Further calculations are created to reach nominal gross domestic product (using the present market price) and real gross domestic product (inflation-adjusted).
- Among the four implemented numbers, the gross domestic product at issue price is that the most ordinarily followed figure and reported within the media.
- The Central Statistics headquarter underneath the Ministry of Statistics and Program Implementation is chargeable for economic science information gathering and applied mathematics record keeping.
- Its processes involve conducting annual survey of industries and compilation of various indexes just like the business Production Index (IPI) and additionally the consumer price index (CPI).
- The Central Statistics headquarter coordinates with varied federal and otherization state agencies and departments to collect and compile the knowledge required to calculate the gross domestic product and different statistics.
- Similarly, production-related info used for scheming IPI is sourced from the production Statistics Unit of the Department of business Policy and Promotion beneath the Ministry of Commerce and trade.
- All the specified information points are unit collected and aggregative at the Central Statistics workplace and accustomed make gross domestic product numbers.
- The issue price Figure The issue price figure is calculated by collection information for internet modification in worth for every sector throughout a selected period of time.
- The following eight trade sectors are unit thought of during this cost: Agriculture, forestry, and fishing Mining and production producing

Electricity, gas, water system, and different utility services Construction Trade, hotels, transport, communication, and broadcasting monetary, assets, and skilled services Public administration, defense, and different services.

- The Expenditure Figure The expenditure (at market prices) technique involves summing the domestic expenditure on final product and services across varied streams throughout a selected period of time.
- It includes thought of expenses towards family consumption, internet investments (i.e., capital formation), government prices, and internet trade (exports minus imports).
- The gross domestic product numbers from the 2 strategies might not match exactly, however they're shut.
- The expenditure approach offers sensible insight into that elements contribute most to the Indian economy.

Topic 4. NATIONAL MISSION FOR SUSTAINABLE AGRICULTURE (NMSA)

Importance for Prelims: Agriculture



Extreme weather: Over 5 million hectares of crop lost due to rain in 2021.

- The National Mission for property Agriculture (NMSA), that is one amongst the eight Missions underneath the National Action arrange on global climate change|temperature change} (NAPCC) seeks to deal with problems relating to ‘Sustainable Agriculture’ in the context of risks associated climate change by devising appropriate adaptation and mitigation strategies for ensuring food security, equitable access to food resources, enhancing livelihood opportunities and contributing to economic stability at the national level.
- NMSA has been developed for enhancing agricultural productivity

particularly in rainfed areas that specialize in integrated farming, water use potency, soil health management and synergizing resource conservation.

- **Mission Interventions:** NMSA has following four (4) major programme components or activities: Rainfed Area Development (RAD): RAD adopts an area based approach for development and conservation of natural resources along with farming systems.
- **On Farm Water Management (OFWM):** OFWM focuses totally on enhancing water use potency by promoting effectiveness on – farm water management technologies and instrumentation.
- **Soil Health Management (SHM):** SHM aims at promoting location as well as crop specific sustainable soil health management including residue management, organic farming practices by way of creating and linking soil fertility maps with macro – small nutrient management, applicable land use supported land capability, considered application of fertilizers and minimizing the soil erosion/degradation.
- **Climate change and sustainable Agriculture:** CCSAMMN provides creation and bidirectional (land/farmers to research/scientific institutions and vice versa) dissemination of global climate change|temperature change} connected data and information by method of piloting climate change adaptation/mitigation research/model comes within the domain of climate sensible property management practices and integrated farming system appropriate to native agro – weather conditions.

Topic 5. POLAVARAM PROJECT

Importance for Prelims: Geography



Polavaram — displaced and nowhere to go: Several await houses, compensation

- Polavaram Project is located in andhra pradesh on the stream Godavari, near Polavaram village.
- It could be a multi-purpose irrigation project because the project once completed can give Irrigation edges and can generate electricity Power.
- In addition, this project will also supply drinking water.
- It can facilitate associate inter-basin transfer to the Krishna advantages through its Right canal.
- It also will provide indirect benefits such as development of Pisciculture

(breeding and rearing of fish), tourism and urbanisation.

- The Project has been accorded national project standing by the union government in 2014 (under Section-90 of Andhra Pradesh Reorganization Act, 2014).
- Its reservoir spreads in elements of Chhattisgarh and Orissa States as well.

Topic 6. NAIROBI DECLARATION

Importance for Prelims: Environment



Nairobi Declaration set to fast track disaster risk reduction work

- The Nairobi Declaration, adopted by African ministers and heads of delegations Nov nineteen, 2021, underlined the requirement to deliver commitments on the Programme of Action (PoA) for implementing the Sendai Framework in Africa.
- This enclosed the action plans underneath the PoA, to implement Sendai Framework for Disaster Risk Reduction (SFDRR), 2015-2030.
- The PoA outlines however Africa aims to implement SFDRR on the continent. Towards Disaster Risk-Informed Development for a Resilient Africa in an exceedingly COVID-19 reworked World was the theme of the virtual meet.
- It was assamble by the UN workplace for Disaster Risk Reduction (UNDRR), cooperation with the African Union Commission and also the

Intergovernmental Authority on Development. Sendai Framework is aimed towards “substantial reduction in disaster risk and losses in lives, livelihoods and health and within the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries”.

- Implementation of the Sendai Framework is predicted to contribute to UN-mandated continual Development Goals and to achieving Agenda 2063 commitment “The continent we have a tendency to want”.
- Tunis declaration was adopted at the Africa Arab Platform for Disaster Risk Reduction control in Tunis from Oct 9-13, 2018.

Topic 7. UNEMPLOYMENT RATE AT 9.3%

Importance for Prelims:Economy



Unemployment rate at 9.3% in January-March 2021, shows NSO survey

- Unemployment rate for persons mature fifteen years and on top of in urban areas rose to nine.3 per cent in January-March 2021 from nine.1 per cent within the same month of the previous year, showed a periodic labour force survey by the National applied mathematics headquarter (NSO).
- Joblessness or percentage (UR) is determine proportion share of discharged persons within the labour force.
- Labour force refers to the a part of the population that provides or offers to provide labour for following economic activities for the assembly of products and services and thus, includes each utilized and fired persons. NSO launched PLFS in Apr 2017.
- Participation Rate (LFPR), distribution of laborers by broad standing engaged and trade of work in Current Weekly standing (CWS).
- The estimates of unemployed persons in CWS offer a median image of discharge during a short amount of seven days throughout the survey

amount.

- In the CWS approach, an individual is taken into account discharged if he/she didn't work even for one hour on any day throughout the week however sought-after or was obtainable for work on least for one hour on any day throughout the amount.
- Labour force in keeping with CWS is that the range of persons either working or jobless on an average during a week preceding the date of survey.
- LFPR is outlined because the proportion of population within the labour force.

Topic 8. FINANCIAL ASPECT OF 73 AND 74 AMENDMENT

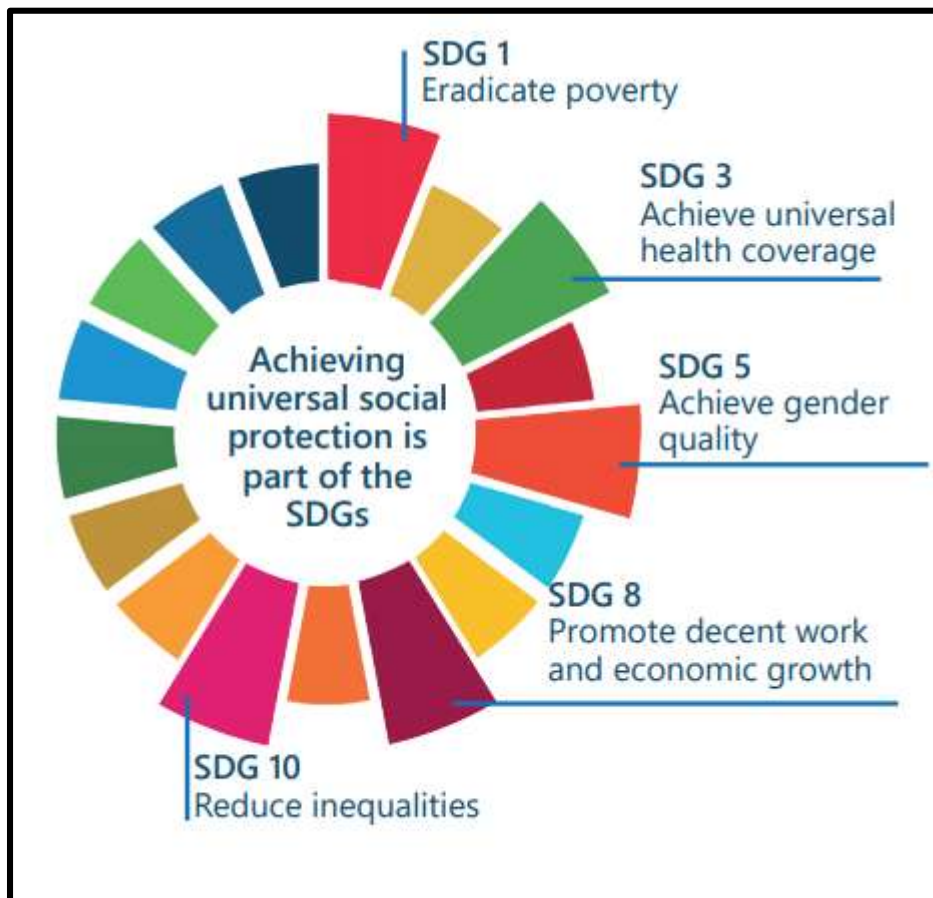
Importance for Prelims: Polity

Release of ₹8,453.92 crore to 19 States, as a health grant to rural and urban local bodies (ULBs)

- In early Nov 2021, a probably game-changing and transformative development took place— the discharge the discharge, 453.92 large integer to nineteen States, as a health grant to rural and town native bodies (ULBs), by the Department of Expenditure, the Ministry of Finance.
- This allocation has been created as a part of the health grant of ₹70,051 large integer that is to be discharged over 5 years, from FY2021-22 to FY2025- twenty six, as counseled by the Fifteenth Finance Commission.
- The grant is earmarked to plug recognize gaps within the primary health protection infrastructure in rural and no-rural settings.
- It would be 2.3% of the overall health expenditure (both public and personal spending together) of ₹5,66,644 crore in india and 5.7% of the annual government health expenditure (Union and State combined) of nearly ₹2,31,104 large integer (both figures for 2017-18), the foremost recent twelvemonth period that national health accounts information ar accessible.

Topic 9. INFORMAL ECONOMY

Importance for Prelims:Economy



According to a recent State Bank of India (SBI) Research report, the informal economy in India has been shrinking since 2018.

- According to a recent state bank of Republic of India (SBI) analysis report, the informal economy in India has been shrinking since 2018.
- The report claims that the share of the informal sector is simply 15-20% in 2021 compared to 52.4% in 2018. Informal economy represents enterprises that don't seem to be registered, wherever employers don't give Social Security to workers.
- It is characterised as a variety of economic units that are mostly owned and operated by particulate and hire one or additional staff on continuing basis.
- It includes farmers, agricultural labourers, landlord of tiny enterprises and

other people operating in those enterprises and additionally the freelance who don't have any employed staff.

- National Accounts Statistics (NAS) defines the unorganised sector additionally to the self governing proprietary or partnership enterprises, together with enterprises pass by cooperative societies, trust, personal and restricted firms.
- The informal sector will, therefore, be thought-about as a considered of the unorganised sector.
- According to the Periodic Labour Force Survey, over 90 per cent of workers in India are informal workers.
- Out of those, those engaged in rural areas employees are considerably over urban areas staff.

Topic 10. SCIENCE TECHNOLOGY AND INNOVATION (STI) HUBS

Importance for Prelims: Science and Tech



Union Minister DrJitendra says, seven Science Technology and Innovation (STI) Hubs for ST established during the last two years in different regions of the country

- Science Technology and Innovation (STI) Hubs are being established by the Department of Science and Technology (DST).
- They aim to develop, nurture and make sure the delivery of applicable and relevant technologies for comprehensive socio-economic development through creation of property livelihoods for the SC and ST population in tune to their growing aspirations.

Three-fold objectives:

- To address the weakest linkages within the predominant living systems

through Science & Technology (S&T) interventions; Creation of social enterprises supported the strengths in living systems; and to boost the autochthonous apprehension Systems (IKS) through inputs of S&T for strengthening the livelihoods.

Topic 11. SCIENCE DURING FREEDOM STRUGGLE

Importance for Prelims:History

Indian scientists helped India in gaining Independence, sustained it for 75 years:

Jitendra Singh

- Mahatma Gandhi was one of the best scientific strategists who, through his weapon of Non-Violence, waged scientific battle against British subjugation and aggression.
- Bapu and many of his contemporaries had also adopted psychological techniques to put the British adversaries on the defensive.
- Sir Jagadish Chandra Bose was an eminent scientist, physicist, biologist and an early author of sci-fic.
- “Vision of ‘Self-reliance’ throughout the colonial era inspired Indian scientists and patriots to demonstrate their own scientific establishments and industries.
- DrMahendralalSircar established the Indian Association for the Cultivation of Science in 1876.
- Acharya PC Ray established The Bengal Chemical and Pharmaceutical Works in 1901 that was the foundation stone of autochthonous trade in our country.
- Sir AsutoshMookerjee Sir AsutoshMookerjee (29 June 1864 – twenty five may 1924) is taken into account to be the harbinger of contemporary science in Republic of India.
- He was the first Indian to initiate research in modern science, first Indian

to publish a paper in a Journal and was arguably, the most illustrious figure in Indian education.

- He was the second Indian vice chancellor (VC) of the Kolkata University and occupied the post for 10 years.
- He was the founder of the Science College of Calcutta University.
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Topic 12. GREEN YODHA PROGRAM

Importance for Prelims: Environment



‘Ambition to achieve net-zero emissions by 2050 would be paved through an All-Electric All-Digital world’

- Energy is responsible for about 80% of the world’s carbon emissions, as per the estimate by the International Energy Agency.
- To combat this and contribute to India’s recently declared COP26 ambitions, Schneider electrical is launching the green Yodha program on twenty fifth Nov to support voters and enterprises embark the supportability journey and reduce their carbon footprint by adopting energy-efficient practices.
- The green Yodha program aims to make a community of eco-warriors (comprising voters, businesses, associations, establishments, and others) who are able to unite and take action to cut back the risks of global climate change for individuals and also the planet.
- Green Yodha could be a property initiative by Schneider electrical that

aims to create a community of aware citizens, businesses, and establishments to unite for a collective action towards the adoption of practices in energy potency, renewables and solar, automation, digitalisation, and a brand new world of electricity to meet each individual and company property goals.

Topic 13. ANTIRETROVIRAL DRUGS

Importance for Prelims: Science and Tech

Antiretroviral Medications

NRTI

Abacavir, ABC ([Ziagen®](#))
 Didanosine, ddi ([Videx®](#), [Videx EC®](#))
 Emtricitabine, FTC ([Emtriva®](#))
 Lamivudine, 3TC ([Epivir®](#))
 Stavudine, d4T ([Zerit®](#))
 Tenofovir alafenamide, TAF*
 Tenofovir disoproxil fumarate, TDF ([Viread®](#))
 Zidovudine, AZT/ZDV ([Retrovir®](#))

NNRTI

Delavirdine, DLV ([Rescriptor®](#))
 Efavirenz, EFV ([Sustiva®](#))
 Etravirine, ETR ([Intence®](#))
 Nevirapine, NVP ([Viramune®](#), [Viramune XR®](#))
 Rilpivirine, RPV ([Edurant®](#))
 Doravirine, DOR ([Pifeltro®](#))

PIs

Atazanavir, ATV ([Reyataz®](#))
 Darunavir, DRV ([Prezista®](#))
 Fosamprenavir, FPV ([Lexiva®](#))
 Indinavir, IDV ([Crixivan®](#))
 Nelfinavir, NFV ([Viracept®](#))
 Ritonavir, RTV/r** ([Norvir®](#))
 Saquinavir, SQV ([Invirase®](#))
 Tipranavir, TPV ([Aptivus®](#))

INSTIs

Bictegravir, BIC ([Bictarvy®](#))
 Dolutegravir, DTG ([Tivicay®](#))
 Elvitegravir, EVG ([Vitekta®](#))
 Raltegravir, RAL ([Isentress™](#))

Fusion Inhibitor

Enfuvirtide, ENF/T-20 ([Fuzeon®](#))

Entry Inhibitor

Maraviroc, MVC ([Selzentry®](#))
 Ibalizumab ([Trogarzo®](#))

PK Enhancer

Cobicistat, COBI/c ([Tybost®](#))
 Ritonavir, RTV/r ([Norvir®](#))

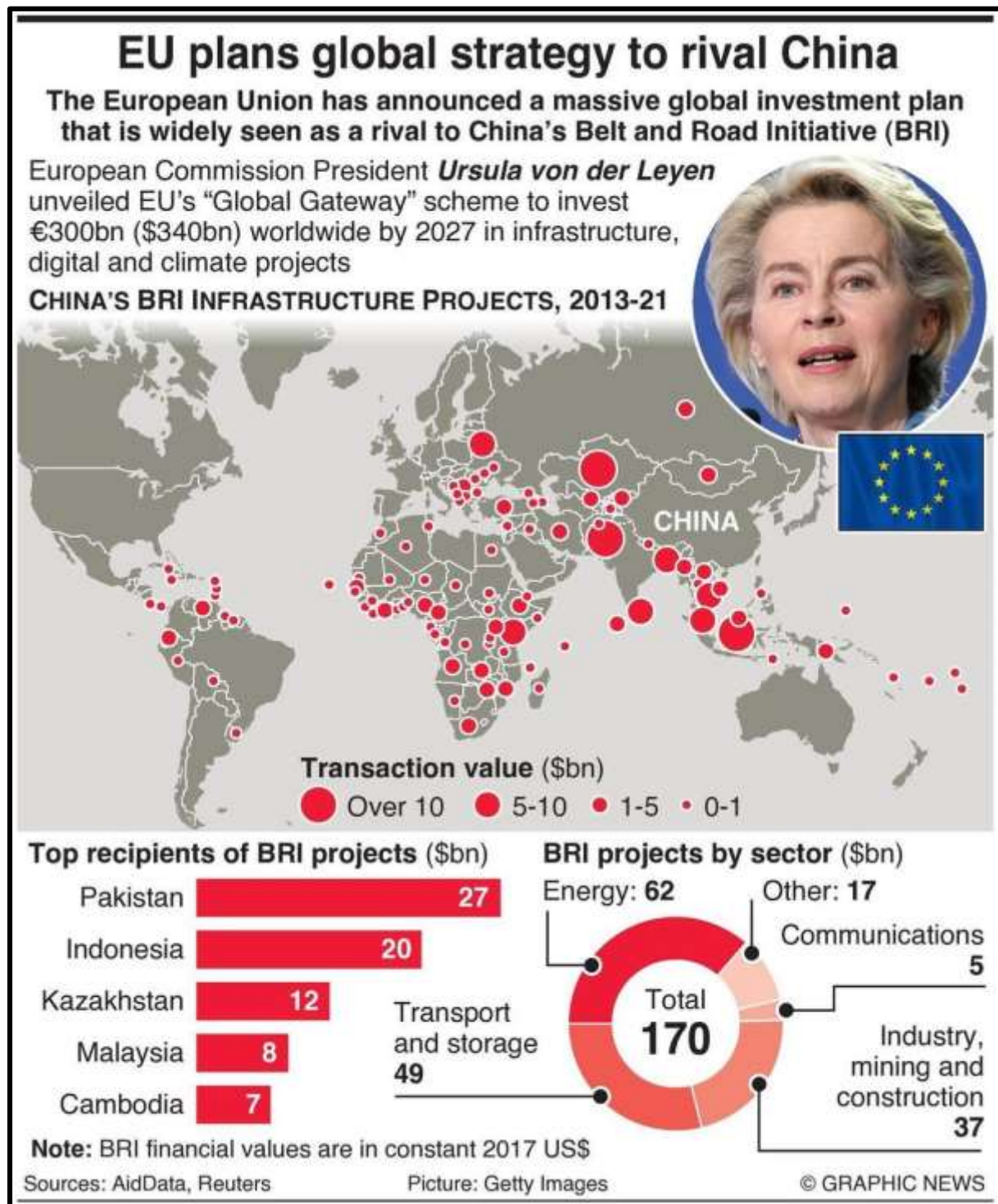
People with past exposure to antiretroviral drugs thrice as likely to resist them:
 WHO

- It is a combination of daily medications that stop the virus from reproducing.
- The therapy helps in protecting CD4 cells thus keeping the immune system strong enough to fight off the disease.
- It, besides reducing the danger of transmission of HIV, conjointly helps in stopping its progression to AIDS (a spectrum of conditions caused by infection because of HIV).
- Nevirapine (NVP) or efavirenz (EFV)-based regimens were the foremost frequent ART regimens initiated in sixteen of twenty countries news survey findings to WHO (2014- 2020).
- To know about Human Immunodeficiency Virus (HIV), please refer August 2021 DPN.
- HIV Strains and Types HIV-1 and HIV-2 HIV-1 and HIV-2 are two distinct viruses.

- Worldwide, the predominant virus is HIV-1. HIV-1 accounts for around 95% of all infections worldwide.
- HIV-2 is estimated to be more than 55% genetically distinct from HIV-1.
- The comparatively uncommon HIV-2 virus is focused in West Africa however has been seen in alternative countries with links to West Africa.
- It is less infectious and progresses a lot of slowly than HIV-1, resulting in fewer deaths.
- However, without treatment, most people living with HIV-2 will eventually progress to AIDS and die from the disease.
- While many commonly used antiretroviral drugs are active against HIV-2, nonnucleoside reverse transcriptase inhibitors (NNRTIs) like nevirapine and efavirenz do not work against it.
- The best way to treat HIV-2 has been less clearly outlined than HIV-1.
- The strains of HIV-1 will be classified into four teams among HIV-1
- Of these, M is the 'major' group and is responsible for the majority of the global HIV epidemic.
- Within group M there are identified to be at least 9 genetically distinct subtypes of HIV-1.
- These are subtypes A, B, C, D, F, G, H, J and K.

Topic 14. GLOBAL GATEWAY PLAN

Importance for Prelims:IR



EU plans €300 billion infra fund to counter China's BRI

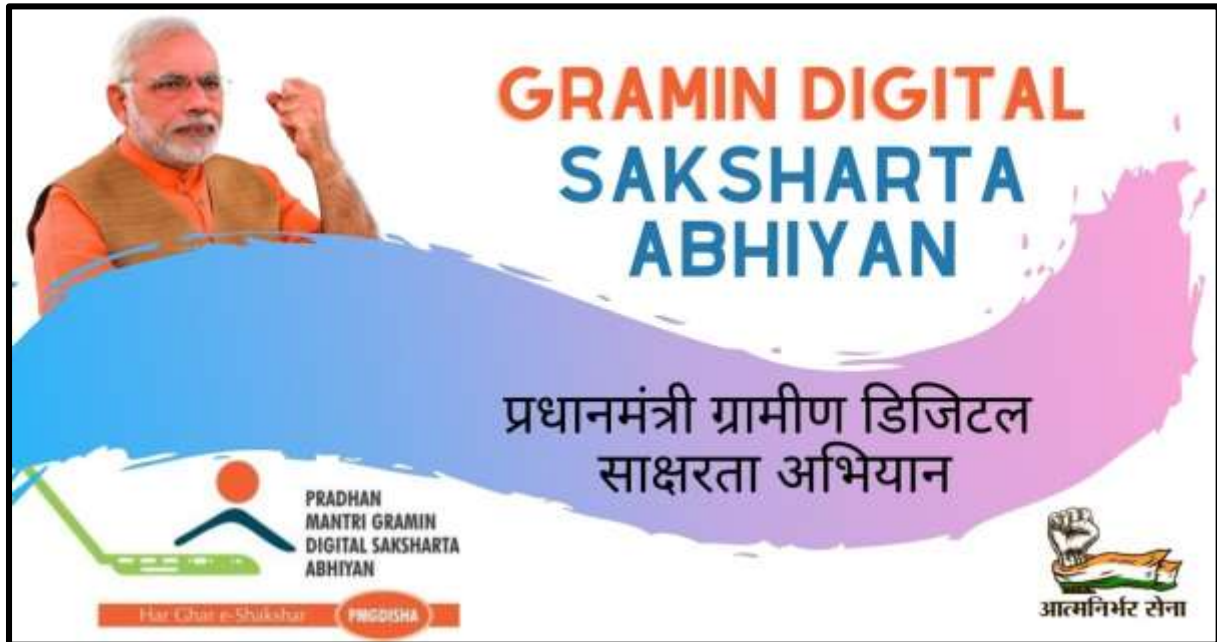
- The European Commission declared on Wed a thought to mobilise €300 billion (\$340 billion) publically and personal infrastructure investment

round the world, a move seen as a response to China's Belt and Road strategy.

- Global gateway will aim at mobilising investments of up to three hundred billion euros between 2021 and 2027... transfer together resources of the EU, member states, European financial institutions and national development finance establishments.
- The global gateway plan doesn't mention China's rival and longer-standing international infrastructure strategy by name — however EU chief Ursula von der Leyen known as it a “roadmap for major investment in infrastructure development round the world.”
- The cash to be created accessible won't return from EU and member state coffers, and also the plan can require funding from international establishments and from the non-public sector if it's to induce anyplace close to its target.

Topic 15. PRADHAN MANTRI GRAMIN DIGITAL SAKSHARTA ABHIYAN (PMGDISHA)

Importance for Prelims: Government Schemes



Digital literacy index in T.N. already high: Union Minister

- The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) being initiated beneath Digital Republic of India Programme would cover six large integer households in rural areas to create them digitally literate.
- The scheme to create six large integer persons in rural areas, across States/UTs, digitally literate, progressing to around four-hundredth of rural households by covering one member from each eligible household till thirty first March, 2020.
- The scheme aims to bridge the digital divide, specifically targeting the agricultural population together with the marginalised sections of society like scheduled Castes (SC) / scheduled Tribes (ST), Minorities, Below poverty line (BPL), girls and differently-abled persons and minorities.
- Earlier, the government had implemented the National Digital literacy Mission or the Digital Saksharta Abhiyan (DISHA) or National Digital literacy Mission (NDLM) to impart IT training to 52.5 lakh persons, as

well as Anganwadi and ASHA employees and authorised ration dealers altogether the States/UTs across the country

- The non-IT literate voters are trained to become IT literate therefore on modify them to actively and effectively participate within the democratic and developmental|biological process} process and additionally enhance their living.
- Eligibility The scheme is applicable just for rural areas of the country.
- **Eligible Household:** A household is defined as a unit comprising of Head of family, spouse, children and parents.
- All such families wherever none of the family member is digitally literate are thought of as eligible household underneath the scheme.
- Entry criteria The beneficiary ought to be Digitally Illiterate only 1 person per eligible family would be thought of for coaching Age Group: fourteen – sixty years Priority would be given to Non-smartphone users, Antyodaya households, fraternity drop-outs, Participants of the adult skill mission Digitally illiterate college students from category ninth to twelfth, provided facility of Computer/ICT coaching isn't accessible in their schools Preference would tend to SC, ST, BPL, women, differently-abled persons and minorities
- The identification of the beneficiaries would be distributed by CSC-SPV in active collaboration with DeGS, Gram Panchayats, and Block Development Officers.
- The list of such beneficiaries would be made available on the scheme portal. Implementation
- The implementation of the scheme would be administered underneath the general management of Ministry of electronics and IT in active collaboration with States/UTs through their selected State Implementing Agencies, District e-Governance Society (DeGS), etc.

- Training process The duration of the training program is for 20 hours which has to be completed in a minimum of 10 days and maximum of 30 days.

Topic 16. WHITE REVOLUTION

Importance for Prelims: Agriculture



November 26, 2021 was celebrated in Anand, Gujarat because the 100th birth anniversary of Verghese Kurien, the leader of India's 'white revolution', that increased the incomes and therefore the wealth of millions of cows -owning tiny farmers in India, several of them girls.

- Operation Flood, launched on thirteen January 1970, was the world's largest dairy farm development program and a landmark project of India's National dairy farm Development Board (NDDB).
- In July 1970 with technical help from the United Nations Development Programme (UNDP) and also the Food and Agriculture Organisation (FAO), the programme was launched as Operation Flood (OF).
- It convert India from a milk-deficient nation into the world's largest milk producer, surpassing the US of America in 1998 with regarding 22.29 % of worldwide output in 2018.
- Within thirty years, it doubled the milk obtainable per person in India and created dairying India's largest self-sustainable rural employment generator. the technique has since been termed because the "White

Revolution“.

- If there was one technological breakthrough that revolutionized India's organized dairy farm business, it absolutely was the creating of skimmed milk powder out of buffalo milk.
- The Anand Pattern Experiment at Amul, a dairy farm co-operative, was the engine behind the success of the program. DrVergheseKurien, the chairman and founding father of Amul, was named the Chairman of NDDB by Prime Minister Lal Bahadur Shastri. DrVergheseKurien is known as the father of the White Revolution in Republic of India.
- Under him many important institutions were established like the Gujarat Cooperative Milk Marketing Federation Ltd and the National Dairy Development Board (NDDB).
- The White Revolution was started by the NDDB within the Nineteen Seventies and also the bedrock of the revolution has been the village milk producers' cooperatives. Currently, Republic of India is the world's largest milk producer, with 22% of world production.
- National Dairy Development Board (NDDB) The National Dairy Development Board (NDDB) is a statutory body set up by an Act of Parliament of India.
- It is underneath the jurisdiction of Ministry of Fisheries, animal farming and dairy farming, Government of India.
- The headquarters is in Anand, Gujarat with regional offices throughout the country.
- The Board was created to finance, support and support producer-owned and controlled organisations.
- Its programmes and activities look for to strengthen farmer cooperatives and support national policies that are favourable to the development of such establishments.

- Cooperative principles and cooperative strategies are fundamental to the board's efforts.
- It was founded by Dr. Verghese Kurien.
- The National dairy farm Development Board was created in 1965, fulfilling the need of the then prime minister of Republic of {india|Bharat|Asian country|Asian nation} — the late Lal Bahadur Shastri to increase the success of the Kaira Cooperative Milk Producers' Union (Amul) to different parts of India.

Topic 17. HOW MPS' QUESTIONS ARE ALLOWED AND DISALLOWED IN PARLIAMENT?

Importance for Prelims: Polity

On Tuesday, The Indian Express reported how a question by Congress MP K C Venugopal in Rajya Sabha, scheduled to be answered on December 2, was removed from the list of finally admitted questions.

- In each house, elective members appreciate the correct to look info from varied ministries and departments within the sort of asterisked queries, unmarked queries, short notice queries and inquiries to private members.
- Usually, MPs' queries kind an extended list, that then undergo a rigorous method of clearance. The acceptability of queries in Rajya Sabha is governed by Rules 47-50 of the principles of Procedure and Conduct of Business within the Council of States.
- Once a queries that fulfils the conditions of acceptability is received, the Secretariat sends it to the ministry involved.
- Once the facts are received from the ministry, the question is further examined for admissibility.
- A final list of questions is circulated to ministers, on the basis of which they frame their answers.
- In Lok Sabha, once the notice for queries is received, ballots verify priority. Starred, unmarked and short notice queries are entered into software system, separately.
- Next, the queries are examined for acceptability underneath Rules 41-44 of the principles of Procedure and Conduct of Business in Lok Sabha.
- For answering the questions, ministries and departments have been divided into five groups (I to V) that have been allotted Mondays, Tuesdays, Wednesdays, Thursdays and Fridays respectively.
- The grouping has been tired such how that every minister has one

fastened day within the week for respondent queries in Rajya Sabha and another fastened day for respondent queries in Lok Sabha.

What are starred, unstarred and other categories of questions?

- **STARRED QUESTION:** The member desires an oral answer from the minister. Such a queries is distinguished by the MP with an asterisk. the solution also can be followed by supplementary queries from members.
- **UNSTARRED QUESTION:** The MP seeks a written answer, that is deemed to be laid on the table of the House by the involved minister.
- **SHORT NOTICE QUESTION:** These are on an emergent matter of public importance, and an oral answer is sought-after. A notice of but ten days is prescribed because the minimum period for asking such a queries.
- **QUESTION TO PRIVATE MEMBER:** a queries may be self-addressed to a personal member underneath Rule forty of Lok Sabha's Rules of Procedure, or below Rule forty eight of Rajya Sabha's Rules, as long as the question deals with a topic concerning some Bill, resolution or different matter that that member is accountable.

When are the questions asked?

- In both Houses, the first hour of every sitting is usually devoted to asking and answering of questions, and this is referred to as the 'Question Hour'.
- The total number of questions for any day is limited to 175, including 15 questions for oral answers, questions postponed from one list to another for written answers, and 15 questions pertaining to states under President's Rule.

What kind of questions can be asked?

- Their acceptability is ruled by Rules 47-50 (Rajya Sabha) and 41-44 (Lok Sabha).
- The Rajya Sabha Chairman or the Lok Sabha Speaker has the authority to make a decision whether or not a queries or a part is or isn't admissible

underneath the norms of the House, and refuse any question or a part.

- In Rajya Sabha, among varied norms, the question “shall be pointed, specific and confined to at least one issue only; it shall not bring in any name or statement not strictly necessary create|to form|to create} the question intelligible; if it contains a press release the member shall make himself chargeable for the accuracy of the statement; it shall not contain arguments, inferences, ironical expressions, imputations, epithets or libellous statements”.
- In Lok Sabha, questions that are not admitted include: those that are repetitive or have been answered previously; matters that are pending for judgment before any court of law or under consideration before a Parliamentary Committee.

How often are questions disallowed?

- According to Rajya Sabha data, 833 questions were disallowed during the last Monsoon Session.
- For comparison, during the 2013-14 Winter Session, Rajya Sabha disallowed 748 questions.
- Once disallowed, it's usually troublesome for members to challenge the choice.

Topic 18. PROTECTION OF PLANT VARIETIES & FARMERS' RIGHTS (PPV&FR) AUTHORITY

Importance for Prelims:IR

Win for farmers as India revokes PepsiCo's patent on FL-2027 potato variety

- **History** – PepsiCo, a multi-million-dollar conglomerate, had sued Gujarati farmers asking them to pay ₹1.05 large integer every for alleged violation of intellectual property Rights.
- The company has aforesaid that farmers infringed its patent rights by growing the potato selection utilized in its product known as as Lays chips.
- PepsiCo has invoked Section sixty four of the Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001 to say infringement of its rights.
- The section prohibits anyone apart from the stock breeder of seeds or a registered licensee of that selection to sell, export, import or produces such selection.
- The farmers were allegedly growing a range of potato particularly FL 2027, conjointly known as FC5, on that PepsiCo claimed exclusive rights by virtue of a Plant selection Certificate (PVC).
- However, farmers teams have said that section thirty-nine of the Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001 permits farmers to grow and sell any kind of crop or maybe seed as long as they don't sell branded seed of registered varieties.
- Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001 Enacted by India in 2001 adopting sui generis system.
- It is in conformity with International Union for the Protection of New Varieties of Plants (UPOV), 1978.
- The aim of the act is that the institution of an efficient system for the

protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of latest forms of plant.

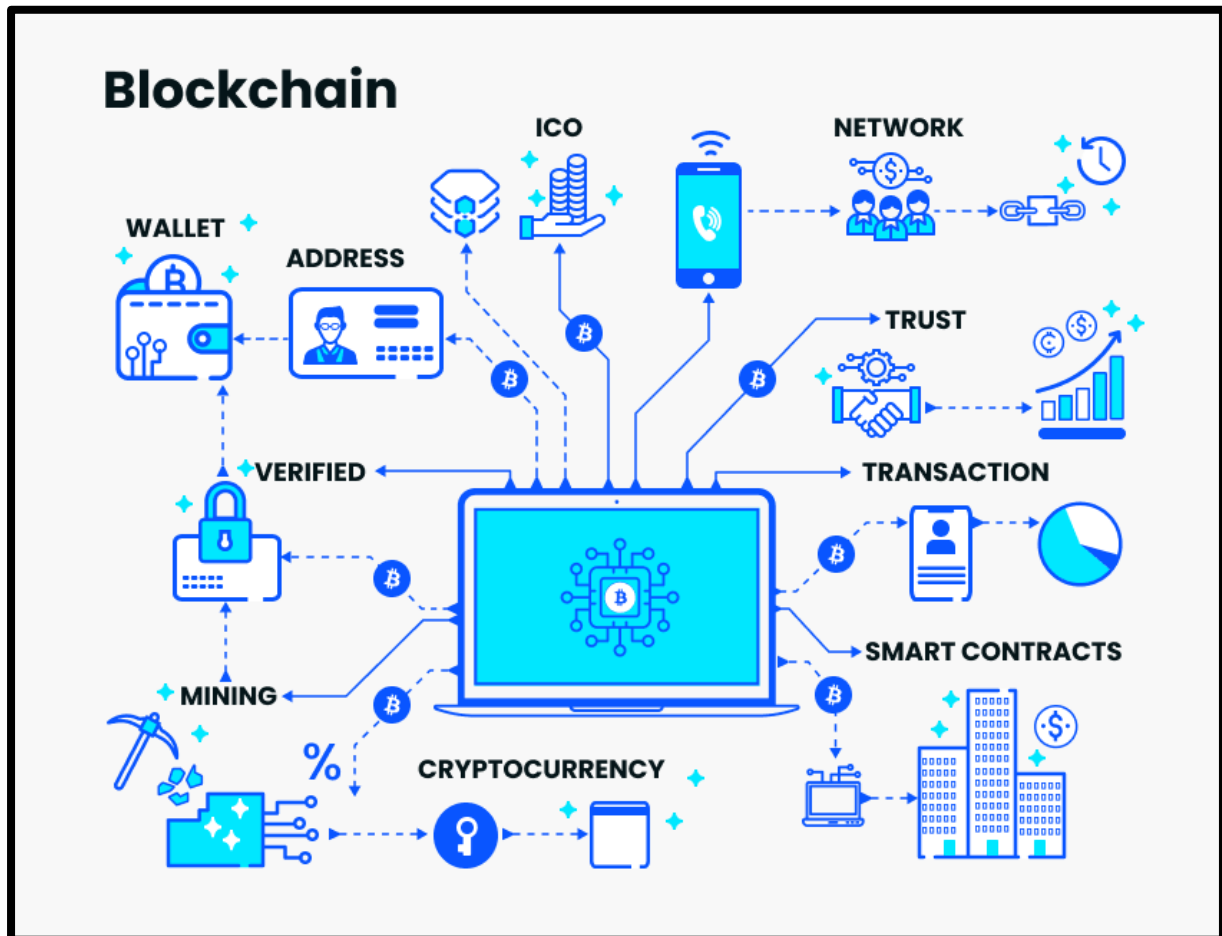
- The act additionally establishes Protection of Plant Varieties and Farmers' Rights Authority underneath the Ministry of Agriculture and Farmers Welfare.
- The major operate of Authority includes Registration of latest plant varieties; Documentation of varieties registered; Preservation of plant genetic resource; Maintenance of the National Register of Plant Varieties and Maintenance of National sequence Bank (for preserving seeds of registered varieties).
- The legislation acknowledges the contributions of each business plant breeders and farmers in plant breeding activity and conjointly provides to implement visits during a method that supports the particular socio-economic interests of all the stakeholders together with personal, public sectors and analysis establishments, as well as resource-constrained farmers.
- Rights under the Act Breeders' Rights: Breeders (Seed Producers) can have exclusive rights to provide, sell, market, distribute, import or export the protected selection.
- A stock breeder will exercise for civil remedy just in case of infringement of rights investigators' Rights: Researcher will use any of the registered selection underneath the Act for conducting an experiment or analysis.
- Researchers can use the initial source of variety for the purpose of developing another variety but repeated use needs the prior permission of the registered breeder.
- Farmers' Rights: A farmer who has evolved or developed a new selection is entitled to registration and protection in like manner as a stock breeder of a spread. A farmer can save, use, sow, re-sow, exchange, share or sell

his farm produce including seed of a variety protected under the PPV&FR Act, 2001. However, the farmer shall not be entitled to sell branded seed of a variety protected under the PPV&FR Act, 2001. . there's conjointly a provision for compensation to the farmers for non-performance of selection. The farmer shall not be at risk of pay any fee in any continuing before the Authority or Registrar or the tribunal or the supreme court under the Act. Farmers are eligible for recognition and rewards for the conservation of Plant Genetic Resources of land races and wild relatives of economic plants. International Union for the Protection of New Varieties of Plants (UPOV) The International Union for the Protection of New Varieties of Plants (UPOV) is an intergovernmental organization with headquarters in Geneva (Switzerland). UPOV was established by the International Convention for the Protection of latest varieties of Plants. The Convention was adopted in Paris in 1961 and it absolutely was revised in 1972, 1978 and 1991. UPOV's mission is to produce and promote an efficient system of plant variety protection, with the aim of encouraging the event of latest varieties of plants, for the good thing about society. The UPOV Convention provides the premise for members to encourage plant breeding by granting breeders of latest plant varieties an intellectual property right: the breeder's right. within the case of a range protected by a breeder's right, the authorization of the stock breeder is needed to propagate the variety for business purposes. The breeder's right is granted by the individual UPOV member only the breeder of a brand new plant selection will protect that new plant selection. it's not allowable for somebody apart from the breeder to get protection of a variety. There aren't any restrictions on who will be thought of to be a {breeder|stock breeder|stockman|stock raiser|stock farmer} underneath the UPOV system: a breeder could be a personal, a

farmer, a research worker, a public institute, a private company etc. India isn't a member.

Topic 19. BLOCKCHAIN TECHNOLOGY

Importance for Prelims: Science and Tech



“Blockchain is a technology I believe in and it is different from crypto. I believe in real time and expect everything will settle in real time. Smart contracts will also become real,” Reliance Industries Chairman MukeshAmbani said.

- Blockchains are a new data structure that is secure, cryptography-based, and distributed across a network.
- The technology supports cryptocurrencies such as Bitcoin, and the transfer of any data or digital asset.
- Spearheaded by Bitcoin, blockchains succeed agreement among distributed nodes, permitting the transfer of digital product while not the requirement for centralized authorisation of transactions.
- The gift blockchain system is just like the early net, a permissionless

innovation atmosphere during which email, the globe Wide internet, Napster, Skype, and Uber were designed.

How it operates?

- The technology allows transactions to be simultaneously anonymous and secure, peer-to-peer, instant and frictionless.
- It does this by distributing trust from powerful intermediaries to a large global network, which through mass collaboration, clever code and cryptography, enables a tamper-proof public ledger of every transaction that's ever happened on the network.
- A block is that the “current” a part of a blockchain that records some or all of the recent transactions, and once completed, goes into the blockchain as permanent information.
- Each time a block gets completed, a new block is generated.
- Blocks are connected to every different (like a chain) in correct linear, written record order with each block containing a hash of the previous block.
- **Benefits of blockchain technology:** As a public ledger system, blockchain records and validate every and each dealings created, that makes it secure and reliable.
- All the transactions created are approved by miners, that makes the transactions immutable and forestall it from the threat of hacking.
- Blockchain technology discards the need of any third-party or central authority for peer-to-peer transactions.
- It allows decentralization of the technology.

Topic 20. SUPPLEMENTARY DEMANDS FOR GRANTS

Importance for Prelims: Polity

Finance minister Nirmala Sitharaman on Friday sought Parliamentary clearance for an additional spending of Rs 3,73,761 crore, placing the second batch of supplementary demands for grants for the current fiscal.

- In addition to the budget that contains the normal estimates of income and expenditure for one fiscal year, numerous different grants are created by the Parliament underneath extraordinary or special circumstances:
- **Supplementary Grant** – it's granted when the quantity authorised by the Parliament through the appropriation act for a specific service for this financial year is found to be insufficient for that year.
- **Additional Grant**– it's granted when a requirement has arisen throughout this financial year for extra expenditure upon some new service not contemplated within the budget for that year.
- **Excess Grant** – it's granted when cash has been spent on any service throughout a financial year in more than the quantity granted for that service within the take into account that year. it's voted by the Lok Sabha after the financial year. Before the request for excess grants are submitted to the Lok Sabha for vote, they have to be approved by the general public Accounts Committee of Parliament.
- **Vote of Credit** – it's granted for meeting an surprising demand upon the resources of India, once on account of the magnitude or the indefinite character of the service, the demand can not be declared with the details commonly given in a very budget. Hence, it's like a blank check given to the chief by the Lok Sabha.
- **Exceptional Grant** – It is granted for a special purpose and forms no part of the current service of any financial year.
- **Token Grant** – it's granted once funds to satisfy the planned expenditure

on a brand new service will be created obtainable by reappropriation. a requirement for the grant of a token add (of Re 1) is submitted to the vote of the Lok Sabha and if assented, funds are created obtainable.

- Reappropriation involves transfer of funds from one head to another.
- It doesn't involve any extra expenditure. Supplementary, additional, excess and exceptional grants and vote of credit are regulated by a similar procedure that is applicable within the case of an everyday budget.

Topic 21. E-VOTING IN INDIA

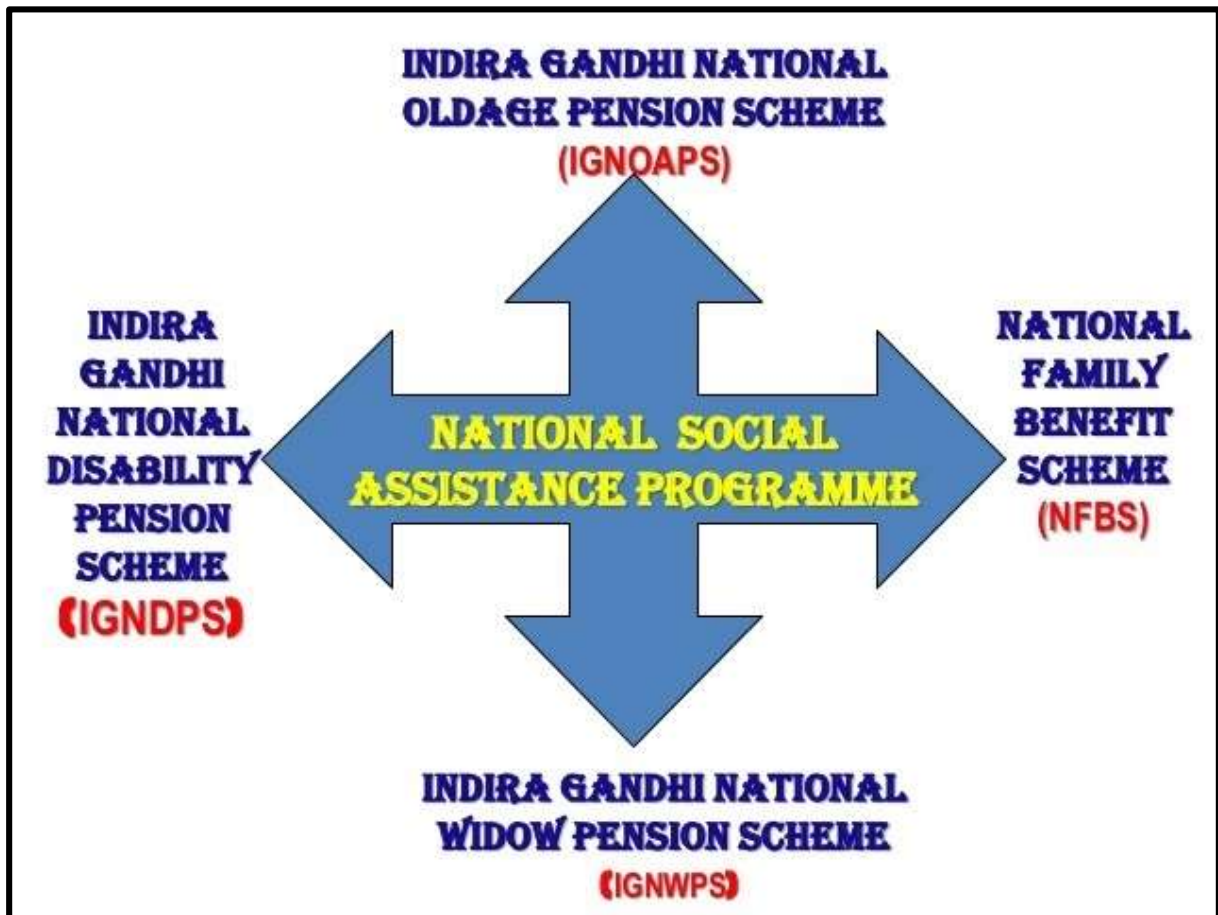
Importance for Prelims: Polity

There is no proposal to introduce electronic voting in the upcoming general elections, Law Minister Kiren Rijiju informed the Lok Sabha.

- It will allow electors to vote from faraway cities without going to the designated polling station of their constituencies.
- The voters can need to reach a chosen venue throughout a pre-decided amount of your time to be able to use this facility.
- The IIT-M is developing a system for two-way remote selection during a controlled atmosphere using blockchain technology.
- It would entail citizen identification and authorisation on the Electoral Registration Officer Network (ERO Net) exploitation biometric information and internet cameras for authentication, followed by a blockchain-based e-ballot generation, which might convert into a vote once the hash code would be generated on its execution.
- The encrypted remote votes cast would once more be valid at the pre-counting stage to make sure that they need neither been decrypted nor tampered with or replaced.
- Countries like the US, Argentina, Russia, Estonia, Thailand and South Korea within the past have utilized the blockchain strategies for conducting vote processes for his or her voters, with a good share of positives and negatives derivation consequentially.

Topic 22. NATIONAL FAMILY BENEFIT SCHEME (NFBS)

Importance for Prelims: Governance



National Family Benefit Scheme is in urgent need of revival

- The National Family benefit scheme (NFBS) was introduced by GOI throughout the country in August 1995, under the National Social Assistance Programme (NSAP), with the aim to provide immediate succor to those Below poverty level (BPL) families whose lone bread wage earner expires because of natural or accidental cause.
- Till 2002-03 it was fully funded by GOI under centrally sponsored scheme.
- Thereafter it was shifted to State Sector and is currently in vogue under the same pattern.

- Under National Family Benefit Scheme one-time financial assistance of Rs.20000/- is being paid to the bereaved family living below poverty line whose lone bread earner expires due to the natural or accidental death and is having no substantial source of income.
- In addition to the current the deceased bread jobholder ought to be within the age group of 18-64 years.

Topic 23. U.N. PLANS TO DRASTICALLY EXPAND PLASTIC WASTE MANAGEMENT IN INDIA

Importance for Prelims:Environment



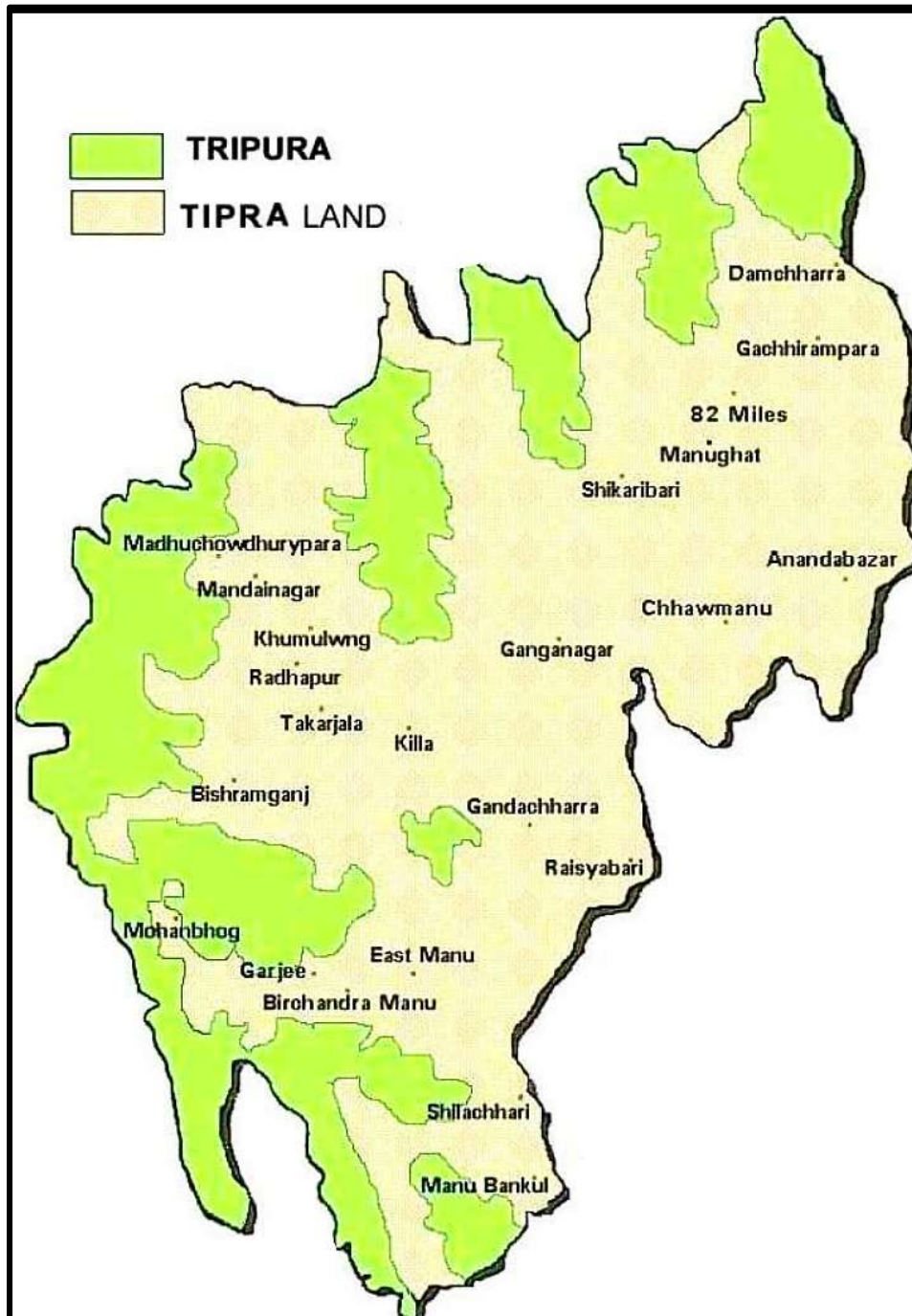
U.N. plans to drastically expand plastic waste management in India

- The UN Development Programme aims to virtually triple its plastic waste management to one hundred cities in India by 2024, to combat the damaging effects of plastic pollution.
- The UNDP programme, that began in 2018, has to date collected 83,000 metric tonne of plastic waste.
- India generates concerning 3.4 million tonnes of plastic waste annually, consistent with official estimates. The UNDP is functioning with federal think tank, NITI Aayog and have conjointly developed a 'handbook' model for native municipalities further because the non-public sector.
- Plastic pollution is about to triple by 2040, the U.N. environment Programme (UNEP) has expected, adding 23-37 million metric heaps of waste into the world's oceans annually.
- India, conjointly the world's third-biggest electrode of greenhouse gases after China and also the US, has set 2070 as a target to achieve net-zero

carbon emissions, a lot of later than those set by others and twenty years after the U.N.'s world recommendation.

Topic 24. GREATER TIPRALAND

Importance for Prelims: Governance



Several tribal outfits in Tripura have joined hands to push their demand for a separate state for indigenous communities in the region, arguing that their “survival and existence” was at stake.

- The parties are demanding a separate state of ‘Greater Tipraland’ for the

indigenous communities of the north-eastern state.

- They want the Centre to carve out the separate state under Article 2 and 3 of the Constitution.
- Among the nineteen notified scheduled Tribes in Tripura, Tripuris (aka Tipra and Tiprasas) are the biggest.
- According to the 2011 census, there are a minimum of 5.92 large integer Tripuris within the state, followed by Reangs (1.88 lakh) and Jamatias (83,000).

What does the Constitution say?

- Article two of the Constitution deals with admission or institution of recent states. “Parliament might by law admit into the Union, or establish, new States on such terms and conditions, because it thinks suitable,” it states.
- Article 3 comes into play in the case of “formation of new States and alteration of areas, boundaries or names of existing States” by the Parliament.

How did the demand originate?

- Tripura was a kingdom govern by the Manikya family line from the late thirteenth century till the linguistic communication of the Instrument of Accession with the Indian government on Oct 15, 1949.
- The demand in the main stems from the anxiety of the autochthonic communities in reference to the modification within the demographics of the state, that has reduced them to a minority.
- It happened due to the displacement of Bengalis from the erstwhile East Pakistan between 1947 and 1971.

What has been done to address the grievances of indigenous communities?

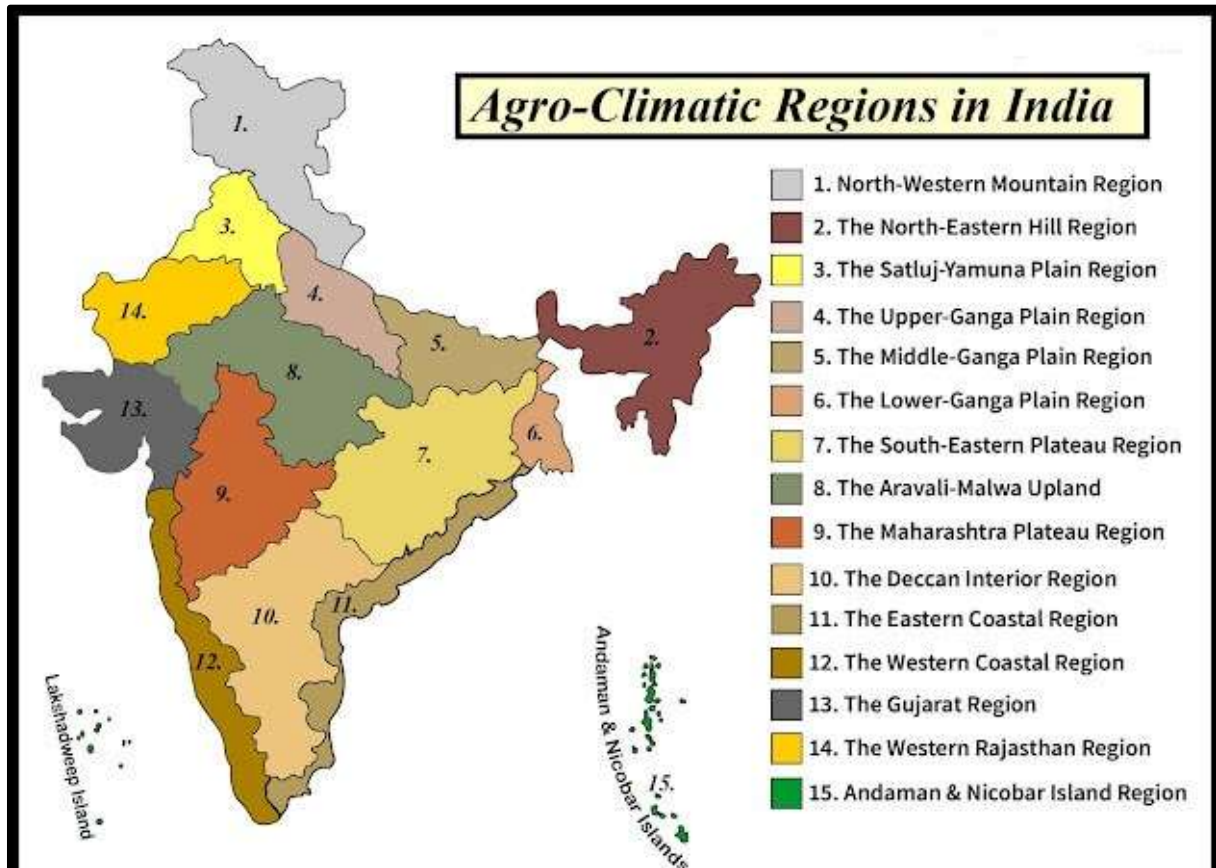
- The Tripura tribal Areas Autonomous District Council (TTADC) was establish underneath the sixth schedule of the Constitution in 1985 to

make sure development and secure the rights and cultural heritage of the tribal communities.

- The TTADC, that has legislative and administrative powers, covers nearly twothird of the state's geographic area.
- The council contains thirty members of that twenty eight are appointe while 2 are nominative by the Governor.
- Also, out of the 60 Assembly seats in the state, 20 are reserved for Scheduled Tribes.

Topic 25.AGRO CLIMATIC ZONES IN INDIA

Importance for Prelims:Geography



Punjab's six agro-climatic zones might hold key to its diversification conundrum **What is Agro climatic zone?**

- An “Agro-climatic zone” is a land unit in terms of major climates, suitable for a certain range of crops and cultivars.
- The planning aims at scientific management of regional resources to meet the food, fiber, fodder and fuel wood without adversely affecting the status of natural resources and environment.
- Agro-climatic conditions in the main check with soil varieties, rainfall, temperature and water accessibility that influence the kind of vegetations.
- Agro-climatic regions by the erstwhile planning commission the design Commission, as a results of the mid-term appraisal of the design targets of the Seventh arrange, has divided the country into fifteen broad agro-

climatic zones supported physical geography, soils, geological information, Climate, cropping patterns, and development of irrigation and mineral resources for broad agricultural designing and developing future techniques. Zone

1 – Western Himalayan Region: Jammu and Kashmir, Uttar Pradesh Zone

2 – Eastern Himalayan Region: Assam, Sikkim, West Bengal and all NorthEastern states Zone

3 – Lower Gangetic Plains Region: West Bengal Zone

4 – Middle Gangetic Plains Region: Uttar Pradesh, Bihar Zone

5 – Upper Gangetic Plains Region: Uttar Pradesh Zone

6 – Trans-Gangetic Plains Region: Punjab, Haryana, Delhi and Rajasthan Zone

7 – Eastern Plateau and Hills Region: Maharashtra, Uttar Pradesh, Orissa and West Bengal Zone

8 – Central Plateau and Hills Region: MP, Rajasthan, Uttar Pradesh Zone

9 – Western Plateau and Hills Region: Maharashtra, Madhya Pradesh and Rajasthan Zone

10 – Southern Plateau and Hills Region: Andhra Pradesh, Karnataka, Tamil Nadu Zone

11 – East Coast Plains and Hills Region: Orissa, Andhra Pradesh, Tamil Nadu and Pondicherry Zone

12 – West Coast Plains and Ghat Region: Tamil Nadu, Kerala, Goa, Karnataka, Maharashtra Zone

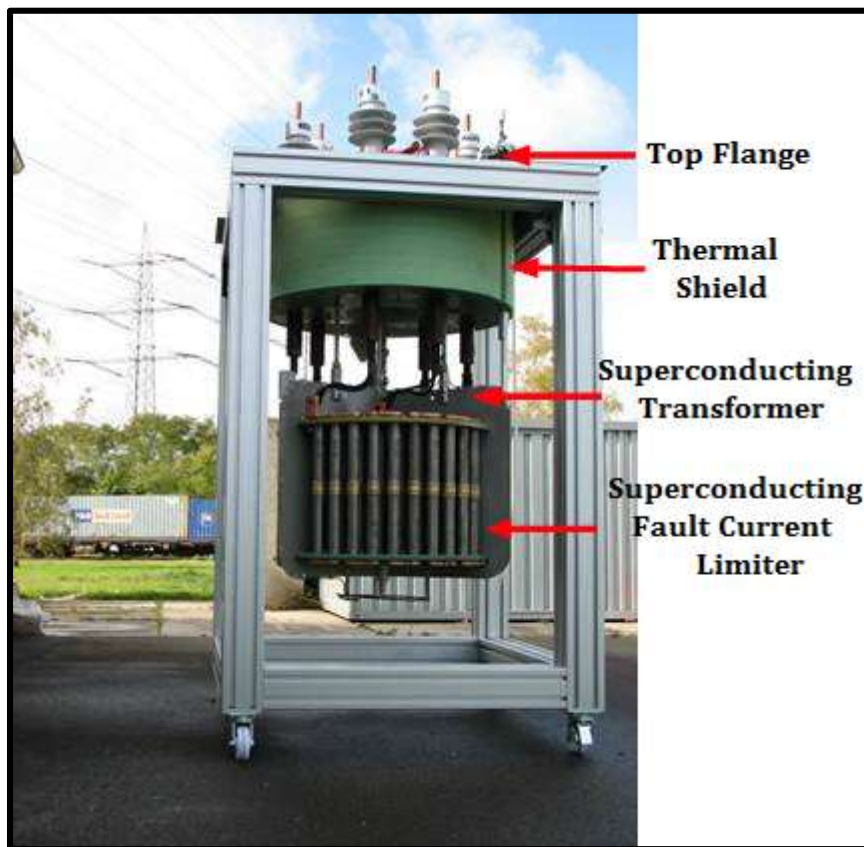
13 – Gujarat Plains and Hills Region: Gujarat Zone

14 – Western Dry Region: Rajasthan Zone

15 – The Islands Region: Andaman and Nicobar, Lakshadweep

Topic 26. SUPERCONDUCTING FAULT CURRENT LIMITER (SFCL)

Importance for Prelims: Science and Tech



An innovation by researchers from IIT Kanpur that can better protect power grids

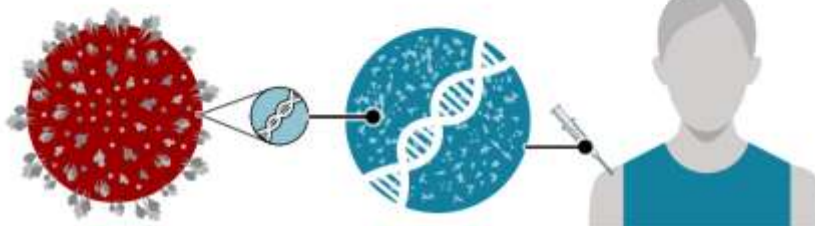
- Researchers from Indian Institute of Technology (IIT) Kanpur have come up with an innovation which will facilitate defend power grids against unexpected, sudden current surges.
- An innovative variation of the superconducting fault current limiter (SFCL), this good SFCL not solely shields the grid from massive current surges and subsequent fireplace accidents, it also can sense when this surges can happen and warn the system regarding it.

Topic 27. BLOOD CLOTS AFTER OXFORD VACCINE

Importance for Prelims: Science and Tech

How the Oxford vaccine works

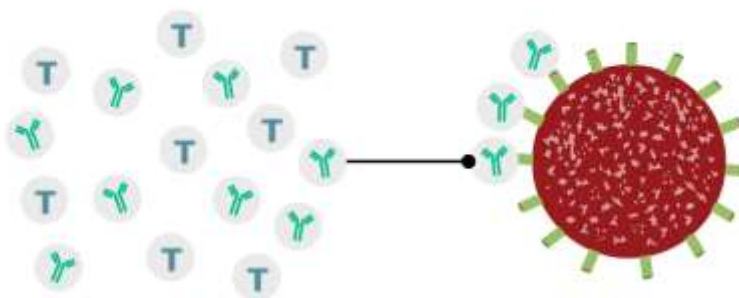
- 1 Scientists take genes for the spike protein on the surface of the coronavirus and put them into a harmless virus to make a vaccine. This is injected into the patient.



- 2 The vaccine enters cells which then start to produce the spike protein. The body's immune system reacts, produces antibodies and activates T-cells to destroy cells with the spike protein.



- 3 If the patient later catches coronavirus, antibodies and T-cells are triggered to fight the virus.



Study finds mechanism of blood clots after giving Oxford vaccine

- The journal Science Advances has revealed for the first time the mechanism responsible for blood clots arising from thrombosis with

thrombocytopenia syndrome (TTS) following vaccination with AstraZeneca vaccine.

- Thrombocytopenia syndrome causes low platelet count.
- A low number of platelets – blood cells that facilitate prevent blood loss when vessels are broken – may result in no symptoms or will lead to an increased risk of hemorrhage or, in some cases, clotting.
- Thrombosis with thrombocytopenia syndrome could be a terribly rare serious adverse impact following vaccination exploitation chimpanzee animal virus Y25 (ChAdOx1), human adenovirus kind twenty six (HAdV-D26), and human adenovirus kind five (HAdV-C5).
- AstraZeneca vaccine and therefore the Indian counterpart Covishield use the chimpanzee animal virus Y25, whereas Johnson & Johnson vaccine uses the human adenovirus kind twenty six.
- The satellite vaccine uses each human animal virus kind twenty six and human animal virus kind five as vectors to ferry the spike protein into bound cells.
- The researchers found that every one 3 adenoviruses utilized in some COVID-19 vaccines as vectors bind to blood platelet factor four (PF4).
- They found that adenoviruses form stable complexes with PF4.

What is Thrombosis?

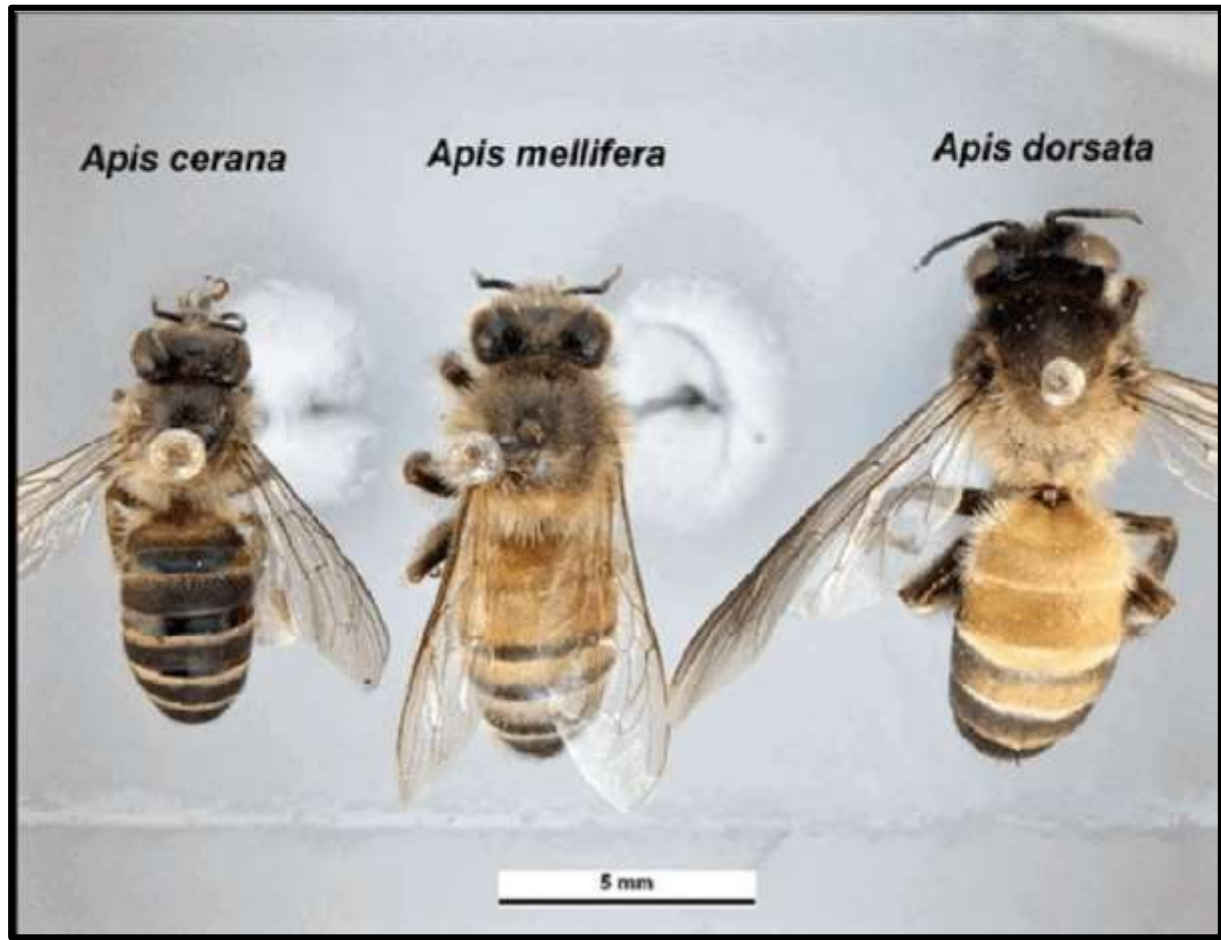
- Thrombosis is the formation of a blood clot, known as a thrombus, within a blood vessel.
- It prevents blood from flowing normally through the vascular system. blood coagulation, also called natural action, is that the body's initial line of defense against hemorrhage.
- When we hurt ourselves, our clotting system forms a “plug” or “seal” to protect us from losing too much blood.
- Our bodies often break down the clot after we've healed – but sometimes,

clots form inappropriately or fail to dissolve after an injury.

- A blood clot that forms and stays in a vessel is termed a clot. alternative medical terms accustomed describe **blood clots include:** Thrombosis: when a clot forms in a blood vessel.
- **Embolus or Embolism:** A clot that detaches and travels through blood vessels to a different a part of the body.

Topic 28 WESTERN HONEY BEES

Importance for Prelims:Environment



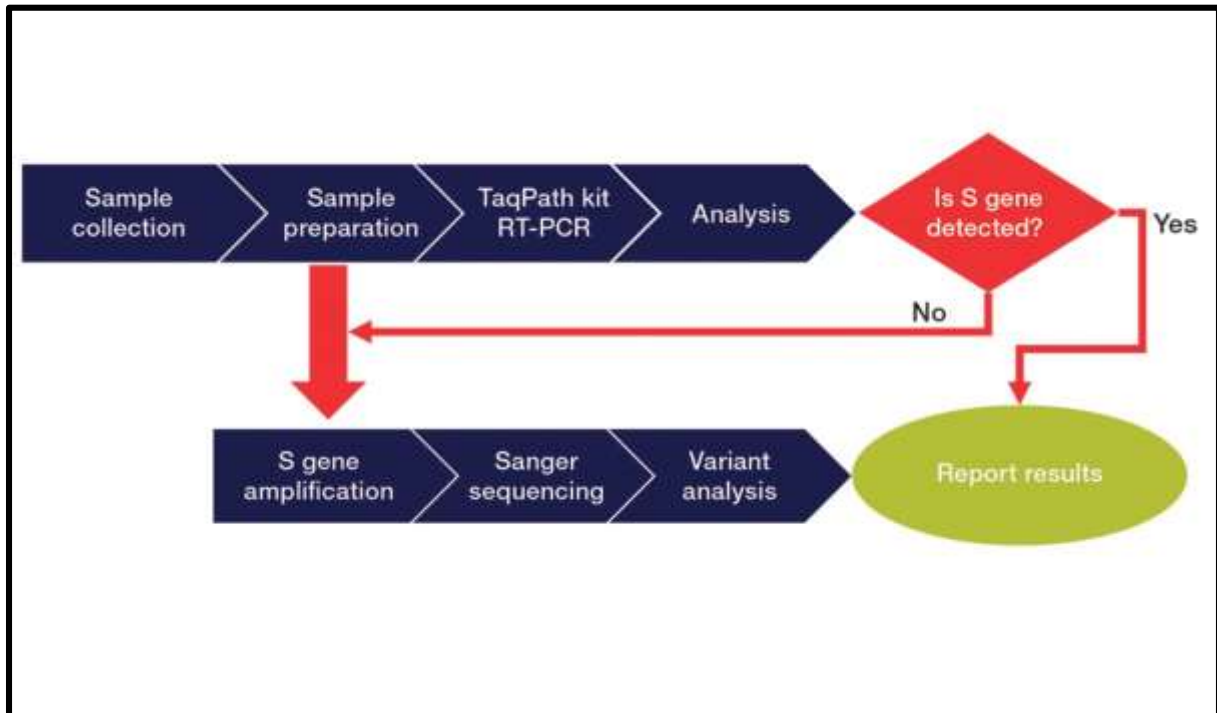
Research led by York University has shown that a species of honey producing bee called the western honey bee (*Apis mellifera*) most likely originated in Asia, settling the hotly debated topic for decades

- Research led by York University has shown that a species of honey-producing bee called the western honey bee (*Apis mellifera*) most likely originated in Asia, settling the hotly debated topic for decades.
- Until recently, it was believed that these bees had originated in Africa.
- The study (Science Advances) found that the western honey bees expanded severally from Asia into Africa and Europe making seven separate geographically and genetically distinct organic process lineages traceable back to Western Asia.

- The western honey bee is employed for crop fertilization and honey production throughout most of the globe, and has a outstanding capability for living in vastly completely different environments – from tropical timber, to arid environments, to temperate regions with cold winters.
- It is native to Africa, Europe and Asia.

Topic 29. S-GENE DROP OUT

Importance for Prelims: Science and Tech



WHO has also recommended that certain commonly used COVID-19 detection tests, with ‘S-gene dropout’ capabilities, can be used to quickly screen for an Omicron infection.

- Tests typically search for 3 target genes associated with elements of the virus: S (spike), N2 (nucleocapsid or inner area) and E (envelope or outer shell). The S-gene refers to the gene that codes for the spike protein, or the foremost distinctive a part of the coronavirus.
- The SARS-CoV-2, like many other coronaviruses, has key protein-regions that define its structure: The envelope protein (E), the nucleocapsidprotein(N), the membrane protein (M) and the spike protein (S).
- To accurately determine the virus, diagnostic tests ar created that may establish characteristic genes that create these proteins.
- To maintain the balance between price, turn-around time and potency,

manufacturers of diagnostic kits typically target 1-3 genes on these regions.

- The SARS-CoV-2 virus incidentally has one of the largest genomes in the coronavirus family.
- One standard kit, known as the TaqPath COVID-19 assays, identifies 3 gene targets from 3 regions one among that is that the S region to verify or rule out the presence of the coronavirus. Some versions of the coronavirus, notably B.1.1.7, known as the Alpha variant, and also the omicron variant (B.1.1.529), have characteristic amino acids missing on the S protein.
- Amino acids are the building blocks of protein.
- When tests designed to appear for the 'S' gene encounter these coronaviruses with the missing amino acids, they show up as negative for the S gene and this is often known as the S gene Targeted Failure or popularly S-gene drop out. Despite the negative 'S', the check can come back positive just in case of the presence of the SARS-CoV-2 virus as a result of the genes on the 'E' and 'N' can doubtless signal a match. Some elements of the coronavirus are a lot of preserved, or don't modification too much, and work a lot of reliable check targets.
- The spike protein will modification a lot—the coronavirus is regularly evolving, attempting to adapt to antibodies created from vaccines or previous infections—and tests too should keep ever-changing to search out acceptable targets.

Topic 30. NATIONAL HIGHWAYS AUTHORITY OF INDIA (NHAI)

Importance for Prelims: Economy



NHAI gets new chairperson

- National Highways Authority of India (NHAI) was set up under NHAI Act, 1988.
- It is under the executive management of the Ministry of Road Transport and Highways.
- It has been entrusted with the National Highways Development Project, along with other minor projects for development, maintenance and management.
- National Highways Development Project (NHDP) could be a project to upgrade, rehabilitate and widen major highways in India to a higher standard.
- The project was started in 1998.
- NHAI maintains the National Highways network to world standards and value effective manner and promotes economic well being and quality of life of the individuals.
- It has completed construction of 3,979 kilometre of national highways

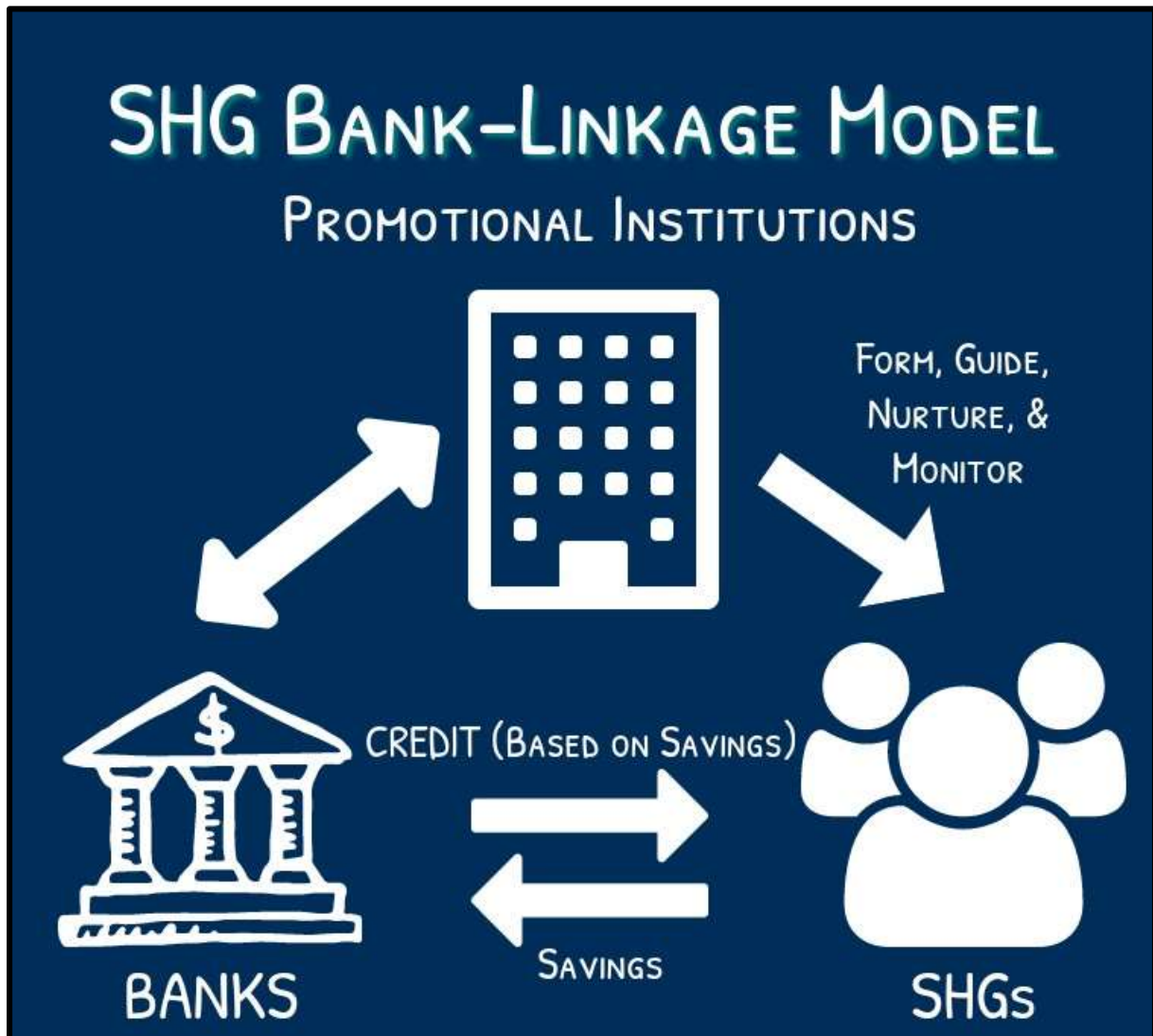
within the FY 2019-20. NHAI has mandated development of regarding 27,500 kilometre of national highways underneath BharatmalaPariyojna Phase-I.

- HAI has signed a memorandum of understanding (MoU) with the Indian Space Research Organisation for satellite mapping of highways.

Topic 31. SELF HELP GROUP – BANK LINKAGE PROGRAMME

(SHG-BLP)

Importance for Prelims:Economy



30 years of SHG -BLP

- NABARD, through its' small Credit Innovations Department has continued its role because the supporter and mentor of microfinance initiatives within the country.
- The model of 'SHG-BLP' has evolved as an economical mechanism for providing monetary services to the unreachable and underserved poor households.
- What started as a pilot to link around 500 SHGs of poor to the formal

financial institutions during the year 1992-93 has now become the largest microfinance programme in the world, in terms of the client base and outreach.

- The SHGs that follow ‘Panchsutras’ viz. conduct of standard group conferences, regular savings among the group, internal loaning supported the demand of members, timely compensation of loan and maintenance of correct books of accounts – thought of to be of good|of excellent|of fine} quality and over years have proven themselves to be good customers of Banks.
- The non-governmental organization sector has contend a distinguished role of operating as a Self facilitate group Promoting establishment (SHPI) by organizing, nurturing and enabling credit linkage of SHGs with banks.
- NABARD later co-opted several others as SHPIs together with the agricultural monetary establishments (RRBs, DCCBs, PACS), Farmers’ Clubs (FCs), SHG Federations, Individual Rural Volunteers (IRVs) etc.
- These stakeholders were encouraged to take up promotion of SHGs by way of promotional grant assistance from NABARD.
- This savings led microfinance model has currently become the biggest coordinated monetary inclusion programme within the world covering almost one hundred million households within the country.
- With over eighty four of the teams being completely ladies teams, the programme has provided the a lot of required push to empowerment of ladies within the country.
- Banks are also provided 100% refinance support by NABARD for financing of SHGs.

Topic 32. HORNBILL FESTIVAL

Importance for Prelims: Art and Culture



Nagaland civilian deaths cast shadow on Hornbill Festival

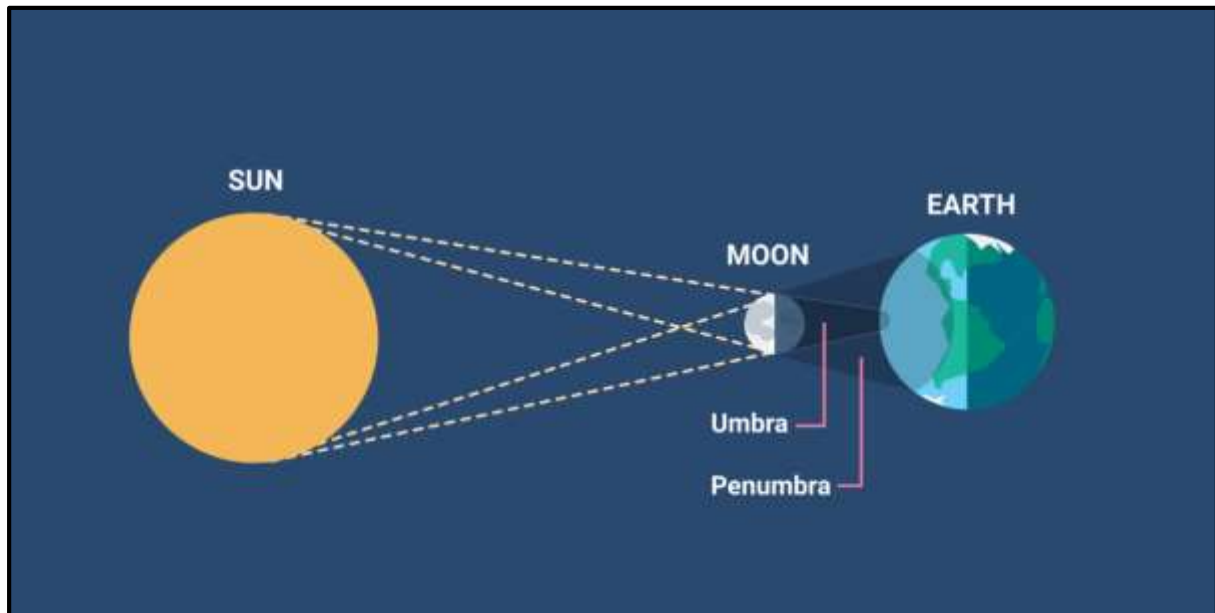
- Nagaland is known as the land of festivals as each tribe celebrates its own festival with dedication and passion.
- To encourage inter-tribal interaction and to promote cultural heritage of

Nagaland, the govt. of Nagaland organizes the hornbill pageant once a year within the 1st week of Dec.

- It is also known as the ‘Festival of Festivals’.
- Organized by the State tourism and Art & Culture Departments, hornbill pageant showcases a mixture of cultural displays under one roof.
- This festival usually takes place between the 1st and the 10th of December every year in Kohima.
- All the tribes of Nagaland take part in this festival.
- The festival is named after the bird – Hornbill which is the most revered and admired bird for the Nagas.
- The pageant may be a tribute to this bird, well-known for its qualities of grandeur and awareness.

Topic 33. TOTAL SOLAR ECLIPSE

Importance for Prelims: Science and Tech

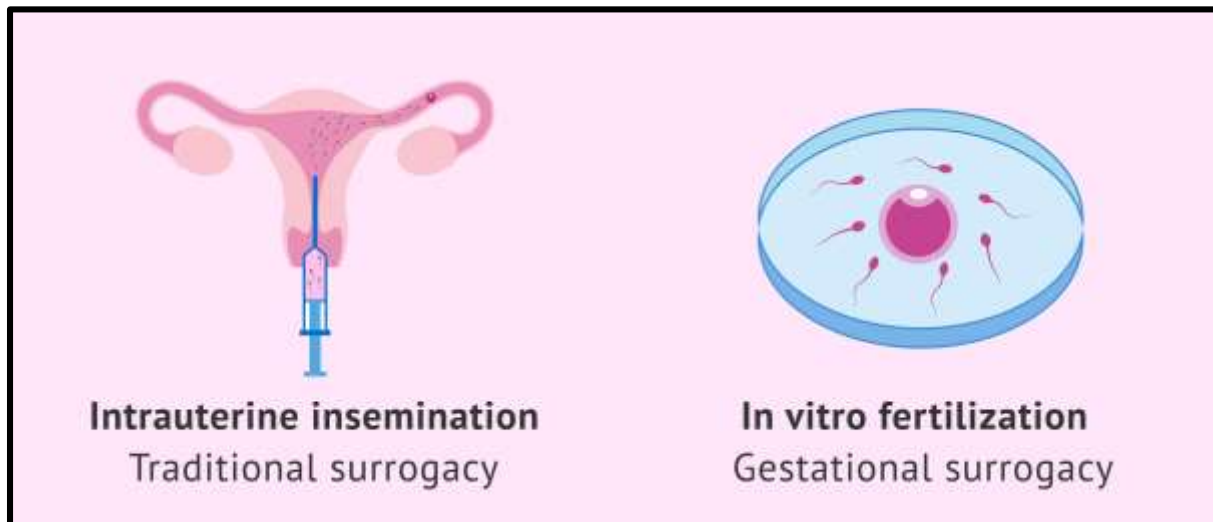


Total solar eclipse will bring 2 minutes of darkness to Antarctica's months of endless daylight

- Eclipses are unit divided into 2 major types: solar and lunar. solar eclipses occur when the Sun, Moon and earth all fall within the same line in order that the Moon passes between Earth and also the Sun, leaving a moving region of shadow on Earth's surface.
- Lunar eclipses occur when the Sun, Moon and earth all fall within the same line and Earth passes between the Sun and also the Moon, casting a shadow on the Moon.

Topic 34. ASSISTED REPRODUCTIVE TECHNOLOGY (ART) AND SURROGACY

Importance for Prelims: Science and Tech



Lok Sabha passed the Assisted Reproductive Technology Regulation Bill, 2020, which makes provisions for the safe and ethical practice of assisted reproductive technology (ART) services in the country.

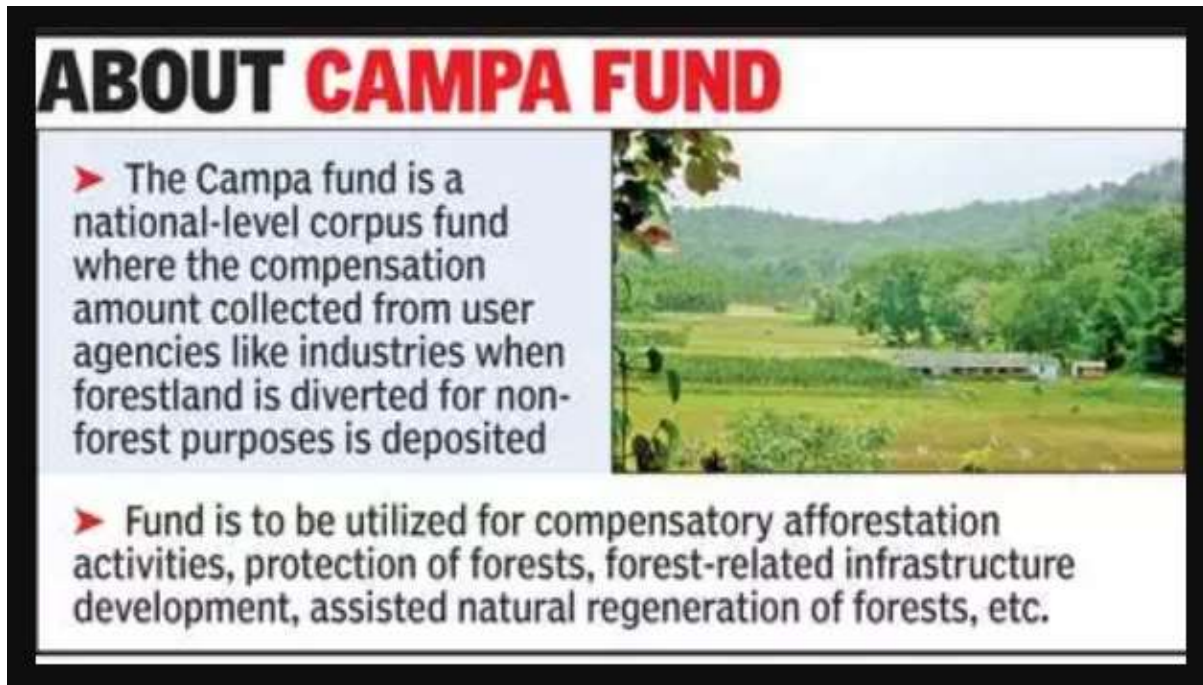
- The Surrogacy (Regulation) Bill relates to surrogacy, an infertility treatment, where a third person, a woman, is the surrogate mother.
- In ART, treatments can be availed by the commissioning couple themselves and it is not always necessary that a third person is involved.
- Surrogacy is allowed for only Indian married couples.
- ART procedures are open to married couples, live-in partners, single women, and also foreigners.
- A 2015 notification prohibits commissioning of surrogacy in Republic of India by foreigners or OCI or PIO cardholders, however NRIs holding Indian citizenship will avail surrogacy.
- Foreigners will visit India under medical tourism to avail ART services. underneath the Surrogacy Bill, there'll be a National Surrogacy Board that may be involved in policymaking, and act as a superior body, and State

Boards that may act as executive bodies.

- The ART Bill provides for a National Board, with the powers vested in a civil court under the Code of Civil Procedure.
- According to the Health Ministry, the calculable range of clinics practising surrogacy in India is probably going less than 1,000, whereas that of those practising ART is probably going over than 40,000.
- ART bank under the Bill, ART can include all techniques that arrange to obtain a gestation by handling the semen or the oocyte outside the human body, and transferring the oosphere or the embryo into the genital system of a lady.
- It defines an ART bank as an organisation set up to produce gamete or seed, oocytes, or oocyte donors to ART clinics or their patients.
- ART services will apply to women above the legal age of marriage and below 50, and to men above the legal age of marriage and below 55.

Topic 35. THE COMPENSATORY AFFORESTATION FUND MANAGEMENT AND PLANNING AUTHORITY (CAMPA)

Importance for Prelims:Environment



The Compensatory Afforestation Fund Management and Planning Authority (CAMPA) has so far disbursed ₹48,606 crore to 32 States

- Whenever forest land is resoled for non-forest functions, it's necessary under the Forest (Conservation) Act, 1980 that an equivalent space of non-forest land has got to be obsessed for compensative afforestation.
- In addition to this, funds for raising the forest are also to be imposed on whomsoever is undertaking the diversion.
- The land chosen for afforestation, if viable, should be in close proximity of reserved or protected forest for easy management by forest department.
- In 2002, the Supreme Court (SC) ordered that a compensatory afforestation Fund had to be created during which all the contributions towards compensative afforestation and internet present value of land had to be deposited.
- In Apr 2004, Ministry of environment and Forests constituted

compensatory afforestation Fund Management and planning Authority (CAMPA) to overlook and manage the compensatory afforestation Fund (CAF) as directed by the SC.

- The authority was termed because the ‘custodian’ of the fund. additional in 2009, the govt. ordered that State CAMPAs had to be set up to boost compensatory afforestation at state level and conjointly manage green India Fund.
- Despite of these efforts, CAG report in 2013 discovered that the CAMPA funds remained unutilised.
- The report declared that between 2006 and 2012, CAF with ad hoc CAMPA grew from ₹ 1,200 crores to ₹ 23,607 crores.
- Statutory backing Compensatory Afforestation Fund Act, 2016 came into force from 2018.
- The Act established a National compensatory afforestation Fund under the overall public Account of Republic of India and State compensatory afforestation Fund underneath the general public Account of each state.
- The payments made for compensatory afforestation, net present value and others related to the project will be deposited in the fund.
- The State Funds will receive 90% of the payments while National Fund will receive remaining 10%.
- These funds are regulated by State and National CAMPA.
- The Ministry also stressed that the fund had to be used for vital wants like compensatory afforestation, catchment area Treatment, wildlife Management, assisted Natural Regeneration, forest fire interference and management Operations, Soil and moisture Conservation Works within the forest, Improvement of wildlife domain, Management of Biological Diversity and Biological Resources, analysis in forest management and observation of CAMPA works and others.

Topic 36. ARTICLE 3 OF THE CONSTITUTION

Importance for Prelims: Polity

The demand has grown louder to carve out a separate state of 'Greater Tipraland' for the indigenous communities in Tripura under Article 2 and 3 of the Constitution.

- **ARTICLE 2:** Admission Or Establishment Of New States Parliament may by law admit into the Union, or establish, new States on such terms and conditions as it thinks fit.
- **ARTICLE 3:** Formation Of New States And Alteration Of Areas, Boundaries Or Names Of Existing States Parliament may by law –
 - (a) form a new State by separation of territory from any State or by uniting two or more States or parts of States or by uniting any territory to a part of any State;
 - (b) increase the area of any State;
 - (c) diminish the area of any State;
 - (d) alter the boundaries of any State;
 - (e) alter the name of any State;
- A Bill giving result to any or all the changes declared above may be introduced in either House of the Parliament, only on the advice of the President.
- If such a bill affects the boundary or name of a State, then the President, before introducing it within the Parliament, shall refer the Bill to the State legislative assembly involved for its opinion, fixing a time allotment within that an opinion is also expressed by the State legislative assembly.
- The President may extend the time limit so specified.
- If the State legislative assembly fails to communicated an opinion within the stipulated time allotment then it's deemed that it has expressed its views.

- If it submits its views within the period so specified or extended, Parliament is not bound to accept or act upon the views of the State Legislature.
- Further, it's not necessary to form a new assembly each time a modification to the Bill is planned and accepted.
- The Bill is passed with simple majority.
- However, in the case of Union Territories, it's not necessary to get the views of Legislatures of Union Territories before a Bill influencing their boundaries or names is introduced.

Topic 37. SECTION 43D (5) OF THE UNLAWFUL ACTIVITIES

PREVENTION ACT (UAPA)

Importance for Prelims: Polity

Government Schemes Just two days before his death, Stan Swamy had moved the Bombay High Court challenging Section 43D (5) of the Unlawful Activities Prevention Act (UAPA) — a provision Swamy termed “illusory”

- The provision makes grant of bail virtually not possible under UAPA since it leaves small room of judicial reasoning.
- In the case of Zahoor Ahmed Shah Watali, the Supreme Court in 2019 confirmed that courts should accept the state’s case while not examining its merits whereas granting bail.
- In string of rulings, however, courts have taken an alternate reading of this provision, emphasising the right to a speedy trial and raising the bar for the state to book a person beneath UAPA.
- The UAPA, enacted in 1967, was strong by the Congress-led UPA government in 2008 and 2012.
- The test for denying bail under the UAPA is that the court must be satisfied that a “prima facie” case exists against the accused.
- In 2019, the SC defined prima facie narrowly to mean that the courts must not analyse evidence or circumstances but look at the “totality of the case” presented by the state.
- **Section 43D(5) reads:** “Notwithstanding anything contained in the Code, no person accused of an offence punishable under Chapters IV and VI of this Act shall, if in custody, be free on bail or on his own bond unless the general public prosecuting officer has been given a chance of being detected on the application for such release.
- “Provided that such suspect person shall not be discharged on bail or on his own bond if the Court, on a perusing of the case diary or the report

created under section 173 of the Code is of the opinion that there are reasonable grounds for believing that the accusation against such person is prima facie true.” Law of Bail under UAPA each regular bail and bail by default like CrPC are available under UAPA with some alterations under section forty three D of UAPA.

- The Regular Bail in UAPA may be granted by a competent judge under section 437 CrPC and by the supreme court or district and sessions court under section 439 of CrPC.
- The provisions for default bail is also obtainable under section 167(2) CrPC read with section 43D(2) of UAPA, when thirty days of police custody and ninety days of judicial custody, subjected to delay in filing of charge-sheet.
- UAPA does not provide any specific conditions to be satisfied to grant bail. Curious case of Section 43D(5) It is only applicable to offences punishable under chapter IV and VI of the act i.e. offences related to terrorist acts and terrorist organizations.
- It features a condition that essentially explains condition when bail shall be denied, i.e. if reasonable grounds exist for accusations to be prima-facie true and such decision shall be supported police blotter or case diary.
- The second a part of condition explains the burden over prosecution and therefore the prosecution had to prove that reasonable grounds exist for accusations believed to be prima facie true.

Topic 38. LIMITING ANTIBIOTICS USE IN CROPS

Importance for Prelims:Environment

The registration committee (RC) under the Central Insecticides Board and Registration Committee (CIBRC) August 2021 approved the recommendation for phasing out the use of streptomycin and tetracycline, according to the availability of alternatives.

- The registration committee (RC) under the Central insecticides Board and Registration Committee (CIBRC) August 2021 approved the advice for phasing out the use of streptomycin and tetracycline, consistent with the provision of alternatives.
- Streptomycin could be a critically important antimicrobial whereas tetracycline belongs to the category of extremely important antimicrobials, according to the world Health Organization.
- The decision comes amid considerations over antimicrobial resistance observed in varied crops, singularly to streptomycin, that is used within the treatment of tuberculosis (TB) that currently co exists with HIV infection, and to tetracycline antibiotics, that notice application in treatment of various kind of microorganism infections.
- CSE had conjointly highlighted the role of streptomycin in treatment of previously treated TB patients, multidrug-resistant TB and a few cases of TB meningitis (brain TB).
- The RC further directed the Monitoring of Pesticide Residues at National Level (MPRNL) project to conduct studies on maximum residue limit (MRL) to generate data on major crops in which label claim for antibiotics is available.
- The guideline conjointly urged CIBRC to require up the matter associated with fixation of MRL fixation with FSSAI.
- The above developments follow prior developments made in May 2020,

when the RC had accepted the recommendation that use of streptomycin + tetracycline should be completely banned with immediate effect on those crops where alternatives are available.

- Where no alternatives are available, it will be used only on crops strictly following the label claim and should be phased out by the end of 2022.
- The diseases can also be managed by using integrated pest management and other practices.
- In a subsequent meeting in February 2021, the RC had also noted that the use of streptomycin and tetracycline is approved only on eight crops so far — apple, bean, citrus, potato, tobacco, tomato, paddy and tea — against various diseases.
- But alternatives of streptomycin and tetracycline are terribly restricted and available only for 3 crops.

Topic 39. KAZHUVELI BIRD SANCTUARY

Importance for Prelims:Environment

Kazhuveli notified as 16th bird sanctuary in Tamil Nadu

- The ecologically vital Kazhuveli wetlands in Villupuram district is that the sixteenth bird sanctuary in Tamil Nadu.
- The area has adequate ecological, faunal, floral and geomorphologic significance for the aim of protective, propagating and developing wildlife and its environment.
- As many as thirteen villages fall under the sanctuary. Kazhuveli may be a marshland of international importance on the East Coast.
- The sanctuary lies adjacent to the Bay of Bengal on the East Coast.
- The declaration was created in exercise of the ability conferred in subsection (1) of section eighteen of the wildlife (Protection) Act, 1972.
- Kazhuveli or Kaliveli wetland system is one among the biggest waterfowl congregation sites in Tamil Nadu, and a well known raptor roosting site for species like the eastern Imperial Eagle, greater noticed Eagle, Red-necked Falcon and several other harriers.
- The Grey-tailed Tattler, a rare migratory wading bird, has been recorded solely here and in Pulicat across the country.
- Kazhuveli is unique as it falls in the Central Asian migratory path of birds and is home to the second-largest brackish water lake in South India.