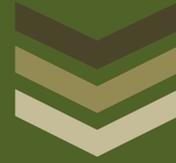


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Success is born of action...

Topic 1: KRI NANGGALA

Importance for Prelims: Defence

KRI Nanggala 402 submarine

Cakra class submarine (Type 209/1300)

Crew 53

Power Electric-diesel engines

Weight 1,395 tonnes



The Indian Navy sent its deep sinking rescue vessel (DSRV) from Visakhapatnam to support the Indonesian Navy within the search and rescue efforts for its submarine KRI Nanggala that went missing with fifty three personnel aboard.

- KRI Nanggala (402) may be a diesel-electric locomotive submarine of the Indonesian Navy, one amongst 2 Cakra-class submarines (Type 209 design).
- On twenty one Gregorian calendar month 2021, it went missing in deep waters throughout a SUT torpedo drill north of Bali.
- The boat is called when the Nanggala, a divine and powerful short spear that was owned by PrabuBaladewa (the elder brother of Kresna), a continual character in wayang puppet theatre.

Deep sinking rescue vessel (DSRV)

- India is amongst the few countries within the world capable of enterprise search and rescue of a disabled submarine through a DSRV.
- Indian Navy's DSRV system will find a submarine up to one,000-metre depth utilising its progressive facet scan echo sounder and remotely operated vehicle.
- After the submarine is with success placed, another sub module of DSRV — the submarine rescue vehicle (SRV) — links with the submarine to rescue the unfree personnel. The SRV also can be wont to offer emergency provides to the submarine.

Topic 2: SPECIAL TASK FORCE TO MONITOR J&K GOVERNMENT EMPLOYEES

Importance for Prelims: Governance

The J&K government habitual a Special Task Force (STF) for distinguishing and scrutinising the govt workers World Health Organization ar concerned in any cases associated with motility threat to the safety or anti-national activities.

- The STF can have the ADGP, (CID), J&K, as its chairman and also the IGP, representatives of the house Department; Department of Law, Justice Member and Parliamentary Affairs and also the involved department as its members.
- The STF can scrutinise cases of workers suspected of activities requiring action beneath Article 311(2)(C) of the Constitution.
- The STF has been tasked to compile records of such workers and have interaction with different members of the phobia watching cluster (TMG) for distinguishing such different workers.
- The move comes as variety of presidency workers within the past were found expressing their political opinion publically area on the geographic region conflict.

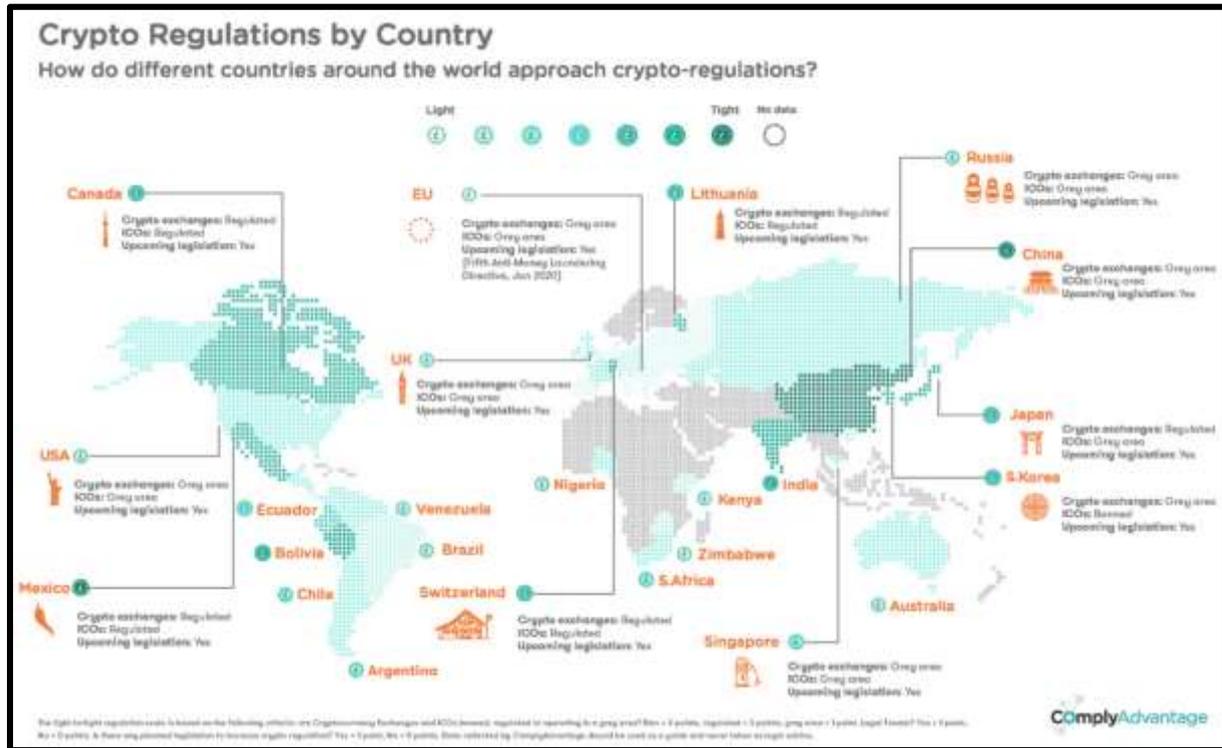
Provision of Article 311 of the Constitution

- The special task force has been passed beneath provisions of Article 311(2) (C) of the Constitution.
- It provides the administration power to terminate associate degree worker while not constituting associate degree inquiry against him or her on grounds of security of the State.
- Article 311 provides 2 safeguards to civil servants against any arbitrary dismissal from their posts:
- A official can't be discharged or removed by associate degree authority subordinate to it by that he was appointed.

- A official can't be discharged or removed or reduced in rank except when associate degree inquiry within which he has been sophisticated of the costs against him and given an inexpensive chance of being detected in respect of these charges.
- The higher than 2 safeguards ar on the market solely to the members of the civil services of the Centre, the all-India services, the civil services of a state or to persons holding civil posts beneath the Centre or a state.
- It isn't on the market to the members of defence services or persons holding military posts.
- The second safeguard of holding inquiry isn't on the market within the following 3 cases:
 - wherever a official is discharged or take awayd or reduced in rank on the bottom of conduct that has diode to his conviction on a criminal charge; or Where the authority sceptred to dismiss or remove a official or to scale back him in rank is glad that for a few reason (to be recorded in writing), it's not fairly practicable to carry such inquiry; or
 - Where the president or the governor is glad that within the interest of the safety of the state, it's not expedient to carry such inquiry.

Topic 3. LEGAL STATUS OF CRYPTOCURRENCY

Importance for Prelims: Governance



Recently, the uncertainty over the status of cryptocurrencies is alarming Indian investors UN agency hold around \$1.5 billion (Rs 10,000 crore) in digital currencies.

Cryptocurrency Law projected by run batted in

- The Cryptocurrency and Regulation of Official Digital Currency Bill, 2021 can require all personal cryptocurrencies.
- It can lay down the regulative framework for the launch of Associate in Nursing “official digital currency”. A 3-6 month exit amount before forbiddance the commerce, mining and supplying of cryptos has been mentioned in inter-ministerial discussions concerning the law.
- The dynamical inter-ministerial committee has antecedently counseled a ban on all personal crypto currencies.

- The sources have aforesaid that the projected law are prospective, even supposing Declarations of holdings and transactions is also wanted retrospectively.

Digital Currency of run batted in

- The run batted in had aforesaid central banks area unit exploring DLT (Distributed Ledger Technology) for application in up money market infrastructure.
- The run batted in is considering DLT as a possible technological resolution in implementing financial organization digital currency (CBDC).
- A recent survey of central banks conducted by the Bank for International
- Settlements found that some eighty per cent of the sixty six responding central banks have started comes to explore the utilization of CBDC in some type.
- The run batted in had expressed concern over alternative crypto currencies, speech communication they will be used for ineligible activities, and poses a threat to money stability.

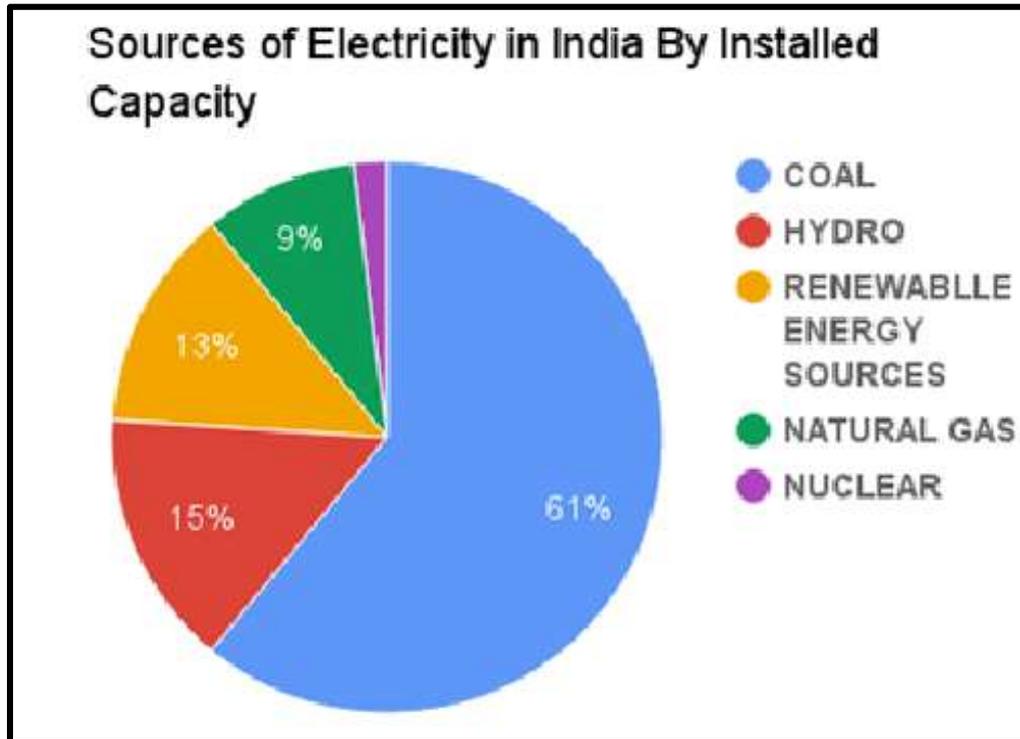
What is financial organization Digital Currency (CBDC)?

- The central banks area unit keen on coming up with their own network of digital payments by formally supplying what's known as a financial organization Digital Currency (CBDC) so as to forestall extreme decoupling.
- It may be a tender and liability of a nation's financial organization within the digital type.
- It is denominated in an exceedingly sovereign currency and seems on the record of a nation's financial organization.

- It may be a digital currency which may be converted/exchanged at par with equally denominated money and ancient financial organization deposits of a nation.
- The novelty of such general CBDCs lies in its character of being tender.

Topic 4. INDIA US CLEAN ENERGY INITIATIVE

Importance for Prelims: International Relations



Recently, Prime Minister Shri Narendra Modi and U.S. President Joe Biden launched the India-US Clean Energy Agenda 2030 Partnership at the Leaders' Summit on Climate hosted by the U.S..

- India has created associate bold commitment of achieving the renewable energy target of 450 Gc by 2030.
- The nationwide outlined Contributions (NDCs) area unit every country's goals towards achieving the Paris Agreement target of limiting rising temperatures to but two degrees uranologist.
- The U.S. pledged to chop emissions by fifty to fifty two per cent of its 2005 levels by 2030 that is double the 2015 goal set by former President Barack Obama.

India-US Clean Energy Initiative

- It can facilitate in mobilising investments, demonstrate clean technologies, and change inexperienced collaborations.

- It can proceed on 2 main tracks i.e. the Strategic Clean Energy Partnership and therefore the Climate Action and Finance Mobilization Dialogue, which is able to turn on and subsume a variety of existing processes.
- India and therefore the us aim to demonstrate however the globe will align swift climate action with inclusive and resilient economic development.

About Leaders' Summit on Climate

- It could be a two-day virtual conference hosted by us.
- It can function a chance to unleash their countries climate ambition and the way they'll take action to cut back emissions.
- The main objectives of this summit are:
- Get the world's major economies to cut back emission during this decade whereas additionally obtaining the general public and personal sector involvement.
- Show however climate action will have economic and social edges and build new businesses and industries.
- Using the technology out there to adapt to global climate change however additionally cut back emissions. The world's prime 5 highest emitters area unit China, The us, India, Russia and Japan.

Topic 5. SANKHA GHOSH

Importance for Prelims: Culture

Eminent Bengali writer Shankha Ghosh passed once testing positive for COVID- nineteen. Ghosh was eighty nine.

- Considered to be AN authority on Rabindranath Tagore, his celebrated works embrace AdimLata – Gulmomay and MurkhaBaroSamajik negative, among different books.
- The writer was vocal regarding up to date problems and was additionally seen at the forefront throughout several political upheavals within the state together with the Nandigram violence.
- In 2011, he was awarded Padma Bhushan and in 2016 he received the Jnanpith Award. In 1977, he received the SahityaAkademi Award for his book ‘BabarerPrarthana‘.

Topic 6. SLBC

Importance for Prelims: Governance



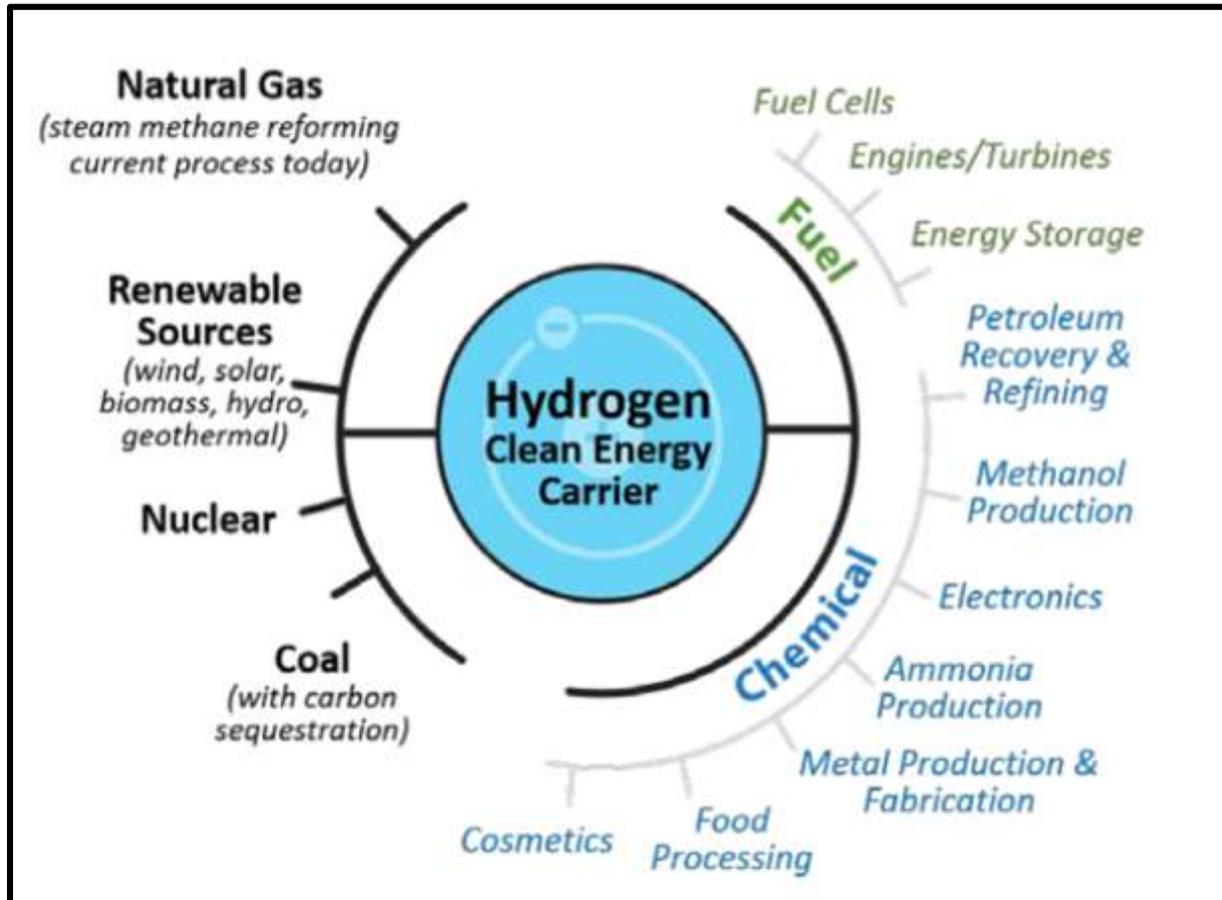
Owing to an increase in infection among employees, the State-Level Bankers' Committee is considering limiting operations – from ten am to 2pm.

- State Level Bankers' Committee, set-up as per the banking concern theme of the banking company of Asian nation, is that the highest body of bankers within the state.
- The committee meets once 1 / 4. additionally to reviewing the activities of the institutional disposition, the quarterly conferences discuss varied problems regarding the economic development of the state, wherever banks play a crucial role.
- The conferences aim at finding resolution to the assorted issues endeavor the state.
- The forum takes the lead in initiating, streamlining and fast the method of development in shut co-ordination with varied government departments, banking company of Asian nation, NABARD and alternative organic process agencies.
- The quarterly conferences are attended by commanding functionaries of member establishments of SLBC, thereby enabling them for purposeful

and purposeful discussions on varied matters geared toward determination the assorted problems.

Topic 7. NATIONAL HYDROGEN ENERGY MISSION

Importance for Prelims: Environment



India can shortly be part of fifteen different countries within the chemical element club because it prepares to launch the National chemical element Energy Mission (NHEM)

National chemical element Energy Mission

- This mission can emphasise chemical element from clean sources.
- It conjointly envisages linking the country's growing renewable energy capability with the chemical element economy.
- India's target for 2022 for renewable energy generation is a hundred seventy five GW and this mission is predicted to bolster the method.
- The renewable energy target for 2030 is 450 GW.
- The country has set to decarburize by 2050.

- Using chemical element can serve the dual functions of achieving India's emission commitments underneath the Paris Agreement and reducing the import dependence on fossil fuels.
- The end-users of chemical element energy area unit the transportation sector, industry and steel sector.
- These sectors contribute to 1/3rd of all gas emissions owing to their mistreatment fossil fuels.
- Replacing fossil fuels with chemical element in these sectors can facilitate scale back GHGs in an exceedingly huge means.

Hydrogen:

- Hydrogen is that the lightest and initial component on the table. Since the load of chemical element is a smaller amount than air, it rises within the atmosphere and is so seldom found in its pure kind, H₂.
- At degree Celsius and pressure, chemical element could be a nontoxic, nonmetal, odorless, tasteless, colorless, and extremely flammable matter gas.
- Hydrogen fuel could be a zero-emission fuel burned with gas. It is utilized in fuel cells or burning engines. it's conjointly used as a fuel for ballistic capsule propulsion.

Type of Hydrogen:

Grey Hydrogen:

- Constitutes India's bulk Production.
- Extracted from hydrocarbons (fossil fuels, natural gas).
- By product: carbon dioxide

Blue Hydrogen:

- Sourced from fossil fuels.
- By product: CO, CO₂

- By merchandise area unit Captured and keep, therefore higher than gey chemical element.

Green Hydrogen:

- Generated from renewable energy (like star, Wind).
- Electricity splits water into chemical element and gas.
- By merchandise : Water, vapour

Topic 8. PM GKAY

Importance for Prelims: Government Schemes



प्रधानमंत्री गरीब कल्याण योजना
कोरोना वायरस के खतरे के कारण आर्थिक कठिनाइयों का सामना कर रहे कमजोर वर्गों की मदद के लिए 1.7 लाख करोड़ रुपये का विशेष पैकेज

गरीबों के लिए
80 करोड़ गरीब परिवारों को अगले 3 महीने तक अतिरिक्त 5 किलो चावल या 5 किलो गेहूं और 1 किलो दाल मिलेगी

स्वास्थ्य कर्मियों के लिए
कोरोना महामारी से लड़ रहे 22 लाख स्वास्थ्य कर्मियों को 50 लाख रुपये का बीमा

महिलाओं के लिए
प्रधानमंत्री जन धन खाता धारक महिलाओं को अगले 3 महीने तक 500 रुपये प्रति माह मिलेंगे

कम वेतन और संगठित मजदूरों के लिए
100 से कम कर्मचारी संगठनों में काम करने वाले, 15 हजार से कम मासिक वेतन वाले कर्मचारियों का 24% पीएफ वहन करेगी सरकार

अन्नदाताओं के लिए
पीएम किसान सम्मान निधि के तहत किसानों को अप्रैल माह में 2,000 रुपये हस्तांतरित किए जाएंगे

नौकरी पेशा लोग कोरोना आपदा के दौरान ईपीएफ फंड से
75% राशि या 3 माह का वेतन, जो भी कम हो निकाल सकेंगे

1 अप्रैल से मनरेगा के वेतन में 20 रुपये की बढ़ोतरी

स्वयं सहायता समूहों के लिए
स्वयं सहायता समूहों को बिना संपत्ति गिरवी रखे ऋण लेने की सीमा 10 लाख रुपये से बढ़ाकर 20 लाख रुपये की गई

वरिष्ठ नागरिकों, दिव्यांग और विधवाओं के लिए
विधवाओं, दिव्यांगों और वरिष्ठ नागरिकों को अगले 3 महीने के लिए 1,000 रुपये प्रदान किए जाएंगे

#IndiaFightsCorona

Acceding to demand from states, the Centre on Friday set to distribute million MT (MT) of foodgrain freed from price to any or all the eighty one large integer identity card holders underneath Prime Minister GaribKalyan Pakistani monetary unit Yojana (PM-GKAY) throughout May-June.

Pradhan Mantri Garib Kalyan Pakistani monetary unit Yojana:

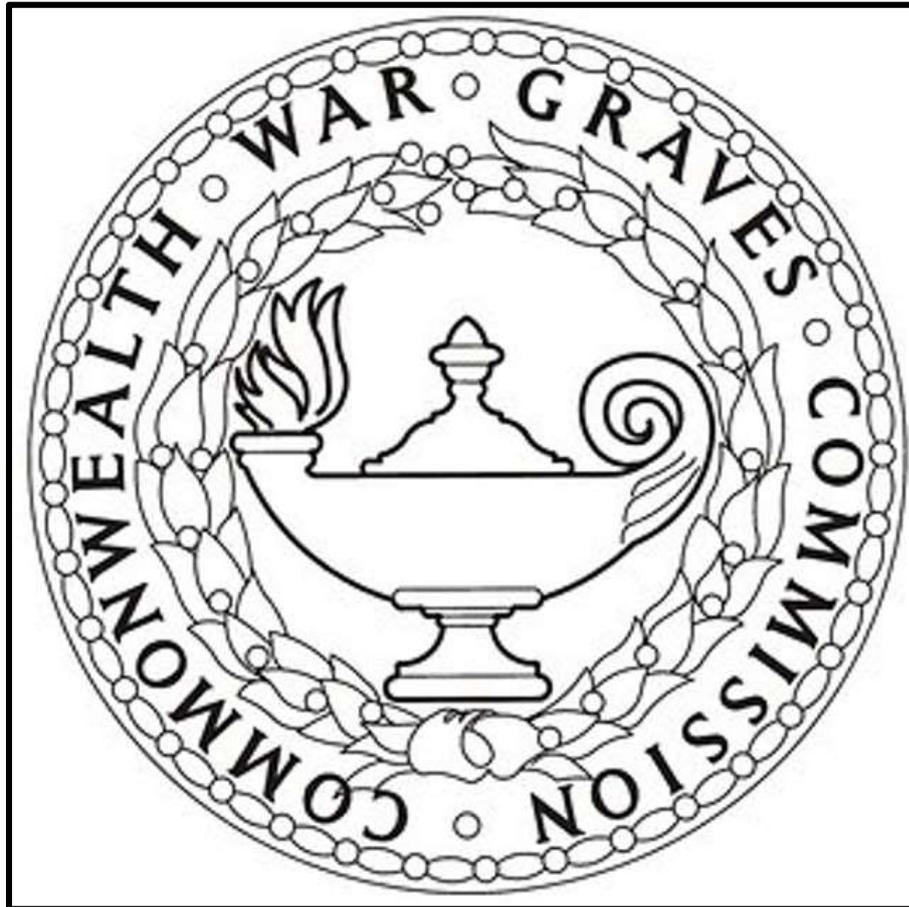
- PMGKAY could be a a part of Pradhan MantriGaribKalyan Package (PMGKP) to assist the poor fight the battle against Covid-19.
- The theme geared toward providing all and sundry WHO is roofed underneath the National Food Security Act with an extra five kilo grains (wheat or rice) for complimentary, additionally to the five kilo of

supported foodgrain already provided through the general public Distribution System (PDS).

- The beneficiaries are entitled to one kilo of pulse for complimentary, consistent with regional preferences.

Topic 9. CWGC

Importance for Prelims: International Relations



Commonwealth war graves: PM 'deeply troubled' over racism

- The Commonwealth War Graves Commission (CWGC) is an intergovernmental organisation of six freelance member states whose principal operate is to mark, record and maintain the graves and places of commemoration of Commonwealth of countries military service members United Nations agency died within the 2 World Wars.
- Members are Australia, Canada, India, New Zealand, South Africa and UK.
- The commission is additionally liable for ceremonial Commonwealth civilians United Nations agency died as a result of enemy action throughout war II.

- The commission was supported by Sir Fabian Ware and official through charter in 1917 because the Imperial War Graves Commission. The amendment to this name befell in 1960.
- The commission, as a part of its mandate, is liable for ceremonial all Commonwealth war dead on an individual basis and equally.
- To this finish, the war dead ar commemorated by a reputation on a headstone, at associate known website of a burial, or on a memorial. War dead ar commemorated uniformly and equally, no matter military or civil rank, race or creed.

Topic 10. KOWLOON PENINSULA

Importance for Prelims: Geography



Hong Kong is ready to grant a web site on the western Kowloon dry land, to China's national security workplace for its permanent base within the town.

- The Kowloon dry land may be a dry land that forms the southern a part of the most land within the territory of city, aboard Victoria Harbour and facing toward city island.
- The Kowloon dry land and therefore the space of recent Kowloon ar conjointly called Kowloon.
- Geographically, the term “Kowloon Peninsula” can also confer with the realm south of the mountain ranges of Beacon Hill, Lion Rock, Tate’s Cairn, Kowloon Peak, etc.
- The dry land covers 5 of the eighteen districts of city.

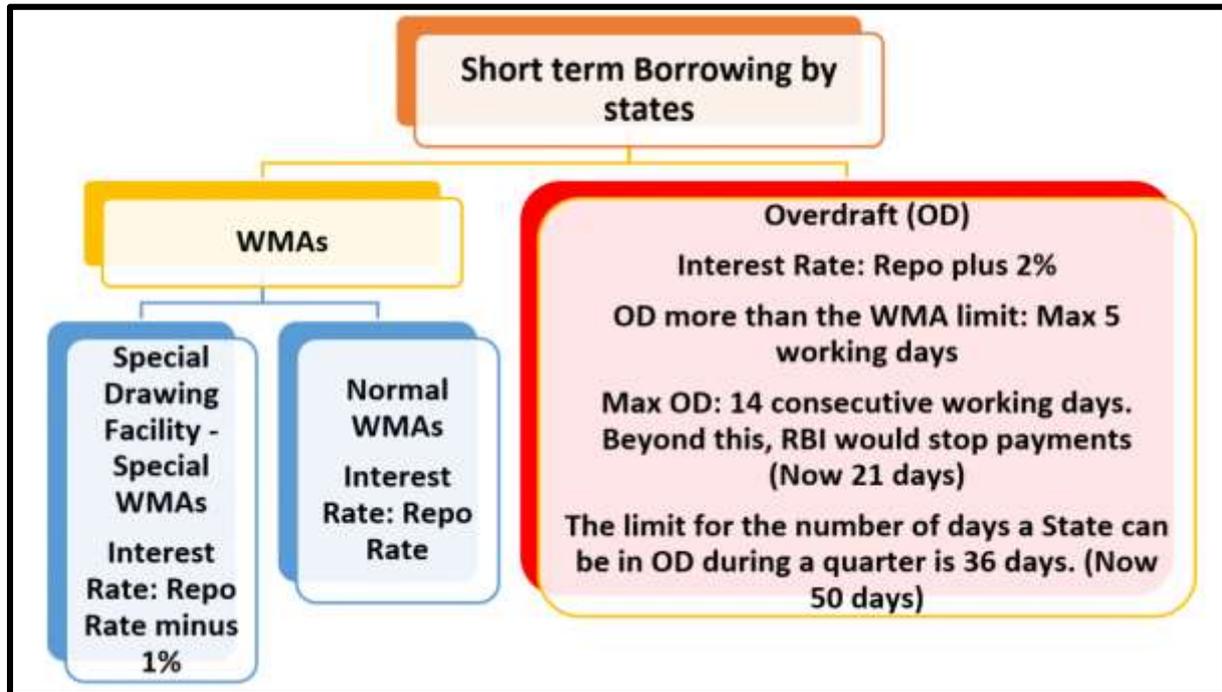
- Kowloon Bay is found at the northeast of the dry land.

Background

- The former British colony of city came back to Chinese decree 1997 with the guarantee of continuing freedoms. Pro-democracy activists say those freedoms are being whittled away, particularly with the national security law cracking down on dissent.

Topic 11. WMA FOR STATES

Importance for Prelims: Economics



The bank of Asian country (RBI) determined to continue with the present interim ways in which and means that Advances (WMA) theme limit of ₹51,560 large integer for all States/ UTs shall for 6 months i.e., up to Gregorian calendar month thirty, given the prevalence of COVID-19.

- Ways and means that advances (WMA) could be a mechanism employed by bank of Asian country (RBI) underneath its credit policy to produce to States, banking with it, to assist them suffice temporary mismatches within the income of their receipts and payments.
- This is target-hunting underneath Section 17(5) of run Act, 1934.
- Based on the recommendations of the informative Committee on WMA to State Governments, 2021 (chaired by Sudhir Shrivastava) the run had revised the WMA theme of States and Union Territories (UTs).
- The WMA limit found out by the Committee supported total expenditure of States/ UTs, works bent ₹47,010 crore.

- The run aforementioned it might review the WMA limit thenceforth, betting on the course of the pandemic and its impact on the economy.
- The Special Drawing Facility availed by State Governments/ UTs shall still be joined to the quantum of their investments in marketable securities issued by the govt. of Asian country, together with the Auction Treasury Bills.

Topic 12. EMERGENCY USE APPROVAL FOR VIRAFIN

Importance for Prelims: Science & tech

Zydus Cadila on Fri declared that it's received restricted emergency use approval from the Indian drug regulator, Drug Controller General of Asian nation (DCGI), for the employment of 'Virafin', Pegylated antiviral agent alpha-2b (PegIFN) in treating moderate coronavirus infection in adults.

Emergency Use Approval

- There is nothing like emergency use approval in Indian rules, but the 2019 rules give for "Accelerated Approval Process" in many things that might embrace the one just like the current pandemic.
- In such things, there's a provision for granting approval to a drug that's still in clinical trials provided the merchandise is of substantive therapeutic profit.
- Accelerated approval might also be granted to a brand new drug if it's meant for the treatment of a significant, or dangerous condition, or sickness of special connection to the country, and addresses unmet medical desires.
- A new drug, or a vaccinum, will be thought-about for approval if outstanding effectiveness is according even from phase-II trials.
- In such cases, further post licensure studies is also needed.
- The approval granted to medicine or vaccines that square measure still in clinical trials is temporary, and valid just for one year.

Drugs Controller General of Asian nation

- medicine managementler General of {india|India|Republic of Asian nation|Bharat|Asian country|Asian nation} is that the head of department of the Central Drugs normal Control Organization of the govt of India.
- Responsible for approval of licences of mere classes of medication like blood and blood product, IV fluids, vaccines, and sera in Asian nation.

- DCGI conjointly sets standards for producing, sales, import, and distribution of medication in Asian nation.
- Comes underneath the Ministry of Health & Family Welfare.
- DCGI lays down the quality and quality of producing, selling, import and distribution of medication in Asian nation.

Topic 13. RUPEE DEPRECIATION

Importance for Prelims: Economics

The rupee's near-term fortunes could directly be influenced by the Federal Reserve Bank of India's resolute preventing from now on depreciation within the currency because the surge in COVID-19 cases hits jobs and growth, economists and traders aforementioned.

Appreciation and Depreciation of Currency

- In a floating charge per unit system, economic process (based on demand and provide of a currency) verify the worth of a currency.
- Currency Appreciation: it's a rise within the worth of 1 currency in respect to another currency.
- Currencies appreciate against one another for a spread of reasons, as well as government policy, interest rates, trade balances and business cycles.
- Currency appreciation discourages a country's export activity as its merchandise and services become costlier to shop for.
- Currency Depreciation: it's a fall within the worth of a currency during a floating charge per unit system.
- Economic fundamentals, political instability, or risk aversion will cause currency depreciation.
- Currency depreciation encourages a country's export activity as its merchandise and services become cheaper to shop for.
- The following area unit a number of the principal determinants of the charge per unit between 2 countries.
- Differentials in Inflation
- Differentials in Interest Rates
- Current Account Deficits
- Public Debt
- Terms of Trade

Topic 14. M NARASIMHAM COMMITTEE

Importance for Prelims: Economics

Narsimham Committee Report I (1991)

INTRODUCTION

- ▶ The 1st Narsimham committee was set up by Mr. Manmohan Singh on 14th August 1991.
- ▶ A nine member committee was set up under the chairmanship of **Mr. M. Narsimham**, former Governor of RBI.
- ▶ The committee submitted its report in November 1991, passed by parliament on 17th Dec. 1991.
- ▶ Recommendations on:
 - *Structure of banks*
 - *Organisation of banks*
 - *Functions of banks*
 - *Procedures.*



Mr. M. Narsimham

‘Father of banking reforms’: Ex-RBI governor M Narasimham passes away at ninety four.

- Narasimham Committee I (1991) – Consolidation would create economic and industrial sense wherever the full would be bigger than the total of its components, and have a “force-multiplier result.”
- It additionally suggested native banks whose operations would be confined to specific regions, and rural banks.
- Narasimham Committee II (1998) -It emphatic that consolidation method in PSBs required to be supported synergies, and locational and business-specific complementarities.

Topic15. INVESTMENT OPPORTUNITIES IN INDIA'S HEALTHCARE SECTOR

Importance for Prelims: Current Events



NITI Aayog Releases Report 'Investment Opportunities in India's aid Sector'.

- The report outlines the vary of investment opportunities in varied segments of India's aid sector, as well as hospitals, medical devices and instrumentation, insurance, telemedicine, home aid and medical worth travel.
- India's aid business has been growing at a Compound Annual rate of around twenty second since 2016.
- At this rate, it's expected to achieve USD 372 billion in 2022.

- In the hospital section, the growth of personal players to tier-2 and tier-3 locations, on the far side metropolitan cities, offers a beautiful investment chance.

Topic 16. MOXIE

Importance for Prelims: Science & tech

Recently, National Aeronautics and Space Administration has declared that a tool aboard the rover beneath Perseverance Mission was ready to turn out gas from the skinny Martian atmosphere for the primary time.

Production of gas by Perseverance Mission

- The Mars gas unmoved Resource Utilization Experiment (MOXIE) created five grams of gas from greenhouse gas within the Martian atmosphere, enough for associate traveller to breathe for ten minutes.
- On Mars, greenhouse gas makes up ~96% of the gas within the planet's atmosphere whereas the gas is simply zero.13%, compared to twenty first in Earth's atmosphere.
- It is comparable to a tree on Earth i.e. backbone inhales greenhouse gas and exhales gas.
- MOXIE separates gas atoms from greenhouse gas molecules so as to supply gas.
- It will therefore by victimization heat at a temperature of around 800 degrees stargazer, and within the method additionally produces monoxide as a waste material, that it releases within the Martian atmosphere.

Topic 17. UNICORN

Importance for Prelims: Science & tech

Scientists have discovered what is also the smallest-known region within the galaxy galaxy and also the nighest to our scheme.

- Nicknamed ‘Unicorn’ the researchers same the region is roughly thrice the mass of our Sun, testing the lower limits of size for these terribly dense objects.
- A glowing red giant star star orbits with the region during a questionable double star system named V723 Mon.
- The region is found concerning one,500 lightweight years – the space lightweight travels during a year, 5.9 trillion miles (9.5 trillion km) – from Earth. whereas it should be the nighest one to USA, it's still secluded. By method of comparison, the nighest star to our scheme, Proxima Centauri, is four lightweight years away.
- Black holes like this one type once large stars die and their cores collapse.
- The study is printed within the Monthly Notices of the Royal Astronomical Society.

Topic 18. OXYGEN CONCENTRATORS

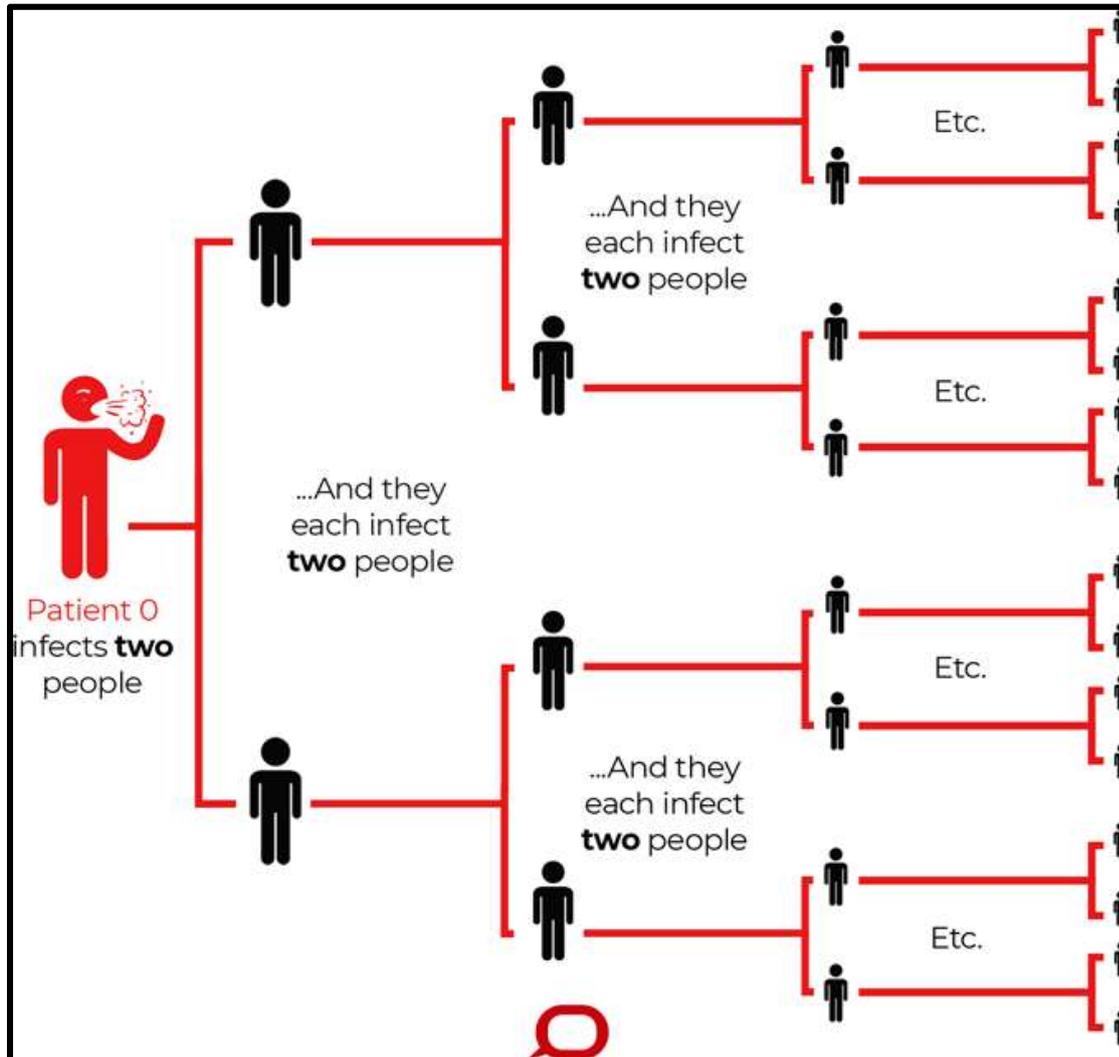
Importance for Prelims: Science & tech

With chemical element cylinders briefly offer across many states, the chemical element concentrator is among the foremost asked for devices for chemical element medical aid, particularly among patients in home isolation and for hospitals running out of chemical element.

- An chemical element concentrator may be a medical device that concentrates chemical element from close air.
- Atmospheric air has regarding seventy eight per cent atomic number 7 and twenty one per cent chemical element, with alternative gases creating up the remaining one per cent.
- The chemical element concentrator takes during this air, filters it through a sieve, releases the atomic number 7 back to the air, and works on the remaining chemical element.
- This chemical element, compressed and distributed through a tube, is 90-95 per cent pure.
- A pressure valve in concentrators helps regulate offer, starting from 1-10 litres per minute.
- According to a 2015 report by the World Health Organization, concentrators area unit designed for continuous operation and may turn out chemical element twenty four hours daily, seven days per week, for up to five years or additional.

Topic 19. REPRODUCTIVE NUMBER

Importance for Prelims: Science & tech



On replica metric, Covid are often spreading quicker in UP, Jharkhand and state.

- The R-naught, or R_0 , may be a virus's basic generative variety — associate medical specialty metric wont to describe the contagiousness of infectious agents.
- At its simplest, the fundamental generative variety will show North American country however disturbed we must always be regarding infection

- If the R_0 is higher than one, every case is anticipated to infect a minimum of one different person on the average, and also the virus is probably going to stay spreading.
- If it's but one, a bunch of infected individuals area unit less possible to unfold the infection.
- The national average for the R-value, or replica variety, one of the parameters of Covid-19 transmission, is 1.32, indicating that one infected person spreads the virus to over one however but 2 individuals.

Topic 20. SPACE X CREW DRAGON CAPSULE

Importance for Prelims: Science & tech



SpaceX launches its third traveler crew, the primary on a second user Crew Dragon capsule.

- SpaceX launched its third crew of astronauts to the International space laboratory early Friday morning, reusing a Crew Dragon capsule to fly humans for the primary time.
- The mission, dubbed Crew-2, is that the latest flight beneath NASA's business Crew Program and can add four additional astronauts to the orbital space laboratory.

Crew Dragon:

- It could be a a part of the Dragon two, a category of reusable ballistic capsule developed and factory-made by yankee part manufacturer SpaceX.
- It is that the fifth category people ballistic capsule to require persons into orbit, once the Mercury, Gemini, Apollo and spacecraft programs.
- The rocket, named Falcon nine, that carried the starship into the orbit, was conjointly designed by SpaceX.

- It is finished beneath the Demo-2 Mission of NASA and SpaceX.

Crew-2 Mission

- It could be a part of collaboration between NASA and SpaceX beneath the business Crew Program.
- It is that the second crew rotation of the SpaceX Crew Dragon and therefore the initial with international partners.

Commercial Crew Program

- Its main objective is to form access to area easier in terms of its price, in order that lading and crew will be simply transported to and from the ISS, sanctioning bigger research.
- The NASA plans to lower its prices by sharing them with business partners like Boeing and SpaceX through business Crew Program.
- It offers the businesses incentive to style and build the business Orbital Transportation Services (COTS).
- NASA will concentrate on building ballistic capsule and rockets meant for part exploration missions.

Topic 21. ASEAN EMERGENCY SUMMIT

Importance for Prelims: International Relations

ASEAN leaders demand immediate finish to ‘unacceptable’ killings in Asian country, following emergency summit.

- At the meeting within the Indonesian capital of Djakarta, leaders of the Association of Southeast Asian Nations (ASEAN) conjointly told Myanmar’s Min Aung Hlaing that they needed a commitment from the military chief to restrain his security forces, and for the discharge of political prisoners.
- What’s resulted may be a “five-point consensus”, as well as calls to: finish violence immediately; begin dialogue between opposing groups; produce associate Association of Southeast Asian Nations chair to facilitate dialogue; provide additional humanitarian assistance; and permit the Association of Southeast Asian Nations chair to go to Asian country.

Association of Southeast Asian Nations

- It may be a regional grouping that promotes economic, political, and security cooperation.
- It was established on eighth August 1967 in Bangkok, Siam with the linguistic communication of the Association of Southeast Asian Nations Declaration (Bangkok Declaration) by the commencement fathers of Association of Southeast Asian Nations, specifically country, Malaysia, Philippines, Singapore and Siam.
- Ten Members: Negara Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.
- Chairmanship: It rotates annually, supported the alphabetical order of the English names of Member States.
- ASEAN countries have a complete population of 650 million individuals and a combined Gross Domestic Product (GDP) of USD a pair of.8

trillion. it's India's fourth largest commercialism partner with concerning USD eighty six.9 billion in trade.

- The cluster has compete a central role in Asian economic integration, linguistic communication six trade agreements with different regional economies and serving to spearhead negotiations for what may be the world's largest trade written agreement.

Topic 22. EXERCISE VARUNA – 2021

Importance for Prelims: Defence



The nineteenth edition of the Indian and French Navy bilateral exercise ‘VARUNA- 2021’ is regular to be conducted within the Arabian Sea from twenty fifth to twenty seventh Apr 2021.

- From the Indian Navy’s facet, missile stealing destroyer INS metropolis, missile frigates INS Tarkash and INS Talwar, Fleet Support Ship INS Deepak, with Seaking 42B and Chetak integral helicopters, a Kalvari category submarine and P8I Long vary Maritime Patrol craft, can participate within the exercise.
- VARUNA-21 highlights growing affableness and showcases inflated levels of action, coordination and inter-operability between the 2 friendly navies.

Topic 23. CAPITAL EXPENDITURE

Importance for Prelims: Economics

CAPITAL EXPENDITURE	
<p>CAPITAL EXPENDITURES are the expenses incurred by the firm for acquiring or upgrading or maintaining the tangible assets like plants and machinery, buildings, etc.</p>	
<p>EXPLANATION</p> <ul style="list-style-type: none"> • These are incurred by in order to increase their scope of operations and smooth functioning. • It needs to be capitalized and hence forms a part of balance sheet under head PPE. • They are shown in the cash flow statement under the category of investment activities as it is a cash outflow. 	<p>CAPITAL vs REVENUE EXP.</p> <ul style="list-style-type: none"> • Capital Expenditure : These are long term expenses and the effect continues beyond the current accounting year. • Revenue Expenditure : These are short term expenses and are incurred to maintain day to day functioning of an organization.
<p>CLASSIFICATION</p> <ul style="list-style-type: none"> ❖ Expenses incurred for maintaining the operation ❖ Expenses incurred for increasing the future growth ❖ Expenditure is incurred for business development ❖ Research work expenses ❖ Expenditure is incurred indirectly for production. ❖ Expenditure for innovation 	<p>IMPORTANCE</p> <ul style="list-style-type: none"> ❖ Effect for longer tenure ❖ The amount spent on such expenses cannot be reversed ❖ High cost ❖ Capital expenditure are to be depreciated for the tenure for which they gives benefit.

To support the economy battered by discontinuous state specific lockdowns, the govt is presently focussed on effective implementation of the Budget proposals as they have a great deal stimulation already designed into them, 2 senior governance aforementioned.

- While the Central government has proclaimed steps to ease imports of chemical element yet as connected medical instrumentality, and extended the emergency credit line facility to stressed firms, another spherical of economic package is nonetheless to be mentioned.
- Sources aforementioned the thought is to urge the cost going and explore the likelihood of any contemporary economic package soon, relying upon however the economic state of affairs evolves.

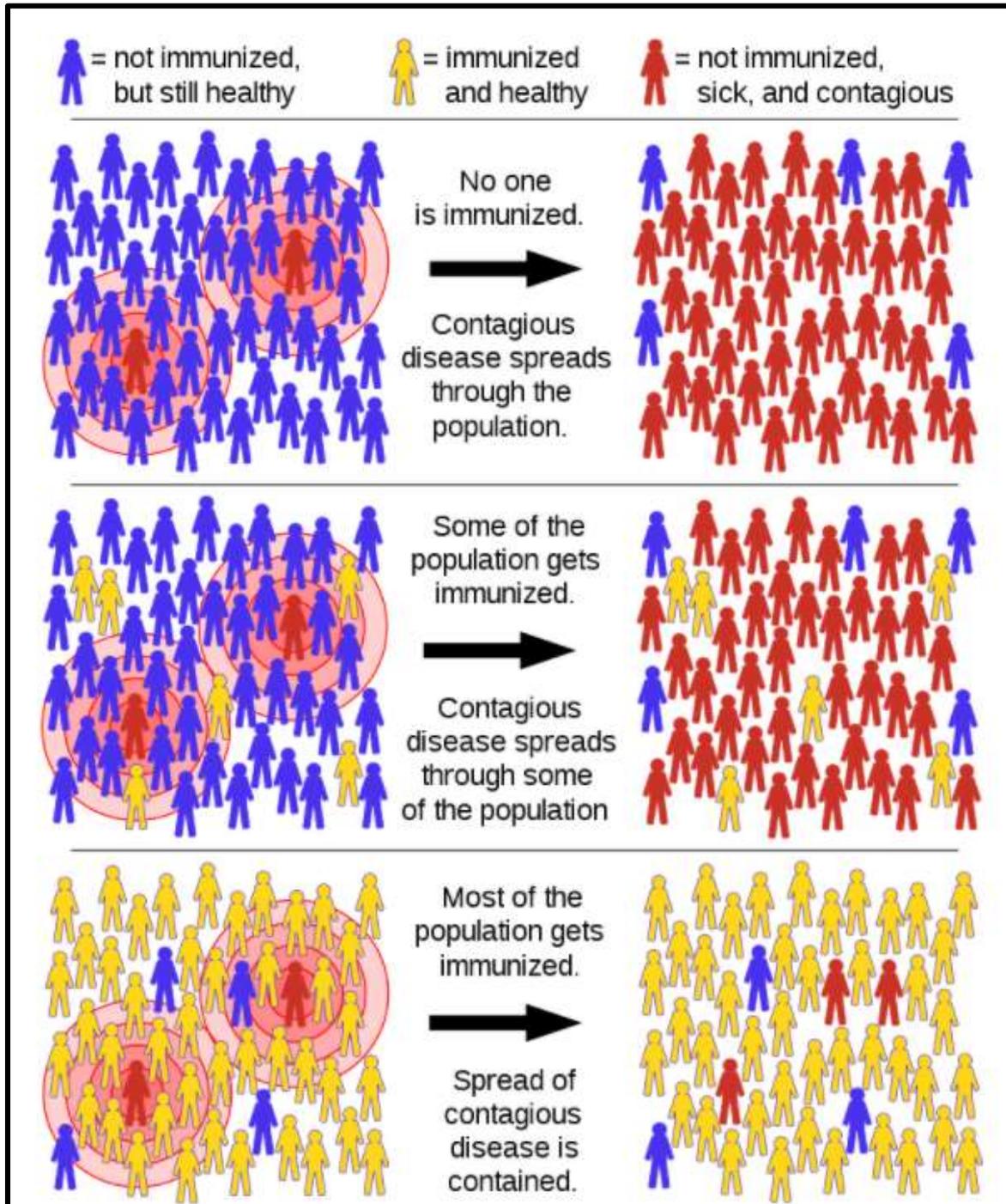
- In the 2021-22 Budget Estimates (BE), cost has been pegged at Rs 54,10,000 large integer, an increase of 34.5 per cent over the 2020-21 BE of Rs 41,20,000 large integer and 26.2 per cent increase over FY21 Revised Estimates (RE) of Rs 43,90,000 large integer.

Capital Expenditure

- There are units of expenditures of the govt that end in the creation of physical or money assets, or depletion in money liabilities.
- This incorporates expenditure on the investment of building, land, equipment, machinery, investment in shares, and loans and advances by the central government to state and union territory governments, Public Sector Undertakings (PSUs), and alternative parties.
- They are unit irregular, non-recurring and future expenditure.

Topic 24. HERD IMMUNITY

Importance for Prelims: Science & tech

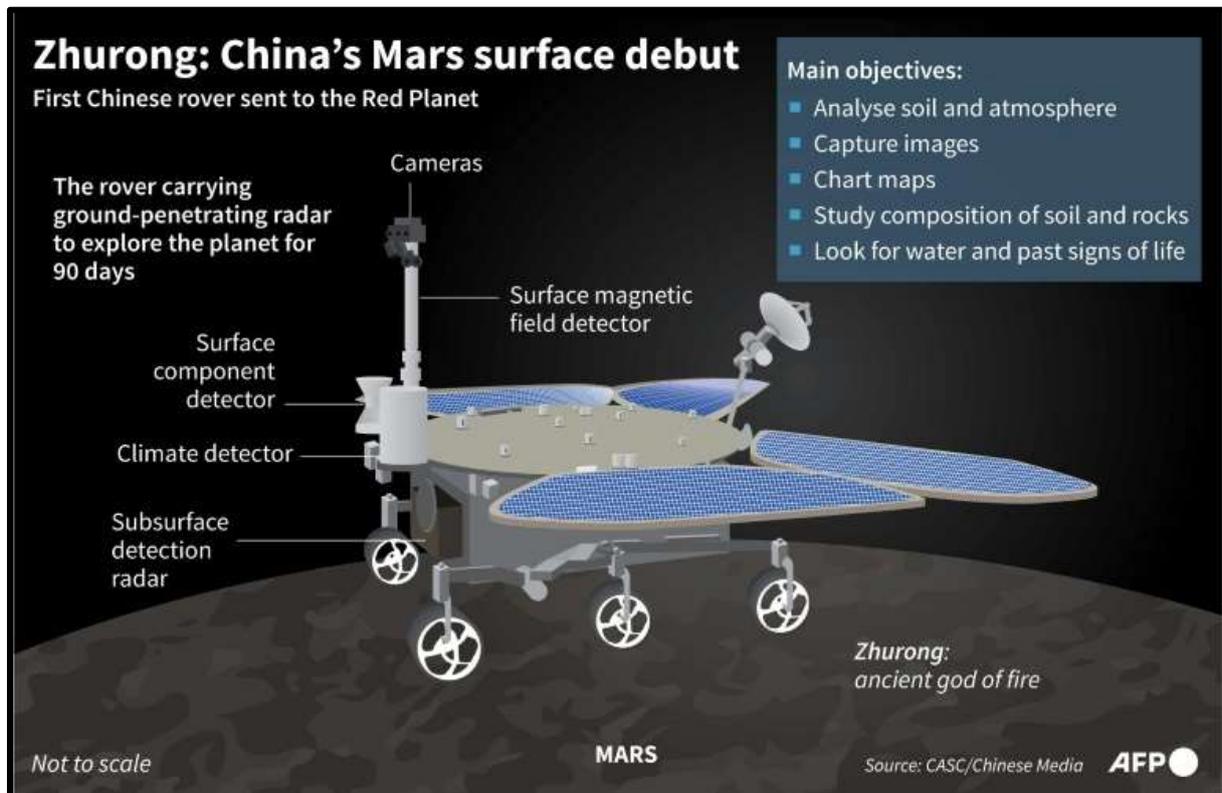


Despite serosurveys indicating several metros like city, Mumbai, and Pune having reached high levels of immunity, an equivalent cities are seeing associated explosive surge.

- Herd immunity happens once such a big amount of folks {in a|during a|in associate exceedingly|in a very} community become proof against an illness|communicable disease} that it stops the disease from spreading.
- This will happen in 2 ways:
- Many folks contract the sickness associated in time build up an immunologic response to that (natural immunity).
- Many folks ar immunised against the sickness to attain immunity.
- When an outsized proportion of the population becomes proof against a sickness, the unfold of that sickness slows down or stops.
- Many microorganism and microorganism infections unfold from person to person. This chain is broken once most of the people don't get or transmit the infection.
- This helps shield UN agency|people that|folks that|those that|those who} aren't immunised or who have low functioning immune systems and should develop associate infection additional simply.

Topic 25. ZHURONG

Importance for Prelims: Science & tech



Recently, the China National Space Administration has proclaimed that it'll name its 1st Mars rover as 'Zhurong'.

- It is China's 1st Mars rover aboard the Tianwen-1 probe that arrived in Mars orbit in Feb 2020.
- It is called once a conventional fireplace god.
- The rover is an element of Chinese area plans that embody launching a crewed orbital station and landing an individual's on the moon.
- The rover's title fits with the Chinese name for Mars i.e. "Huo Xing" or fireplace star.
- The prime candidate for the landing web site is Utopia Planitia, a rock-strewn plain wherever the U.S. lander Scandinavian a pair of touched down in 1976.

About Tianwen-1

- Its goals embody analysing and mapping the Martian surface and earth science, searching for water ice and finding out the climate and surface atmosphere.
- It is called once the traditional Chinese verse form 'Questions to Heaven'.
- It is Associate in Nursing all-in-one satellite, lander and rover which is able to search the Martian surface for water, ice, investigate soil characteristics, and study the atmosphere, among finishing different objectives.
- It raised off on an extended March five rocket, a launch system developed by the China Academy of Launch Vehicle Technology (CALT), from the Wenchang launch centre.
- It are the primary to put a ground-penetrating measuring instrument on the Martian surface, which is {able to} be able to study native earth science, likewise as rock, ice, and dirt distribution.

Topic 26. CRISIS IN CHAD

Importance for Prelims: International Relations

Recently, Chad's longest serving president Idriss Deby died of injuries sustained throughout clashes with the rebel cluster truth (Front for modification and Concord in Chad) on the frontlines.

- The motive behind military operations within the Sahel countries is to fight Islamist teams, monitor political ambitions, and train future African leaders.
- Chad has been France's simplest and stable Sahel ally in achieving these goals.
- France has nearly five,100 French troopers within the Sahel region for France's Operation Barkhane that began in 2014 to guide counter-terrorism operations within the Sahel region.
- France says its objective is to assist Sahel nations maintain territorial integrity and stop rise of Islamist teams that threaten France and therefore the West.

About Chad

- It may be a inland state in north-central Africa.
- It is finite on the north by Libya, on the east by Sudan, on the south by the Central African Republic, and on the west by Cameroon, Nigeria, and Niger.
- It is that the fifth largest country on the African continent.

What is Sahel region of Africa?

- It may be a semi-arid region of western and north-central Africa extending from African nation eastward to Sudan.
- It forms a shift zone between the arid Sahara (desert) to the north and therefore the belt of wet savannas to the south.

- The Sahel stretches from African nation on the coast, through components of Mauritania, Mali, country, Niger, Nigeria, Chad and Sudan to Eritrea on the sea coast.

Topic 27. PRIVATE SECTOR BANKS

Importance for Prelims: Economics



The banking concern of Republic of India (RBI) fastened the tenure of MD, chief executive officer and whole-time director (WTD) during a personal sector bank at fifteen years and prescribed the most age of seventy years for such functionaries.

- These directives type a part of the directions issued by the run batted in with reference to the chair and conferences of the board, composition of sure committees of the board, age, tenure and remuneration of administrators, and appointment of the WTDs.
- The run batted in aforementioned it might initiate with a Master Direction on company Governance in banks in due course.
- The post of the MD & chief executive officer or WTD can not be control by constant incumbent for quite fifteen years.
- Thereafter, the individual are eligible for re-appointment as MD & chief executive officer or WTD within the same bank, if desired and fascinating by the board, when a minimum gap of 3 years, subject to meeting alternative conditions.

- It value-added that in this three-year cooling amount, the individual shall not be appointed or related to the bank or its cluster entities in any capability, either directly or indirectly.
- With reference to higher regulation for MD & chief executive officer and WTDs within the personal sector banks, the run batted in aforementioned that no one will continue in such positions on the far side the age of seventy.
- The most regulation for chairman and non-executive administrators has been fastened at seventy five years.

Topic 28. SOMALIA

Importance for Prelims: Geography / IR



Somalia, already fragile when decades of warfare AND an Islamist insurrection, is facing its worst political crisis in recent years when the failure to carry planned elections in Gregorian calendar month.

- President Mohamed Abdullahi Mohamed, best far-famed by his nickname Farmajo, has visaged harsh criticism from foreign allies when sign language a law approved by parliament that extended his mandate by 2 years.
- The clashes — in the main within the northern neighbourhoods of Sanca and Marinaya and also the busy KM4 crossroads within the centre — began when dozens of opposition supporters marched in protest against man. Farmajo’s term extension.

About African country

- Somalia could be a country within the Horn of Africa.

- It is featheredged by Ethiopia to the west, Djibouti to the Northwest, the Gulf of port to the north, the ocean to the east, and African nation to the southwest.
- Somalia has the longest lineation on Africa's dry land.
- Its Capital is port.

Topic 29. CGGI

Importance for Prelims: Important Reports

Overall Rank		Leadership & Foresight	Robust Laws & Policies	Strong Institutions	Financial Stewardship	Attractive Marketplace	Global Influence & Reputation	Helping People Rise
1	 Finland	1	5	1	13	4	18	1
2	 Switzerland	9	3	8	4	2	17	3
3	 Singapore	3	18	7	1	1	40	4
4	 Netherlands	10	2	22	7	3	5	6
5	 Denmark	2	7	3	10	7	19	5
6	 Norway	6	1	10	2	22	27	2
7	 Sweden	4	6	5	9	13	11	7
8	 Germany	23	13	11	3	8	2	9
9	 New Zealand	5	3	4	5	15	49	19
10	 Canada	11	8	6	13	14	32	16

India stratified forty ninth in CGGI.

- Chandler sensible Government Index (CGGI) is associate degree annual Index, engineered by government practitioners, for presidency practitioners, measurement the capabilities and effectiveness of 104 governments round the world.
- India has been stratified forty ninth within the Chandler sensible Government Index (CGGI).
- Finland flat-topped the CGGI list.
- The index focuses on seven pillars: leadership and foresight; strong laws and policies; robust institutions; monetary stewardship; enticing marketplace; world influence and reputation; and serving to individuals rise.

Topic 30. COVID TRIAGE CHALLENGE

Importance for Prelims: Science & tech

The second COVID-19 wave has hit Asian nation with nice fury. A tried and true, effective strategy may facilitate tackle COVID-19 however poses distinctive challenges in Asian nation.

- A tried and true, effective strategy to face the challenge of a fulminant massive load on the attention system is that the thought of ‘triage’.
- This means once there square measure an oversized range of individuals needing pressing care and there square measure restricted resources, the victims square measure divided into multiple classes supported severity of unwellness.
- The most severe square measure treated initial as any delay can price lives. the remainder square measure treated later as per their level of severity.
- This plan was initial introduced by Napoleon’s military surgeons to treat field of battle injuries and showed immediate impact. it's currently commonplace observe in several countries once treating mass casualties. it's conjointly been used effectively throughout COVID-19.
- But sorting isn't a sterile, mechanical protocol insulated from its surroundings. Its wide acceptance and implementation square measure supported the powerful however complicated principles of justice and commonality.
- It is wherever the interests of everybody square measure place higher than the interest of associate degree individual; wherever those that would like care initial square measure prioritised over those that will wait, regardless of World Health Organization they're.

Topic 31. CRYSTAL BLADE TECHNOLOGY

Importance for Prelims: Defence



DRDO develops crystal blades for aero engines.

- India-based Hindustan natural philosophy restricted (HAL) has received sixty single-crystal blades for whirlybird engines from the Defence analysis and Development Organisation (DRDO).
- The Indian Ministry of Defence (MoD) aforesaid that the technology had been developed as a part of a programme concerned by the DRDO's Defence metallurgic science laboratory (DMRL).
- A total of three hundred single-crystal hard-hitting rotary engine (HPT) blades are developed and delivered in 5 60-blade sets. The remaining four sets are expected to be delivered at a later purpose.

Crystal Blades

- Helicopters would like compact and powerful aero-engines for operative at extreme conditions and to realize this, progressive single crystal blades are used.

- Made employing a nickel-based super alloy, the blades feature a fancy geometrical style and may stand up to high temperatures.
- The blades are utilized in the event of engines to permit helicopters to work dependably in advanced conditions.
- The US, UK, Russia and France are among the few countries which will style and manufacture single-crystal elements.

Topic 32. TRIPS AGREEMENT

Importance for Prelims: Economics / IR

Even Associate in Nursing unprecedented pandemic will do very little, it appears, to upset the present world regime governing monopoly rights over the assembly and distribution of rescue medication.

- On October a pair of last year, Republic of India and African country submitted a joint petition to the planet Trade Organization (WTO), requesting a short lived suspension of rules beneath the 1995 Agreement on Trade-Related Aspects of holding Rights (TRIPS).
- A relinquishment was wanted to the extent that the protections offered by visits impinged on the containment and treatment of COVID-19.
- The request for relinquishment has, since, found support from quite one hundred nations. however atiny low cluster of states — the U.S., the eu Union, the U.K. and North American country among them — continues to dam the move.

TRIPS

- TRIPS is a world agreement administered by the planet Trade Organization (WTO), that sets down minimum standards for several varieties of holding (IP) rules as applied to the nationals of different World Trade Organization Members.
- It was negotiated at the tip of the Uruguay spherical of the final Agreement on Tariffs and Trade (GATT) in 1994.
- TRIPS needs World Trade Organization members to supply copyright rights, covering content producers together with performers, producers of sound recordings and broadcasting organizations; geographical indications, together with appellations of origin; industrial designs; microcircuit layout-designs; patents; new plant varieties; trademarks; trade dress; and covert or lead.

- The agreement additionally specifies social control procedures, remedies, and dispute resolution procedures.

Topic 33. ECHS

Importance for Prelims: Government Schemes



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Topic 34. VIENNA CONVENTION ON CONSULAR ACCESS

Importance for Prelims: International Conventions

Ramesh Taba Sosa, associate degree Indian trained worker, is that the latest victim of associate degree inhuman and inclined system involving Asian country and Islamic Republic of Pakistan, during which mortal remains of prisoners aren't repatriated for months.

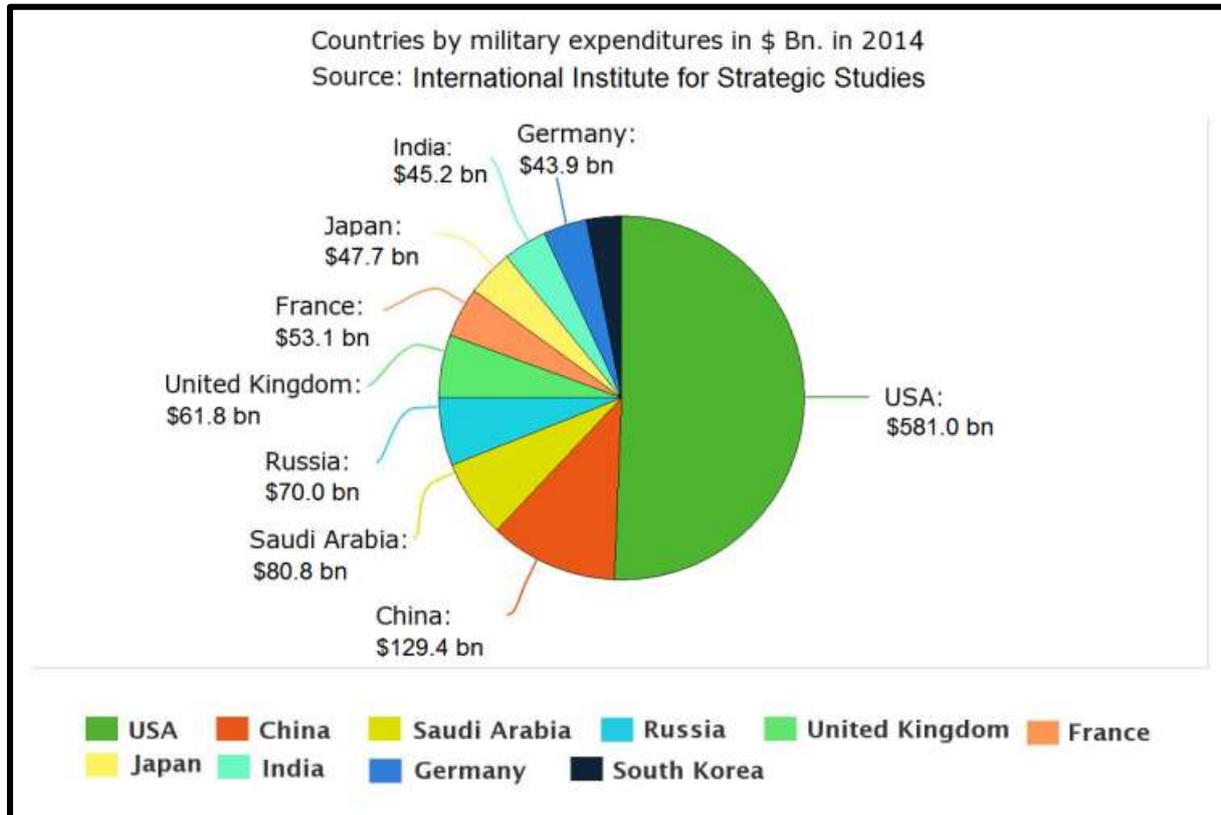
- India and Islamic Republic of Pakistan signed the Agreement on diplomatist Access in 2008. although the deal includes a few lacunae, it absolutely was important.
- Section four of the agreement aforesaid, “Each government shall offer diplomatist access among 3 months to nationals of 1 country, underneath arrest, detention or imprisonment within the different country.”
- Further, Section five of the agreement explicit , “Both governments conform to unleash and repatriate persons among one month of confirmation of their national standing and completion of sentences.”

Vienna Convention on diplomatist Relations of 1963

- It is a global written agreement that defines diplomatist relations between freelance states.
- A consul, World Health Organization isn't a diplomat, may be a representative of a far off state during a country and works for the interests of his countrymen within the host country.
- Article thirty six of the national capital Convention states that foreign nationals World Health Organization area unit inactive or detained run notice immediately of their right to own their embassy or diplomatic building notified of that arrest.
- The notice to the diplomatic building are often as easy as a fax, giving the person's name, the place of arrest, and, if attainable, one thing concerning the rationale for the arrest or detention.

Topic 35. WORLD MILITARY SPENDING

Importance for Prelims: Defence / IR



Total international military expenditure rose to \$1981 billion last year, a rise of two.6 per cent in real terms from 2019, per new knowledge printed nowadays by the capital of Sweden International Peace analysis Institute (SIPRI)

- The 5 biggest spenders in 2020, that along accounted for sixty two per cent of world military expenditure, were the u. s., China, India, Russia and also the uk.
- The 2.6 per cent increase in world military disbursement came in an exceedingly year once international gross domestic product (GDP) shrank by four.4 per cent (October 2020 projection by the International financial Fund), mostly thanks to the economic impacts of the Covid- nineteen pandemic.
- In 2020 US military expenditure reached Associate in Nursing calculable \$778 billion, representing a rise of four.4 per cent over 2019. because the

world's largest military spender, the USA accounted for thirty-nine per cent of total military expenditure in 2020.

Stockholm International Peace analysis Institute

- This think factory is Associate in Nursing freelance international institute dedicated to analysis into conflict, armaments, restriction and demobilisation.
- It was established in 1966 at capital of Sweden (Sweden).
- It provides knowledge, analysis and suggestions, supported open sources, to policy manufacturers, researchers, media and also the interested public.

Topic 36. HUMAN RIGHTS WATCH

Importance for Prelims: International Relations

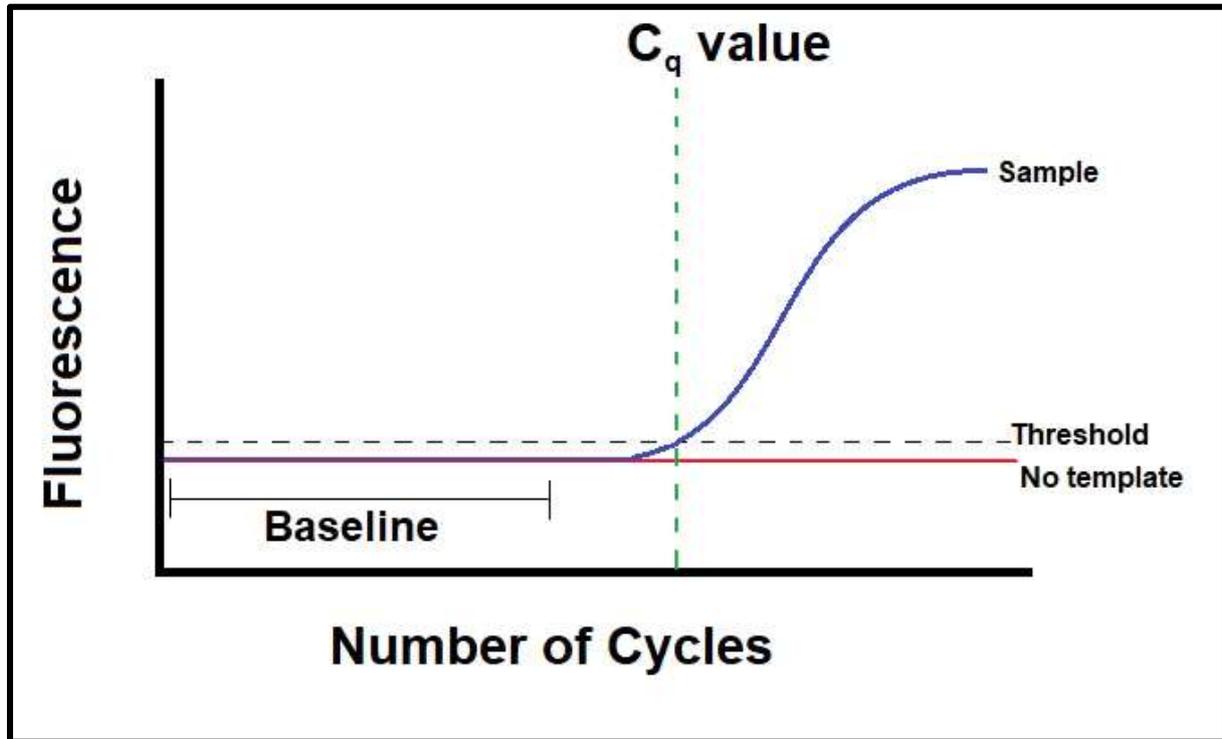


Human Rights Watch same that Israel is committing the crime of “apartheid” by seeking to take care of Judaic “domination” over Palestinians and its own Arab population.

- Human Rights Watch (HRW) is a global non-governmental organization, headquartered in the big apple town, that conducts analysis and support on human rights.
- The cluster pressures governments, policy manufacturers, companies, and individual human rights abusers to denounce abuse and respect human rights, and also the cluster typically works on behalf of refugees, children, migrants, and political prisoners.
- Human Rights Watch in 1997 shared within the Alfred Bernhard Nobel Peace Prize as a creation member of the International Campaign to Ban Landmines and it contend a number one role within the 2008 written agreement prohibition cluster munitions.
- Human Rights Watch was co-founded by Henry M. Robert L. director and AryehNeier as a non-public yank nongovernmental organization in 1978, below the name Finnish capital Watch, to observe the then-Soviet Union’s compliance with the Finnish capital Accords.

Topic 37. Ct VALUE

Importance for Prelims: Science & tech



Among varied scientific terms that the Covid-19 pandemic has created a part of the general public vocabulary, one is that the ‘Ct value’ in RT-PCR tests for decisive whether or not a patient is positive for Covid-19.

- Short for cycle threshold, Ct could be a worth that emerges throughout RT-PCR tests, the gold commonplace for detection of the SARS-CoV-2 corona virus.
- According to the ICMR consultatory, the Ct worth of AN RT-PCR reaction is that the range of cycles at that visible light of the PCR product is detectable over and on top of the noise.
- The Ct worth refers to the quantity of cycles once that the virus are often detected. If a better range of cycles is needed, it implies that the virus went unseen once the quantity of cycles was lower.
- The lower the Ct worth, the upper the infective agent load — as a result of the virus has been noticed once fewer cycles.

- According to the ICMR, a patient is taken into account Covid-positive if the Ct worth is below thirty five. In alternative words, if the virus is detectable once thirty five cycles or earlier, then the patient is taken into account positive.

Topic 38. SEBI DEBT RATING NORMS

Importance for Prelims: Economics

Markets regulator SEBI came out with a replacement framework to strengthen policies on provisional rating by credit rating agencies (CRAs) for debt instruments.

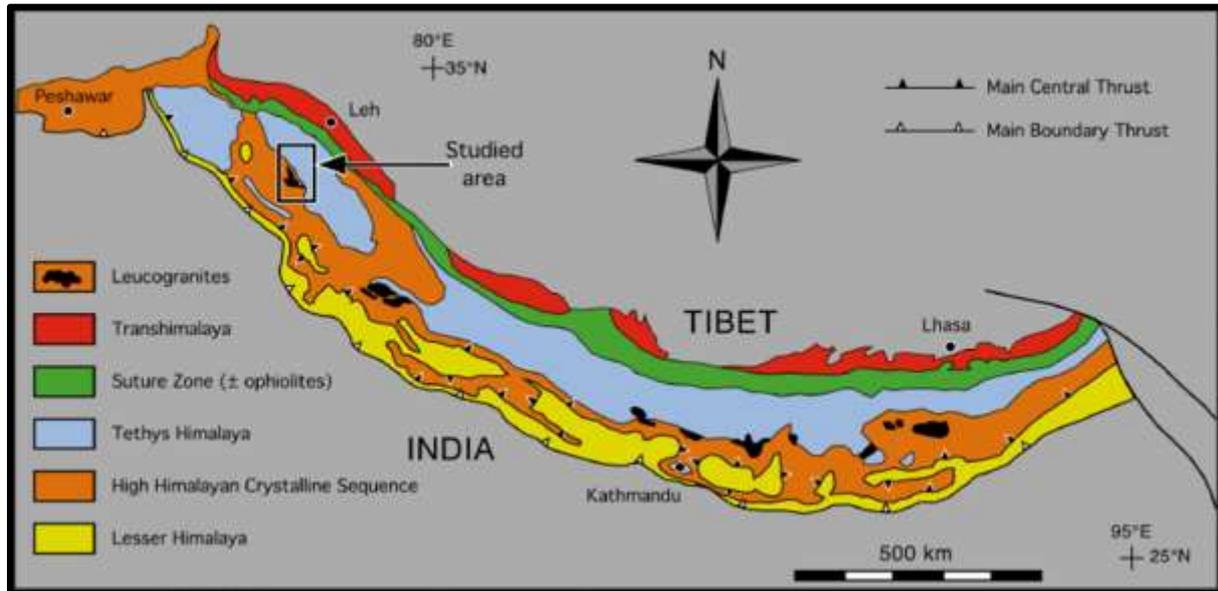
- Under the framework, all provisional ratings ('long term' or 'short term') for debt instruments ought to be prefixed as 'provisional' before the rating image all told communications — rating letter, promulgation and rating principle.
- Further, a rating are going to be thought of provisional in cases wherever sure compliances that area unit crucial to the assignment of credit rating area unit nonetheless to be complied with or sure documentations stay to be dead at the time of rating.
- On validity amount, SEBI same provisional rating are going to be regenerate into a final rating inside ninety days from the date of supplying of the instrument.

Provisional Rating

- A evaluation that's subject to alter primarily based upon sure conditions. for instance, if the project a bond was supposed to finance is completed and begins generating revenue, a provisional rating is probably going to extend.
- On the opposite hand, if associate issuer's debt reaches too high A level, a provisional rating is probably going to decrease. it's conjointly known as a conditional rating.

Topic 39. HIMALAYAN FRONTAL THRUST

Importance for Prelims: Geography



Recently, many homes AND buildings were broken once an earthquake of magnitude half dozen.4 on the scale of measurement hit province.

The preliminary analysis shows that the events are settled regarding Kopili Fault nearer to mountain range Frontal Thrust (HFT).

Himalayan Front Thrust (HFT)

- It is additionally referred to as the most Frontal Thrust (MFT).
- It could be a scissure on the boundary of the Indian and Eurasian tectonic plates.
- It demarcates a pointy physiographic and tectonic boundary between the mountain range foothills and therefore the Indo-Gangetic deposit Plains.
- It represents a discontinuous zone of active faulting between the Sub-Himalaya and therefore the deposit plain.

About Kopili Fault

- The Kopili is that the main stream of the Kopili natural depression.
- Geologically, Kopili natural depression space includes Neogene-Quaternary sediments that were deposited directly over the Archean basement.

- The Kopili Fault could be a 300-km northwest-southeast trending fault from the Asian country Himalaya to the Burmese arc.
- The Kopili Fault could be a NW–SE trending fault wherever intense seismic activity happens all the way down to a depth of regarding fifty metric linear unit to a lower place the Kopili Fault, and therefore the activity continues to the most Central Thrust (MCT) within the Asian country Himalaya.

What is a Fault?

- The u. s. earth science Survey (USGS) defines a fault as a fracture on that the blocks of crust on either facet have affected relative to at least one another parallel to the fracture.
- According to the USGS, once AN earthquake happens on one amongst these faults, the rock on one facet of the fault slips with relevance the opposite.
- The fault surface is vertical, horizontal, or at some angle to the surface of the world.

Types of Fault

- Normal fault: it's a dip-slip fault within which the block higher than the fault has affected downward relative to the block below.
- Thrust fault: it's a dip-slip fault within which the higher block, higher than the fault plane, moves up and over the lower block.
- Strike-slip fault: it's a fault on that the 2 blocks slide past each other.

Topic 40. REFORM LINKED BORROWING

Importance for Prelims: Economy

States implementing key institutional reforms will borrow Rs one.06 hundred thousand large integer a lot of.

- The Finance Ministry has permissible extra borrowings of Rs one.06 hundred thousand large integer as at March-end to those states that have applied some key institutional reforms.
- Last October, the Central government had joined permission for added borrowing of one per cent of their GSDP (Gross State Domestic Product) to implementation of 4 important reforms.
- Sources same extra borrowing limit of Rs thirty seven,600 large integer has been given to states for implementing the 'One Nation One Ration Card' system, whereas another Rs thirty-nine,521 of borrowing has been allowed to twenty states that enforced simple Doing Business reforms.
- Eleven states that have enforced urban native body and utility reforms are given extra borrowing limits of Rs fifteen,957 crore. Another seventeen states received borrowing limit of Rs thirteen,201 large integer in position of power sector reforms
- In providing leeway for additional borrowings, the Centre had stressed on the requirement to push reforms in citizen-centric areas and processes.

Topic 41. LEGISLATIONS REGARDING VACCINE PRICING

Importance for Prelims: Legislations

SC has noted that ‘different makers are quoting completely different prices’ for Covid-19 vaccines, and told govt it's ‘powers beneath the Medicines and Patents Act and Patents Act’ that it will use.

Indian patent act 1970

- The Patents Act, 1970 is that the legislation that until date governs patents in Asian country. It initially came into force in 1972.
- The Patents Act has been repeatedly amended: 1999, 2002, 2005, 2006. These amendments were needed to form the Patents Act TRIPS-compliant
- The major modification was in 2005, once product patent was extended to any or all fields of technology like food, drugs, chemicals and small organism
- The Indian Patent Act, 1970 strikes a balance between the rights of the human and his obligation to the society granting the rights.
- Some salient options of the Act embody, product and method patent, term of patent as twenty years, patent examination conducted for the asking, means mechanism for fast disposal of appeals, pre-grant and post-grant opposition allowed, protection of diversity and content, and, publication of applications within eighteen months of date of filing of application.
- One of the foremost vital aspects of Indian Patents Act, 1970, is obligatory licensing of the patent subject to the fulfilment of bound conditions.
- Section 3(d) stipulates that the mere discovery of a replacement style of a identified substance that doesn't lead to the sweetening of the identified efficaciousness of that substance or the mere discovery of any new

property or new use for a identified substance or of the mere use of a identified method, machine or equipment unless such identified method leads to a replacement product or employs a minimum of one new chemical, isn't patentable.

Essential Commodities Act

- The ECA is associate degree act that was established to make sure the delivery of bound commodities or product, the availability of that if plugged as a result of sign or black-marketing would have an effect on the conventional lifetime of the folks.
- The ECA was enacted in 1955. This includes foodstuff, drugs, fuel (petroleum products) etc.
- It has since been employed by the govt. to manage the assembly, provide and distribution of an entire host of commodities it declares 'essential' so as to form them out there to shoppers at honest costs.
- Additionally, the govt. can even fix the most retail worth (MRP) of associate degreey prepacked product that it declares an "essential commodity".
- The list of things beneath the Act includes medication, fertilizers, Food items, pulses and edible oils, and oil and oil product.
- The Centre will embody new commodities as and once the necessity arises, and takes them off the list once matters improves.

Epidemic Diseases Act, 1897

- The Epidemic Diseases Act aims to supply for the higher interference of the unfold of dangerous epidemic diseases.
- The colonial-era Act empowers the state governments to require special measures and visit laws in a deadly disease.
- It additionally defines penalties for disobedience of those laws, and provides for immunity for actions taken beneath the Act "in smart faith".

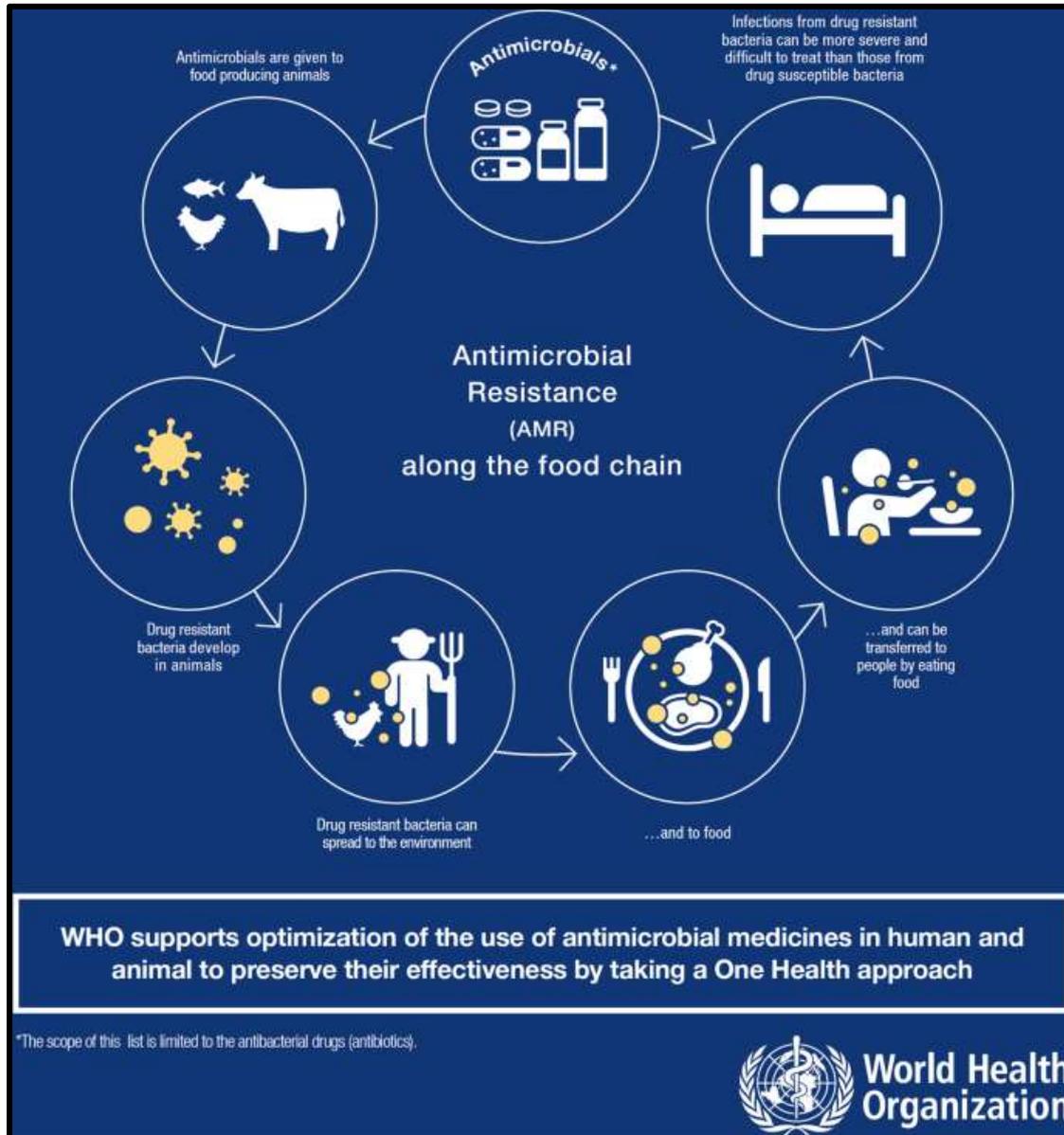
- The Epidemic Diseases Act (EDA) was enacted by the colonial government in Asian country to curb the unfold of the plague in erstwhile Bombay.

Provisions of the 1897 Epidemic Diseases Act:

- The Act, that consists of 4 sections, aims to supply “for the higher interference of the unfold of Dangerous Epidemic Diseases.”
- Section a pair of empowers state governments/UTs to require special measures and formulate laws for holding the eruption.
- The state could confirm in what manner and by whom any expenses incurred (including compensation if any) shall be defrayed.
- It additionally provides penalties for disobeying any regulation or order created beneath the Act.
- It additionally offers legal protection to the implementing officers acting beneath the Act.

Topic 42. ANTI MICROBIAL RESISTANCE

Importance for Prelims: Science & tech



Antimicrobial resistance: the silent threat . coping with the matter would mean partaking the health, agricultural, trade and setting sectors.

- Anti microorganism resistance is that the resistance nonheritable by any being (bacteria, viruses, fungi, parasite, etc.) against antimicrobial medicine (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics) that area unit wont to treat infections.

- As a result, commonplace treatments become ineffective, infections persist and will unfold to others.
- Microorganisms that develop antimicrobial resistance are unit generally said as “superbugs”.
- Antimicrobial resistance is currently considered a serious threat to public health across the world.

How it Happens?

- Some microorganism because of the presence of resistance genes are unit in and of itself resistant and thus survive on being exposed to antibiotics.
- Bacteria may acquire resistance. this will happen in 2 ways: by sharing and transferring resistance genes gift within the remainder of the population or by genetic mutations that facilitate the microorganism survive antibiotic exposure.
- Once the resistance has been nonheritable, it will unfold within the remainder of the population of microorganism through replica or cistron transfer.

Reasons for unfold of AMR

- Antibiotic consumption in humans
- Unnecessary and imprudent use of antibiotic fastened dose mixtures may lead to emergence of microorganism strains proof against multiple antibiotics.
- Social factors embody self-medication.
- Access to antibiotics while not prescription.
- Lack of information concerning once to use antibiotics.
- Cultural Activities
- Mass bathing in rivers as a part of spiritual mass gathering occasions.
- Antibiotic Consumption in Food Animals

- Antibiotics that are unit crucial to human health are unit unremarkably used for growth promotion in poultry.
- Pharmaceutical business Pollution
- The sewer water effluents from the antibiotic producing units contain a considerable quantity of antibiotics, resulting in contamination of rivers and lakes.
- Environmental Sanitation
- Untreated disposal of waste material water bodies – resulting in contamination of rivers with antibiotic residues and antibiotic-resistant organisms.
- Infection management Practices in tending Settings
- A report on hand-washing practices of nurses and doctors found that solely thirty one.8% of them washed hands once contact with patients.

Topic 43. SCRI

Importance for Prelims: International Relations



In a move to counter China's dominance of offer chain within the Indo-Pacific region, trade ministers of Asian nation, Japan and Australia on Tuesday formally launched the provision Chain Resilience Initiative (SCRI) in a very virtual trilateral ministerial meeting.

What is it?

- The SCRI aims to form a virtuous cycle of enhancing offer chain resilience with a read to eventually attaining sturdy, property, balanced and comprehensive growth within the region.
- Initially, SCRI can specialize in sharing best practices on offer chain resilience and holding investment promotion events and buyer-seller matching events {to provide|to offer|to produce} opportunities for stakeholders to explore the likelihood of diversification of their supply chains.

- Possible policy measures underneath the initiative might include:(i) supporting the improved utilization of digital technology.(ii) supporting trade and investment diversification.

Significance:

- The SCRI aims to scale back dependence on China amid a probability of rechurning of offer chains within the Indo-Pacific region amid the Covid-19 pandemic.
- It seeks to make upon the present bilateral frameworks just like the Asean-Japan Economic Resilience Action set up and India-Japan Industrial aggressiveness
- Partnership and attract foreign direct investment within the region.

Topic 44. VEHICLE SCRAPPAGE POLICY

Importance for Prelims: Economy

HOW PROCESS WILL UNFOLD

A vehicle older than 20 years, if found unfit or registration certificate is not renewed, will be de-registered

↓

Registered owners to hand over such vehicles to a Registered Vehicle Scrapping Facility with certificate of the vehicles' registration, their PAN details, and other documents

↓

Scrapper to verify records of the vehicles from database of the stolen vehicles and issue a Certificate of Deposit, mandatory for the owner to avail incentives

↓

The certificate once used will be stamped "Cancelled" by the agency

↓

Government will maintain a database of the vehicles scrapped every year

INCENTIVES FOR VEHICLE OWNERS

			
<p>Scrap value: 4-6% of ex-showroom price of new vehicle to be given to the owner by the scrapping centre</p>	<p>Tax rebate: States may be advised to offer a road tax rebate of up to 25% for personal vehicles and up to 15% for commercial vehicles against</p>	<p>Discount on new vehicle: Vehicle manufacturers will be advised to give 5% discount on new vehicles against a scrapping certificate</p>	<p>Fee waiver: Registration fees may also be waived for purchase of new vehicle against the scrapping certificate</p>



Limited incentives and poor value political economy for trucks within the Vehicle Scrappage Policy, in addition to lack of available volumes for alternative segments is unlikely to drive freight transporters to exchange their previous vehicles with new ones, a report aforesaid on Wednesday.

- It was initial proclaimed within the Union take into account 2021-22.
- The policy is calculable to hide fifty one large integer light-weight motorcars (LMVs) that ar higher than twenty years getting on and another thirty four large integer LMVs higher than fifteen years getting on.

- India will implement a worldwide Positioning System (GPS)-based toll assortment system and do away with all toll booths among a year.
- **Aim:** Reducing the population of previous and defective vehicles, transfer down conveyance air pollutants, rising road and conveyance safety.

Provisions:**Fitness Test:**

- Old vehicles can have to be compelled to pass a fitness check before re-registration and as per the policy government industrial vehicles over fifteen years previous and personal vehicles that ar over twenty years previous are going to be scrapped.
- Old vehicles are going to be checked at the machine-driven Fitness Center and therefore the fitness test of the vehicles are going to be conducted in keeping with international standards.
- Emission check, braking system, safety elements are going to be checked and therefore the vehicles that fail within the fitness test are going to be scraped.
- The Ministry has additionally issued rules for registration procedure for scrapping facilities, their powers, and scrapping procedure to be followed.

Road Tax Rebate:

- The state governments is also suggested to supply a road-tax rebate of up to twenty fifth for private vehicles and up to fifteen for industrial vehicles to produce incentive to homeowners of previous vehicles to scrap previous and unfit vehicles

Vehicle Discount:

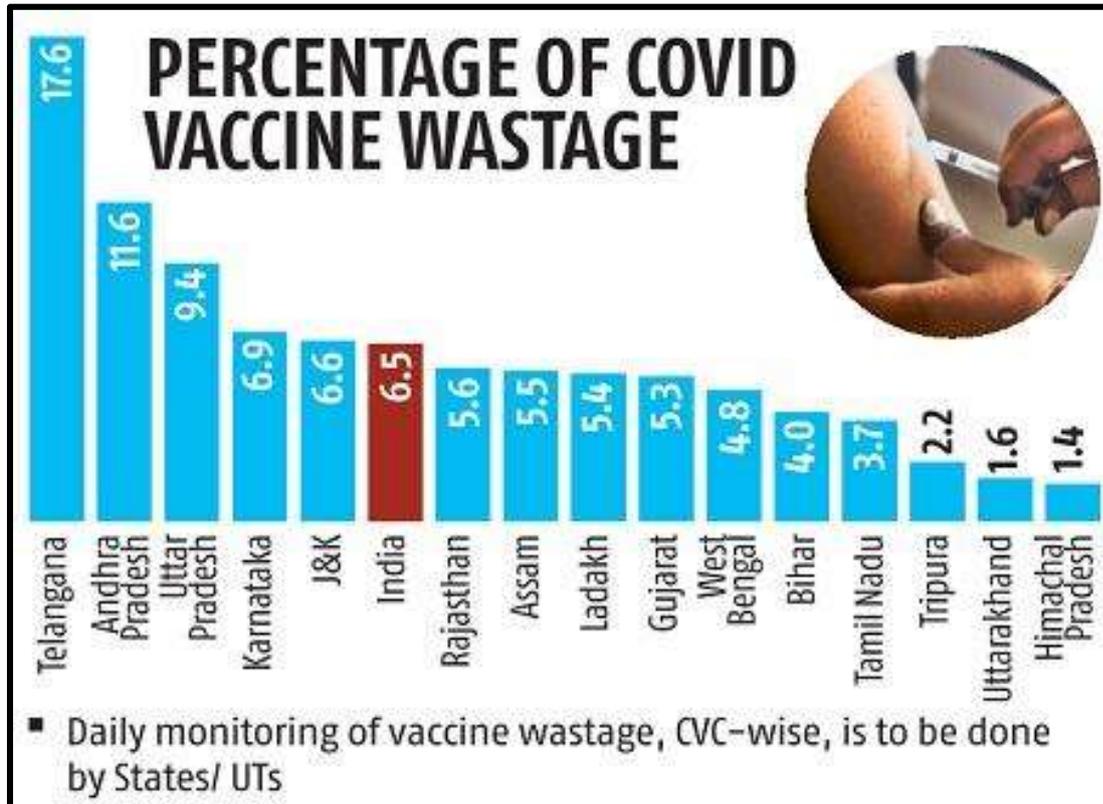
- Vehicle makers {will also|also can|will} provides a discount of fifty to people that will turn out the ‘Scrapping Certificate’ and registration fees are going to be waived off on the acquisition of a replacement vehicle.

Disincentive:

- As a rational motive, multiplied re-registration fees would be applicable for vehicles fifteen years or older from the initial date registration.

Topic 45. VACCINE WASTAGE

Importance for Prelims: Science & tech



In the days ahead, Indian adults below forty five are registering for a COVID immunogen that on paper can be on the market from day. Amid a crisis of immunogen offer, the Health Ministry had same that a bit over one large integer vaccines stay available with States.

- Among giant States, Madras reported a high proportion of immunogen wastage, nearly 8.83%. solely Lakshadweep had a better nine.76%. Assam, state and Haryana stratified when Madras in proportion wastage of vaccines, at 7.7%, 7.4% and 5.72%
- That a definite variety of vaccines are wasted is made into the Centre's coming up with method.
- In its operational tips on COVID-19 vaccination, the Wastage number has been calculated at one.11, assumptive AN allowable programmatic wastage of 100 percent

Vaccine wastage

- Vaccine wastage is directly joined to immunogen usage, that is that the proportion of vaccines administered against vaccines issued to a vaccination website.
- The immunogen wastage rate is outlined as one hundred minus the immunogen usage rate.
- And the wastage rate directly determines the “wastage factor” that must be established for every immunogen within the protection schedule to accurately set up immunogen wants.
- It is loosely divided into 2 categories: wastage in sealed vials, and in opened vials.
- Wastage in sealed vials will occur thanks to six broad reasons: if the expiration date has been reached; if the immunogen is exposed to heat; if the immunogen has been frozen; breakage; missing inventory and theft; and whereas discarding unused vials came back from the vaccination website.
- Wastage in opened vials will occur thanks to 5 broad reasons: whereas discarding remaining doses at the top of the session; not having the ability to draw the amount of doses during a vial; sinking of opened vials within the water; suspected contamination; and poor immunogen administration practices.

Topic 46. GENERIC MEDICINE

Importance for Prelims: Science & tech

Hyderabad-based MSN Laboratories launched its branded generic, Favilow (Favipiravir) 800 mg. the upper strength Favilow 800 mg is priced at Rs a hundred and forty four per pill and can be offered across pharmacies

- A drug may be a pharmaceutical drug that contains an equivalent chemical substance as a drug that was originally protected by patents.
- Generic medicine are allowed purchasable once the patents on the initial medicine expire.
- Because the active chemical substance is that the same, the medical profile of generics is believed to be equivalent in performance.
- A drug has an equivalent active pharmaceutical ingredient (API) because the original, however it should disagree in some characteristics like the producing method, formulation, excipients, color, taste, and packaging.

API

- An active pharmaceutical ingredient (API), is that the key ingredient of a drug or medication, that lends it the specified therapeutic result or produces the supposed medicine activity. for instance, paracetamol may be a bulk drug, that acts against pain.
- API , additionally referred to as as Bulk medicine are mixed with binding agents or solvents to arrange the finished pharmaceutical product, id est a paracetamol pill, capsule or sweetener, that is consumed by the patient.

Topic 47. NCT AMENDMENT BILL 2021

Importance for Prelims: Polity

Centre vs Delhi govt again

WHAT THE BILL PROPOSES

- The term "Government" in any law by the legislative assembly will mean "Lieutenant Governor"
- The assembly shall not make rules or committees to consider day-to-day administration or conduct inquiries
- Rule or committee made before the new amendment comes into force "shall be void"
- Before taking any executive action, opinion of the L-G shall be obtained by a general or special order
- L-G shall have power to reserve for consideration any bill, and any of the matters outside the purview of the powers conferred on the legislative assembly

Bill will define responsibilities in line with the constitutional scheme of governance of national Capital, as interpreted by SC
— AMIT SHAH, UNION HOME MINISTER

DELHI GOVT'S RESERVATIONS

- Article 239AA says legislature can make laws on any matters on state and concurrent list except for issues relating to public order, police and land.
- SC's Constitution bench in 2018 recognised assembly's right, and said Union has exclusive powers only in the above 3 issues.
- SC said L-G should work with aid and advice of council of ministers
- SC order clarified that L-G has not been entrusted with any independent decision-making power
- While any matter of dispute can be sent to President, the SC said it does not mean every matter should be

After being rejected by people of Delhi, BJP seeks to drastically curtail powers of elected govt. Bill is dilution of SC judgment.
— ARVIND KEJRIWAL, CM

The Ministry of Home Affairs issued a gazette notification stating that the provisions of the govt. of metropolis Territory of urban center (Amendment) Act, 2021, would be deemed to possess inherit result from April twenty seven.

- The Bill amends the govt. of metropolis Territory of urban center Act, 1991.
- The Act provides a framework for the functioning of the legislature and also the government of the metropolis Territory (NCT) of urban center.
- The Bill amends sure powers and responsibilities of the legislature and also the elected official.
- Restriction on laws lapsed the Assembly: The Bill provides that the term "government" stated in any law created by the legislature can imply elected official (LG). Rules of Procedure of the Assembly: The Act

permits the legislature to create Rules to control the procedure and conduct of business within the Assembly.

- The Bill provides that such Rules should be according to the foundations of Procedure and Conduct of Business within the Lok Sabha.
- Inquiry by the Assembly into body selections: The Bill prohibits the legislature from creating any rule to alter itself or its Committees to: contemplate the matters of daily administration of the NCT of urban center and conduct any inquiry in relevancy body decisions.

Assent to Bills:

- The Act needs the LG to order sure Bills lapsed the legislature for the thought of the President.
- The Bill needs the LG to additionally reserve those Bills for the President that incidentally cowl any of the matters outside the reach of the powers of the legislature.

LG's opinion for govt actions:

- The Act specifies that every one govt action by the govt., whether or not taken on the recommendation of the Ministers or otherwise, should be taken within the name of the LG.
- The Bill adds that on sure matters, as given by the LG, his opinion should be obtained before taking any govt action on the selections of the Minister/ Council of Ministers.

Topic 48. NATIONAL COMMISSION ON WOMEN

Importance for Prelims: National Organisations



The National Commission for ladies (NCW) on weekday launched a message-only helpline for providing help to expectant mothers.

- It was originated as a statutory body in January 1992 below the National Commission for ladies Act, 1990.
- Its mission is to try towards sanctionative ladies to realize equality and equal participation all told spheres of life by securing her due rights and entitlements through appropriate policy formulation, legislative measures, etc.
- Its functions area unit to:
 - Review the constitutional and legal safeguards for ladies.
 - Recommend remedial legislative measures.
 - Facilitate redressal of grievances.
 - Advise the govt. on all policy matters moving ladies.

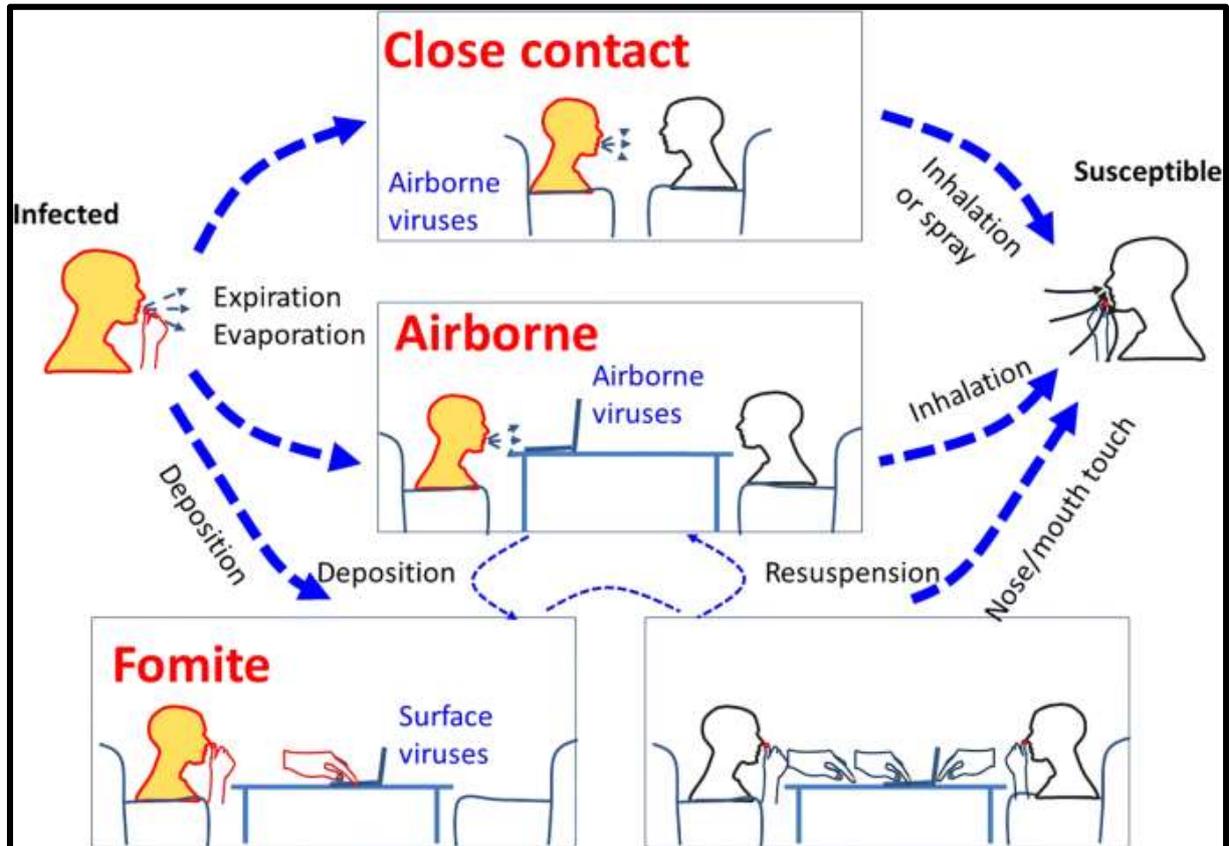
Composition:

- Chairperson: The central government ought to nominate the chairman.

- Five members: The 5 members are to be appointive by the central government from amongst the person of ability, integrity, and standing. they must possess expertise in varied fields like law or legislation, labor, management of business potential of ladies, women's voluntary organization, education, administration, economic development, and social good-being.
- Member Secretary: The Central Government conjointly nominates member secretary. He/ she ought to be either associate skilled within the field of management, a corporation, or an official World Health Organization may be a member.

Topic 49. AEROSOL MODE OF TRANSMISSION

Importance for Prelims: Science & tech



This excessive high rate of transmission with redoubled malady severity means the virus is additional virulent, escaping immunity and spreading by alternative means than antecedently established mode like droplets, piddle or excretory product.

- This new mode may well be 'aerosols,' little liquid particles from the tract generated once somebody exhales, talks, or coughs.
- They will float within the air and may contain live viruses not like droplets that don't float however cool down on ground or any surface in one-two minutes once exhalation.
- When inhaled , these aerosols create everybody susceptible to virus infection.
- A scientific study recently revealed in 'Lancet' provides robust and consistence proof that SARS-CoV-2 will stay in air for as long as for 3

hours with [$t_{1/2}$] lifetime of one.1h., i.e. it'll take a minimum of sixty six minutes for 1/2 the virus to lose activity.

- Confirmed presence of the virus in air-filters and ducts in hospitals with Covid-19 patients conjointly means it preponderantly transmits within the variety of aerosol.
- The widespread presence of the virus and its ability to unfold through aerosols counsel that a internment can have lowest to no impact on Covid-19 unfold.

Aerosols

- Aerosols area unit outlined as a mix of liquid or solid particles suspended in an exceedingly vaporific or liquid surroundings.
- In the atmosphere, these particles area unit in the main placed within the low layers of the atmosphere (< one.5 km) since aerosol sources area unit placed on the terrestrial surface.
- However, sure aerosols will still be found within the layer, particularly volcanic aerosols ejected into the high altitude layers.