

WEEKLY CURRENT AFFAIRS MAGAZINE for



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

JUNE-VOL-IV-2021

23 June to 30 June



-
- UPSC/MPSC/NDA/CDS/CAPF/AFCAT
 - PUNE/THANE/DADAR/ANDHERI
 - Offline/Online batches/Video course
 - www.pioneeracademypace.com/.in
 - IVR No. -75060 10635
-

PIONEER ACADEMY

PUNE



PUNE Address:

301/5 3rd Flr, Pinnacle Prestige (Near Durvankur Hotel), Above Cosmos Bank, Opp. Maharashtra Electronics, Tilak Road, Sadashiv Peth, Pune - 411 030
Mob.: 91453 39324 / 25

THANE



THANE Address:

201/202, 2nd Floor, Laizer Arcade, Raghoba Shankar Road, Chendani, Thane(W) - 400 601.
Mob.: 75060 10635

Email : pioneeracademypace@gmail.com

Website: www.pioneeracademypace.com / .in

IVR Number : 8080 046 046

ANDHERI



ANDHERI Address:

3rd Flr, Syndicate Chamber, Above Vaibhav Restaurant, Next To Better Home Hotel, Opp. Andheri (E) Station, Andheri (E) - 400 601
Mob. 84518 55673 / 70302 92316

DADAR



DADAR Address:

306/7/8, 3rd Flr, Blue Pearl Society, Senapati Bapat Road, Plot No. 14, Near Janata Cloth Market, Near Dadar Railway Station, Dadar (W), Mumbai-400 028
Mob : 93241 69627 / 91375 41508

Success is born of action...

Topic 1. In a first- Rubber Board starts field trials in Assam

Importance for Prelims: Agriculture

In a major experiment in rubber farming, Rubber Board has started field trial of world's 1st genetically changed (GM) rubber in Assam.

- GM Rubber was developed in biotechnology laboratory at Rubber Research Institute of India (RRII) in Puthuppalayam, Kottayam.
- It was planted at Rubber Board's Sarutari analysis farm in Guwahati.
- Rubber Board launched field trial of GM Rubber in Assam a decade when Kerala Government denied permission for a similar due to its adverse impact on atmosphere.

Background

- GM Rubber is that the second genetically changed crop that field trial has started once Bt. Cotton. Genetic Engineering Appraisal Committee (GEAC) had allowed to open field trials of GM rubber in 2010 at Chetchackal, Thombikandam, in Kottayam.

Significance of GM Rubber

- GM variant rubber has the capability to withstand adverse climate. It'll provide a huge boost to rubber production in India.
- It can greatly profit farmers after trials are over.
- The crop is resistant to reduced wetness or drought, low & high temperatures additionally as high light intensity.
- It will cut short the maturity amount of rubber. It'll result into early yielding.
- Issue with the growth of rubber: Growth of young rubber gets slower in winter season in North East as a result of plants don't get enough light throughout monsoon.
- Lack of adequate water throughout summer season conjointly creates stress to plants.

- Thus, GM rubber will overcome these issues and result into quicker growth.

Topic 2. International Tea Day auction sets price record

Importance for Prelims: Current Events

The first International Tea Day special auction, continued a digital platform, in eastern Assam's Jorhat, thought-about the tea capital of the region, fetched record costs.

- The auction was conducted on June twenty one — a month once the best leaves were plucked to mark International Tea Day on night 21 — by Mjunction Services Ltd., a B2B e-com firm.

About International Tea Day

- International Tea Day was observed on twenty first night once it had been designated by the United Nations General Assembly in Dec 2019.
- The United Nations General Assembly known as on the Food and Agricultural Organisation (FAO is an agency of the United Nations) to guide the observance of the day.
- night twenty one was chosen as a result of the season of tea production begins in May in most of the tea manufacturing countries.

Key Points

- Tea may be a beverage made of the bush synthesis plant. it's the world's most consumed drink, once water.
- It is believed that tea originated in northeast India, north Myanmar and southwest China, however the precise place wherever the plant 1st grew isn't known .
- There is proof that tea was consumed in China 5,000 years ago.

Economy:

- Tea production and process constitutes a main supply of livelihoods and subsistence for millions in developing and least developed countries.
- It may be a labor-intensive sector, providing jobs, particularly in remote and economically disadvantaged areas.

- Tea will play a significant role in rural development, poverty reduction and food security in developing countries, being one among the foremost vital money crops.

Plantation condition:

- Tea may be a tropical and sub-tropical plant and grows well in moderately hot and moist climates.
- The ideal temperature for its growth is 20°-30°C and temperatures on top of 35°C and below 10°C are harmful for the bush.
- It needs 150-300 cm annual rainfall that ought to be distributed throughout the year.
- The most suited soil for tea cultivation is slightly acidic soil (without calcium) with porous sub-soil which allows a free percolation of water.

Topic 3. International Olympic Day

Importance for Prelims: Current Events



The Prime Minister International Olympic Day 2021 has conveyed the pride that nation feels for people who have represented india in varied olympics over the years.

- The day was chosen by the International Olympic Committee in 1948.
- It aims to market the Olympic plan and also the importance of organising mass sports competitions all round the world.
- As a results of the trouble several nations adopted it to empower youth and represent nations within the world sports competition.
- Besides a number of school from varied countries adopted Olympics/Sports as a district of their curriculum.

What is special about this Year?

- Summer olympics in tokyo, scheduled to be control between July twenty three and August eight.

- Infact this was delayed a year thanks to the COVID-19 pandemic.
- The event are mentioned because the 2020 tokyo olympics.
- A total of thirty three9 events across 33 sports are lined up at the Games from totally different countries.

International Olympic Committee

- Non-governmental sports organisation primarily based in lausanne, switzerland, authority accountable for organising the Summer and Winter Olympic Games
- It is constituted within the type of an association beneath the swiss Civil Code (articles 60- 79).
- IOC is that the governing body of the National Olympic Committees (NOCs)NOC could be a national constituent of the worldwide Olympic movement.
- Current president of the IOC is Thomas Bach of germany.
- In 2009 the United Nations General Assembly granted the IOC Permanent Observer standing.

Topic 4. First Reactor in Kudankulam sopped for fuel replacement

Importance for Prelims: Science & tech

The first reactor of Kudankulam nuclear power Project (KKNPP) was stopped at 8.30 a.m. on tuesday for the scheduled and obligatory annual fuel replacement.

- The exercise, that was done last time from could thirty one, 2020, is expected to last forty five to sixty days for replacement thirty third of the spent fuel with enriched uranium fuel bundles. the method is completed by totally automated refuelling instrumentation.

Kudankulam nuclear power Plant

- KKNPP is that the single largest nuclear power station in india.
- It is situated in Koodankulam within the Tirunelveli district of tamil nadu.
- It is scheduled to have six VVER-1000 reactors with an installed capability of 6,000MW of electricity.
- It has been inbuilt collaboration with Atomstroyexport, the Russian state company and NPCIL.
- Unit one and two have started generating electricity
- Unit three and four are below construction.

PRESSURIZED HEAVY WATER REACTORS (PHWR)

- Natural uranium is used as a fuel and heavy water as a coolant and moderator
- The 0.7% U-235 undergoes fission to release energy. because the remaining ninety nine U-238 isn't fissionable , it undergoes transmutation and forms Plutonium-239(Pu-239).
- Working of the reactor –The heat is removed from the reactor by water flowing during a closed pressurized loop
- The heat is transferred to a second water loop through a heat exchanger.
- The second loop is kept at a low pressure permitting the water to boil and

build steam, that's went to flip the turbine-generator

- Then the steam is condensed into water and came back to the warmth exchanger VVER – Reactors
- The water-water energetic reactor (WVER) or VVER may be a series of pressurised water reactor styles originally developed within the soviet union, and currently Russia, by OKB Gidropress.
- Two Russian-built VVER-1000 reactors are in industrial operation in Kudankulam, southern india, since 2014 and 2017 severally.

Topic 5. Summit on Green Hydrogen Initiatives

Importance for Prelims: Science & tech / IR



India is hosting a summit on green hydrogen initiatives involving the BRICS nations. The event offers a platform to share their respective green hydrogen initiatives and views on the way to take it to the next level in their own countries.

The event are anchored by NTPC Ltd, a Maharatna CPSU beneath the Ministry of Power.

- hydrogen once created by electrolysis using renewable energy is thought as Green Hydrogen that has no carbon

Significance of green Hydrogen:

- Green hydrogen energy is important for india to meet its nationally Determined Contribution (INDC) Targets and guarantee regional and national energy security, access and accessibility.
- Green hydrogen will act as an energy storage choice, which might be essential to meet intermittencies (of renewable energy) within the future.

- In terms of quality, for long distance mobilisations for either urban freight movement within cities and states or for passengers, green hydrogen is utilized in railways, massive ships, buses or trucks, etc.

Applications of green hydrogen:

- Green Chemicals like ammonia and methanol will directly be utilised in existing applications like fertilizers, mobility, power, chemicals, shipping etc.
- Green hydrogen mixing up to ten per cent could also be adopted in CGD networks to achieve widespread acceptance.

Benefits:

- It may be a clean-burning molecule, which may decarbonize a range of sectors together with iron and steel, chemicals, and transportation.
- Renewable energy that can't be stored or utilized by the grid is channelled to provide hydrogen.

Topic 6. Sugar mills demand hike in MSP

Importance for Prelims: Economy

RISING INVENTORY			
2018-19 crushing season			MT
Estimated sugar production			32.00
Opening stock			10.20
Annual sugar consumption			26.0
Sugar export quota			5.0
Expected unsold inventory			11.20
Sugar exports so far			0.67
MT: million tonnes			Source: ISMA

	Jan 31, 2019	Feb 15, 2019	% chg
Sugar M-30 (₹ Qtl)	3,269.00	3,376.00	3.27
Sensex	36,256.99	35,808.95	-1.24
BS Sugar Index	100.00	101.68	1.68

Sugar mills are demanding a hike within the minimum selling price to change them to clear the dues to the farmers that have touched a whopping Rs 23,000 crore. Rising output have caused ex-mill costs to fall to Rs 31-33 per kilogram, virtually to the levels of the minimum price.

FRP:

- Fair and remunerative price (FRP) is that the minimum value at that rate sugarcane is to be purchased by sugar mills from farmers.
- The Federal/Central Government announces honest and Remunerative costs that are determined on the advice of the Commission for Agricultural prices and costs (CACP) and are declared by the cabinet Committee on Economic Affairs, that is chaired by Prime Minister.

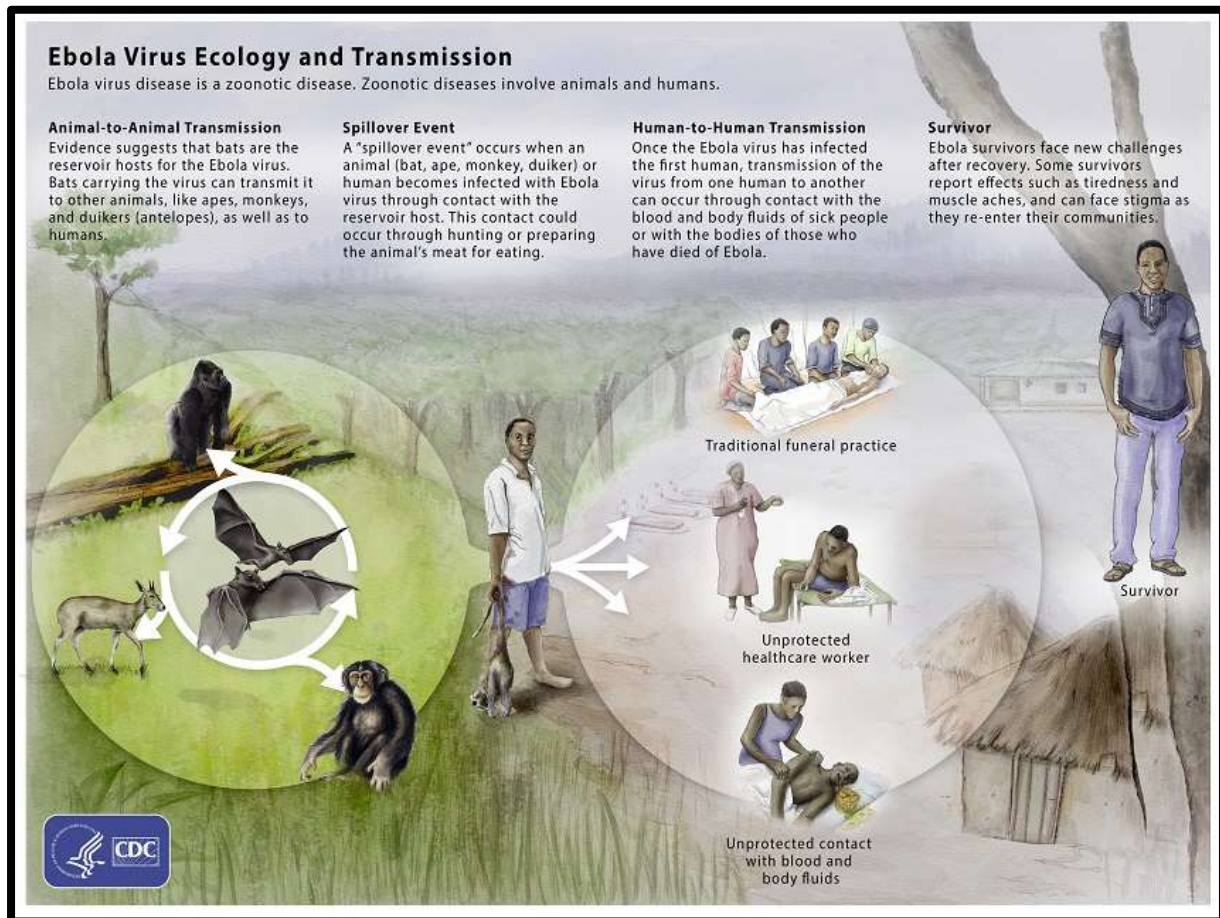
- The State advised prices (SAP) are declared by key sugarcane manufacturing states that are usually more than FRP.
- The approval can guarantee a warranted value to cane growers. The 'FRP' of sugarcane is decided beneath Sugarcane (Control) Order.
- This are uniformly applicable everywhere the country.
- Determination of FRP are within the interest of sugarcane growers keeping in view their entitlement to a fair and remunerative value for their manufacture.
- Fair and remunerative price (FRP) is that the minimum value at that rate sugarcane is to be purchased by sugar mills from farmers.

Commission for Agricultural prices and costs (CACP)

- The Commission for Agricultural prices and costs (CACP) is an connected workplace of the Ministry of Agriculture and Farmers Welfare, Government of india. It came into existence in Jan 1965.
- It is an advisory body whose recommendations aren't binding on Government.

Topic 7. Ebola virus disease (EVD)

Importance for Prelims: Science & tech



Recently, the Guinean authorities have proclaimed the top of the country's ebola epidemic when a 42-day counting throughout that no new cases were recorded.

About ebola virus disease (EVD)

- It was formerly referred to as ebola haemorrhagic fever.
- It may be a rare however severe, often fatal sickness in humans.
- The virus family filoviridae is chargeable for EVD which has 3 genera: Cuevavirus, Marburgvirus, and Ebolavirus.

Transmission of ebola

- It is thought that fruit bats of the Pteropodidae family are natural ebola virus hosts.

- It is transmitted to individuals from wild animals and spreads within the human population through human-to-human transmission.
- It is introduced into the human population through shut contact with the blood, secretions, organs or different bodily fluids of infected animals.
- It spreads through human-to-human transmission via direct contact (through broken skin or mucose membranes) with:
Blood or body fluids of an individual who is sick with or has died from Ebola
Objects that are contaminated with body fluids (like blood, feces, vomit) from an individual sick with ebola or the body of an individual who died from ebola.

Treatment of ebola virus disease (EVD)

- The 2 monoclonal antibodies (Inmazeb and Ebanga) were approved for the treatment of Zaire ebolavirus (Ebolavirus) infection in adults and kids by the United States Food and Drug Administration.
- The Ervebo vaccine has been shown to be effective in protective individuals from the species Zaire ebolavirus, and is suggested by the Strategic consultative cluster of specialists on immunisation.

Topic 8. NISHTHA Capacity Building Programme for EMRS Teachers and Principals

Importance for Prelims: Governance

Ministry of tribal Affairs and NCERT came along on a joint mission for NISHTHA capability Building Programme for EMRS teachers and Principals.

- The capability building program is aimed to create competencies among lecturers and school principals and rising Quality of school Education through Integrated Teacher coaching.
- The participants were capacitated on eighteen holistic and comprehensive modules covering totally different aspects of education.
- The Ministry is production a thought to create a pool of Key Resource Persons from amongst all the batches of NISHTHA programs to be conducted within the returning months.
- The “Unbox Tinkering – ATL Teacher coaching Program” was conjointly organized in coordination with Atal Innovation Mission, NITI Aayog, IBM and Learning Links foundation.

NISHTHA Programme

- It may be a National Initiative for school Heads’ and Teachers’ holistic Advancement.
- It was launched by the Department of school Education and literacy.
- It may be a National Mission that aims to enhance learning outcomes at the elementary level through an Integrated Teacher coaching Programme.
- It is developed below the Centrally Sponsored theme of SamagraShiksha in 2019- 20.
- It aims to create competencies among all the lecturers and school principals at the elementary stage.
- Its basic objective is to motivate and equip teachers to encourage and foster crucial thinking in students.

Eklavya Model Residential schools (EMRSs)

- It was started in 1997 to impart quality education to ST youngsters in remote areas.
- It can modify ST youngsters to avail of opportunities in high and skilled educational courses and get employment in varied sectors.
- Each school includes a capability of 480 students, catering to students from category VI to XII.
- The grants got for construction of schools and recurring expenses to the State Governments beneath Grants under Article 275 (1) of the Constitution.
- By 2022, each block with over fifty per cent ST population and a minimum of 20,000 tribal persons, can have an EMRS.
- It are on par with Navodaya Vidyalaya and can have special facilities for conserving native art and culture besides providing coaching in sports and skill development.

Topic 9. Ramgarh Vishdhari Wildlife Sanctuary

Importance for Prelims: Environment



Recently, the National Tiger Conservation Authority (NTCA) has given the green signal to Ramgarh Vishdhari wildlife Sanctuary as 52nd Tiger Reserve of India.

Ramgarh Vishdhari Wildlife Sanctuary

- It is that the fourth tiger reserve of Rajasthan once Ranthambore, Sariska and Mukundratiger reserves.
- It is sort of a buffer for the Ranthambore national park.
- It is found virtually forty five kilometers on Bundi-Nainwa Road and covers an area of 252 sq. kilometers.
- It is home to wild predators like hyena, tigers, panthers, antelopes and wild boars.
- It was inform as a sanctuary in 1982.
- It includes of mountainous dry deciduous forests on Vindhyan formations.
- It includes floral diversities like Mango, Dhok, Khair and Salar.

National Tiger Conservation Authority

- National Tiger Conservation Authority (NTCA) could be a statutory body under the Ministry of atmosphere, Forests and global climate change.
- It was organize in 2005 following the suggestion of the Tiger Task Force.
- It was established under enabling provisions of the life (Protection) Act, 1972, as amended in 2006, for strengthening tiger conservation, as per powers and functions assigned to that.

Topic 10. SAINT VINCENT AND THE GRENADINES

Importance for Prelims: Geography / IR



The Union cabinet has approved an Agreement between India and Saint Vincent and the Grenadines for the Exchange of data and to provide help to every different in collection of tax claims.

- This may be a new Agreement between the Republic of India and Saint Vincent and the Grenadines. There was no such agreement in the past between the 2 countries.
- Agreement additionally contains tax examination abroad provisions which give that a country might permit the representatives of the other country to enter its territory to interview people and examine records for tax functions.

Saint Vincent and the Grenadines

- Saint Vincent and the Grenadines is an island country within the Caribbean.
- It is found within the southeast windward islands of the Lesser Antilles, that lie in the West Indies at the southern finish of the eastern border of the Caribbean Ocean wherever the latter meets the Caribbean Ocean.
- Kingstown is that the capital and main port.

Topic 11. Central Warehousing Corporation

Importance for Prelims: National organisations



Union cabinet approves merger of Central Railside Warehouse Company limited (CRWC) with Central depository Corporation (CWC).

- Central warehousing Corporation may be a Mini-Ratna Category-I CPSE.
- It may be a statutory body that was established under 'The warehousing corporations Act, 1962.
- It may be a public warehouse operator established by the govt. of india in 1957 for the aim of warehousing of agriculture manufacture and sure different commodities notified by the Central Government and for matters connected there with.
- Headquarters: new delhi.

‘Central Railside Warehouse Company Ltd.’ (CRWC)

- CWC fashioned a separate subsidiary company named ‘Central Railside Warehouse Company Ltd.’ (CRWC) in 2007 to develop Railside storehouse Complexes (RWCs) onto land leased from Railways.
- CRWC may be a Mini-Ratna Category-II Central Public Sector

Enterprises (CPSE) incorporated under the companies Act, 1956.

- CRWC developed specialization, experience and goodwill in development and operation of RWCs however thanks to shortage of capital and additionally because of a number of the restrictive clauses in its MoU with Ministry of Railways, its pace of growth wasn't as expected.
- A separate Division with the name 'RWC Division' are created by CWC for handling operations and promoting of RWCs.

Topic 12. Tax Inspectors Without Borders (TIWB) Programme

Importance for Prelims: International Relations

Recently, the Ministry of Finance has declared that Tax Inspectors without borderlines (TIWB) programme was launched in bhutan.

Tax Inspectors without borders (TIWB)

- It may be a joint initiative of the UN Development Programme (UNDP) and also the Organisation for Economic Cooperation and Development (OECD).
- It was launched at the Third finance for Development conference in addis ababa in 2015.
- It was wide hailed as capable of helping developing countries mobilize muchneeded domestic revenues in support of the post-2015 sustainable development agenda.
- It facilitates targeted, tax audit help programmes in developing countries across the world.
- It may be a strong response to the attention given to effective and efficient mobilisation of domestic resources in achieving the property Development Goals to strengthen international tax co-operation.
- The joint OECD/UNDP TIWB Secretariat is found in Paris and supported by UNDP's found of Country Offices in developing state.

TIWB in bhutan

- It is expected to be of concerning twenty four months' period.
- Under the programme, india in collaboration with the UNDP and also the TIWB Secretariat aims to help bhutan in strengthening its tax administration.
- India can transfer the technical know-how and skills to its tax auditors, and through sharing of best audit practices.
- The focus of the programme are going to be within the space of

International Taxation and Transfer pricing.

Topic 13. RashtriyaKrishiVikasYojana – Remunerative Approaches for Agriculture and Allied Sectors Rejuvenation (RKVY-RAFTAAR)

Importance for Prelims:Govt Schemes



- RashtriyaKrishiVikasYojana – Remunerative Approaches for Agriculture and Allied Sectors Rejuvenation (RKVY-RAFTAAR) could be a distinctive scheme of government of india, Ministry of Agriculture and Farmers' Welfare (MoA&FW).
- It is aimed toward strengthening infrastructure in Agriculture and Allied sectors to market Agripreneurship and agribusiness by facilitating financial aid and nurturing a system of business incubation.
- MANAGE-CIA, Centre for Innovation and Agripreneurship may be a Centre of Excellence and information Partner to Ministry of Agriculture and Farmers' Welfare for Implementation of RKVY-RAFTAAR scheme

About RKVY-RAFTAAR:

- RKVY scheme was initiated in 2007 as an umbrella scheme for making certain holistic development of agriculture and allied sectors.
- The theme incentivizes States to increase public investment in

Agriculture & allied sectors.

- The cupboard has approved (as on first Nov 2017) for the continuation of the continuing Centrally Sponsored scheme (State Plans) – RashtriyaKrishiVikasYojana(RKVY) as RashtriyaKrishiVikasYojana-Remunerative Approaches for Agriculture and Allied Sector Rejuvenation (RKVY-RAFTAAR).
- The main objective of RashtriyaKrishiVikasYojana is to develop farming as a main supply of economic activity.
- **Some of the objectives conjointly include:**Risk mitigation, strengthening the efforts of the farmers along side promoting agribusiness entrepreneurship through the creation of agri-infrastructure.
- Providing all the states with autonomy and flexibility in preparing plans as per their native wants.
- Helping farmers in increasing their financial gain by encouraging productivity and promoting worth chain addition connected production models.
- To decrease the risk of farmers by concentrate on increasing the financial gain generation through mushroom cultivation, integrated farming, floriculture, etc.
- Empowering the youth through varied skill development, innovation and agribusiness models.

Funding:

- RKVY-RAFTAAR can continue to be enforced as a Centrally SponsoredScheme within the ratio of 60: forty (Government of india and State Share respectively) except within the case of northeastern and hilly states wherever the sharing pattern is 90:10.
- For UTs the grant is hundred per cent as Central share.

Topic 14. Govt seeks ‘affordable’ price , production cut phase – out from OPEC

Importance for Prelims: International Organisations

With domestic retail fuel costs soaring to record high on rising international oil rates, india on thursday asked oil cartel Organization of Petroleum-Exporting Countries for ‘affordable’ oil value within a ‘reasonableband’ which the producers ought to phase out production cuts.

- OPEC nations like saudi arabia|Asian country|Asian nation} have principally been India’s principal oil supply.
- But, Organization of Petroleum-Exporting Countries and its allies — known as OPEC+ — ignoring its call for ease provide curbs had led to the world’s third-biggest oil importer tap newer sources to diversify its fossil oil imports.
- As a result, OPEC’s share in India’s oil imports has dropped to regarding sixty per cent in could from seventy four per cent within the previous month.

About OPEC

- The Organization of the fossil oil exportation Countries (OPEC) was based inBaghdad, Iraq, with the signing of an agreement in Sept 1960 by 5 countries namely islamic Republic of Persia, Iraq, Kuwait, saudi arabia andVenezuela.
- They were to become the Founder members of the Organization.
- As of 2020, Organization of Petroleum-Exporting Countries includes a total of thirteen Member Countries viz. Iran, Iraq, Kuwait, United Arab Emirates (UAE), Saudi Arabia, Algeria, Libya, Nigeria, Gabon, equatorial guinea, Republic of Congo, angola and venezuela are members of Organization of Petroleum-Exporting Countries.
- OPEC’s objective is to co-ordinate and unify crude oil policies among

memberCountries, so as to secure truthful and stable costs for crude oil producers; an efficient, economic and regular provide of crude oil to consuming nations; and a good come on capital to those investing within the trade.

- It is head quartered in vienna, Austria.
- OPEC membership is open to any country that's a considerable exporter of oil and that shares the ideals of the organization.

OPEC +

- OPEC+ is that the alliance of crude producers undertaking corrections in provide within the oil markets since 2017.
- OPEC and countries add azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan and Sudan.

Topic 15. Proposed Integrated Theatre Commands

Importance for Prelims: Defence



While consideration continue for a agreement on the creation of the military's desegregate theatre commands, the four proposed commands are likely be raised by yearend, consistent with a government official.

Integrated Theatre Command:

- An integrated theatre command envisages a unified command of the three Services, beneath a single commander, for geographical theatres (areas) that are of strategic and security concern.
- The commander of such a force are going to be able to bear all resources at his disposal — from the military, the Indian Air Force, and also the Navy — with seamless efficaciousness.
- The integrated theatre commander won't be answerable to individual Services.
- Integration and jointness of the 3 forces can avoid duplication of resources. The resources obtainable under every service are accessible to alternative services too.

- The services can get to know each other better, strengthening cohesion within the defence establishment.
- The Shekatkar committee has counseled the creation of three integrated theatre commands — northern for the China border, western for the pakistan border, and southern for the maritime role.

Current Situation:

- The Indian armed forces presently have seventeen commands. There are seven commands every of the military and also the Air Force.
- The Navy has three commands.
- Each command is headed by a 4-star rank military officer.
- There is one joint command in Andaman and Nicobar Islands.
- It is that the 1st Tri-Service theatre command of the Indian armed forces, based at Port Blair in Andaman and Nicobar Islands of India.
- It was created in 2001 to safeguard India's strategic interests in Southeast Asia and also the Strait of Malacca by increasing rapid deployment of military assets within the islands.
- The alternative tri-service command, the Strategic Forces Command (SFC), takes care of the delivery and operational management of the country's nuclear assets.

Topic 16. Adani's Australian arm strikes coal at Carmichael mine

Importance for Prelims: Economy / Geography

The Adani cluster struck 1st coal from its Carmichael, Australia project on Thursday and can begin shipping to its customers consistent with schedule. With this, the project won't only lift the economic prospects of the hitherto barren Australian outback, however conjointly facilitate Indian power plants to supply cheap coal.

- The Carmichael coal mine could be a coal mine thermal coalpit within the Galilee Basin in Queensland, Australia.
- The mine is proposed by Adani Mining, a wholly owned subsidiary of India's Adani cluster.

Project components:

- The mine is planned to contain six open-cut pits and 5 underground mines.
- A new rail line is required to move coal to port facilities. The proposal includes a new one hundred ninety kilometer line to attach with the existing Goonyella railway line.
- Exports are to go away the country via port facilities at Hay Point and Abbot Point after being transported to the coast via rail. Most of the exported coal is planned to be shipped to India.
- This needs vital port expansion.
- Proposed benefits: It'd be the biggest coal mine in Australia and one among the biggest within the world. At peak capability the mine would manufacture sixty million tonnes of coal a year.
- Over the sixty years, the mine is expected to provide 2.3 billion tonnes.
- Opposition to project: The mine has drawn immense controversy concerning its claimed economic advantages, monetary viability, plans for government subsidy and therefore the potential damaging

environmental impacts upon the great barrier reef, groundwater at its site and its carbon emissions.

Topic 17. Ambergris or ‘Whale Vomit’

Importance for Prelims: Science / Environment

Recently, there have been 2 cases wherever the Mumbai Police has arrested 5 persons trying to sell ambergris or ‘whale vomit’.

Ambergris

- It is usually mentioned to as whale vomit.
- It may be a solid waxy substance that floats round the surface of the water body and sometimes settles on the coast.
- A sperm whale eats many thousand squid beaks a day and a beak makes its way to the whale’s abdomen and into its looping convoluted intestines wherever it becomes ambergris.
- It was referred to as as “preternaturally hardened whale dung” by a German physician Franz Schwediauer in 1783.
- It is created solely by an calculable one per cent of sperm cell whales.
- It contains alkaloids, acids, and a particular compound known as ambreine, that is similar to cholesterol.

Value of ambergris

- It is mentioned as floating gold as a result of one kilogram of ambergris is price Rs one crore within the international market.
- The reason for its high value is its use within the perfume market, particularly to make fragrances like musk.
- It is believed to be in high demand in countries like Dubai that have an oversized perfume market.
- The ancient Egyptians used it as incense and it's conjointly believed to be utilized in some ancient medicines.

Laws governing trade of ambergris

- The sperm whale may be a protected species and hunting of the whale isn't allowed.

- The buying or merchandising of ambergris in india is prohibited under the wildlife Protection Act 1972.

Sperm Whale

- They are the biggest of the toothed whales and have one among the widest international distributions of any marine mammal species.
- They are found altogether deep oceans, from the equator to the edge of the pack ice within the Arctic and Antarctic.
- They are named once the waxy substance i.e. spermaceti, found in their heads.
- It is listed as 'Vulnerable' beneath the IUCN Red List of threatened Species.
- They inhabit all of the world's oceans.

Topic 18. Indian Navy to get its first ever indigenous aircraft carrier IAC-1 Vikrant next year

Importance for Prelims: Defence

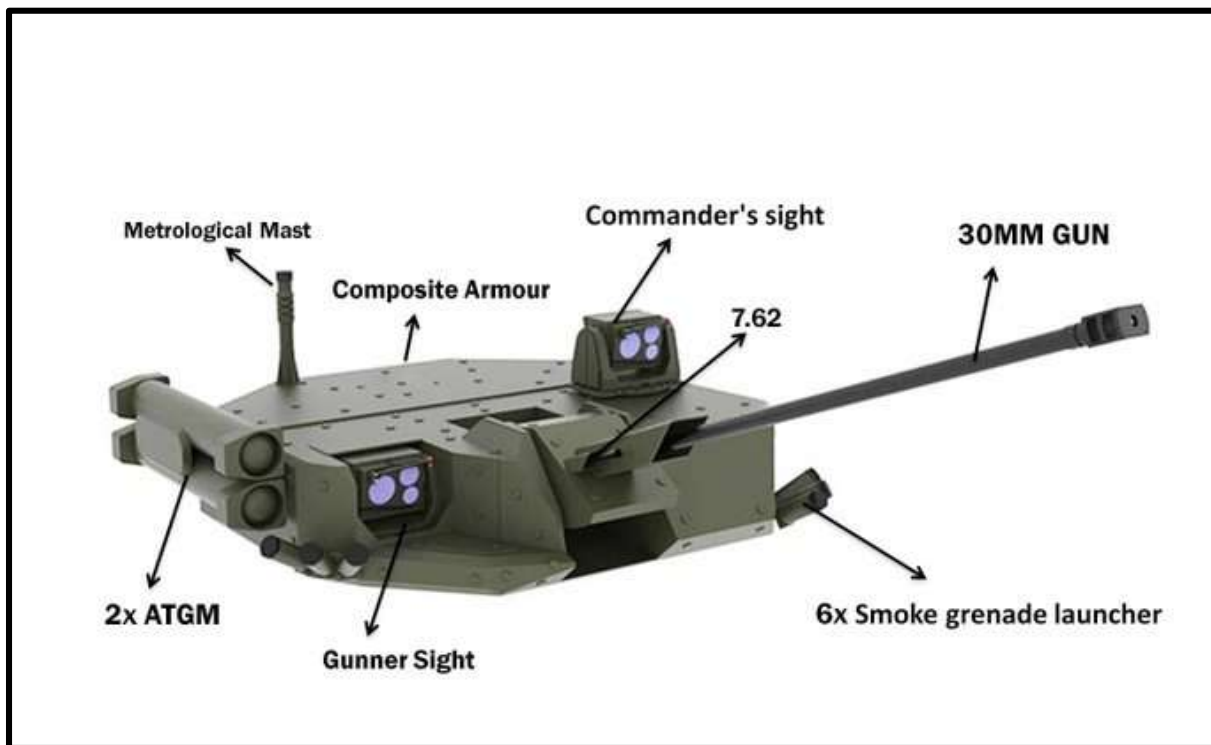
Onboard the deck of IAC-1, the defence minister said, “The IAC boasts of nearly seventy five per cent indigenous content. This includes the design, the steel utilized in the development and key weapons and sensors.”

INS Vikrant

- Named when its precursor and therefore the 1st airbase reinforced warship of india. it's conjointly referred to as indigenous aircraft carrier one (IAC-1).
- It is informally known as INS Vikrant two.
- It is presently under construction and conducting trials by cochin shipyard restricted in Kochi, Kerala.
- It is that the 1st aircraft carrier warship to be created in india.
- It weighed up to 40,000 tonnes and might carry up to forty aircraft.
- It is predicted to be commissioned in 2023.

Topic 19. FUTURISTIC INFANTRY COMBAT VEHICLES (FICVs)

Importance for Prelims: Defence



The Indian Army has issued a tender, or a request For info (RFI), for the procurement of 1,750 futurist infantry Combat Vehicles (FICVs) to exchange the Russian-origin infantry vehicles in commission.

- This is that the Army's third try for the procurement of a new infantry vehicle.
- According to the RFI, the FICVs would be employed for cross-country operations, as well as amphibious operations in plain and desert terrain along the Western borders and high altitudes, up to 5,000 m, and mountain terrain along the northern borders in eastern Ladakh, the central sector and north sikkim.
- They would replace the Nineteen Eighties vintage Russian-origin BMP-2.
- Based on the responses to the RFI, the military would finalize the specifications and additionally decide the procurement class.
- The main operational tasks that might need to performed by the FICV

included destroying enemy tanks, armoured personnel carriers, combat vehicles, low-flying helicopters and alternative ground-based weapon platforms and positions.

Topic 20. NAFED Fortified Rice Bran Oil

Importance for Prelims: Economy

Department of Food and Public Distribution E-launched “NAFED Fortified Rice Bran Oil”.

- Rice bran oil is that the oil extracted from the hard outer brown layer of rice referred to as chaff (rice husk). it's known for its high smoke point of 232 °C (450 °F) creating it appropriate for high-temperature preparation ways like stir frying and deep frying.
- Rice bran oil has a composition almost like that of peanut oil.
- Rice Bran oil has multiple health advantages, together with lowering cholesterol level because of its low trans-fat content and high mono unsaturated and poly unsaturated fat contents.
- It additionally acts as a booster and reduces the danger of cancer because of the high quantity of vitamin E it contains.
- This oil is suggested by the globe Health Organization (WHO) as one of the best substitutes for different edible oils.

NAFED

- National Agricultural Cooperative promoting Federation of india|Bharat|Asian country|Asian nation} Ltd (NAFED) is an apex organization of promoting cooperatives for agricultural manufacture in India.
- It was supported on two Oct 1958.
- It is registered beneath Multi State Co-operative Societies Act.
- It is Headquartered in new delhi.

Topic 21. Centre releases draft bill to bring hydrogen under oilfields act

Importance for Prelims: Legislations

The Centre plans to bring hydrogen generated from crude oil under the ambit of the Oilfields (Regulation & Development) Act, 1948.

Oilfields (Regulation & Development) Act, 1948

- It deals with ‘mineral oils’ as understood within the conventional sense.
- In order to facilitate the development and production of alternative/derivative clean energy sources that will be developed in future, the modification bill seeks to redefine ‘mineral oil’.

Oilfields (Regulation and Development) modification Bill 2021

- It proposes to amend the current act to “create opportunities for exploration, development and production of next-generation cleaner fuels and mitigate restrictive challenges and risks.”
- It additionally proposes a new definition of ‘mineral oils’ by as well as within its reach modern and cleaner sources of energy like hydrogen.
- It conjointly seeks to foster investment within the exploration and production of oil and gas by providing a lease on stable terms and facultative the govt. to prescribe a compensation mechanism to guard the investment.
- Conventionally, oil is known to mean hydrocarbons in varied forms as well as natural gas and petroleum oil.
- Hydrogen gas may be a clean supply of energy, which might be created, distributed and regulated in conjunction with natural gas.
- The compensation shall be payable just in case of suspension, revocation or cancellation of the lease or just in case of restriction of access to the leased area.
- It conjointly seeks to expressly enumerate the ability of the govt. to prescribe rules for the extension of the duration of the lease, the most or

minimum area of the lease, a mechanism for determination of the economic life of the oilfield, terms formerger or combination of leases and resolution of disputes.

- It provides for the imposition of fines of up to ₹1 crore for the primary contravention of provisions of any rules. subsequent contraventions can attract a fine of up to ₹10 lakh per da
- It seeks to empower the govt. to recover royalty, cess, lease or licence fee, penalty payment below the law, the draft aforesaid.

Topic 22. India faces uphill task on MSP Stockholding

Importance for Prelims: International Relations

Developed members say india can't have permanent answer to MSP issue at WTO Ministerial meet.

- Facilitator for the talks on Special safeguard mechanism said that as a result of ofpolitical and technical complexities , no outcome can be expected at MC12 .

Special Safeguard Mechanism (SSM)

- WTO's Special Safeguard Mechanism (SSM) could be a protection measure allowed for developing countries to take contingency restrictions against agricultural imports that are inflicting injuries to domestic farmers.
- The contingency calculate is imposition of tariff if the import surge causes welfare loss to the domestic poor farmers. the design and use of the SSM is an area of conflict under the World Trade Organization.

What are safeguards?

- In WTO's terms, safeguards are contingency or emergency restrictions on imports taken temporarily to deal with special circumstances like a surge in imports.
- Contingency restriction means that imposition of an import tax if the imports are causing injuries to domestic agricultural sector.
- The original General Agreement on Tariffs and Trade itself permits such restrictions to guard domestic economy.

Doha Development Agenda and also the origin of the SSM:

- At the doha Ministerial Conference, the developing countries were given a concession to adopt a Special Safeguard Mechanism (SSM) besides the present safeguards (like the Special Agricultural Safeguard or the SSG).
- This SSM constituted a very important a part of the promises offered to

the developing world at doha (known as doha Development Agenda) and also the doha MC became referred to as a development round.

- As mentioned, the Special Safeguard Mechanism (SSM) allowed developing countries to raise import duties on agricultural merchandise in response to import surges.

Difference between SSM and alternative safeguards under Agreement on Agriculture:

- The SSG was out there to any or all countries- each developing and developed whereas the SSM is allowable solely to the developing countries.
- It is to be mentioned that the SSG was accessible because it was inducted under the General Agreement on Tariffs and Trade agreement; whereas the SSM was the invention of the doha MC.

Conflict among World Trade Organization members concerning the structure of the SSM:

- But the design of actual rules of the SSM created conflict among the World Trade Organization members.
- Setting the conditions for putting restrictions on imports and also the amount of tariff imposition became contentious problems and it caused the delay within the implementation of the whole doha Development Agenda.
- Powerful negotiating countries at the World Trade Organization, the United States and India had conflicting versions concerning the structure of the SSM.
- Other countries joined the 2 sides later.
- The G33 supports India's stand whereas the advanced countries and a few agricultural exportation countries like Brazil supports the United States stand.

Topic 23. Javedakar releases LiDAR Survey of forest areas for 10 states***Importance for Prelims: Science & tech***

Minister for environment, Forest and global climate change, Shri Prakash Javadekar during a virtual event today discharged the detailed Project Reports (DPRs) of lidar based mostly survey of forest areas in 10 states particularly assam, Bihar, Chhatisgarh, Goa, Jharkhand, Madhya Pradesh, maharashtra, Manipur, Nagaland, and Tripura.

LiDAR

- LiDAR (Light Detection and Ranging) may be a remote sensing technique that uses light within the kind of a pulsed laser to measure ranges & variable distances.
- These light pulses—combined with different knowledge recorded by the airborne system— generate precise, three-dimensional info regarding the form of the world and its surface characteristics.
- A lidar instrument principally consists of a laser, a scanner, and a specializedGPS receiver.
- Airplanes and helicopters are the foremost normally used platforms for acquiringLiDAR information over broad areas.

Applications:

- LiDAR is utilize for agriculture, hydrology and water management systems and geology-related applications.
- It is additionally utilized in archeology.

Topic 24. Odisha resumes evicting illegal prawn gherries in Chilika***Importance for Prelims: Environment / Geography***

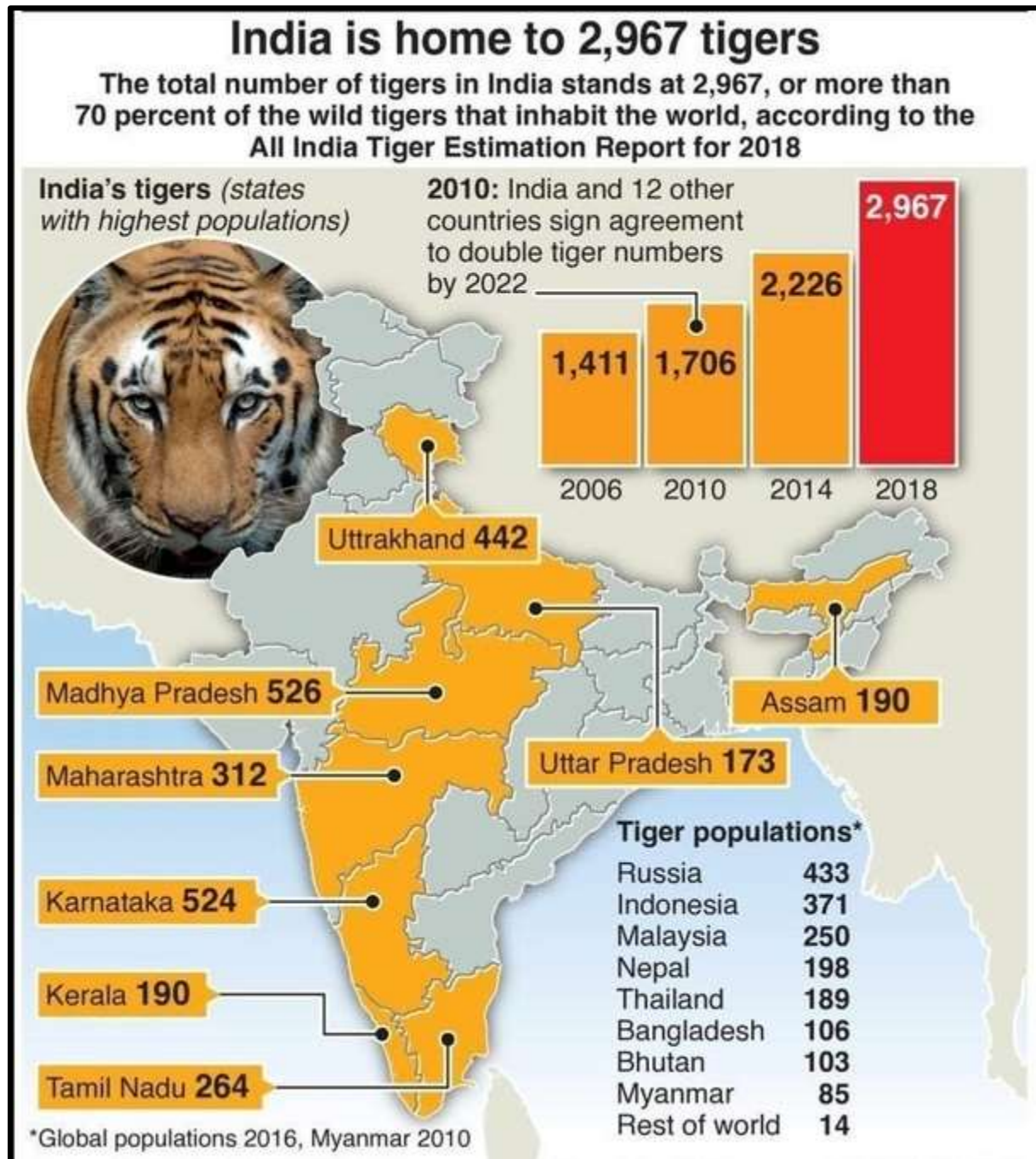
Removal of unlawful prawn gherries (enclosure) within the Chilika Lake, Asia's biggest brackish water lagune, resumed June twenty four, 2021 when pandemic. The drive to remove internet gherries within the lake and demolish prawn culture ponds within the fringe areas of the lake can continue for some a lot of days, official sources said.

Chilika Lake

- Chilika is Asia's largest and world's second largest lagune.
- It lies on the east coast of India within the state of Odisha, separated from the mighty Bay of Bengal by a small strip of sand.
- It spreads over Puri, Khurda and Ganjam districts of Odisha on the east coast of India, at the mouth of the Daya river, flowing into the Bay of Bengal, covering an area of over one,100 sq. kilometers.
- It is that the largest wintering ground for migratory birds on the Indian sub-continent and is home to a number of vulnerable species of plants and animals.
- In 1981, Chilika Lake was designated the 1st Indian wetland of international importance under the Ramsar Convention.
- Major attraction at Chilika is Irrawady dolphins that are typically spotted off Satpada Island.
- The massive Nalabana Island (Forest of Reeds) covering concerning sixteen sq kilometer within the laguna area was declared a bird sanctuary in 1987.
- Kalijai Temple – placed on an island within the Chilika Lake.

Topic 25. Uttarakhand has decided to keep Corbett and Rajaji Tiger Reserves open all year

Importance for Prelims: Environment



Uttarakhand Forest Minister Harak Singh Rawat declared on wednesday that the state's 2 Tiger Reserves — corbett and Rajaji — would currently stay open for touristry around the year.

- Until currently, the reserves would stay closed to tourists throughout the monsoon for 4-5 months each year.
- The statement has sparked a debate with several warning that tourist activities within the rainy season can disturb tigers in their mating season.

Jim Corbett national park

- It was established in 1936 as Hailey National Park- the 1st national park in india. it's placed within the Nainital district of Uttarakhand.
- The corbett national park has highest tiger count from single reserve within the recent Tiger census(carried once in four years)
- The park was declared a Tiger Reserve in 1973- the 1st to come under the Project Tiger initiative.
- The tiger reserve is located within the Shivalik hills of himalayas whereas administratively it spreads over PauriGarhwal, Nainital and Almora districts of Uttarakhand State in india.

Rajaji National Park:

- It may be a national park and tiger reserve that encompasses the Shivaliks, close to the foothills of the himalayas.
- It was declared as a tiger reserve in 2015 and is that the second tiger reserve in theUttarakhand and forty eighth Tiger Reserve of india.
- The park extends over the Shivalik range in the north-west to the Rawasan watercourse within the southeast with the ganges dividing it into 2 elements.
- Some of the essential options of the Shivalik formations are to be seen within the park and is justifiedly referred to as a veritable storehouse of Shivalik biodiversity and ecosystems.
- The western a part of the Park consists of the Ramgarh, Kansrao, Motichur, Hardwar, Dholkhand and Chillawali Ranges.

Topic 26. DRDO tests enhanced range Pinaka rocket

Importance for Prelims: Defence



MINISTRY OF
DEFENCE
GOVERNMENT OF INDIA



my
GOV
मेरी सरकार

Strengthening the Nation's Defence Capabilities

DRDO Successfully Test Fires Enhanced Pinaka Rocket



The extended range version of indigenously developed Pinaka rocket was successfully test fired from a Multi-Barrel Rocket Launcher in Odisha's Chandipur



25 enhanced Pinaka Rockets were launched in quick succession against targets at different ranges



The enhanced range version of the rocket can destroy targets at distances up to 45 kms



The Defence analysis and Development Organisation (DRDO) on Friday successfully test fired the improved range versions of the indigenously developed 122mm calibre rocket also because the extended range version of

indigenously developed Pinaka rocket from a Multi-Barrel launcher (MBRL) at integrated test range, Chandipur in Odisha.

Pinaka Missile System

- Pinaka is an indigenously developed rocket system named once Lord Shiva's mythological bow.
- It is employed for attacking the soul targets prior to the close-quarter battles which involve smaller range artillery, armoured elements and also the infantry.
- The development of the Pinaka was started by the DRDO within the late Nineteen Eighties, as an alternative to the multi-barrel rocket launching systems of Russian create, known as like the 'Grad', that are still in use.
- After successful tests of Pinaka Mark-1 in late 1990, it had been 1st used in the battlefield throughout the Kargil War of 1999, quite with success.
- Subsequently, multiple regiments of the system came up over the 2000s.

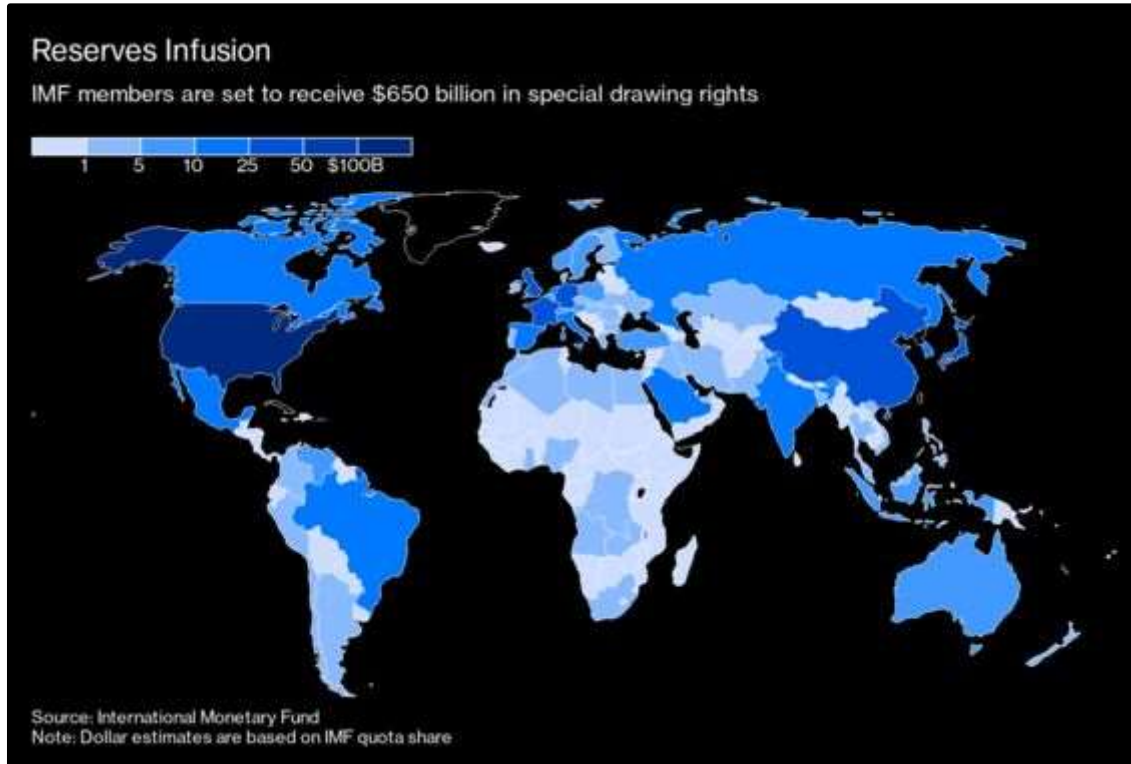
Its versions and capabilities

- The Pinaka, that is primarily a multi-barrel rocket system (MBRL) system, will fire a salvo of twelve rockets over a duration of forty four seconds.
- One battery of the Pinaka system consists of six launch vehicles, accompanied by the loader systems, radar and links with network-based systems and a command post.
- It will neutralize a part one km by one km.
- The Mark-I version of Pinaka has a range of around forty kilometres and also the Mark-II version will fire up to seventy five kilometres.
- The Mark-II version of the rocket has been changed as a guided missile system by integrating it with the navigation, management and guidance system to enhance the end accuracy and increase the range.
- The navigation system of the missile is connected with the Indian

Regional NavigationSatellite System.

Topic 27. IMF says board discussed US 650 Billion dollars expansion of reserves

Importance for Prelims: International Organisations



The International Monetary Fund's executive board on Friday discussed a proposed \$650 billion expansion of its emergency reserves, marking the next step in a process expected to be completed in August, the IMF said in a statement.

- G7 leaders this month welcomed the proposed expansion of the IMF's emergency reserves, and backed a global target of providing \$100 billion to the most vulnerable countries.

Reserve Tranche

- A reserve tranche is a portion of the required quota of currency each member country must provide to the International Monetary Fund (IMF) that can be utilized for its own purposes—without a service fee or economic reform conditions.
- Initially, member nations' reserve tranches are 25% of their quota, but

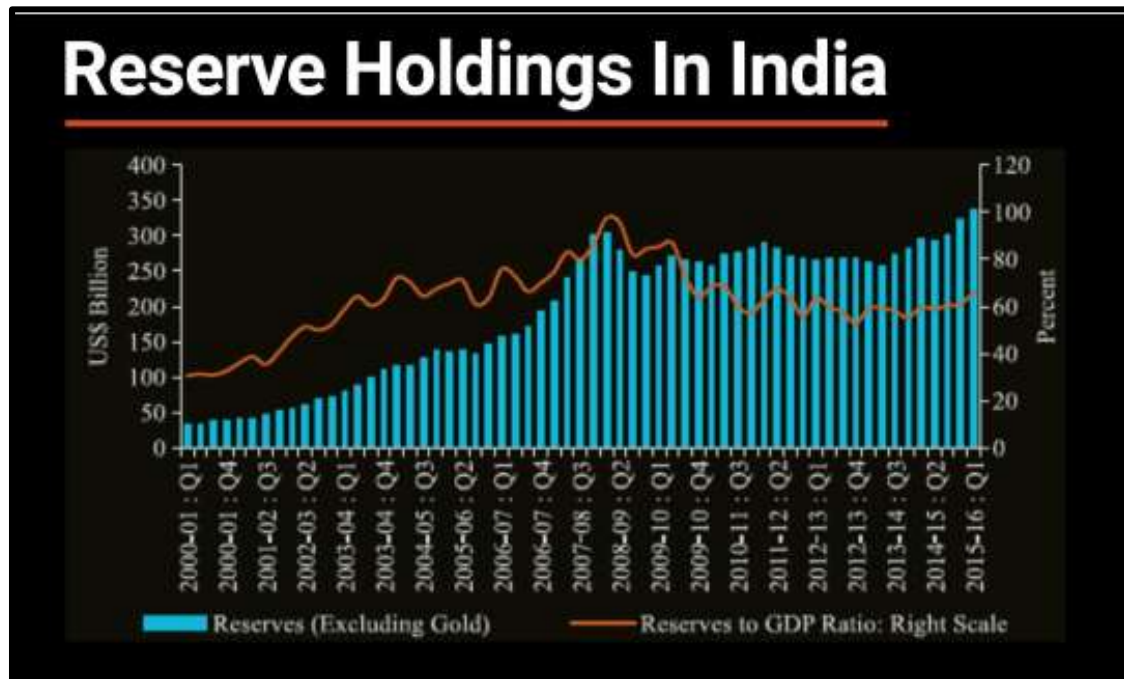
this position can change according to any lending that the IMF does with its holdings of the member's currency.

- The reserve tranches that countries hold with the IMF are considered their facilities of first resort, meaning they will tap into them before seeking a formal credit tranche that charges interest.
- The IMF is funded through its members and their quota contributions.

The reserve tranche is basically an emergency account that IMF members can access at any time without agreeing to conditions or paying a service fee.

Topic 28. Decline in gold & currency assets pull forex reserves off record high

Importance for Prelims: Economy



Sliding from the life-time high recorded every week ago, the forex reserves declined by \$4.148 billion to achieve \$603.933 billion for the week ended June eighteen on account of a fall in gold and currency assets, as per information from the Reserve Bank of India (RBI).

- Sustained foreign direct investment (FDI) and foreign portfolio investor (FPI) inflows had led to the gains in foreign exchange — or forex — reserves within the past few weeks.
- In the coverage week ended June eighteen, the FCA — a major component of the overall reserves — declined by \$1.918 billion to \$561.540 billion for the coverage week, as per information discharged by the Reserve Bank on Friday.

Foreign Exchange Reserves:

- Foreign exchange reserves are assets held on reserve by a central bank in foreign currencies, which may include bonds, treasury bills and different

government securities.

- It must be noted that most foreign exchange reserves are held in U.S. dollars.
- These assets serve several functions however are most importantly held to confirm that the central bank has backup funds if the national currency quickly devalues or becomes altogether insolvent.

India's Forex Reserves include:

- ✓ Foreign Currency Assets
- ✓ Gold
- ✓ Special Drawing Rights
- ✓ Reserve position with the International monetary fund (IMF)

Foreign Currency Assets

- FCA are assets that are valued supported a currency other than the country's own currency.
- FCA is that the largest component of the forex reserve. it's expressed in dollar terms.
- FCA includes the effect of appreciation or depreciation of non-US units just like the euro, pound and yen held within the foreign exchange reserves.
- Currency appreciation refers to the rise in price of 1 currency relative to another within the forex markets.
- Currency depreciation could be a fall within the price of a currency in a very floating exchange rate system.
- In a floating rate of exchange system, economic process (based on demand and provide of a currency) determine the worth of a currency.

Special Drawing Rights

- The SDR is a global reserve asset, created by the International Monetary Fund (IMF) in 1969 to supplement its member countries'

official reserves.

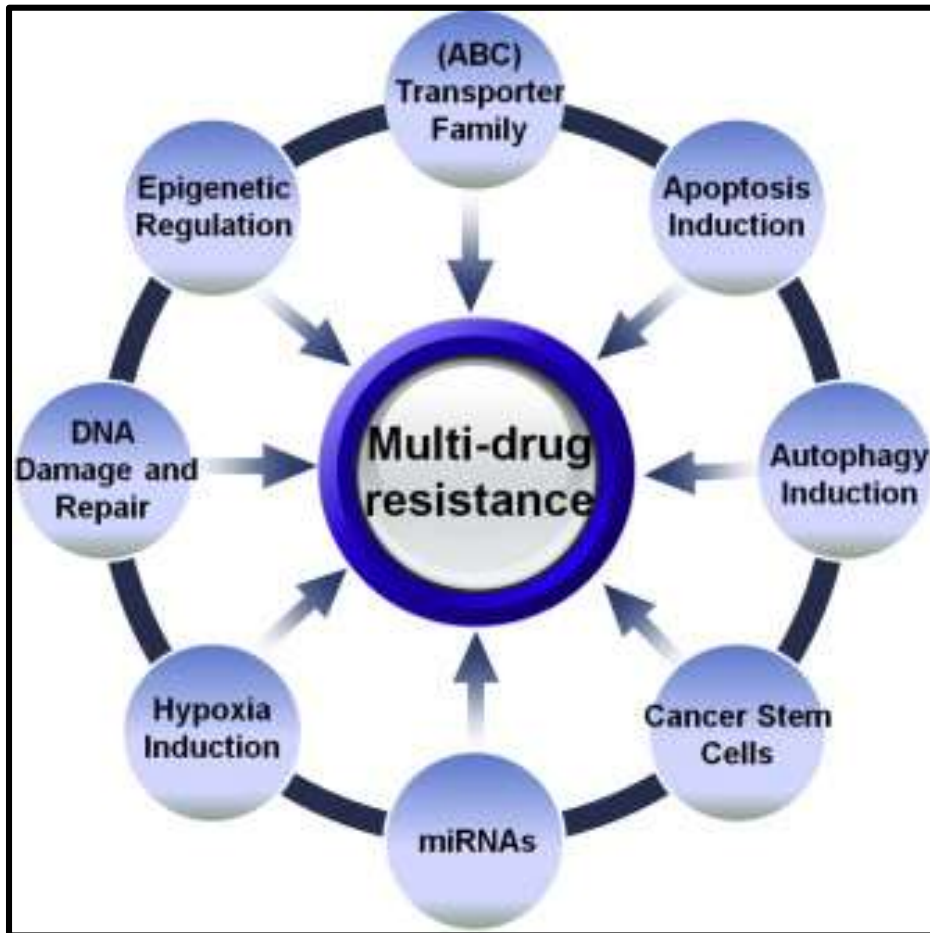
- The SDR is neither a currency nor a claim on the International Monetary Fund.
- Rather, it's a potential claim on the freely usable currencies of International Monetary Fund members. SDRs may be exchanged for these currencies.
- The worth of the SDR is calculated from a weighted basket of major currencies, including the U.S. dollar, the euro, Japanese yen, Chinese yuan, and British pound.
- The rate on SDRs or SDRi is that the interest paid to members on their SDR holdings

Reserve Position within the International monetary fund

- A reserve tranche position implies a portion of the specified quota of currency each member country should offer to the International Monetary Fund (IMF) that may be utilized for its own purposes.
- The reserve tranche is essentially an emergency account that International Monetary Fund members can access at any time while not agreeing to conditions or paying a service charge.

Topic 29. Multi-drug resistance

Importance for Prelims: Science & tech



It is not clear why some bacterium evolve multi-drug resistance whereas others don't. New analysis from the Population biology laboratory at IISER Pune may hold a key to this and the same category of puzzles.

- When bacterium become slot in one atmosphere, they either lose fitness or fail to increase fitness in different environments.
- “Our study is showing that once the environment is fluctuating, giant (but not small) populations will by-pass this impact.

Multiple drug resistance (MDR)

- Multiple drug resistance (MDR), multidrug resistance or multi resistance is antimicrobial resistance shown by a species of being to a minimum of one antimicrobial drug in 3 or a lot of antimicrobial categories.

- Antimicrobial categories are classifications of antimicrobial agents based on their mode of action and specific to target organisms.
- The MDR varieties most threatening to public health are MDR bacterium that resist multiple antibiotics; different varieties include MDR viruses, parasites (resistant to multiple antifungal, antiviral, and antiparasitic medicine of a wide chemical variety).
- Recognizing totally different degrees of MDR in bacterium, the terms extensively drug-resistant (XDR) and pandrug-resistant (PDR) are introduced.
- Extensively drug-resistant (XDR) is that the non-susceptibility of 1 bacteria species to all antimicrobial agents except in 2 or less antimicrobial classes.
- Within XDR, pandrug-resistant (PDR) is that the non-susceptibility of bacterium to all antimicrobial agents altogether antimicrobial classes.

Topic 30. Clues from meteorite to Earth's mantle

Importance for Prelims: Science & tech



A new study has currently shown that by studying this meteoroid and its minerals we may find new clues regarding the Earth's lower mantle

- On Nov thirteen, 2015, a meteorite fell close to the city of Kamargaon in Assam, India.
- It weighed a little over twelve kilogram and scientists decoded its mineral composition and classified it as a chondrite, a variety of stony meteoroid.
- Using new high-resolution electron microscopy and spectrometry, researchers studied this dissociation reaction of mineral within the Kamargaon meteor.
- They noted a various mechanism and reactions which will be driving the transformation of olivine.
- It is possible that once materials are transported to the lower mantle by convection or subduction, there would be high-temperature conditions within the lower mantle that would cause this unconnected reaction.

Meteor, meteorite and meteoroid

- When meteoroids enter Earth's atmosphere (or that of another planet, like

Mars) at high speed and burn up, the fireballs or “shooting stars” are known as meteors.

- When a meteoroid survives a visit through the atmosphere and hits the bottom, it's called a meteorite.
- Meteorites are classified into 3 groups: Stony (silicate rich), Iron (Fe–Ni alloy), and Stony Iron (mixed silicate iron alloy).

Components of Meteorite:

- Detailed spectroscopical studies revealed that the meteoroid had terribly high (about 90%) phyllosilicate minerals comprising each magnesium and iron.
- Forsterite and FeO olivine, calcium aluminum rich inclusion (CAI) minerals.
- Few magnetites, sulphides, aluminium complexes and calcites were additionally found.

Topic 31. Pattamadai mat weavers adopt digital marketing

Importance for Prelims: National Organisations



When the ‘kora’ mat weavers of Pattamadai village in Tirunelveli district wanted avenues to sell their merchandise throughout the last lockdown, the Crafts Council of India decided to provide them a month-and-half-long coaching on a way to do business using internet and smart phones.

- The Crafts Council of India (CCI) was founded in 1964 by Kamaladevi Chattopadhyay as one of her pioneering efforts toward protective and enhancing India’s heritage within the nation’s transition to modernity.
- She brought along a band of volunteers in CCI to assist build a long-lasting awareness of the information and skills of India’s artisans, and to assist address their needs within a rapidly ever-changing environment.
- It is with the purpose of protective this identity, that the CCI was established. The CCI may be a registered not for profit Society headquartered in Chennai, Tamilnadu.

- Regional and native efforts were encouraged, significantly through the innovation of Crafts Councils in several States.
- Today CCI works along with a network of nine State councils.
- CCI is engaged in partnerships with the govt. of india and different activists to make sure a national awareness of the economic, social, cultural and environmental importance of artisans and their crafts.

Pathamadaï mat

- Traditional art of weaving pathamadaï mat belongs to the Tirunelveli district of tamil nadu.
- Pathamadaï mat is created up of Korai grass.
- Pathamadaï mats are granted Geographical Indication (GI) status by the trademarks and GI authorities.
- These are created specially for wedding ceremonies and have bride's and groom's names also because the wedding date woven in it.

Topic 32. DRAFT CODE ON SOCIAL SECURITY**(EMPLOYEE'S COMPENSATION) (CENTRAL) RULES 2021*****Importance for Prelims: Legislations***

Ministry of Labour and Employment has notified the draft rules concerning to Employee's Compensation under the Code on social security, 2020 for suggestions.

- The Code on social security, 2020 amends and consolidates the laws regarding to social security to increase social security to workers and employees within the organized also as unorganised sectors.
- Chapter VII (Employee's Compensation) of the social security Code, 2020 envisages, inter-alia, provisions regarding to employer's liability for compensation just in case of fatal accidents, serious bodily injuries or occupational diseases.
- The draft Employee's Compensation rules notified by the Central Government provide for the provisions regarding to manner of application for claim or settlement, rate of interest for delayed payment of compensation, venue of proceedings and transfer of matters, notice and manner of transmitting cash from one competent authority to a different and arrangements with alternative countries for the transfer of cash paid as compensation.

Topic 33. ITAT e-Dwar

Importance for Prelims: Governance



The graphic features a background image of a hand typing on a laptop with a gavel in the foreground. Logos for the Ministry of Law & Justice and myGov are present. The text reads: 'Empowering Citizens with Digital India', 'Law Ministry Launches 'itat e-dwar', An E-filing Portal of Income Tax Appellate Tribunal'. Three bullet points describe the portal's features: online filing of appeals and documents, enhanced accessibility and transparency, and economization of paper and costs.

**विधि और न्याय मंत्रालय
MINISTRY OF LAW & JUSTICE**

myGOV
मेरी सरकार

Empowering Citizens with Digital India

Law Ministry Launches 'itat e-dwar', An E-filing Portal of Income Tax Appellate Tribunal

- The portal will enable online filing of Appeals, Applications, documents etc. by various parties
- Will enhance the accessibility, accountability and transparency in the day to day working of the Income Tax Appellate Tribunal
- Will result in economization of paper, savings costs and speeding disposal of cases

Recently, the Union Ministry of Law & Justice has discharged a portal known as 'Itate- Dwar'.

About ITAT e-Dwar

- It is an e-filing portal of income tax appellate judicature.
- It can enable on-line filing of Appeals, Applications, documents etc. by

varied parties.

- It wouldn't solely lead to economization of the utilization of paper, savings in prices however additionally rationalization of the fixation of cases resulting in faster disposal of cases.
- It seeks to bridge the divide between the digital haves and also the digital have nots resulting in digital inclusion achieved by technology.

About income tax appellate tribunal

- It could be a quasi-judicial establishment set up in Jan, 1941.
- It specialised in dealing with appeals under the Direct Taxes Acts.
- The orders passed by the ITAT are final, an appeal lies to the supreme court only if a substantial question of law arises for determination.
- It draws inspiration from its motto 'NishpakshSulabhSatvarNyay', which means impartial, simple and speedy justice.
- It stands out for its uniqueness of imparting justice to the litigants, by an affordable, simply accessible forum free from technicalities, regarded for its professional information on the topic of Direct Taxes etc.

Topic 34. Tuberculosis (TB) Mukht Bharat Abhiyaan

Importance for Prelims: Governance



Recently, the Union Minister of Health & Family Welfare chaired the Tuberculosis (TB) Mukht Bharat meeting with varied Development Partners of the Health Ministry.

Tuberculosis (TB) Mukht Bharat Abhiyaan

- It was launched under the National Strategic plan for TB Elimination during a mission mode for ending the epidemic by 2025.
- It could be a multi-pronged approach that aims to find all TB patients with a stress on reaching TB patients seeking care from personal suppliers and undiagnosed TB in high-risk populations,

About National Strategic plan for TB Elimination

- It could be a framework to guide the activities of all stakeholders whose work has relevancy to TB elimination in India.
- It provides goals and techniques for the country's response to the disease throughout the period 2017 to 2025.
- It aims to direct the attention of all stakeholders on the foremost vital interventions or activities that the RNTCP believes can bring about

important changes within the incidence, prevalence and mortality of TB.

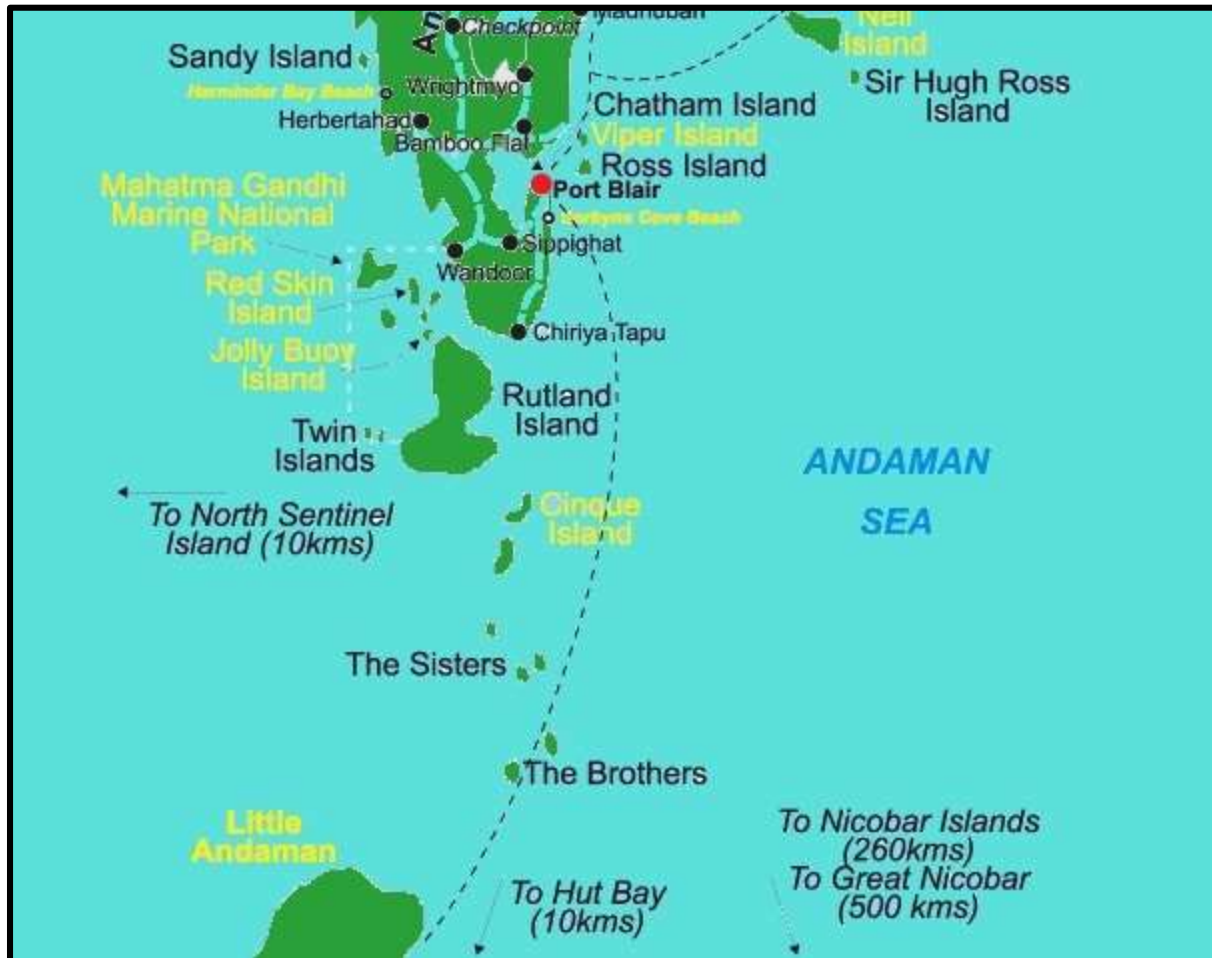
- It can guide the event of the national project implementation plan (PIP) and state PIPs, also as district health action plans (DHAP) under the national health mission (NHM).
- VISION: TB-Free india with zero deaths, disease and poorness because of tuberculosis
- GOAL: to attain a rapid decline in burden of TB, morbidity and mortality whereas working towards elimination of TB in india by 2025.

Tuberculosis

- It could be a contagious infection that typically attacks your lungs.
- It may spread to alternative parts of body like brain and spine.
- It is caused by a microorganism referred to as mycobacterium tuberculosis.
- It will spread from person to person through microscopic droplets discharged into the air.

Topic 35. Cinque Island

Importance for Prelims: Geography



Recently, the Indian Coast Guard (ICG) had rescued 9 crew members from sinking vessel Ganga-I off cinque Island.

- The ICG had launched a search and Rescue (SAR) operation in coordination with Port Management Board (PMB), Port Blair during which ICG ships and PMB Tug 'Ocean Marvel'.
- The ICG ship C-146 and ICG ship C-412 on routine deployment were pleased for help.
- The ICG ship Durgabai Deshmukh and PMB Tug 'Ocean Marvel' sailed from Port Blair with a damage control team and de-flooding equipment for immediate help.

About cinque Island

- It is found between the Passage and duncan Island towards the side of Andaman and Nicobar Islands.
- It is further divided into North and South cinque islands.
- It shares its boundaries with Wandoor Marine national park, conjointly normally mentioned to because the mahatma gandhi Marine national park.
- The passage between North cinque Island and rutland is known as Manners Strait.
- The passage between South cinque and North cinque is called cinque Strait.

Passage in Andaman and Nicobar Islands

- Duncan Pass: It separates rutland Island (part of great Andaman) to the north and little Andaman to the south.
- Ten Degree Channel: It separates the Andaman Islands and Nicobar Islands from one another within the Bay of bengal.

Topic 36. India's First VSC Based HVDC System

Importance for Prelims: Science & tech



POWERGRID has totally commissioned India's 1st Voltage source converter (VSC) based mostly High Voltage direct current (HVDC) System.

- It has commissioned Monopole-I of the 2000 Mega-Watt (MW), Pugalur (TamilNadu) – Thrissur (Kerala) Voltage supply converter (VSC) based mostly High VoltageDirect Current (HVDC) System.
- This Project strengthens the energy system of Southern Region of our Country.
- Monopole-II of the project was inaugurated by PM Modi in Feb, 2021 and with the commission of Monopole-I, the project has earned its full capability.
- The Pugalur-Thrissur HVDC system, costing Rs. 5070 crore, may be a part of theRaigarh-Pugalur-Thrissur 6000 MW HVDC system and enables transfer of 2000 MW to Kerala through the VSC HVDC station at Thrissur.

Voltage source convertor (VSC)

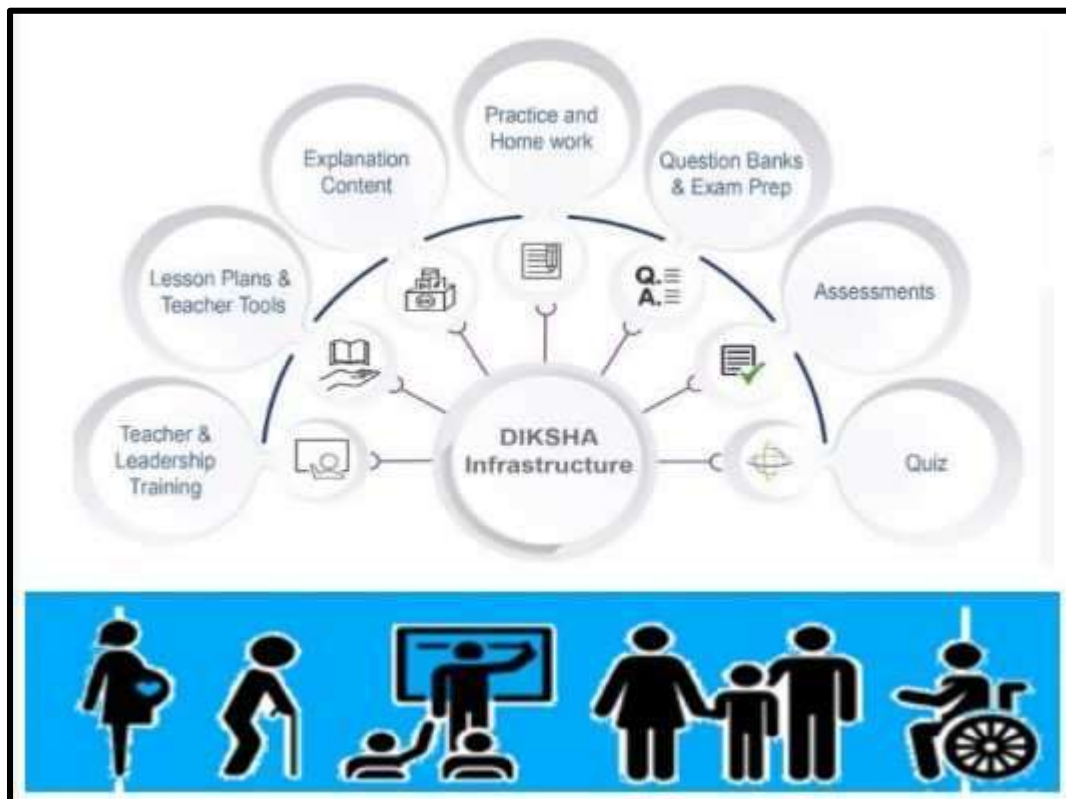
- An HVDC convertor converts electrical power from high voltage alternating current (AC) to high-voltage direct current (HVDC), or vice versa.
- Electronic converters for HVDC are divided into 2 main classification.
- Line-commutated converters (HVDC classic) are created with electronic switches which will solely be turned on.
- Voltage-sourced converters are created with switching devices which will be turned each on and off. It uses transistors, typically the Insulated-gate bipolar transistor(IGBT).

Benefits

- The VSC technology considerably reduces the land demand compared to the conventional HVDC systems and is particularly appropriate for areas, wherever land is scarce.
- It additionally facilitates development of good grid and improves system resilience below different operating conditions.
- The state-of-the-art VSC Technology has been brought to india for the 1st time byPOWERGRID through this Project.

Topic 37. E-content for children with disabilities

Importance for Prelims: Governance



Union Education Minister discharged guidelines for the development of e-Content for youngsters with Disabilities ready by the Department of school Education and literacy, Ministry of Education.

- A comprehensive initiative, PM e-VIDYA was launched on seventeenth may 2020, with an aim to unify all efforts associated with digital/online/on-air education.
- The programme envisages development of special e-content for the Divyang (Children with Disabilities-CwDs).
- For the 1st time, an attempt was created to organize guidelines for CwD additionally mentioned to as children with Special needs (CWSN) youngsters so that the goal of comprehensive education is consummated.

The salient highlights of the e- content guidelines within the report are:

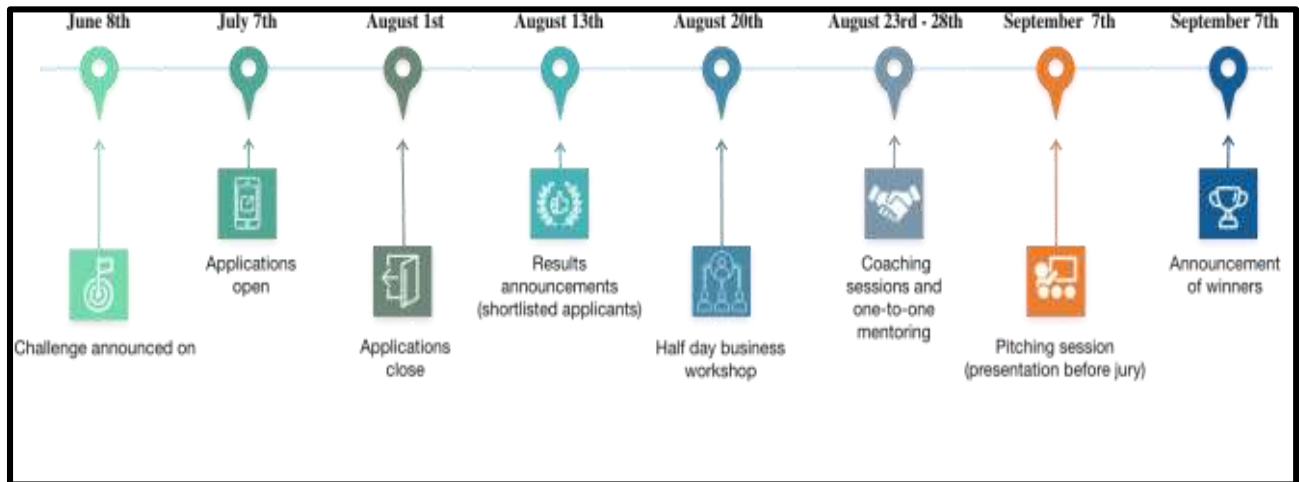
- **e-Content for CwDs ought to be developed supported the four**

principles namely: perceivable, operable, comprehensible and robust.

- e-Content as well as text, tables, diagrams, visuals, audios, videos etc. ought to comply with accessibility standards: national standards (GIGW 2.0) and international standards (WCAG 2.1, E-Pub, DAISY etc).
- Distribution platforms on that content is uploaded (e.g. DIKSHA) and Reading platforms/devices on that content is accessed and interacted (e.g. e-pathshala) must comply with technical standards
- In a phased manner textbooks is also adapted into Accessible Digital Textbooks(ADTs).

Topic 38. Environment minister announced the ‘India Plastic Challenge – Hackathon 2021’

Importance for Prelims: Environment



Environment minister declared the “India Plastic Challenge – Hackathon 2021” to spur innovation and entrepreneurship in space of tackling plastic waste pollution and elimination of single use plastic.

- It may be a distinctive competition calling upon start-ups /entrepreneurs and students of Higher Education establishments (HEIs) to develop innovative solutions to mitigate plastic pollution and develop alternatives to single use plastics.

Steps in india

- PM Modi gave a clarion call to phase out single use plastics by 2022 Government of india has already illegal import of plastic waste within the country.
- Ministry of atmosphere brought out Plastic Waste Management Rules, 2016, for handling plastic waste in an environmentally sound manner. beneath the principles plastic carry baggage below fifty microns have been illegal.
- Further, the Ministry has issued a draft notification in March 2021 for amending the Plastic Waste Management Rules, 2016, with respect to

prohibiting recognized twelve single use plastic things such as disposable plastic cutlery etc.”

Topic 39. Agni Prime Missile

Importance for Prelims: Defence



Recently, the Defence analysis & Development Organization (DRDO) has with success test-fired agni Prime missile from a defence base off Odisha coast.

About Agni Prime Missile

- It may be a new generation advanced variant of the agni class of missiles.
- It may be a surface-to-surface ballistic missile.
- It may be a next-generation, nuclear-capable weapon created totally of a composite material.
- It may be a canisterised missile with range of 1,000-2,000 kilometres.
- It has been designed and developed by the Defence analysis and Development Organisation (DRDO).
- It will carry a payload of around 1,000 kilogram or a nuclear warhead.
- It may be a double stage missile that is lighter and far sleeker than its predecessor Agni-1.
- The ballistic missile weighs fifty per cent less than agni three and has new guidance and a new generation of propulsion.
- It is launched from rail and road and hold on for a longer duration and transported all across the country as per operational needs.

About Agni Missile

- The agni series of ballistic missiles is being developed under the Integrated guided missile Development Programme of the DRDO.
- The agni missile family consists of 3 deployed variants.
- The Agni-I, Agni-II and Agni-III are in service with the Indian Army.
- The Agni-I may be a short or intermediate-range ballistic missile.
- The Agni-II may be a medium-range ballistic missile equipped with 2 solid fuel stages.
- The Agni-III may be a two-stage ballistic missile which might support a series of warhead configurations and a complete payload of 2,490kg for a variety of 4,500km.
- The Agni-IV may be a two-stage nuclear-capable intermediate range ballistic missile.
- The Agni-V is an Indian nuclear-capable intercontinental ballistic missile.

Topic 40. Discovery of China's Dragon Man

Importance for Prelims: Science & tech

Recently, the researchers from China have claimed to have found an ancient human skull that would belong to an altogether new species of humans.

- The researchers working in Israel have also recognized a previously unknown kind of ancient human referred to as “Nesher Ramla Homo” that co-existed with homo sapiens nearly 100,000 years ago.

Key Highlights

- The researchers have noted that the cranium (the portion that encloses the brain) can be over 146,000 years old.
- The skull was found within the Songhua stream in north-east China's Harbin town.
- The findings from the site in Israel are dated to 140,000-120,000 years past.
- The members of the species Nesher Ramla Homo may hunt little and huge game and that they used wood for fuel, cooked and roast meat, and maintained fires.
- Neanderthals (Homo neanderthalensis) are believed to be the nearest extinct human relatives and lived regarding 400,000-40,000 years past in Europe and southwestern to central Asia.
- As per the Smithsonian National museum of natural history, there are over twenty one human species .

How China's Dragon slot in the definition of human?

- The cranium found in China has been dubbed the “Dragon Man” or Homo longi.
- The name has been derived from the Long Jiang or Dragon stream in the Heilongjiang province of China wherever town of Harbin is found.
- The os was reportedly discovered back in 1933, once a bridge was built

over the Songhua stream.

- The UK's natural history museum notes that due to the distinctive form of the os, that was found nearly complete, some members of the team have recommended that or not it's declared a part of a new species of the genus homo.
- The size of the skull, that has a considerable brain capability, is like that of contemporary humans and Neanderthals.

Songhua river

- It flows northward out of the Changbai Mountains and cuts across the manchurian Plain before emptying into the amur river, that separates northeastern China from Russia's far east.
- It is that the largest tributary of the Heilong stream.
- The supply of the stream may be a crater lake referred to as Heavenly Lake with an elevation of 2,189 meters at the highest of the Changbai Mountain.
- It is considered that its Chinese name "Songhua" is from its manchurian pronunciation "Songga-liwula".

Topic 41. Digital Millennium Copyright Act (DMCA)

Importance for Prelims: Governance



Recently, the Union Minister for electronics & data Technology was locked out of his Twitter account allegedly over a notice received for violation of the Digital Millennium Copyright Act (DMCA).

Digital Millennium Copyright Act (DMCA)

- It may be a 1998 law passed within the United States.
- It is among the world's 1st laws recognising intellectual property on the net.
- It oversees the implementation of the 2 treaties signed and agreed upon by member nations of the globe intellectual property Organisation (WIPO) in 1996.

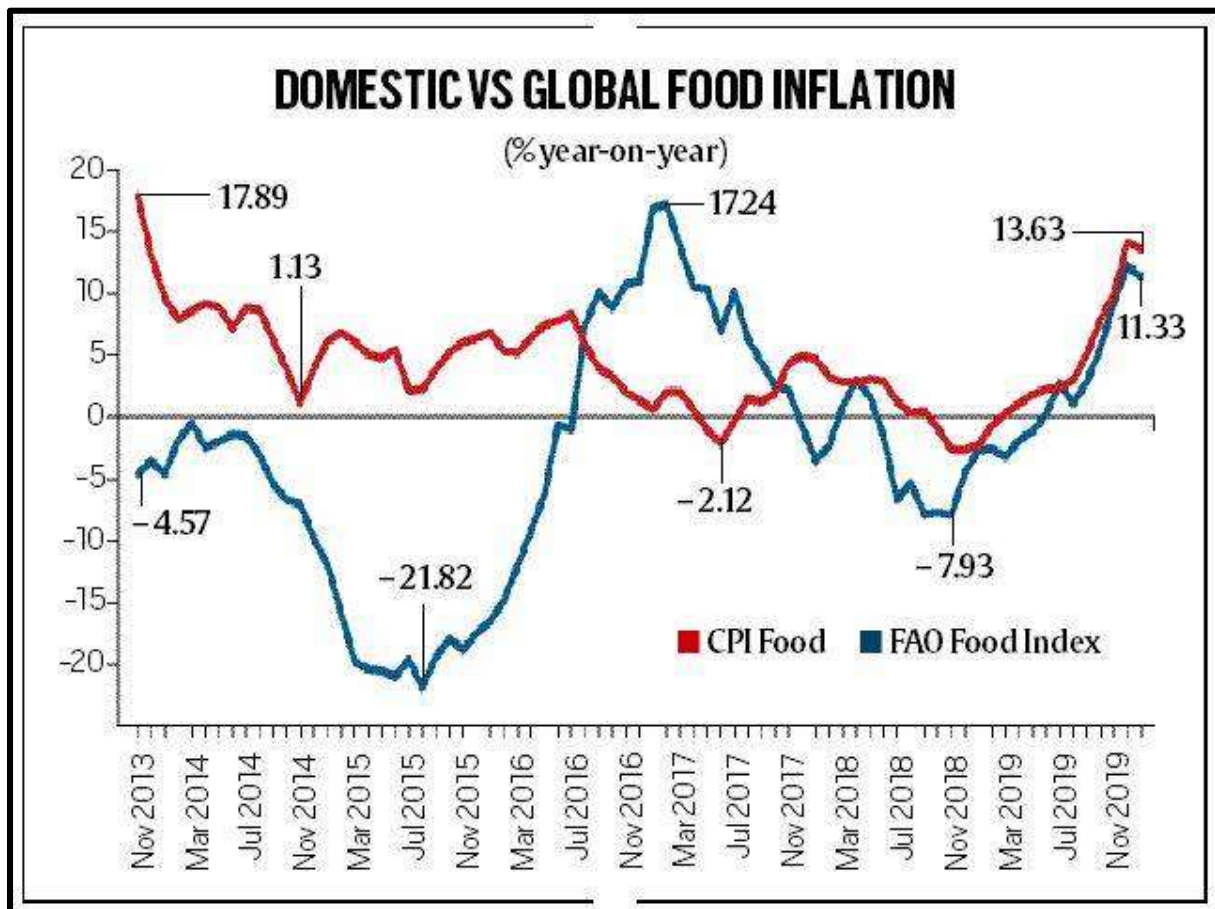
- The 2 treaties are the WIPO Copyright treaty and also the WIPO Performances and Phonograms treaty.
- It criminalizes production and dissemination of technology, devices, or services intended to circumvent measures that management access to copyrighted works.

Significance of Digital Millennium Copyright Act (DMCA)

- The treaties need member nations to supply in their respective jurisdictions, protection to intellectual property which will be created by citizens of various nations who also are co-signatories to the treaty.
- The protection, accorded by every member state, should not be any less in any way than the one being given to a domestic copyright holder.
- It obligates that signatories to the treaty guarantee ways to prevent circumvention of the technical measures used to defend copyrighted work.
- It additionally provides the required international legal protection to digital content.

Topic 42. Divergence between Global and Domestic Inflation

Importance for Prelims: Economy



The United Nations Food and Agriculture Organization's (FAO) world food price index (FPI) touched 127.1 points in could, its highest price since Sept 2011. however not like fuel, the increase in international food costs isn't obtaining reflected in what customers in india are paying.

Why the divergence ?

- One needs to 1st understand the drivers of each international and domestic inflation.
- The spike in international food costs from September-October has been because of demand returning with economies unlocking, even as restoration of provide chains is taking time.
- This has been any aided by Chinese stockpiling (for building strategic

reserves, also as in anticipation of fresh corona outbreaks) and dry weather-induced production shortfalls in Brazil, Argentina, Ukraine, thailand and even the United States.

- India, by contrast, has had good monsoons in 2019 and 2020, creating it the only agricultural powerhouse, except for Australia and canada, to not have faced serious weather-related problems.
- Not unexpected, food inflation started falling from Dec with a bumper postmonsoonkharif crop being harvested and arriving within the markets.

World Food price index

- The Food and Agriculture Organization Food price index may be a measure of the monthly modification in international costs of a basket of food commodities.
- It consists of the common of 5 commodity cluster worth indices [cereal, vegetable, dairy, meat and sugar], weighted with the common export shares.
- The index has become a critical and timely monthly indicator of the state of international food markets, gauging the modification in food commodity costs over time in nominal and real terms.

Topic 43. Co-operative banks must put in place an outsourcing policy : RBI

Importance for Prelims: Economy



RBI said that the board and chief executive officer along side the Senior Management shall be ultimately chargeable for outsourcing operations and for managing risks inherent in such outsourcing relationships.

- The reserve bank of india on monday asked cooperative banks to make sure that the outsourcing policy doesn't diminish its ability to fulfill its obligations to customers and Reserve Bank of India.
- Reserve Bank of India said that the policy ought to also not impede effective supervising by RBI or National Bank for Agriculture and Development (NABARD).
- The policy additionally needs banks to place in situ criteria for choice of such activities also as service suppliers, parameters for defining material

outsourcing supported the broad criteria, a delegation of authority depending on risks and materiality, and systems to monitor and review the operations of those activities.

Co-operative Banking

- A Co-operative bank could be a monetary entity that belongs to its members, who are at a similar time the owners and therefore the customers of their bank. it's distinct from industrial banks.
- They are broadly classified into Urban and Rural co-operative banks supported their region of operation.
- They are registered under the Co-operative Societies Act of the State involved or beneath the Multi-State Co-operative Societies Act, 2002.
- The Co-operative banks are governed by the Banking regulations Act, 1949.
- Banking Laws (Co-operative Societies) Act, 1955.

Features of Co-operative Banks:

- **Customer owned Entities:** Co-operative bank members are each client and owner of the bank.
- **Democratic Member Control:** These banks are owned and controlled by the members, who democratically elect a board of administrators.
- **Members typically have equal voting rights,** consistent with the cooperative principle of “one person, one vote”.
- **Profit Allocation:** a significant a part of the yearly profit, advantages or surplus is typically allotted to constitute reserves and a part of this profit also can be distributed to the co-operative members, with legal and statutory limitations.
- **Financial Inclusion:** they need played a major role within the monetary inclusion of unbanked rural masses. they supply low-cost credit to masses in rural areas.

Topic 44. Meme Stocks

Importance for Prelims: Economics

Meme stocks, what several believed was a pandemic-induced diversion, seems to be staying on as a trend. starting with AMC entertainment, GameStop and Blackberry, the list of meme stocks keeps on growing.

- The term ‘meme stocks’ refers to under-the-radar stocks listed within the United States market, typically while not fundamentals, that suddenly catch the fancy of individual investors or day traders because they’re the topic of social media attention.
- Meme stocks typically begin to rise as retail investors gang on forums likeReddit to thwart huge guys such as hedge funds with short (sell) positions and purchase them only for the fun of it.
- But such stocks, once they get going, will acquire a momentum of their own that defies all known metrics of valuation.
- Such stocks have seen large gains, generally 50-100 per cent during a day, once day traders, inspired by discussions on message boards like Reddit, started shopping for them during a coordinated manner.
- This has caught out short sellers like massive hedge funds like Melvin Capital and White sq. Capital.
- Short sellers create losses once a stock value rises (they’ve sold-out the stock while not owning it) and ought to purchase a lot of stock to hide their positions. This propels priceseven higher.

Topic 45. Modi has paid homage to Rishi Bankim Chandra Chattopadhyay***Importance for Prelims:History***

The Prime Minister, Shri Narendra Modi has paid homage to Rishi Bankim Chandra Chattopadhyay on his Jayanti.

- Bankim Chandra Chatterjee or Bankim Chandra Chattopadhyay (1838 – 1894) was an Indian author, poet and reporter.
- He is thought as SahityaSamrat (Emperor of Literature) in Bengali. He wrote fourteen novels and lots of serious, serio-comic, satirical, scientific and critical treatises in Bengali.
- He additionally received the title of Rai Bahadur in 1891.
- One of his brothers, Sanjib Chandra Chattopadhyay was additionally a novelist and is thought for his book “Palamau”.

Literary career

- Chattopadhyay’s earliest publications were in Ishwar Chandra Gupta’s weekly newspaper Sangbad Prabhakar.
- Durgeshnandini (Daughter of the feudal Lord) may be a Bengali historical romance novel written by Indian author Bankim Chandra Chattopadhyay in 1865.
- Durgeshnandini is that the 1st Bengali novel written by him also because the 1st major Bengali novel within the history of Bengali literature.
- Anandamath may be a Bengali fiction, written by him and published in 1882.
- It is inspired by and set within the background of the sannyasi Rebellion within the late eighteenth century.
- VandeMataram because the homeland was printed during this novel.
- VandeMataram (also pronounced BandeMataram) may be a Bengali poem, written by Bankim Chandra Chatterjee , originally in sanskrit, in 1870s, that he enclosed in his 1882 novel Anandamath.

Topic 46. Haiti, Malta, Philippines, South Sudan put In FATF ‘increased monitoring’ list

Importance for Prelims: International Organisations

Financial Action Task Force (FATF) has additional four more countries — Haiti, Malta, the Philippines and South Sudan — to the list of ‘jurisdiction beneath increased monitoring’ for strategic deficiencies.

Lists under FATF:

- **Grey List:** Countries that are thought of safe haven for supporting terror funding and concealing are put within the FATF gray list (or ‘Jurisdictions beneath increased monitoring’).
- This inclusion is a warning to the country that it's going to enter the blacklist.
- **Black List:** Countries called Non-Cooperative Countries or Territories (NCCTs) are place within the blacklist. These countries support terror funding and cash laundering activities.
- The FATF revises the blacklist often, adding or deleting entries. As of this year, there are solely 2 countries on the FATF’s black list – north korea and iran.

Topic 47. Exercise Sea Breeze 2021

Importance for Prelims: International Relations



Recently, the Exercise sea breeze 2021 has set out at black ocean.

About Exercise sea breeze 2021

- It is an annual exercise started in 1997.
- The 2021 edition of Exercise sea breeze is being led by the US and Ukraine.

- The exercise involves ocean, land, and air elements.
- It has the biggest number of participating nations within the exercise's history with thirty two countries from six continents.
- The participants are albania, australia, Brazil, Bulgaria, Canada, Denmark, Egypt, Estonia, France, Georgia, greece, Israel, Italy, japan, Latvia, lithuania, Moldova, Morocco, Norway, pakistan, Poland, Romania, senegal, Spain, south korea, Sweden, Tunisia, Turkey, Ukraine, United Arab Emirates, UK, and also the US.

Significance of Exercise sea breeze

- It provides the chance for personnel of participating nations to engage in realistic maritime coaching to create expertise and cooperation and strengthen their inter-operability.
- It can focus on multiple warfare areas as well as amphibious warfare, land maneuver warfare, diving operations, maritime interdiction operations, air defense etc.
- It brings most black sea nations and North Atlantic Treaty Organization Allies and partners along to coach and operate with North Atlantic Treaty Organization members within the pursuit of building increased capability.

Topic 48. Extension of Tenure for Attorney General of India

Importance for Prelims: Polity

Recently, the central government is set to notify the reappointment of Senior Advocate K K Venugopal as professional person General of India for a duration of 1 additional year.

- Article seventy six of the Constitution of India provides for the workplace of the lawyer General for India.
- He is that the highest law officer within the country.

Appointment and Term of attorney General of India

- He is appointed by the president.
- He should be an individual who is qualified to be appointed a judge of the Supreme Court.
- It implies that he should be a citizen of India and he should be a judge of some supreme court for 5 years or an advocate of some court for 10 years or an eminent jurist.
- The term of workplace of the AG isn't fixed by the Constitution.
- The Constitution doesn't contain the procedure and grounds for his removal.
- He holds workplace throughout the pleasure of the president which means that he is also removed by the president at any time.
- He resigns once the govt. (council of ministers) resigns or is replaced, as he's appointed on its recommendation.

Duties and Functions of attorney General of India

- To provide recommendation to the govt. of India upon such legal matters, that are mentioned him by the president;
- To perform such different duties of a legal character that are assigned to him by the president; and to discharge the functions conferred on him by the Constitution or the other law. The president has assigned the

subsequent

- duties to the AG: To seem on behalf of the govt. of india altogether cases within the Supreme Court during which the govt. of India is concerned.
- To represent the govt. of india in any reference created by the president to the Supreme Court under Article 143 of the Constitution.
- To appear (when needed by the govt. of india) in any supreme court in any case during which the govt. of India is concerned.

Rights and Limitations of attorney General of india

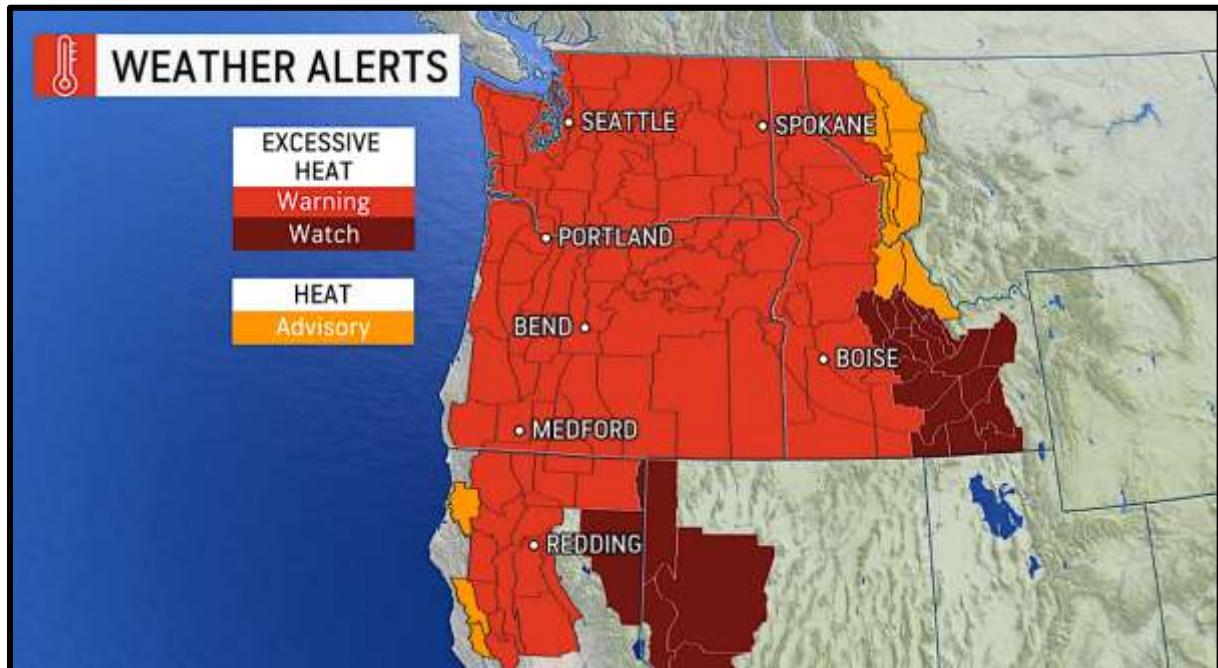
- The attorney General has the correct of audience altogether courts within the territory of india within the performance of his official duties.
- He has the proper to talk and to take half within the proceedings of each the homes of Parliament and their joint sitting and any committee of the Parliament of that he is also named a member, however while not a right to vote.
- He enjoys all the privileges and immunities that are accessible to a Member of Parliament.

The limitations are placed on the lawyer General so as to avoid any complication and conflict of duty:

- He mustn't advise or hold a brief against the govt. of india.
- He mustn't advise or hold a brief in cases during which he's known as upon to advise or appear for the govt. of india.
- He mustn't defend accused persons in criminal prosecutions while not the permission of the govt. of india.
- He shouldn't accept appointment as a director in any company or corporation while not the permission of the govt. of india.

Topic 49. US Heat Wave

Importance for Prelims: Geography



One of the hottest cities on the continent on monday was Salem, Oregon, regarding forty five miles southwest of Portland, wherever the hot temperature reached 117 degrees

Fahrenheit within the afternoon, a record for the town.

- In most parts of the country, temperatures should be higher than the historical average in an area for 2 or a lot of days before the label “heat wave” is applied to a hot spell, consistent with the National Weather Service

Why is it hotter than ordinary in North America?

- We have long well-known that the world has warm by over than one degree Celsius (about one.8 degrees Fahrenheit) since 1900, which the pace of warming has accelerated in recent decades.
- The hotter baseline contributes to extremeweatherevents and helps create periods of extremely heat additional frequent, longer and a lot of intense.

Heat Wave

- A heat wave may be a duration of abnormally high temperatures, over than the commonly maximum temperature that occurs throughout the summer season within the North-Western and South Central parts of india.
- Heat waves generally occur between March and june, and in some rare cases even extend till july.
- Higher daily peak temperatures and longer, a lot of intense heat waves have become progressively frequent globally because of global climate change.

Criteria for Heat Waves in India

- The heat wave is considered once the most temperature of a station reaches a minimum of 40°C for Plains and a minimum of 30°C for mountainous regions.
- If the normal maximum temperature of a station is lower than than or equal to 40°C, then a rise of 5°C to 6°C from the normal temperature is considered to be heat wave condition.
- Further, a rise of 7°C or a lot of from the normal temperature is considered as severe heat wave condition.
- If the normal maximum temperature of a station is over than 40°C, then a rise of 4°C to 5°C from the normal temperature is considered to be wave condition. Further, a rise of 6°C or additional is considered as severe heat wave condition.
- Additionally, if the particular maximum temperature remains 45°C or more regardless of common maximum temperature, a heat wave is declared.

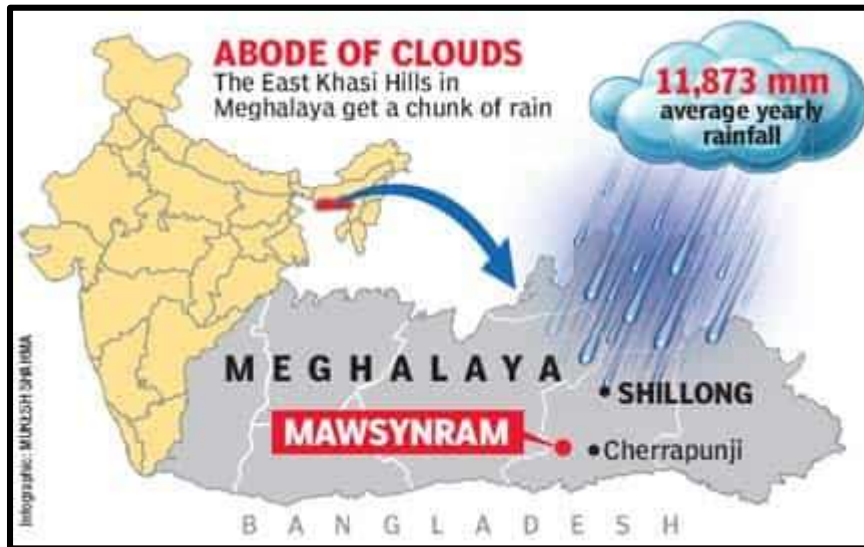
Heat Domes

- High-pressure circulation traps hot ocean air sort of a lid or a cap trapping heat at the surface and favouring the formation of a heat wave.

- Higher daily peak temperatures and longer, a lot of intense heat waves are becoming increasingly frequent globally because of global climate change

Topic 50. Monsoon pours it down over Cherrapunji Mawsynram

Importance for Prelims: Geography



Two of India's known stations for spectacular monsoon downpour lived up to its their names throughout the twenty four hours ending on tuesday morning.

Mawsynram

- Mawsynram could be a city within the East Khasi Hills district of Meghalaya state in northeastern India, 60.9 kilometres from Shillong.
- Mawsynram receives the highest rainstorm in india.
- It is reportedly the wettest place on Earth, with a median annual downfall of 11,872mm however that claim is controversial.
- According to the Guinness Book of World Records, Mawsynram received 26,000 millimetres (1,000 in) of rainstorm in 1985.

Cherrapunji

- Cherrapunji, well-known to locals as Sohra, is found within the East Khasi Hills in the Indian state of Meghalaya.
- Sandwiched between assam within the north and bangladesh within the south, Meghalaya could be a a part of the Indo-Burma biodiversity hotspot—one of the foremost threatened biodiversity hotspots in India when the Himalayas—due to rapid resource exploitation and habitat loss.

- The hills of the eastern sub-Himalayas- Garo, Khasi and Jaintia, run through most of Meghalaya, and therefore the remaining of the landscape could be a high plateau.
- Cherrapunji was declared the wettest land-based location on Earth when it receive an average of 11,872 millimetre in annual rainstorm — over than ten times India's national average (of 1,083 mm).

Reason for high rainstorm in Cherrapunji and Mawsynram

- Cherrapunji (elevation 1313 m) and Mawsynram (elevation 1401.5 m) are placed on the southern slopes of the east Khasi Hills in Meghalaya.
- Meghalaya could be a mountainous state with various valleys and highland plateaus.
- Elevation within the plateau region ranges between one hundred fifty m to 1,961 m , with the central part comprising the Khasi Hills with the highest elevations.
- The rain in Cherrapunji-Mawsynram is caused by the orography favouring a monsoon wind regime.
- The northward moving moist winds from the Bay of bengal passing over the plains of bangladesh are forced to converge within the narrow valleys of the Khasi Hills with orography providing forced ascent that causes condensation, formation of clouds leading to rain on the windward side of the slope.

Topic 51. Kochi based firm to promote Pokkali Farming

Importance for Prelims: Environment



Agronature, a Kochi-based non-public company working for the farmers' economic upliftment, has drawn up an idea to promote and sustain this distinctive ancient farming practice.

Pokkali Rice Farming

- The pokkali sort of rice is thought for its saltwater resistance and flourishes within the rice paddies of coastal Alappuzha, Ernakulam and Thrissur districts of Kerala.
- The single-season paddy is raised in saltwater fields between june and november followed by a season of fish-farming.
- The uniqueness of the rice has brought it the Geographical Indication (GI) tag and is that the subject of continuous analysis.
- Several foreign analysis institutes, as well as the International Rice

Research Institute within the Philippines, have been learning pokkali's gene pools and have recognized a portion of deoxyribonucleic acid on one among its chromosomes that's crucial for salt tolerance.

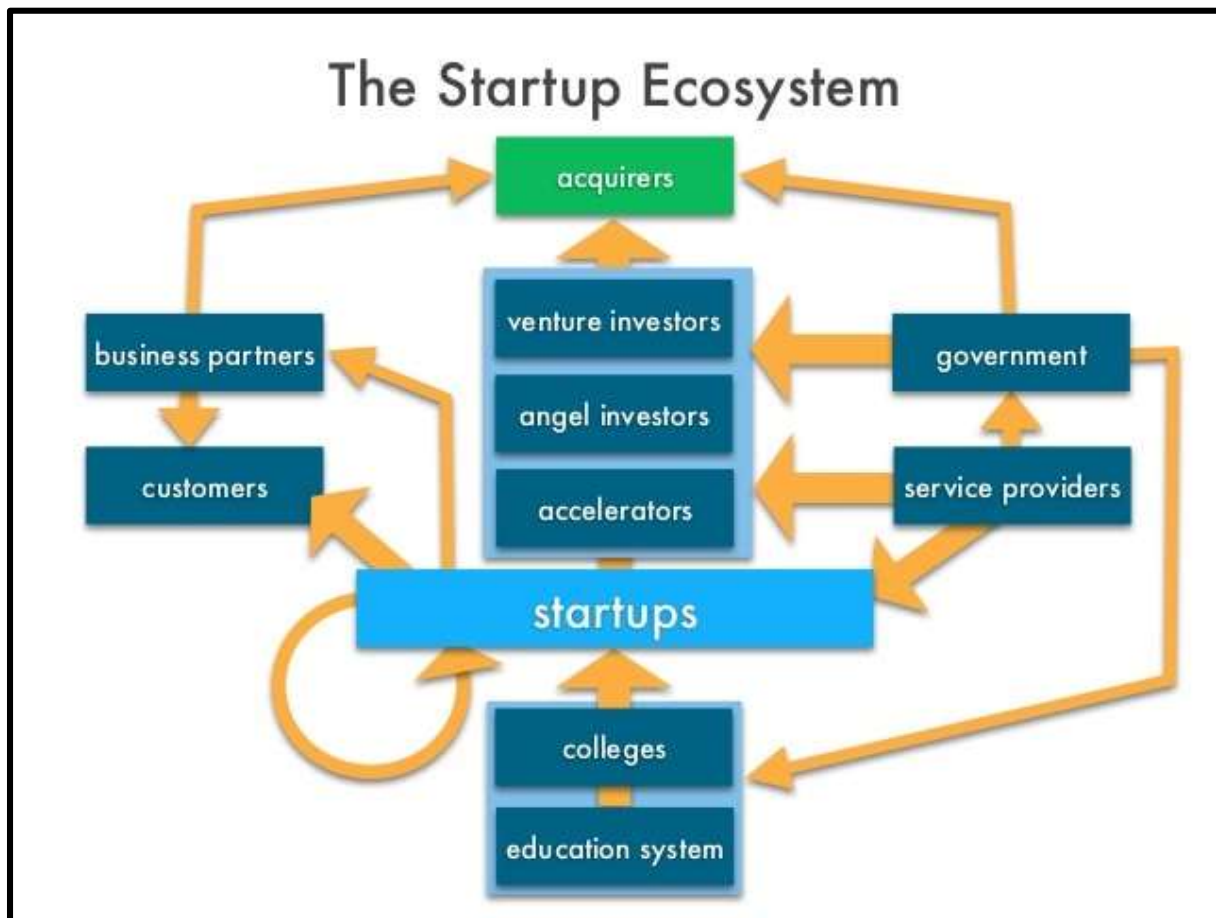
- Given its ability to thrive under harsh weather conditions and manufacture high yield, it will facilitate in promoting climate-resilient agriculture.
- Pokkali has medicative properties and its higher price of antioxidants and low carbohydrate content makes it preferred to those on a low sugar diet.
- Vyttila-11 is that the latest kind of pokkali developed by the Kerala Agricultural University.

Other GI Tag Registered Varieties from Kerala:

- Kaipad, Wayanad Jeerakasala, Wayanad Gandhakasala, Palakkadan Matta and Navara.
- Further, the Kuttanad below-sea level farming system has been recognised by the Food and Agriculture Organisation of the UN (FAO) as a Globally Important Agricultural Heritage System (GIAHS).
- It is unique because it practices rice cultivation below ocean level.

Topic 52. India jumps 3 spots in global start up ecosystem rankings

Importance for Prelims: Economy /IR



India has jumped 3 spots up within the international start-up ranking this year, a attainable silver lining amid the chaos that the pandemic has wrought upon us. india stands at the twentieth spot among the top one hundred countries that are ranked within the international Startup

Ecosystem Index 2021 by Startup Blink.

About the Report

- Israel's technical ecosystem has ranked third globally and Tel Aviv came in eighth among cities within the new international Startup ecosystem Index 2021 revealed this month by StartupBlink, an Israeli-founded startup ecosystem research center.
- The index is compiled from a variety of information sources processed by

an algorithm and is integrated with the interactive and crowdsourced StartupBlink international Startup ecosystem Map.

- Data from StartupBlink's international information partners, like Crunchbase, Semrush, and Meetup, are incorporated to supplement the analyses.
- The report provides 2 sets of rankings: the 1st is for countries, and also the second for individual ecosystems within cities.
- Each location has a total score, that may be a sum of 3 scores measurement quantity, Quality, and Business environment. The scores have comparative importance, providing distinctive insights into the variations between completely different ecosystems in absolute terms.
- Building upon past years' algorithms, this year's report gave more weight to B2B startups, added more than parameters associated with technological services within the datasets, and increased information gathering of the R&D centers of international firms.

Topic 53. Netaji Subash Chandra Bose Artefacts

Importance for Prelims: Culture

The Ministry of Culture and therefore the archaeological Survey of India have said artefacts from the Subhas Chandra Bose museum at Red Fort were loaned out to the Victoria Memorial Hall in Calcutta for an exhibition on the freedom fighter.

- Not but two dozen artefacts from the museum were reportable 'missing' by people who visited the Red Fort over the weekend, because the monument reopened for the 1st time when the Jan twenty six farmer's violence and pandemic-related lockdowns.

Subhas Chandra Bose

- Subhas Chandra Bose was born on twenty third Jan 1897, in Cuttack, Orissa Division, Bengal Province, to Prabhavati Dutt {Bose|Bose|Satyendra N. Bose|Satyendra Nath Bose|nuclear physicist} and Janakinath Bose.
- He was extremely influenced by Vivekananda's teachings and regarded him as his religious Guru. His political mentor was Chittaranjan Das.
- In 1921, Bose took over the editorship of the newspaper 'Forward', founded by Chittaranjan Das's Swaraj Party.
- In 1923, Bose was elected the President of the All India Youth Congress and additionally the Secretary of Bengal State Congress.
- He was also sent to jail in Mandalay in 1925 thanks to his connections with revolutionary movements wherever he contracted tuberculosis.
- Bose took over because he was elected President of Indian National Congress in 1938 (Haripur) and stood for unqualified Swaraj (self-governance) and therefore the use of force against the British that then combated against Mahatma Gandhi and his views.
- Bose was re-elected in 1939 (Tripuri) however soon resigned from the presidency and formed the All India Forward Bloc, a faction within the

Congress that aimed toward consolidating the political left.

- He died on eighteenth August 1945, during a plane crash in Japanese-ruled formosa (nowTaiwan).

Contribution to Freedom Struggle

- Association with C.R Das: He was related to C.R. Das' political endeavour, and was also imprisoned at the side of him. When C.R. Das was elected mayor of Kolkata Cooperation, he nominative bose because the chief executive. He was under-arrest for his political activities in 1924.

Trade union movements:

- He organised youth and promoted trade union movements. In 1930, he was elected mayor of Kolkata, a similar year he was elective the President of AITUC.

Association with congress:

- He stood for unqualified swaraj (independence), andopposed Motilal nehru Report that spoke for dominion standing for india.
- He actively participated within the Salt satyagraha of 1930 and vehemently opposed the suspension of civil disobedience Movement and signing of the Gandhi-Irwin pact in 1931.
- In the Nineteen Thirties, he was closely related to left politics in Congress along withJawaharlal nehru and M.N. Roy.
- Because of the endeavour of the left cluster, the congress passed very so much reaching radical resolutions in karachi in 1931 that declared the most Congress aim as socialization of means that of production besides guaranteeing elementary rights.
- Congress presidentship: bose won the congress presidential elections at Haripurain 1938.
- Next year at Tripuri, he once more won the presidential elections against

Gandhi's candidate PatabhiSitarammayya. Due to ideological differences with Gandhi, Bose left congress and found a new party, 'the Forward Bloc'.

- The purpose was to consolidate the political left and major support base in his home state bengal.
- Civil disobedience movement: when world war II began, he was once more jailed for participation in civil disobedience and was put under house arrest.
- Bose manages to escape to Berlin by way of peshawar and afghanistan. He reached Japan and from there to burma and organized the indian National Army to fight the british and liberate India with the assistance of Japan.
- He gave popular slogans 'Jai Hind' and 'DilliChalo'. He died during a plane crash before realising his dreams.

Azad Hind

- Bose founded the free india centre in Berlin and created the Indian Legion out of the Indian prisoners of war who had antecedently fought for the british in north africa before their capture by Axis forces.
- In Europe, bose sought-after facilitate from hitler and mussolini for the liberation of india.
- In germany, he was connected to the special bureau for india that was responsible for the broadcasting on the German sponsored Azad Hind Radio.
- On this radio, bose on sixth july 1944, addressed mahatma gandhi because the 'Father of the Nation'.

Indian National Army:

- He reached Japanese-controlled Singapore from germany in july 1943, issued from there his famous decision, 'Delhi Chalo', and proclaimed the

formation of the Azad Hind Government and therefore the Indian National Army on twenty first Oct 1943.

- The INA was 1st formed beneath Mohan Singh and Japanese Major Iwaichi Fujiwara and comprised Indian prisoners of war of the British-Indian Army captured by Japan within the Malayan (present-day Malaysia) campaign and at Singapore.
- The INA enclosed each, the Indian prisoners of war from Singapore and Indian civilians in South-East Asia. It's strength grew to 50,000.
- The INA fought allied forces in 1944 within the borders of India in Imphal and in Burma.
- However, with the fall of Rangoon, Azad Hind Government ceased to be an efficient political entity.
- In Nov 1945 a British move to put the INA men on trial instantly sparked large demonstration everywhere the country.
- Impact: The I.N.A. experience created the wave of disaffection within the British Indian army throughout the 1945-46, that culminated within the great Bombay naval strike of Feb 1946 and was one among the foremost decisive reasons behind the British decision to create a fast withdrawal.
- Composition of I.N.A: The I.N.A. was primarily non-communal, with Muslims quite prominent among its officers and ranks, and it additionally introduced the innovation of a women's detachment named when the Rani of Jhansi.

Topic 54. Indo – Sri Lanka Currency Swap Agreement

Importance for Prelims: International Relations

Sri Lanka is “banking on” a \$1 billion currency swap from India to fulfill its debt reimbursement obligations this year and tide over this economic condition, a senior official of the central bank of Sri Lanka said.

Currency Swap Arrangement (CSA)

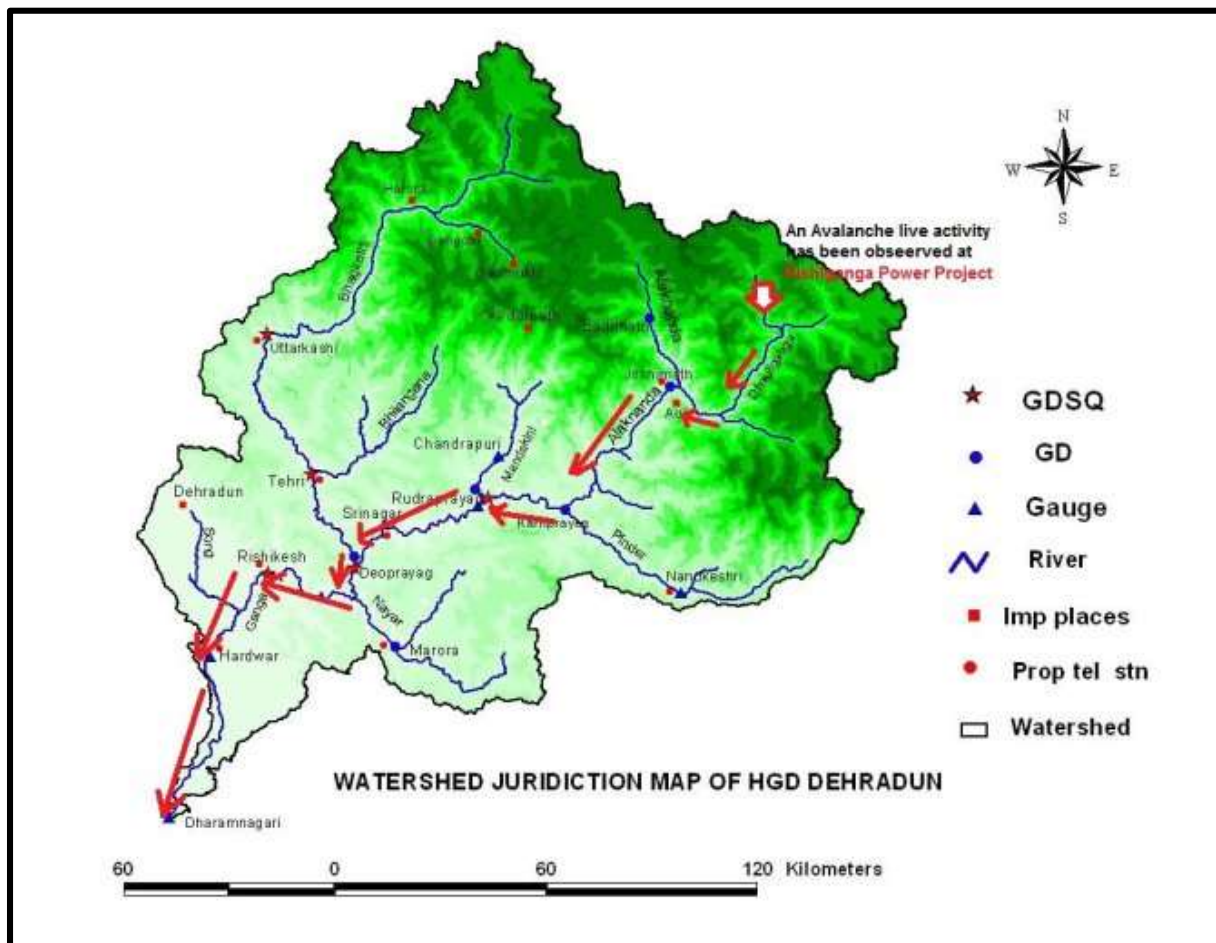
- An arrangement between 2 friendly countries to involve in trading in their own native currencies.
- As per the arrangements, each country pays money for import and export trade at the predetermined rates of exchange, while not bringing in third country currency just like the United States dollar.
- In such arrangements no third country currency is involved, thereby eliminating the requirement to worry concerning exchange variations.

Significance of the agreement:

- Improves the confidence within the Indian market.
- Enables the in agreement amount of capital being accessible to India.
- Bring down the price of capital for Indian entities whereas accessing the foreign capital market.
- Aids in bringing greater stability to foreign exchange and capital markets in India.

Topic 55. Chamoli disaster due to avalanche

Importance for Prelims: Geography



The flash flood on Feb seven in Chamoli district, Uttarakhand, that claimed a minimum of seventy two lives with a minimum of two hundred missing was thanks to an oversized mass of snow, ice and rock avalanche along side a hanging mass of rock crashing into the RaunthiGarh valley floor.

Glacial Lake Outburst Flood (GLOF)

- A GLOF may be a kind of outburst flood that occurs once the dam containing a glacial lake fails.
- An event the same as a GLOF, wherever a body of water contained by a glacier melts or overflows the glacier, is called a jökulhlaup.
- The dam will contains glacier ice or a terminal moraine.

Failure will happen due to varied factors such as:

- ✓ Erosion, a buildup of water pressure
- ✓ Avalanche of rock or heavy snow
- ✓ Earthquake or volcanic eruptions below the ice or
- ✓ Displacement of water during a exceedingly|in a very } glacial lake once a huge portion of an adjacent glacier collapses into it.

Avalanche

- Avalanche may be a rapid downslope movement of an oversized detached mass of snow, ice, and associated debris like rocks and vegetation.
- Small avalanches, or Sluffs, occur in massive numbers, whereas massive avalanches which will encompass slopes a km or a lot of long with millions of a lot of snow, occur occasionally however cause most of the damage.
- Humans are exposed to the threat of slippery snow for as long as they need occupied mountainous regions.

Types of Avalanches:

- Loose snow avalanches-formed in snow with very little internal cohesion among individual snow crystals.
- Slab avalanches-Originate in snow with sufficient internal cohesion to modify asnow layer, or layers, to react mechanically as a single entity.
- Wet snow avalanches-These move additional slowly than dry ones and are seldom accompanied by dirt clouds.
- Direct action avalanches –These are the immediate results of a single snowstorm.
- They typically involve solely recent snow.
- Climax avalanches-Result of a series of snowstorms or a culmination of weather influences. Their fall isn't essentially related to a current storm or
- weather situation.

Topic 56. Iran gets its new president

Importance for Prelims: International Relations

Hardliner Ebrahim Raisi became Iran's president. He succeeded Hassan Rouhani.

- Iran's thirteenth presidential elections were recently held.
- As per rules, the president ought to be a Shiite Muslim. Over ninety per cent of Iran's population is comprised of Shiite Muslims.

Who is Raisi?

- Raisi first came to prominence once he became the prosecuting attorney General of Karaj in 1980, once he became the prosecutor of Tehran and therefore the 1st Deputy to the head of Judiciary from 2004 to 2014 once that he became the prosecuting officer General of Iran from 2014 to 2016.
- In 2019, Raisi was appointed the head of Iran's judiciary, an appointment that sparked considerations due to his involvement within the mass executions of thousands of political prisoners in 1988 once the Iran-Iraq war.
- Amnesty International has known Raisi as a member of the "death commission" that carried out "enforced disappearance and extrajudicial executions of several thousand political dissidents in Evin and Gohardasht prisons close to Tehran between late July and early Sept 1988. Victims' bodies were mostly buried in unmarked mass graves."
- Raisi additionally has ties to the paramilitary cluster Islamic Revolutionary Guard Corps (IRGC).