

**WEEKLY CURRENT AFFAIRS MAGAZINE for**



# **U.P.S.C. - C.S.E**

## **DECEMBER-VOL-IV-2021**

23 December to 31 December



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*Success is born of action...*

## **Topic 1. THE PERSONAL LAWS UNDER PART III OF THE INDIAN CONSTITUTION**

### ***Importance for Prelims: Polity***

A Bill proposing to increase the age of wedding for ladies, and ensuring harmony within the age limit across religions, was introduced in Lok Sabha

- Personal laws are a set of laws that govern and regulate relations arising out of certain factors connecting 2 persons or over 2 persons.
- These factors are wedding, blood, and affinity. Moreover, personal law governs and regulates subjects or areas of a private sphere like wedding, divorce, maintenance, succession, minority, and guardianship, etc.
- Hindus, Muslims, Christians, Parsis, Jews are governed by their own Personal Laws, like the Hindu law, Muslim Law, Christian Law, Parsi Law, and Jewish Law respectively.
- Article 13(1) of Indian Constitution – All laws in force within the territory of India instantly before the commencement of this Constitution, in thus far as they're inconsistent with the provisions of this part, shall, to the extent of such inconsistency, be void.
- Article 13(3)(b) includes laws passed or created by the legislative assembly or other competent authority in the territory of India before the commencement of this Constitution and not previously repealed.
- It means that a similar thing as 'existing law' defined in Article 372 of the Indian Constitution.
- Personal laws in wedding The Prohibition of child wedding (Amendment) Bill, 2021 proposes 3 changes – 1st, the law proposes to increase the minimum age of marriage for a girl.
- The Bill makes the minimum age of wedding same for each men and women.
- Currently, it's eighteen years for women and twenty one for men. Second,

it also will increase the window for a “child” to file a petition to declare a child wedding void.

- Under the law, kid marriages, though illegal, aren't void however “voidable.”
- A kid wedding will be declared null and void by a court when either party to the wedding files a petition under Article 3(4) of the 2006 Prohibition of kid marriage Act.
- A “void” wedding, as opposed to a divorce, in legal terms, would be as if the wedding had never taken place within the 1st place.
- The Bill proposes to extend this window for each the woman and also the man to 5 years after attaining majority.
- Since the age of majority is eighteen for each, this could mean that either the man or the woman will file a petition to declare the kid marriage void before they turn twenty three, or till 2 years after reaching the new minimum age of wedding.
- Introduction of a “notwithstanding” clause – this essentially clears the decks for equal application of the Prohibition of kid marriage Act across religions, notwithstanding any customs.

### **Who is a Child?**

- The amendments proposed to the anti-child wedding law define a baby as someone under the age of twenty one and contradicts laws wherever the legal age of competence is recognised as eighteen.
- The Prohibition of kid wedding (Amendment) Bill, 2021, that seeks to raise the age of wedding for ladies to twenty one, amends the definition of kid to mean “a male or girl who has not completed twenty-one years of age”.
- It overrides personal laws of Hindus, Christians, Muslims and Parsis, as well because the Special wedding Act, 1954.

- Under the Indian Contract Act, 1872 an individual should have attained the age of majority in order to be able to enter into a contract.
- The law to penalize sexual crimes against youngsters, the Protection of children from Sexual Offences (POCSO) Act, 2012 too recognises a kid as somebody under the age of eighteen years and thereby implies that the age of consent for sex is also eighteen years.
- The law that deals with juvenile offenders (or children in conflict with law) and youngsters who want care and protection, that is, the Juvenile Justice (Care and Protection) Act, 2015 does a similar.
- Hindu personal laws The Hindu personal laws (that apply also to the Sikhs, Jains and Buddhists) have been codified by the Parliament in 1956
- This Code Bill has been split into four parts: The Hindu marriage Act, 1955 The Hindu Succession Act, 1956 The Hindu Minority and Guardianship Act, 1956 The Hindu Adoption and Maintenance Act, 1956 Hindu personal laws are by and huge secularised and modernised by statutory enactments Muslim personal laws Muslim personal laws are still primarily unmodified and traditional in their content and approach. The Shariat law of 1937 governs the private matters of all Indian Muslims in India.
- It clearly states that in matters of private disputes, the State shall not interfere and a religious authority would pass a declaration supported his interpretations of the Quran and also the Hadith.
- Since Muslim law recognises “attaining puberty”, that is lawfully assumed at fifteen years, because the minimum age of wedding, it raises queries on whether the kid wedding law will apply to Muslims.

## Topic 2. ORCHIDS

### *Importance for Prelims:Environment*

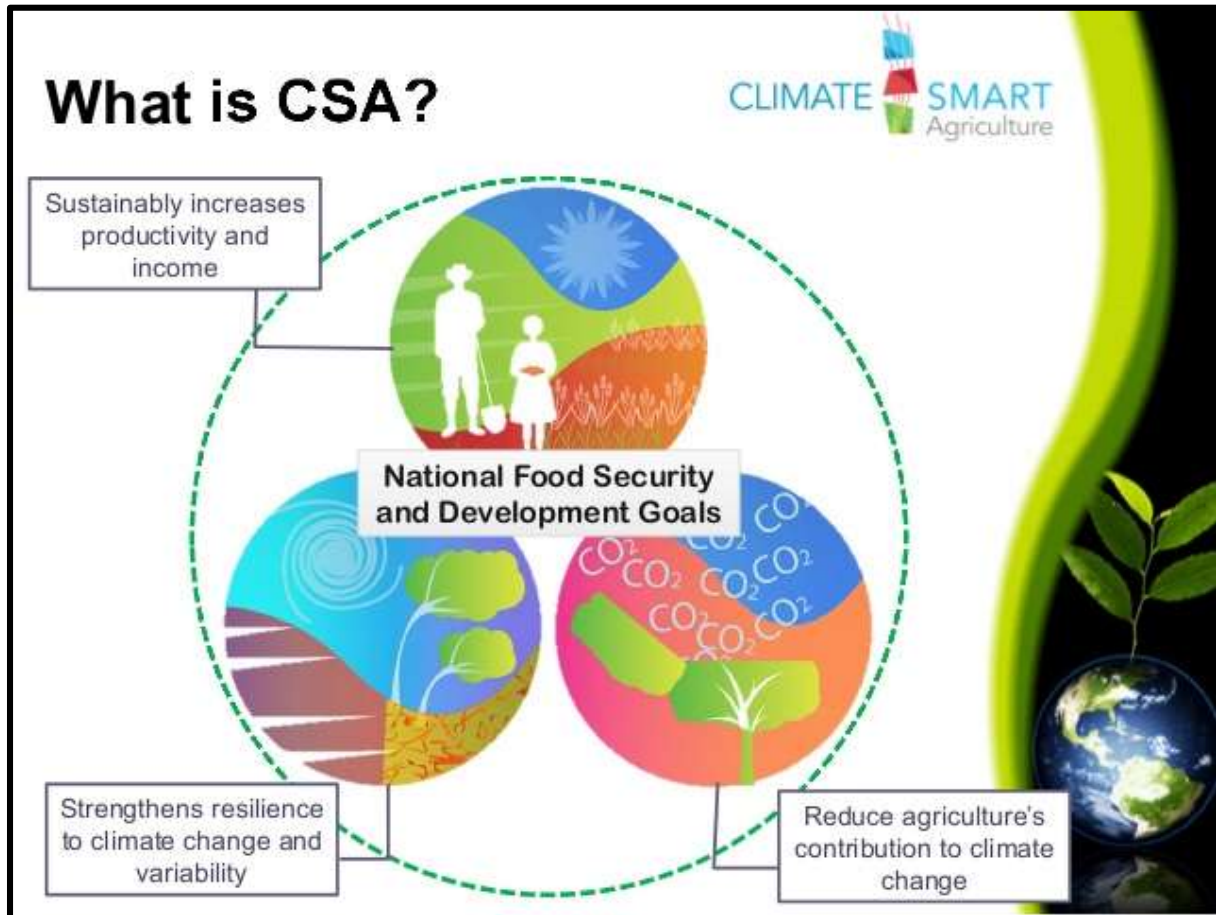
In Arunachal's Sessa orchid Sanctuary communities collaborate with forest officers to conserve orchids

- The Sessa orchid Sanctuary, discovered in the West Kameng district of Arunachal Pradesh, was the 1st, and before recently the only, protected area within the country dedicated to the preservation of naturally growing orchids.
- Notified in 1989, Sessa orchid Sanctuary is home to 236 orchid species, many of them rare and endemic, with unique botanical worth, and the sanctuary has also been used as an ex-situ conservation site for threatened orchids.
- The Arunachal Himalayas (formerly known as Assam Himalayas) should be described by botanists as a treasure trove of orchids.
- Indeed, Arunachal Pradesh, with around 622 recorded orchid species that is forty per cent of the overall orchid species found in the country, is known because of the 'Orchid Paradise of India'.
- Orchids in India The 1,256 species or taxa of orchids belong are found in India.
- 388 species of orchids are endemic to India of that regarding one-third (128) endemic species are found in Western Ghats.
- While north-east India ranks at the highest in species concentration, the Western Ghats have high endemism of orchids.
- The highest number of orchid species is recorded from Arunachal Pradesh with 612 species, followed by Sikkim 560 species and West Bengal. Among the ten biogeographic zones of India, the Himalayan zone is that the richest in terms of orchid species followed by Northeast, Western Ghats, Deccan upland and Andaman & Nicobar Islands.

- Categories Orchids will be broadly categorized into 3 life forms: (1) epiphytic, (2) terrestrial and (3) mycoheterotrophic.
- About 757 species or sixty percent of all orchids found within the country are epiphytic, 447 are terrestrial and forty three are mycoheterotrophic.
- Economic importance the sole commercially vital product derived from orchids is vanilla.
- Most vanilla is manufacture from one species, vanilla planifolia.
- The principal vanilla-growing areas are Madagascar, Mexico, french polynesia, Réunion, Dominica, Indonesia, the west indies, Seychelles, and Puerto rico. varied different orchids are used for a variety of people medicines and cures.

## Topic 3. CLIMATE-SMART AGRICULTURE (CSA)

*Importance for Prelims: Agriculture*



As technologies and practices for better water management and climate-smart agriculture (CSA) improve in India, solar-based irrigation systems and direct-seeded rice are gaining momentum.

- Climate-smart agriculture (CSA) is an approach for remodeling and reorienting agricultural production systems and food value chains so that they support sustainable development and may guarantee food security under climate change.
- Climate-smart agriculture (CSA) is an integrated approach to managing landscapes —cropland, livestock, forests and fisheries—that addresses the interlinked challenges of food security and fast global climate change.
- CSA aims to simultaneously achieve 3 outcomes: enhanced productivity

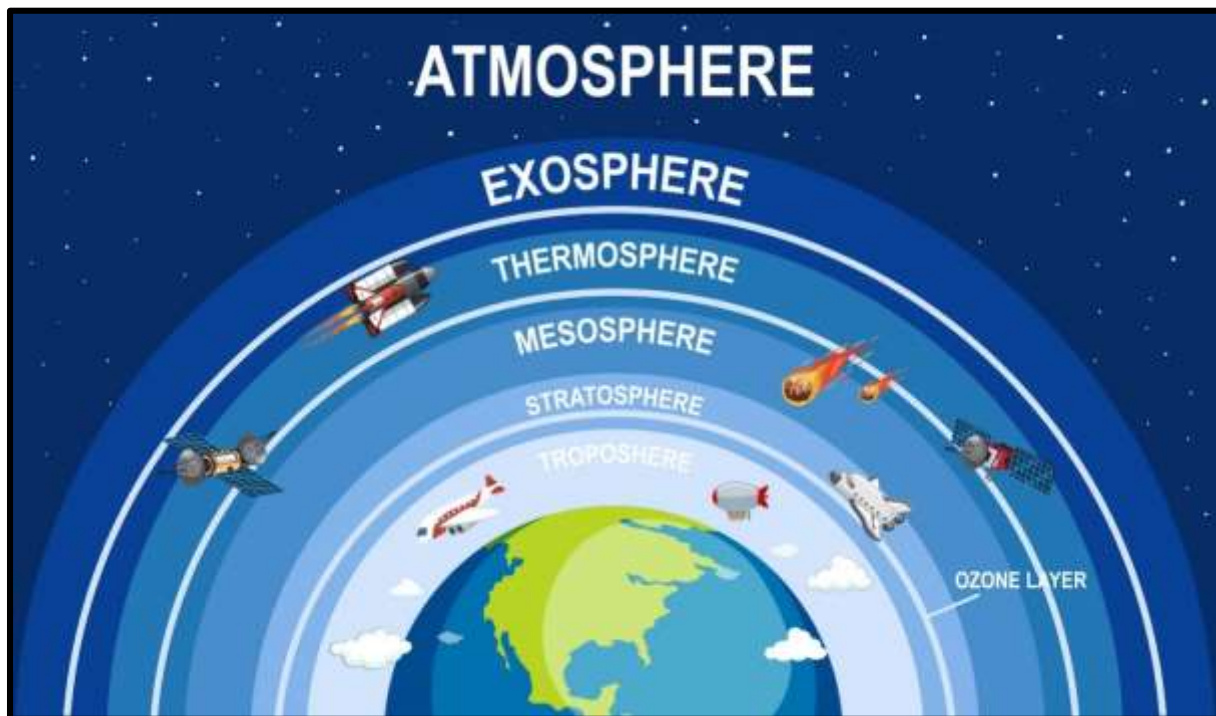


increased resilience Reduced emissions

- The principal goal of CSA is identified as food security and development, whereas productivity, adaptation, and mitigation are recognize as the 3 interlinked pillars necessary for achieving this goal.
- Since the introduction of the conception in 2010 by the Food and Agriculture Organization (FAO), a numeral of technologies has been developed and applied in india.
- CSA supports the Food and Agriculture Organization Strategic Framework 2022-2031 based on the Four Betters: better production, better nutrition, a much better environment and a greater life for all, leaving no one behind.

## Topic 4. OZONE LAYER

*Importance for Prelims: Environment*



Ozone-destroying greenhouse gas emissions from China expanded significantly:  
Study

- Emissions of industrially manufacture chlorocarbon, dichloromethane ( $\text{CH}_2\text{Cl}_2$ ), increased in China from 2011-2019, a new study established. short-lived halogenated substances (VSLs) like dichloromethane have an atmospherical lifespan shorter than six months.
- Dichloromethane has been identified because the most abundant chlorine-containing VSLs, accounting for seventy per cent of the overall stratospheric source gas injection from chlorine-containing VSLs.
- Dichloromethane originates primarily from anthropogenic sources, as well as its use as an emissive solvent for adhesive and cleansing purposes, and as a feedstock for hydrofluorocarbon (HFC) production.

**What is Ozone?**

- Ozone (composed of 3 atoms of oxygen) may be a gas that occurs each

within the Earth's upper atmosphere and at ground level.

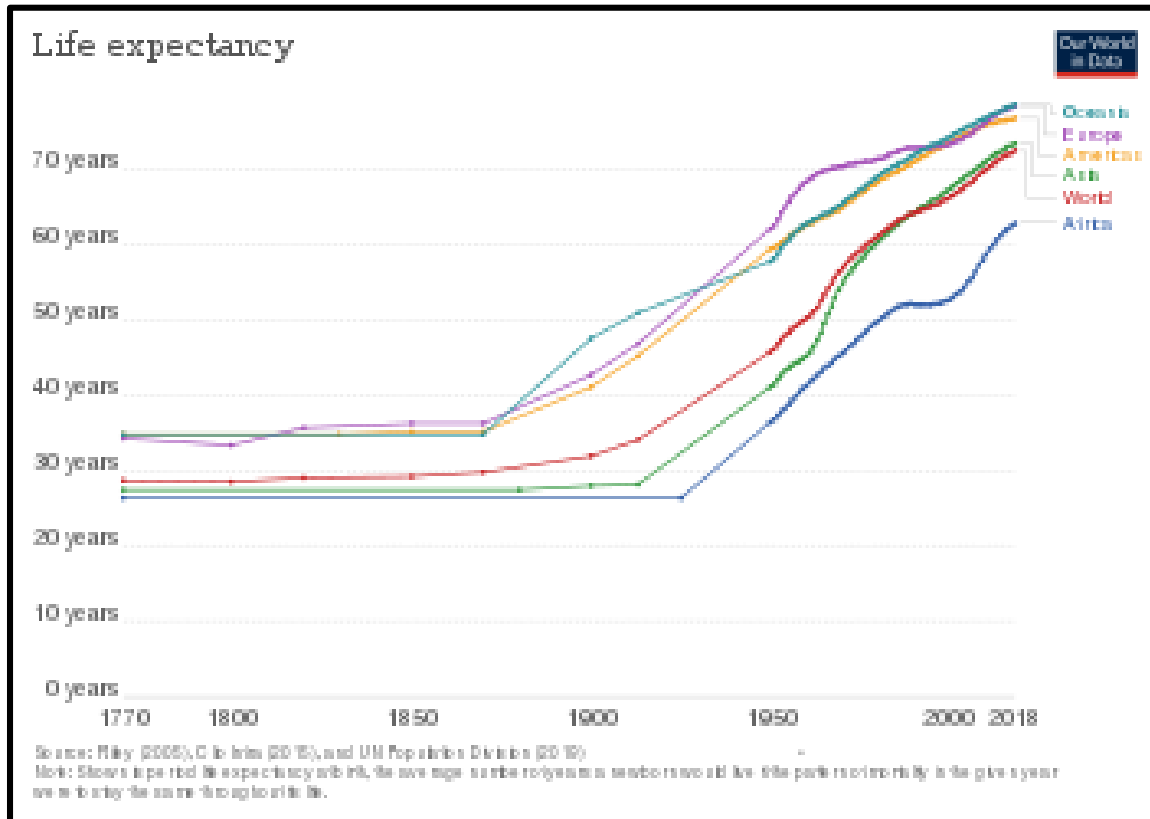
- Ozone will be “good” or “bad” for your health and also the environment, depending on its location within the atmosphere.
- The ground-level or “bad” ozone is an air pollutant that's harmful to breathe and it damages crops, trees and different vegetation.
- It may be a main ingredient of urban smog.
- The stratosphere or “good” ozone layer extends upward from regarding six to thirty miles and protects life on Earth from the sun's harmful ultraviolet (UV) rays.
- Ozone is produced naturally within the stratosphere. however this “good” ozone is gradually being destroyed by man-made chemicals mentioned as ozone-depleting substances (ODS), as well as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), halons, methyl bromide, carbon tetrachloride, and methyl group chloroform.
- Global Initiatives to Curb ozone Depletion The 1985 vienna Convention for the Protection of the ozone layer was an international agreement during which UN members recognized the fundamental importance of preventing damage to the stratospheric ozone layer.
- The 1987 montreal Protocol on Substances that deplete the ozone layer and its succeeding amendments were subsequently negotiated to manage the consumption and production of anthropogenic (ODSs) and a few hydrofluorocarbons (HFCs).
- The Protocol was signed by 197 parties in 1987 to manage the use of ozonedepleting substances, primarily chlorofluorocarbons (CFCs).
- The montreal Protocol mandated the whole phase-out of CFCs and different ozone-depleting substances (ODS), that it's with success managed to do within the last 3 decades.
- CFCs were gradually replaced, 1st by HCFCs, or

hydrochlorofluorocarbons, in some cases, and eventually by HFCs that have minimal impact on the ozone layer.

- The adoption of the 2016 Kigali amendment to the Montreal Protocol can phase down the production and consumption of some HFCs and avoid a lot of the projected world increase and associated global climate change. Hydrofluorocarbons, or HFCs, are a family of chemicals used extensively within the air-conditioning, refrigeration and furnishing foam trade.
- HFCs are known to be a lot worse than CO<sub>2</sub> in causing global warming.
- In fact, according to the United Nations Environment Programme (UNEP), the common heating potential twenty-two of the foremost used HFCs is regarding 2,500 times that of CO<sub>2</sub>. US and China are the world's top producers and consumers of HFCs.
- India has with success achieved the whole phase out of hydrochlorofluorocarbon (HCFC)-141 b, that may be a chemical utilized by foam producing enterprises and one among the most potent ozone depleting chemical when Chlorofluorocarbons (CFCs).
- (HCFC)-141 b is used primarily as a blowing agent within the production of rigid polyurethane (PU) foams. "Hydrofluorocarbon (HFC) component R-32" Finance Ministry has imposed definitive anti-dumping duty on imports of "Hydrofluorocarbon (HFC) element R-32" from China.
- R32 utilized in refrigerant employed in little split air conditioning systems.
- This definitive antidumping duty would be valid for 5 years.

## Topic 5. LIFE EXPECTANCY

*Importance for Prelims:Governance*



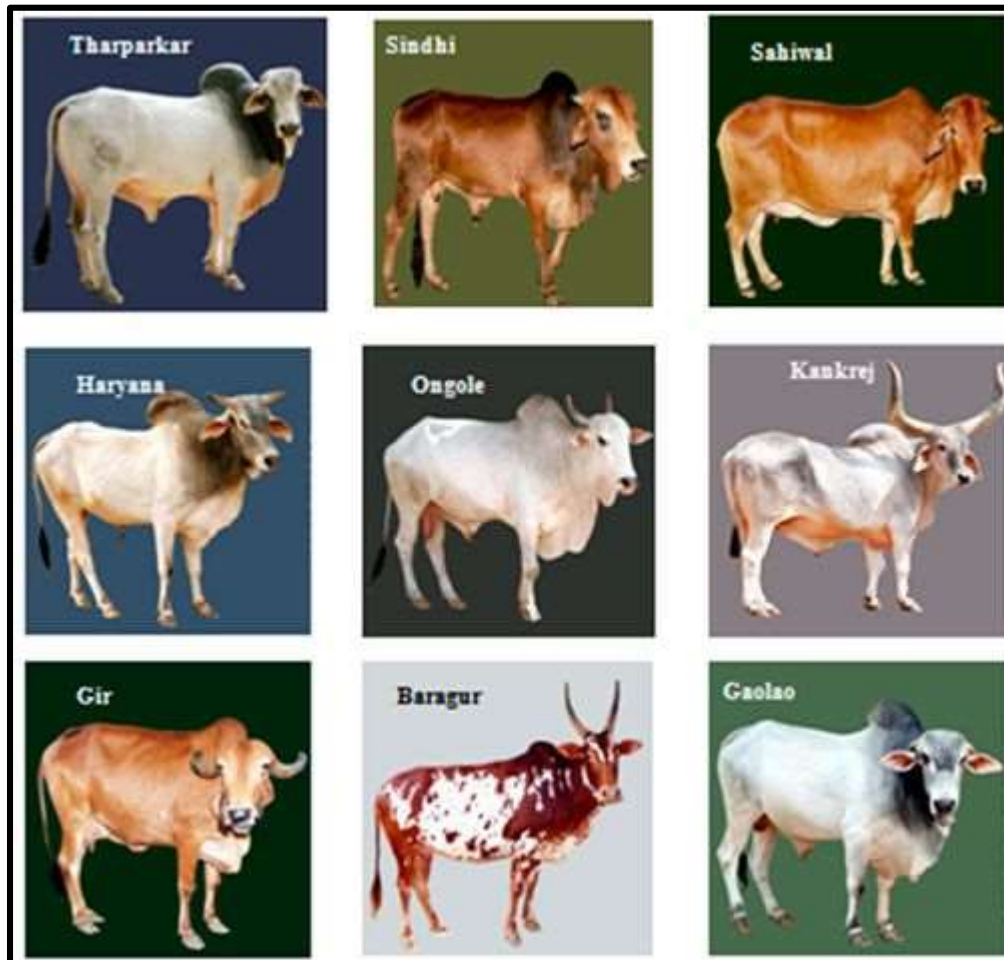
Life expectancy reduced in 2020 once steady increase for fifteen years: Study

- Life Expectancy is an estimate of the common number of extra years that an individual of a given age will expect to live.
- life expectancy, a wide used metric of mortality, is an indication of however long on the average people will expect to survive if the age specific mortality rates of that year stay constant for the remainder of their life.
- Russia recorded the largest drop in life expectancy — for men it fell by 2.33 years and for ladies by 2.14 years.
- This was followed by the US.
- The reduction of life expectancy across the world during the 1st year of the novel coronavirus disease (COVID-19) pandemic was frightening, reversing progress created in past years, according to a latest study.

- Prior to the COVID-19 pandemic, all thirty seven countries within the study recorded an increase in life expectancy between 2005 and 2019.
- Only in 2015 was there an anomaly, wherever life expectancy dropped throughout the influenza breakout.
- Life Expectancy in india India's life expectancy (for a baby born in 2021) that is sixty nine years and four months is a smaller amount than the world's average lifespan of 72.81 years.
- According to the scientists from a city-based International Institute for Population Studies (IIPS), Covid-19 pandemic has affected the lives of individuals across the globe.
- In the year 2019, life expectancy at birth was 69.5 years for men whereas seventy two years for ladies.
- This is decreased to 67.5 years for men and 69.8 years for women within the year 2020.

## Topic 6. INDIGENOUS BREEDS OF CATTLE

### *Importance for Prelims: Agriculture*



### Artificial Insemination

- Indigenous dairy breeds of cattle Name Origin Gir Originated in Gir forests of South Kathiawar in Gujarat.
- Red sindhi This breed principally found in karachi and Hyderabad district of pakistan. Sahiwal Originated in Montgomery district in present pakistan Deoni Originated in Marathwada region of maharashtra state and adjoining a part of karnataka and western andhra pradesh states.
- Map of india showing the distribution of some breeds of cattle – Nationwide artificial insemination Programme (NAIP) The NAIP could be a campaign mode genetic upgradation program covering all breeds of bovines to enhance the milk production using low price breeding

technology.

- It aims for improving genetic merit of milch animals with top quality seed. The gestation period for getting the advantages from the AI bovine is approximately three years.
- The aim of the program is to inseminate over one crore bovines in six months.



## Topic 7. KURUMBA COMMUNITY

### *Importance for Prelims: Art & Culture*



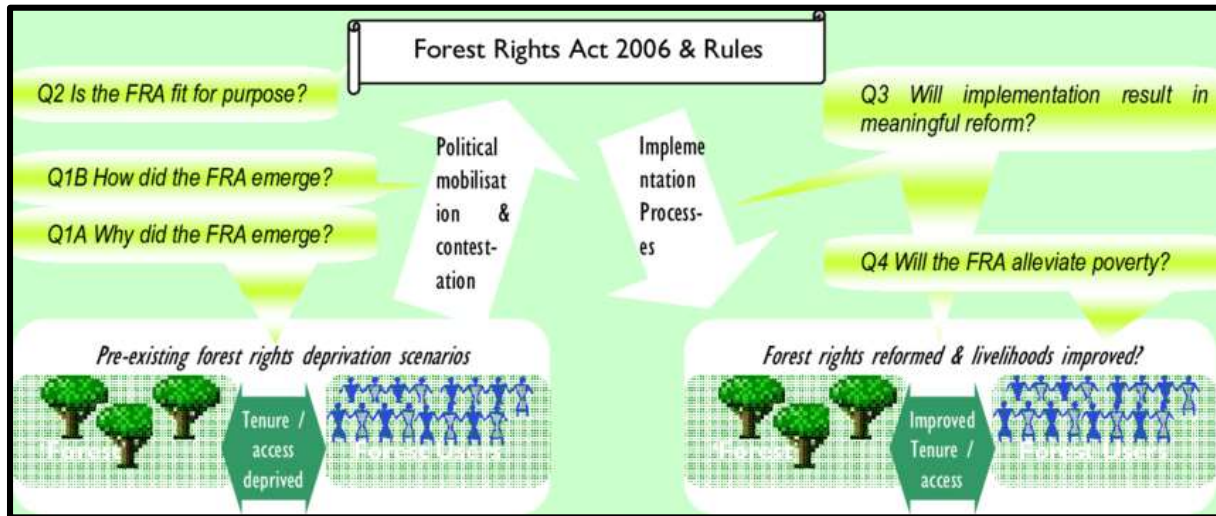
The AadhimalaiPazhangudiyinar Producer Company Ltd is run by the tribal folks of the Nilgiris, with 1609 indigenous shareholders. nearly ninety per cent of workers are tribal ladies. The farmer producer company that started as a little tribal collective has bagged this year's United Nations Equator Prize.

- They are a designated scheduled Tribe within the Indian states of karnataka, Kerala and tamil nadu.
- The Kurumbar are one among the earliest best-known inhabitants of the Western Ghats, who are engaged within the assortment and gathering of forest manufacture, primarily wild honey and wax.
- The members of this community are short, have dark skin, and have projected foreheads. Kurumbar believe in Hinduism.
- The main divinity of the tribe is Lord Shiva under the name of Bhairava.
- They additionally worship animals, birds, trees, rock hillocks, and snakes, along side the opposite Hindu deities.
- An indigenous community in south india, Kurumba is listed by the govt.

of india as one of the significantly Vulnerable tribal groups or PVTGs in India.

## Topic 8. FOREST RIGHTS ACT (FRA)

### *Importance for Prelims: Environment*



The Forest Rights Act (FRA) has been in existence for fifteen years

- History of forest laws within the colonial era, the British diverted abundant forest wealth of the state to meet their economic desires.
- While procedure for settlement of rights was provided under statutes like the Indian Forest Act, 1927, these were hardly followed.
- As a result, tribal and forest-dwelling communities, who had been living among the forests harmoniously with the environment and therefore the ecosystem, continuing to live within the forests in tenurial insecurity, a situation that continued even when independence as they were marginalized.
- The symbiotic relationship between forests and forest-dwelling communities found recognition within the National Forest Policy, 1988.
- The policy called for the requirement to associate tribal folks within the protection, regeneration and development of forests.
- The scheduled Tribes and alternative traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, was enacted to guard the marginalised socio-economic class of citizens and balance the right to

environment with their right to life and livelihood.

- **Preamble:** The scheduled Tribes and alternative traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA) was enacted to acknowledge and vest the forest rights and occupation in forest land in forest residence scheduled Tribes and different traditional forest dwellers who are residing in such forests for generations however whose rights couldn't be recorded.
- **Provisions:** The act acknowledge and vest the forest rights and occupation in Forest land in forest residence scheduled Tribes (FDST) and different ancient Forest Dwellers (OTFD) who are residing in such forests for generations.

The act conjointly establishes the responsibilities and authority for sustainable use, conservation of diverseness and maintenance of ecological balance of FDST and OTFD.

- It strengthens the conservation regime of the forests whereas making certain livelihood and food security of the FDST and OTFD.
- The act identify four sorts of rights:
- **Title rights:** It provides FDST and OTFD the proper to ownership to land farmed by tribals or forest dwellers subject to a most of four hectares. ownership is only for land that's actually being cultivated by the involved family and no new lands are granted.
- **Use rights:** The rights of the dwellers extend to extracting Minor Forest manufacture, grazing areas, to pastoralist routes, etc.
- **Relief and development rights:** To rehabilitation just in case of unlawful eviction or forced displacement and to basic amenities, subject to restrictions for forest protection
- **Forest management rights:** It includes the correct to protect, regenerate or conserve or manage any community forest resource that they have

been traditionally protective and conserving for sustainable use.

## Topic 9. GANGA RIVER

*Importance for Prelims: Geography*



Days after it suggested all District Ganga Committees to address the problem of bodies being dumped within the stream, the National Mission for Clean Ganga (NMCG) asked Uttar Pradesh and Bihar to submit a “detailed report” in 2 days

- Source of origin: The Ganga rises from the Gangotri glacier close to Gomukh in Uttarkashi district of the state of Uttarakhand. Alaknanda river joins Bhagirathi at Devaprayag.
- From Devaprayag the watercourse is called as Ganga.
- Confluence or Mouth: The Ganga watercourse drains into the Bay of Bengal before forming a very large delta.
- The Ganga watercourse system spreads in Bharat, Tibet (China), Nepal and Bangladesh.
- It is that the largest river basin in India and accounts for regarding one-fourth of the overall area of the country.
- It covers states of Uttar Pradesh, Madhya Pradesh, Rajasthan, Bihar, West

bengal, Uttarakhand, Jharkhand, Haryana, Chhattisgarh, Himachal Pradesh and Union Territory of delhi.

- Ganga stream System The Ganga is created from the 6 headstreams and their 5 confluences.
- The Alaknanda stream meets the Dhauliganga watercourse at Vishnuprayag, the Nandakini stream at Nandprayag, the Pindar stream to form the Ganga main stream.
- The Bhagirathi, considered to be the supply stream: rises at the foot of Gangotri glacier, at Gaumukh, at an elevation of 3892m and fanning out into the 350km wide Ganga delta, it finally empties into the Bay of bengal.
- From Devapryag the stream is named as Ganga.
- Ganga debouches [emerge from a confined sector into a large, open sector] from the hills into the plain area at it's joined by the Yamuna at Allahabad. close to Rajmahal Hills it turns to the south-east.
- At Farraka, it bifurcates into Bhagirathi-Hugli in west bengal and Padma-Meghna in bangladesh (it ceases to be called as the Ganga after Farraka). Brahmaputra River (or the Jamuna because it is known here) joins Padma-Meghna. the entire length of the Ganga stream from its supply to its mouth (measured along the Hugli) is 2,525 km.
- Haridwar, Kanpur, Soron, Kannauj, Allahabad, Varanasi, Patna, Ghazipur, Bhagalpur, Mirzapur, Ballia, Buxar, Saidpur, and Chunar are the vital cities. it's long been considered holy by Hindus and worshipped because the deity Ganga in Hinduism.
- Major Tributaries of the Ganga stream right bank Tributaries of the Ganga stream Yamuna stream Chambal stream Banas watercourse Sind watercourse Betwa stream Ken river Son river Damodar stream left bank Tributaries of the Ganga river Ramganga stream Gomti river Ghaghra

stream Kali stream Gandak watercourse BurhiGandakKosi watercourse

Five Prayags

1. Devaprayag, the place of confluence of Bhagirathi river and Alaknanda river.
2. Rudraprayag, the place of confluence of Mandakiniriver and Alaknanda river.
3. Nandaprayag, the place of confluence of Nandakiniriver and Alaknanda river.
4. Karnaprayag, the place of confluence of Pindar river and Alaknanda river.
5. Vishnuprayag, the place of confluence of Dhauligangariver and Alaknanda river.



## **Topic 10. UNIFIED LICENSE AGREEMENT**

### ***Importance for Prelims: Economy***

Citing security, Centre asks phone companies to stay call records for 2 years

- The Department of Telecommunications (DoT) has amended the Unified License Agreement asking telecommunication and net service suppliers also as all different telecommunication licensees to maintain business and call detail records for a minimum of 2 years, rather than the present 1 year practice.
- The extra time, was based on requests from multiple security agencies.
- DoT has said all call detail record, exchange detail record, and internet protocol detail record of communications “exchanged” on a network should be archived for 2 years or until specific by the govt. for “scrutiny” for security reasons.
- Internet service suppliers also will have to be maintain details of “internet telephony” additionally to the same old IP detail record for a period of 2 years.
- Under Clause No. 39.20 of the licence agreement that the DoT has with the operators, the latter need to preserve records including CDRs and IP detail records (IPDR), for a minimum of one year for scrutiny by the Licensor (which is DoT) for “security reasons,” and also the Licensor “may issue directions/instructions from time to time” with reference to these records.
- The licence condition conjointly goes on to mandate that CDRs be provided by mobile corporations to law-enforcement agencies and to numerous courts upon their specific requests or directions, that there's a laid-down protocol.

## **Topic 11. GSTR-3B vs GSTR-1**

### ***Importance for Prelims: Economy***

Taxmen will directly begin recovery for mismatch in sales in GSTR-1, 3B

- GSTR – 3B may be a monthly summary come filed by a taxpayer by the twentieth of the next month or 22nd/24th of month following a quarter.
- GSTR-3B discloses provides made throughout the month together with GST to be paid, input tax credit claimed, purchases on that reverse charge is applicable, etc., and conjointly makes a provision for the payment of taxes, if any, for the relevant month.
- GSTR – one may be a monthly or quarterly return filed by taxpayers to disclose details of their outward provides for the month – along side their tax liability.
- Here, invoicewise details are to be uploaded so that the govt. will keep a check on each transaction.
- This forms the basis for the recipient of provides to simply accept a similar and take the eligible input tax credit.

## Topic 12. LANTANA

### *Importance for Prelims: Environment*

Plans afoot to uproot lantana from BRT reserve, Bandipur

- It may be a genus of regarding one hundred fifty species of perennial flowering plants within the verbena family Verbenaceae.
- they're native to tropical regions of the americas and africa however exist as an introduced species in varied areas, particularly within the Australian-Pacific region, South and North-eastern a part of india.
- Some species are invasive, and are considered to be noxious weeds, like in South Asia, Southern africa and Australia.
- It is usually deleterious to diversity and is an agricultural weed.
- Lantana is toxic for many livestock to graze. BiligiriRangaswamy Temple (BRT) Tiger Reserve situated between the Western and eastern Ghats the BiligiriRangaswamy Temple (BRT) Tiger Reserve is based in south eastern karnataka, at the border of tamil nadu.
- It has been named once the Rangaswamy temple that's embellished with a whitish rock at the helms of the sanctuary.
- It was declared as a protected reserve within the wildlife Protection Act of 1972.
- This distinctive sanctuary exhibits scrub, dry deciduous, moist deciduous, evergreen, semi evergreen and shola forests.
- It is wide known for its several endemic species of plants as well as valuable medicinal ones.

## Topic 13. PULICAT LAKE

*Importance for Prelims: Environment*



Lime shell mining activities carried out in and around Pulicat Lake are demolish the wetland's mudflat habitation.

- Pulicat Lake may be a unique waterbody that's located on the east coast of india and sprawls across andhra pradesh and tamil nadu.
- It lies majorly in andhra pradesh. over 600 years old, the lake has a strong association with the cultural heritage and socio-economic status of each States.
- Buckingham Canal traverses in a very north to the south direction at the

lake's eastern edge, on Sriharikota Island.

- The barrier island of Sriharikota separates the lake from the Bay of Bengal and is home to the Satish Dhawan Space Centre.
- The rivers Swarnamukhi and Kalangi within the north and also the Arani and the Korttalaiyar (as the Kosasthalaiyar is mentioned in old British era documents) within the south drain into Pulicat Lake throughout the monsoon.
- In the dry season, water is usually present solely within the southern areas and close to the lake's 2 inlets.
- The lake receives fresh water through the rivers and canals evacuate into it and marine water through the inlet mouth connected to the Bay of Bengal.
- It is that the second-largest brackish water ecosystem within the country when the Chilika Lake (Odisha).
- The large varieties of birds like grey pelicans, painted storks, visit the location annually.
- Grey pelican and Painted stork each are near-threatened species under IUCN Red List of threatened Species.
- The lake encompasses the Pulicat Lake bird sanctuary.
- Flamingo pageant is held each year to market tourism in Pulicat and Nelapattu.

## Topic 14. VIJAYANAGAR ERA TEMPLE AT LEPAKSHI ANDHRA PRADESH

*Importance for Prelims: Art and Culture*





Built in the sixteenth century, the golden age of the Vijayanagar Empire, the Lepakshi temple in Anantapur district of andhra pradesh boasts spectacular sculptures and exquisite murals portraying stylised history of scenes from Hindu lore on its vaulting.

- Vijayanagarempire dominated the Deccan from 1336 to 1646.
- While the sprawling architectural marvel that's Hampi, Vijayanagar's capital, is known for its exceptional town planning, excellently accomplish temples and exquisite sculptures, the Lepakshi temple's salience lies within the complicated and detailed paintings on its ceiling panels.
- The place wherever this temple is found is that the place wherever Jatayu(the Vulture that stopped Ravana while abducent sita to Lanka) died.
- This place has got the name once rama told Jatayu-Le Pakshi-Get up Bird once Jatayu was dying.
- But this temple isn't a rama Temple however may be a Veerabhadra Temple.

- Veerabhadra was born from Lord Shiva's hair-Jadamudi. Inbuilt the sixteenth century, the architectural features of the temple are within the Vijayanagara vogue with the profusion of carvings and paintings on nearly each exposed surface of the temple.
- It contains idols of Ganesha, Veerabhadra, Shiva, Bhadrakali, Vishnu and Lakshmi.
- There may be a very large Nandi (bull), regarding two hundred meters far from the temple that is carved from a single block of stone, that is said to be one among the largest of its kind within the world is one among the main attractions in Lepakshi. The temple is of the Vijayanagara style of architecture.



## Topic 15. SOYA CULTIVATION

### *Importance for Prelims:Agriculture*



The Centre brought soyameal under the scope of the Essential Commodities Act

- The Centre brought soyameal — a key raw material to manufacture compound feed — under the range of the Essential Commodities Act and imposed stock limits on processors and traders with a view to increasing domestic production and checking value rise.
- About Soyabean Since past times, Soyabean has served as meat, milk, cheese, bread also as oil for the people of China and East Asia; and also the ancient literature of these countries known as it as “gold from soil”. Off late, its skillfulness was recognized by the west, that known as it “golden bean” or “miracle bean”.
- Due to its immense potential as food, feed, fodder, fuel and industrial production, Soyabean is claimed to possess revolutionized the agricultural economy of west, particularly of US.
- Global Production presently, US is world’s largest Soyabean Producer

with eighty nine million tonnes production each year.

- United States is followed by Brazil and Argentina. Production in india With twelve million tonnes of production, Soyabean is one among the quickest growing crops in india.
- Soyabean is fully grown as a Kharif Crop in india.
- The top 3 Soyabean growing states are Madhya Pradesh, maharashtra and Rajasthan.
- Soyabean is key to Madhya Pradesh “Malwa is India’s United States midwest and Indore its Chicago.
- And that’s only due to soyabean.”
- The relative hardiness and shorter maturity — a minimum of 10-15 days less than jowar (sorghum) or maize — created soyabean the best kharif crop.
- Importance of SoyabeanSoyabean is recognized as one of the premier crops round the world.
- It’s a major supply of vegetable oil, protein and animal feed.
- Due to high protein content (>40%) and high oil content (>20%), Soyabean is considered to be a very important food product.
- The soya protein is known complete protein because it provides sufficient quantity of amino acids. soyabean oil contains no cholesterin.

## **Topic 16. FINANCIAL INCLUSION IMPROVES POLICY TRANSMISSION**

### ***Importance for Prelims: Economy***

Reserve Bank of India (RBI) Deputy Governor Michael Patra on Thursday said monetary inclusion results in better financial policy transmission.

- Financial inclusion is also outlined because the method of making certain access to monetary services and timely and adequate credit wherever required by vulnerable groups like weaker sections and low financial gain groups at an affordable price.
- As per census 2011, only 58.7% of households are availing banking services within the country.
- Financial Inclusion Initiatives Jan Dhan-Aadhar-Mobile (JAM) Trinity – the mixture of Aadhaar, PMJDY, and a surge in mobile communication has reshaped the method citizens access government services.
- The government has additionally launched several flagship schemes to promote monetary inclusion and supply financial security to empower the poor and unbanked within the country.
- These include the Pradhan Mantri Mudra Yojana, Stand-Up India theme, Pradhan Mantri Jeevan Jyoti Bima Yojana, Pradhan Mantri Suraksha Bima Yojana, and Atal Pension Yojana.
- Promotion of Digital Payments – With the strengthening of the Unified Payment Interface (UPI) by NPCI, digital payments are created secure, compared to the past.
- Initiatives by Reserve Bank of India and NABARD – opening of bank branches in remote areas.
- Issuing Kisan Credit Cards (KCC) Linkage of self-sufficiency groups (SHGs) with banks.
- Increasing the number of automated teller machines (ATMs) Business

correspondents model of Banking, etc.

## Topic 17. PRALAY QUASI-BALLISTIC MISSILE

*Importance for Prelims: Defence and Security*



The Defence analysis and Development Organisation (DRDO) wednesday with success carried out the maiden test of ‘Pralay’

- The Defence analysis and Development Organisation (DRDO) with success carried out the maiden test of ‘Pralay’, a new surface-to-surface conventional quasiballistic missile, during a boost for India’s tactical battlefield strategy.
- A quasi-ballistic missile has a low trajectory, and whereas it's largely ballistic, it will manoeuvre in flight.
- The missile has a range of 150-500 kilometres and has been developed consistent with specifications given by eventual user, the Army.
- The missile was trial from the Dr A.P.J. Abdul Kalam Island off the coast of odisha and met all its intention.
- The missile is powered with a solid propellant rocket motor and various new technologies.
- Capable of being launched from a mobile launcher, it's the most recent

navigation system and integrated avionics, and can be a part of the Artillery Corps of the military.

- Pralay are the longest-range surface-to-surface missile within the inventory of the military, that sources said can provides a fillip to their operational plans.
- While cruise missiles have high agility, stealth and even loitering capability, ballistic missiles have the advantage of speed and countering them may be a very tough task even for contemporary air defence systems.

## Topic 18. SHYAMA PRASAD MUKHERJEE RURBAN MISSION

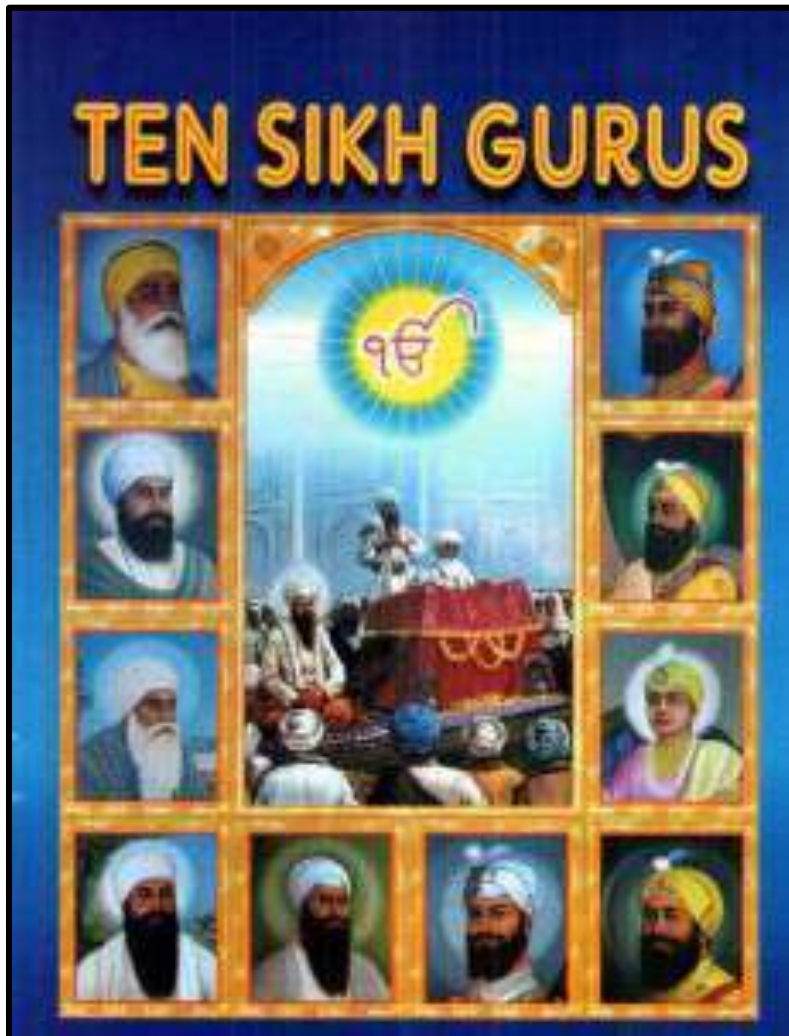
### *Importance for Prelims: Government Schemes*

Telangana stood 1st within the implementation of the Shyama Prasad MukherjiRurban Mission (SPMRM)

- It may be a Centrally Sponsored scheme (CSS), launched in 2016 by the Ministry of Rural Development (MoRD) to deliver integrated project based mostly infrastructure within the rural areas, that conjointly include development of economic activities and ability development.
- A predecessor to SPMRM was the provision of Urban Amenities to Rural Areas (PURA), declared in 2003. PURA was mooted by the previous President Dr. Abdul Kalam in Jan 2003 as a way of empowering and accelerating rural development.
- Main objective of the theme is bridging the rural-urban divide-viz: economic, technological and those associated with facilities and services.
- **Rurban Clusters:** There are two classes of clusters: Non-Tribal and tribal.
- They are associate across the country's rural areas showing increasing signs of urbanization – i.e. increase in population density, high levels of non-farm employment, presence of growing economic activities and alternative socioeconomic parameters.
- For the needs of SPMRM, Rurban areas refer to a cluster of 15-20 villages having regarding thirty to forty lakh population.
- The clusters are geographically contiguous Gram Panchayats with a population of regarding 25000 to 50000 in plain and coastal areas and a population of 5000 to 15000 in desert, mountainous or tribal areas.
- The state government identifies the clusters in accordance with the Framework for Implementation ready by the MoRD.

## Topic 19. SIKH GURUS

*Importance for Prelims:History*



Unity is collective responsibility: PM Modi recollects role of Sikh gurus

1. **Guru Nanak Dev** – Guru from 1469 to 1539 guru nanak Dev, 1st of the ten gurus, founded the Sikh religion, introducing the conception of 1 God. He started the establishment of Guru KaLangar. Langar is that the term within the Sikh faith refers to the common kitchen wherever food is served to everybody without any discrimination. He emphasised the equality of ladies and rejected the path of renunciation and he rejected the authority of the Vedas. He was the modern of Mughal emperor – Babur.
2. **Guru Angad Dev** – Guru from 1539 to 1552 Guru Angad Dev, second



of the ten gurus, originate and introduced the Gurmukhi (written form of Punjabi) script. He compiled the writings of nanak Dev in Guru granth sahib in Gurmukhi Script. Popularized and expanded the establishment of Guru kaLangar that was started by guru nanak Dev.

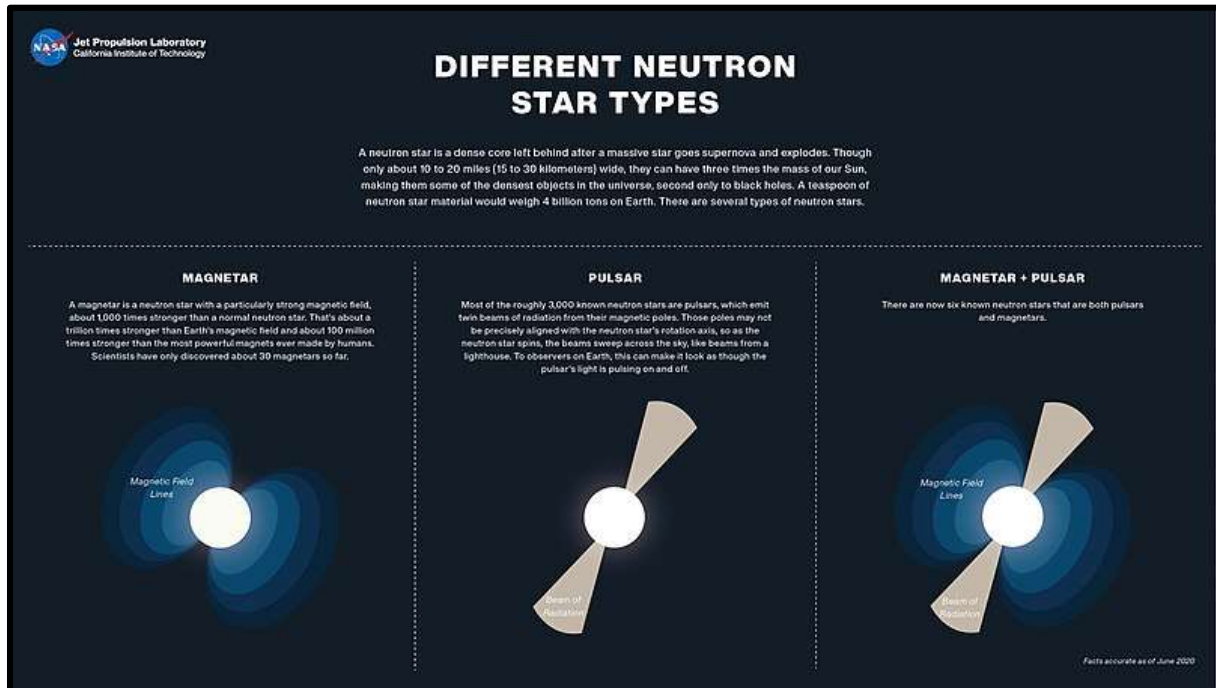
3. **Guru Amardas sahib** – Guru from 1552 to 1574 Guru Amardas introduced the Anand Karaj wedding ceremony for the Sikhs, replacing the Hindu kind. He established Manji & Piri system of spiritual missions for men and women respectively. He strengthened the tradition of Guru KaLangar. He conjointly fully abolished amongst the Sikhs, the custom of Sati and purdah system. He was the modern of Mughal emperor – Akbar.
4. **Guru Ram Das** – Guru from 1574 to 1581 Guru Ram Das, fourth of the ten gurus, founded the town of Amritsar. He started the development of the famous Golden Temple at Amritsar, the holy city of the Sikhs. He requested the Muslim Sufi, Mian Mir to lay the cornerstone of the Harmandir sahib.
5. **Guru Arjan Dev** – Guru from 1581 to 1606 He compiled the AdiGranth, the scriptures of the Sikhs. He completed construction of Sri Darbar sahib conjointly called Golden Temple in Amritsar. He founded the city of tarn Taran sahib close to Goindwal sahib. He became the 1st great martyr in Sikh history once Emperor Jahangir ordered his execution. Thus, he was greet as Shaheedan-de-Sartaj (The crown of martyrs).
6. **Guru HarGobind sahib** – Guru from 1606 to 1644 He was the son of Guru Arjan Dev and was known as a “soldier saint”. He organized a small army and have become the 1st Guru to take up arms to defend the religion. He waged wars against Mughal rulers Jahangir and shah jahan.
7. **Guru Har Rai sahib** – Guru from 1644 to 1661 although he was a man

of peace, he never disbanded the armed sikh warriors who were earlier maintained by Guru HarGobind. He gave protection to Dara Shikoh, the eldest son of Mughal Ruler shah jahan, who was later punish by Aurangazeb. He cautiously avoided dispute with Emperor Aurangzeb and devoted his attempt to missionary work.

8. **Guru HarKrishan sahib** – Guru from 1661 to 1664 Guru HarKrishan was the youngest of the Gurus. He was installed as Guru at the age of 5. He was modern of Aurangazeb and summoned to delhi by him under framed charges of anti-Islamic blasphemy.
9. **Guru Tegh Bahadur sahib** – Guru from 1665 to 1675 He established the city of Anandpur. He opposed the forced transformation of the Hindu Kashmiri Pandits by Mughal ruler Aurangazeb and he was accordingly victimize for this.
10. **Guru Gobind Singh sahib** – Guru from 1675 to 1708 He became Guru when the martyrdom of his father Guru Tegh Bahadur. He created the khalsa in 1699, ever-changing the Sikhs into a saint-soldier order for protecting themselves. Last Sikh Guru in human form and he passed the Guruship of the Sikhs to the Guru granth sahib. He established the 5 symbols of Sikhism: Kangha (comb), Kesh (long hair), Kada (iron bracelet), Kachcha (underwear) and kirpan (sword or dagger). Guru granth sahib Guru Granth (also called the AdiGranth) is that the scripture of the Sikhs. The granth was written in Gurmukhi script and it contains the actual words and verses as uttered by the Sikh Gurus. it's considered the Supreme religious Authority and Head of the Sikh faith, instead of any living person.

## Topic 20. MAGNETARS

### *Importance for Prelims: Science and Tech*



Study of faraway magnetar reveals aspect of the exotic star

- A magnetar may be a sort of star believed to possess an extremely powerful magnetic field.
- Neutron stars are formed once the biggest stars within the universe reach the top of their lives.
- When these stars run out of fuel, their core collapses inflicting outer layers to come crashing in towards the centre.
- The magnetic field decay powers the discharge of high-energy electromagnetic radiation, especially X-rays and gamma rays.
- A magnetar may be a rare compact kind of neutron star teeming with energy and magnetism.
- Magnetars are comparatively rare objects, with only regarding thirty having been spotted within the milky way thus far.

### **How magnetars form?**

- During the course of their evolution, large stars – with masses around 10-

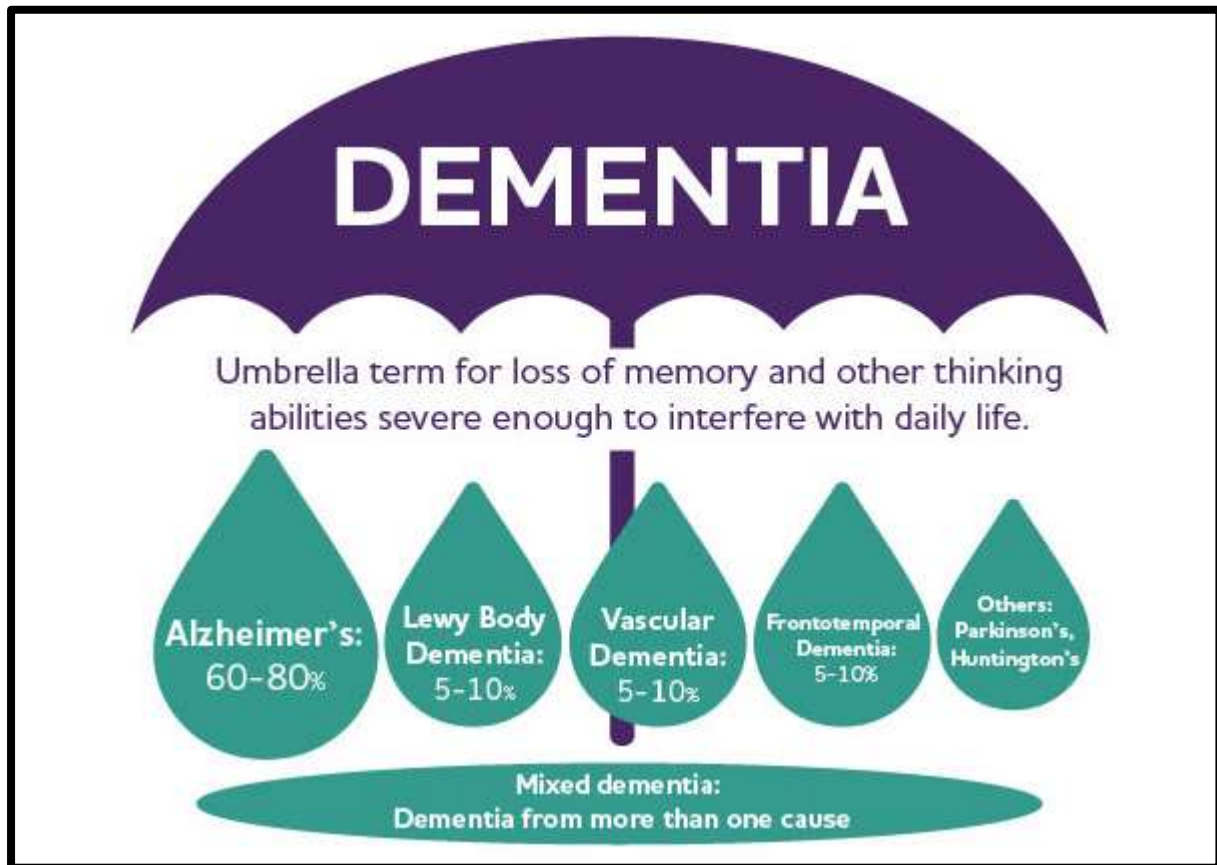
25 times the mass of the Sun – eventually collapse and shrink to create very compact objects known as neutron stars.

- A subset of those neutron stars are the so-called magnetars that possess intense magnetic fields.
- These are extremely dense and have breathtakingly high rotation speeds – they need rotational periods that can be just 0.3 to 12.0 seconds.
- Magnetars have high magnetic fields within the range of ten gauss and that they emit energy within the vary given by luminosities of ten – ten joules per second.
- Compare this to the luminosity of the sun that is within the order of ten joules per second – an element of a minimum of ten more, these magnetars emit violent flares. Eruptions in magnetars are believed to flow from to instabilities in their magnetosphere, or “starquakes” produced in their crust – a rigid, elastic layer regarding one km thick.
- This causes waves within the magnetosphere, and interaction between these waves causes dissipation of energy.
- Magnetars are very tough to observe after they are silent.
- It is only throughout a flare that they will be observed, and these flares are therefore short-lived that it presents a formidable problem.
- They are largely observed or seen in active transient phases that are very short in period and are very faint generally for any available instruments or telescopes.
- The active lifetime of a magnetar is brief.
- Their strong magnetic fields decay when regarding 10,000 years, when that activity and powerful X-ray emission cease.
- In News – an international cluster of researchers has succeeded in measuring for the primary time the characteristics of a flare on a distant magnetar.

- The magnetar they need studied is regarding thirteen million light years away, within the direction of the NGC 253, a prominent galaxy within the Sculptor cluster of galaxies.
- 15 37 40 26 11 The flare, that spewed inside a few tenths of a second the maximum amount energy because the Sun would shed in 100,000 years, was captured accidentally on Apr fifteen, 2020, by the Atmosphere-Space Interactions Monitor instrument (ASIM) of the International space platform.
- The present magnetar is just the second one to be studied that is found outside the galaxy and is additionally the furthest, at thirteen million light years distance.

## Topic 21. DEMENTIA

*Importance for Prelims: Science and Tech*



The California-based site “Bayview Senior assisted Living,” in an article suggests thirteen ways that during which dementia is handled / reduced.

- Dementia may be a cluster of symptoms that have an effect on memory and thinking and interfere with everyday life. Alzheimer’s disease is that the main and major cause of mental illness.
- Treatments to reduce the symptoms and progression of dementia is clinical, or strategies like practising yoga, breathing exercises, brisk walking and listening to melodious music.
- It is an age-related disease, affecting over fifty five million individuals across the globe.
- The National Health Portal of india says that as per the Census 2011, mental illness affects 2.7% of the sixty five million Indian Senior citizens

over sixty five years older.

## **Topic 22. LEGAL METROLOGY ACT 2009**

### ***Importance for Prelims:Governance***

Govt. set to decriminalise metrology law

- The Act aims to establish and enforce standards of weights and measures, regulate trade and commerce in weights, measures and alternative merchandise that are sold or distributed by weight, live or range and for matters connected with that or incidental to it.
- The Acts is regulated and administered by the Ministry of client Affairs, Food and Public Distribution.
- The Legal metrology (Packaged Commodities), Rules 2011 are primarily intended to confirmthat the customers are able to make informed selections by being informed of essential declarations on the pre-packed commodities.



## **Topic 23. 'ELECTRONIC GOLD RECEIPT' (EGR) AS SECURITIES**

### ***Importance for Prelims: Economy***

Electronic gold receipts are currently 'securities', says Finance Ministry

- The Finance Ministry has specific 'Electronic Gold Receipt' (EGR) as 'securities' under the Securities Contracts (Regulation) Act 1956, paving method for trading of such instruments on any new gold exchanges which will come up within the country.
- This move would additionally trading commerce of EGR in existing exchanges under a separate segment.
- Like shares, EGRs are held in demat kind and may be converted into physical gold once required.
- With this move, EGR can have trading, clearing and settlement options akin to the other securities.
- An EGR is an electronic receipt issued on the premise of deposit of underlying physical gold in accordance with the rules created by SEBI.
- Finance Minister Nirmala Sitharaman had within the 2021-22 budget said that Securities and Exchange Board of India (SEBI) are the regulator for gold exchanges which the warehousing Development and regulatory authority would be reinforced to line up the commodity market ecosystem.
- SEBI had in Sept this year given its nod for fitting a gold exchange wherein the yellow metal are traded within the kind of an EGR.
- SEBI had then said that any recognised stock exchange, existing also as new, will launch trading in EGRs during a separate section.
- The denomination for trading of EGRs and conversion of an EGR into gold may be determined by the stock exchanges with the approval of SEBI.
- Benefits Host of advantages for the worth chain participants also as for

the whole gold market ecosystem like efficient and clear value discovery, investment liquidity, assurance within the quality of gold etc.

- The EGR holder will continue to hold the EGRs as long as supposed since EGRs can have perpetual validity.
- An EGR holder at his discretion may withdraw the underlying gold from the vaults upon surrender of such receipts.
- To lower the prices associated with withdrawal of gold from the vaults, SEBI said EGRs will be created “fungible” and “interoperability between vault managers” are allowed.
- Vault managers SEBI has already said that it'd regulate vault managers, who can have to be register with the market regulator, as an intermediary for providing vaulting services meant for gold deposited to make EGRs.
- The obligations of the vault manager include acceptive deposits, storage and safekeeping of gold, creation also as withdrawal of EGR, grievance redressal and periodic reconciliation of physical gold with the records of depository.

## Topic 24. CPSES' CAPITAL EXPENDITURE

### *Importance for Prelims: Economy*

At 20%, CPSEs' capex pace strong, yet below target

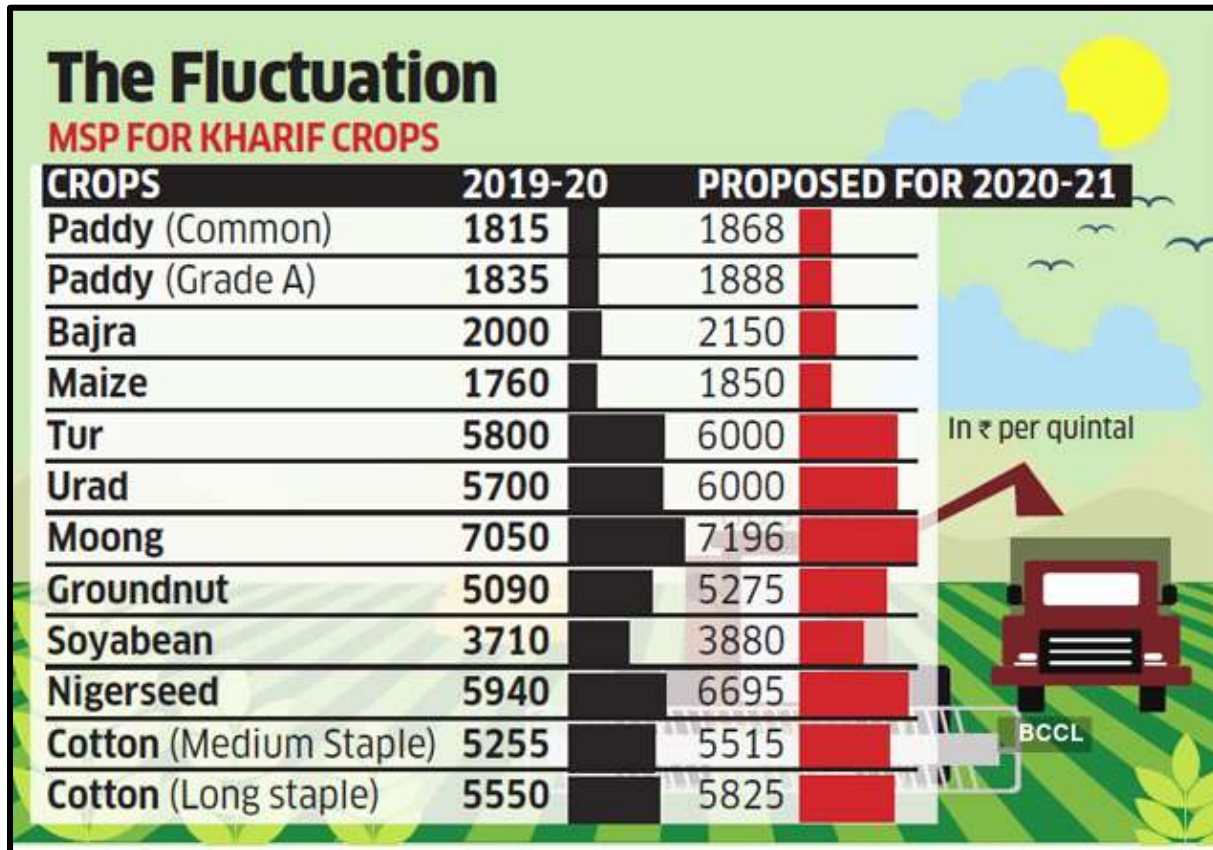
- Capital expenditure by massive central public-sector entities — firms and undertakings – rose by nineteen per cent on year to Rs 3.1 lakh crore within the 1st eight months of this financial year.
- In April-November of FY22, the railways was the largest capitalist by deploying capex of regarding Rs 93,000 crore or forty eight per cent of its annual target of Rs 1.95 lakh crore.
- Capital expenditures Capital expenditures are those that make some liability/asset for the govt.
- These embrace loans to public enterprises, loans to States, Union Territories and foreign governments and acquisition of valuables.
- They are long investments of big amount of cash for acquiring long-run assets like producing instrumentation.
- Such assets acquired give incomegenerating worth over a amount of years.
- Hence, the value of such assets is recovered through year-by-year depreciation over the productive life of the asset.
- In essence, the expenditure that is completed for initiating current, also because the future economic profit, is really capital expenditure.
- Examples of capital expenditures Purchase of mill and building.
- Purchase of machine, furniture, motor vehicle, workplace instrumentation etc.
- Cost of goodwill, trademarks, patents, copy right, patterns and styles. Expenditure on installation of plant and machinery and different workplace equipment.
- Additions or extension of existing fixed assets. Structural improvement or

alterations on fixed assets that increase their life or earning capability.

- For example: Conversion of handloom to powerloom. Development expenses just in case of mines and plantations.

**Topic 25. MINIMUM SUPPORT PRICES (MSP)**

*Importance for Prelims: Agriculture*



There is no guarantee farmers’ financial gain can rise because the methodology for estimating price of production is outdated, defective

- The Centre has been announcing MSP for crops each year for 2 seasons — kharif and rabi — since 1965, based on the advice of the Commission for Agricultural prices and costs (CACP).
- Initially, it had been declared just for wheat and paddy. Over the years, a lot of crops were extra.
- The MSP is presently offered for twenty three crops.
- Historically, the MSP is determined supported the value of cultivation, input costs, provide and demand of crops, the value level in world markets, etc.
- Although the CACP uses 9 totally different price ideas (A1, A2, A2+FL,

B1, B2, C1, C2, C2\* and C3) for estimating the value of production, the MSP was fixed supported value  $A2+FL$  formula until 2018.

- While the value C3 includes all the expenses incurred for crop cultivation, A2 covers solely the farmer's out-of-pocket spend on cultivation.
- That is, value  $A2+FL$  (family labour) doesn't take into account the depreciation value of farm machinery, the interest on loans, etc.
- Therefore, the gap between C3 and  $A2+FL$  price is 30-50 per cent for many mandated crops.
- In such a structure, crop production becomes unprofitable for farmers.
- So they're demanding MSPs that cover the complete value of production.
- MS Swaminathan headed Farmers' Commission (2006) recommended that MSPs for crops ought to be fixed at fifty per cent higher than the price of production.
- Given the continual demand from farmers, the govt created a historic announcement in Budget 2018-19 that the MSP are fixed a minimum of one-and-half times the value of production.
- Since kharif 2018, the MSP is are fixed based on price  $A2+FL$  plus fifty per cent formula.

## Topic 26. PHISHING

*Importance for Prelims: Defence and Security*

### Spear Phishing Explained

Spear phishing is a targeted cyberattack toward an individual or organization with the end goal of receiving confidential information for fraudulent purposes.




**1.**

A cybercriminal **identifies a piece of data** they want and **identifies an individual** who has it.



**2.**

The cybercriminal **researches the individual** and **poses as one of their trusted sources.**



**3.**

The cybercriminal **convinces their victim to share the data** and uses it to commit a malicious act.

Phishing attacks on central ministry officials get sharp, targeted

- Phishing could be a cybercrime during which a target or targets are contacted by email, telephone, or text message.
- This is completed by somebody posing as a legitimate institution to lure people into providing sensitive information like in person identifiable data, banking and credit card details, and passwords.
- The goal is to trick the e-mail recipient into believing that the message is something they require or need — a request from their bank, for instance, or a note from somebody in their company — and to click a link or download an attachment.
- What really distinguishes phishing is that the type the message takes: the

attackers masquerade as a trustworthy entity of some kind, often a true or plausibly real person, or an organization the victim may do business with.

- It's one of the oldest sorts of cyberattacks, dating back to the Nineteen Nineties, and it's still one among the foremost widespread and pernicious, with phishing messages and techniques becoming progressively sophisticated.
- Related Terms – Spam is unrequested email, instant messages, or social media messages.
- These messages are fairly simple to identify and may be damaging if you open or respond.
- Spear Phishing occurs once criminals obtain data regarding you from websites or social networking sites, and customise a phishing theme to you.
- Spoofing describes a criminal who impersonates another individual or organization, with the intent to collect personal or business data. Pharming could be a malicious web site that resembles a legitimate web site, used to gather usernames and passwords.



## **Topic 27. HEALTHCARE ACCESS AND QUALITY (HAQ) INDEX**

### ***Importance for Prelims:Governance***

As per the 2016 health care Access and Quality Index (HAQ), india improved its HAQ score from 24.7 in 1990 to 41.2 in 2016

- India was ranked one hundred forty-fifth among 195 countries on health care Access and Quality (HAQ) index in 2016.
- The index is based on thirty two causes of death considered preventable with effective medical treatment.
- It assigns a 0-100 score to every of the 195 countries and territories assessed.
- The comprehensive index is discharged by international Burden of disease, funded by the Bill and Melinda Gates Foundation.
- India has seen development in HAQ since the year 1990.
- India's HAQ score 41.2 has improved from 24.7 score within the year 1990.
- India lags method behind its BRICS peers Brazil, Russia, China and south africa on the HAQ index.

## **Topic 28. NATIONAL PROGRAMME FOR THE HEALTH CARE FOR THE ELDERLY**

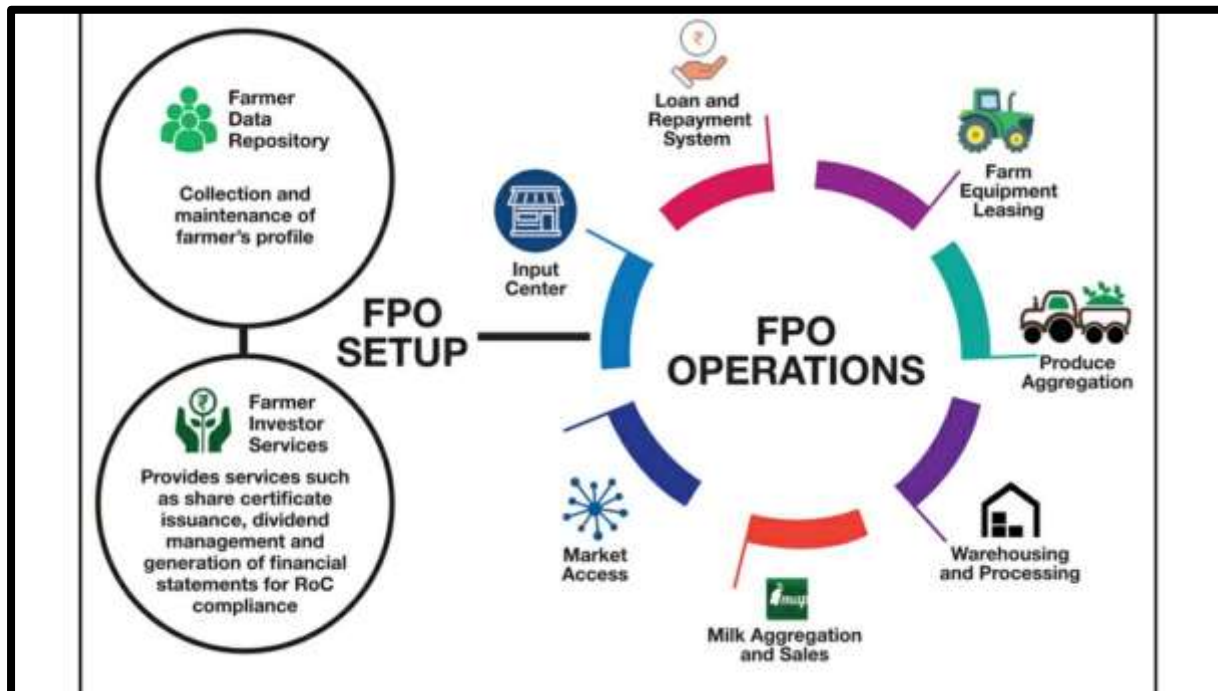
### ***Importance for Prelims:Governance***

Life expectancy in india has up from fifty (1970-75) to seventy years (2014-18); as a result, the number of elders (those over sixty years) is already 137 million, and expected to increase by forty per cent to 195 million in 2031, and three hundred million by 2050.

- The National Programme for the Health take care of the older (NPHCE) is an articulation of the International and national commitments of the govt. as envisaged under the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), National Policy on Older Persons (NPOP) adopted by the govt. of india in 1999 & Section twenty of “The Maintenance and Welfare of parents and Senior citizens Act, 2007” managing with provisions for medical aid of old-age pensioner.
- Vision to produce accessible, affordable, and high-quality long-run, comprehensive and dedicated care services to an Ageing population; creating a new “architecture” for Ageing; to create a framework to make an enabling environment for “a Society for all Ages”; to promote the thought of Active and Healthy Ageing.

## Topic 29. FARMER PRODUCER ORGANIZATIONS (FPO)

### *Importance for Prelims:Agriculture*



Just 1-5 per cent of FPOs have received funding under central government schemes introduced to promote them within the last seven years, the State of India's livelihood (SOIL) Report 2021 stated.

- FPO is an organization, wherever the members are farmers itself.
- Farmers Producers Organization provides end-to-end support and services to the little farmers, and cover technical services, marketing, processing, and others aspects of cultivation inputs.
- The Government of india has approved and launched the Central Sector theme of “Formation and Promotion of 10,000 Farmer Producer Organizations(FPOs)” to create and promote 10,000 new FPOs until 2027-28 with a complete budgetary outlay of Rs.6865 Cr.
- An FPO may be a Producer Company, a Cooperative Society or the other legal kind.
- FPOs are basically the hybrids of cooperatives and personal corporations.
- The plan behind the Farmer Producer Organizations (FPO) was that

“Farmers, who are the producers of their agricultural product, will type the groups and may register themselves under the Indian companies Act”.

- Small Farmers agribusiness consortium (SFAC) was mandated by the Department of Agriculture and Cooperation, Ministry of Agriculture, Govt. of India, to support the state government within the formation of the Farmer Producer Organizations (FPOs).
- The goal is to enhance the farmers’ competitiveness and to extend their advantage in emerging the market opportunities.
- the main operations of Farmers Producer Organization (FPO) include the provision of seed, machinery, market linkages & fertiliser, training, networking, monetary and technical advice.
- Key points of FPO at first, the minimum members in Farmer Producer Organization are one hundred in North East & mountainous Areas and three hundred in plain areas.
- The Farmers Producers Organizations are formed and promoted through the Cluster-Based Business Organizations and engaged at the State or Cluster level by implementing the agencies.
- Farmer Producer Organization is promoted under “One District One Product” to promote the specialization and higher branding, marketing, process and exports by FPO.
- The Farmers Producer Organization provide adequate coaching & handholding and also the CBBOs offer the initial coaching.
- Priority is given for the formation of Farmer Producer Organization in aspirational districts with a minimum of one FPO in every block of the aspirational districts.

## **Topic 30. SECTION 13 OF FCRA**

### ***Importance for Prelims:Governance***

Centre ‘refuses’ to renew mother teresa charity’s FCRA status, cites ‘adverse inputs’

- According to provisions of Section thirteen within the Act, the suspension lasts one hundred eighty days every time. Section 14(d) of the FCRA Act states that the FCRA certificate can be cancelled for violating “any” rule or provision of the Act.

### **When may be a registration suspended or cancelled?**

- The MHA on inspection of accounts and on receiving any adverse input against the functioning of an association will suspend the FCRA registration at first for one hundred eighty days.
- Until a decision is taken, the association cannot receive any fresh donation and can't utilize over twenty five per cent of the amount available within the designated bank account while not permission of the MHA.
- The MHA will cancel the registration of an organisation which can not be eligible for registration or grant of ‘prior permission’ for 3 years from the date of cancellation.

## Topic 31. TYPE OF GALAXIES

*Importance for Prelims: Science and Tech*



In just our noticeable universe we estimate there are over two trillion galaxies!

- There are four main classes of galaxies: elliptical, spiral, barred spiral, and irregular.
- These varieties of galaxies are additionally divided into subcategories whereas at a similar time alternative varieties of galaxies exist supported their size and different unique options.
- Spiral Galaxy the most common sort of galaxy found throughout the universe is that the spiral galaxy.
- Around seventy seven per cent of the galaxies observed by man are spiral galaxies.
- A good example of this kind is that the andromeda galaxy.
- Around two-thirds of all spiral galaxies have a bar-like structure – so they're classified as barred spiral galaxies.

- Our galaxy, the milky way is an example of this kind of galaxy.
- They have a flat, spinning disk with a central bulge nearby by spiral arms.
- The spinning motion reaches speeds of up to 100 of kilometers/miles per second.
- The bulge placed within the center is created up of older, dimmer stars, and is assumed to usually contain a supermassive black hole.
- Elliptical Galaxies Elliptical galaxies have an elongated spherical shape and lack a nucleus or bulge at the middle.
- Although there's no nucleus, the galaxy remains brighter within the center and becomes less bright toward the outer edges of the galaxy.
- Their light is dominated by older ruddy stars.
- They appear to conjointly lack spiral arms.
- the stars, gases and alternative materials are unroll throughout an elliptical galaxy.
- The rarest variety of galaxies is that the elliptical double-ringed galaxy.
- PGC 1000714 is an example. Estimates recommend that around 0.1% of galaxies are this kind.
- It is occasionally named the Hoag-type galaxy.
- Elliptical galaxies are typically comprised of very old stars or stars with low mass.
- They make up around 10-15% of galaxies within the Virgo Supercluster, a supercluster of that we are a part of.
- They are very dim in comparison with the terribly bright spiral galaxies.
- The largest galaxies are typically huge elliptical galaxies, containing a trillion or even more stars.
- They span as much as 1 million light-years across – ten times as much because the milky way.

- Curious enough, the littlest galaxies are the elliptical varieties. Irregular Galaxies Irregular galaxies haven't any definite shape, although they're in constant motion like all different galaxies.
- They have a chaotic appearance as they don't appear to possess a nuclear bulge or traces of spiral arms.
- Some irregular galaxies were once spiral or elliptical galaxies however were misshapen by an uneven external force of gravity.
- Irregular galaxies are usually commonly, and collectively they create up about a quarter of all the galaxies.
- The oldest and farthest galaxy ever discovered is an irregular variety of galaxy known as GN-z11. it's thirty two billion light-years / 9.8 billion parsecs faraway from United States.
- it's estimated that the galaxy formed simply around four hundred million years when the large Bang.
- Lenticular Galaxies they seem like cosmic pancakes, fairly flat and featureless within the night sky.
- These galaxies are often thought of because the “in between” of spiral and elliptical galaxies.
- the majority of star formation has stopped however lenticular galaxies will still have significant amounts of dirt in them.



## Topic 32. MANGROVES

### *Importance for Prelims: Environment*



Deepen comprehension of Indian mangrove ecosystems, says mangrove scientist

- Mangroves are the plant communities occurring in inter-tidal zones on the coasts of tropical and subtropical countries.
- mangrove forests perform multiple ecological functions like production of woody trees; provision of habitat, food, and spawning grounds for fin-fish and shellfish; provision of habitat for birds and different valuable fauna; protection of coastlines and accretion of sediment to create new land.
- Mangrove plants have many distinctive adaptations that permit them to survive in harsh atmosphere.
- Mangroves are very vital to the coastal ecosystems they inhabit. Physically, they function as a buffer between marine and terrestrial communities.

- They defend coastlines from damaging winds, waves, and floods. mangrove has a very important role in rising water quality by filtering pollutants and trapping sediments from the land.
- They reduce coastal erosion. Ecologically, they supply habitat for a various array of terrestrial and marine organisms.
- The area of mangroves has greater species diversity because it is that the junction of terrestrial and marine ecosystems.
- they need very high salt tolerance and then some species that need this atmosphere conjointly thrive upon mangroves.
- According to 1 of its oft-quoted definition, “Mangroves represent a characteristic littoral (near the ocean shore) forest ecosystem and that they are mainly evergreen forests that grow in protected low lying coasts, estuaries, mudflats, tidal creeks backwaters (coastal waters control back on land), marshes and lagoons of tropical and subtropical regions”.
- Mangrove Forests trees project differing types of roots: Prop – they're down into the water Air – they're vertically configured up from the mud Stilt – These roots emerge from the most trunk of the tree; conjointly known as adventitious roots.
- According to the Forest Survey of india, 2019, Mangroves' cover within the country increased by fifty four sq kilometer (91.10 percent) as compared to the 2017 assessment. mangrove cover in india is 4975 sq kilometer (0.15 % of the full geographic area.)
- The protection or restoration of blue carbon — organic carbon sequestered and stored over long timescales by coastal vegetated ecosystems like mangrove forests, seagrasses, and saltmarshes — is steadily gaining prominence as a key natural climate answer. mangrove cover is divided as: very Dense – 1476 sq kilometer (29.66 percent) Moderately Dense – 1479 sq kilometer (29.73 percent) Open Mangroves

– 2020 sq kilometer (40.61 percent)

- There are 3 vital varieties of mangroves:
- Red mangroves: They grow on coastlines and are the hardiest of the 3 major mangrove plant varieties.
- Black mangroves: they're named therefore due to their dark bark. they typically grow at slightly higher elevations than red mangroves.
- They have access to additional oxygen as a result of the roots are more exposed.
- White mangroves: They grow at higher altitude than red and black mangroves.
- Generally they are doing not have aerial roots.
- But generally there's distinctive growth of peg roots once oxygen is depleted because of flood.

## Topic 33. FLEX-FUEL VEHICLES

*Importance for Prelims: Economy*

# 6 THINGS TO KNOW ABOUT ETHANOL AND FLEX FUEL

- 1 Flex fuel vehicles can run on both **petrol and ethanol**
- 2 India is aiming to achieve **E10 by 2022** and **E20** (which would involve a 20% ethanol blend) **by 2025**
- 3 At present there are **no flex-fuel-powered engines or vehicles** with the exception of a limited-edition TVS Apache RTR motorcycle
- 4 Ethanol is hygroscopic, and has a tendency to absorb moisture making it **difficult to store in pure form**. Its affinity to attract moisture can also lead to impurities settling at the base of the fuel tank and contaminating the engine
- 5 At present **E10 isn't available** across the country, and will be made so by 2022
- 6 According to the government, all **vehicles manufactured since 2008 are E10 compatible** (but not optimised). E100 ethanol will be sold at a lower price from ethanol pumps

moneycontrol 



Minister of Road Transport and Highways Nitin Gadkari has known as on carmakers to begin producing flex-fuel vehicles and flex-fuel hybrids in india, whereas saying a similar will be commute-ready within six months.

- Flex fuel vehicles (FFV) are capable of running on one hundred per cent petrol or one hundred per cent bioethanol or a mixture of each.
- Bio-ethanol contains less energy per litre than gas however the calorific worth (energy contained within the fuel) of bio-ethanol can become on

par with petrol with use of advanced technology.

- The government has conjointly suggested carmakers to begin creating Flex Fuel strong Hybrid electrical Vehicles (FFSHEV).
- Such a vehicle, although yet to be created wide available in world markets, basically homes an electrical motor that powers the vehicle alongside the traditional petrol engine.

### **What method are they totally different from existing vehicles?**

- Since an FFV is capable of running on either petrol or ethanol, it'll be the primary of its kind one hundred per cent dual fuel vehicle to run on Indian roads.
- To make sure, a litre of petrol sold in india has an average of eight per cent ethanol content although oil promoting firms have clearance to try to even ten per cent (E10) blending.
- All vehicles factory-made in india are tuned for E10.
- All existing vehicles on Indian roads won't be ready to run on higher ethanol content beyond ten per cent.
- To what extent can FFVs facilitate in cutting emission? consistent with a report by the professional committee formed by the Ministry of crude oil and fossil fuel, by simply hitting E20, carbon monoxide emissions were observed to be fifty per cent lower in two-wheelers and thirty per cent lower in four-wheelers compared to petrol.
- Hydrocarbons were lower by twenty per cent.
- The report additionally mentioned that E20 blending can result in drop by fuel efficiency by nearly 6-7 per cent in four-wheelers designed for E0 and calibrated to E10.

### **What has been the auto industry's reaction to government's policy?**

- Higher mixing of ethanol can mean higher producing prices that translates to pricier vehicles.

- Certain auto parts, particularly those who come in contact with higher ethanol content, can need to get replaced with a compatible product to avoid corrosion.

## **Topic 34. CONSUMER PROTECTION (JURISDICTION OF THE DISTRICT COMMISSION, THE STATE COMMISSION AND THE NATIONAL COMMISSION) RULES 2021**

### ***Importance for Prelims:Governance***

Centre notifies new rules for client commissions

- The Centre has notified the consumer Protection (Jurisdiction of the District Commission, the State Commission and therefore the National Commission) Rules, 2021, revising the pecuniary jurisdiction of the district, State and national commissions.
- According to the notification, district commissions can have jurisdiction to entertain complaints wherever the worth of the products or services paid doesn't exceed ₹50 lakh. State commissions will handle complaints within the range of ₹50 lakh-₹2 crore.
- The National Commission shall have jurisdiction to entertain complaints wherever the worth of the products or services paid as thought exceeds ₹2 crore. E-Daakhil portal shopper Affairs Ministry said that customers may also file complaints digitally through the E-Daakhil portal.
- Currently, the facility of E-Daakhil is available in 544 consumer commissions, which incorporates the National Commission and client commissions in twenty one States and three UTs.
- The consumer Protection Act, 2019, that came into force on July twenty, 2020, has a provision for e-filing of client complaints within the consumer commissions and on-line payment of the fees for filing a complaint.
- A internet application for e-filing of client complaints named 'edaakhil.nic.in' has been developed by NIC for the aim. E-filing was launched by the National client Disputes Redressal Commission (NCDRC) on Sept seven, 2020. delhi was the primary state to implement

it on Sept eight, 2020.

- consumer Protection Act The new Consumer Protection Act 2019 seeks to revamp the method of administration and settlement of costumer disputes, with strict penalties, together with jail term for adulteration and misleading ads by corporations.
- It defined six rights of the customers that include: Right to be protected against the promoting of products, goods or services which may be hazardous to life and ownership to be told regarding the standard, quantity, potency, purity, standard and worth of products, goods and services Right to be assured of access to merchandise, product and services at competitive costs.
- Right to be heard at acceptable forums Right to seek redressal against unfair trade practices that are concerned in exploitation of customers Right to consumer awareness
- It proposes to line up Central consumer Protection Authority (CCPA) to promote, protect and enforce the rights of customers.
- The CCPA would create interventions to prevent client detriment arising from unfair trade practices.
- The agency may also initiate class action, together with enforcing recall, refund and return of product.
- It additionally simplified dispute resolution method, has provision for Mediation and e-filing of cases.
- The shopper are able to file cases within the nearest commission under the jurisdiction of that he resides.
- Under the consumer Protection Act, there's conjointly an choice of resolution client disputes through mediation with the consent of each parties.
- Consumer Disputes Redressal Commissions (CDRCs) would be setup at



varied levels.

- The CDRCs would be established at multiple levels – district, state and national. customers will file complaints with the CDRCs concerning any of the subsequent.
- Defective merchandise or services Overcharging or deceptive charging on product and services Any unfair or restrictive trade practices providing services or sale of products which may be hazardous to life or not safe As per the new act, all the laws that apply for direct marketing would even be applicable for E-Commerce.
- Consumers will file complaints from anyplace and that they don't got to hire lawyer to represent their cases.
- For mediation, there'll be strict timeline fixed within the rules.
- On misleading advertisements there's provision for jail term and fine for producer.
- For the 1st time there'll be an exclusive law handling with Product Liability.
- A manufacturer or product service supplier or product seller can currently be responsible to compensate for injury or harm caused by defective product or deficiency in services.

## Topic 35. SAHITYA AKADEMI AWARD

*Importance for Prelims:Governance*



NamitaGokhale, Tamil author Ambai win SahityaAkademi Award

- SahityaAkademi award established in 1954, could be a literary honour that's conferred annually by SahityaAkademi, India's National Academy of letters.
- Akademi provides twenty four awards annually to literary works within the languages it's recognized and an equal range of awards to literary translations from and into the languages of india.
- Besides the twenty two languages enumerated within the Constitution of india, the SahityaAkademi has recognised English and Rajasthani as languages during which its programme is also implemented.
- The SahityaAkademi award is that the second-highest literary honour by the govt. of india, once the Jnanpith award.
- Tamil feminist author Ambai, kannada biographer DS Nagabhushan, Telugu poet GoretiVenkanna, and English author NamitaGokhale, among others, are this year's winners of the SahityaAkademi Award.

- Criteria for selecting Awardee The author should be of Indian nationality. Book/work eligible for the award should be an impressive contribution to the language and literature to that it belongs.
- when equal merit for books of 2 or additional are found, sure criteria like total literary contribution and standing of authors shall be taken into consideration for declaring award.

## **Topic 36. CROPLAND EXPANSION**

### ***Importance for Prelims: Environment***

Half of international cropland enlargement replaced natural vegetation and tree cover: Study

- Cropland area across the planet increased nine per cent and cropland net primary production (NPP) by twenty five per cent from 2003-2019, consistent with a new study.
- The growth was primarily because of agricultural enlargement in Africa and South America.
- But forty nine per cent of the new cropland area replaced natural vegetation and tree covers, indicating a conflict with the sustainability goal of protective terrestrial ecosystems.
- The largest cropland enlargement (34 per cent) was determined in Africa.
- The report outlined cropland as 'land used for annual and perennial herbaceous crops for human consumption, forage (including hay) and biofuel'.
- Perennial woody crops, lasting pastures and shifting cultivation are shut out from the definition.
- Cropland expansion may be a major factor in forest loss, that comes in conflict with United Nations' sustainable Development Goal fifteen (SDG 15) that aims to stop deforestation and degradation of natural habitats.

## **Topic 37. RURAL ENTREPRENEURSHIP AWARENESS**

### **DEVELOPMENT YOJANA (READY)**

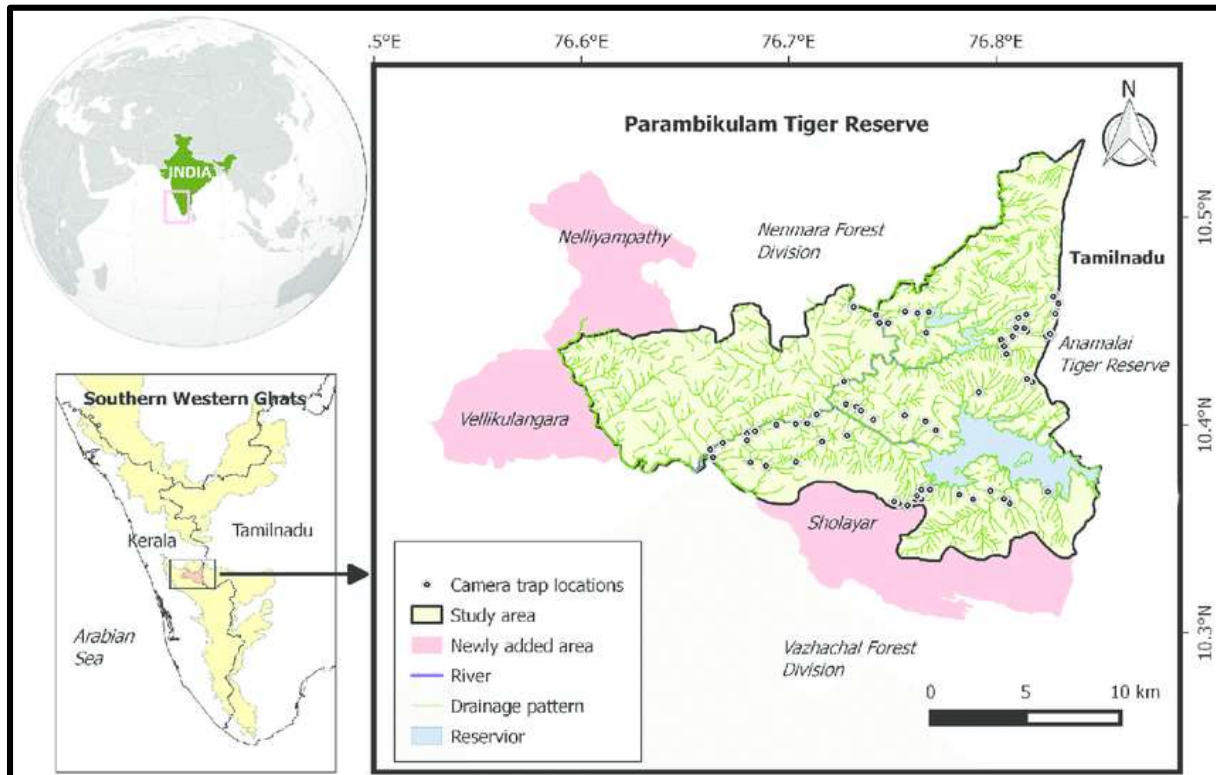
#### ***Importance for Prelims: Government Schemes***

Dairy Science college in Bengaluru promotes earn- while- you-learn thought

- READY programme may be a new initiative of Indian Council of Agricultural analysis to reorient graduates of Agriculture and allied subjects for guaranteeing and reassuring employability and develop entrepreneurs for emerging knowledge-intensive agriculture.
- Under this programme all students are needed to undertake a six-month internship, typically in their fourth year, to gain hands-on coaching, rural awareness, business incident, analysis experience and entrepreneurship skills
- The programme is being introduced altogether the Agricultural Universities as an essential requirement for the award of degree to make sure hands on experience and practical coaching depending on the must have of respective discipline and native demands.
- The programme can facilitate in building credence, ability and acquire indigenous Technical knowledge (ITK) of the vicinity and thereby, getting ready the pass-out for freelance. components of the programme Experiential Learning Rural Awareness Works experience In-Plant coaching / Industrial attachment hands-on coaching (HOT) / ability development coaching and Students projects

## Topic 38. PARAMBIKULAM TIGER RESERVE

### *Importance for Prelims:Environment*



Policemen on duty at the Parambikulam Tiger Reserve police headquarters faced an unusual threat on Wed night once a female elephant and her calf raided the premises.

- Name Location options Parambikulam Tiger Reserve situated within the Palakkad District of Kerala.
- It could be a well protected ecological portion within the Nelliampathy – Anamalai landscape of the Southern Western Ghats in india.
- It was declared as Tiger Reserve throughout 2008-09.
- The reserve is credited with the primary scientifically managed teak plantation within the world that was later merged with the forest land.
- It has the world’s huge and oldest teak tree named “Kannimara“.
- Tribes Fauna The Kadar, Malasar, Muduvar, and mala Malasar are among the four indigenous tribes who call the sanctuary home.

- Tigers, grey-headed fishing eagle, the peninsular Bay owl, the Nilgiri wood pigeon, the Black-capped kingfisher, the good Black peckerwood and also the Lesser gray-headed fish eagle.

## **Topic 39. SMILE (SUPPORT FOR MARGINALISED INDIVIDUALS FOR LIVELIHOOD AND ENTERPRISE)**

### ***Importance for Prelims: Government Schemes***

New plan to support the marginalised

- The Ministry of Social Justice and authorization has formulated a scheme “SMILE – Support for Marginalized people for livelihood and Enterprise”.
- SMILE includes 2 sub-schemes – ‘Central Sector plan for Comprehensive Rehabilitation for Welfare of Transgender Persons’ and ‘Central Sector plan for Comprehensive Rehabilitation of persons engaged within the act of Begging’.
- Financial allocation of Rs one hundred crores for the period 2021-22 to 2025-26 for the theme.
- This scheme covers many comprehensive measures together with welfare measures for persons who are engaged within the act of begging.
- The focus of the theme is extensively on rehabilitation, provision of medical facilities, counseling, basic documentation, education, ability development, economic linkages and so on.
- The plan would be implemented with the support of State/UT Governments/Local Urban Bodies, Voluntary Organizations, Community based mostly Organizations (CBOs), establishments and others.
- Scheme provides for the utilization of the existing shelter homes accessible with the State/UT Governments and urban native bodies for rehabilitation of the persons engaged within the act of begging.
- In case of non-availability of existing shelter homes, new dedicated shelter homes are to be established by the implementing agencies.



## **Topic 40. ARTICLE 141 – DOCTRINE OF PRECEDENT**

### ***Importance for Prelims: Polity***

Recently, Supreme Court judges have expressed the requirement to ‘Indianise’ the legal system.

### **WHAT IS DOCTRINE OF PRECEDENT?**

- The doctrine refers to a choice that has already been taken by a higher court is binding to the court and at a similar time stands as a precedent to the lower court judgment, that can not be altered by a lower court.
- This principle is called as Stare decisis.
- The doctrine of stare decisis helps to generate judicial responsibility along side it
- It conjointly ensures fairness in judgement and excludes arbitrariness Helps in maintaining stability and certainty.
- It is each a social also as a legal norm.
- THE doctrine OF STARE DECISIS under ARTICLE 141 OF THE CONSTITUTION OF india Article 141 of the Indian Constitution states that law declared by Supreme Court to be binding on all courts among the territory of India.
- Article 141 states that solely the ratio decendi of a case is binding not the obiter dicta and also the mere facts of the cases.
- Therefore, whereas applying the decision of S.C. by different courts, what's needed is to understand the truth principle laid down by the previous decision.
- Some basic thought of Article 141 All the courts in india are certain by law to follow the decision of the Supreme Court.
- The judgment has to be read as an entire and at a similar time, the observation from the judgment has to be determined within the light of the queries presented before the court.