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Success is born of action...

Topic 1. SECURITIES AND EXCHANGE BOARD OF INDIA (SEBI)

Importance for Prelims: Economy



SEBI shortlists seven for the posts of 2 whole time members

- The Securities and Exchange Board of India was established on April 12, 1992, in accordance with the provisions of the Securities and Exchange Board of India Act, 1992.
- The Securities and Exchange Board of India Republic of (SEBI) is the regulative body for securities and commodity market in India possession the possession of Ministry of Finance, Government of India.
- The basic functions of the Securities and Exchange Board of India are to guard the interests of investors in securities and to market and regulate the stock exchange.
- History –Before SEBI came into existence, Controller of Capital

problems was the regulative authority; it derived authority from the Capital problems (Control) Act, 1947

- In April 1988 the SEBI was established because the regulator of capital markets in India [Bharat| Asian country| Asian nation} beneath a resolution of the govt of India.
- Initially SEBI was a nonstatutory body with no statutory power.
- It became autonomous and given statutory powers by SEBI Act 1992.
- The headquarters of SEBI is located in Mumbai.
- The regional offices of SEBI placed settled in Ahmedabad, Kolkata, Chennai, and Delhi.
- Structure SEBI Board consists of an MD alternative [and several other} other whole time and part-time SEBI additionally appoint numerous committees, whenever needed to seem into the pressing problems with that time.
- Further, a Securities appellant judicature (SAT) has been established to guard the interest of entities that feel aggrieved by SEBI's decision.

Topic 2. CONSTITUTIONS OF INDIA AND SOUTH AFRICA

Importance for Prelims: Polity

Constitutions of India and South Africa shaped their cricket

- The Indian Constitution offers for a Parliamentary sort of government that is federal in structure with bound unitary characteristics. Derived from varied sources.
- Primarily from the govt of India Act, 1935.
- From South Africa: Procedure for amendment of the Constitution. Election of the members of the Rajya Sabha.
- Evolution of Indian and South African constitution each Indian and South African constitution evolved through an extended struggle against exploitation and imperialism.
- While drafting the constitution each country closely discovered constitutions of different countries and created their own constitutions because the best in the world.
- In both constitutions, every nation has equal rights and equal opportunities.
- Similarities in both Countries' Constitution's "Preamble" starts with wordings "We the People", which means individuals are Sovereign and the constitution draws its authority from the people of the nation.
- Both elementary Rights and Bill of Rights kind the bedrock of the constitution and democracy below the Indian and SA Constitutions severally.
- Neither the elemental Rights nor Bill of Rights is absolute both subject to affordable restrictions and limitations.
- Both allow a certain degree of freedom to the State to figure for the upliftment of the marginalized and downtrodden.
- Like the constitution of South Africa sure articles of the Indian

constitution are amended by a common fraction majority of parliament.

- Contrasts Right to vote that finds an area within the Bill of Rights is merely a statutory/legal right in India.
- It doesn't have the standing of elementary Rights. Right to property, which finds an area in the Bill of Rights was far away from half III of the Constitution by the 44th Constitutional modification and has been placed below Art 300A thereby reducing its standing to it of a legal right.
- Right to info, which is enclosed in the Bill of Rights is merely a statutory right in India.

Topic 3. MAYAN CIVILIZATION COLLAPSE

Importance for Prelims: History



The mystery behind Maya civilisation's sudden fall from glory still eludes us. Scientists have long suspected that drought pushed its people towards starvation.

- The Maya civilization originated within the Yucatan.
- Known for its monumental design and a sophisticated understanding of arithmetic and astronomy, it flourished between 600 and 800 AD.
- But then, suddenly, between 800 and 950 AD, several of the southern cities were abandoned.
- This period is named the collapse of the Classic Maya civilizations, puzzling modern scientists.
- Scientists assume that this era saw important droughts.
- This seeded a theory: The Maya individuals faced starvation due to their dependence on drought-sensitive crops like corn, beans, and squash.
- Role of global climate change The lead authors of the new study weren't convinced

- So, they mammary gland deeper to know if the droughts were severe enough to hamper food production at the time.
- The study draws attention to exploiting numerous plants to survive drought and global climate change
- Climate modification is already hampering food security.
- The central Yucatan lowland, the location of most major Mayan cities, was abandoned because of the stresses of deforestation and drought.

Topic 4. COLLECTIVE SECURITY TREATY ORGANISATION

Importance for Prelims: IR



CSTO helping Kazakhstan President deal with protesters


- When the cold war drew to an in-depth in 1991, the Warszawa accord, an alliance of eight socialist states, and also the Soviet Union's answer to the North Atlantic Treaty Organization, dissolved.
- Less than a year later, Russia and 5 of its allies within the Commonwealth of freelance States, which was nothing, however, a loose club of post-Soviet countries, signed a brand new collective security pact, that came into force in 1994.
- Although it wasn't as powerful because of the Warszawa treaty, in 2002, as Central Asia loomed larger in politics — America had invaded Afghanistan the previous year — it declared itself the collective security pact Organisation, a full-blown military alliance.
- Today its six members: Armenia, Belarus, Kazakhstan, Kyrgyzstan, Russia, and Tajikistan.
- Uzbekistan had quit the alliance in 2012.
- This week, though, was the primary time that the organization invoked

Article 4, which is incredibly the same as NATO's Article 5.

- Article five says that the response might embrace armed force, however, it doesn't mandate it.
- All that North Atlantic Treaty Organization truly guarantees is to require "such action because it deems necessary" to revive and maintain security.
- That might be something from nuclear war to a stiff diplomatic protest.
- For Russia, the CSTO may be a useful gizmo to tighten its grip on Central Asia, against each Western and Chinese encroachments.
- It justifies Russian military facilities in member countries, whereas additionally giving Russia a veto over the other foreign bases in the region.

Topic 5. NATIONAL MISSION FOR GREEN INDIA

Importance for Prelims: Environment



On Green Mission

- Jobs scheme to include afforestation as part of Centre's move to create durable assets via MGNREGA
- Govt feels convergence of GIM with MGNREGS will ensure better coordination in developing forests
- It will ensure economic security to backward sections in rural sector
- Provide forest-based livelihood income to 3 m households
- Combined mission targets 10 m hectares of forest & non-forest land in 10 years

WHICH LANDS WILL BE DEVELOPED
Village common lands, community lands, revenue wastelands, shifting cultivation areas, wetlands & private agricultural lands

KEEPING A TRACK

- Progress of plantation to be periodically monitored
- Remote sensing data & photographs to be used for that on a monthly basis

For carbon sequestration, India must revisit its policy framework and reverse fading participation of local communities

- The National Mission for a green India| Bharat |Asian country| Asian nation} or the ordinarily known as one among India Mission (GIM), is one among the eight Missions beneath the National Action arrange on February (NAPCC).
- It was launched in February 2014 with the objective to safeguard the biological resources of our nation and associated livelihoods against the peril of adverse global climate change and to recognize the very important impact of forestry on ecological sustainability, biodiversity conservation, and food-, water- and livelihood-security.
- It aims at protecting, restoring, and enhancing India's decreasing forest cover and responding to global climate change through adaptation and mitigation measures.

- It envisages a holistic view of greening that extends on the far side of tree planting.
- At the national level implementation is completed by the Ministry of setting and Forests.
- The State Forest Development Agency to guide the mission at the state level.
- At the district level, the implementation to be done by the Forest Development Agency.

Topic 6. INDIA AS ASIA'S 2ND LARGEST ECONOMY

Importance for Prelims: Economy

‘India to surpass Japan as Asia’s 2nd largest economy by 2030’

- India is probably going to overtake Japan as Asia’s second-largest economy by 2030 when it is additionally projected to surpass that of Germany and therefore the U.K. to rank because the world’s No.3, IHS Markit said
- Currently, India is the sixth-largest economy, behind the U.S., China, Japan, Germany, and also the U.K. “India’s nominal GDP... is forecast to rise from \$2.7 trillion in 2021 to \$8.4 trillion by 2030,” IHS Markit said.
- By 2030, the Indian economy would even be larger in size than the biggest Western European economies of Germany, France, and also the U.K. The quickly growing client market also as its massive industrial sector has made India vital progressively vital investment destination for multinationals in several sectors, together with producing, infrastructure and services.

Topic 7. SOUTHERN STATES SET FOR WARMER WINTERS, HEAVIER AND FREQUENT RAINFALL: STUDY

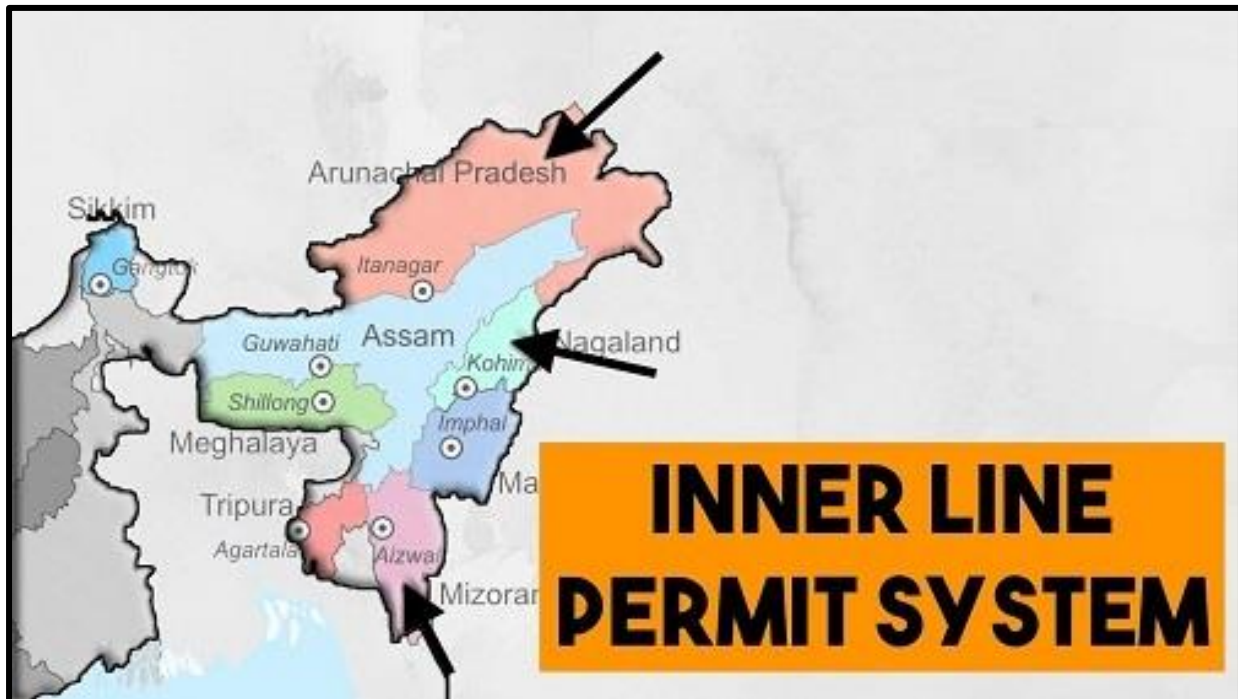
Importance for Prelims: Environment

So the southern states set for warmer winters, heavier and frequent rainfall: Study

- From warmer summers and winters to heavier and more frequent rainfall, signs of changes in the climate pattern are expected across all States in South India over the next three decades, says a new study by the Center for Study of Science, Technology and Policy (CSTEP).
- **The report, ‘District-Level Changes in Climate:** Historical Climate and Climate Change Projections for the Southern States of India’, reveals changes in climate patterns that are likely to occur in South India over the next three decades, compared to the historical 30 years (1991-2019) in all the districts of Andhra Pradesh, Telangana, Kerala, Karnataka, and Tamil Nadu.
- The Global Climate Risk Index 2021 ranks India seventh, considering the extent to which India has been affected by the impacts of weather-related loss events (storms, floods, heatwaves, etc.).
- The index signals that repercussions of escalating climate change are exacerbating and can no longer be ignored.

Topic 8. INNER LINE PERMIT SYSTEM (ILPS)

Importance for Prelims: Security and Defence



Plea in Supreme Court against ILPS in Manipur

- It may be a supported policy of exclusion drawn by colonial rulers within the sort of Bengal Japanese Frontier Regulation Act (BEFR), 1873.
- The BEFR prohibits an outsider's — "British subject or foreign citizen" — entry into the world on the far side of the Inner Line while not a pass and his purchase of land there.
- It protected the industrial interests of the British from the tribal communities.
- BEFR came as a response to the reckless enlargement of British entrepreneurs into new lands which threatened British political relations with Capitol Hill tribes.
- After Independence, the Indian government replaced "British subjects" with "Citizens of India".
- The Inner Line separates the tribal-populated hill areas within the Northeast from the plains.

- To enter and keep for any period in these areas, Indian citizens from different areas would like an Inner Line allow (ILP).
- The main aim of the ILP system is to prevent the settlement of different Indian nationals within the States wherever the ILP regime is prevailing, in order to guard the indigenous/tribal population.
- The Adaptation of Laws (Amendment) Order, 2019 extended the ILP regime to Manipur – when Arunachal Pradesh, Nagaland, and Mizoram wherever the ILP regime is applicable.

Topic 9. BEHALI RESERVE FOREST IN ASSAM

Importance for Prelims: Environment



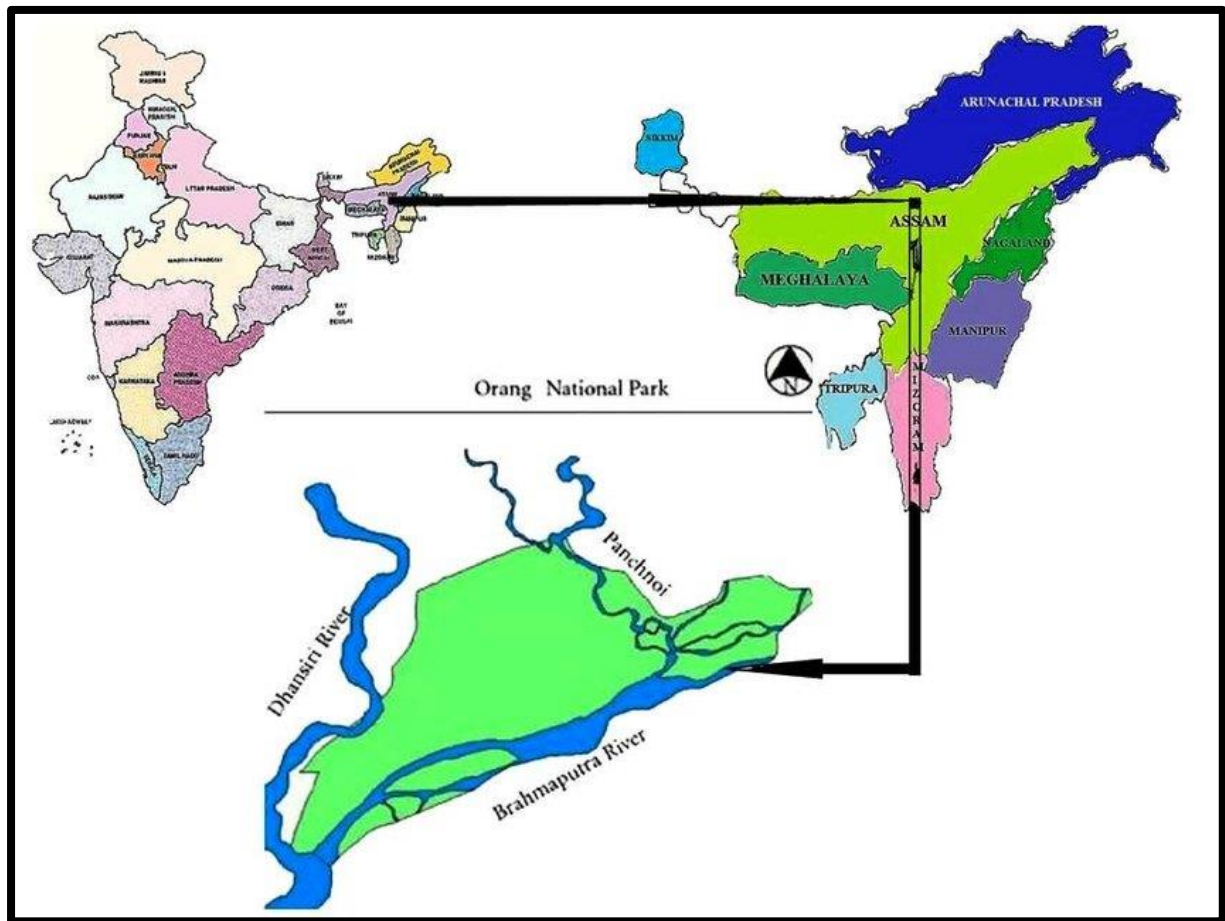
Five primate carcasses found in Assam forest

- Behali Reserved Forest, situated within the Biswanath district of a province may be a patch of semi-evergreen forest within the foothills of eastern Himalayas.
- This forest may be a part of the bigger Sonitpur Elephant Reserve and was declared as a reserved forest in 1917.
- It lies between the two known protected areas, the Nameri national park on its west and Kaziranga national park on its south.
- It is additionally recognized as a very important Bird space in 1994 and a Key biodiversity space in 2004.
- The area is bordered within the east by the Buroi watercourse, west by Borgang watercourse, the north side is by Papum Reserve of Arunachal Pradesh, and a number of other human habitations, tea plantations, and paddy fields within the south.
- Fauna – except for the rare capped langur, the Behali Reserve Forest

homes the vulnerable *Nycticebus pygmaeus*, the near-threatened Assamese and therefore the and also the rhesus monkey catarrhine.

Topic 10. EXTENSION OF ORANG NATIONAL PARK

Importance for Prelims: Environment



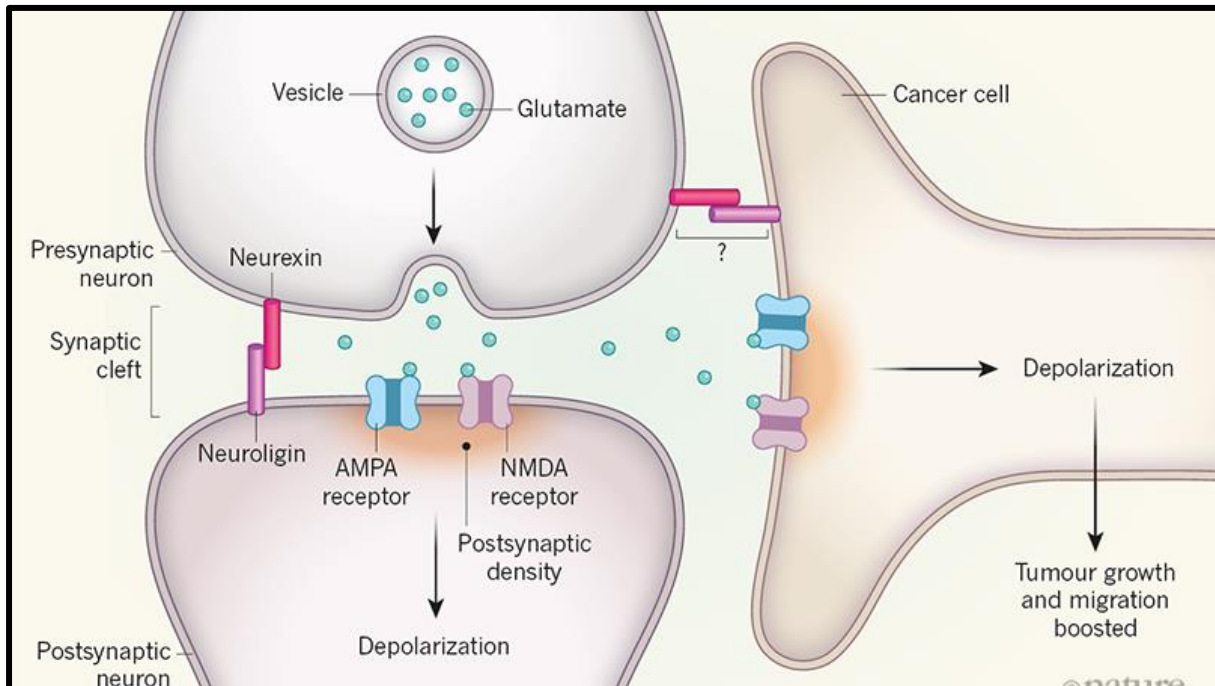
Gharials to return to Orang National Park

- The gharial, wiped out from the Brahmaputra River system within the 1950s, might be the prime beneficiary of a method to expand a state tiger reserve that shed its “Congress connection” 5 months past.
- The Assam government had on January 3 issued a preliminary notification for adding 200.32 sq. 78 to 82 sq. kilometer orangutan national park, the State’s oldest game reserve regarding 110 kilometers northeast of Guwahati.
- Much of additional to be additional contains the Brahmaputra River and therefore the sandbars or islands in it, some cultivated by locals or used as sheds for stock.

- Orang, on the northern bank of the watercourse, is strategic to the Kaziranga orangutan Riverine Landscape.
- Tigers and rhinos are known to use the islands during this riverine landscape, 180 kilometers long, to hop between orangutan and Kaziranga.
- But what has enthused specialists consultants is that the prospect of reintroducing the gharial (*Gavialis gangeticus*) within the space to be added to is additionally.
- The Gangetic dolphin is additionally expected to be a beneficiary of the ultimate notification of the addition to an orangutan.
- One of the four major rhinoceros habitats in Assam, the orangutan was recognized as a tiger reserve in 2016.
- The government had on September 21 born the 'Rajiv Gandhi' prefix to orangutan given by the Congress government in 1992.
- Other national parks in Assam are Kaziranga, Manas, Nameri, Dibru-Saikhowa, Raimona and Dehing Patkai.

Topic 11. SYNAPSES

Importance for Prelims: Science and Tech



NCBS: Zebrafish study reveals how the brain makes its connections

- In these synapses, the 2 neurons Neurons, or nerve cells, within the brain connect by means of junctions called synapses through which they transmit signals.
- Recent work by researchers at the National Centre of Biological Sciences, Bengaluru, has thrown light on what stimulates these synapses to create.
- There are 2 forms of synapses – chemical and electrical.
- In chemical synapses, there's an area of regarding 20 nanometres between 2 neurons, and also the method they convey is this: One nerve cell converts the electrical signal into chemical signals and this chemical is discharged into the junction area and also the receiving nerve cell converts the chemical signal into an electrical signal.
- As far as the electrical junction goes, this is often not the method it operates.
- have a physical affiliation and also the conversion of electrical to

chemical needn't occur, and they communicate directly.

- Electrical synapses are sort of a physical wire, communication is quicker however they're additionally fewer in variety.
- It was shown that electrical synapses are formed before chemical synapses, they're sort of a blueprint during which neurons create handshaking. This leads to the creation of chemical synapses.
- Research on organisms like leeches showed that if you take away electrical synapses, the chemical synapses don't form.
- However, the mechanism of however it happens in higher organisms like vertebrates wasn't known.
- Researchers from TIFR-National Centre of Biological Sciences, Bengaluru, have chosen Zebrafish as a model organism to review this method.
- Zebrafish are clear and nerve cell development in larval zebrafish may be determined from day to day by injecting a dye or by engineering the fish to specific fluorescent proteins.
- How nerve-end connections referred to as synapses type is highlighted during this study of Purkinje neurons neural structure of knockout zebrafish.

Topic 12. RARE MICROBES THAT PRODUCE OXYGEN IN DARK

Importance for Prelims: Science and Tech

Researchers from the university of Southern Denmark have discovered that oxygen is also produced without sunlight, possibly deep below the ocean surface.

- Scientists say there would be no oxygen on Earth were it not for sunlight: the key element in a chemical process.
- Now researchers have discovered that oxygen is additionally created while not daylight, probably deep below the ocean surface.
- Researchers have discovered that a number of the invisible microorganisms living in water columns manufacture oxygen in a sudden method.
- A few microbes are known to form oxygen while not daylight, but up to now they need solely been discovered in terribly restricted quantities and in very specific habitats.
- But the ocean living microorganism Nitroso pumilus maritimus and its cousins, referred to as ammonia-oxidizing archaea play a very important role in the biological process.
- The researchers found that these micro-organisms create their own oxygen.
- The researchers conducted tests within the laboratory and located that N. maritimus was exploiting the oxygen present in water however the oxygen levels started increasing once more in water.
- The micro-organisms were able to create oxygen even in a very dark atmosphere.
- Not sufficiently high to influence oxygen levels on Earth, however enough to stay itself going.
- Maritimus couples the oxygen production to the assembly of gaseous

nitrogen.

- By doing in order that they take away bioavailable nitrogen from the atmosphere.

Topic 13. DIRECTOR GENERAL OF WHO

Importance for Prelims: IR



WHO chief stands uncontested for upcoming director-general elections.

- Tedros Adhanom Ghebreyesus, the present director-general (DG) of the globe Health Organization (WHO), is ready to be re-elected for his second term uncontested.
- He was formerly the minister of health and family welfare of Ethiopia and was elective because the WHO-DG might 23, 2017.
- His term began on July 1, 2017.
- He isn't the primary one to face uncontested.
- In 2012, Margaret Chan was re-elected for a second five-year term. She served during this capability from 2006 to 2017.
- The next decigram is going to be appointed at the 75th World Health Assembly in could 2022, consistent with World Health Organization election protocol.
- About the Director-General of the globe Health Organization (WHO) is the chief military officer of the World Health Organization and also the

principal adviser to the United Nations on matters pertaining to world health. The director-general is the globe by and answers to the globe Health Assembly (WHA).

- The Director-General additionally leads the WHO Secretariat and is additionally the ex-officio Secretary of the globe Health Assembly, the WHO Executive Board, and of all commissions and committees, and conferences convened by the organization.
- Candidates for director-general are planned by member states, then nominative by the Executive Board and appointed by the globe Health Assembly.
- Finally, a ballot takes place following the decigram the metric weight unit is appointed at the globe Health Assembly meeting.
- The term of the director-general lasts for 5 years.
- Office holders are and are appointed for multiple subsequent terms.

Topic 14. GANGASAGAR MELA

Importance for Prelims: Art and Culture



Gangasagar Mela could become a super spreader event

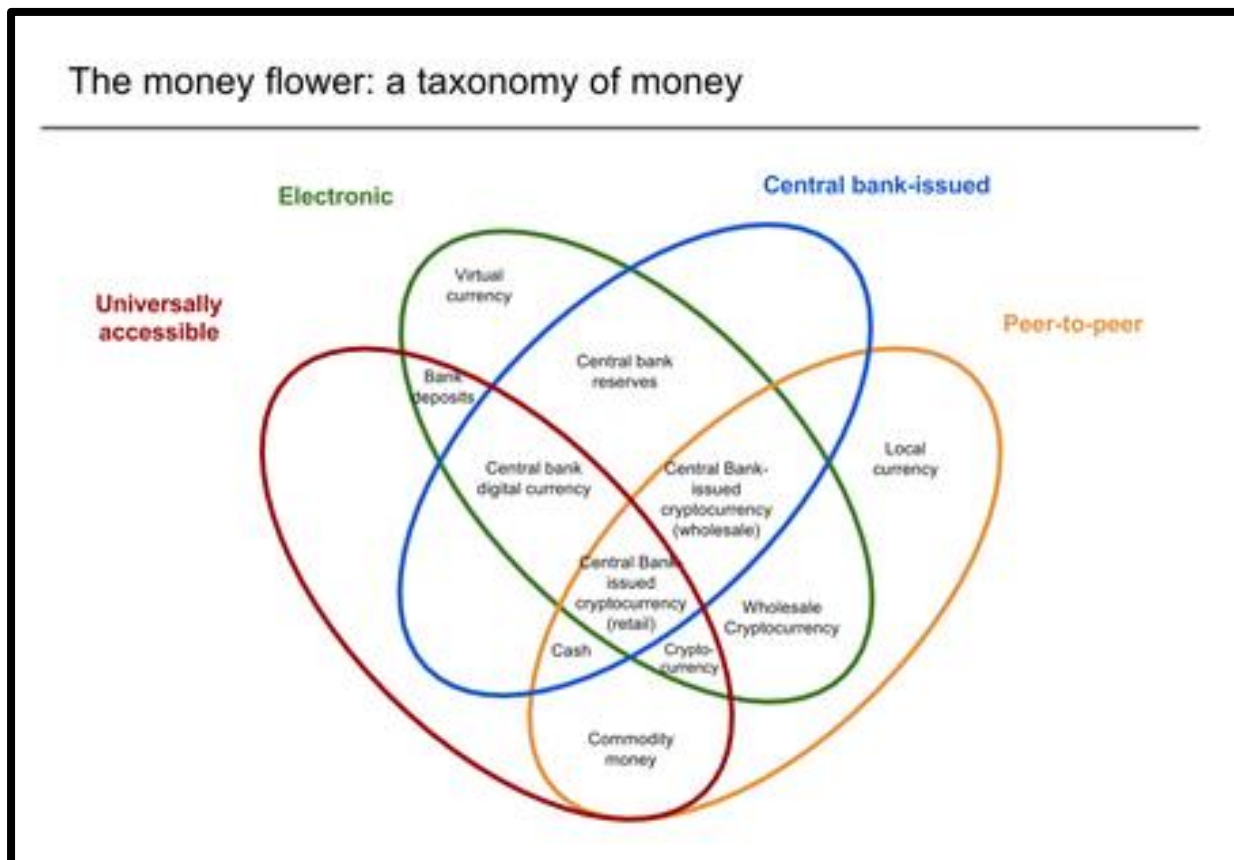
- The Gangasagar Mela is organized throughout Makar Sankranti each year.
- On the occasion of Makar Sankranti, thousands of pilgrims, seers & tourists take a holy dip within the confluence of Ganga and Bay of Bengal, to mark this event.
- They additionally provide prayers at the Kapil Muni Temple.
- On the day of Makar Sankranti (January 14), when the sun makes a

transition to Capricorn from Sagittarius, it's said that the bathtub becomes a holy source of salvation.

- Gangasagar is the second largest congregation of pilgrims, devotees, and, enthusiasts across the country once the Kumbh Mela at Haridwar.

Topic 15. DIGITAL CURRENCY

Importance for Prelims: Economy



There is a strong need and role for digital currency: Sanjiv Bajaj

- Digital currency may be a sort of currency that's accessible solely in digital or electronic type.
- It is additionally referred to as digital money, electronic money, electronic currency, or cyber cash.
- Digital currencies are currencies that are solely accessible with computers or mobile phones as a result of the solely existence in electronic type and aren't tangible.
- Typical digital currencies don't need intermediaries and are typically the most affordable methodology for commerce currencies.
- All cryptocurrencies are digital currencies, however not all digital currencies are cryptocurrencies.

- Some of the benefits of digital currencies are that they allow seamless transfer valuable and may create dealing prices cheaper.
- Some of the disadvantages of digital currencies are that they'll volatile to trade and are susceptible to hacks.

Topic 16. RESERVATION FOR WOMEN IN URBAN LOCAL BODIES

Importance for Prelims: Polity

Madras HC sets aside over 50% women quota in Chennai Corporation

- As early as 1992, the 74th modification of the Constitution pioneered gender reservation at the sub-national level.
- It mandated gender reservation of not but 33 % of the entire number of seats to be crammed by direct election in urban local bodies (ULBs).
- Furthermore, out of the seats reserved in ULBs for scheduled castes and tribes, not 33 % need to be reserved for lady's happiness to those teams.
- Additionally, a minimum of 33 % of the offices of chairpersons of ULBs also are reserved for ladies.
- Reserved seats are assigned to totally different territorial constituencies on a motion basis in order that the impact of the reservation is, as so much as attainable, equally spread across all geographical areas of the town.
- Over the years, some increased states have magnified this quota to 16 percent in Panchayati dominion establishments. These Andhra Pradesh state, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Tripura, Uttarakhand, and province.
- A few of those states have extended it to even urban native bodies.
- The Constitution (110th Amendment) Bill, 2009 and therefore the Constitution (112th Amendment) Bill, 2009 to order 0.5 the seats altogether rural and urban native bodies for ladies was 1st introduced in Parliament by UPA-II.
- However, it irreligious with the dissolution of the 15th Lok Sabha.

Topic 17. DEFINITION OF VULNERABLE WITNESS

Importance for Prelims: Governance

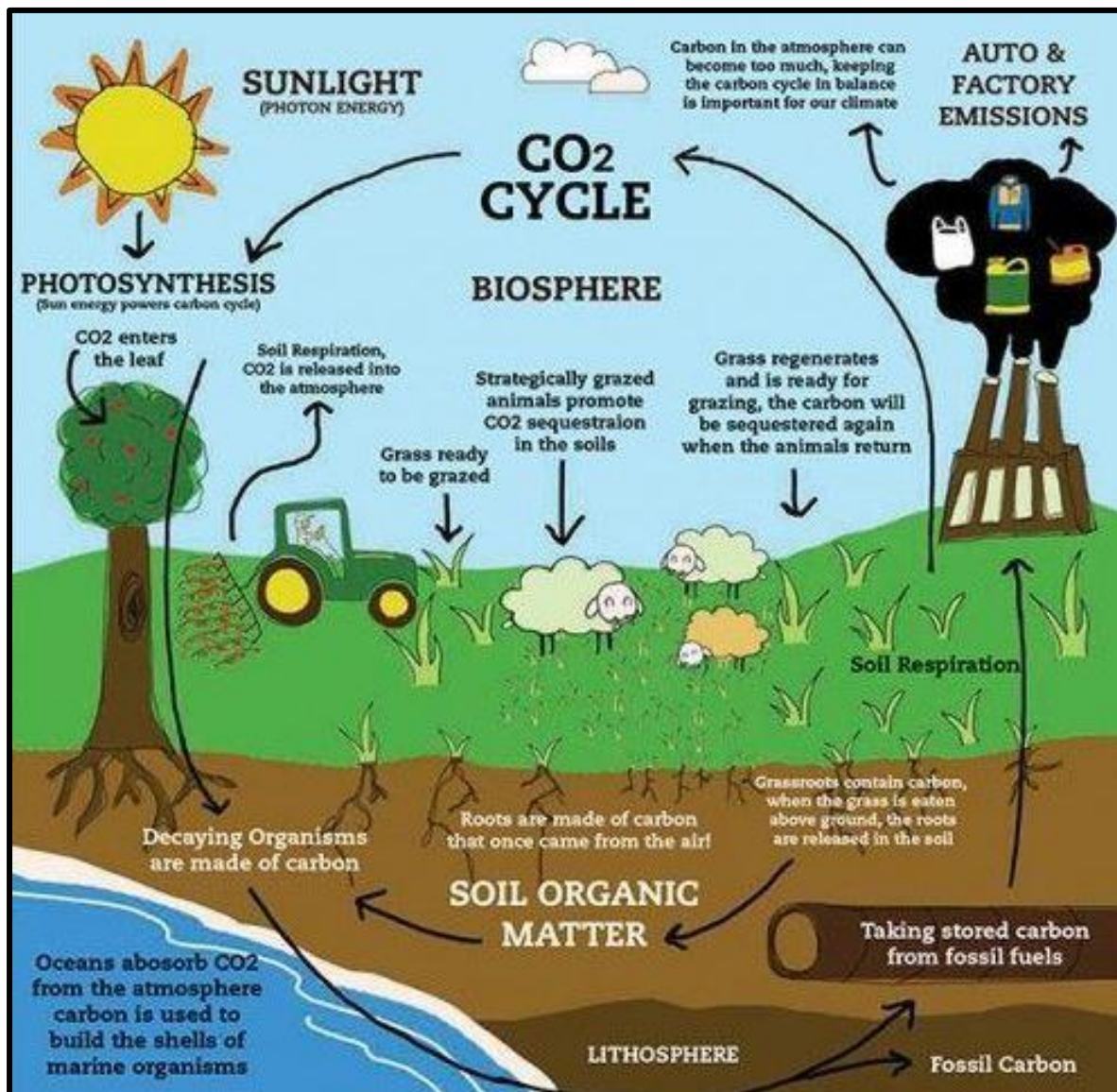
SC expands definition of vulnerable witness to include age, gender neutral victims of sexual assault

- In a recent order, the Supreme Court expanded the definition of “vulnerable witness” in a very criminal case, that earlier went to be a baby below the age of 18, to include age and gender-neutral victims of sexual abuse and witnesses affected by mental state among others.
- The apex court additionally expanded the definition to include any speech or hearing impaired individual or someone affected by the other incapacity, WHO is taken into account to be a vulnerable witness by the competent court or the other witness deemed to be vulnerable by the court involved. It said the requirement for the importance of fixing special facilities that cater to the creation of a secure and barrier-free atmosphere for recording they are of vulnerable witnesses are engaging this court’s attention over the last 20 years.
- The high court directed all the high courts to adopt and advise a Vulnerable Witness Deposition Centre (VWDC) scheme within 2 months from the date of this order unless a scheme has already been notified. The bench said that in formulating the VWDC scheme, the high courts shall have due reference to the scheme that has been formulated by the Delhi high court, which is punctually approved by the judgment of this Court in State of Maharashtra versus Bandhu (2017 verdict). Every high court should discover an In-house VWDC committee for continuous supervision of the implementation of the current directions and creating periodic assessments of the amount of the VWDCs needed in every district proportionate to the time needed for recording proof of vulnerable witnesses and to coordinate the conduct of periodic coaching programs.

- The initial tenure of the chairperson, said the court, shall be for 2 years. It said that upon the estimation of the costs by the VWDC committee of every high court, the government shall expeditiously sanction the requisite funds not later than among an amount of 3 months from the date of submission of the proposals and pay out a similar to the high court in accordance with the set up.
- The high court said that the high courts shall make sure that a minimum of one permanent VWDC is ready up in each district court institution among a period of 4 months and also the registrar general shall file compliance reports with this court.

Topic 18. RESTORE SOIL TO ADDRESS CLIMATE CHANGE

Importance for Prelims: Environment



To address climate change, grow and restore soil, not trees

- **COP26**, the United Nations global climate change conference this year, emphasized the urgency to limit warming to well below 2 degrees Celsius, and also the via emission reductions and therefore the sequestration of atmospherical CO₂, whereas making certain a simple transition to a low carbon economy.
- The earth's soils contain 2,500 gigatons of carbon, quite 3 times the number of carbon within the atmosphere and 4 times the number keep

altogether vegetation.

- Soil organic carbon (SOC) content is very important for global climate change mitigation, however, it's equally necessary for farmers and diversity.
- Increasing soil carbon has the impact of drawing down carbon from the atmosphere, while at the same time improving soil structure and soil health, soil fertility and crop yields, water retention and geological formation recharge.
- A soil should have a minimum of 5-hitter organic come to be thought-about healthy.
- In recent years, “carbon farming” has gained traction.
- It is the process of fixing agricultural practices or land use to sequester carbon in soil and litter, also as emission rejection through better land management.
- Countries like Australia are actively promoting it alongside the sale of soil carbon credits.
- Soil carbon credit markets are supported by measuring, information, and certification systems, which are expensive.
- Predicted effects of elevated CO₂ (eCO₂) on soil carbon reserves
Regenerative agriculture may be a conservation and rehabilitation approach to food and farming systems.
- It focuses on surface soil regeneration, increasing diverseness, rising the water cycle, enhancing system services, supporting bio sequestration, increasing resilience to global climate change, and strengthening the health and vitality of farm soil.
- Regenerative agriculture isn't a selected practice itself. Rather, proponents of regenerative agriculture use a range of property agriculture techniques together Regenerative agriculture on little farms and gardens

is usually supported by philosophies like permaculture, Agroecologist, agroforestry, restoration ecology, Keyline style, and holistic management.

- Large farms tend to be less philosophy-driven and sometimes use “no-till” and/or “reduced till” practices.
- As soil health improves, input needs might decrease, and crop yields might increase as soils are additional resilient against extreme weather and harbor fewer pests and pathogens. Most plans to mitigate global climate change concentrate on “reducing gas emissions.” Regenerative agriculture, i.e. the capture of atmospherical CO₂ by growing plants that move the CO₂ into the soil, is pretty nearly the sole currently-functioning technology accessible for drawing down greenhouse gases that are already within the atmosphere, largely through the cultivation and nurturing of forests and permanent perennial pastures and grasslands.

Topic 19. NAVAL VARIANT OF BRAHMOS

Importance for Prelims: Defence and Security

Naval variant of BrahMos supersonic missile test-fired from INS Visakhapatnam

- An extended range sea-to-sea variant of the BrahMos supersonic bomb was with success test-fired by India from the Indian Navy's freshly commissioned INS Visakhapatnam.
- BrahMos, deployed by the Navy on its warships 1st in 2005, has the potential to hit sea-based targets on the far side measuring device horizon.
- The service variant was originally tested in October and December 2020 from the Navy's indigenously-built stealth destroyer INS urban center and Rajput-class destroyer INS Ran Vijay, severally.
- This version of the missile has been designed to launch either in a very vertical or a horizontal mode from moving/stationary assets to focus on each land and ocean target.
- The missiles, dismissed at a speed of 2.8 Mach or nearly 3 times the speed of sound, considerably increase the potential of the ships in engaging long-range targets.
- BrahMos BrahMos missiles are designed and developed by BrahMos aerospace, a venture company discovered by the Defence analysis and Development Organisation (DRDO) and Mashinostroyeniya of Russia.
- Originally introduced in 2001, variations of those supersonic missiles may be launched from submarines, ships, aircraft, and land platforms. BrahMos may be a bomb, which means it may be guided towards a pre-set land- or sea-based target.
- With a capability to realize speeds 2.8 times that of sound (Mach a pair

of.8), BrahMos is classed as a supersonic bomber.

- An amalgam of the names of the rivers Brahmaputra and Moskva, BrahMos is being created by the BrahMos region, a venture company established by DRDO and Mashinostroyenia of Russia in 1998.
- The 1st version of the BrahMos supersonic bomb was inducted into the Indian Navy in 2005, meant to be laid-off from INS Rajput.
- The missile is capable of being launched from land, sea, sub-sea, and air against the surface and sea-based targets.
- It's very was ab initio capped at 290 kilometers as per obligations of the Missile Technology Management Regime (MTCR).
- But since India's entry into the club, the very has been extended to 450kilometerss, and therefore the setup is to extend it to 600km.

Topic 20. HENLEY PASSPORT INDEX

Importance for Prelims: Governance

India's passport rank improves to 83 from 90

- It is within the ranks at 83rd position within the Henley Passport Index, climbing seven places from 90th rank last year.
- However, in 2020, its rank stood at 84 whereas, in 2016, India was graded 85th alongside Mali and Uzbekistan. Japan and Singapore high the index.
- The current rankings are for the first quarter of 2022 and India shares the position with national capital and Principe in the Central African Republic, behind Rwanda and Uganda. Since 2005, Henley Passport Index ranks the world's passports in line with the number of destinations their holders will access while not previous visa and relies on knowledge from International transport Association (IATA).
- Growing inequality India currently has visa-free access to Armenia destinations worldwide with Muscat and Oman and Asian country being the most recent additions.
- India has else 35 additional destinations since 2006.

Topic 21. NATIONAL YOUTH DAY AND DEMOGRAPHIC DIVIDEND

Importance for Prelims: Art and Culture

National youth day is celebrated on 12 January every year.

- Definition of youth Youth are defined as those aged fifteen to 29 within the national youth policy (2014).
- This age group constitutes 27.5% of India's population.
- The United Nations, for applied math 15, defines 'youth', as those persons between the ages of fifteen and 24 years, while not prejudiced to different definitions by Member States Department of Youth Affairs take care of youth development.
- There are 3 organizations operating for the event of Youth below the Ministry of Youth Affairs and Sports are (i) Nehru Yuva Kendra Sangathan (NYKS); (ii) service theme (NSS) and (iii) RG National Institute of Youth Development (RGNIYD). These organizations are as follows:
- **RG National Institute of Youth Development (RGNIYD):** RGNIYD, Sriperumbudur, Tamil Nadu, is beneath 'Institute of National Importance beneath the Ministry of Youth Affairs and Sports, Government of an important. RGNIYD functions as a significant resource center with its multi-faceted functions of providing educational programs at Post Graduate level encompassing numerous dimensions of youth development, engaging in seminal analysis within the very important areas of youth development, and conducting Training/ capability Building Programmers within the space of youth development, besides the extension and stretch initiatives across the country.
- **2. Nehru Yuva Kendra Sangathan (NYKS):** NYKS is one of the biggest youth organizations in the world. NYKS contains a presence in 623 Districts through Nehru YuvaKendras. The target is to develop the

personality of the youth and to engage them in nation-building activities. The areas of focus of the NYKS activities embrace education, health, and sanitation, surroundings, awareness of social problems, lady's authorization, civic education, disaster relief, rehabilitation, etc.

- **3. National service scheme (NSS):** National Service Scheme (NSS) was introduced in 1969 with the first objective of developing the personality and character of the student youth through voluntary community service. 'Education through Service' is that the purpose of the NSS. The ideology orientation of the NSS is inspired by the ideals of Mahatma Gandhi. The motto of NSS is "NOT ME, BUT YOU"

Topic 22. RESERVE BANK-INTEGRATED OMBUDSMAN SCHEME **2021 (RB-IOS)**

Importance for Prelims: Economy



Volume of complaints under Ombudsman Schemes up'

- The volume of complaints received below the investigator Schemes has gone up by 22.27 percent on an annualized basis to stand at 3,03,107 as of March-end 2021, according to the Annual Report of investigator Schemes, 2020-21.
- Till November 11, 2021, there have been 3 investigator schemes: Banking investigator Scheme (BOS), 2006 investigator scheme for NBFCs (OSNBFC), 2018 investigator scheme for Digital Transactions (OSDT), 2019.
- With impact from November twelve, 2021, a Reserve Bank-Integrated investigator theme 2021 (RB-IOS), adopting a “One Nation – One Ombudsman” approach for all customers of run regulated entities was

launched.

- About the scheme integrates the existing 3 investigator schemes of rbi namely,
 - (i) The Banking investigator scheme, 2006;
 - (ii) The investigator theme for Non-Banking financial corporations, 2018; and
 - (iii) The investigator theme for Digital Transactions, 2019.
- The scheme, framed by the Federal Reserve Bank in the exercise of the powers conferred on that beneath Section 35A of the Banking Regulation Act, 1949 (10 of 1949), Section 45L of the Federal Reserve Bank of Republic of India Act, 1934 (2 of 1934), and Section eighteen of the Payment and Settlement Systems Act, 2007 (51 of 2007), can offer cost-free redress of customer complaints involving deficiency in services rendered by entities regulated by rbi, if not resolved to the satisfaction of the customers or not replied inside a period of 30 days by the regulated entity.
- In addition to integrating the 3 existing schemes, the scheme also includes beneath its ambit Non-Scheduled Primary Co-operative Banks with deposit size of ₹50 crores and on top of.
- The theme adopts the ‘One Nation One investigator’ approach by creating the RBI Ombudsman mechanism jurisdiction neutral.
- Some of the salient options of the scheme are: it'll no longer be necessary for a complainant to spot below that scheme he/she complaint file a criticism with the investigator.
- The scheme defines ‘deficiency in service’ because of the ground for filing a complaint, with a specified list of exclusions.
- Therefore, the complaints would not be rejected simply on account of “not covered below the grounds listed within the scheme”.

- The scheme has done away with the jurisdiction of every investigator's office.
- A Centralized Receipt and process Centre has been discovered at RBI, Chandigarh for receipt and the initial process of physical and email complaints in any language.
- The responsibility of representing the Regulated Entity and furnishing info in respect of complaints filed by customers against the Regulated Entity would be that of the Principal Nodal Officer within the rank of ahead in a very Public Sector Bank or equivalent.
- The Regulated Entity won't have the proper to appeal in cases wherever an award is issued by the investigator against it for not furnishing satisfactory and timely information/documents.
- The government Director-in charge of consumer Education and the Protection Department of RBI would be the appellate Authority below the scheme.
- Complaints will still be filed online on <https://cms.rbi.org.in>. Complaints may also be filed through the dedicated e-mail or sent in physical mode to the 'Centralised Receipt and process Centre' created at Chandigarh within the format.
- Additionally, a Contact Centre with a fee variety – 14448 (9:30 am to 5:15 pm) – is also being operationalized in Hindi, English and in eight regional languages to start with and can be expanded to hide alternative Indian languages in due course.
- The Contact Centre can give information/clarifications relating to the alternate grievance redress mechanism of RBI and to guide complainants in filing of a complaint.

Topic 23. BROADCAST AUDIENCE RESEARCH COUNCIL (BARC INDIA)

Importance for Prelims: Governance

BARC told to release news TRP ratings immediately

- BARC was established as an autonomous 'not for profit' body duly registered below the companies Act, 2013.
- Broadcast Audience analysis Council (BARC) India may be a Joint industry Company supported by stakeholder bodies that represent Broadcasters, Advertisers, and Advertising and Media Agencies.
- It is made upon a robust and future-ready technology backbone, BARC Asian country owns and manages a transparent, accurate, and inclusive viewers measuring system.
- Apart from the currency products to the TV trade, BARC India conjointly provides a set of Insight merchandise designed for Broadcasters, Advertisers, and Agencies.
- The huge knowledge and Insights generated by BARC India powers economical media payment and content choices during an extremely dynamic and growing TV sector.
- It may be a company created in 2010 and conjointly owned by advertisers, ad agencies, and broadcasting firms, painted by the Indian Society of Advertisers, the Indian Broadcasting Foundation, and the Advertising Agencies Association of Asian country.
- Whereas Indian Broadcasting Foundation (IBF) has 60 minutes stake holding, the Indian Society of Advertisers (ISA) and Advertising Agencies Association of India (AAAI) each have 20%-20% stake holding.
- The Ministry of information and Broadcasting notified the Policy tips for TV Rating Agencies in India on January 10, 2014, and registered BARC

in July 2015 below these tips, to hold out tv ratings in India.

- It is the world's largest TV mensuration science industry body. TV Rating purpose (TRP) the TV Rating purpose (TRP) is the metric employed by the selling and advertising agencies to evaluate viewership.
- These influence programs made fair to the viewers. Better ratings would promote a program whereas poor ratings can discourage a program area unit the most currency for advertisers to make a decision that channel to advertise on by hard the cost-per-rating-point (CPRP).

Topic 24. HUMAN DEVELOPMENT REPORT 2020

Importance for Prelims: Governance

The 2020 Human Development Report of the United Nations Development Programme (UNDP), titled “The Next Frontier – Human Development and the Anthropocene” proposed a planetary pressure-adjusted Human Development Index (HDI).

- The 2020 Human Development Report of the United Nations Development Programme (UNDP), titled “The Next Frontier – Human Development and also the Anthropocene” planned a planetary pressure-adjusted Human Development Index (HDI).
- India graded 131 among 189 countries on the Human Development Index (HDI) for 2019, slipping 2 places from the previous year, consistent with the Human Development Report (HDR) 2020 free by the United Nations Development Program (UNDP).
- The 2020 Report has introduced the planetary pressures-adjusted Human Development Index, which adjusts the quality Human Development Index (HDI) by a country’s per capita CO₂ emissions and material footprint.
- The different indices that type the part of the Report are: Inequality-adjusted Human Development Index (IHDI), Gender Development Index (GDI), Gender difference Index (GII) and multidimensional poorness Index (MPI).
- Human Development Index supported 3 Basic Dimensions of Human Development: an extended and healthy life, Access to information, and a good customary of living.
- Norway topped the index, followed by Ireland and Switzerland. Hong Kong and Iceland complete the highest 5.
- In the BRICS grouping, Russia was 52 within the human development

index, Brazil 84, and China 85. Gender Development Index The GDI measures gender gaps in human development achievements by accounting for disparities between women and men in 3 basic dimensions of human development— health, information and living standards using constant part indicators as within the HDI.

- The GDI is that the ratio of the HDIs calculated one by one for females and males exploitation constant methodology as within the HDI.
- It may be a direct measure of the gender gap showing the feminine HDI as a percentage of the male HDI.
- For a lot of details on computation see Technical Notes.
- The GDI is calculated for 167 countries. Countries are grouped into 5 teams that supported absolutely the deviation from gender parity in HDI values.
- This means grouping takes equally into thought gender gaps favoring males, also as those pro females.
- The GDI shows a lot of| what proportion| what quantity} ladies are lagging behind their male counterparts and the way much has to be compelled to catch up among every dimension of human development.
- It is beneficial for understanding the real gender gap in human development achievements and is informative to design policy tools to shut the gap Gender difference Index Gender inequality remains a serious barrier to human development.
- Girls and ladies have created major strides since 1990, however, they need not however gained gender equity.
- The disadvantages facing ladies and ladies are a serious supply of difference.
- All too usually, ladies and however are discriminated against in health, education, political illustration, labor market, etc.—with negative

consequences for the development of their capabilities and their freedom of selection.

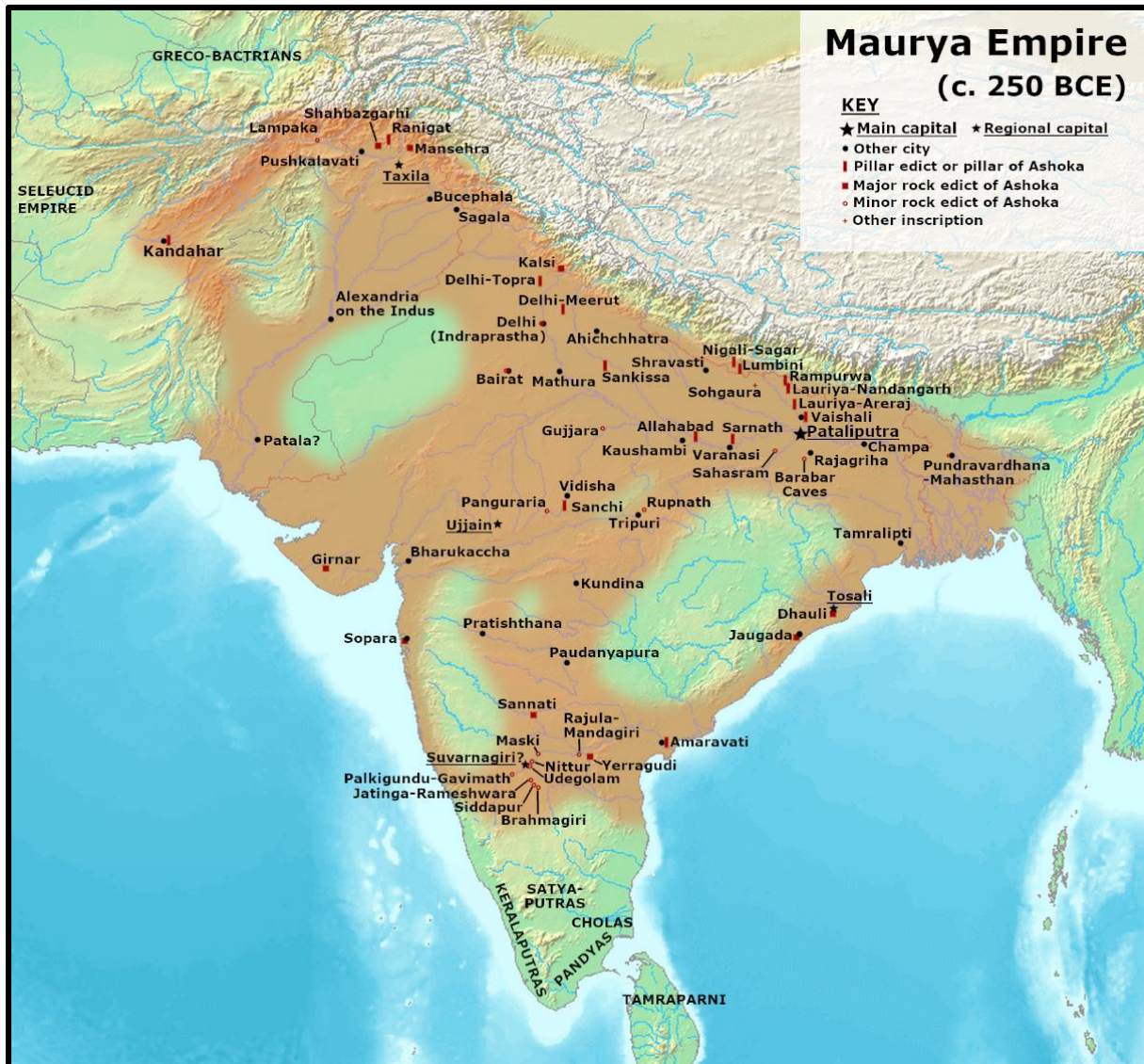
- The GII is a different index.
- It measures gender inequalities in 3 necessary aspects of human development—reproductive health, measured by maternal mortality ratio and adolescent birth rates; management, measured by the proportion of parliamentary seats occupied by females and proportion of adult females and males aged 25 years and older with a minimum of some secondary education; and economic status, expressed as labor market participation and measured by labor force participation rate of feminine and male populations aged 15 years and older.
- The GII is made on an equivalent framework because the IHDI —to better expose variations within the distribution of achievements between ladies and men. Girls and ladies have created major strides since 1990, however, they need not yet gained gender equity.
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market participation and measured by labour force participation rate of feminine and male populations aged 15 years and older.

- The GII is made on a similar framework because the IHDI —to higher expose variations within the distribution of achievements between ladies and men.

Topic 25. MAURYAN EMPIRE

Importance for Prelims: History



JDU seeks action against BJP leader who likened Ashok to Aurangzeb

- Ashoka several historians together Ashoka united of the best kings of the ancient world.
- His policy of Dhamma has been a topic of spirited discussion among students.
- The word 'Dhamma' is the Prakrit kind of the Indo-Aryan word 'Dharma'.
- Dhamma has been multifariously translated as piety, moral life,

righteousness then on, however the most effective thanks to perceive what Ashoka means by Dhamma is to scan his edicts.

- The edicts were written primarily to elucidate to the individuals throughout the empire the principles of Dhamma.
- Dhamma wasn't any specific non secular religion or practice; so, we must always not translate Dhamma (or its Sanskrit equivalent Dharma) as faith.
- The principles of Dhamma were thus developed on be acceptable to individuals happiness to completely different communities and followers of any religious order.
- Dhamma wasn't given any formal definition or structure. It emphatic on toleration and general behaviour.
- Dhamma stressed on twin toleration; it emphatic on toleration of individuals themselves and conjointly toleration of their numerous beliefs and ideas.
- There could be a stress on the notion of showing thought towards slaves and servants; there's stress conjointly on obedience to elders; generosity towards the impoverished, brahmanas and sramanas, etc.
- Ashoka conjointly pleaded for tolerance of various non secular sects in an effort to form a way of harmony.
- The policy of Dhamma additionally laid stress on non-violence.
- Non-violence was to be practiced by discarding war and conquests and conjointly as a restraint on the killing of animals.
- However, Ashoka completed that a particular show of his political may could also be necessary to stay the primitive forest tribes in restraint.
- The policy of Dhamma conjointly enclosed bound welfare measures like planting of trees, creating by removal of wells, etc.
- Ashoka attacked ceremonies and sacrifices practiced frequently on numerous occasions as empty.

- A cluster of officers called the Dhamma-mahamattas were instituted to implement and publicize the varied aspects of Dhamma. Ashoka thrust a really serious responsibility on them to hold his message to the varied sections of society.
- However, they appear gradually to have developed into a sort of community of Dhamma with nice powers and shortly began to interfere in politics furthermore.
- Rock Edict XIII is of overriding importance in understanding the policy of Dhamma as a result of its a treatment against war.
- It diagrammatically depicts the tragedy of war and shows why Ashoka turned against it.
- It may be a distinctive event within the annals of the traditional world as a result of we tend to don't apprehend the other modern monarch WHO renounced war.
- Ashoka began the policy of Dhamma once this war.
- **Examples of Mauryan Art the foremost necessary samples of Mauryan art include:**
 - 1) Remains of the royal palace and therefore the town of Pataliputra
 - 2) A monolithic railing at Sarnath
 - 3) The excavated chaitya halls or cave dwellings within the A Barabar-Nagarjuni cluster of hill in Gaya.
 - 4) The non-edict bearing and edict bearing pillars with their Capitals.
 - 5) The front half of an elephant was graven spherical from a live rock in Dhauili in Odisha.
- Pataliputra the Mauryan capital bears the stamp of Imperial art.
- According to Megasthenes, the town of Pataliputra was concerning fifteen kilometers long, 2 and a half kilometers broad, and was enclosed

by a trench that measured concerning 200 meters wide and fifteen meters deep.

- The ramparts of town had cardinal gates and a few 5 hundred and seventy towers.
- Excavations have unearthed a little portion of the traditional town as most of it's occupied by fashionable habitation.
- In addition, most of the structures were in all probability fabricated from wood and brick that didn't survive the floods and vagaries of your time.
- Edits and Pillars Mauryan pillars are free-standing, tall, well proportionate, with tapering shafts and monolithic in nature.
- They are fabricated from erinaceous rock that was quarried at Chunar.
- The pillars have a lustrous polish.
- They don't have a base.
- The capital is joined to the tapering finish of the shaft with a cylindrical bolt.
- The capital is within the form of inverted lotus (often cited because of the bell capital).
- On high of its associate abacus (platform) that finally supports an animal incised in spherical.
- The columns that carry Ashokan inscriptions are those of DelhiMirat, Allahabad, Lauriya-Araraj, Lauriya-Nandangarh, Rampur a (with lion capital), Delhi-Topara, Sankisya, Sanchi and Sarnath.
- The non-edict bearing columns embrace those of Rampurva (with a bull capital), BasarhBakhira (with one lion capital), and Kosam.
- Columns bearing dedicatory inscriptions are found at Rummendei and Nigali Saga.
- The Lauriya-Araraj column could have had a Garuda capital. apart from the horse, the opposite symbols are greatly present in early Brahmanical

imagination Mauryan columns Achaemenid columns Monolithic created of a variety of items freelance separate a part of some larger discipline theme swish Fluted bell at the highest bell at very cheap while not support base With support base Monolithic Railing at Sarnath an elegant fragment of a monolithic railing at Sarnath is allotted to the Mauryan amount. It's made from polished Chunar sandstone.

- It compares well with the Bharhut railing
- It is traced from wood up to date originals.
- The support or the 'Alabama', the uprights or the 'stambhas', the horizontal bars or the 'suchis' and therefore the stretcher or the 'ushnisha' have all been sculpted from one monolithic stone Dhauli.
- Elephant at Dhauli (Bhubaneshwar, Odisha), there's a rock sculpture of the front a part of an elephant.
- It includes a significant trunk that curls graciously inwards.
- His right front leg is slightly atilt and therefore the left one slightly bent, suggesting forward movement.
- Its realistic stance, powerful portrayal in stone is extremely spectacular and offers the sensation that the elephant is walking out of the rock.
- Rock Cut Caves the Mauryan amount saw the start of rock-cut design.
- The caves are placed within the Nagarjuna and Barabar hills to the north of Bodhgaya.
- Three caves in Barabar hills have dedicatory inscriptions of Ashoka and 3 within the Nagarjuna hills have inscriptions of his successor Dasaratha.
- The exteriors of the caves are terribly plain.
- However, the interiors are polished to a high degree.
- The earliest of those caves is Sudama cave that contains an inscription dated to the 12th regnal year of Ashoka and is devoted to the Ajivika sect.

Topic 26. KALA AZAR

Importance for Prelims: Science and Tech



Kala-azar death in Jharkhand; state says cause comorbidities

- Kala-azar or visceral leishmaniosis (VL) may be a tropical disease defined by irregular fever, weight loss, anemia, and swelling of the spleen and liver.
- It is caused by a protozoan mastigophore parasite and is transmitted to humans by the bite of infected feminine sandflies.
- According to the planet Health Organisation (WHO), globally, 7 to 10 lakh new cases occur annually.
- Three styles of leishmaniosis: that affects multiple organs and is the most serious variety of the malady.
- Visceral leishmaniosis, which is often called Kala-azar in India, is fatal in over 95th of the cases if left untreated.
- Cutaneous protozoal infection that causes skin sores and is the most typical kind. Leishmaniosis, that causes skin and membrane lesions.
- Resistance to Drug: the sole drug out there against protozoal infection, miltefosine, is apace losing its effectiveness thanks to rising resistance to

the present drug because of a decrease in its accumulation within the parasite.

- A super molecule referred to as 'P4ATPase-CDC50', is answerable for intake of the drug by the parasite, and another super molecule, referred to as 'P-glycoprotein', is answerable for throwing this drug out from at intervals the parasite's body.
- A decrease within the activity of the previous super molecule, and a rise within the activity of the latter leads to less accumulation of miltefosine within the parasite's body, so inflicting it to become immune to the drug.

Topic 27. NEAT INITIATIVE

Importance for Prelims: Governance



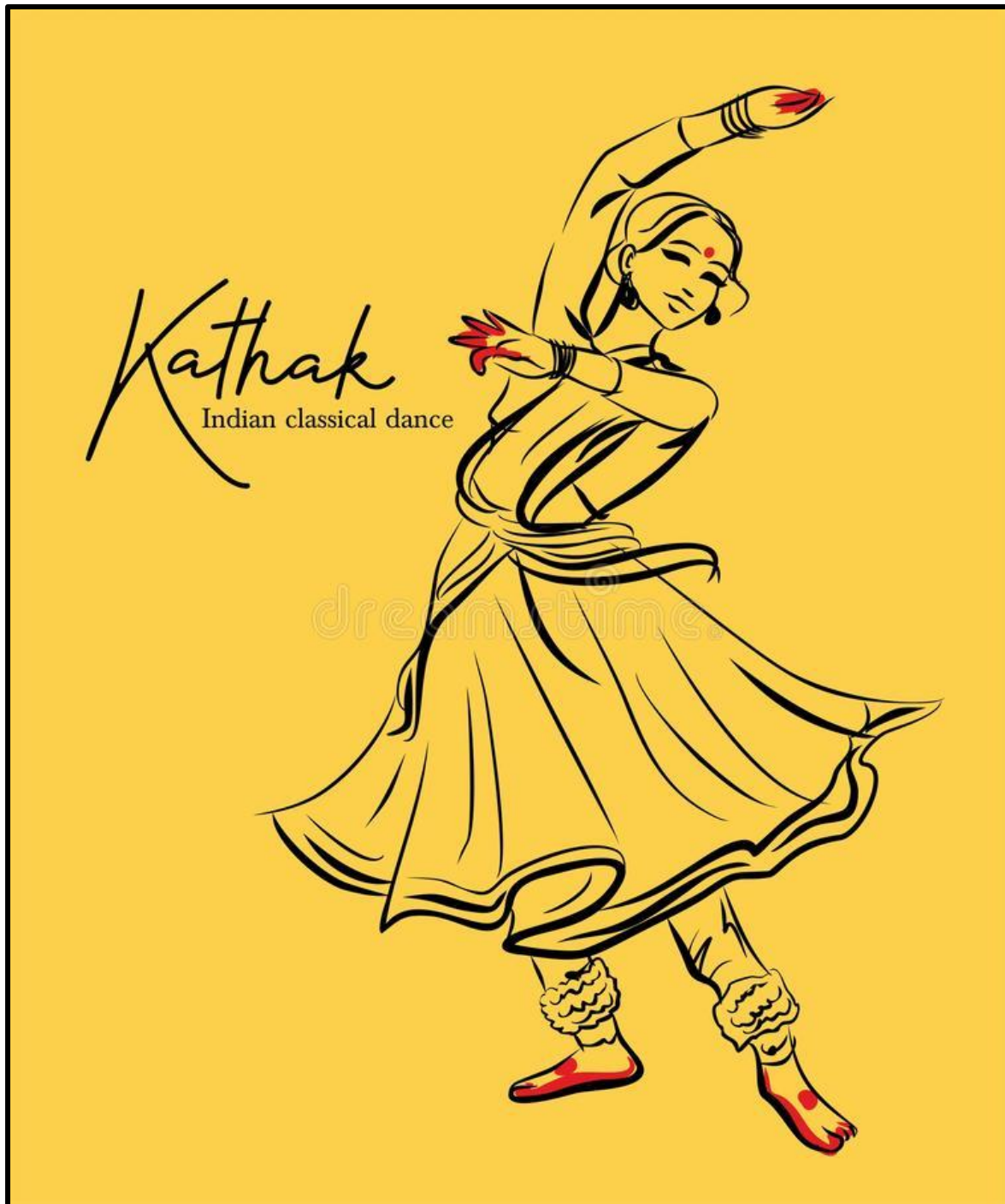
A government scheme that helps bridge technical gap

- Ministry of Human Resource Development (MHRD) has proclaimed a brand new National academic Alliance for Technology (NEAT) to use technology for higher learning outcomes in pedagogy.
- National Education Alliance for Technology (NEAT) a Public-Private Partnership model between the govt and also the Education Technology firms of India.
- Implementing agency– AICTE NEAT is AN initiative for providing the utilization of best-developed technological solutions in education sector for enhancing the employability of youth on one platform for the convenience of learners.
- These solutions create use of AI for a customized and personal expertise for higher learning outcomes and ability development across niche areas.
- Currently, 58 world and Indian start-up ed-tech firms are aboard NEAT.
- They are providing 100 courses and e-resources for a more robust learning outcome, for developing employable skills likewise as overcoming learning loss.
- MHRD would act as a supporter to make sure that the adaptive Learning Solutions are freely obtainable to an outsized variety of economically backward students.
- NEAT is aimed toward taking the thought of huge Open on-line Courses

(MOOCS) platform a step ahead.

Topic 28. KATHAK

Importance for Prelims: Art and Culture



Kathak dancer Pandit Mauna Shukla dies at 78

- It is one among the classical dances of India. The word Kathak has been derived from the word Katha which suggests a story.
- It is primarily performed in Northern India.

- It was primarily a temple or village performance whereby the dancers narrated stories from ancient scriptures.
- Usually a solo performance, the dancer usually pauses to recite verses followed by their execution through movement.
- The focus is a lot on footwork; the movements are skilfully controlled and performed straight-legged by dancers carrying ankle-bells. Kathak is the sole sort of classical dance married to Hindustani or North Indian music.
- Some distinguished dancers embrace Birju Maharaj, Sitara Hindu deity.

Other Classical dances

1) **Bharatnatyam**, Tamil Nadu Bharatanatyam, also referred to as the mother of all different classical dance designs, is taken into account because the oldest dance forms within the country India originated from the temple dancers in Tamil Nadu. The dance may be a pure amalgam of expressions, music, beat, and rhythm.

2) **Kathakali**, Kerala this one is maybe one of all the foremost attractive, dramatic, and elaborate types of classical Indian dance. Kathakali originated within the south Indian state of Kerala, conjointly referred to as God's Own Country throughout the 17th century. The artist playing the dance has to have elaborate make-up, wear significant costumes and, most significantly, work on their gestures.

3) **Kuchipudi**, province Kuchipudi is taken into account one in every of the toughest types of Indian classical dance that originated within the south Indian state of province. The shape is taken into account the toughest as a result of it needs an entire heap of rituals, from lighting the incense sticks to sprinkling water and praying to the lord.

4) **Manipuri**, Manipur Manipuri dance kind originated within the north-eastern state of Manipur and could be a pure non secular expertise.

This is often a topic based mostly classical dance kind that depicts Raaslila or the romantic act of the Hindu gods Radha and Krishna. Costumes and makeup play a very important role here.

5) **Odissi**, Odisha Odissi dance kind emerged from the East Indian state of Odisha and is principally derived from the traditional Hindu temples in Odisha. The full dance is predicated on gestures and movements or mudras. The dance is performed to precise the legendary stories of the Hindu gods, like Lord Shiva and Surya. it's additionally thought of because of the oldest living dance types of the Republic of India.

6) **Sattriya Dance**, province The Sattriya Dance of province lives tradition of state and one in every of the eight major classical Indian dance traditions. Sattriya classical dance kind is well appreciated and practiced outside the state further as outside of Indian mainland.

7) **Mohiniyattam**, Kerala Mohiniyattam is another classical dance style from Kerala state and one in every of the eight principal Indian classical dance. The Mohiniyattam could be a in style dance kind with a drama in dance, performed with delicate gestures and footwork.

Topic 29. APPOINTMENT OF ELECTION COMMISSIONERS

Importance for Prelims: Polity

Reports of the Chief Election Commissioner (CEC) and his Election Commissioner colleagues ‘attending’ an ‘informal’ meeting with the Principal Secretary to the Prime Minister, late last year, has brought renewed focus on the independence and the impartiality of the Election Commission of India (ECI)

Independence and the impartiality of the Election Commission of India (ECI)

- There isn't any prescribed procedure for the appointment of the Chief Election Commissioner and Election Commissioners as per the constitution.
- Under the dealing of Business rules, the President shall appoint the CEC and European Union supported the recommendations created by the Prime Minister.
- Therefore, it's the executive power of the President to appoint CEC and ECs.
- However, according to Article 324(5), the Parliament has to manage to manage the terms of conditions of service and tenure of ECs.

Topic 30. BUILDING AND OTHER CONSTRUCTION WORKERS

(BOCW) CESS FUND

Importance for Prelims: Governance

No exodus of migrant workers: Labour Ministry

- Building & alternative Construction Workers' Welfare Cess [BOCWW Cess] may be a means to produce health and welfare measures for the employees engaged in building and alternative construction works.
- In the truest sense, there's no cess known as Labour Cess.
- It is the Building & alternative Construction Workers' Welfare Cess [BOCWW Cess] that is commonly referred to as labor cess by bound section/ individual.
- Building & alternative Construction Workers' Welfare Cess [BOCWW Cess] is run underneath the Building and alternative Construction Workers' Welfare Cess Act, 1996 scan with relevant sections of the Building and alternative Construction employees (Regulation of Employment and Conditions of Service) Act, 1996.
- The Building & alternative Construction Workers' Welfare Cess [BOCWW Cess] underneath the provisions of the Building and alternative Construction Workers' Welfare Cess Act, 1996 could be a levy lined underneath Entry 97 of List – I, Union List, read with Entry at serial 23 and 24 of List III in Schedule VII.
- The levy of Cess on the price of construction incurred by the employers on the building and sufficient funds for the Welfare Boards to undertake Social Security schemes and welfare measures for building and different construction staff.
- Building & different Construction Workers' Welfare Cess [BOCWW Cess] is levied @ I Chronicles on the value of construction incurred by a leader as per the provisions of Sections 3(1) and 3(3) of the Building and

different Construction Workers' Welfare Cess Act, 1996.

- Welfare Boards implanted below Section 18(1) of the Building and different Construction staff (Regulation of Employment and Conditions of Service) Act, 1996 are entrusted with the task of making certain the availability of health and welfare measures to the staff engaged in building and different construction works of the Building and different construction staff.
- Social Security Fund it's created so as to implement Social Security schemes.
- The Code on Social Security, 2020 is an element of the Indian labor code that deals employees' Social Security and have generous provisions on retirement pension, health care insurance and medical advantages, earnings and leaves, state advantages and paid parental leaves.

Topic 31. PLANTS' ABILITY TO ADAPT TO CLIMATE CHANGE

Importance for Prelims: Environment

Animal biodiversity loss limits plants' ability to adapt to climate change globally: Experts

- Plants worldwide have a 60 percent lower likelihood of adapting to climate change because of the declining numbers of birds and mammals, in keeping with a replacement study.
- Plants and seed dispersers like birds and mammals share a mutualist relationship.
- The former provides food and reciprocally, the latter distributes seeds miles away.
- More than half the plant species depend upon animals and plants for seed-dispersing.
- A key approach that plants will adapt to temperature change is through 'migration' — the movement of the species to areas that become suitable for growth underneath an altered climate.
- While adult plants that are rooted down can't migrate, their seeds will more than half the plant species rely on animals and plants for seed dispersing
- But the amount of mammals, birds, fish, plants and insects has born to a mean of 68 percent from 1970 to 2016, the Living Planet Report 2020 discovered.
- With declining animal multifariousness, fewer seeds can reach new grounds. Consequently, plants would possibly lose their ability to migrate to a {more moderen|a more recent} and more appropriate atmosphere.

Topic 32. DUGONG CONSERVATION RESERVE

Importance for Prelims: Environment



Newly declared dugong conservation reserve will help protect marine biodiversity.

- Tamil Nadu has declared India's 1st dugong conservation reserve within the Gulf of Mannar and also the adjacent Palk Bay on the southeast coast of India.
- The reserve can cover a vicinity of 500 kilometres in Palk Bay on the southeast coast of Tamil Nadu.
- Palk Bay could be a semi-enclosed shallow water body with a water depth most of 13 meters.

- Located between India and Sri Lanka on the Tamil Nadu coast, the dugong could be a flagship species within the region.

What are dugongs?

- The sirenian mammal (Dugong dugon), additionally known as the ocean cow, could be a herbivorous craniate.
- They will mature to 3 meters long, weigh concerning 300 kilograms, and live for concerning 65 to 70 years, grazing on seaweed and coming back to the surface to breathe.
- Dugongs are long-living animals that have a coffee fruitful rate, long generation time, and high investment in every offspring.
- It is that the solely phytophilous craniate that's strictly marine and is solely extant species within the Dugongidae. They are found in over 30 countries and in India are seen within the Gulf of Mannar, Gulf of Kutch, Palk Bay, and also the Andaman and Nicobar Islands. Dugongs are listed as Vulnerable on the IUCN Red List of vulnerable species.
- The loss of seaweed habitats, pollution, and degradation of the coastal system because of biological process activities have created life powerful for these slow-moving animals.
- Dugongs are victims of accidental trap in fishing nets and collision with boats, trawlers. Internationally, dugongs are listed in Appendix I of the Convention on International change species of wild Fauna and Flora (CITES), that prohibits the trade of the species and its components.
- Dugongs are protected in India below Schedule 1 of the Indian wildlife Act 1972 that bans the killing and buying of dugong meat. Elephants are thought of to be their nearest relatives.
- However, in contrast to dolphins and alternative cetaceans, ocean cows have 2 nostrils and no dorsal fin.

Topic 33. OPEN NETWORK FOR DIGITAL COMMERCE (ONDC)

Importance for Prelims: Economy



ONDC components, including dynamic pricing to help cut cost of doing biz:
DPIIT Secy

- Open Network for Digital Commerce (ONDC) may be a network supported open protocol and can change native commerce across segments, like quality, grocery, food order and delivery, edifice booking and travel, among others, to be discovered and engaged by any network-enabled application.
- The platform aims to form new opportunities, curb digital monopolies and by supporting small, tiny and medium enterprises and little traders

and facilitate them get on on-line platforms.

- It is an initiative of the Department for Promotion of trade and Internal Trade (DPIIT) underneath the Ministry of Commerce and trade.
- According to the ministry, ONDC is anticipated to digitalize the complete worth chain, standardise operations, promote inclusion of suppliers, derive efficiencies in supply, and enhance worth for shoppers.
- In easy words, the ONDC initiative aims to market open networks for all aspects of the exchange of products and services over digital or electronic networks.
- ONDC can work for each product and service. ONDC is a globally first-of-its-kind initiative that aims to democratize digital commerce, moving it from a platform-centric model to an open network.
- “As UPI is to the digital payment domain, ONDC is to e-commerce in India.”
- ONDC can change, consumers and sellers to be digitally visible and interact through an open network, in spite of what platform/application they use.
- ONDC can empower merchants and shoppers by breaking silos to create one network to drive innovation and scale, reworking all businesses from retail goods, food to quality.

How can ONDC function?

- The Centre has laid down a detailed procedure for the functioning of the open network that primarily focuses on making certain confidentiality and privacy of knowledge within the network.
- It shall not mandate sharing of any transaction-level knowledge by participants with ONDC and work with them to publish anonymised mixture metrics on network performance while not compromising on confidentiality and privacy.

- ONDC will be compliant with the data technology act, 2000 and designed for compliance with the rising personal knowledge protection bill.
- The government additionally plans to determine a freelance regulatory agency for ecommerce like Sebi.
- The consultative council on ONDC was accepted by the Centre on July 5th.
- It is take over as a guide and mentor in mentor to style, implementation and national rollout of ONDC.

Topic 34. FOOD CORPORATION INDIA

Importance for Prelims: Scheme



5 Sutras to improve FCI's progress

- Food Corporation of India (FCI) may be a Public Sector enterprise, underneath the Department of Food & Public Distribution, Ministry of consumer Affairs, Food and Public Distribution.
- FCI could be a statutory body set up in 1965 underneath the Food companies Act 1964.

- It was established against the backdrop of major shortage of grains, especially wheat.
- It has primary duty to undertake purchase, store, and move/transport, distribute and sell food grains and different foodstuffs.
- The Food Corporation of India was set up underneath the Food Corporation's Act 1964, so as to fulfil the following objectives of the Food Policy: Effective subsidy operations for safeguarding the interests of the farmers.
- Distribution of food grains throughout the country for the public distribution system.
- Maintaining satisfactory level of operational and buffer stocks of food grains to make sure National Food Security Since its inception, FCI has compete a major role in India's success in remodelling the crisis management oriented food security into a stable security system.
- In its 50 years of service to the nation, FCI has compete a major role in India's success in remodelling the crisis management homeward-bound food security into a stable security system.
- FCI's Objectives are: to supply farmers remunerative costs to create food grains available at reasonable costs, significantly to vulnerable section of the society to maintain buffer stocks as live of Food Security To intervene in marketplace for value stabilization

Topic 35. SIACHEN GLACIER

Importance for Prelims: Geography



In his press conference on January 12, on the eve of Army Day, the Indian Army Chief, General Naravane, reportedly made an intriguing reference to the possibility of “demilitarisation of the glacial region” in Siachen.

- The Siachen glacier may be a glacier set within the Japanese Karakoram within the Himalayas at concerning 42.1226°N $77.109540^{\circ}\text{E}$, simply northeast of the purpose NJ9842 where the line of management between India and Pakistan ends.
- At 76 kilometre (47 mi) long, it's the longest glacier within the Karakoram and second-longest within the world's non-polar areas.
- At 76 kilometre (47 mi) long, it's the longest ice mass within the Karakoram and second-longest within the world's non-polar areas.

- The Siachen glacier lies instantly south of the good drainage divide that separates the Eurasian Plate from the Indian subcontinent within the extensively frozen portion of the Karakoram generally known as the “Third Pole”.
- The glacier lies between the Saltoro Ridge instantly to the west and also the main mountain chain to the east.
- Largest ice sheets, referred to as continental glaciers, cover huge areas. Today, continental glaciers cowl most of Antarctica and also the island of Greenland.
- Tons of water are added to the ocean on a daily basis.
- In March 2009, a 160-square-mile piece of the Wilkins shelf ice broke off of the Antarctic Peninsula.
- Large icebergs created by such an event create hazards for shipping large additions of water additionally modification the ocean system.
- Organisms, like many varieties of corals, depend upon salt water for survival.
- Some corals might not be able to accommodates a a lot of fresh surround.
- The loss of glacial ice additionally reduces the number of water offered for plants and animals that require water to survive.
- Glaciers close to the Equator, like those on the tropical island of Papua or in South America, are particularly in danger.
- A few glaciers may very well be making the most of heating.
- Although winter temperatures are rising, therefore is that the quantity of snow in areas like Pakistan’s upper Indus River Basin.
- Glaciers are growing quickly there.