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Gist of Editorials

DECEMBER - 2020

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CSE PRELIMS & MAIN EXAMINATION**

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GUILLAIN BARRE SYNDROME

GENERAL STUDIES - III (HEALTH RELATED ISSUES)

In a rare complication, some patients infected with Covid-19 have been found suffering from Guillain Barre Syndrome (GBS). In India, such cases have been reported since August.

What is Guillain Barre Syndrome?

Guillain-Barré syndrome is a **rare but serious autoimmune disorder** in which the immune system attacks healthy nerve cells in your **peripheral nervous system (PNS)**.

- This leads to weakness, numbness, and tingling, and can eventually cause paralysis.
- The **cause of this condition is unknown**, but it's **typically triggered by an infectious illness, such as gastroenteritis (irritation of the stomach or intestines)** or a lung infection.
- There's **no cure for the syndrome, but treatment can reduce the severity of symptoms** and shorten the duration of the illness.

What causes Guillain-Barré syndrome (GBS)?

The precise cause of Guillain-Barré is unknown. According to the Centers for Disease Control and Prevention (CDC) Trusted Source, **about two-thirds of people with Guillain-Barré develop it soon after they've been sick with diarrhea or a respiratory infection.**

In the past, patients of Middle East Respiratory Syndrome showed GBS symptoms, **as did those infected with Zika, HIV, Herpes virus and Campylobacter jejuni.**

Guillain Barre Syndrome and Covid-19

Covid-19 is known **to affect digestive, cardiac and kidney functions.** It is also known that some — not all — patients are prone to **neurological problems if they contract the virus.**

- The virus can cause memory fog, anxiety, headache and depression if it attacks parts of the brain which form the central nervous system.
- It can **trigger an immune response so powerful that the body's peripheral nervous system** can come under attack.

Treatment

Intravenous immunoglobulin (IVIG) and sometimes plasma therapy helps recovery in patients with GBS.

Some patients may develop severe complications and require intensive care treatment or ventilator support.

J&K'S ROSHNI ACT

GENERAL STUDIES - II (GOVERNMENT POLICIES)

Following a recent order by the Jammu & Kashmir High Court, the administration has annulled the Roshni Act of 2001 and decided to retrieve land transferred under the Roshni scheme.

What was the Roshni Act?

- Formally the **Jammu and Kashmir State Land (Vesting of Ownership to the Occupants) Act, 2001**, it was passed by the then National Conference government to give ownership to people in possession of state land, with a cut-off of 1990, and against a payment as determined by the government.
- Since the **aim was to generate resources for hydroelectric power projects**, it was called Roshni (Light) Act.

J&K Roshni Act: Why has it been controversial?

- In its 2014 report, **the CAG termed the scheme an Rs-25,000-crore scam**.
- It flagged irregularities and said arbitrary reduction of prices by a standing committee was done **to benefit politicians and influential people**.

What did the court say?

In October this year, **the High Court declared the Roshni Act "illegal, unconstitutional and unsustainable"** and held allotments under the Act as **void ab initio**.

- It ordered a CBI probe into transfer of ownership, sought action against bureaucrats involved, and asked the government to make public the names of prominent people allotted land.
- In lists of beneficiaries made public so far, names of politicians, bureaucrats and businessmen were enumerated with parents' names, residence, job profile and affiliation.

Why did groups in Jammu campaign against the Roshni Act?

Some right-wings groups in Jammu have alleged the **Roshni Act was meant to change the demography of the Hindu-majority Jammu district**.

According to them- "The court observation has proved that there was a demographic change. Thirty thousand cases of land transfer were reported in the state government order, out of which over 25,000 cases were from Jammu and only 4,500 from Kashmir".

CONSENT TO INITIATE CRIMINAL CONTEMPT

GENERAL STUDIES - II (SEPARATION OF POWERS)

Attorney General for India K K Venugopal has granted consent to initiate criminal contempt of court proceedings against comic illustrator Rachita Taneja for allegedly scandalising the judiciary through her tweets and illustrations.

The procedure for bringing a criminal contempt of court case against an individual

The **Contempt of Courts Act, 1971**, lays down the law on contempt of court.

- **In the case of the Supreme Court**, the Attorney General or the Solicitor General, and **in the case of High Courts**, the Advocate General, may bring in a motion before the court for initiating a case of criminal contempt.
- However, if the motion is brought by any other person, **the consent in writing of the Attorney General or the Advocate General is required.**

Need for the Attorney General's consent

The procedure in cases of criminal contempt of court, **which means the publication of material that scandalises or lowers the dignity of the court or prejudices or interferes with the proceedings of the court**, the consent of the Attorney General is required under the law.

- **The objective behind requiring the consent of the Attorney General before taking cognizance of a complaint** is to save the time of the court.
- **The AG's consent is meant to be a safeguard against frivolous petitions**, as it is deemed that the AG, as an officer of the court, will independently ascertain whether the complaint is indeed valid.
- If the AG denies consent, **the matter all but ends.**

Is the AG's consent mandatory for all contempt of court cases?

The AG's consent is **mandatory when a private citizen wants to initiate a case of contempt of court** against a person.

- However, **when the court itself initiates a contempt of court case**, as it did in the case of Prashant Bhushan recently, **the AG's consent is not required.**
- This is because the **court is exercising its inherent powers under the Constitution to punish for contempt** and such Constitutional powers cannot be restricted because the AG declined to grant consent.

What happens after the AG has granted consent?

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Once the consent of the Attorney General is given in writing, a notice under The Contempt of Courts Act is served personally on the person against whom the proceedings are sought to be initiated by the court.

- Once the notice is served, the alleged contemnor may file an affidavit in support of his defence, explaining the nature and circumstances of her remarks.
- The case is required **under the Act to be heard by a Bench of at least two judges.**
- The court then takes into account any evidence available to check the affidavit, and pass appropriate orders.

GIST OF EDITORIALS 4th DECEMBER – 2020

WHAT IS SMART TEST?

GENERAL STUDIES - III (ACHIEVEMENTS OF INDIANS IN SCIENCE & TECHNOLOGY)

Recently, India successfully conducted the flight test of a **Supersonic Missile Assisted Release of Torpedo (SMART)** system developed by the Defence Research and Development Organisation (DRDO).

What is SMART system?

Torpedoes are self-propelled weapons that travel underwater to hit a target. They are limited by their range.

- SMART is a **missile assisted release of lightweight Anti-Submarine Torpedo System for Anti-Submarine Warfare (ASW) operations far beyond Torpedo range.**
- This **Supersonic Missile Assisted Release of Torpedo (SMART)** system comprises a mechanism by which **the torpedo is launched from a supersonic missile system** with modifications that would take the torpedo to a far longer range than its own.
- The system also gives flexibility in terms of the missile system's launch platform.
- A number of **DRDO laboratories** including DRDL, RCI Hyderabad, ADRDE Agra, NSTL Visakhapatnam have developed the technologies required for SMART.

Why is it significant?

SMART is a **game-changing technology demonstration in anti-submarine warfare.**

- India's **anti-submarine warfare capacity building is crucial in light of China's growing influence** in the Indian Ocean region.
- The Navy's anti-submarine warfare capability got a boost in June after the conclusion of a contract for **Advanced Torpedo Decoy System Maareech**, capable of being fired from all frontline warships.
- India has been indigenously developing and building several anti-submarine systems and vessels in the recent past.

LAB-GROWN MEAT

GENERAL STUDIES - III (SCIENCE & TECHNOLOGY)

The **Singapore Food Agency (SFA)** has approved the sale of a **lab-grown meat product**. This is the first time cultured meat has been cleared for sale anywhere in the world.

The **product approved by the SFA is cultured chicken**, produced by US-based East Just.

The issues

In its June 2020 Food Outlook Report, the **UN Food and Agriculture Organisation (FAO)** stated that **world meat output was set to contract row to 333 million tonnes**, 1.7% less than in 2019.

- The disruption has been **caused mainly by Covid-19**, but it has added to already **widespread fears about zoonotic diseases, especially African swine fever and highly pathogenic avian influenza**.
- But **while plant-based meats** were finding more and more favour, **commercial availability of lab-grown meat (or cultured meat)** was still many years in the future.
- This is why the **approval by Singapore to cultured chicken is seen as significant**.

The difference between lab-grown or cultured meat and plant-based meat

The latter is made from **plant sources such as soy or pea protein**, while **cultured meat is grown directly from cells in a laboratory**.

Both have the same objective:

- to offer alternatives to traditional meat products that could feed a lot more people,
- reduce the threat of zoonotic diseases,
- Mitigate the environmental impact of meat consumption.

Difference between cultured meat and conventional beef

In terms of cellular structure, **cultured or cultivated meat is the same as conventional meat** — except that cultured meat does not come directly from animals.

- Compared to conventional beef, **cultivated beef could reduce land use by more than 95%, climate change emissions by 74-87% and nutrient pollution by 94%**.
- Since cultivated meat is created in clean facilities, **the risk of contamination by pathogens** such as salmonella and E coli is significantly reduced.
- It **does not require antibiotics** either, unlike animals raised for meat, thereby reducing the threat posed to public health by growing antibiotic resistance.

Challenges

Conventional meat still dominates the market, and **industry lobbies have been fighting to hold on to their market, not least by challenging the very idea of alternative meats.**

- **The charge against lab-grown meat**, led by agriculture and husbandry bodies, is that it simply isn't meat if it didn't come from an animal.
- The US Cattlemen's Association, for example, successfully lobbied **Missouri to pass a Bill** ruling that **plant-based and lab-grown meats cannot be called meats.**
- The Cattle Council of Australia has been putting similar pressure on the country's government since 2018.

GIST OF EDITORIALS 7th DECEMBER – 2020

'PURE HONEY', AND HOW IS HONEY TESTED?

GENERAL STUDIES - II (IMPORTANT ASPECTS OF GOVERNANCE)

Recently, the **Centre for Science and Environment (CSE)** has released results of an investigation it had conducted into the quality of honey being produced in India.

It reported that products by **many popular brands were not honey, and, in fact, had been spiked with added sugar.** Therefore, they ought not to be branded and sold as honey.

What is 'pure honey'?

Over millennia, 'honey' was what bees made from plant nectar and people only just **squeezed out the contents of honey combs, scrubbed it clean of bees, pollen and other visible residues.**

- This is honey that is either sourced from wild bees or domesticated bees in apiaries.
- However, **none of this constitutes 'pure honey', because it is a marketing term and a superficial phrase** that masks the complexity that is 'honey'.

FSSAI' regulations

India's food regulator, the **Food Safety and Standards Authority of India (FSSAI)**, in July published a new set of regulations — the third in three years — called the 'Revised Standards of Honey'.

- It does one contain the term 'pure honey' in it.
- However, the regulations listed the chemical contents, i.e., **tolerable limits of 'impurities'** that must be detected by specific tests for a batch of honey presented by a company.

Classification of Honey

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- **'Honey' is classified as either 'Blossom' or 'Nectar Honey'**, which is what comes from nectar of plants, or 'Honeydew', which comes mainly from excretions of plant-sucking insects (Hemiptera) on the living parts of plants.
- The honey that is ultimately made available can be a combination of these and can differ widely in 'honey profiles'.
- There are at least **300 recognised types of honey**.

Composition of Honey

Honey is primarily a complex of the **fructose, glucose and sucrose sugars**.

- It has a relatively high fructose content, which is why it is sweeter than commercial sugar, which is heavier on sucrose.
- The latter also breaks down less easily.

How is honey tested?

Laboratory tests **determine acceptable ratios of these sugars and tolerance limits**.

There is also a tolerance for **'ash' content and HMF (hydroxymethylfurfural)**, which forms when honey is heated. HMF is actually toxic for bees.

- The **reason a wide range of chemical variety is allowed** is because different flowers have varying characteristics of nectar and express different chemical compounds that are sensitive to light, temperature and geography.
- In all, there are **18 parameters for a product to be certified as honey**.
- The most common are the **so-called C4 and C3 tests**, that determine if sugar from corn, sugarcane or rice was used to adulterate honey.

What did the CSE probe find?

The CSE investigation **examined 13 popular brands of honey**.

- **Four of them failed the tests that are required by Indian law**—Apis Himalaya Honey, Dadev Honey, Hi Honey and Societe Naturelle Honey.
- The testing was done at the **Centre for Analysis and Learning in Livestock and Food, Gujarat**.
- However, the CSE sent the samples to a lab in Germany that specialises in **Nuclear Magnetic Resonance (NMR) spectroscopy**.
- The **NMR test is not mandatory in India, but it is necessary for export purposes**.

GIST OF EDITORIALS 8th DECEMBER – 2020

THARU TRIBALS OF UTTAR PRADESH

GENERAL STUDIES - I (SALIENT FEATURES OF INDIAN SOCIETY)

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The Uttar Pradesh government has **recently embarked upon a scheme to take the unique culture of its ethnic Tharu tribe across the world.**

The intention is to **put Tharu villages on the tourism map**, and to create jobs and bring economic independence to the tribal population.

The home stay scheme

The state government is working **to connect Tharu villages in the districts of Balrampur, Bahraich, Lakhimpur and Pilibhit bordering Nepal**, with the home stay scheme of the UP Forest Department.

- The idea is **to offer tourists an experience of living in the natural Tharu habitat**, in traditional huts made of grass collected mainly from the forests.
- The **Uttar Pradesh Forest Corporation will train the Tharu people** to communicate effectively with visitors, and encourage villagers to acquaint them with aspects of safety and cleanliness, and with the rules of the forest.



Who are the Tharu people?

The community **belongs to the Terai lowlands, amid the Shivaliks or lower Himalayas.**

- Most of them **are forest dwellers**, and some practice agriculture.
- The word tharu is **believed to be derived from sthavar**, meaning followers of Theravada Buddhism.
- The Tharus live in both **India and Nepal.**
- In the Indian terai, they live mostly in **Uttarakhand, Uttar Pradesh, and Bihar.**
- According to the 2011 census, **the Scheduled Tribe population in Uttar Pradesh was more than 11 lakh**; this number is estimated to have crossed 20 lakh now.
- The **biggest chunk of this tribal population is made up of Tharus.**

Members of **the tribe survive on wheat, corn and vegetables grown close to their homes.** A majority still lives off the forest.

EMERGENCY APPROVAL IN INDIA

GENERAL STUDIES - II (ISSUES RELATING TO HEALTH)

Three vaccine developers have now made applications to the Central Drug Standard Control Organisation (CDSCO), India's drug regulator, **seeking emergency use approval for their candidate Covid-19 vaccines which are still under trials.**

None of these has yet generated data about the effectiveness of their vaccine from phase-III trials conducted in India, which is a mandatory requirement in the normal process of approval.

What are these vaccine candidates?

- 1. COVISHIELD:** Pune-based Serum Institute of India has sought approval for its version of the vaccine developed by Oxford University and AstraZeneca.
It has been testing in India for the last few months. The candidate is currently in phase-III trials in India.
- 2. COVAXIN:** Bharat Biotech, a Hyderabad-based company which is developing a vaccine, Covaxin, in collaboration with National Institute of Virology, an ICMR institute in Pune.
It has started phase-III trials only recently, and is yet to enrol all the participants as per its design.
- 3. BNT162b2:** US pharmaceutical major Pfizer **hasn't carried out clinical trials in India** of its vaccine, developed in collaboration with BioNTech.
The Pfizer-BioNTech vaccine is the first one to receive the regulator's approval anywhere in the world, having been granted emergency use authorisation in the UK last week.

When can emergency use authorisation (EUA) be granted?

In the US, the Food and Drug Administration (FDA) grants EUA only after it has been determined that **the "known and potential benefits outweigh the known and potential risks of the vaccine" (or medicine).**

- This means that a EUA application can be considered **only after sufficient efficacy data from phase 3 trials had been generated.**
- A EUA cannot be granted solely on the basis of data from phase 1 or phase 2 trials.

The regulatory provisions for approval of vaccines in India

Clinical trials of new drugs and vaccines, and their approvals, are governed by the **New Drugs and Clinical Trials Rules, 2019.**

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These Rules **do not use the term “emergency use authorisation”**.

- However, that does not mean that the Indian regulatory system does not have provisions for “special situations” like the current one.
- The 2019 rules provide for “**accelerated approval process**” in **several situations** that would include the one like the current pandemic.
- In such situations, **there is a provision for granting approval to a drug that is still in clinical trials**, “provided there is a prima facie case of the product being of meaningful therapeutic benefit”.
- Accordingly, the approval granted to drugs or vaccines that are still in clinical trials is temporary, and valid only for one year.

What about vaccines that have done well in trials outside the country?

- **The 2019 Rules do not say anything specific about whether data from a trial conducted in another country** can be considered while assessing an application for accelerated approval to a drug or vaccine to be used in India.
- But the Indian health authorities have said they were keeping an open mind, and it would all depend on what scientists and experts make of the data that are presented to them.

GIST OF EDITORIALS 10th DECEMBER – 2020

SUBMARINE DAY

GENERAL STUDIES - III (INDIGENIZATION OF TECHNOLOGY)

The Indian Navy celebrated Submarine Day on December 8.

- It was on December 8 that the Indian Naval Ensign was unfurled on **INS Kalvari, the first submarine to be inducted in the Indian Navy, at Riga in Latvia, the erstwhile USSR, in 1967.**
- **Kalvari is the Malayalam name for Tiger Shark**, a predator in the Indian Ocean.
- The Kalvari was **decommissioned in 1996 after 29 years of service.**

What kind of submarine was INS Kalvari?

- INS Kalvari was a **diesel-electric submarine of the Foxtrot Class** from the erstwhile **USSR**.
- It had a surface speed of 16 knots while the submerged speed was 15 knots.
- It could carry 22 torpedoes and 42 mines in lieu of torpedoes.



What kind are the present Kalvari Class submarines in Indian Navy?

The Indian Navy is inducting several submarines in Kalvari Class, named after the very first submarine inducted into service.

- INS Kalvari, a diesel-electric **submarine of Scorpene-class**, was inducted into service in 2017 after having being built at the Mazagon dock in Mumbai.
- It has been designed by French company DCNS.
- **INS Khanderi** is the other submarine of Kalvari class currently in service.
- **The other submarines slated to join service under this class** are Vela, Karanj, Vaghir and Vaghsheer.

What is the Kalvari Class of submarines?

This class of submarines have Diesel Electric transmission systems and these are primarily **attack submarines or 'hunter-killer'** type which means they are designed to target and sink adversary naval vessels.

- They can be used in **anti-warship and anti-submarine operations, intelligence gathering and surveillance and naval mine laying.**
- These submarines are built under **Project 75** and their design is based on the Scorpene class of the submarines.
- Being constructed by the **public sector shipbuilder Mazagon Dock Ltd (MDL) in Mumbai.**

GIST OF EDITORIALS 11th DECEMBER – 2020

AURORA BOREALIS OR NORTHERN LIGHTS

GENERAL STUDIES - I (IMPORTANT GEOPHYSICAL PHENOMENA)

Northern Lights, also known as aurora borealis, are usually **witnessed far up in the Polar Regions or the high latitude regions of Europe, like in Norway.**

But, recently, they could be visible in regions **that are more to the south, such as in the northern parts of Illinois and Pennsylvania in the US.**

What causes this change?

This is happening due to a solar flare, which emerged from a Sunspot on few days back.

- The flare is accompanied by a **Coronal Mass Ejection (CME)** — a large bubble of radiation and particles emitted by the Sun that explodes into space at high speed.
- The Space Weather Prediction Center at the **US National Oceanic and Atmospheric Administration (NOAA)** said the electromagnetic storm could be growing to major status, causing the Northern Lights to be visible in more number of areas than usual.

What causes an aurora?

Auroras occur when **charged particles ejected from the Sun's surface — called the solar wind — enter the Earth's atmosphere.**

While flowing toward Earth, the fast-moving solar wind carries with it the Sun's magnetic field, which **disrupts the magnetosphere.**

Magnetosphere is the region of space around Earth in which the magnetic field of our planet is dominant.

- When the Sun's magnetic field approaches Earth, **the protective magnetic field radiating from our planet's poles deflects the former, thus shielding life on Earth.**
- However, as this happens, the protective fields couple together to form funnels, through which charged solar wind particles are able to stream down to the poles.
- **At the north and south poles**, the charged particles interact with different gases in the atmosphere, causing a display of light in the sky.
- **This display, known as an aurora**, is seen from the Earth's high latitude regions (called the auroral oval), and is active all year round.

Regions of aurora borealis and aurora australis

1. **In the northern part of our globe**, the polar lights are called aurora borealis or Northern Lights, and are seen from the US (Alaska), Canada, Iceland, Greenland, Norway, Sweden and Finland.
2. **In the south, they are called aurora australis or southern lights**, and are visible from high latitudes in Antarctica, Chile, Argentina, New Zealand and Australia.

Can solar flares or storms be dangerous?

Solar flares can typically affect space-dependent operations like Global Positioning Systems (GPS), radio and satellite communications, besides hampering flight operations, power grids and space exploration programmes.

- CMEs pose **danger to space weather.**

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- Ejections travelling at a speed of 500km/second are common during solar peaks and **create disturbances in Earth's magnetosphere**, the protective shield surrounding the planet.
- **At the time of spacewalks, astronauts face a great health risk** posed by exposure to solar radiation outside Earth's protective atmosphere.

GIST OF EDITORIALS 12th DECEMBER – 2020

PM WANI

GENERAL STUDIES - II (AWARENESS IN THE FIELDS OF IT)

Recently, the Cabinet has approved setting up of **Public Wi-Fi Networks by Public Data Office Aggregators** to provide public Wi-Fi service without levy of any License Fee.

Prime Minister Wi-Fi Access Network Interface (PM WANI) scheme approved by the Union Cabinet aims to bridge that divide using wireless technologies.

Objectives

- While no registration would be required for **PDOs, PDOAs and App Providers will get themselves registered with DoT through online registration portal of DoT**, without paying any registration fee.
- This is expected to be more business friendly and in line with efforts for **ease of doing business**.

Need for:

- COVID-19 pandemic has **necessitated delivery of stable and high speed Broadband Internet (data) services** to an increasingly large number of subscribers in the country including areas which do not have 4G mobile coverage.
- This can be **achieved by deployment of Public Wi-Fi**.

Salient Features of PM WANI scheme:

This Public Wi-Fi Access Network Interface **will be known as PM-WANI**.

PM-WANI eco-system will be operated by different players as described herein under:

- **Public Data Office (PDO):** It will establish, maintain, and operate only WANI compliant Wi-Fi Access Points and deliver broadband services to subscribers.
- **Public Data Office Aggregator (PDOA):** It will be an aggregator of PDOs and perform the functions relating to Authorization and Accounting.
- **App Provider:** It will develop an App to register users and discover WANI compliant Wi-Fi hotspots in the nearby area and display the same within the App for accessing the internet service.

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- **Central Registry:** It will maintain the details of App Providers, PDOAs, and PDOs. To begin with, the Central Registry will be maintained by C-DoT.

Benefits

- The proliferation of public Wi-Fi will not only **create employment but also enhance disposable incomes in the hands of small and medium entrepreneurs** and boost the GDP of the country.
- No License Fee for providing broadband internet services using public Wi-Fi Hotspots will massively **encourage its proliferation and penetration across the length and breadth of the country.**
- Availability and use of Broadband **will enhance incomes, employment, quality of life, ease of doing business etc.**

GIST OF EDITORIALS 14th DECEMBER – 2020

GEMINIDS METEOR SHOWER

GENERAL STUDIES - I (IMPORTANT GEOPHYSICAL PHENOMENA)

The **Geminids meteor shower**, believed to be the strongest of the year, is **active from December 4-December 20.**

- **The Geminids meteor showers are unique because their origin does not lie in a comet,** but what is believed to be an asteroid or an extinct comet.
- Soon after the Geminids meteor shower, the northern hemisphere can expect to see the **Ursids meteor shower.**

What are meteor showers?

Meteors are **bits of rock and ice that are ejected from comets** as they manoeuvre around their orbits around the sun.

- **Meteor showers are witnessed when** Earth passes through the trail of debris left behind by a comet or an asteroid.
- **When a meteor reaches the Earth, it is called a meteorite and a series of meteorites,** when encountered at once, is termed a meteor shower.
- According to NASA, **over 30 meteor showers occur annually** and are observable from the Earth.
- As meteors fall towards the Earth, **the resistance makes the space rocks extremely hot and, as meteorites pass through the atmosphere,** they leave behind streaks of glowing gas that are visible to the observers and not the rock itself.

Uniqueness of Geminids meteor showers

- The Geminids meteor showers are unique because **their origin does not lie in a comet,** but what is believed to be an asteroid or an extinct comet.

- The Geminids emerge from 3200 Phaethon, which meteor scientists consider to be an asteroid.
- **Discovered on October 11, 1983**, the asteroid is over 5 km in diameter and **was named after the Greek myth of Phaethon, the son of Sun god Helios.**

Visibility of meteor shower

- Meteors are **best visible on a cloudless night and when the Moon is not extremely bright.** Chances of a successful viewing are higher from locations far away from the lights of cities.
- Generally, pollution makes viewing meteor showers from India difficult to view.

GIST OF EDITORIALS 15th DECEMBER – 2020

MOUNT EVEREST: HIGHER THAN THE HIMALAYAS

GENERAL STUDIES - II (INDIA AND ITS NEIGHBORHOOD)

When Nepal and China were discussing the fate of Mount Everest in their border negotiations in the early 1960s, then Prime Minister B.P. Koirala told Mao Zedong the **peak lay fully in Nepal.**

- Recently, the Foreign Ministers of Nepal and China jointly certified the **elevation of Mount Everest at 8,848.86 metres above sea level — 86 cm higher than** what was recognised since 1954.
- Everest is also known as **Sagarmatha** in Nepal and Mount **Qomolangma** in China.

How and when was the earlier measurement of 8,848 m done?

This was **determined by the Survey of India in 1954**, using instruments like theodolites and chains, with GPS still decades away.

- The elevation of 8,848 m came to be accepted in all references worldwide — **except by China.**
- Mount Everest rises from the border between Nepal and China.
- **In 1999, a US team put the elevation at 29,035 feet (nearly 8,850 m).** This survey was sponsored by the National Geographic Society, US.

How did China come to be part of it?

China's measurements were done separately. Nepal, in fact, had completed its mission early last year.

- The team of 120 (field workers and data analysts) was processing the data and computing results, which took four months, when the pandemic disrupted its work.
- The two sides subsequently signed a memorandum of understanding to jointly make public their results. The Chinese side conducted its measurements early this year.

What was the methodology used?

Foreign Ministers of Nepal and China, simply announced the new height, and appreciated the mutual cooperation. **They did not go into technical details.**

- Nepal's Department of Survey, said: We have used the previous methods applied in ascertaining the height as well as the latest data as well Global Navigational Satellite System (GNSS).
- The fact that both Chinese and Nepali data tallied shows the accuracy.

"Higher than the Himalayas"

"Higher than the Himalayas" is the somewhat over-the-top phrase used by China and Pakistan to describe their strategic relationship. In the case of Everest, Nepal and China, it, at the very least, rings factually true.

GIST OF EDITORIALS 16th DECEMBER – 2020

THE DECLINING NUMBERS OF RIVER DOLPHIN

GENERAL STUDIES - III (CONSERVATION)

Aquatic life is an indicator of the health of river ecosystems. As the Gangetic dolphin is at the top of the food chain, protecting the species and its habitat will ensure conservation of aquatic lives of the river.

What will Project Dolphin do?

Project Dolphin will be on the lines of Project Tiger, which has helped increase the tiger population.

- The National Mission for Clean Ganga (NMCG), has been taking some initiatives for saving dolphins.
- Now, **Project Dolphin is expected to be implemented by the Ministry of Environment, Forest and Climate Change.**

What is the Gangetic dolphin?

The Gangetic river system is home to a vast variety of aquatic life, including the **Gangetic dolphin (Platanista gangetica)**.

- The Gangetic dolphin is **one of five species of river dolphin found around the world.**
- It is found mainly in the Indian subcontinent, **particularly in Ganga-Brahmaputra-Meghna and Karnaphuli-Sangu river systems.**
- The breeding season of the Gangetic dolphin extends from January to June.
- **They feed on several species of fishes, invertebrates etc.**

What has been done to save Gangetic dolphins so far?

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The Gangetic dolphin is listed as **endangered by the International Union for the Conservation of Nature (IUCN)**.

- **Wildlife Act Protection:** After the launch of Ganga Action Plan in 1985, the government on November 24, 1986 included Gangetic dolphins in the First Schedule of the Indian Wildlife (Protection), Act 1972.
- **Conservation Plan:** The government also prepared The **Conservation Action Plan for the Ganges River Dolphin 2010-2020**, which “identified threats to Gangetic Dolphins and impact of river traffic, irrigation canals and depletion of prey-base on Dolphins populations”.
- **National Aquatic Animal:** On October 5, 2009, the Prime Minister, declared the Gangetic river dolphin as the national aquatic animal. Now, the National Mission for Clean Ganga celebrates **October 5 as National Ganga River Dolphin Day**.

GIST OF EDITORIALS 17th DECEMBER – 2020

THE ANATOMY OF THE CANNABIS PLANT

GENERAL STUDIES - II (ISSUES RELATING TO HEALTH)

Recently, in a decision that could influence the global use of medicinal marijuana, the **United Nations Commission on Narcotic Drugs (CND)** voted to remove cannabis and cannabis resin from **Schedule IV of the 1961 Single Convention on Narcotic Drugs**, decades after they were first placed on the list.

What is the cannabis plant?

According to the World Health Organisation (WHO), **cannabis is a generic term used to denote the several psychoactive preparations of the plant Cannabis sativa.**

- **Seeds and leaves of the plant** — used to make bhang, for example — **are outside the ambit of the NDPS Act.**
- The **major psychoactive constituent in cannabis is Delta-9 tetrahydrocannabinol (THC).** The **Mexican name ‘marijuana’** is frequently used in referring to cannabis leaves or other crude plant material in many countries.

Species of cannabis

- Most species of cannabis are dioecious plants that can be **identified as either male or female.**
- The **unpollinated female plants are called hashish.**
- Cannabis oil (**hashish oil**) is a concentrate of cannabinoids — compounds which are structurally similar to THC — obtained by solvent extraction of the crude plant material or of the resin.

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- The WHO says that **cannabis is by far the most widely cultivated, trafficked and abused illicit drug in the world.**

How does the NDPS Act define cannabis?

According to the **NDPS Act** “**cannabis plant**” means any plant of the genus **cannabis**. The legislation that was enacted in 1985 succeeded the **Dangerous Drugs Act, 1930**.

- **‘Charas’** is the separated resin extracted from the cannabis plant.
- **The NDPS Act covers separated raisin**, in whatever form, whether crude or purified, obtained from the cannabis plant and also includes concentrated preparation and **resin known as hashish oil or liquid hashish.**
- **Section 2(iii)(b) of the NDPS Act defines ‘ganja’** as the flowering or fruiting tops of the cannabis plant but it clearly excludes the seeds and leaves, when not accompanied by the tops, by whatever name they may be known or designated.

Why is the use of CBD oil still contentious in India?

The NDPS Act does not permit the recreational use of cannabis in India.

- **While CBD oil manufactured with a licence under the Drugs and Cosmetics Act, 1940 can be legally used**, it is not very common.
- Some Indian websites do sell CBD oil with a prescription and many even facilitate it.

GIST OF EDITORIALS 18th DECEMBER – 2020

THE ‘GREEN-BLUE’ POLICY AND DELHI MASTER PLAN 2041

GENERAL STUDIES - II (GOVERNMENT POLICIES)

The ‘green-blue’ policy is an urban planning concept which sees water bodies and land as being interdependent, and symbiotic, while offering environmental and social benefits.

Delhi Master Plan 2041

- It is a **vision document of the Delhi Development Authority (DDA)** for the city’s development over the next two decades.
- There are several features in the draft policy but the focus on water bodies and the land around it, which is referred to as the **“Green-Blue policy”**, promises to give the city a new shape.

What is Green-Blue infrastructure?

- **‘Blue’ infrastructure refers to water** bodies like rivers, canals, ponds, wetlands, floodplains, and water treatment facilities; while **‘Green’** stands for trees, lawns, hedgerows, parks, fields, and forests.

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- The concept refers to urban planning where water bodies and land are interdependent, and grow with the help of each other while offering environmental and social benefits.

What are the challenges?

- The biggest challenge here is the multiplicity of agencies.
- DDA wants to bring together different agencies like Delhi Jal Board, Flood and Irrigation Department, and municipal corporations as stakeholders in the project.
- In a city where even waterlogging turns into a blame game between different warring agencies, this will be a tough task, especially as DDA has no supervisory power over these bodies.

A similar attempt made by DDA earlier, where a special task force was created to check dumping of waste in Yamuna, has not been successful.

GIST OF EDITORIALS 19th DECEMBER – 2020

FDA NOD FOR GENETICALLY MODIFIED PIGS

GENERAL STUDIES - II (ISSUES RELATING TO HEALTH)

Recently, the **US Food and Drug Administration (FDA)** approved a first-of-its-kind **intentional genomic alteration (IGA)** in a line of **domestic pigs** referred to as **GalSafe pigs**. These pigs may be used for food and human therapeutics.

This will be the first time that the **regulator has approved an animal biotechnology product for both food and biomedical purposes.**

What is intentional genomic alteration?

Intentional genomic alteration in animals means **making specific changes to the genome of the organism** using modern molecular technologies.

- These are popularly referred to as **“genome editing”** or **“genetic engineering”**.
- However, there are other technologies that can be used to make IGAs in animals.

Purpose of IGA

Such **changes in the DNA sequence of an animal may be carried out for research purposes**, to produce healthier meat for human consumption and to study disease resistance in animals among other reasons.

Difference between IGA and non IGA animal

The **only difference** between IGA and non IGA animal is that the **intentional genomic alteration (IGA) gives them a new trait or characteristic**, such as faster growth or resistance to certain diseases.

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- Essentially, an IGA is inserted into an animal to change or alter its structure and function.
- The **IGA contained in the animal is safe** for the animal and safe for anyone who consumes a product or food derived from the animal.

What does FDA's recent approval mean?

- The **FDA allowed IGA in GalSafe pigs to eliminate a type of sugar found in mammals called alpha-gal.**
- This sugar is present on the surface of these pigs' cells and when they are used for products such as medicines or food the sugar makes some people with **Alpha-gal Syndrome (AGS)** more susceptible to developing mild to severe allergic reactions.

Implications

Since **GalSafe pigs may potentially be used to produce human medical products**, IGA will help eventually free these products from detectable alpha-gal sugar, thereby protecting their human consumers from potential allergies.

According to the FDA, GalSafe pigs may be used to make the blood-thinning drug heparin.

GIST OF EDITORIALS 21st DECEMBER – 2020

BOKO HARAM: THE 'ISLAMIC STATE' IN AFRICA

GENERAL STUDIES - III (DEVELOPMENT AND SPREAD OF EXTREMISM.)

Nigeria's militant Islamist group Boko Haram – which has caused havoc in Africa's most populous country through a wave of bombings, assassinations and abductions – **is fighting to overthrow the government and create an Islamic state.**

Key point about Boko Haram

- Founded in 2002 by **Muslim cleric Mohammed Yusuf.**
- Official Arabic name, **Jama'atu Ahlis Sunna Lidda'awati wal-Jihad**, means "People Committed to the Propagation of the Prophet's Teachings and Jihad"
- Initially focused on opposing Western education.
- Launched military operations in 2009 to create Islamic state.
- Designated a terrorist group by US in 2013.
- Declared a caliphate in areas it controlled in 2014.
- Most territory now recaptured by army.
- Islamic State strengthens ties with Boko Haram.

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It promotes a version of Islam which makes it “haram”, or forbidden, for Muslims to take part in any political or social activity associated with Western society.

This includes voting in elections, wearing shirts and trousers or receiving a secular education.



Background

Since the **Sokoto caliphate**, which ruled parts of what is now northern Nigeria, Niger and southern Cameroon, fell under British control in 1903, there has been resistance among some of the area’s Muslims to Western education.

- Many still refuse to send their children to government-run “Western schools”, a problem compounded by the ruling elite which does not see education as a priority.
- Against this background, **charismatic Muslim cleric Mohammed Yusuf formed Boko Haram in Maiduguri in 2002.**
- He set up a religious complex, which included a mosque and an Islamic school.
- **Many poor Muslim families from across Nigeria, as well as neighbouring countries, enrolled their children at the school.**

Objectives

Boko Haram was not only interested in education. Its **political goal was to create an Islamic state, and the school became a recruiting ground for jihadis.**

Terrorist organisation

In **2013, the US designated it a terrorist organisation**, amid fears that it had developed links with other militant groups, such as al-Qaeda in the Islamic Maghreb, to wage a global jihad.

COVID-19 NEW STRAIN

GENERAL STUDIES - II (ISSUES RELATING TO HEALTH)

Recently, India along with several other countries suspended all flights from and to the UK until December 31, amid **concerns about a new variant of SARS-CoV-2 that is “spreading & growing rapidly” there.**

The concerns leading to travel restrictions

Last week, the new SARS-CoV-2 variant was revealed to be the reason behind the rapid surge in Covid-19 cases in South and East England.

- It is being referred to as **VUI (Variant Under Investigation) 202012/01**, or the B.1.1.7 lineage.
- About **1,108 cases with this variant have been identified as of December 13**, “predominantly in the South and East of England”.

What is the variant like?

The variant was **identified in genomic surveillance by COVID-19 Genomics UK (COG-UK)**, a consortium that analyses genome sequencing data from the UK.

COG-UK is the largest contributor to the global Covid-19 database GISAID.

- The **variant is the result of multiple mutations in the spike protein of the novel coronavirus SARS-CoV-2**, as well as mutations in other genomic regions of the RNA virus.
- Preliminary analysis suggests that **it is more transmissible than previously circulating variants.**

How much of a concern is the higher transmissibility?

- On December 18, **New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG)** said the new variant could potentially ramp up the reproduction number of the disease by up to 0.93.
- The expert body, however, concluded that **there is “currently insufficient data to draw any conclusion” on the underlying mechanism of increased transmissibility**, the age distribution of cases and disease severity.

Previous mutation of virus

- Whenever a virus replicates and circulates in a human population, **mutations occur naturally**, at a **rate of around one to two mutations per month in the global phylogeny.**
- In fact, for SARS-CoV-2, COG-UK says that there are currently around 4,000 mutations in the spike protein.

Impact on vaccine development and response

UK authorities said further laboratory work is being undertaken as a priority to understand this. There is currently no evidence to suggest that the Pfizer vaccine would not protect people against the new strain.

GIST OF EDITORIALS 23rd DECEMBER – 2020

WORLD HERITAGE SITES IN INDIA

GENERAL STUDIES - I (INDIAN HERITAGE AND CULTURE)

The **United Nations Educational, Scientific and Cultural Organization (UNESCO)** seek to encourage the identification, protection and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity.

India has **38 world heritage sites** that include **30 Cultural properties, 7 Natural properties and 1 mixed site.**

What are the World Heritage sites?

- **A World Heritage Site is a landmark or area**, selected by the United Nations Educational, Scientific and Cultural Organization (UNESCO) for having cultural, historical, scientific or other form of significance, which is legally protected by international treaties.
- The sites are judged to be important for the collective and preservative interests of humanity.
- It may be a building, a city, a complex, a desert, a forest, an island, a lake, a monument, or a mountain.

Classification of World Heritage Sites

There are three types of sites: **cultural, natural, and mixed.**

Cultural heritage sites include hundreds of historic buildings and town sites, important archaeological sites, and works of monumental sculpture or painting.

Natural heritage sites are restricted to those natural areas that

1. furnish outstanding examples of Earth's record of life or its geologic processes,
2. provide excellent examples of ongoing ecological and biological evolutionary processes,
3. contain natural phenomena that are rare, unique, superlative, or of outstanding beauty, or
4. Furnish habitats for rare or endangered animals or plants or are sites of exceptional biodiversity.

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Mixed heritage sites contain elements of both natural and cultural significance. The ratio of cultural to natural sites on the World Heritage List is roughly 3 to 1.

How a site is selected?

- A World Heritage Site must be an already-classified landmark, unique in some respect.
- It should be geographically and historically identifiable place having special cultural or physical significance (such as an ancient ruin or historical structure, building, city, complex, desert, forest, island, lake, monument, mountain, or wilderness area.
- It may signify a remarkable accomplishment of humanity, and serve as evidence of our intellectual history on the planet.

Benefits of being in World Heritage Site list

- The location driving up demand for travel and tourism from around the world geared towards it.
- The Site gets attention for its conservation and upkeep.
- The Committee conducts regular audits at declared Sites, and can place a spot that is seriously threatened on the List of World Heritage in Danger.
- If the Outstanding Universal Value of the property is destroyed, the Committee can consider deleting the property from the World Heritage List.

GIST OF EDITORIALS 24th DECEMBER – 2020

INDOOR POLLUTION IS AS DEADLY AS ITS OUTDOOR COUNTERPART

GENERAL STUDIES - III (ENVIRONMENTAL POLLUTION)

Whenever we talk about 'air pollution', it is usually what goes on outside buildings and dwellings. However, indoor air pollution is just as lethal as the outdoor variety.

Indoor, or household, air pollution caused 64 per cent fewer deaths in the last two decades (2000-2019) in India, according to a report by interdisciplinary journal Lancet Planetary Health.

Highlights of the Report

- **According to the Environment Protection Act, 1986**, the levels of indoor air pollutants are often 2-5 times higher than outdoor levels.
- In some cases, these levels **can exceed the outdoor levels of the same pollutants 100 times.**
- Many air pollutants that are considered important in ambient (outdoor) air, are also found, sometimes at higher levels, in indoor air.

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Factors affecting Indoor air quality

With the continual improvement in our quality of life, **indoor air quality has become an important area of concern in the 21st century.**

- **Indoor air quality is affected by many factors**, including the type and running conditions of indoor pollution sources, ventilation conditions, as well as indoor activities.
- **According to the World Health Organization (WHO)**, around three billion people, mostly women in the villages of India and in other parts of the world still **cook and heat their homes using dirty solid fuels.**
- **These include** waste wood, charcoal, coal, dung and abundantly available crop wastes. These are burnt on open fireplaces, cooking stoves etc.
- This generates a large amount of air pollutants such as **sulphur dioxide (SO₂), nitrous oxides (NO_x), carbon monoxide (CO), and particulate matter (PM).**

Indoor air pollutants

A number of air pollutants have been recognised to exist indoors, **including NO_x, SO₂, ozone (O₃), CO, volatile and semi-volatile organic compounds (VOCs), PM, radon and microorganisms.**

- Some of these pollutants (NO_x, SO₂, O₃, and PM) **are common to both indoor and outdoor environments** and some of them may originate from outdoors.
- These air pollutants **can be inorganic, organic, biological or even radioactive.**
- **The effect of these air pollutants on humans depends on** their toxicity, concentration and exposure time and may vary from person to person.

Effects of Indoor pollution

These air pollutants may accumulate in the indoor environment if the indoor air is not well ventilated, which **seriously affects the health of the inhabitants.**

- The WHO fact sheet on **household air pollution due to indoor pollutants states that 3.8 million premature deaths occur annually.**
- These include **stroke, ischaemic heart diseases, chronic obstructive pulmonary diseases and lung cancer**, all of which are attributed to exposure to household air pollution.

Way forward

Apparently, **indoor air quality should be better than outdoor air quality** due to the shielding effect of buildings and possible installation of ventilation and air purifiers.

GIST OF EDITORIALS 26th DECEMBER – 2020

SHIGELLA INFECTION

GENERAL STUDIES - II (ISSUES RELATING TO HEALTH)

As Kerala is battling with Covid-19, a **new bacterial infection has been reported from the state** spreading fear as the infection can be fatal and is believed to be contagious.

What is Shigella infection?

- Shigella is a **genus of bacteria that causes an infection called shigellosis**.
- It is the second leading cause of bacterial diarrhea worldwide and the third leading cause of death in children less than 5 years old.
- Shigella has been categorized as a **priority pathogen among enteric bacteria by the World Health Organization**.

Due to the increasing rate of multidrug resistance, in particular resistance to fluoroquinolone in Asian and African regions, this has been classified as a **medium priority for research and development of new and effective antibiotic treatments** by the **WHO Priority Pathogens List of antibiotic-resistant bacteria**.

Symptoms

- Symptoms include **diarrhoea, fever, stomach cramps which can last for seven days**.
- Treatment is generally done through antibiotics, which can shorten the duration of the illness.

How many people are infected annually?

- The annual number of shigellosis episodes throughout the **world is estimated to be 164.7 million**.
- About 69% of all episodes and 61% of all deaths are attributable to shigellosis involving children less than 5 years of age.
- A multi-centric study from **six Asian countries (Bangladesh, Sri Lanka, Maldives, Nepal, Bhutan, and Myanmar)** estimated Shigella as the causative agent in 5% of the diarrhoeal cases.
- Reports of shigellosis from **various parts of India have shown an overall isolation rate varying from 3-6% of all stool samples with diarrhea**.

Fatality

- As per reports, **an estimated annual mortality of 35,000–40,000 is noted globally** in both under-five and older-than-five age groups.
- The availability of **age-specific estimates of case fatality due to shigellosis is limited**.

Transmission and Treatment

Shigella is generally transmitted **through contaminated food or water, or through person-to-person contact**.

- Shigellosis is primarily a **disease of poor and crowded communities that do not have adequate sanitation or safe water**.
- **Handwashing is said to reduce shigella transmission by 70%**.

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Currently, **there are no vaccines available for shigellosis** due to their large dependence on the prevailing species and serotypes, as only serotype specific immunity has been demonstrated in humans.

GIST OF EDITORIALS 28th DECEMBER – 2020

BLACKWATER: MERCENARIES FROM AMERICA

GENERAL STUDIES - III (VARIOUS SECURITY FORCES AND AGENCIES)

Four convicted contractors of '**Blackwater Worldwide**', the Virginia-based private security firm, were last week granted clemency by President Donald Trump.

It is arguably the most high-profile embodiment of what is described as the **outsourcing of warfare by successive U.S. administrations**.

What is the Blackwater Worldwide?

Blackwater is an **American private military company founded in 1997 by former Navy SEAL officer**.

- It was renamed as **Xe Services in 2009** and known as **Academi since 2011** after the company was acquired by a group of private investors.
- **Contracted by the State Department to protect American diplomats**, the firm, has seized on the new avenues thrown open by the global war on terror following the **September 11, 2001 attacks** and snapped up security deals.
- It has in the process acquired increasing **notoriety for contempt for the rule of law and violations of human rights**.

What it does?

- Academi provides **security services to the United States federal government on a contractual basis**.
- Since 2003, the group has provided services to the Central Intelligence Agency.
- In 2013, **Academi subsidiary International Development Solutions received an approximately \$92 million contract for State Department security guards**.

Major acts of Blackwater

The company received widespread notoriety in 2007, **when a group of its employees killed 14 Iraqi civilians and injured 20 in Nisour Square, Baghdad**, for which four guards were convicted in the U.S.

- The **2007 Baghdad massacre of 17 civilians for which these former U.S. service members were pardoned by President Donald Trump**, is one of many instances that Blackwater has been criminally implicated.

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- **Blackwater was manoeuvring hard to privatise Washington's war effort in Afghanistan as a third option between a prolonged U.S. military presence and complete withdrawal of troops.**

New administration and Blackwater

The tide began to turn against Blackwater after the **2009 dismissal of charges against the company in a U.S. court.**

- In response, **Jo Biden**, then Vice-President in the Obama administration, **promised to reopen the trial.**
- The protracted process that followed in the next decade resulted in the more recent convictions and the relentless pursuit to exonerate them, **culminating in last week's clemency.**
- The new **administration's dealings with Blackwater** is sure to attract closer Congressional scrutiny.

GIST OF EDITORIALS 29th DECEMBER – 2020

PROXIMA CENTAURI

GENERAL STUDIES - III (AWARENESS IN THE FIELDS OF SPACE)

Astronomers **running the world's largest initiative to look for alien life** have recently picked up an **"intriguing" radio wave emission from the direction of Proxima Centauri**, the closest star to our Sun.

The news has **sparked renewed interest in Proxima Centauri**, giving rise to the possibility that it could have, or does, sustain life.

What is the Proxima Centauri?

Proxima Centauri is **4.2 light-years away from the Sun** – considered a close distance in cosmic terms.

- It is one of those planets is **believed to revolve in the star's habitable zone.**
- Its mass is about an eighth of the Sun's, and **it is too dim to be seen with the naked eye from Earth.**

The mysterious radio signal

Astronomers at the **\$100 million Breakthrough Listen project, started by the legendary physicist Stephen Hawking**, regularly spot blasts of radio waves using two powerful telescopes.

1. The Parkes Observatory in Australia, or
2. The Green Bank Observatory in the US.

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Unlike the project's previous findings, **the beam picked up from the direction of Proxima Centauri**—which has been named BLC1 or Breakthrough Listen Candidate 1— **has two interesting characteristics.**

1. First, **its signal frequency is 982 Mhz— a narrow-band value that is not transmitted by human-made spacecraft or satellites.** Neither do we know of a natural astronomical phenomenon that can generate such a radio signal.
2. Second, the **apparent shift in this frequency** is reportedly consistent with the movement of the planet.

Significance of these signals

This raises the possibility that the emission could be an **alien “technosignature”**, meaning something which provides evidence of alien technology, and could have arisen from some form of advanced extraterrestrial intelligence (ETI).

The interest in Proxima Centauri

- Proxima b, **one of the two planets that revolve around the star**, is the subject of significant curiosity.
- **Sized 1.2 times larger than Earth**, and **orbiting its star every 11 days**, Proxima b lies in Proxima Centauri's “Goldilocks zone”.

Goldilocks zone

Meaning the **area around a star where it is not too hot and not too cold for liquid water to exist** on the surface of surrounding planets. To give an example, the Earth is in the Sun's Goldilocks zone.

Concerns

It **could also be hostile to life**, if its atmosphere has been stripped away by solar flares from Proxima Centauri.

- Proxima b is also **tidally locked with its star**, just like the Moon is to Earth— meaning one side of the planet has daylight forever, while the other side is always dark.
- Scientists say that it is difficult to imagine that Proxima b could have a stable climatic system under such conditions.

GIST OF EDITORIALS 30th DECEMBER – 2020

ERADICATION OF CHILD LABOUR

GENERAL STUDIES - II (WELFARE SCHEMES FOR VULNERABLE)

The Government has implemented the **National Child Labour Project (NCLP)** Scheme and **Grant-in-Aid (GIA) Schemes** for rehabilitation of child labour.

Background

Neglecting children means it is big loss of source to the society as a whole. If children are deprived of their childhood- socially, economically, physically and mentally – the nation gets deprived of potential human resources for the social progress, economic empowerment, peace and order, social stability and good citizenry.

Government's initiative

The **NCLP and GIA Schemes** are being implemented in districts which have high concentration of children working in the hazardous occupations.

- The objective of Schemes is to rehabilitate children withdrawn from hazardous occupations and processes in the age group of 9-14 years.
- The schemes target of mainstreaming children to the formal education system.

The National Child Labour Project (NCLP) Scheme

- The NCLP Scheme is a **Central Sector Scheme**.
- Under this Scheme the District Project Societies (DPS) are set up at the district level.
- Collector/District Magistrate will head for overseeing the implementation of the project.

What will be the scheme do?

- Under this Scheme, **the children in the age group of 9-14 years are withdrawn from work and put into NCLP Special Training Centres**.
- Children are provided with **bridge education, vocational training, mid-day meal, stipend, health care** before being mainstreamed into formal education system.
- The children in the age group **of 5-8 years are directly linked to the formal education system** through a close coordination with the Sarva Shiksha Abhiyan.

PENCiL palteform

- A dedicated online portal named PENCiL (**Platform for Effective Enforcement for No Child Labour**) is developed in order to make the NCLP successful.
- It will monitor and implement the timely disposal of work with transparency.
- PENCiL will ensure the effective enforcement of the provisions of the Child Labour Act and smooth implementation of NCLP Scheme.

Funding

Under NCLP Scheme funds are released to the **NCLP Project Society chaired by District Magistrate/ District Collector who in turn allocates the funds to the Child Labour special schools**.

- Wherever the NCLP Scheme is not in operation, GIA Scheme is implemented.
- **Under GIA Scheme, funds are directly released by Central Government** to the NGOs to run Child Labour special schools.

Need and Significance

As per 2001 census, the total number of working children between the age group 5-14 years in the country was 1.26 crore.

- However, in the Survey conducted by NSSO, in 2004-05 the numbers of working children were estimated at 90.75 lakh.
- As per NSSO survey 2009-10, the working children are estimated at 49.84 lakh which is 45% reduction during five years.

GIST OF EDITORIALS 31st DECEMBER – 2020

COMMON ELECTORAL ROLL

GENERAL STUDIES - III (SEPARATION OF POWERS)

The possibility of having a common electoral roll for elections to the panchayat, municipality, state assembly and the Lok Sabha was discussed recently.

How many types of electoral rolls in our country?

In many states, the **voters' list for the panchayat and municipality elections is different** from the one used for Parliament and Assembly elections.

Why the distinction?

The distinction stems from the fact that the **supervision and conduct of elections in our country are entrusted with two constitutional authorities** — the Election Commission (EC) of India and the State Election Commissions (SECs).

- **Set up in 1950, the Election Commission of India (ECI) is charged with the responsibility of conducting polls** to the offices of the President and Vice-President of India, and to Parliament, the state assemblies and the legislative councils.
- **The State Election Commissions (SECs)**, on the other hand, supervise municipal and panchayat elections.
- They are free to prepare their own electoral rolls for local body elections, and this exercise does not have to be coordinated with the EC.

Separate voters list in States for their local body elections?

- Each SEC is **governed by a separate state Act**.
- Some state laws allow **the SEC to borrow and use the EC's voter's rolls for the local body elections**.
- In others, the state commission uses the **EC's voters list as the basis for the preparation and revision of rolls for municipality and panchayat elections**.

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- **Currently, all states, except** Uttar Pradesh, Uttarakhand, Odisha, Assam, Madhya Pradesh, Kerala, Odisha, Assam, Arunachal Pradesh, Nagaland and the Union Territory of Jammu and Kashmir, **adopt EC's rolls for local body polls.**

Union government's plan for a common electoral roll for all elections

The common electoral roll is among the promises made by the BJP in its manifesto for the Lok Sabha elections last year.

- It ties in with the party's commitment to hold elections simultaneously to the Lok Sabha, state assemblies and local bodies.
- The incumbent government has pitched a common electoral roll and simultaneous elections as a way **to save an enormous amount of effort and expenditure.**
- It has argued that **the preparation of a separate voters list causes duplication of essentially the same task between two different agencies, thereby duplicating the effort and the expenditure.**

How does the government intend to implement it?

- First, a **constitutional amendment to Articles 243K and 243ZA** that give the power of superintendence, direction and control of preparation of electoral rolls and the conduct of local body elections to the **State Election Commissions (SECs).**
- The **amendment would make it mandatory to have a single electoral roll** for all elections in the country.
- **Second, to persuade the state governments to tweak their respective laws** and adopt the Election Commission's (EC) voters list for municipal and panchayat polls.

Election Commission

- The Election Commission is a **permanent and an independent body** established by the Constitution of India directly to ensure free and fair elections in the country.
- **Article 324 of the Constitution provides that the power of** superintendence, direction and control of elections to parliament, state legislatures, the office of president of India and the office of vice-president of India shall be vested in the election commission.

State Election Commission

- The superintendence, direction and control of the preparation of electoral rolls and **the conduct of all elections to the panchayats shall be vested in the state election commission.**
- It consists of a state election commissioner **to be appointed by the governor.** His **conditions of service and tenure of office** shall also be determined by the governor.

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