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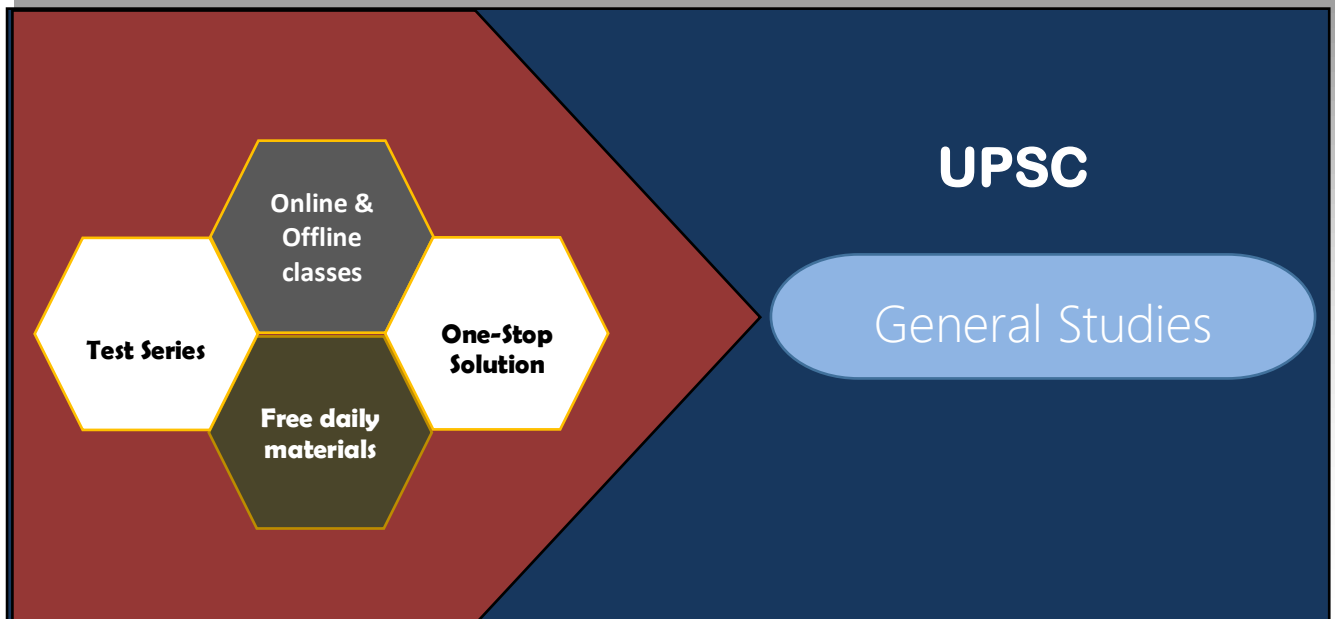
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**Articles of the day
THE HINDU & INDIAN EXPRESS**



GS 2 : Polity, Governance, International Relations

1. 'Tika Utsav' is start of second big war against virus: Modi

What's in News?

Tika Utsav (Vaccination festival) started on the birth anniversary of Mahatma Jyotiba Phule on 11th April and will continue till the birth anniversary of Babasaheb Ambedkar on April 14, 2021.

- It is aimed at vaccinating a maximum number of eligible people against Covid-19.

About Tika Utsav:

- With an aim to vaccinate a maximum number of eligible people against Covid-19, India launched the four-day-long 'Tika Utsav' or vaccination festival.
- The first day of the vaccination festival (April 11) coincided with the birth anniversary of Mahatma Jyotiba Phule and the last day (April 14) is Babasaheb Ambedkar's birth anniversary.
- The government is trying to ensure that a maximum number of eligible people get vaccinated during this time.
- PM Modi emphasised micro-containment zones as one of the ways in which the rapid spread of the second wave of infections could be curtailed.

Micro-containment Zones:

- Specific areas where a number of Covid-19 cases have been reported recently are known as micro-containment zones.
- Unlike containment zones, the objective is to cause less disruption to normal life and economic activity, while also containing the outbreak of COVID-19 in the defined geographic area.
- Experts believe that 'micro containment zones' should be the way forward as it will curb the infection spread and also allow activities to go on.

2. Enforcing claims

Context:

- The U.S.'s freedom of navigation operation in India's Exclusive Economic Zone near Lakshadweep.

Background:

India-U.S. relationship:

- For several years now, the relationship of the U.S. and India has been marked by their sensitivity to each other's concerns as they deepened cooperation on strategic issues, and aligned positions on multilateral issues.
- The **Indo-Pacific policy** under President Trump with increased emphasis on the relationship with India, the deepening of the **Quad engagement**, deepening defence relationship and the conclusion of **India - US defence agreements** all point to the evolving strategic relationship between the two countries

Details:

- The recent controversy surrounding the U.S.'s FONOP threatens to adversely impact the bilateral relationship between the two countries.

This issue has been discussed previously in the following article:

- The Indian government is said to have expressed its "concerns" to the U.S. government through diplomatic channels. In addition, India contested the U.S. claim about international law, saying that UNCLOS did not authorise military manoeuvres on the continental shelf or EEZ, as the 7th fleet had carried out, without prior consent.
- While the matter has been disposed of diplomatically for the moment, it is clear that India must prepare to grapple with the issue with the U.S. in the long term.

Way forward for India:

- India will have to deal with the open challenge the U.S. has posed to its maritime claims in the following ways.

Clarifying India's claim:

- India must clearly explain its own position, making it clear to all partners how the **Indian law governing maritime claims is in line with international law.**

Understanding U.S. motivations:

- India must analyse the U.S.'s motivations for this move, and chart out a course accordingly. The U.S. naval actions may be a message to China, whose maritime claims are increasingly coming into conflict with those of the U.S. and its allies.

Leveraging India's position in the Indian Ocean:

- India must try to **leverage the U.S.'s push for Quad partnership, especially in its attempts to contain China** and question the U.S. on how the proposed collaboration on the Quad platform for keeping a "free and open Indo-Pacific", can co-exist with the open challenge the U.S. Navy has posed to India's maritime claims.

3. Centre bans export of Remdesivir

What's in News?

The Centre has prohibited the export of Remdesivir injection and Remdesivir Active Pharmaceutical Ingredients (API) in an order, stating there was a sudden spike in the demand for the drug used in COVID-19 treatment.

- India is witnessing a recent surge in COVID-19 cases and there is a potential for further increase in the demand for injection Remdesivir in the coming days.

Remdesivir

- Remdesivir was originally developed to treat Ebola.
- The drug is now being tested for treating COVID-19.
- It is produced by Gilead Life Sciences.
- Seven Indian companies are producing injection Remdesivir under a voluntary licensing agreement with Gilead Sciences of the U.S.
- As per the National Clinical Management Protocol for COVID-19 of the Central government, Remdesivir is listed as an Investigational Therapy (i.e. where informed and shared decision-making is essential).

4. 'Suspicious' blackout hits Iran nuclear site

Context:

Iran's underground Natanz nuclear facility lost power just hours after starting up new advanced centrifuges capable of enriching uranium faster.

Details:

- Iran described the blackout as an act of nuclear terrorism, raising regional tensions.
- Multiple Israeli media outlets reported that an Israeli cyberattack caused the blackout.
 - Israeli media maintains a close relationship with the country's intelligence agencies.
- Public broadcaster Kan said the Mossad (the national intelligence agency of Israel) was behind the attack.

- The head of the Atomic Energy Organization of Iran emphasised the need for a confrontation by the international bodies and the International Atomic Energy Agency against the act.

Concerns:

- If Israel caused the blackout, it further heightens tensions between the two nations, already engaged in a shadow conflict across the wider West Asia.
- The latest incident comes amid negotiations over the crumbling atomic accord with world powers.
- The developments also complicate the efforts by the U.S., Israel's main security partner, to re-enter the atomic accord aimed at limiting Tehran's nuclear programme.

Note:

- Natanz was built largely underground to withstand enemy airstrikes.
- It became a flashpoint for Western fears about Iran's nuclear plan in 2002 when satellite photos showed Iran building its underground centrifuges facility at the site.

5. Through a backchannel, steps forward

Context:

- Indications of backchannel talks taking place between India and Pakistan since 2020.

Background:

Strained relationship:

- India - Pakistan Bilateral relations witnessed a particularly recriminatory period following the **2019 Pulwama attack, the Balakot strikes** and capture of an Indian pilot thereafter.
- Even prior to that, the **Pathankot terror attack** and the subsequent surgical operation by India had pushed the bilateral relationship to the limits.
- The periodic **violation of the ceasefire agreement** along the LoC had further strained the relationship between the two neighbours.

Thaw in relationship:

- The **joint statement issued by the Director Generals of Military Operations** employing terms like the resolution of "core issues" indicate a much-needed thaw in the relationship between the two neighbours.
- India-Pakistan border commanders have agreed to strictly observe all agreements between the two countries.

- There has been the **scheduling of the much-delayed Indus Water Treaty talks**, the granting of **sports visas**, and the salutary messages between the two leaders of the two countries.

Details:

- The recent developments seem to be indicative of backchannel talks between the two countries involving both coordination at a diplomatic level and high-level political approval.
 - Backchannels mostly involve officially sanctioned contacts between nominees from India and Pakistan to resolve any issue or existing concerns.
- There have been reports of talks being overseen by the National Security Adviser (NSA) Ajit Doval and Pakistan Army Chief General Qamar Bajwa which have been taking place for months, in different neighbouring countries, facilitated by foreign governments including the United Arab Emirates.
- Notably, however, there has been an absence of official acceptance of a backchannel.

Significance of backchannel talks:

- Notably, there has been a history of back-channel talks between India and Pakistan over the years. At times they have involved diplomats, businessmen and other senior bureaucrats in the governments. They have **operated in the worst of times, including wars, terror strikes and military action** including during the Kargil war, Pathankot terror attack, Kulbushan Yadav arrest controversy.
- At times even when official channels have faltered, the **backchannel talks have been activated to soothe the tensions between the two countries.**
- The backchannel talks **allow for a more open discussion on issues of concern/conflict between the two countries without the constraint imposed by media glare on the talks.** The people involved in the talks can involve in a more open negotiation without the fear of domestic emotions.

Why a backchannel now?

Inevitability of engagement:

- While establishing friendship and trust between inimical neighbours with a bitter history, such as what India and Pakistan share, may seem an uphill task, **engagement between the two countries is inevitable for peace and stability in the two countries and the region at large.**

Domestic challenges:

- The domestic constraints and challenges on other fronts for the two countries have necessitated the need for a workable peace on the India-Pakistan front.

For Pakistan:

- **Pakistan's dire economic condition and the mounting pressure from the Financial Action Task Force** to shut down all terrorist safe havens or face severe sanctions is one imperative for Islamabad's willingness to engage via the backchannel.

For India:

- For India, the stand-off with the People's Liberation Army at the Line of Actual Control in Ladakh has made the possibility of a **two-front war** more real, and thus needs to push to reduce tensions with Pakistan.

Common interests:

- The **evolving situation in Afghanistan** and the stakes that both India and Pakistan hold in the developments, necessitate both Delhi and Islamabad to defuse the situation along the LoC and avoid a conflagration at their boundaries, to let them focus their attention on Afghanistan.
- **Co-operation and collaboration between the two neighbours on the economic front** hold immense potential for the economic growth of the two countries, especially in the post-pandemic phase.

Conclusion:

- **Terror and talks cannot go together but talks on terror can definitely go ahead.**
- There is ample scope for improvement of the bilateral relationship between India and Pakistan provided that there is no terror attack in India traceable to Pakistan.

6. Why the Personal Data Protection Bill matters

Context:

- The scrutiny of the **Personal Data Protection Bill, 2019** by a Joint Parliamentary Committee.
 - The Joint Parliamentary Committee has proposed 86 amendments and one new clause to the Bill. The Committee is expected to submit its final report in the Monsoon Session of Parliament in 2021.

Background:

Rising threat of data breach:

- While the number of people participating in the digital economy has increased exponentially over the years, there has also been a proportionate increase in the number of personal data breaches from major digital service providers.
 - The recent **alleged data breach at MobiKwik** could stand to be India's biggest breach with the data of 9.9 crore users at risk.
- Robust data protection regimes are necessary to prevent such events and protect users' interests.

Lacunae in existing data protection regime:

- How different entities collect and process users' personal data in India is mainly governed by the **Information Technology Act, 2000**, and various other sectoral regulations.
- However, this data protection regime falls short of providing effective protection to users and their personal data based on the following aspects.

Avenue for over-riding of protection provisions:

- Under the current system, **entities could override the protections in the regime by taking users' consent to process personal data under broad terms and conditions**. This is liable to misuse by the entities, given that users might not understand the terms and conditions or the implications of giving consent.

Data security over data privacy:

- The existing framework emphasises data security but **does not place enough emphasis on data privacy**. This results in entities only focussing on employing technical measures to protect personal data and results in weaker obligations on the entities with regard to respecting users' preferences in how their personal data can be processed. This could allow the entities to use the data for purposes different to those that the user consented to.

Exclusion of government agencies:

- **The data protection provisions under the IT Act do not apply to government agencies**. This creates a large vacuum for data protection when governments are collecting and processing large amounts of personal data.

Emerging risks:

- The existing regime seems to have become antiquated and inadequate in addressing risks emerging from **new developments in data processing technology**.

Personal Data Protection Bill, 2019:

Evolution of the bill:

K.S. Puttaswamy case:

- The need for a more robust data protection legislation came to the fore in 2017 post the **Supreme Court's landmark judgment in Justice K.S. Puttaswamy (Retd) v. Union of India, that established the right to privacy as a fundamental right.**
- In the judgment, the Court called for a data protection law that can effectively protect users' privacy over their personal data.

B.N. Srikrishna committee:

- Consequently, the Ministry of Electronics and Information Technology formed a Committee of Experts under the Chairmanship of Justice (Retd) B.N. Srikrishna to suggest a draft data protection law.
- The Bill, in its current form, is a revised version of the draft legislative document proposed by the Committee.

Significance:

- The proposed regime under the Bill would be different from the existing regime in the following ways.

All-encompassing regime:

- The Bill seeks to **apply the data protection regime to both government and private entities across all sectors.**

Equal emphasis on both data security and privacy:

- The Bill seeks to emphasise both data security and data privacy. This will require the entities to not only maintain security safeguards to protect personal data, but will also require them to fulfill a set of data protection obligations and **transparency and accountability measures** that govern how entities can process personal data to uphold users' privacy and interests.

Rights of the users:

- The Bill seeks to **give users a set of rights over their personal data and means to exercise those rights.** The bill will empower the user to obtain information about the different kinds of personal data that an entity has about them and how the entity is processing that data.

Data Protection Authority:

- The Bill seeks to create an **independent and powerful regulator known as the Data Protection Authority (DPA).**

- The DPA will monitor and regulate data processing activities to ensure their compliance with the regime. Also the DPA will give users a channel to seek redress when entities do not comply with their obligations under the regime.

Concerns:

- Some provisions in the Bill create cause for concern about the regime's effectiveness.

Wide exemptions to government agencies:

- The Bill provides wide exemptions to government agencies.
- Under clause 35, the Central government can exempt any government agency from complying with the Bill. Government agencies will then be able to process personal data without following any safeguard under the Bill, thus diluting user protection safeguards. This could create severe privacy risks for users.

Constraints on withdrawal of consent:

- The Bill threatens legal consequences for users who withdraw their consent for a data processing activity. This could discourage users from withdrawing consent for processing activities they want to opt out of.
- This would become an impediment in enforcing the rights of the users as envisaged in the bill.

Conclusion:

- **India needs to have a robust data protection regime.**
- The Personal Data Protection Bill, 2019 could play a big role in providing robust protections to users and their personal data.
- However, there is the need to make some changes in the Bill targeted towards addressing various concerns in it to ensure a stronger and more effective data protection regime.

7. 'China, Russia undermine Myanmar response'

What's in News?

The European Union's top diplomat said that Russia and China were hampering a united international response to Myanmar's military coup and that the EU could offer more economic incentives if democracy returns to the country.

- The UN Security Council recently called for the release of Suu Kyi and others detained by the military.
 - Russia and China are blocking the attempts of the UN Security Council, for example, to impose an arms embargo.

- The EU is preparing fresh sanctions on individuals and companies owned by the Myanmar military.
- But, EU economic leverage in the country is relatively small.
- EU foreign direct investment in Myanmar totalled \$700 million in 2019, compared with \$19 billion from China.
- China and Russia both have ties to Myanmar's armed forces, as the first and second-largest suppliers of weapons to the country, respectively.

GS 3 : Economy, Science and Technology, Environment

8. Potential of Lighthouses for Tourism: Sagarmala

Why in News

The Union Ministry of Ports, Shipping and Waterways seeks to develop 65 lighthouses on public-private-partnership mode. Odisha's five lighthouses present huge potential for tourism.

- The Ministry wants to develop lighthouses as hubs of tourism under the **Sagarmala project**.

Key Points

- **Five lighthouses of Odisha:**
 - **'False Point' island lighthouse:** It is situated off the Kendrapara coast. It is the British era lighthouse and its location close to massive **mangrove vegetation** infested with **crocodiles** makes it an adventurous tourist place on the eastern coast.
 - **Paradip lighthouse:** It also holds tourism potential because of its proximity to the port town and Cuttack and Bhubaneswar cities (100 km). It was commissioned in the 1980s.
 - **Gopalpur lighthouse:** It is located in Ganjam district. If it is developed as a place of tourist interest, the **Chilika Lake and the Gopalpur beach** will be added attractions.
 - **Chandrabhaga lighthouse:** It is 10 km from the world famous **Konark temple**. It had withstood the severity of cyclones such as the Super Cyclone (1999), Phailin (2013) and Fani (2019).
 - **Puri lighthouse:** It is 4 km from the 12th century **Shree Jagannath Temple**, which is also a tourist place.

▪ **Lighthouse Tourism in India:**

- **Number of Lighthouses:** India has as many as 189 lighthouses dotting its vast coastline including the Andaman and Nicobar Islands in the Bay of Bengal and Lakshadweep Islands in the Arabian Sea.
- **Objectives for Promoting Lighthouse based Tourism:**
 - To **enhance & develop the existing lighthouses & its surrounding areas** into a Tourism Destination, Maritime Landmark, and Heritage Precinct.
 - To **develop allied Maritime Infrastructure** like National Maritime Museums & National Lighthouse Museums.
 - To explore the possibilities of developing these projects under various modes including the possibilities of **Public Private Partnership (PPP)** by integrating commercially viable interventions at the feasible locations in order to make the project viable.
- **Advantages:**
 - The advantages behind creation of lighthouses into a tourism product are that it shall **help in attracting tourists** from across the world & locally and thereby create a source of revenue for the government, **employment opportunities for local people, increase in commerce** through purchase and sale of goods and services, etc.

Sagarmala Project

▪ **About:**

- The Sagarmala Programme was **approved by the Union Cabinet in 2015** which aims at holistic port infrastructure development along the 7,516-km long coastline through modernisation, mechanisation and computerisation.
- The vision of the Sagarmala Programme is to **reduce logistics cost for EXIM** (Export-Import) and **domestic trade** with minimal infrastructure investment.
- Sagarmala **could boost India's merchandise exports** to USD 110 billion by 2025 and create an estimated 10 million new jobs (four million in direct employment).

- **Components of the Sagarmala Programme:**
 - **Port Modernization & New Port Development:** De-bottlenecking and capacity expansion of existing ports and development of new Greenfield ports.
 - **Port Connectivity Enhancement:** Enhancing the connectivity of the ports to the hinterland, optimizing cost and time of cargo movement through multi-modal logistics solutions including domestic waterways (inland water transport and coastal shipping).
 - **Port-linked Industrialization:** Developing port-proximate industrial clusters and Coastal Economic Zones to reduce logistics cost and time of EXIM and domestic cargo.
 - **Coastal Community Development:** Promoting sustainable development of coastal communities through skill development & livelihood generation activities, fisheries development, coastal tourism etc.
 - **Coastal Shipping & Inland Waterways Transport:** Impetus to move cargo through the sustainable and environment-friendly coastal and inland waterways mode.

Public-Private Partnerships

- Public-private partnerships involve **collaboration between a government agency and a private-sector company** that can be used to finance, build, and operate projects, such as public transportation networks, parks, and convention centers.
- Financing a project through a public-private partnership can **allow a project to be completed sooner or make it a possibility in the first place.**
- Public-private partnerships **often involve concessions of tax** or other operating revenue, protection from liability, or partial ownership rights over nominally public services and property **to private sector**, for-profit entities.
- It can create **complex principal-agent problems**, such as corrupt dealings, pay-offs to political cronies, etc.
- **Commonly adopted model of PPPs** include Build-Operate-Transfer (BOT), Build-Own-Operate (BOO), Build-Operate-Lease-Transfer (BOLT), Design-Build-Finance-Operate-Transfer (DBFOT), Lease-Develop-Operate (LDO), Operate-Maintain-Transfer (OMT), etc.

9. Shaphari: Certification Scheme for Aquaculture Products

Why in News

Recently, the **Marine Products Exports Development Authority (MPEDA)** has developed a **certification scheme for aquaculture products** called 'Shaphari'.

Key Points

- **About:**

- Shaphari is based on the **United Nations' Food and Agriculture Organization's** technical guidelines on aquaculture certification.
- **Shaphari** is a Sanskrit word that **means superior quality of fishery products suitable for human consumption.**
- It is a market-based tool for hatcheries to **adopt good aquaculture practices** and help **produce quality antibiotic-free shrimp products** to assure global consumers.

- **Components and Process:**

- **Two Components:**

- **Certifying hatcheries** for the quality of their seeds.
 - Those who successfully clear multiple audits of their operations shall be granted a **certificate for a period of two years.**
 - **Approving shrimp farms** that adopt the requisite good practices.

- **Process:**

- The entire **certification process will be online** to minimise human errors and ensure higher credibility and transparency.

- **Significance:**

- The certification of hatcheries will **help farmers easily identify good quality seed producers.**
- Certified aquaculture products will **help exporters to export their consignments to markets under stringent food safety regulations** without the fear of getting rejected.

- It will **bolster confidence in India's frozen shrimp produce**, the country's biggest seafood export item.
- **India's Shrimp Exports:**
 - **About:**
 - India exported frozen shrimp worth almost **USD 5 billion in 2019-20**, with the **US and China** its biggest buyers.
 - Frozen shrimp is **India's largest exported seafood item**. It constituted 50.58% in quantity and 73.2% in terms of total USD earnings from the sector during 2019-20.
 - **Andhra Pradesh, West Bengal, Odisha, Gujarat and Tamil Nadu are India's major shrimp producing States**, and around 95% of the cultured shrimp produce is exported.
 - **Concern:**
 - **Container shortages** and incidents of **seafood consignments being rejected** because of food safety concerns.
 - Consignments sourced from Indian shrimp farms have been **rejected due to the presence of antibiotic residue** and this is a matter of concern for exporters.
- **Other Initiative for Food Safety of Exported Products:**
 - **National Residue Control Programme:**
 - National Residue Control Plan (NRCP) is a **statutory requirement for export to European Union countries**.
 - It is **regulated and carried by MPEDA**, under NRCP, **definite sampling schedule and sampling strategies are drawn every year** for monitoring the residues of substances like Antibacterial/Veterinary Medicinal Products and environmental contaminants.
 - **Samples are collected from hatcheries, feed mills, aquaculture farms and processing plants**, located in maritime states and **tested for the presence of any residue/contaminant**.

Marine Products Exports Development Authority

- MPEDA is a **nodal coordinating, state-owned agency** engaged in fishery production and allied activities.

- It was **established in 1972** under the **Marine Products Export Development Authority Act (MPEDA), 1972**.
- It functions under the **Union Ministry of Commerce and Industry**.
- It is **headquartered** in Kochi, Kerala.
- Its mandate is to **increase exports of seafood** including fisheries of all kinds, **specifying standards, marketing, processing, extension and training** in various aspects.

THE INDIAN EXPRESS

GS 2 : Polity, Governance, International Relations

1) 7th Fleet's patrol in India's EEZ was an act of impropriety

Freedom of navigation operation in India's EEZ

- The US 7th fleet recently declared that on 7th April, 2021 USS John Paul Jones asserted navigational rights and freedom inside India's EEZ, without requesting India's prior consent.
- The statement also said that "India requires prior consent for military exercises or manoeuvres in its EEZ, a claim inconsistent with international law."

Which international law the statement referred to

- The "international law" being cited by Commander 7th Fleet is a **UN Convention** which resulted from the third **UN Conference on Law of the Seas (UNCLOS 1982)**.
- India has **ratified the Convention**, which came into force in 1994.
- However, amongst the 168 nations who have either **acceded to or ratified UNCLOS 1982**, the US is conspicuous by its absence.

Background of the UNCLOS

- In 1945, the US unilaterally declared its jurisdiction over all natural resources on **that nation's continental shelf**.
- Taking cue from the US, some states extended their sovereign **rights to 200 miles**, while others declared territorial limits as they pleased.
- To bring order to a confusing situation, conferences for codifying laws of the seas were convened by the UN.
- After negotiations, an agreement was obtained on a set of laws that formalised the following maritime zones:
 - (a) A **12-mile limit on territorial sea**;
 - (b) A 24-mile contiguous zone.
 - (c) Amnewly conceived "exclusive economic zone" (EEZ) extending **up to 200 miles** within which the state would have sole rights over natural resources.
- The EEZ was said to be unique in that it **was neither high seas nor territorial waters**.

Issues with the UNCLOS 1982

- The signatories UNCLOS 1982 have chosen to remain silent on controversial issues with military or security implications and **mandated no process for resolution of ambiguities**.
- Resort to the **International Tribunal for the Law of the Sea** or a Court of Arbitration are amongst the options available.
- However, many states have expressed a preference for **“negotiating in good faith”**.
- The time has, perhaps, come **for signatories of UNCLOS 1982 to convene another conference** to review laws and resolve issues of contention.

Why US refused to ratify UNCLOS

- It was accepted that the seabed beyond the limits of national jurisdiction was **not subject to national sovereignty** but would be **“the common heritage of mankind”**.
- This seems to have been at the root of the US opposition to UNCLOS.
- It was felt in the US that this concept **favoured the under-developed** countries thereby denying America the fruits of its technological superiority.
- The US Senate, therefore, **refused to ratify UNCLOS**.
- Amongst the areas of major contention or sharp divergence in the interpretation of rules are:
 - 1) Applicability of the EEZ concept to rocks and islets.
 - 2) The **right of innocent passage** for foreign warships through territorial seas.
 - 3) **Conduct of naval activities in the EEZ** and the pursuit of marine scientific research in territorial waters and EEZ.

Containing China

- China has insulated itself against US intervention, through the progressive development of its **“anti-access, area-denial”** or A2AD capability.
- China has accelerated its campaign to achieve control of the South China Sea (SCS).
- In 2013, China commenced on an intense campaign to build **artificial islands in the SCS** on top of reefs in the **Spratly and Paracel groups**.
- In 2016, China disdainfully rejected the verdict of the **UN Court of Arbitration** in its dispute with the Philippines.
- So far, none of the US initiatives including Obama’s **abortive US Pivot/Re-balance to Asia**, Trump’s **Indo-Pacific Strategy** and **Asia Reassurance Initiative Act**, seem to have had the slightest impact on China’s aggressive intent
- Therefore, it seems pointless for the US Navy to frighten the Maldives or friendly India and it needs to focus on China instead.

Conclusion

In this fraught environment, the ever-expanding, worldwide FONOP campaign needs a careful reappraisal by US policy-makers for effectiveness – lest it alienates friends instead of deterring adversaries.

2) Jyotirao Phule

Why in News

The '**Tika Utsav (vaccination festival)**', started on the birth anniversary of Mahatma **Jyotirao Phule** (11th April) will continue till the birth anniversary of **Babasaheb Ambedkar** on 14th April 2021.

- The aim of the four day festival is to vaccinate as many people as possible for the priority groups and zero wastage of **Covid-19** vaccine.
- **Jyotirao Phule** was an **Indian social activist, thinker, anti-caste social reformer and writer from Maharashtra**. He is also known as **Jyotiba Phule**.

Key Points

- **Brief Profile:**
 - **Birth:** Phule was born on **11th April, 1827** in present-day Maharashtra and **belonged to the Mali caste of gardeners and vegetable farmers**.
 - **Education:** In 1841, Phule was enrolled at the **Scottish Missionary High School (Pune)**, where he completed education.
 - **Ideology:** His Ideology was based on: **Liberty; Egalitarianism; Socialism**.
 - Phule was **influenced by Thomas Paine's book titled The Rights of Man** and believed that the only solution to combat the social evils was the **enlightenment of women and members of the lower castes**.
 - **Major Publications:** Tritiya Ratna (1855); Powada: Chatrapati Shivajiraje Bhosle Yancha (1869); Gulamgiri (1873), Shetkarayacha Aasud (1881).
 - **Related Association:** Phule along with his followers formed **Satyashodhak Samaj in 1848** which meant 'Seekers of Truth' in order to attain equal social and economic benefits for the lower castes in Maharashtra.
 - **Municipal Council Member:** He was appointed commissioner to the Poona municipality and served in the position until 1883.
 - **Title of Mahatma:** He was bestowed with the title of Mahatma on 11th May, 1888 by a **Maharashtrian social activist Vithalrao Krishnaji Vandekar**.
- **Social Reformer:**

- In 1848, he taught his wife (**Savitribai**) how to read and write, after which the couple **opened the first indigenously run school for girls** in Pune where they both taught.
- He was a **believer in gender equality** and he exemplified his beliefs by involving his wife in all his social reform activities.
- By 1852, the **Phules had established three schools** but all of them had shut by 1858 due to the shortage of funds after the Revolt of 1857.
- Jyotiba realised the pathetic conditions of widows and established an ashram for young widows and eventually became an advocate of the idea of **Widow Remarriage**.
- Jyotirao **attacked the orthodox Brahmins and other upper castes** and termed them as "hypocrites".
- In 1868, Jyotirao **constructed a common bathing tank** outside his house to exhibit his embracing attitude towards all human beings and wished to dine with everyone, regardless of their caste.
- He started awareness campaigns that ultimately inspired the likes of Dr. B.R. Ambedkar and **Mahatma Gandhi**, stalwarts who undertook major initiatives against caste discrimination later.
- It is believed by many that **it was Phule who first used the term 'Dalit' for the depiction of oppressed masses** often placed outside the 'varna system'.
- He **worked for abolishment of untouchability and caste system** in Maharashtra.
- **Death:** 28th November, 1890. His memorial is built in Phule Wada, Pune, Maharashtra.

3) India-Netherlands

Why in News

Recently, India's Prime Minister (PM) and the PM of the Netherlands held a **Virtual Summit**.

- It was the **first high level Summit attended by the PM of Netherlands** after the general elections held in March 2021.
- Earlier in **2019 the King and Queen of the Netherlands** visited India to give an impetus to the bilateral ties shared by the two nations.

Key Points

▪ **Review of Bilateral Engagements:**

- Exchanged views on **further expanding and diversifying the relationship** in trade and economy, water management, agriculture sector, **smart cities**, science & technology, healthcare and space.
- Agreed that the ambitious and innovative flagship programs like **Clean India, Digital India, Make in India, Sagarmala, Ayushman Bharat and Startup India** have provided immense opportunities for Indo-Dutch (India-Netherlands) collaboration in multiple sectors.
- Exchanged views on regional and global challenges such as **climate change**, counter-terrorism and **Covid-19 pandemic** and agreed to leverage the emerging convergences in new areas like **Indo-Pacific**, Resilient Supply Chains and Global Digital Governance.

▪ **Strategic Partnership on Water:**

- Agreed on instituting a '**Strategic Partnership on Water**' to further deepen the Indo-Dutch cooperation in the water related sector, and **upgrading the Joint Working Group on Water** to Ministerial-level.
 - In 2019, India and Netherlands had launched the **second phase of the Local Treatment of Urban Sewage streams for Healthy Reuse (LOTUS-HR) plant** as a part of joint collaboration in New Delhi.

▪ **Commitment to International Peace:**

- Reiterated their **commitment to a rules-based multilateral order for ensuring international peace, stability and prosperity** and looked forward to a successful **India-EU (European Union) Leaders' Meeting in Porto, Portugal in May 2021**.

▪ **India's Stand:**

- India and Netherlands have **similar approach in dealing with global challenges** like climate change, terrorism and pandemics.
- It thanked the Netherlands for their support to **International Solar Alliance (ISA)** and **Coalition for Disaster Resilient Infrastructure (CDRI)**.
 - ISA and CDRI are Indian Initiatives.

- It also **welcomed the Netherlands' Indo-Pacific Policy** and its desire to collaborate during India's **G20 Presidency** in 2023.
- Setting up a **fast track mechanism for investment promotion** will give new **momentum** to the strong economic cooperation between the two countries.

India-Netherlands Relation

▪ **Economic and Trade:**

- Economic Partnership between India & Netherlands is a **key pillar of the bilateral ties**.
- The Netherlands was the **third largest investor in India**, after Mauritius and Singapore for **Financial Year (FY) 2018-19** with **Foreign Direct Investments (FDI)** inflows of USD 3.87 billion across a variety of sectors.
- The **Netherlands was the second largest destination of foreign investment by Indian companies** as of end-March 2018.
- In 2017-18, the **bilateral trade** between India and the Netherlands was around USD 8.77 billion. In 2018-19, it was around USD 12.87 billion.
 - By 2025, it shall touch around USD 18-23 billion.
- The **Netherlands is India's 5th largest trading partner** in the European Union. And is also one of the leading investor nations in India.
- There are **200 (Dutch) companies that are present in India**. Around **160 Indian companies are active in the Netherlands**. During the Covid-19 pandemic, there has been a sizable uptick in the Indian IT companies investing in the Netherlands.

▪ **Historical Relations:**

- Indo-Dutch relations can be **traced back to more than 400 years** when the first Dutch EIC (East India Company) **got established in India (in around 17th century AD)**.
- The **official relations** between the two nations were **established in the year 1947** which, since then, have been cordial and friendly.
- The two countries also **share common ideals of democracy, pluralism and the rule of law**.

▪ **Cultural Relations:**

- The **Netherlands currently is home to the largest Indian community on the European mainland**. The growing Indian student and professional

community in the Netherlands is making the cultural knot stronger and the technological partnership deeper.

- An **Indian Council for Cultural Relations (ICCR) Cultural Centre "The Gandhi Centre"** was established in The Hague in October 2011.
- The fifth **International Day of Yoga** was celebrated on 16th June, 2019 at prestigious Dam Square in Amsterdam.

Way Forward

- The Netherlands and India have **hardly achieved their true potential**. There is **huge potential for collaborations given the geopolitical and economic necessities** of both nations.
- Engagement of leaders at the highest level along with **greater economic and defence cooperation is the need of the hour** to take ties to new levels.
- In the next five years, as India will move ahead, Dutch companies will come to India and will be a key collaborator in helping India achieve its **USD 5 trillion economy** vision.

GS 3 :Economy, Science and Technology,Environment

4) Global Minimum Corporate Tax

Why in News

The US Treasury Secretary has urged **G20 nations** to move towards a **global minimum corporate tax**.

- It is **an attempt to reverse a "30-year race to the bottom"** in which countries have resorted to slashing corporate tax rates to attract multinational corporations (MNCs).

Key Points

- **Proposal on a Global Minimum Corporate Tax Rate:**
 - The US proposal envisages a **21% minimum corporate tax rate, coupled with cancelling exemptions on income from countries** that do not legislate a minimum tax to discourage the shifting of multinational operations and profits overseas.
 - The proposal for a minimum corporate tax is **tailored to address the low effective rates of tax shelled out by some of the world's biggest corporations**, including digital giants such as Apple, Alphabet and Facebook,

as well as major corporations such as Nike and Starbucks.

- These companies typically **rely on complex webs of subsidiaries to hoover profits out of major markets into low-tax countries** such as Ireland or Caribbean nations such as the British Virgin Islands or the Bahamas, or to central American nations such as Panama.
- **US' Reasons for the Proposal:**
 - The proposal **aims to somewhat offset any disadvantages** that might arise from the **proposed increase in the US corporate tax rate**.
 - The proposed increase to 28% from 21% would partially reverse the previous cut in tax rates on companies from 35% to 21% by way of a 2017 tax legislation.
 - The increase in corporation tax **comes at a time when the pandemic is costing governments across the world**, and is also timed with the US's push for a USD 2.3 trillion infrastructure upgrade proposal.
- **Significance:**
 - A global compact on this issue, at the time of pandemic, **will work well for the US government and for most other countries in western Europe**, even as some low-tax European jurisdictions such as the Netherlands, Ireland and Luxembourg and some in the Caribbean rely largely on **tax rate arbitrage** to attract MNCs.
 - The plan to peg a minimum tax on overseas corporate income **seeks to potentially make it difficult for corporations to shift earnings offshore**.
 - The **average headline corporate tax rate in advanced economies has fallen** from 32% in 2000 to just over 23% by 2018.
 - That is largely because **smaller countries such as Ireland, the Netherlands and Singapore have attracted footloose businesses by offering low corporate tax rates**.
 - Footloose industry is a general term for an industry that can be placed and located at any location without effect from factors such as resources or transport.
 - **Multinational companies** with increasingly intangible assets such as the global tech firms **have shifted some actual business and a lot of profits**

into these tax havens and low-tax jurisdictions, lowering their global tax bills.

▪ **International Response:**

- The European Commission backed the proposal, but the global minimum rate should be decided after discussions in the **Organisation for Economic Cooperation and Development (OECD)**.
- The European nations, including Germany and France have supported the US proposal.
- The OECD and Group of Twenty (G20) have been leading the **Base Erosion and Profit Shifting (BEPS) initiative** – a multilateral negotiation with over 135 countries, including the United States – since 2013.
- **BEPS** refers to tax planning strategies used by multinational enterprises that exploit gaps and mismatches in tax rules to avoid paying tax.
- **China** is not likely to have a serious objection with the US call, but an **area of concern** for Beijing would be the **impact of such a tax stipulation on Hong Kong**, the seventh-largest tax haven in the world and the largest in Asia.
- The US proposal also has support from the **International Monetary Fund (IMF)**.

▪ **Challenges:**

- The proposal **impinges on the right of the sovereign to decide a nation's tax policy**.
- Taxation is ultimately a sovereign function, and depending upon the needs and circumstances of the nation, the government is open to participate and engage in the emerging discussions globally around the corporate tax structure.
- A global minimum rate **would essentially take away a tool that countries use to push policies that suit them**. A lower tax rate is a tool they can use to alternatively push economic activity.
- For instance, in the backdrop of the pandemic, IMF and World Bank data suggest that developing countries with less ability to offer mega stimulus packages may experience a longer economic hangover than developed nations.
- Also, a global minimum tax rate **will do little to tackle tax evasion**.

India's Position

▪ **Cut in Corporate Tax:**

- In a bid to revive investment activity, the Finance Minister announced, in September 2019, a sharp cut in corporate taxes for domestic companies to 22% and for new domestic manufacturing companies to 15%.
 - The **Taxation Laws (Amendment) Act, 2019** resulted in the insertion of a section (115BAA) to the Income-Tax Act, 1961 to provide for the concessional tax rate of 22% for existing domestic companies subject to certain conditions including that they do not avail of any specified incentive or deductions.
 - Also, the existing domestic companies opting for the concessional taxation regime will **not be required to pay any Minimum Alternate Tax**.
- The cuts effectively **brought India's headline corporate tax rate broadly at par with the average 23% rate in Asian countries**.
 - China and South Korea have a tax rate of 25% each, while Malaysia is at 24%, Vietnam at 20%, Thailand at 20% and Singapore at 17%.
 - The effective tax rate, inclusive of surcharge and cess, for Indian domestic companies is around 25.17%.
 - The average corporate tax rate stands at around 29% for existing companies that are claiming some benefit or the other.

▪ **Equalisation Levy:**

- To **address the challenges posed by the enterprises who conduct their business through digital means** and carry out activities in the country remotely, the government has the '**Equalisation Levy**'.
- The equalization levy is **aimed at taxing foreign companies which have a significant local client base in India** but are billing them through their offshore units, effectively escaping the country's tax system.
- The Income-tax Act, 1961 has been amended to bring in the concept of "**Significant Economic Presence**" for establishing "business connection" in the case of non-residents in India.

▪ **Agreements for Exchange of Information:**

- India has been proactively engaging with foreign governments with a view to facilitating and enhancing exchange of information under **Double Taxation**

Avoidance Agreements, Tax Information Exchange Agreements and Multilateral Conventions to plug loopholes.

- Such agreements **promote cooperation in tax matters**.
- Besides, **effective enforcement actions** including expeditious investigation in foreign assets cases have been launched, including searches, enquiries, levy of taxes, penalties, etc.

Corporate Tax

- Corporation Tax or Corporate Tax is a **direct tax levied on the net income or profit of a corporate entity** from their business, foreign or domestic.
- The rate at which the tax is imposed as per the provisions of the Income Tax Act, 1961 is known as the Corporate Tax Rate.
- The Corporate Tax rate is based on a slab rate system depending on the type of corporate entity and the different revenues earned by each of corporate entities.

Minimum Alternate Tax

- At times it may happen that a taxpayer, being a company, may have generated income during the year, but by taking the advantage of various provisions of Income-tax Law (like exemptions, deductions, depreciation, etc.), it may have reduced its tax liability or may not have paid any tax at all.
- Due to an increase in the number of zero tax paying companies, Minimum Alternate Tax (MAT) was introduced by the Finance Act, 1987 with effect from assessment year 1988-89. Later on, it was withdrawn by the Finance Act, 1990 and then reintroduced by Finance Act, 1996.
- MAT is **calculated at 15% on the book profit** (the profit shown in the profit and loss account) or at the usual corporate rates, and whichever is higher is payable as tax.
- All companies in India, whether domestic or foreign, fall under this provision. MAT was later extended to cover non-corporate entities as well.
- MAT is an important tool with which tax avoidance can be prevented.

Domestic Company

- Domestic company is one which is **registered under the Companies Act of India (2013)** and also includes the company registered in the foreign countries having control and management wholly situated in India.
- A domestic company includes private as well as public companies.

Foreign Company

- Foreign company is one which is not registered under the Companies Act of India and has control & management located outside India.

Tax Heaven

- A tax haven is generally an offshore country that offers foreign individuals and businesses little or no tax liability in a politically and economically static environment.

5) 100% Sustainable Fuel for Formula 1

Why in News

Recently, the **Fédération Internationale de l'Automobile (FIA)** has announced the first barrels of **100% sustainable fuel**, made from **bio waste** and developed to **stringent F1(Formula One) specifications**, have been delivered to Power Unit manufacturers.

- FIA announced its intent to make F1 carbon neutral by 2030 and to have sustainable races by 2025.

Formula One

- Formula One, also called F1 in short, is an **international auto racing sport**. F1 cars are the **fastest regulated road-course racing cars in the world**.
- F1 is the highest level of single-seat, open-wheel and open-cockpit professional motor racing contest.
- Formula One racing is **governed and sanctioned by a world body called the Fédération Internationale de l'Automobile (FIA)** or the International Automobile Federation. The name 'Formula' comes from the set of rules that the participating cars and drivers must follow.

Key Points

- **F1 Current Carbon Footprint:**
 - **Direct Effect:**
 - F1's driving activities produce approximately **2,56,000 tonnes of carbon dioxide per year**, which is the equivalent to powering roughly 30,000 houses in the UK over the same time period.
 - **Indirect Effect:**

- The main issue is not the **cars** themselves, which **accounted for only 0.7%** of the sport's emissions in 2019, but the **logistics of transporting teams and equipment across the globe**.
- In 2019, road, sea and air **logistics for equipment transportation accounted for 45% of F1's emissions** with business travel for teams contributing an additional 27.7%.
- Rounding up the list, **factories and facilities servicing the sport** represent **19.3%** of emissions, and event operations, another 7.3%.
- **Uncounted Emission:**
 - The 2,56,000 number doesn't even factor in the impact of fans, millions of whom require transportation and accommodation on and around the race weekend.
 - If one were to include the emissions generated by fans, the total carbon footprint of F1 catapults to approximately **1.9 million tonnes** of carbon dioxide generated by the sport annually.
-
- **100% Sustainable Fuels:**
 - **Background:**
 - One of the most high-profile ways in which F1 plans to reduce its environmental impact is through the **continued evolution of energy-efficient engines**.
 - Starting from 1989 when the FIA Alternative Fuel Commission was formed, F1 has committed to a number of initiatives designed to improve engine efficiency, with the most notable being its **global fuel economy initiative in 2007** which aims to reduce fuel consumption by 50% across the competition.
 - In 2020, the FIA announced that it had developed a **100% sustainable fuel** and that engine manufacturers were already in the process of testing it, intending to start using it by 2026.
 - **About:**
 - A 100% sustainable fuel essentially represents the **third generation and most advanced iteration of biofuels**, which typically are made from by-products of industrial or agricultural waste.
 - F1 cars already use biofuels but current regulations only mandate that the fuel include 5.75% of bio-components.

- In 2022 that number will increase to 10% and by 2025, when new power units are proposed to enter the competition, the **FIA hopes to transition completely to 100% advanced sustainable fuels.**

Biofuels

▪ **About:**

- Any hydrocarbon fuel that is produced from an organic matter (living or once living material) in a short period of time (days, weeks, or even months) is considered a biofuel.
- Biofuels may be solid, liquid or gaseous in nature.
 - **Solid:** Wood, dried plant material, and manure
 - **Liquid:** Bioethanol and Biodiesel
 - **Gaseous:** Biogas
- These can be used to replace or can be used in addition to diesel, petrol or other fossil fuels for transport, stationary, portable and other applications. Also, they can be used to generate heat and electricity.

▪ **Categories of Biofuels:**

- **First generation biofuels:**
 - These are **made from food sources such as sugar, starch, vegetable oil, or animal fats** using conventional technology.
 - Common first-generation biofuels include **Bioalcohols, Biodiesel, Vegetable oil, Bioethers, Biogas.**
- **Second generation biofuels:**
 - These are **produced from non-food crops** or portions of food crops that are not edible and considered as wastes, e.g. stems, husks, wood chips, and fruit skins and peeling.
 - **Thermochemical** reactions or **biochemical** conversion processes are used for producing such fuels.
 - **Examples:** Cellulose ethanol and biodiesel.
- **Third generation biofuels:**

- These are produced from micro-organisms like algae.
 - **Example:** Butanol
- Micro-organisms like algae can be grown using land and water unsuitable for food production, therefore reducing the strain on already depleted water sources.
- **Fourth Generation Biofuels:**
 - In the production of these fuels, **crops that are genetically engineered to take in high amounts of carbon are grown and harvested as biomass.**
 - The crops are then converted into fuel using second generation techniques.
 - The fuel is pre-combusted and the carbon is captured. Then the carbon is geo-sequestered, meaning that the carbon is stored in depleted oil or gas fields or in unmineable coal seams.
 - Some of these fuels are considered as **carbon negative** as their production pulls out carbon from the environment.
- **India's Related Initiatives:**
 - **E20 Fuel:** The Indian government has invited public comments for introducing adoption of **E20 fuel** (a blend of 20% ethanol with gasoline).
 - **Pradhan Mantri JI-VAN Yojana, 2019:** The objective of the **scheme** is to create an ecosystem for setting up commercial projects and to boost research and development in the 2G Ethanol sector.
 - **Reduction in GST:** The Government has also reduced **GST** on ethanol for blending in fuel from 18% to 5%.
 - **National Biofuel Policy 2018:** The Policy categorises biofuels as "Basic Biofuels" viz. First Generation (1G) bioethanol & biodiesel and "Advanced Biofuels" - Second Generation (2G) ethanol, Municipal Solid Waste (MSW) to drop-in fuels, Third Generation (3G) biofuels, bio-CNG etc. to enable extension of appropriate financial and fiscal incentives under each category.

6) Navegaon-Nagzira Tiger Reserve: Maharashtra

Why in News

Three labourers were killed and two others injured during an operation to douse a forest fire at Navegaon-Nagzira Tiger Reserve (NNTR) in Maharashtra.

Key Points

▪ **Location:**

- It is situated in **Gondia and Bhandara districts** of Maharashtra.
 - Gondia District shares common boundaries with the **state of Madhya Pradesh and Chhattisgarh** in the **north and eastern** side respectively.
- Strategically, the Tiger Reserve is **located in the heart of central Indian Tiger landscape** which contributes almost one sixth of the total tiger population of the country.

▪ **Formation:**

- It was notified as the **46th Tiger Reserve of India** in **December 2013**.
- NNTR comprised of the notified area of **Nawegaon National Park, Nawegaon Wildlife Sanctuary, Nagzira Wildlife Sanctuary, New Nagzira Wildlife Sanctuary and Koka Wildlife Sanctuary**.

▪ **Connectivity:**

- NNTR has connectivity with the major tiger reserves in Central India like,
 - **Kanha and Pench tiger reserve** in Madhya Pradesh,
 - **Tadoba-Andhari Tiger reserve** in Maharashtra,
 - **Indravati Tiger Reserve** in Chhattisgarh,
 - Indirectly with the **Kawal and Nagarjuna Sagar** in **Telangana and Andhra Pradesh** and, **Achanakmar Tiger reserve** in **Chhattisgarh**.
- It is also connected to important tiger bearing areas like **Umred-Karhandla sanctuary** and **Brahampuri Division (Maharashtra)**.

▪ **Flora:**

- The major forest type is "Southern Tropical Dry Deciduous Forest".
 - Few thorny plants are also found.
 - **Bamboo** occurs in abundance.

▪ **Fauna:**

- Large Carnivores such as **leopards** and smaller carnivores like wild dogs, wolf jackals, jungle cats and also the good population of **sloth bears** are seen.
- The important herbivore includes **Cheetal, Sambar, Nilgai, Chousingha, Barking deer, Wild pig and Indian gaur**. Mouse deer has also been recorded from the area.
- More than 300 species of birds have been reported from the area.
- **Other Protected Areas in Maharashtra:**
 - Sahyadri Tiger Reserve.
 - **Melghat Tiger reserve.**
 - Great Indian Bustard Sanctuary.
 - Karnala Bird Sanctuary.
 - Sanjay Gandhi National Park.
 - **Pench National Park.**

Prelims Practice Questions

Q1. Which of the following ideal/s in the Preamble to the Indian Constitution has/have been borrowed from the Russian Constitution?

1. Justice
2. Liberty
3. Equality
4. Fraternity

Choose the correct option:

- a. 1 only
- b. 2 and 3 only
- c. 1, 3 and 4 only
- d. 1 and 3 only

Answer: a

Explanation:

- “Liberty, Equality and Fraternity” as an ideal has been borrowed from the French Revolution to the Indian Constitution.
- The ideal “justice” in the Preamble to the Indian Constitution has been borrowed from the Russian Constitution.

Q2. Which of the following will not reduce NOX emission?

- a. Exhaust gas recirculation
- b. Selective catalytic reduction
- c. Water/steam injection
- d. Increasing Combustion temperature

Answer: d

Explanation:

- NOX gases are produced from the reaction between nitrogen and oxygen during combustion of fuels, such as hydrocarbons, in air, especially at high temperatures.
- Exhaust gas recirculation, Selective catalytic reduction and direct water/steam injection are used extensively to reduce NOX emissions.

Q3. The Red flag exercise is conducted by which of the following countries?

- a. Israel
- b. Russia
- c. The United States of America
- d. China

Answer: c

Explanation:

- Exercise Red Flag is an advanced aerial combat training exercise held several times a year by the United States Air Force. The exercise offers realistic air-combat training for military pilots and other flight crew members from the U.S., NATO and other allied countries.
- The Indian Air Force (IAF) also takes part in the exercise.

Q4. Parivara, Talwara and Siddi are Scheduled Tribes from which state?

- a. Chhattisgarh
- b. Rajasthan
- c. Karnataka
- d. Telangana

Answer: c

Explanation:

Parivara, Talwara and Siddi are Scheduled Tribes in Karnataka.

Q5. “Madhuban Gajar”, often seen in the news recently is?

- a. A variety of Silk Saree from the state of Bihar
- b. A tribal folk dance prevalent in the State of Gujarat
- c. A bio-fortified carrot variety with high iron content
- d. A method of dance painting prevalent in the region of Western Himalayas

Answer : c

Explanation:

- **Madhuban Gajar** is a **biofortified carrot variety with high β -carotene and iron content** developed by Shri Vallabhhai Vasrambhai Marvaniya, a farmer scientist from Junagadh district, Gujarat.

- Shri Vallabhai Vasrambhai Marvaniya was conferred with **Padma Shri** in the year 2019 for his extraordinary work.
- The Madhuvan Gajar is a highly nutritious carrot variety developed through the selection method with higher β -carotene content (277.75 mg/kg) and iron content (276.7 mg/kg) dry basis and is used for various value-added products like carrot chips, juices, and pickles.

Q6. Which of the **following** correctly denotes 'K2-18b'?

- a. An exo planet lying in the hospitable zone of a star.
- b. The asteroid passing closest to the earth's orbit.
- c. The nearest neutron star to the universe.
- d. The newly discovered dwarf planet.

Answer: a

Explanation:

- The exoplanet K2-18b, 124 light-years away from the earth, as research points out may be habitable.
- The exoplanet is 2.6 times the radius and 8.6 times the mass of Earth and orbits its star within the habitable zone, where temperatures could allow liquid water to exist.

MAINS PRACTICE QUESTIONS

1Q. "Businesses cannot be successful when the society around them fails." Analyse the need for Corporate Social Responsibility in light of the above statement. (250 words)

Approach

- Introduce your answer by giving the relationship between society and businesses.
- Mention the need for CSR.
- Conclude your answer by giving an optimistic way forward.

2Q. Examine the following quote:

" I'd rather have a free press without a government than a government without a free press." (250 words)

Approach

- Introduce your answer by providing links between government and free press.
- Give your arguments using examples.
- Conclude your answer by giving future implication of free media on India