

UPSC and PCS Monthly Current Affairs April 2020



Polity and Governance

'Stranded in India' Portal

Why in the news?

- The **Ministry of Tourism** has launched a portal '**Stranded in India**'.

About the Stranded in India' Portal

- The **aim of this portal** to act as a support network for **foreign tourists** stuck in various parts of the country.
- The portal **strandedinindia.com** consists of **comprehensive information on COVID-19 helpline numbers** or **call-centres that the foreign tourists** can reach out to for help.
- It also has information on the **Ministry of External Affairs** control centres along with their contact information and information around state-based/regional tourism support infrastructure.
- It also has a **help and support section** to extend help to the ones in need of further information and connect foreign tourists to authorities concerned.

Topic- GS Paper 2–Governance

Source- Indian Express

Prime Minister's National Relief Fund

Why in the news?

- Opposition leaders have questioned the setting up of **PM CARES Fund** by the Prime Minister as the **Prime Minister's National Relief Fund** is already in existence.
- To deal with the **coronavirus pandemic**. The **PM's National Relief Fund (PMNRF)** has an **unspent balance of ₹3,800 crores** [as of December 16, 2019].

About Prime Minister's National Relief Fund

- The **Prime Minister's National Relief Fund (PMNRF)** was **established in January 1948** after PM Jawaharlal Nehru appealed to assist displaced persons from Pakistan.
- It was **established entirely with public contributions** and did not get any budgetary support.
- **PMNRF accepts voluntary contributions** from **Individuals, Organizations, Trusts, Companies** and **Institutions** etc.
- All contributions towards PMNRF are **exempt from Income Tax under section 80(G)**.
- The **resources of the PMNRF** are **utilized to render immediate relief** to families of those killed in **natural calamities like floods, cyclones and earthquakes**, etc.
- Assists partially to defray the expenses for **medical treatment like heart surgery, kidney transplantation, cancer treatment** of needy people and acid attack etc.

Topic- GS Paper 2–Governance
Source- The Hindu

‘Rapid Test’ for Coronavirus in Kerala

Why in the news?

- Kerala government has recently announced ‘rapid tests to tackle suspicions of whether the novel Coronavirus has spread into the community and if not prevent such a scenario.
- This test will ensure speedy results within half an hour.

What is the ‘rapid test’ for Coronavirus?

- Essentially, a rapid test is conducted to determine whether there has been any recent viral infection in a person’s body.
- When a pathogen enters a human body, specific antibodies are released as a response to the virus.
- A rapid test can detect the presence of such antibodies in blood, serum or plasma samples quickly, indicating a viral infection.
- Rapid testing is conducted usually to check for community transmission of a virus during an epidemic.

Who can conduct rapid tests?

- Government and private labs that has the approval of ICMR can conduct rapid tests which require a doctor’s prescription too.

Topic- GS Paper 2–Health Issue
Source- The Hindu

Domicile rule expanded for J&K

Why in the news?

- The Centre has recently defined **new domicile rule for Jammu and Kashmir** which includes those who have lived in the **Union Territory for 15 years**.

Key highlights of the rule

- The order defines **domicile as one “who has resided for 15 years in the UT of J&K or has studied for seven years and appeared in Class /12th examination in an educational institution located in the UT of J&K or who is registered as a migrant by the Relief and Rehabilitation Commissioner (Migrants).**
- The notification **scraps all pension benefits** such as a **car, driver, accommodation, phones, electricity, medical facilities** and rent-free accommodation to former J&K Chief Ministers.
- The order says the domiciles will be eligible **“for appointment to any post carrying a pay scale of not more than Level 4”**.
- The **Level 4 post comprises positions** such as **gardeners, barbers, office peons and waterman, and the highest rank** in the category is that of a **junior assistant**.

Insured Job facility

- The Union government has also issued a notification defining “**domiciles**” in the new **Union Territory (UT) of Jammu and Kashmir** for **protecting jobs in the Group D category and entry-level non-gazette posts** for the domiciles.

Changes in Public Safety Act

- **Ministry of Home Affairs (MHA)** also makes changes to the **Public Safety Act (PSA)** by removing a clause that **prohibited J&K residents** booked **under the Act** to be lodged in jails outside.

Note:

- The **reservation for domiciles** would **not apply to Group A and Group B posts**, and like other UTs, recruitment would be done by the Union Public Service Commission (UPSC).
- **Article 35-A** of the Constitution (now abrogated) **empowered J&K Assembly** to define a J&K resident, who alone were eligible to apply for jobs or own immovable property.

Topic- GS Paper 2–Governance

Source- The Hindu

AarogyaSetu

Why in the news?

- The Government of India recently launched a **mobile app** called **AarogyaSetu**, which help to **bring the people of India together** in a brave fight against coronavirus pandemic.



About AarogyaSetu app

- It is at **once a bridge between public and private sectors, digital technology and health services delivery** and the **potential of young India with a disease-free and healthy future** of the nation.
- The app is **available in 11 languages**.
- It joins **Digital India for the health and well-being** of every Indian.
- It will **enable people to assess themselves the risk of catching the Corona Virus infection**.

- It will calculate this **risk based on their interaction with others**, using **cutting edge Bluetooth technology, algorithms and artificial intelligence**.

Benefits:

- The App will **help India** to take **necessary, timely** steps for **assessing the risk of spread of COVID-19 infection** and ensuring isolation where required.
- The App's design **ensures privacy-first**.
- The **personal data collected by the App** is **encrypted using state-of-the-art technology** and **stays secure on the phone until** it is needed for facilitating medical intervention.

Topic- GS Paper 3–Health Issue

Source- The Hindu

e-NAM Platform

Why in the news?

- Agriculture Minister has recently launched **new features of National Agriculture Market (e-NAM) Platform**.

How does it work?

- It will **provide to strengthen agriculture marketing by farmers** who will **reduce their need to physically come to wholesale mandis** for **selling their harvested produce**, at a time when **there is critical need to decongest mandis to fight against COVID-19 effectively**.

These software modules are namely:

- **Warehouse based trading module in e-NAM software to facilitate trade** from warehouses based on e-NWR,
- **FPO trading module in e-NAM** whereby **FPOs can trade their produce** from their collection centre without bringing the produce to APMC.
- **An enhanced version of the logistic module** has been released to facilitate inter-mandi and inter-state trade at this juncture.

About e-NAM

- It was **launched in 2016** as a **pan-India electronic trade portal** linking Agricultural Produce Market Committee - APMCs across the States.
- e-NAM provides for **contactless remote bidding** and **mobile-based any time payment** for which **traders do not need to either visit mandis or banks** for the same.

Topic- GS Paper 2–Governance

Source- PIB

PIB's COVID-19 Fact Check Unit

Why in the news?

- The **Press Information Bureau's COVID-19 Fact Check Unit (FCU)** became operational recently which check facts related to the novel coronavirus pandemic.

About the COVID-19 Fact Check Unit

- The **unit is headed** by the bureau's director-general, **Nitin Wakankar**.
- It will receive messages by **email and will send a response in a stipulated time-frame**.
- The official version of any news on COVID-19 can be obtained from the unit.

About Press Information Bureau

- It is the **nodal agency of the Government of India to disseminate information** to the **print and electronic media** on **government policies, programmes, initiatives and achievements**.
- It acts as an **interface between the government and the media**.
- It **provides governmental information** via **press releases, articles, photographs**, etc. available on its official website.

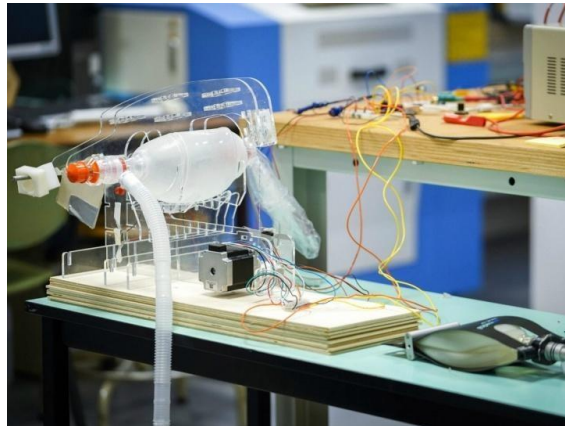
Topic- GS Paper 2–Governance

Source- PIB

Project Praana

Why in the news?

- The **Scientists and Students in Indian Institute of Science** have developed a **prototype of an indigenous ventilator** under project Praana.



About the Project Pranna

- The project is a **voluntary effort to help the nation** at the time of crisis.
- The prototype has **mass flow sensors and controllers**, which **accurately tell how much oxygen is flowing and what volume the patient is inhaling** in one breath.
- **Pneumatics** is built around **mass-produced water filter hardware**.
- The **control system is built around open-source industrial controller**.

Topic- GS Paper 2–Governance
Source- PIB

Geo-fencing app

Why in the news?

- Recently, the **Centre is using powers** under the **Indian Telegraph Act** to **“fetch information”** from **telecom companies** every **15 minutes** to **track COVID-19 cases** with the help of **Geo-Fencing app** across the country.

How does it work?

- It **triggers emails and SMS alerts** to an **authorized government agency** if a person has jumped **quarantine or escaped from isolation**, based on the **person’s mobile phone’s cell tower location**.
- The **“geo-fencing” is accurate by up to 300 m**.

Legal Authority

- The **States** have been asked to **seek the approval** of their **Home Secretaries** under the **provisions of Section 5(2) of the Indian Telegraph Act, 1885**, for the **specified mobile phone numbers** to **request the DoT** to **provide information by email or SMS** in case of **violation of geo-fencing**.
- Recently, the Department of Telecommunications (DoT) shared a **standard operating procedure (SOP)** with **all telecom service providers** regarding the application called **COVID-19 Quarantine Alert System (CQAS)**.
- The system will **collate phone data, including the device’s location**, on a **common secured platform** and **alert the local agencies** in case of a **violation by COVID patients** under watch or in isolation.
- The CQAS will **prepare a list of mobile numbers, segregating them** based on **telecom service providers**, and the **location data provided by the companies** will be run on the application to **create geo-fencing**.

Privacy Concern

- The data collected shall be used only for **Health Management** in the **context of COVID-19** and is **strictly** not for any other purposes. Any violation in this regard would attract penal provisions under the relevant laws.

Data will be deleted:

- The **phone number should be removed** from the system **after the period for which location monitoring is required** over, and the data would be deleted four weeks from thereon.

Note:

- **Kerala** is one of the **first States** to use **geo-fencing** to **track COVID-19 cases**.

Topic- GS Paper 2–Governance
Source- The Hindu

Laws enforced in India amid the 'Lockdown'

Why in the news?

- The Home Ministry has recently said that **persons violating the containment measures** will be **liable to be punished** under provisions of the **Disaster Management Act 2005**, besides **Section 188 IPC**.



The related provisions of IPC and Disaster Management are as follows

- (i) For disobedience
 - a. **Section 188 IPC** deals with those **disobeying an order passed by a public servant** and **provides for imprisonment ranging from one to six months**.
 - For those **violating orders passed under the Epidemic Diseases Act**, **Section 188 IPC** is the provision under which **punishment is awarded**.
 - b. **Section 51 of the Disaster Management Act, 2005** provides for **punishment for two kinds of offences**:
 - **obstructing any officer or employee of the government or person authorized by any disaster management authority** for discharge of a function
 - **refusing to comply with any direction given by the authorities under the Act**.
 - **Punishment can extend to one year on conviction**, or two years if the **refusal leads to loss of lives or any imminent danger**.
- (ii) For spreading fear
 - a. **Section 505 IPC** provides for **imprisonment of three years or fine, or both**, for those who **publish or circulate anything which is likely to cause fear or alarm**.
 - b. **Section 54 of the Disaster Management Act** provides for **imprisonment, extending to one year**, of those who **make or circulate a false alarm or warning regarding a disaster or its severity or magnitude**.
- (iii) For false claim to aid
 - a. **Under Section 52, Disaster Management Act**, whoever makes a **false claim** for obtaining “**any relief, assistance, repair, reconstruction or other benefits**” from any **official authority can be sentenced to a maximum of two years imprisonment** and a **fine will be imposed on the person**.

(iv) For refusing to do duties

- In case of **refusal or withdrawal of any officer** who has been tasked with **any duty under the Act**, the officer **can be sentenced to imprisonment extending to one year**.
- However, those **who have written permission of the superior or any lawful ground are exempt from such punishment**.
- **A case cannot be initiated without the explicit sanction from the state or central government.**

(v) For refusing to help

- Any authorized authority can requisitely assign under the Act resources like **persons and material resources, premises like land or building, or sheds and vehicles for rescue operations**.
- Though there is a **provision for compensation under the Act**, any person who disobeys such an order can be **sentenced to imprisonment up to one year**.

Topic- GS Paper 2–Governance
Source- Indian Express

‘Empowered group’ under NITI Aayog

Why in news?

- The government has recently set up an empowered group to undertake discussions with the private sector and international organizations on actions planned and challenges faced in dealing with COVID-19.

About the Empowered Group

- The Empowered group is chaired by NITI Aayog CEO Amitabh Kant.

Objective

- This Empowered Group will **address the issues pertaining to identification of problems**, effective solutions and formulation of plans with three groups of stakeholders.

These stakeholders are

- The **UN agencies, World Bank, Asian Development Bank**
- **Civil Society Organizations** and development partners
- Industry associations – **CII, FICCI, ASSOCHAM, NASSCOM**

Topic- GS Paper 2–Governance
Source- Indian Express

Lifeline Udan flights

Why in news?

- The Ministry of Civil Aviation has launched “**Lifeline Udan**” as a part of India’s war against the novel Coronavirus pandemic

About the Lifeline Udan flights initiative

- Under this initiative, flights are being operated for the **movement of essential and medical supplies across the nation.**
- The flights, under Lifeline Udan, are being **coordinated by a control room set up under the direct supervision of the Ministry of Civil Aviation** leadership.
- The cargo of Lifeline Udan includes **COVID-19 related** medical equipment, reagents, enzymes, Personal Protective Equipment (PPE), testing kits, masks, gloves as well as other accessories required by Corona Warriors.

Special Focused

- The **North East Region, island territories** and the **hill states** are being given special focus.
- Lifeline Udan connects **North East Region** through **regional hubs in Kolkata, Guwahati and Bagdogra.**

Topic- GS Paper 2–Governance

Source- The Hindu

‘Caruna’- Civil Services Associations Reach to Support in Natural Disasters

Why in the news?

- Recently **Officers of Central Civil Services**, including the **Indian Administrative Service** and the **Indian Police Service**, have formed an initiative called 'Caruna' to **support and supplement** the government’s efforts in fighting coronavirus.



CARUNA

CIVIL SERVICES ASSOCIATIONS REACH
TO SUPPORT IN NATURAL DISASTERS

How will it impact?

- The **Civil Service associations-** IFS, IPS, IFoS, IRS (IT), IRS (C&E), IRPS, IRTS, IPOS, IA&AS, IDES, ICAS, IIS & IAS form CARUNA - Civil services

Association Reach to Support in Natural Disasters - a **technology platform** to support Govt in the fight against COVID-19.

- Caruna will support and supplement laudable government initiatives on a real time basis, besides sharing relevant information with Ministry of Health and Family Welfare and also with MyGov platform, the task forces set up by the central and state governments in the fight against COVID19 will assist in coordinated manner.
- The Caruna platform has already created a 10-day action plan for operationalisation of support to both governments and field-level functionaries.
- It has created **themes** (called threads on slack- Slack is a proprietary instant messaging platform developed by Slack Technologies) on
 - a. capacity building/training support to healthcare workers etc.,
 - b. Database collation of health equipment manufacturers etc.,
 - c. Mitigation of migration-related issues and temporary shelters
 - d. Working on food security related issues etc., with specific responsibilities being assumed by dedicated teams of members, according to its website.

About the initiative Caruna

- e. The '**Caruna**' is a collaborative platform. The acronym '**Caruna**' stands for **Civil Services Associations Reach to Support in Natural Disasters**.
- f. It represents a **collaborative platform**, on which **civil servants, industry leaders, NGO professionals** and **IT professionals** among others have come together to contribute their time and abilities.
- g. It has also sought Government orders. SoPs, protocols, best practices, IEC material and inspiring stories from various stakeholders.

Topic- GS Paper 2–Governance

Source- PIB

Members of Parliament Local Area Development (MPLADS) Scheme

Why in the news?

- Cabinet has recently approved **Non-operation of MPLADS for two years (2020-21) and 2021-22) for managing COVID 19**.
- These funds will be used to **strengthen the Government's efforts** in managing the challenges and **adverse impact of COVID19** in the country.

About Members of Parliament Local Area Development (MPLADS) Scheme

- The **Members of Parliament Local Area Development Scheme (MPLADS)** was launched on **23rd December 1993**.
- Initially, the **Ministry of Rural Development** was the **Nodal Ministry** for this scheme. Still, in **October 1994** this scheme was

transferred to the **Ministry of Statistics and Programme Implementation** as a **nodal agency**.



The salient features of the MPLAD Scheme include:

- It is a **Central Plan Scheme** fully funded by the **Government of India** under which funds are released in the form of **grants-in-aid directly** to the **district authorities**.
- The funds released under the **Scheme** are **non-lapsable**, i.e. the **entitlement of funds not released** in a particular year is carried forward to the subsequent years, subject to eligibility.
- Under MPLADS, the role of the **Members of Parliament** is limited to recommend works.
- After that, it is the **responsibility of the district authority to sanction, execute and complete the works** recommended by **Members of Parliament within the stipulated time**.

Note:

- The elected Lok Sabha Members can recommend works in their **respective constituencies**.
- The **elected members of the Rajya Sabha** can recommend works anywhere in the state from which they are elected.
- **Nominated Members of the Lok Sabha and Rajya Sabha** can recommend **works for implementation**, anywhere in the country.

Topic- GS Paper 2–Governance

Source- The Hindu

WalkMe Platform

Why in the news?

- To utilize the **technology efficiently and productively**, Microsoft has partnered with the **leading digital adoption platform WalkMe** to **help increase Dynamics 365 adoption** among enterprises.



How does this Platform work?

- The companies will now be able to allow enterprise organizations to easily deploy **WalkMe's Digital Adoption Platform** on top of **Microsoft Dynamics 365** without an extension.
- **WalkMe offers an all-round solution** to leading organizations worldwide, helping them **ensure employee and customer user adoption** and securing a smooth digital transformation for the organization.

It will make it easier for **sales to increase productivity and efficiency** and to realize the **full potential of Dynamics 365** within their **technology stack**.

Topic- GS Paper 2–Governance

Source- PIB

The Salaries, Allowances and Pension of Members of Parliament (Amendment) Ordinance, 2020

Why in the news?

- The **Union Cabinet promulgated an ordinance to reduce the salaries of all the country's Member of Parliaments (MPs) by 30 percent for one year to raise resources for the fight against the novel coronavirus.**
- The **pay cuts in MPs will be implemented by amending the Salaries, Allowances and Pension of Members of Parliament Act, 1954.**

Amendment of section 3

- For this purpose, **a new sub-section has been inserted in Section 3 of 'The Salaries, Allowances and Pension of Members of Parliament Act, 1954'** to reduce the **salaries payable to Lok Sabha and Rajya Sabha MPs by 30%.**
- This will be **applicable for one year from April 1, 2020.**

Constitutional Provision of Article 123

- **Article 123** of the Constitution grants the **President certain law-making powers to promulgate Ordinances** when either of **the two Houses of Parliament** is not in session and hence it is **not possible to enact laws in the Parliament.**
- Following are limitations **exist concerning the Ordinance making power** of the executive

- a. **The legislature is not in session:** The President can only promulgate an Ordinance when either of the two Houses of Parliament is not in session.
- b. **Immediate action is required:** The President cannot **promulgate an Ordinance unless he is satisfied** that there are circumstances that require taking 'immediate action.'
- c. **Parliamentary approval during the session:** Parliament must approve ordinances **within six weeks** of reassembling, or they shall cease to operate.
 - They will also **cease to operate in case resolutions disapproving the Ordinance** are passed by **both the Houses**.

Minister of Parliament Local Area Development Scheme (MPLADS)

- The Cabinet also gave the go-ahead to the **temporary suspension of the MPLADS fund** (Minister of Parliament Local Area Development Scheme) **for two years (2020-21 and 2021-22)**.
- The suspension of the MPLADS fund for two years implies that the **amount which works out to a total of Rs. 7,900 crores will be given to the Consolidated Fund of India**.

What is it?

- It was launched in **December 1993**, to provide a mechanism for the **Members of Parliament** to recommend **works of developmental nature** for **creation of durable community assets** and provision of basic facilities including **community infrastructure**, based on locally felt needs.
- The **MPLADS is a Plan Scheme** fully funded by **Government of India**.
- The annual **MPLADS fund entitlement per MP constituency is Rs. 5 crores**.

Special focus:

- MPs are to recommend every year, works costing at least **15 per cent of the MPLADS entitlement for the year for areas inhabited by Scheduled Caste population** and **7.5 per cent for areas inhabited by Scheduled Tribe population**.
- To **encourage trusts and societies for the betterment of tribal people**, a ceiling of **Rs. 75 lakh is stipulated for building assets by trusts** and societies subject to conditions prescribed in the scheme guidelines.

Recommendation of works:

- The **Lok Sabha Members** can recommend **works in their respective constituencies**.
- The **elected members of the Rajya Sabha** can recommend **works anywhere in the state** from which they are elected.
- **Nominated members of the Lok Sabha and Rajya Sabha** may select **works for implementation anywhere in the country**.

Topic- GS Paper 2–Governance

Source- PIB

Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)

Why in the news?

- **Pharmacists**, popularly known as "**Swasth Ke Sipahi**", of **Pradhan Mantri Jan Aushadhi Kendra**, are delivering essential services and medicines at the doorstep of patients and elderly under Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP).

About Pradhan Mantri Bhartiya Janaushadhi Pariyojana

- Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) is a **campaign launched by the Department of Pharmaceuticals to provide quality medicines at affordable prices to the masses**. PMBJP stores have been set up to **provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs**.
- The **Department of Pharmaceuticals** launched it in **November 2008** under the name **Jan Aushadi Campaign**.
- **Bureau of Pharma PSUs of India (BPPI)** is the **implementation agency for PMBJP**.

Vision

It envisages to bring down the **healthcare budget expenditure** by a citizen. It seeks to ensure **quality generic medicines at affordable prices**.

Mission

- Create awareness among the **public regarding generic medicines**.
- Create demand for generic medicines **through medical practitioners**.
- Create awareness through **education and awareness program** that **high price need not be synonymous with high quality**.
- Provide all the commonly used **generic medicines covering all the therapeutic groups**.
- Provide all the **related health care products** too under the scheme.

Objective

- Making quality medicines available at affordable prices for all, mainly the poor and disadvantaged, through exclusive outlets, "**Pradhan Mantri Bhartiya Janaushadhi Kendras**", to **reduce out of pocket expenses** in the healthcare of a citizen.
- It ensures availability of "**Quality generic Medicines at Affordable Prices**".

Topic- GS Paper 2–Governance

Source- PIB

World Health Day 2020

Why in the news?

- The **World Health Organization (WHO)** observes **World Health Day on 7 April** every year to acknowledge the contribution of doctors, nurses and other health workers.

- **WHO chose the year 2020** as the "Year of the Nurse and Midwife" because of the **contribution which nurses and midwives** are making in making the world a **healthier place**.
- The theme for **World Health Day 2020** is to **support nurses and midwives**.

World Health Day 2020: History

- WHO started the **World Health Day campaign in 1950** with the **motive of promoting awareness** about **physical and mental health** and offer the **necessary support**. The main aim is to **create awareness of a specific health theme** to highlight a priority area of concern for the **World Health Organization**.

Note: The WHO also released a '**State of the World's Nursing Report 2020**' which provides the "**most up-to-date evidence on and policy options for the global nursing workforce**". The report also makes a case for **higher investment in nursing education, jobs and leadership**.

Topic- GS Paper 2–Governance
Source- The Hindu

Samadhan -MHRD Innovation Cell

Why in News?

- Amid the coronavirus outbreak, the **Ministry of Human Resource Development (MoHRD)** launched "**Samadhan**" to **fight against COVID-19**.



MHRD Mega Online Challenge

SAMADHAN

TRACK 1

Ideate-Simulate-Win

Inviting student innovators, researchers, educators and startups to share their ideas (design/simulation mandatory) to solve the challenges posed by the pandemic.

TRACK 2

Validate-Pitch-Deploy

Inviting student innovators, researchers, educators and startups with a working prototype of a technologically advanced solutions which can be validated & deployed immediately to support the fight against the the pandemic.

About Samadhan

- It is an **initiative of the Innovation Cell of the MoHRD and All India Council for Technical Education** in collaboration with **Forge and InnovatioCuris**.
- It is aimed at **testing the ability of students to innovate**.
- Under the "**Samadhan**" challenge, the students and faculty will be motivated for doing new experiments and **discoveries and provide** them with a **strong base leading to a spirit of experimentation and discovery**.

Topic- GS Paper 2–Governance

Source- TOI

SAFE PLUS Scheme

Why in the news?

- The **Small Industries Development Bank of India (SIDBI)** has launched the **SIDBI Assistance to Facilitate Emergency response against Coronavirus (SAFE PLUS) Scheme**.

Objective

- It aims to **provide financial assistance to Micro, Small and Medium Enterprises (MSMEs)** that are involved in **making essential items** such as **manufacturing of hand sanitizers, masks, gloves, headgear, bodysuits, shoe-covers, ventilators and goggles to combat COVID-19 pandemic**.
- It seeks to ensure quick release of funds with minimum formalities and with no collateral property requisite.



How will it be beneficial?

- Emergency working capital of up to **one crore rupees** can be availed by **small and medium enterprises (MSMEs)** against their **confirmed government orders**.
- The **SIDBI Assistance to Facilitate Emergency response against Coronavirus - SAFE PLUS** will be offered **collateral-free and disbursed within 48 hours**.
- Loans will be offered at an interest rate of **five per cent**.

The **limit of SAFE loans** announced a few days back has been **enhanced from Rs. 50 lakhs to 2 crores**.

Eligibility Criteria

- a. **SAFE Scheme:** Both, existing **SIDBI customers** and **new to SIDBI customers** can avail of this loan.
- b. **SAFE Plus Scheme:** MSMEs executing government orders, which are eligible under the respective State Government's special policy package for interest subsidy/subvention or capital subsidy can avail a loan up to Rs. 2 crores.
- c. **SMILE:** SIDBI's existing customers or new to SIDBI customers, both are covered, including greenfield.

What is covered?

- Production or service of **all medical products** being **procured by the respective State Government** under the **fight against Covid-19**.
- The loans can be used to **acquire equipment, plant and machinery, or other assets** including the **purchase of raw material** required for production or service or to ramp up supplies of these products **to meet additional emergencies**. _

What is not covered?

- Greenfield projects, items not directly related to Covid19, Traders etc.

Comparative aspects:

SAFE	SAFE Plus	SMILE
To finance MSMEs who are manufacturing any products or providing any services related to fighting coronavirus such as permitted drugs, sanitisers, masks, bodysuits, gloves, shoe covers, ventilators, testing labs, etc. The list is indicative.	To provide emergency working capital to MSMEs, which are producing goods and services directly related to fighting the coronavirus, against specific orders form the government/government agencies.	A special window available for financing the healthcare sector including hospitals, nursing home, clinics, etc. for their requirements related to fighting Corona Virus.
All existing MSMEs – whether SIDBI's existing customers or new to SIDBI customers.		SIDBI's existing customers or new to SIDBI customers, both are covered, including greenfield.
No collateral		As per loan policy
Within 48 hours		5 days
Note: Withdrawals under the scheme shall be valid till 30 September 2020.		

About Small Industries Development Bank of India

- The **SIDBI** act as the **Principal Financial Institution** for **Micro, Small and Medium Enterprise (MSME) sector** as well as for **coordination of functions of institutions** engaged in **similar activities**.

- It was **established on April 2, 1990**, through an **Act of Parliament** (thus, it is a **statutory body**).
- It is **headquartered in Lucknow, Uttar Pradesh**.
- It aims to **facilitate and strengthen credit flow** to **MSMEs** and address both **financial and developmental gaps** in **MSME eco-system** across the country.
- Currently, the **shares of SIDBI** are held by the **Central Government** and **29 other institutions**, including **public sector banks (PSBs)**, **insurance companies** owned and controlled by **Central Government**.

Topic- GS Paper 2–Governance

Source- AIR

Integrated Government Online Training (iGOT) Portal

Why in the news?

- The **Government of India** has launched a **training module for the management of COVID-19** named "**Integrated Government Online training**" (**iGOT**) portal on **DIKSHA** platform.



About Integrated Government Online Training (iGOT) portal

- It is **aimed at catering the training needs** of the **frontline workers fighting the COVID-19 pandemic**.
- Courses on **iGOT** have been launched for doctors, nurses, paramedics, hygiene workers, technicians, Auxiliary Nursing Midwives (ANMs), State Government officers, civil defence officers, various police organisations, National Cadet Corps (NCC), Nehru Yuva Kendra Sangathan (NYKS), National Service Scheme, Indian Red Cross Society, Bharat Scouts and Guides and other volunteers.
- It is also **focused on enhancing the capacity building** of **frontline workers** to handle the **pandemic efficiently**.

About DIKSHA platform

- It was **launched in 2017** as an initiative of the **Ministry of Human Resource Development**.
- It is **Digital Infrastructure Knowledge Sharing platform** for **education and training**.
- It is equipped with **explanation, practice and assessment content** linked to **NCERT and state curriculum**.
- The portal will **record complete work and accomplishment of teachers in educational institutes** from **start to endpoint** till their retirement.
- It serves as **National Digital Infrastructure for Teachers**.

Topic- GS Paper 2–Governance

Source- PIB

Operation SHIELD

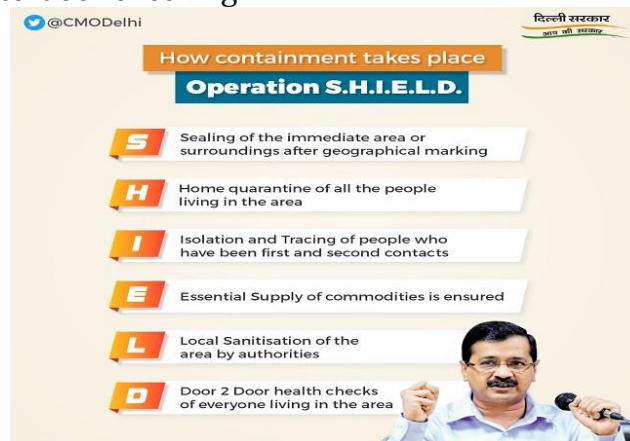
Why in the news?

- Delhi Chief Minister has recently announced a comprehensive plan **named 'SHIELD'** to **control the spread of coronavirus** in the national capital.

What does it stand for?

The acronym SHIELD can be elaborated as follows:

- 'S' stands for Sealing of localities
- 'H' for Home quarantine
- 'I' for Isolation and tracing
- 'E' for Essential supplies
- 'L' for to Local sanitization,
- 'D' for Door-to-door checking



About the SHIELD Plan

- The Operation Shield will be **implemented in 21 localities** identified as **containment zones in Delhi**.
- It is a comprehensive plan named 'SHIELD' to control the spread of coronavirus in the national capital.
- **Sealing of localities:** People from a locality will not go to other areas and vice-versa.
- **Home quarantine:** People will remain in their homes only.
- **Isolation and tracing:** COVID-19 patients will be isolated, and people whom they have met will be traced, identified and will be isolated too.

- **Essential supplies:** The Delhi Govt will ensure door to door delivery of essential services.
- **Local sanitization:** Local areas will be disinfected on a regular basis.
- **Door-to-door checking:** The govt will ask every family whether there is any person having symptoms of coronavirus. If any such person is found, their samples will be taken, and further procedure will be followed.

Topic- GS Paper 2–Governance

Source- Business Standard

Ro (R zero) or reproduction number

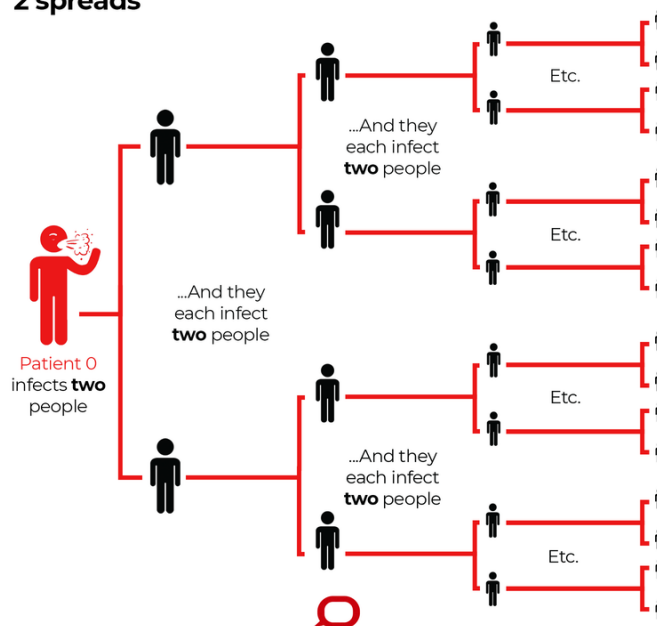
Why in the news?

- Researchers are recently calculating **mathematical figure 'Ro'** to understand the nature of **transmission of Coronavirus**.

What is Basic reproduction number (Ro)

- It **measures the rate at which a virus is transmitted based on the average number of people** who will contract the virus from a person who has already been infected.
- **Ro= new infections/existing infections**
- When the **Ro is 1**, it means the **number of infected persons in a population is constant**. For every person who is cured of the disease or dies due to it, there will be one new case in the population.
- By this logic, **the ideal scenario is when the Ro is below 1**, means the infection is transmitted to fewer people.
- When such a rate is maintained over a considerable period of time, the disease is eradicated.

How a virus with a reproduction number (Ro) of 2 spreads



- **World Health Organization (WHO)** has estimated the **Ro** for coronavirus at **1.4 to 2.5**.

- The same strategy has been used in the past for **eliminating diseases such as polio and smallpox**. **Note:** The **higher the Ro**, the **more contagious the infection**.

Topic- GS Paper 2–Health and Issues

Source- Indian Express

Minimum Support Price (MSP) for Minor Forest Produces

Why in the news?

- **Tribal Cooperative Marketing Development Federation of India (TRIFED)** has asked the **State Nodal Departments and Implementing Agencies** to initiate **procurement of Minor Forest Produces (MFPs)** at **Minimum Support Price (MSP)** from the available funds under **MSP for MFP Scheme**.

About MSP for MFP scheme:

- The Minimum Support Price (MSP) for the MFP scheme was **started by the Government of India in 2013** to ensure **fair and remunerative prices** to MFP gatherers.
- It is a **Central Sector scheme**. Under the scheme "**Mechanism for Marketing of Minor Forest Produce** through Minimum Support Price and **development of Value chain for MFP**."
- **Minimum Support Price (MSP) for Minor Forest Produce (MFP)** has been fixed for select MFP.
- The Scheme is designed as a **social safety net** for **improvement of livelihood of MFP gatherers** by providing them with a fair price for the MFPs they collect.

Objectives of the Schemes

- To **provide a fair price to the MFP gatherers** for the produce collected by them and enhance their income level
- To **ensure sustainable harvesting** of MFPs.
- The Scheme will have a huge social dividend for MFP gatherers, the majority of whom are tribals.

Implementation

- The Scheme has been **implemented in eight States** having **Schedule areas** as listed in the **Fifth Schedule of the constitution of India**.
- **Ministry of Tribal Affairs, Government of India**, is the Nodal Ministry for implementation of the Scheme.
- From **November 2016**, the Scheme is **applicable in all States**.
- **TRIFED acts as the Central Nodal Agency** for implementation and monitoring of the Scheme through State level implementing agencies.
- Further, the **State designated agencies** will undertake procurement of **notified MFPs directly from MFP gatherers** at haats **notified procurement centres** at **grass root level** at **prefixed Minimum Support Price**.

List of Commodities covered under Minor Forest Produce

Minimum Support Price Scheme includes the following non-nationalized / non-monopolized MFPs.



- Nearly fifty items are covered under the list:

Tamarind (with seeds), Wild Honey, Gum Karaya, Karanj seeds, Sal seed, Mahua seed, Sal leaves, Chironji pods with seeds, Myrobalan, Lac, Kusum seeds, Neem seeds, Puwad seeds, Baheda, Hill Broom Grass, Dry Shikakai Pods, Bael pulp (Dried), Nagarmotha, Shatavari Roots (Dried), Gudmar/Madhunashini, Kalmegh, Tamarind (De-seeded), Guggul, Mahua Flowers (dried), Tejpatta (dried), Jamun dried seeds, Dried Amla Pulp (deseeded), Marking Nut, Soap Nut (dried), Bhava Seed (Amaltas), Arjuna Bark, Kokum (Dry), Giloe, Kaunch Seed, Chirata, Vaybidding/Vavding (dry seeds), Vaybidding/ Vavding (dry seeds) Dhavaiphool dried flowers, Nux Vomica, Ban Tulsi Leaves (dried), Kshirni, Bakul (dried bark), Kutaj (dried bark), Noni / Aal (dried fruits), Sonapatha/Syonak pods, Chanothi seeds, Kalihari (dried tubers), Makoi (dried fruits), Apang plant, Sugandhmantri roots/tubers.

Note: It is important to have a glance at the list as UPSC sometimes frames questions on commodities included in MSPs.

Topic- GS Paper 2–Governance

Source- PIB

[YUKTI Portal](#)

Why in the news?

- Union Human Resource Development Minister has launched a web-portal **YUKTI (Young India Combating COVID with Knowledge, Technology and Innovation)** in New Delhi.

About the YUKTI Portal

- It's a **unique portal and dashboard to monitor the initiatives of HRD Ministry – in academics, research and social initiatives – taken in the wake of COVID-19.**
- This portal will **help in critical issues related to student promotion policies, placements related challenges and physical and mental well-being of students** in these challenging times.



- The portal will also **allow various institutions to share their strategies** for various challenges because of coronavirus.
- It will also establish a **two-way communication channel between the Ministry of HRD and the institutions** so that the Ministry can provide the **necessary support system** to the institutions.

Topic- GS Paper 2–Governance

Source- The Hindu

Red, orange and green zones under the lockdown

Why in the news?

- The **Central government** is likely to **categorize the country into red, orange and green zones** depending on the number of **Covid-19 cases during the proposed extended period of lockdown.**

These zones can be explained as follows:

- **Red zone** It is a zone where a **sizeable number of cases** have been detected or areas which were **declared hotspots.**
- **No activity will be allowed** in the red zone
- **Orange zones**
- It is a **zone where only a few cases were detected** in the past with **no increase in the number of cases.**
- In these zone, **minimal activities like opening of limited public transport, harvesting of farm products** will be allowed in orange zones.
- **Green Zone**
- It is a zone where there were **none of the cases concerning the viral outbreak.**
- It will see **further relaxation such as MSME industries** will be allowed to **function with in-house lodging facilities for employees with proper maintenance of social distance.**

Topic- GS Paper 2–Governance

Source- HT

Market Intervention Scheme (MIS)

Why in the news?

- The **Central government** has asked the **state governments to procure perishable agricultural and horticultural items** from the farmers under the **Market Intervention Scheme (MIS)**.

About the Market Intervention Scheme

- As the name suggests, MIS is a **Non-Plan Scheme**, implemented **on the request of State Governments**.
- MIS is an **ad-hoc scheme** under which are **included horticultural commodities and other agricultural commodities which are perishable**, and which are **not covered under the minimum price support scheme**.
- It is a **price support mechanism** implemented for **procurement of perishable and horticultural commodities** in the event of a **fall in market prices**.
- Market Intervention Scheme **works similarly to the Minimum Support Price based procurement mechanism** for food grains **but is an ad-hoc mechanism**.

Objective of the MIS:

- To intervene the market **to protect the growers of their commodities from making distress sale** in the event of a **bumper crop during the peak arrival period** when the prices tend to fall below economic levels and cost of production.

Salient features

- The Scheme is implemented when there is at least a **10% increase in production or a 10% decrease in the ruling rates over the previous normal year**.
- The **Department of Agriculture & Cooperation** is implementing the Scheme.
- The central share of losses as per the guidelines of MIS is released to the State Governments/UTs, for which MIS has been approved, based on specific proposals received from them.
- A **pre-determined quantity at a fixed Market Intervention Price (MIP)** is procured by the National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED).
- Further, the extent of the total amount of loss shared is restricted to 25% of the total procurement value, which includes the cost of the commodity procured plus permitted overhead expenses.
- NAFED as the Central agency and the agencies designated by the state government for a fixed period or till the prices are stabilized above the MIP whichever is earlier.
- The area of operation is restricted to the concerned state only.

Eligibility to avail MIS

- The **amount of loss is shared on 50:50 basis** between the **Central government and the State government** (on **75:25 basis in case of**

North-Eastern States) and is restricted to 25 %t of the total procurement value.

- In other words, the proposal of MIS is approved on the specific request of State/Union Territory (UT) Government, if the **State/UT Government** is ready to **bear 50% loss (25% in case of North-Eastern States)**, if any, incurred on its implementation.

Commodities covered under the MIS

- The MIS has been implemented in case of commodities:
Apples, kinnoo/malta, garlic, oranges, galgal, grapes, mushrooms, clove, black pepper, pineapple, ginger, red-chillies, coriander seed, isabgol, chicory, onions, potatoes, cabbage, mustard seed, castor seed, copra, palm oil etc.
- The States/UTs, where MIS is implemented are:
Himachal Pradesh, Haryana, Punjab, Andhra Pradesh, Maharashtra, Karnataka, Rajasthan, Gujarat, Kerala, Jammu and Kashmir, Mizoram, Sikkim, Meghalaya, Tripura, Uttar Pradesh, West Bengal, Madhya Pradesh, Andaman and Nicobar Islands, Lakshadweep etc.

Comparative aspects

Particulars	Minimum Support Price	Market Intervention Scheme
Commodities included	Fixed, presently 24	Not fixed
Regularity	Regularly announced every year	Not regular but ad-hoc
Support Price	Decided by GoI in the recommendation of CACP	Decided by Central or State Govt
Applicability	Throughout the country	Specified limited markets of the states
Time of Operation	Throughout the year	Specified period
Incidences of losses if any	Borne by Central government	Equally shared by the central and state governments
Infrastructure required for implementation	Large scale	Limited Scale

Topic- GS Paper 2–Governance

Source- PIB

CollabCAD launched in ATL schools

Why in the news?

- Recently, **Atal Innovation Mission, NITI Aayog and National Informatics Centre (NIC)** jointly launched **CollabCAD**.

About CollabCAD

- It is a **collaborative network, computer enabled software system**, providing a total engineering solution from **2D drafting & detailing to 3D product design**.
- **The aim** of this initiative is to **provide a great platform** to students of **Atal Tinkering Labs (ATLs)** across the country to **create and modify 3d designs** with free flow of creativity and imagination.
- This software would also **enable students to create data** across the network and concurrently **access the same design data for storage and visualization**.

About Atal Innovation Mission

- Atal Innovation Mission housed at **NITI Aayog** is the **Government of India's flagship initiative** to **promote a culture of innovation and entrepreneurship**.
- **At the school level**, AIM is establishing ATLs in all districts across India.
- ATLs established across India, provide **tinkering spaces to children to hone their innovative ideas** and creativity.

Topic- GS Paper 2–Governance

Source- The Hindu

Amendments to Environment Impact Assessment (EIA)

Why in the news?

- To ramp up **availability/production of various drugs against COVID-19**, **Ministry of Environment** has amended **Environment Impact Assessment (EIA) Notification 2006**.



Highlights of the amendments

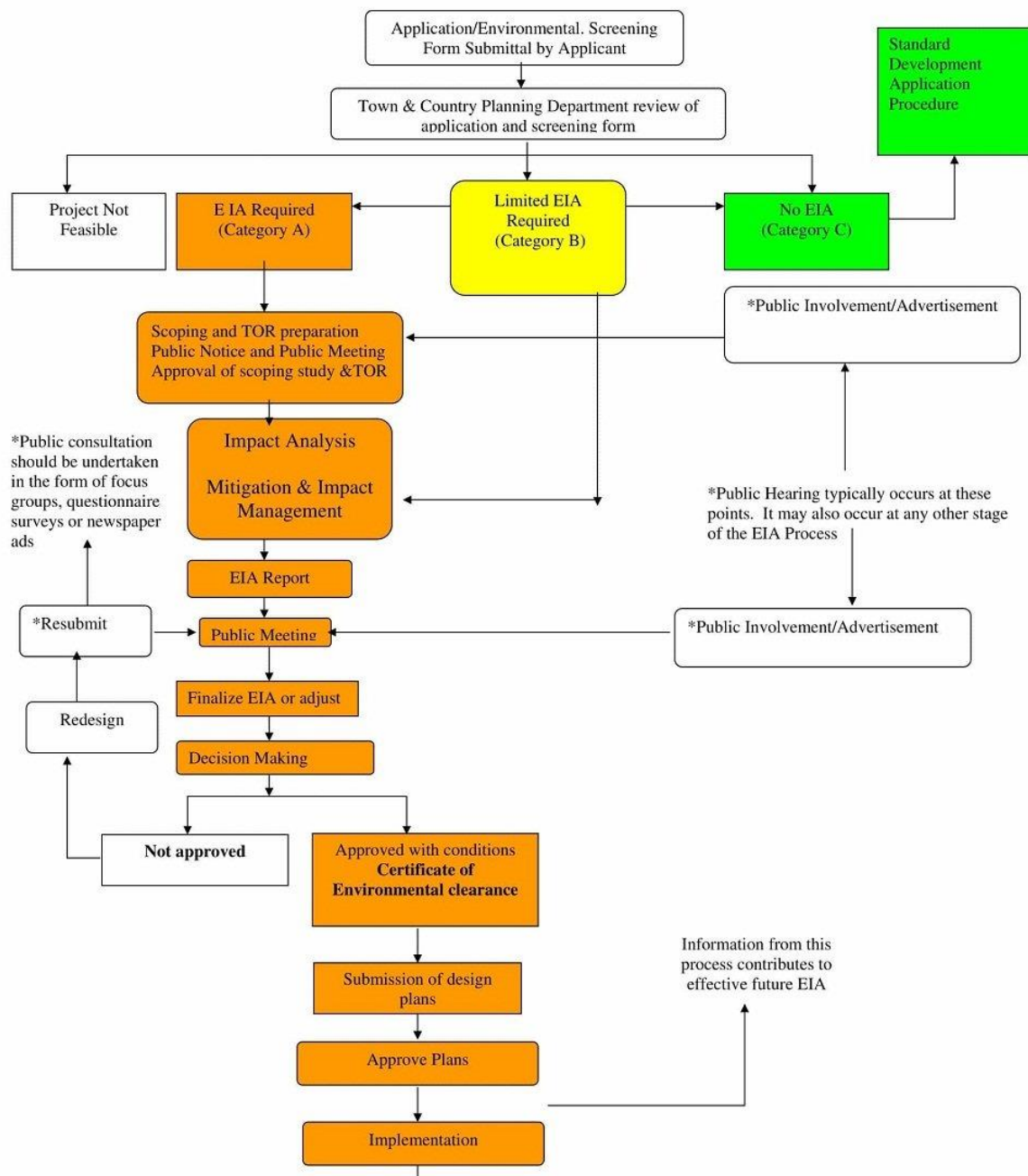
- All projects or activities in respect of **bulk drugs and intermediates, manufactured for addressing various ailments**, have been **re-categorized from the existing Category 'A' to 'B2' category**.
- Projects falling under **Category B2** are **exempted from the requirement of collection of Baseline data, EIA Studies and public consultation**.

- The re-categorization of such proposals has been done to **facilitate decentralization of appraisal to State Level to fast track the process.**
- This amendment applies to **all proposals received up to 30th September 2020.**

What are the important procedural changes in EIA?

- **Screening:** It is the first and most straightforward process in the project that do not require EIA.
- **Identification:** A project is defined and identified; all aspects are taken into account from range to the reach of the project. By doing so, the possible zone of environmental impacts is considered.
- **Scope:** After a preliminary assessment, discussions with developers, investors and regulatory bodies are carried out, and issues are addressed diligently.
- **Impact Prediction:** Both qualitative and quantitative impacts are considered, such as changes in air quality, noise levels, impact on wildlife, impact on biodiversity, impact on local communities etc.
- **Mitigation:** Measures are taken to avert the negative impact if any, and scopes concerning the project. This is done in preventive, corrective and compensatory means.
- **Review:** Detailed project report and questionnaire filled therein, is taken into account with due care.

Generalized EIA Process Flowchart



Topic- GS Paper 2–Governance
Source- PIB

National Legal Services Authority

Why in the news?

- The **National Legal Services Authority (NALSA)** has released around **11,077 undertrials from prisons nationwide as part of the mission to decongest jails** following the COVID-19 pandemic.

About NALSA

- It has been constituted under the **Legal Services Authorities Act, 1987**, to **provide free legal services to weaker sections of society**. The aim is to **ensure that opportunities for securing justice are not denied to any citizen by reasons of economic or other disabilities**.

Composition

- As per **section 3(2) of the Legal Service Authorities Act**, the **Chief Justice of India** shall be the **Patron-in-Chief**.
- **Second senior-most judge of the Supreme Court of India** is the **Executive-Chairman**.

Topic- GS Paper 2–Governance

Source- The Hindu

Fit India Active Day Programme

Why in the news?

- **Fit India and CBSE will organize first-ever live fitness sessions for school students** in the **second phase of lockdown**.
- The live sessions will **cover all aspects of children’s fitness** from **daily workouts to yoga, nutrition to emotional well-being**.

About Fit India Movement

- It was **launched in 2019** by the **Ministry of Youth Affairs and Sports** to encourage people to **inculcate physical activity and sports** in their everyday lives.
- **Fit India** is the Government of India’s **flagship fitness movement**, has launched the **Fit India Active Day Program**.
- **Fit India, in partnership with Central Board of Secondary Education (CBSE)** is organizing a **live session for school students**, which is a new series of fitness sessions.



- The **online lessons** commenced on 15th April 2020 at 9.30 am and would be available on **Facebook, and Instagram handles of Fit India and CBSE**, as well as on YouTube.
- During the program **guidelines of Ministry of AYUSH** to stay healthy were shared with students.

The lessons comprise **daily workouts and information on yoga, nutrition, and emotional well-being**.

Topic- GS Paper 2–Governance

Source- AIR

Kisan Rath Mobile App

Why in the news?

- **Ministry of Agriculture and Farmers Welfare** has recently **launched Kisan Rath Mobile App to facilitate transportation of food grains and perishables** during lockdown.

About the Kisan Rath Mobile App

- This **mobile application is developed by the National Informatics Centre** to ensure farmers and traders are able to find **transport for Agriculture and Horticulture produce**.
- It will **facilitate farmers, FPOs and Cooperatives in the country** to have the **choice to find a suitable transport facility to transfer their agriculture produce** from farm gate to markets.
- The app will **facilitate farmers and traders** in searching for **transport vehicles for primary and secondary transportation** for movement of agriculture and horticulture produce.
 - a. The **primary transportation** include **movement from farm to mandis**, food produce collection centre and warehouses.
 - b. The **secondary transportation** would include **movement from mandis to intra-state and inter-state mandis**, processing units, railway station, warehouses and wholesalers.



Highlights of the App functioning

- The farmer, FPOs, buyer/ trader will place a requirement for transportation which will be disseminated to transport aggregators in the market.
- The transport aggregators will then interface with truckers and fleet owners for obtaining a competitive quote.
- Then the quote by truckers will be passed back to the consignor.
- the consignor will directly negotiate offline with the trucker and finalize the deal.
- The consignor can also share their feedback and give ratings to the truckers on the app.
- The rating would help the consignors in the selection process of logistics service providers in future.

Topic- GS Paper 2–Governance

Source- AIR

Government nod mandatory for FDI from neighboring countries

Why in the news?

- The **Union government** recently made its **prior approval mandatory for foreign investments** from countries that **share land border with India** to curb "**opportunistic takeovers**" of domestic firms following the **Covid-19 pandemic**, a move which will **restrict FDI from China**.
- Countries which **shares land borders with India** are **China, Bangladesh, Pakistan, Bhutan, Nepal, Myanmar, and Afghanistan**.



Changes adopted by government

- According to **Department for promotion of Industry and Internal Trade (DPIIT)**, an entity of a country, which **shares land border with India** or where the **beneficial owner of an investment into India** is situated in or is a citizen of any such country, **can invest only under the government route**.
- In the event of the **transfer of ownership of any existing or future FDI** in an entity in India, **directly or indirectly**, resulting in the **Govt approval must for all FDIs** from neighboring countries.

- **A citizen of Pakistan or an entity incorporated in Pakistan can invest, only under the Government route,** in sectors/activities other than defense, space, atomic energy and sectors/activities prohibited for foreign investment.

FDI in India

- FDI is an **important monetary source** for **India's economic development**. Economic liberalization **started in India** in the **wake of the 1991 crisis** and since then, **FDI has steadily increased** in the country.
- India is **globally ranking number one** in the **Greenfield FDI ranking**.

Routes through which India gets FDI:

a. What are the provisions of an 'Automatic route'?

- The **non-resident or Indian company** does not **require prior nod of the RBI or government of India for FDI**.
- FDI is **allowed through automatic route** in **most of the sectors**, certain areas such as **defence, telecom, media, pharmaceuticals and insurance, government approval is required** for foreign investors.

b. What is the Government route?

- The government's approval is mandatory.
- The company will have to **file an application through Foreign Investment Facilitation Portal**, which facilitates **single-window clearance**.
- The application is then **forwarded to the respective ministry**, which will **approve/reject the application** in consultation with the **Department for Promotion of Industry and Internal Trade (DPIIT)**, Ministry of Commerce.
- **DPIIT** will issue the **Standard Operating Procedure (SOP)** for processing of applications under the **existing FDI policy**.

Sectors where FDI prohibited:

- There are **nine sectors where FDI is prohibited** and that includes lottery business, gambling and betting, chit funds, Nidhi Company, real estate business, and manufacturing of cigars, cheroots, cigarillos and cigarettes using tobacco.

Topic- GS Paper 3–Economics
Source- The Hindu

A, E, I, O, U: A new business and work culture

Why in the news?

- Prime Minister Narendra Modi with his post on LinkedIn, emphasized that the **new business and work culture** should be redefined on the vowels of **A, E, I, O, U** will become **essential ingredients of any business model in the post-COVID world.**



- The acronym of ‘**A, E, I, O, U**’ can be elaborated as:
A - Adaptability
E - Efficiency
I - Inclusivity
O - Opportunity
U – Universalism
- He also emphasized on the **need to develop business models** that attach **primacy to care for the poor, the most vulnerable as well as the planet.**
 - a. Adaptability:** The need of the hour is to think of business and lifestyle models that are easily adaptable. Embracing digital payments is a prime example of adaptability. Shop owners big and small should invest in digital tools that keep commerce connected, especially in times of crisis.
 - **India** is already witnessing an **encouraging surge in digital transactions.** Another example is **telemedicine- several consultations** without going to the clinic or hospital.
 - b. **Efficiency (E):** this is the time to think of reimagining what we refer to as being efficient. Efficiency cannot only be about- how much time was spent in the office. The emphasis should be on completing a task in the specified time frame.
 - c. **Inclusivity (I):** develop business models that attach primacy to care for the poor, the most vulnerable as well as our planet. There is a significant future in developing technologies and practices that reduce our impact on the planet. With investment in innovations there is a need to make sure that farmers have access to information, machinery, and markets no matter what the situation, that our citizens have access to essential goods.

- d. **Opportunity (O):** Every crisis brings with it an opportunity. COVID-19 is no different. Evaluate what might be the new opportunities/growth areas that would emerge now. India must be ahead of the curve in the post-COVID world. our skills set, our core capabilities can be used in doing so.
- e. **Universalism (U):** COVID-19 does not see race, religion, color, caste, creed, language, or border before striking. The response and conduct thereafter should attach primacy to unity and brotherhood.

Topic- GS Paper 2–Governance
Source- PIB

National Vaccine Task Force

Why in the news?

- The **central government** has recently **constituted another national task force on vaccine development and drug testing.**

Functions

- The **main job of this task force** will be to work as a **bridge between academia, research institutions, and international collaborations** in the field of drug testing and vaccine development.
- The task force will **create clinical cohorts focussing on long term follow-up of people for better understanding of the disease.**
- It will also **collect bio-specimens** which will form the basis for further **trials of drugs and vaccines. Department of Biotechnology (DBT) work as a Central coordinating authority of the task force.**
- DBT will also **monitor the progress of research works** and facilitate the process

Members

- The task force has been **representatives from the ministry of Ayyash (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy)** among others as members.
- The other members will be from the **Indian Council of Medical Research (ICMR)**, department of science and technology (**DST**), Department of Biotechnology (**DBT**), the council of scientific and industrial research (**CSIR**), defence research and development organization (**DRDO**), directorate general of health services (**DGHS**) and drug controller general of India (**DCGI**).

Topic- GS Paper 2–Governance
Source- PIB

Strategic petroleum reserves

Why in the news?

- **Ministry for Petroleum & Natural Gas** has allowed the **domestic public sector refiners** to use the **strategic petroleum reserves (SPR)** for **storing their oil purchases due to low global oil price.**

Objective

- These oil reserves are a **boost to the energy security of the nation** as they act as a **buffer against volatility** in crude oil prices.

About Strategic Petroleum Reserves

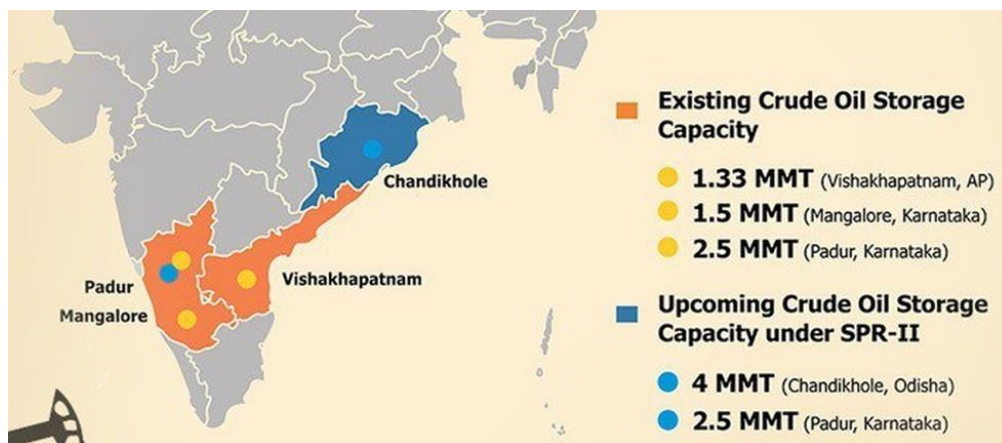
- It is a **national supply of emergency crude oil** established primarily to **reduce the impact of disruption in supplies**.
- The **construction and maintenance of the strategic petroleum reserves (SPR)** are given to the **Indian Strategic Petroleum Reserves Ltd (ISPRL)**.

About Indian Strategic Petroleum Reserves Limited

- It is **responsible for maintaining the country's strategic petroleum reserves**.
- ISPRL is wholly owned **subsidiary of Oil Industry Development Board (OIDB)** which functions under the **administrative control of Ministry of Petroleum and Natural Gas**.

Background of Strategic Petroleum Reserves

- Due to the **first Gulf War in the year 1990**, **crude oil prices** in the international market had been **very high**, due to which **India's Foreign Exchange Reserves have declined**, and India had foreign currency reserve just (\$ 1.2 billion) to pay import bill of only three weeks.
- Indian Government learned a new lesson from this incident.
- To get a **long-term solution to this problem**, the **Government** had given the idea to **construct oil reserves in India in 1998**.



Locations of Indian Petroleum Reserves

- The Strategic Petroleum Reserve programme in India is being developed in several phases.
- In **Phase I**, strategic oil storages are built at **Mangalore (1.55 MMT, Karnataka)**, **Padur (2.5 MMT, Karnataka)** and **Visakhapatnam (1.33 MMT, Odisha)**.
- It has a storage capacity of 5.33 million tonnes.
- In **Phase II**, two more underground reserves will be developed at **Chandikhole (Odisha)** and **Udupi (Karnataka)**, giving an **extra storage capacity of 6.5 million tonnes**. It will amount to 12 days of national consumption.

Why does India need Strategic Petroleum Reserves?

- **India** is one of the **largest importers** and consumer of crude oil and natural gas.
- Due to this, India is **vulnerable to global oil shocks** which could occur out of any reason- **economic, political or natural**.
- In **1990, the Gulf War** led to an energy crisis in India which is at that time **India's oil reserves** were **adequate only for three days**.
- Despite promising to move to **non-fossil fuel-based resources for 40% power** generation by **2030**, India's dependence on fossils is **not visible** to go down anytime soon.

Note: The **USA, China and Japan** are the nations with the **biggest Global Strategic Petroleum Reserves**.

Topic- GS Paper 2–Governance

Source- PIB

VidyaDaan 2.0 for inviting e-learning content contributions

Why in the news?

- **Human Resources and Development Minister** has launched a **national program VidyaDaan 2.0** for inviting **e-learning Content contributions** in New Delhi.

About VidyaDaan

- It is a **common national programme** to develop and **contribute e-learning content** and a chance to be recognized nationally.
- It provides a **platform for individuals and organizations across the country** to contribute e-learning resources for both school and higher education to ensure continuity of quality learning.
- The content will be used on the **DIKSHA app** to help millions of **children across the country to continue their learning** anytime and anywhere.

About Diksha - National Teacher Platform

- The **DIKSHA Platform** of the **Ministry** has been operating since **2017** with **more than 30 States and Union Territories** leveraging DIKSHA for augmenting teaching and learning processes.

National Teacher Platform envisages providing:

- **Teacher training courses** (example - training on learning outcomes, CCE, etc.)
- **Teaching resources** such as lesson plans, concept videos, worksheets, mapped to the curriculum
- **Assessments for teachers**, to find out their strengths and areas of improvement
- Teachers will be able to **access this material offline on their smartphones**, tablets and other devices anytime and anywhere.
- **The material will be contextualized to local languages** as well as mapped to the curriculum.

Topic- GS Paper 2–Governance
Source- PIB

Cabinet approves fixation of Nutrient Based Subsidy rates

Why in the news?

- The **Cabinet Committee on Economic Affairs** has recently given its **approval for fixation of Nutrient Based Subsidy (NBS) rates for Phosphatic and Potassic (P&K) Fertilizers for the year 2020-21.**



New Addition in NBS scheme

- The **CCEA also recently approved the inclusion of a complex fertilizer, namely Ammonium Phosphate (NP 14:28:0:0) under the NBS Scheme.**

About Nutrient Based Subsidy Scheme

- **Nutrient Based Subsidy (NBS) programme** for fertilizer was **initiated in the year 2010.** Under the scheme, a **fixed amount of subsidy** decided on an **annual basis** is provided on each grade of **subsidized Phosphatic and Potassic (P&K) fertilizers**, except for Urea, based on the nutrient content present in them.
- It is largely for **secondary nutrients like Nitrogen, Phosphorous, Sulphur and Potassium and micronutrients** which are very important for crop growth and development.
- The Department of Fertilizers is implementing the scheme.

Topic- GS Paper 2–Governance
Source- The Hindu

Ordinance to amend the Epidemic Diseases Act, 1897

Why in the News?

- Recently the **President of India** has approved **promulgation of an Ordinance** to amend the **Epidemic Diseases Act, 1897** to **protect healthcare service personnel and property** including their living/working premises against violence during epidemics.

- The Ordinance is **intended to ensure** that during any situation akin to the current pandemic, there is **zero-tolerance to any form of violence against healthcare service personnel and damage to property.**

Key Provision of the Ordinance

- The **Ordinance provides for making acts of violence cognizable and non-bailable offences.** It has **provisions for compensation for injury to healthcare service personnel** or for causing damage or loss to the property in which healthcare service personnel may have a direct interest concerning the epidemic.
- **Violence includes harassment and physical injury and damage to property.**

Healthcare service personnel include

- a. **Public and clinical healthcare service providers** such as doctors, nurses, paramedical workers, and community health workers.
- b. Any other persons **empowered under the Act** to take measures to **prevent the outbreak of the disease or spread thereof.**
- c. **Any persons declared** as such by the **State Government, by notification in the Official Gazette.**

Punishment

- Punishment can be **imprisonment for a term of three months to five years** and with fine of **Rs.50,000/- to Rs.2,00,000/-.**
- In case of causing grievous hurt, imprisonment shall be for a term six months to seven years and with fine of **Rs.1,00,000/- to Rs.5,00,000/-.**

About Epidemic Diseases Act, 1897

- The **Epidemic Diseases Act** was **introduced by the British** to tackle the **epidemic of bubonic plague that broke out in the then state of Bombay.**
- This law aims to **provide for the better prevention** of the spread of dangerous epidemic diseases.
- Under the Act, **temporary provisions or regulations** can be made to be observed by the public to **tackle or prevent the outbreak of a disease.**
- The **Epidemics Diseases Act** is **routinely enforced across the country** for dealing with outbreaks of diseases such as **Swine Flu, Dengue.**

Topic- GS Paper 2–Governance

Source- AIR

Parliamentary Committee on Labour

Why in the news?

- Recently **Parliamentary Committee on Labour** in its report on the **Industrial Relations Code, 2019**, has recommended that **“in case of natural calamities, payment of wages to the workers until the re-establishment of the industry may be “unjustifiable”.**
- **Bhartruhari Mahtab** is the **chairman of Parliamentary Committee on Labour.**

Recommendation of the Committee

- The Committee has suggested that **clarity be brought in so that employers not responsible for closure or lay off, are not disadvantaged in case of such natural calamity of high intent.** The basic idea about **recommendations is that the industry** should also not be forced when the **situation is beyond their control.**
- The law must be **reasonable, and it is for the government to step in** and extend a **helping hand for the industries.**

About the Industrial Relations Code 2019:

- It is an **amalgamation of three laws - Industrial Disputes Act, 1947, Trade Unions Act, 1926, and Industrial Employment (Standing Orders) Act, 1946.**
- The **Industrial Code** makes it **incumbent upon the employer to pay 50% wages to the workers/employees who are laid off due to shortage of power, coal, raw material etc. for 45 days.**

Topic- GS Paper 2–Governance

Source- The Hindu

Technology Development Board

Why in the news?

- **Technology Development Board (TDB)** has recently **approved funding for Mylab Discovery Solutions** to develop **Covid-19 kits.**

Objective:

- To provide **financial assistance to Indian industrial concerns** and other agencies **attempting development and commercial application of indigenous technology** or **adapting imported technology** to wider domestic applications.



About the Technology Development Board (TDB)

- It is a **statutory body established in 1996** under the **Technology Development Board Act, 1995.** The TDB works under the **Department of Science and Technology, Ministry of Science and Technology.** The TDB is the **first organization of its kind** within the government framework with the sole objective of commercializing the fruit of indigenous research.
- The Board plays a pro-active role by encouraging enterprises to take up technology-oriented products.

Composition

- It consists of **11 members with Secretary, Department of Science & Technology** as Ex-officio Chairperson.

Functions of the Board:

- **Facilitates interaction** between industry, scientists, technocrats, and specialists
- Fosters and **innovation culture** through the contract and cooperative research between industry and institutions
- Provides an **interface with financial institutions** and commercial banks for leveraging funds
- Facilitates the **creation of a new generation of entrepreneurs**
- **Assists partnerships** with other, similar technology financing bodies
- Provides vistas for **venturing into hi-tech areas**
- Creates **new job opportunities**.

About Mylab Discovery Solutions

- It is a **Pune-based firm developing a diagnostic kit** for Covid-19.
- Mylab was the first Indian firm to **develop a real-time PCR-based molecular diagnostic kit**, which can **screen people who display flu-like symptoms**, based on **nasal and throat swabs collected** from them.
- The **development and deployment of these kits** will result in a reduction of dependence on imported Covid-19 test kits.
- **Mylab kit** has already been approved by the **Indian Council of Medical Research** and **Central Drugs Standard Control Organization**.

Topic- GS Paper 2–Governance

Source- Hindustan Times

e -Gram Swaraj Portal and the mobile app

Why in the news?

- Prime Minister has recently launched **Gram Swaraj portal & the mobile app** at the occasion of **National Panchayati Raj Day (April 24)**.



Objective:

- To strengthen **e-Governance in Panchayati Raj Institutions (PRIs)** across the country, **Ministry of Panchayati Raj (MoPR)** has launched **eGramSwaraj**, a **user-friendly web-based portal**. '**eGramSwaraj**' aims to bring in **better transparency** in the **decentralized planning, progress reporting** and **work-based accounting**.

About the e-Gram Swaraj Portal

- It is a **user-friendly web-based portal**. eGram Swaraj which aims to bring in better **transparency in the decentralized planning**, progress reporting and work-based accounting.
- It will ensure real-time monitoring and accountability and is a significant step towards digitization down to the Gram Panchayat level.

National Panchayati Raj Day

- **National Panchayati Raj Day** is the national day of Panchayati Raj System in India celebrated by Ministry of Panchayati Raj on **24 April annually**.
- The then **Prime Minister of India, Manmohan Singh** declared the first National Panchayati Raj Day on 24 April 2010. He mentioned that if Panchayati Raj Institutions (PRIs) functioned properly and locals participated in the development process, the Maoist threat could be countered.
- Addressing the Elected Representatives, Prime Minister Narendra Modi on **24 April 2015** called for an end to the practice of "husbands of women sarpanches" or "sarpanch pati" exercising undue influence on the work of their wives elected to power.
- He also interacted with various gram panchayats across the country through a video conference as the nation continues to battle COVID-19.

Highlights

- **Two important schemes for rural welfare** which **seek to employ technology** and **connect gram panchayats** on a seamless platform for advisory, regulation and service provision.
- The first is the **e-gram Swaraj** portal that will **help in the digitization of gram panchayats across the country**. This will be the **single platform for all digital needs of gram panchayats**. A **single interface to prepare and implement** the government's Gram Panchayat Development Plan (GPDP).
- This portal will also help in settling land and property disputes and loan availability in rural areas.
- The service will be rolled out in six states, Uttar Pradesh, Madhya Pradesh, Uttarakhand, Maharashtra, Karnataka and Haryana before gradually expanding to other areas.
- He launched the **Swamitva** scheme which provides for an integrated property validation solution for rural India.
- The **surveying and demarcation of inhabited land in rural areas** will be done **using latest surveying methods** such as **drone technology** with the **collaborated efforts** of the **Ministry of Panchayati Raj, State Panchayati Raj Departments, State Revenue Departments and Survey of India**.

Topic- GS Paper 2–Governance
Source- AIR

Swamitva Yojana to boost rural economy

Why in the news?

- Prime Minister has launched ‘Swamitva Yojana’ or Ownership Scheme to map residential land ownership in the rural sector using modern technology like the use of drones.

Objective

- **Swamitva Yojana** is aimed to **create property ownership** record of land in **villages and empower the rural population** with a grant of an official document confirming their ownership of land titles.

About the Swamitva Yojana

- The **Swamitva scheme**, which is **launched in pilot mode in 6 states** helps to **map rural inhabited lands using drones** and latest survey methods.
- Swamitva Yojana is aimed to **create property ownership record of land in villages and empower the rural population** with a grant of an official document confirming their ownership of land titles.
- The **residential land** in communities will be **measured using drones to create a non-disputable record**. It is the **latest technology for surveying and measuring of land**.

Agencies/Department Involved

- The scheme will be carried out in **close coordination with** the Central Panchayati Raj ministry, Survey of India, Panchayati Raj departments and Revenue departments of various states.

Benefits

- Drones will draw a **digital map of every property falling** within the **geographical limits of a village and demarcate the boundaries of every revenue area**.
- **Property card for every property** in the town will be **prepared by states** using **accurate measurements delivered** by drone-mapping.
- These cards will be **given to property owners** and will be **recognised by the land revenue records department**.
- The **delivery of property rights** through an **official document** will **enable villagers to access bank finance using their property as collateral**.
- The **property records for a village** will also be **maintained at the Panchayat level**, allowing for the **collection of associated taxes from the owners**.
- The **money generated from these local taxes** will be used to **build rural infrastructure and facilities**.
- The **accurate property records** can be used for **facilitating tax collection**, new building and structure plan, issuing of permits and for thwarting attempts at property grabbing

Topic- GS Paper 2–Governance
Source- PIB

Central Vigilance Commissioner

Why in the news?

- Shri Sanjay Kothari was **sworn in as the Central Vigilance Commissioner.**

About the Central Vigilance Commission

- The **Central Vigilance Commission (CVC)** was set up by the **Government in 1964 on the recommendations of the Committee on Prevention of Corruption**, headed by K. Santhanam.
- It is a **statutory body governed by the Central Vigilance Commission Act 2003.**

Purpose

- The **main purpose** for which this **important body** had been **established** was to **ensure all sorts of corruptions in the government sector** could be **well prevented and addressed minutely.** It will include **inquiring into offences** alleged to have been committed under the **Prevention of Corruption Act, 1988** by specific categories of **public servants of the Central Government, corporations established by or under any Central Act, Government Companies, societies and local authorities** owned or controlled by Central Government.

Composition:

- The **Commission shall consist of a Central Vigilance Commissioner (Chairperson);** and not more than two **Vigilance Commissioners (Members).**

Appointment:

The President appoints them on the recommendation of a committee consisting of

1. the **Prime Minister (Chairperson)**
2. the **Minister of home affairs**
3. the **Leader of the Opposition in the House of the People.**

Note: It is often considered a **powerless agency** as it is **treated as an advisory body only with no power to register a criminal case** against government officials or **direct CBI to initiate inquiries against any officer of the level of Joint Secretary and above.**

Topic- GS Paper 2–Polity
Source- The Hindu

Ventilator Intervention Technology Accessible Locally (VITAL)

Why in the news?

- **NASA engineers** have developed a new, **easy-to-build high-pressure ventilator** called **VITAL**, specifically to **treat COVID-19 patients.**



About Ventilator Intervention Technology Accessible Locally

- It is designed to **treat patients with milder symptoms**, thereby keeping the **country's limited supply of traditional ventilators** available for patients with **more severe COVID-19 symptoms**.

Benefits

- **VITAL** can be **built faster and maintained more easily** than a **traditional ventilator**, and is composed of **far fewer parts**, many of which are currently available to potential manufacturers through **existing supply chains**.
- **NASA** is now **seeking FDA approval** for the **device via an emergency use authorization**, a **fast-track approval process** developed for crisis situations that takes just **days rather than years**.

Topic- GS Paper 2–Governance

Source- AIR

Mid-day meals Scheme

Why in the news?

- **Union Government** has recently announced around **11 per cent increase in annual central allocation** of cooking cost under Mid-day meal scheme to **8,100 crores** in view of the situation arising out of COVID-19.

About Mid-day meals Scheme

- It is a **Centrally Sponsored Scheme**.

Objectives

- To **enhance the enrolment and attendance** and simultaneously **improve nutritional levels** among school-going children studying in **Classes I to VIII of Government**, Government - aided schools, Special Training Centres (STC) and Madarasas and Maktabas supported under the Sarva Shiksha Abhiyan.
- The **Midday Meal Scheme** is covered by the **National Food Security Act, 2013**.

Background of the Mid-day meal scheme

- In 1925, a **Mid-Day Meal Programme** was introduced for **disadvantaged children** in **Madras Municipal Corporation**.
- The **National Programme of Nutritional Support to Primary Education (NP-NSPE)** was launched as a **Centrally Sponsored Scheme** on **15th August 1995**, initially in **2408 blocks** in the country.
- It was **further extended in 2002** to cover **not only children in classes I -V of Government, Government aided and local body schools**, but also children studying in **Education Guarantee Scheme (EGS) and Alternative and Innovative Education (AIE) centres**.
- In **October 2007**, the scheme was **further revised to cover children in upper primary (classes VI to VIII)**; initially in **3479 Educationally Backwards Blocks (EBBs)**.
- From **2008-09**, the **programme covers** all children studying in **Government, Local Body and Government-aided primary and upper primary schools** and the **EGS/AIE centres** including **Madarsa and Maqtabas supported under Sarva Siksha Abhiyaan (SSA)** of all areas across the country.

About Tithi Bhojan

- **Tithi Bhojan in the Mid-day meal scheme** to **encourage local community participation** in the programme.
- This concept was **first implemented in Gujarat** from where the Indian Government has borrowed it to **replicate across the country**.
- It seeks to involve the members of the community in the **effort to provide nutritious and healthy food to the children**.
- The members of the community may **contribute/sponsor** either **utensils or food on special occasions/festivals**.
- This is **completely voluntary**, and the **people in the community** may **contribute food items supplementary to the mid-day** already being provided like **sweet, namkeen or sprouts**.
- The **participation and involvement of religious and charitable institutions** are also being promoted.

Topic- GS Paper 2–Governance

Source- The Hindu

'Jagananna Vidya Deevena' Scheme

Why in the news?

- **Andhra Pradesh government** has launched the **'Jagananna Vidya Deevena' Scheme** in **Guntur District** in **Andhra Pradesh**.

About the 'Jagananna Vidya Deevena' Scheme

- Under this scheme, **fee reimbursement will be credited directly to mothers' accounts instead of college accounts** in the coming academic year 2020-21.
- The government is going to **provide Fee Reimbursement for ITI, B.Tech, B. Pharmacy, MBA, MCA, and B.Ed Courses** through this scheme.

An amount of **Rs. 15,000 to Rs. 20,000** will be offered for the eligible candidates through the **Jagananna Vidya Deevena Scheme**.

Topic: GS Paper 2–Governance

Source- AIR

'Jeevan Amrit Yojana' scheme

Why in the news?

- **Madhya Pradesh government** has recently launched **Jeevan Amrit Yojana**, a **unique scheme** to **boost the immunity system** of **citizens of the state**.

About the Jeevan Amrit Yojana' scheme

- Under this scheme, the **State Government** will **distribute a packet of special Trikut Churna** prepared by the **AYUSH Department** **free of cost** to the citizens.
- Under **Jeevan Amrit Yojna**, **packets of 50 grams** each of the kadha have been prepared by **Madhya Pradesh Laghu Vanopaj Sangh** in **collaboration with the Department of AYUSH**.

Topic- GS Paper 2–Governance

Source- AIR

NEET applies to minority-run medical colleges: Supreme Court

Why in news?

- The **Supreme Court** recently held the **National Eligibility-cum-Entrance Test (NEET)** is **mandatory for admission to medical colleges** run by **religious and linguistic minority communities**.
- The **judgment** was based on a **challenge by the colleges to several notifications issued by the Medical Council of India (MCI) and the Dental Council of India (DCI) under Sections 10D of the Indian Medical Council Act of 1956 and the Dentists Act of 1948 for uniform entrance examinations**.



Highlights of the judgment

- A **three-judge Bench** led by **Justice Arun Mishra** held that **admissions solely through NEET** for **graduate and postgraduate medical/dental**

courses do not violate any **fundamental and religious rights of minorities**.

- They said that the right to **freedom of trade or business is not absolute**.
- It is subject to "**reasonable restriction in the interest of the students**" community to promote merit, recognition of excellence, and to curb the malpractices.
- Provisions do not violate the rights available under Article 30 [right of minorities to administer their institutions] carved out in **Section 10D of the MCI Act and the Dentists Act and Regulations** framed by MCI/DCI," the court held.
- **Uniform entrance exams would ensure improvement in future public health by encouraging merit** in furtherance of the **Directive Principles enshrined in the Constitution**.

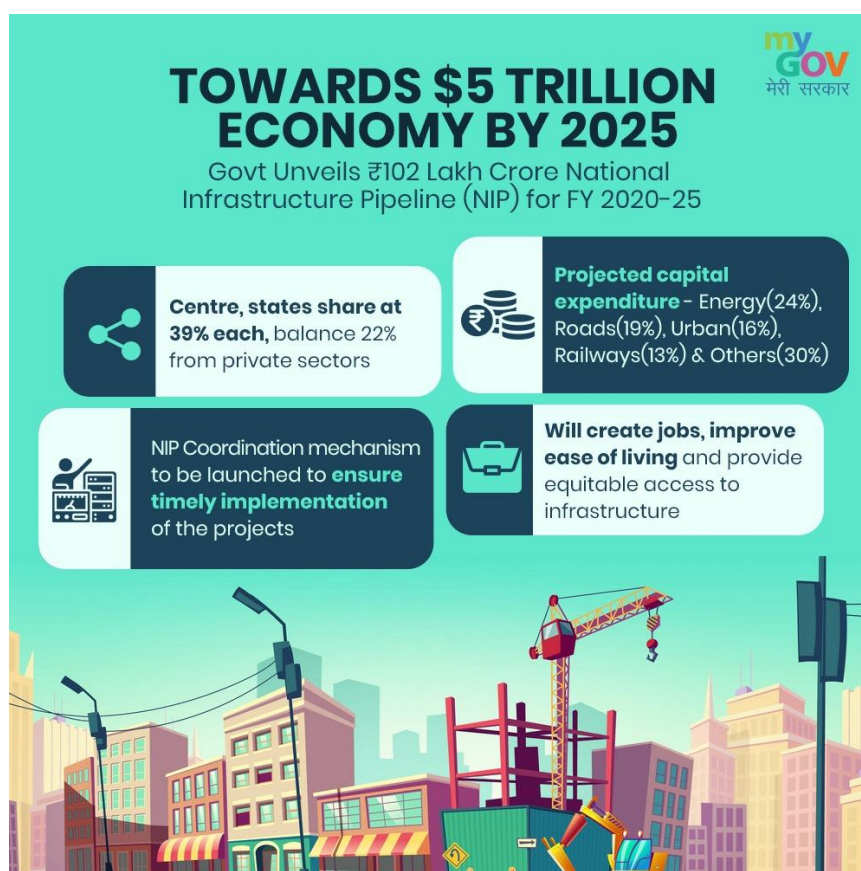
Topic- GS Paper 2–Polity

Source- The Hindu

National Infrastructure Pipeline

Why in the News?

- The **Task Force on National Infrastructure Pipeline (NIP)** submitted its **Final Report on NIP** for FY **2019-25** to the **Union Minister for Finance**.



About the Report

- The **Final Report of NIP Task Force** is **projecting total infrastructure investment of Rs 111 lakh crore** during the **period FY 2020-25**.
- Out of the total expected **capital expenditure of Rs. 111 lakh crore**
 - a. projects worth Rs 44 lakh crore (40% of NIP) are under implementation,
 - b. projects worth Rs 33 lakh crore (30%) are at conceptual stage
 - c. projects worth Rs 22 lakh crore (20%) are under development
 - d. Information regarding project stage are unavailable for projects worth Rs 11 lakh crore (10%).
- Sectors such as **energy (24%), roads (18%), urban (17%) and railways (12%) amount to around 71%** of the projected infrastructure investments in India.
- The **Centre (39%) and States (40%)** are expected to have almost equal share in implementing the NIP in India, **followed by the private sector (21%)**.

The Task Force has recommended that three Committees be setup:

- i. a Committee to **monitor NIP progress and eliminate delays;**
- ii. a **Steering Committee** in **each Infrastructure ministry level** for following up **implementation;** and
- iii. a **Steering Committee in DEA** for **raising financial resources for the NIP.**

- The **NIP project database** would be **hosted on India Investment Grid (IIG)** shortly to **provide visibility to the NIP and help in its financing** with **prospective investors; domestic and foreign**, able to access updated project-level information.

Note: Union Finance Minister in her **Budget speech 2019-20** announced that **Rs. 100 lakh crores** would be **invested on infrastructure** over the **next five years**.

Topic- GS Paper 3–Infrastructure

Source- PIB

Special 301 Report

Why in the news?

- **India** continues to be on the '**Priority Watch List**' of the **United States Trade Representative (USTR)** for lack of adequate intellectual property (IP) rights protection and enforcement, the USTR said in its Annual Special 301 Report.



Highlights of the report

- **India remained one of the most challenging economies for IP enforcement and protection.**
- While India made "**meaningful progress**" to enhance **IP protection and enforcement** in some areas over the past year, it **did not resolve recent and long-standing challenges and created new ones.**
- These **long-standing concerns** were about
 - a. innovators being able to receive, maintain and enforce **patents particularly in the pharmaceutical sector.**
 - b. **concerns over copyright laws** not incentivising the creation and commercialisation of content; and
 - c. an **outdated trade secrets framework**
- The **report also mentioned high customs duties on medical devices and Information and Communications Technology.**
- The report noted, **continues to urge India to join the Singapore Treaty on the Law of Trademarks, a treaty that harmonises trademark registration.**

About Special 301 Report

- It is prepared annually by the **Office of the United States Trade Representative.**
- It was first **published in 1989.**

Objective

- It identifies **trade barriers to United States** companies and products due to the **intellectual property laws**, such as **copyright, patents and trademarks**, in other countries.
- The **Special 301 Report** is published **pursuant to Section 301 of the Trade Act of 1974** as amended by **Section 1303 of the Omnibus Trade and Competitiveness Act of 1988.**

Topic- GS Paper 2–Governance

Source- Indian Express

International Matters

Operation Sanjeevani

Why in the news?

- Recently an **Indian Air Force C-130J transport aircraft** has delivered **6.2 tonne of essential medicines and hospital consumables** to **Maldives** under **Operation Sanjeevani**.
- Among other things, these **medicines include influenza vaccines, anti-viral drugs** such as **lopinavir and ritonavir** – which have been used to **treat patients with COVID-19**.
- India has also sent a 14-member COVID-19 Rapid Response Team of doctors to enhance preparedness.



Maldives has been one of the foremost countries which have received Indian assistance during COVID crisis. This act is in consonance to 'India's neighbourhood first policy and reciprocation of Maldives' India first policy. Friendship in action

Previous India's Assistance to Maldives

a. Operation Cactus

- It was conducted in 1988 by the Indian Armed Forces have helped the government of Maldives in the neutralization of the coup attempt.

b. Operation Neer

- It was conducted in 2014 to help Maldives with its drinking water crisis.

c. Military Exercise

Ekuverin

- It is a joint military exercise between India and Maldives.
- It is a 14 days Joint Exercise which held alternatively in India and Maldives.
- It focuses on enhancing interoperability between the two forces for carrying out counterinsurgency and counter-terrorism operations in a semi-urban environment under the United Nations mandate.

Topic- GS Paper 2–International Relation
Source- AIR

World Food Programme

Why in the news?

- The **World Food Programme** has recently said that **rapidly growing novel Coronavirus pandemic** is so far having **little impact on the global food supply chain**, but that could change for the worse if major food importers remain anxious.

About the World Food Programme

- It is the **food-assistance branch** of the **United Nations**.
- It is the **world's largest humanitarian organization** addressing **hunger and promoting food security**.

Objective

- It works to help **people who cannot produce or obtain enough food** for themselves and their families.
- It was **established in 1961** after the **1960 Food and Agricultural Organization (FAO) Conference**.
- It is **headquartered in Rome (Italy)**.
- It is a member of the **United Nations Development Group (UNDG)** and **part of its Executive Committee**.

Other Related Information

- **United Nations World Food Programme (WFP)** has **launched its cinema ad campaign 'Feed Our Future'** against hunger and malnutrition in India.
- WFP has launched it **in collaboration with UFO Moviez – India's largest in-cinema advertising platform** and **SAWA -the Global Cinema Advertising Association**.
- It is also supported by **Showbox Music TV Channel, LF (Living Foodz TV Channel)** and **Red FM 93.5**.
- It will help drive the message of zero hunger deeper into the hearts & minds of India.

Note: Goal 2 of Sustainable Development Goals: End hunger, achieve food security and improved nutrition and promote sustainable agriculture aims at ending hunger as stated.

Topic- GS Paper 2–International Organization
Source- AIR

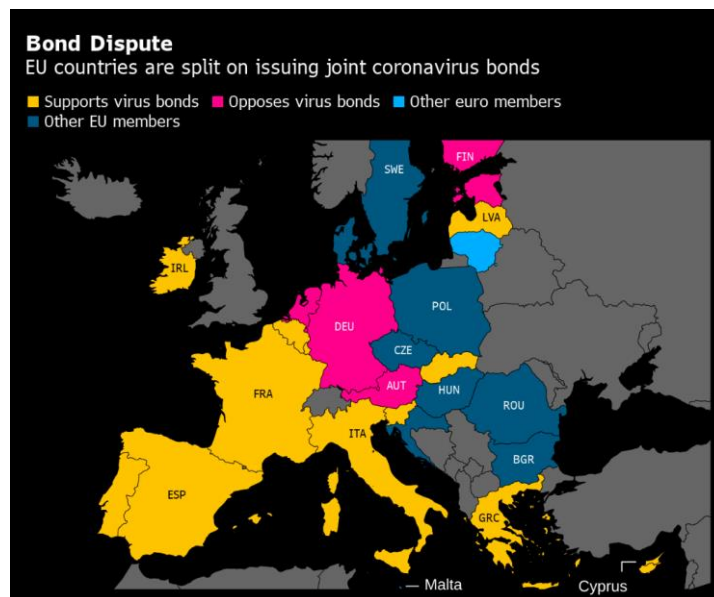
Coronabonds

Why in the news?

- Recently the idea of “Coronabonds”, was **rejected** by **Germany, the Netherlands, Finland and Austria**, fiscally “frugal” northern states wary of **pooling liabilities** with what they see as **more spendthrift countries** in southern Europe.

What was the issue?

- The **ongoing virus outbreak** has revived the acrimonious **debate between eurozone countries** about **jointly issuing debt** to meet **healthcare needs** and **address the deep economic downturn** that is set to follow.
- **Nine of the 19 countries** that use the single currency called on **March 25** for a **common debt instrument** issued by a **European institution** to fight the **outbreak and its effects**.



Existing mechanisms:

- The **eurozone jointly issues debt** through its bailout fund, the **European Stability Mechanism**, which **borrow on the market** against the **security of its paid-in and callable capital** provided by eurozone governments.
- The **European Commission** issued debt through the **European Financial Stability Mechanism (EFSM)** to help fund the **bailouts of Greece, Ireland and Portugal**.
- **All 27 European Union countries back EFSM debt** through the **bloc’s joint long-term budget**. **European Investment Bank (EIB) borrowing**
- The **EIB, the investment arm of the EU**, is owned by EU governments and issues around 60 billion euros of debt every year to lend for various projects in the bloc.

Topic- GS Paper 2–International Organization

Source- Indian Express

World Health Organization Funding

Why in the news?

- Recently **President Donald Trump threatened to freeze US funding** to the **World Health Organization (WHO)**, saying the international group had "**missed the call**" on the **coronavirus pandemic**. At present, the **United States is the World Health Organization's biggest contributor**, making up **14.67 per cent of total funding**.

How is the WHO funded?

There are four kinds of contributions that make up funding for the WHO. These are

- a. Assessed contributions
- b. Specified voluntary contributions
- c. Core voluntary contributions
- d. PIP contributions.

According to the WHO website, the contributions can be explained as follows:

- a. Assessed contributions are the **dues countries pay to be a member of the Organization**. The amount **each Member State** must pay is **calculated relative to the country's wealth and population**.
- b. **Voluntary contributions** come from **Member States (in addition to their assessed contribution) or other partners**. They can range from **flexible to highly earmarked**.
- c. Core voluntary contributions allow **less well-funded activities to benefit from a better flow of resources** and **ease implementation bottlenecks that arise when immediate financing is lacking**.
- d. Pandemic Influenza Preparedness (PIP) Contributions were **started in 2011 to improve and strengthen the sharing of influenza viruses with human pandemic potential**, and to **increase the access of developing countries** to vaccines and other pandemic related supplies.

Some highlights

- In recent years, **assessed contributions to the WHO has declined** and now account for less than **one-fourth of its funding**.
- These **funds are important for the WHO** because they **provide a level of predictability and minimize dependence** on a **narrow donor base**.
- **Voluntary contributions** make up for **most of the remaining funding**.

The current funding pattern

- As of fourth quarter of 2019, total contributions were around USD 5.62 billion, with assessed contributions accounting for USD 956 million, specified voluntary contributions USD 4.38 billion, core voluntary contributions USD 160 million, and PIP contributions USD 178 million.

Topic- GS Paper 2–International Organization

Source- The Hindu

Organisation for the Prohibition of Chemical Weapons (OPCW)

Why in the news?

- **OPCW** regraded as the **global chemical weapons watchdog** has for the first time **explicitly blamed Syria for toxic attacks**, saying **President Bashar al-Assad's air force used the nerve gas sarin and chlorine** three times in **2017**.

About the Organisation for the Prohibition of Chemical Weapons

- It is an **intergovernmental organisation** and the **implementing body for the Chemical Weapons Convention**, which entered into force in **1997**.

Mission

- The OPCW's mission is to **implement the provisions of the Chemical Weapons Convention** to achieve our vision of a **world free of chemical weapons and the threat of their use**. It oversees the **global endeavour to permanently and verifiably eliminate chemical weapons**.
- **Its headquarters in The Hague, Netherlands.**

Membership:

- State Parties to the Convention: **193**
- Signatory states: **1**
- Non-signatory States: **3**

How does it work?

The OPCW member states share the collective goal of preventing chemistry from ever again being used for warfare, thereby strengthening international security. To this end, the Convention contains four key provisions:

- Destroying all existing chemical weapons under international verification by the OPCW.
- Monitoring the chemical industry to prevent chemical weapons from re-emerging.
- Provide assistance and protection to States Parties against chemical threats.
- Fostering international cooperation and promote the peaceful use of chemistry.

Nobel Peace Prize

- The OPCW was awarded the **2013 Nobel Peace Prize "for its extensive efforts to eliminate chemical weapons with most recent being in Syria civil war"**.

Topic- GS Paper 2–International Institutions

Source- AIR

ASEAN Special Summit

Why in the news?

- Recently, **Vietnam is chairing a Special Association of Southeast Asian Nations (ASEAN) summit via video-conference due to Coronavirus pandemic.**

About the ASEAN Special Summit

- The Summit was **chaired by H.E. Nguyen Xuan Phuc, Prime Minister of Viet Nam**, in his capacity as Chair of ASEAN.
- In the Summit, concerns were raised for adverse effects of **the viral outbreak** and on the **well-being of the people** and **global socio-economic developments**.



Highlights of the Summit

- The heads of the nations pledged to remain united and reaffirmed the determination and commitment in the spirit of '**Cohesive and Responsive ASEAN**'.
- Pledged to work committedly with **WHO**. **Share timely and transparent exchange of information on the real-time situation and pandemic response measures** taken by the Member States to strengthen public health cooperation measures to contain the pandemic and protect the people, among other things.
- Prioritize the well-being of our peoples in **ASEAN's collective fight against COVID-19**.
- Encourage the **effective operationalization of the ASEAN Guidelines on the Provision of Emergency Assistance by ASEAN Mission in Third Countries to Nationals of ASEAN Member Countries** in Crisis Situations.
- Member nations remain committed to keeping **ASEAN's markets open for trade and investment** and **enhance cooperation among the ASEAN Member States** and also **with ASEAN's external partners**.
- To ensure **food security** utilization of the **ASEAN Plus Three Emergency Rice Reserve (APTERR)** is sought.
- **Implement appropriate measures** to boost confidence and **improve stability of the regional economy**, including through policy stimulus, assist people and businesses suffering from the impact of COVID-19, especially the **micro, small and medium enterprises (MSMEs)** and **vulnerable groups**.
- Members also encouraged the **development of a post-pandemic recovery plan** to share lessons learned, **restore ASEAN's connectivity, tourism**, normal business, and social activities, prevent potential economic downturns.
- Support **reallocating existing available funds** and **encourage technical and financial support** from ASEAN's partners to facilitate

cooperation against COVID-19, including the proposed establishment of the **COVID-19 ASEAN Response Fund**.

About the Association of Southeast Asian Nations (ASEAN)

- The **ASEAN is a regional grouping** which was **established in 1967** with the **signing of the Bangkok Declaration**.
- **Members Countries:** Indonesia, Thailand, Singapore, Malaysia, The Philippines, Vietnam, Myanmar, Cambodia, Brunei, and Laos.
- The **headquarters** is in **Jakarta, Indonesia**.
- **India**, which is also **ASEAN's FTA partner**, **opted out of RCEP** in **November 2019**.

What is RCEP?

- Regional Comprehensive Economic Partnership (RCEP) is a proposed agreement between the member states of the Association of Southeast Asian Nations (ASEAN) and its free trade agreement (FTA) partners.
- The pact aims to cover trade in goods and services, intellectual property, etc.
- Last year, in Nov 2019, India had decided to not join the RCEP agreement with China and other ASEAN countries over the imbalance in the agreement that was reached.
- RCEP aims to create an integrated market with 16 countries, making it easier for products and services of each of these countries to be available across this region.
- India was reluctant to join the RCEP trade agreement as its industries would be unable to compete with China and Chinese goods would flood Indian markets. India's farmers were also worried given that they would be unable to compete on a global scale.

Other related Summit

a. ASEAN Plus Three

- It is a **forum that was set up in 1997** to function as a **coordinator of cooperation** between the **Association of Southeast Asian Nations (ASEAN) and the three East Asian nations of China, South Korea and Japan**.

b. East Asia Summit

- It was **established in 2005**. It comprises **ten member states of the ASEAN countries** along with **eight members**, namely **Australia, China, Japan, India, New Zealand, the Republic of Korea, Russia, and the United States**.

Topic- GS Paper 2–International Organization

Source- TOI

Organisation of Islamic Cooperation

Why in the news?

- Recently the **Organisation of Islamic Cooperation** urges the Indian **Government** to take **urgent steps to stop the growing tide of Islamophobia in India** and **protect the rights of its persecuted Muslim minority** as per its obligations under **international Human Rights law**.

About the Organisation of Islamic Cooperation

- It is an **international organization founded in 1969**, consisting of **57 member states**. It is also the **second-largest intergovernmental organization** after the United Nations.
- **The OIC has permanent delegations to the United Nations and the European Union.**
- **The official languages of the OIC are Arabic, English, and French.**

Objective

- To work as a **collective voice of the Muslim world** by **safeguarding the interests of the Muslims** in the spirit of **promoting international peace and harmony** among various people of the world.
- Its headquarters located in **Jeddah, Saudi Arabia.**

Observer countries

- Central African Republic, Thailand, Bosnia and Herzegovina, Russian Federation and Turkish Cypriot State.

Note: India is not a member of the Organisation of Islamic Cooperation.

Topic- GS Paper 2–International Organisation, Source- AIR

World Press Freedom Index 2020

Why in the news?

- Recently, **the World Press Freedom Index 2020** has been released by **Reporters Without Borders.**
- Reporters Without Borders is a **non-profit organization** that **works to document and combat attacks on journalists** around the world.



Highlights of the Report

- **Norway ranks first** for the **fourth consecutive year** whereas **Finland and Denmark** in **second and third** place.
- South Asia in **general features poorly on the index**, with **Pakistan dropping three places to 145**, and **Bangladesh dropping one place to 151.**
- **China at 177th position** is just three places above **North Korea, which is at 180th.**

India and Report

- **India has dropped two** places on a global press freedom index to be ranked 142nd out of 180 countries.

Countries	Rank
Norway	First
Finland	Second
Denmark	Third
India	142 nd

Reason behind India's rank improvement

- **Security improved:** The World Press Freedom Index 2020 said that with **no murders of journalists in India in 2019, as against six in 2018**, the security situation for the country's media might seem to have improved.

Concern

- **Press freedom violations:** There have been constant press freedom violations, including police violence against journalists, ambushes by political activists, and reprisals instigated by criminal groups or corrupt local officials

About Paris-based Reporters Sans Frontieres

- **Reporters Sans Frontieres (RSF), or About World Press Freedom Index** is based in Paris.
- It is published annually by **Reporters Without Borders since 2002** which **measures the level of media freedom in 180 countries**. Evaluation parameters are **pluralism, media independence, and the quality of the legal framework** and the **safety of journalists**.
- It also includes indicators of the level of media freedom violations in each region.

Seven Criteria categories

- **Pluralism:** Measures the degree to which opinions are represented in the media.
- **Media independence:** Measures the degree to which the media are able to function independently of sources of political, governmental, business and religious power and influence.
- **Environment and self-censorship:** Analyses the environment in which news and information providers operate.
- **Legislative framework:** Measures the impact of the legal framework governing news and information activities.
- **Transparency:** Measures the transparency of the institutions and procedures that affect the production of news and information.
- **Infrastructure:** Measures the quality of the infrastructure that supports the production of news and information.
- **Abuses:** Measures the level of abuses and violence.

Note:

- This qualitative analysis is combined with quantitative data on abuses and acts of violence against journalists during the period evaluated.
- Each indicator is given a score between 0 and 100.

Topic- GS Paper 3–Important Report**Source- The Hindu****Global Report on Food Crises 2020****Why in the news?**

- The Global Network has released the Global Report on Food Crises 2020 **against Food Crises**.
- The **Report is the result of a consensus-based and multi-partner analytical process** involving **16 international humanitarian and development partners**.

**Key findings of the Global Report**

- The report by the **Global Network Against Food Crises** indicates that at the **close of 2019, 135 million people across 55 countries and territories** experienced **acute food insecurity**. Additionally, in the **55 food-crisis countries** covered by the report, **75 million children** were stunted, and **17 million** suffered from **wasting in 2019**.
- This is the **highest level of acute food insecurity and malnutrition** documented by the Network since the first edition of the report in **2017**.
- **More than half (73 million)** of the **135 million people** covered by the report live in **Africa**; **43 million** live in the **Middle East and Asia**; **18.5 million** live in **Latin America and the Caribbean**.

About Acute food insecurity

- **Acute food insecurity** is when a **person's inability to consume adequate food** puts their **lives or livelihoods in immediate danger**.
- It draws on **internationally accepted measures of extreme hunger**, such as the **Integrated Food Security Phase Classification (IPC)** and the **Cadre Harmonise**.

- The report by the **Global Network Against Food Crises**, along with **key findings, statements by partners, and multimedia products unpacking its contents** are now available at:

Global Network against Food Crises

- It was **launched by the European Union, Food and Agriculture Organization (FAO) and World Food Programme (WFP)** during the **2016 World Humanitarian Summit (WHS)**.
- It aims to combat **food crises from humanitarian and development perspectives** and **tackle its root causes** by promoting **coordination among stakeholders** and by **projects implementation**.

Topic- GS Paper 2–Food Security

Source- UNICEF and TOI

India among top 3 military spenders: report

Why in the news?

- According to the report of **Stockholm International Peace Research Institute (SIPRI)**, the **global military expenditure rose to \$1917 billion in 2019** with **India and China** emerging among the top three spenders.

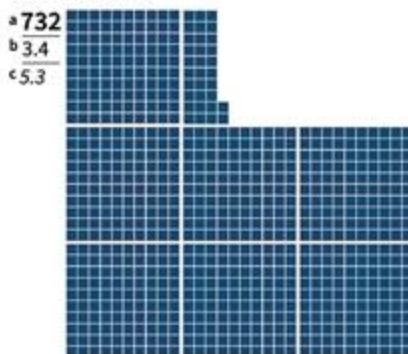
World military spending

Global military expenditure saw its biggest uptick in a decade in 2019, according to the Stockholm International Peace Research Institute

- ▶ Combined global total **\$1.9 trillion**, representing a 3.6% growth on 2018
- ▶ Five biggest spenders accounted for over **62%** of global military spending
- ▶ Top 15 account for **81%**

Top two spenders

UNITED STATES



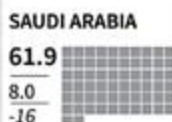
CHINA



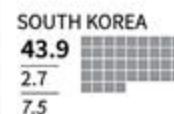
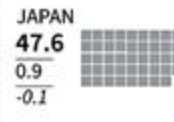
a = total US\$, billions, 2019
b = % of GDP
c = % change from 2018

Source: SIPRI Trends in World Military Exp

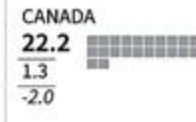
Next three



In the top 10



In the top 15



© AFP

About the Stockholm International Peace Research Institute (SIPRI)

- **SIPRI is an independent international institute and Swedish think tank established in 1966.**
- It researches into conflict, armaments, arms control and disarmament.
- It provides data, analysis and recommendations, based on open sources, to policymakers, researchers, media and the interested public.
- It is **headquartered in Stockholm.**

Vision and mission

- **SIPRI's vision** is a world in which **sources of insecurity** are identified and **understood, conflicts are prevented or resolved, and peace is sustained.**

SIPRI's mission is to:

- **Undertake research and activities on security, conflict and peace.**
- **Provide policy analysis and recommendations.**
- **Facilitate dialogue and build capacities.**
- **Promote transparency and accountability**
- **Deliver authoritative information to global audiences.**

Topic- GS Paper 2–International Organization

Source- The Hindu

UN75 Initiative

Why in the news?

- The UN's **75th-anniversary initiative (UN75)** has yielded **preliminary findings from data** collected in the **first three months of 2020** regarding how **people around the world** view **international cooperation.**



Highlight of the Data

- According to the **UN75 Office's publication** titled, '**Resolved to Combine our Efforts: Preliminary Assessment of the UN75 Survey and Dialogues,**' the data collected in early 2020 indicate
 1. **Overwhelming support** for countries to **work together on managing global trends.**
 2. The **support increased** beginning in late February – which **coincides with the spread of COVID-19 around the world.**

- **Analyzing the responses** also shows that **people believe the climate and environment will most affect humanity's future.**

About UN75 Initiative

- The United Nations launched the UN75 Initiative **in 2019.**
- It aims to **build a global vision** for the year **2045** by **initiating a dialogue** and action on how we **can make a better world** despite the many challenges we face.
- The views and ideas that are generated through the dialogue will be presented during the **75th Session of the General Assembly in September 2020.**

About the United Nations

- It is an **international organization** founded **in 1945** after **World War II.**
- Its charter was **signed in San Francisco on June 26, 1945,** and came into existence on **October 24, 1945,** after **51 countries** have **signed the charter.**
- Its predecessor, the **League of Nations,** created by the **Treaty of Versailles in 1919,** was **disbanded in 1946.**
- Its mission is to **maintain international peace and security,** developing **friendly relations among nations** and promoting **social progress, better living standards and human rights.**
- **Headquarters - New York** Official Languages - **Arabic, Chinese, English, French, Spanish, Russian**
- **Members - 193** (Latest Member South Sudan)
- **Secretary-General - Antonio Guterres (Portugal)**

It has six principal organs

- a. General Assembly
- b. Security Council
- c. Economic and Social Council
- d. Trusteeship Council
- e. International Court of Justice
- f. The UN Secretariat.

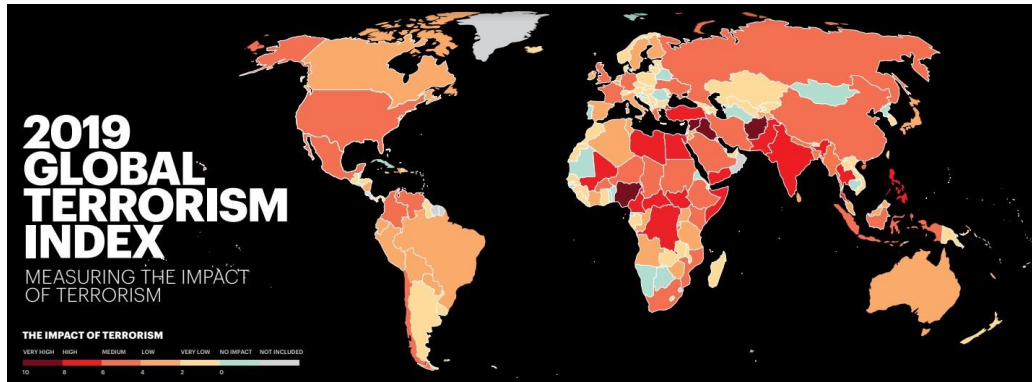
Topic- GS Paper 2–International Organisation

Source- UN.org

Global Terrorism Index (GTI) 2019

Why in the news?

- A **report** compiled by **NITI Aayog** has **questioned the methodology adopted by the Institute for Economics and Peace to rank India as the seventh-worst terrorism affected country.**



Highlights of the Index

- **India** has moved to the **seventh position** from the previous years **eighth** in the annual **Global Terrorism Index (GTI) 2019**.
- The countries ahead of it are **Afghanistan, Iraq, Nigeria, Syria, Pakistan and Somalia**. The **first to six rank countries** are the **Democratic Republic of Congo, South Sudan, Sudan, Burkina Faso, Palestine** and **Lebanon**.

About the Global Terrorism Index (GTI) 2019

- The report published annually by the **Institute for Economics and Peace (IEP)**.
- The **Index** provides a **comprehensive summary** of the **key global trends and patterns in terrorism since 2000**.
- It produces a **composite score** to provide an **ordinal ranking of countries** on the impact of terrorism.
- The **Index combines many factors** associated with **terrorist attacks** to build an **explicit picture of the impact of terrorism, illustrating trends, and providing a data series for analysis** by researchers and policymakers.

Database used in Index

- The **Index** is based on data from the **Global Terrorism Database (GTD)**.
- The GTD is collected and **collated** by the **National Consortium for the Study of Terrorism and Responses to Terrorism (START)** at the **University of Maryland**.
- It has codified over **190,000 cases of terrorism**.

Where these scores used?

The score used directly and indirectly in **different Index**.

- **Index Score** was used **directly** in the **Global Peace Index, the Global Slavery Report** published by the **Walk Free Foundation**.
- It is used **indirectly** in computing country scores in the **World Economic Forum's Travel and Tourism Competitiveness** and **Global Competitiveness Indices** and compilation of **Safe Cities Index** by the **Economist Intelligence Unit**.

About the Institute for Economics & Peace

- The **Institute for Economics & Peace (IEP)**, is a **global think tank headquartered in Sydney, Australia** with branches in **New York City, Mexico City and The Hague**.
- It also published **the Global Peace Index**.

Note: In 2017, **India wrote to the International Labour Organisation (ILO)** challenging its **ranking in a global slavery report** compiled by Australia's Walk Free Foundation.

Topic- GS Paper 3–Important Index
Source- The Hindu

Economy and Social Development Bulletin

Fully Accessible Route (FAR)

Why in the news?

- The **Reserve Bank of India (RBI)** has introduced a separate channel, namely '**Fully Accessible Route**' (**FAR**), to enable **Non-Resident Indians (NRIs)** to invest in specified government bonds.
- These **special securities** will attract no **foreign portfolio investor (FPI) limits** until maturity and are **the first step towards Indian G-Secs** being listed on **global bond indices** as the **Centre looks to attract access cheap liquidity** in the overseas markets.



About Fully Accessible Route

- **Eligible investors** can invest in **specified government securities** without being subject to any investment ceilings.
- This scheme shall operate along with the two existing routes, viz.
 - the **Medium-Term Framework (MTF)**
 - the **Voluntary Retention Route (VRR)**

Background

- The move follows the **announcement made** in the **Union Budget 2020-21** that **certain specified categories of Central Government securities** would be **opened fully for non-resident investors** without any restrictions.
- Accordingly, a separate route viz., **Fully Accessible Route (FAR)** for investment by **non-residents in securities** issued by the **Government of India**.
- **This will substantially ease access of non-residents to Indian** government securities markets and **facilitate inclusion** in global bond indices.
- This would facilitate **the inflow of stable foreign investment** in government bonds.

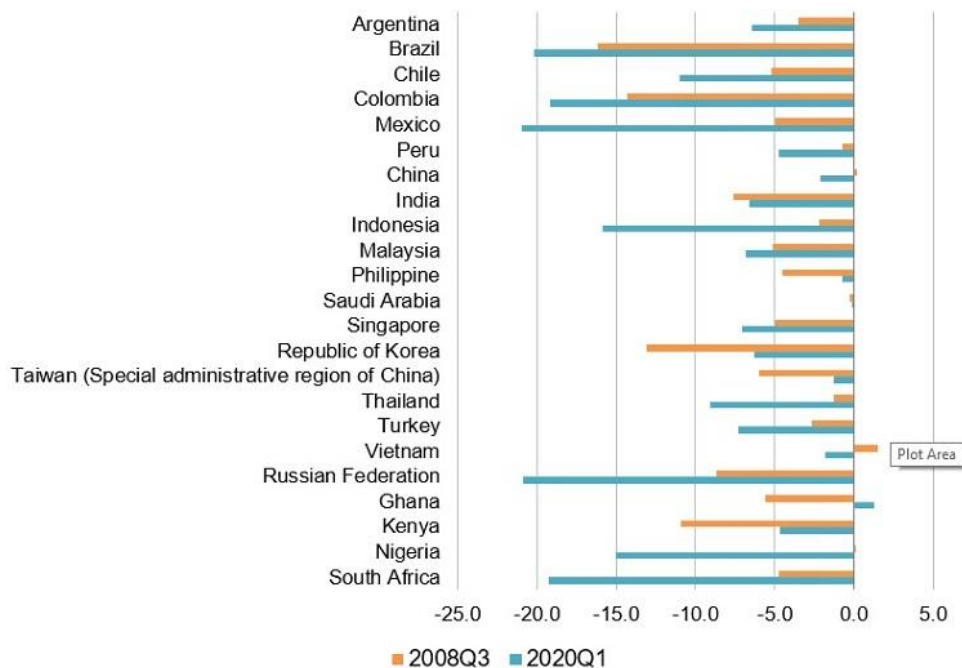
Topic- GS Paper 3–Economics

Source- Business standard

UNCTAD report

Why in the news?

- The **United Nations Conference on Trade and Development** has released a report titled '**The COVID-19 Shock to Developing Countries: Towards a 'whatever it takes' programme**'.



Source: UNCTAD secretariat calculations based on Thomson Reuters Eikon database.

Notes: Negative values refer to a depreciation of the domestic currency against the dollar. Data for 2020Q1 go until 25 March.

Highlights of the report

- The consequences of a **combined health pandemic** and a **global recession** will be **catastrophic for many developing countries** and halt their **progress towards the Sustainable Development Goals**.
- The report shows that in the two months since the virus began spreading beyond China, **developing countries have taken an enormous hit** in terms of
 - a. capital outflows
 - b. growing bond spreads
 - c. currency depreciation
 - d. lost export earnings,
 - e. falling commodity prices
 - f. declining tourist revenues.
- The values of their currencies against the **dollar have fallen between 5% and 25% since the beginning of this year** – faster than the early months of the global financial crisis (see the chart below).
- The **prices of commodities**, on which many developing countries heavily depend on their foreign exchange, have also **dropped precipitously since the crisis began**. The overall price decline has been 37% this year, according to the report.
- **Currency movements against the dollar 2008Q3 vs 2020Q1 (percentage)**

The UNCTAD report has suggested a “Four-pronged strategy” to **translate expressions of international solidarity** into concrete action:

a. \$1 trillion liquidity injection

- It is a kind of **helicopter money drop** for those **left behind through reallocation of existing special drawing rights** at the **International Monetary Fund**.
- **Helicopter drop** refers to the last resort type of monetary stimulus strategy to spur inflation and economic output. Milton Friedman coins it.

b. Debt jubilee for distressed economies

- An **immediate debt standstill** on **sovereign debt payments** should be followed by significant debt relief.
- So, **around \$1 trillion debt** of such economies should be cancelled by an **independently created body**.

c. Marshall Plan for a health recovery

- An **additional \$500 billion** should be allocated largely in the form of grants for **emergency health services** and **related social relief programmes**.

d. Capital controls

- Capital control represents **any measure taken by a government, central bank or other regulatory bodies to limit the flow of foreign capital** in and out of the domestic economy.
- They should be given in **any policy regime** to **reduce illiquidity** driven by sell-offs in **developing country markets** and to **arrest declines in currency and asset prices**.

About the United Nations Conference on Trade and Development

- The United Nations General Assembly established UNCTAD **in 1964**, and it reports to the **UN General Assembly and United Nations Economic and Social Council**.
- The **Headquarters of the UNCTAD** is located at the **Palais des Nations in Geneva**. The **primary objective** of UNCTAD is to **formulate policies** relating to all aspects of development **including trade, aid, transport, finance and technology**.

Topic- GS Paper 3– Economics

Source- ET + UNCTAD

Ways and Means Advance

Why in the news?

- The government has recently increased the **ceiling on its temporary loan facility** with the **Reserve Bank of India** — known as **Ways and Means Advance by 60%**. It helps to tide over the cash flow mismatch in **FY21** expected from **higher spending** to combat the **spread of COVID-19**.

About Ways and Means Advances (WMA) Scheme

- These are temporary loan facilities provided by **the Reserve Bank of India (RBI)** to the central and state government which was **introduced in 1997**.
- Under this, the government can **avail immediate cash from the RBI**, but it has to return the amount within 90 days.

- **Interest is charged at the existing repo rate.**
- The limits for **Ways and Means Advances (WMA)** are decided by the government and **RBI mutually and revised** periodically.

Types of Ways and Means Advances

a) Special WMA

- It is extended against the **collateral of the government securities** held by the **State Government.**

b) Normal WMA

- It is based on a **three-year average of actual revenue and capital expenditure** of the state.
- It is not **collateral based.**

Topic- GS Paper 3–Economics

Source- ET

Certificate of origin

Why in the news?

- Commerce Ministry has recently created an **online platform for the issuance of 'certificate of origin' for exporters.**

What is Certificate of Origin?

- A certificate of origin (CO) is a **document declaring in which country a commodity or goods was manufactured.** The certificate of origin **contains information regarding the product, its destination, and the country of export.**
- Required by many treaty agreements for **cross-border trade, the CO** is an important form because it can **help determine whether certain goods are eligible for import, or whether products are subject to duties.**

Two Types of Certificate of Origin

The two types of COs are: **non-preferential** and **preferential.**

- **Non-preferential COs**, also known as "**ordinary COs**" indicates that the **goods do not qualify for reduced tariffs or tariff-free treatment** under trade arrangements between countries. At the same time, **preferential COs** declare that they do.

Significance

- The document is **important to claim duty concessions** under **free-trade agreements (FTAs).**
- This certificate is **essential to prove where their goods come from.**

Topic- GS Paper 3–Economics

Source- ET

Bancassurance agreements

Why in news?

- Insurance regulator **Insurance Regulatory and Development Authority of India (IRDAI)** has allowed the **four banks**, emerging from the **recent mega bank merger exercise**, to **continue for a year with existing bancassurance agreements** of the lenders that amalgamated with them.

About Bancassurance

- It means **selling insurance product through banks**. Banks and insurance company come up **in a partnership** wherein the bank sells the **tied insurance company's insurance products to its clients**.

Twin-Benefits

- On the one hand, the **bank earns fee amount (non-interest income)** from the **insurance company** apart from the **interest income** whereas on the other hand, the **insurance firm increases its market reach and customers**.

Regulations

- Government of India notification (**Banking Regulation Act**) dated **August 3rd, 2000**, laid out the **Bancassurance clearance**.
- As per **bancassurance regulations**, a bank can only market **three life, general and health insurance companies' products**.

About Insurance Regulatory and Development Authority

- It is an **autonomous, statutory body** tasked with **regulating and promoting the insurance and re-insurance industries** in India.
- It was **constituted by the Insurance Regulatory and Development Authority Act, 1999**, an **Act of Parliament** passed by the Government of India.
- **IRDAI** is a **10-member body** including the **chairman, five full-time and four part-time members** appointed by the government of India.

Topic- GS Paper 3–Economics

Source- The Hindu

Helicopter money

Why in news?

- **Telangana Chief Minister** has recently suggested **RBI to adopt the concept of Helicopter Money to help state governments tide over the current crisis** and kickstart economic activity in India.

About the Helicopter money

- The term **Helicopter Money** was coined by American Economist **Milton Friedman** in his paper “**The Optimum Quantity of Money**”.
- It refers to an **unconventional monetary policy tool** which is aimed at bringing the **economy back on track** by printing large sums of money and distributing it to the public.

Benefits

- Increase in Demand Growth
- Increase in inflation among others.

Challenges

- It may lead to Hyperinflation
- Devaluation of currency among others.

Topic- GS Paper 3–Economics

Source- ET

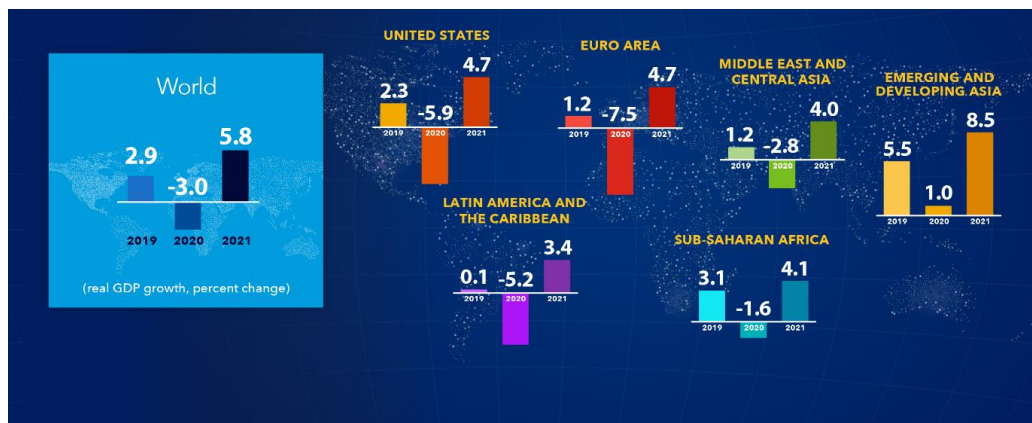
World Economic Outlook Report 2020

Why in the news?

- The **International Monetary Fund** has recently released the **World Economic Outlook Report**.

About the World Economic Outlook Report

- The report is **published twice a year**.
- It aims to **provide analysis and forecasts of economic developments** of member countries and highlights risks and uncertainty.



Highlights of the report

- The report highlights that **as a result of the pandemic**; the global economy is projected to **contract sharply by –3 percent in 2020**, much **worse than during the 2008–09 financial crisis**.
- The IMF, in its **2020 World Economic Outlook**, predicted a **partial rebound in 2021**, with the **world economy growing at a 5.8 per cent rate**.

- The **US economy will contract 5.9 per cent in 2020**, with a **rebound to 4.7 per cent growth in 2021** under the Fund's best-case scenario.
- **Eurozone economies will contract by 7.5 per cent in 2020**, with hard-hit **Italy seeing its GDP fall 9.1 per cent** and **contractions of 8.0 per cent in Spain, 7.0 per cent in Germany and 7.2 per cent in France.**
- It predicted euro-area economies as a whole would match **US growth of 4.7 per cent in 2021.**
- China's economy is **forecast to grow by 9.2 per cent in 2021.**
- **India's 2020 fiscal-year growth** also is expected to stay in **positive territory**, but **Latin American economies**, which are still experiencing growing coronavirus outbreaks, will see a **contraction of 5.2 per cent.**

About International Monetary Fund

- The **IMF is an organization of 189 countries.**
- It is headquartered in **Washington, US.**
- The official language of IMF is – **Chinese, English, French, Russian, Spanish, Arabic.**

Objective

It continually **seeks to ensure the stability of the International monetary system** by:

- Fostering global monetary cooperation
- Securing financial stability
- Facilitating international trade
- Promoting high employment and sustainable economic growth
- reducing poverty around the world

Other Reports published by IMF

- Global Financial Stability Report
- Fiscal Monitor



Topic- GS Paper 3–Economics
Source- IMF Webpage

Currency Swap for the uncertain times

Why in the news?

- **India is working with the United States** to secure a **dollar swap line** that would help in better management of its external account and provide an extra cushion in the event of an abrupt outflow of funds.

India's Scenario

- India already has a **\$75 billion bilateral currency swap line with Japan**, which has the **second-highest dollar reserves after China**.
- The **Reserve Bank of India** also offers similar swap lines to central banks in the **SAARC region** within a total corpus of \$2 billion.

What is a Currency Swap?

- A **Currency swap** between two countries is an **agreement or contract to exchange currencies** (of the two countries or any hard currency) with **predetermined terms and conditions**. It is always **done between two central banks**.
- Currency swap agreement can be **bilateral or multilateral**.

What is the purpose of a currency swap?

- The main purpose of currency swaps is to **avoid turbulence** and other risks in the **foreign exchange market and exchange rate**.
- **Central banks and governments engage in currency swaps** with foreign counterparts to **ensure adequate foreign currency** during the **time of foreign currency scarcity**.

Usually, **currency swap agreements are of five types** depending upon the **nature and the status of the currencies swapped**.

- Exchange cash for cash vs cash for securities.
- Exchange conditional vs unconditional swaps.
- Exchange reserve currencies on both sides.
- Exchange reserve currency for non-reserve currency
- Exchange non-reserve currencies on both sides

What the associated benefits?

- These **swap operations** carry **no exchange rate or other market risks**, as transaction terms are set in advance.
- The **absence of an exchange rate risk** is the major benefit of such a facility.
- It **reduces the risk of volatility against the third currency** and does away with the charges involved in multiple currency exchanges.
- The **swap agreements will help address possible short-term liquidity mismatches** and supplement existing international financial arrangements.
- Availability of such **swap line to tide over difficulties arising out of Balance of Payment (BOP)** would **deter speculative attacks** on the **domestic currency** and greatly enhance the RBI's ability to manage exchange rate volatility.

Note: The earliest **currency swap** was between **U.S. Federal Reserve** and the **Central Bank of France** signed on **February 28, 1962**.

Topic- GS Paper 3–Economics, Source- The Hindu

Plenary Meeting of the International Monetary and Financial Committee

Why in the news?

- Recently, the **Union Minister of Finance** attended through **videoconference** the **Plenary Meeting of the International Monetary and Financial Committee (IMFC)**, the Ministerial-level committee of the **International Monetary Fund (IMF)**.

What is a Plenary Session?

- A **plenary session** or plenum is a **session** of a **conference** which all members of all parties are to attend.
- Such a **session** may include a **broad range of content**, from **keynotes to panel discussions**, and is not necessarily related to a specific style of presentation or deliberative process.



Background

- The **IMFC meets twice a year**, once during the **Fund-Bank Annual Meetings in October**, and again during the **Spring Meetings in April**.
- The **Committee discusses matters of common concern** affecting the **global economy** and **advises the IMF** on the **direction of its work**.

Agenda of the meeting

- The discussions at the meeting were based on **IMF Managing Director's Global Policy Agenda** titled, "**Exceptional Times – Exceptional Action**".
- The **members also remarked on IMF's crisis-response package** to address **global liquidity** and **members' financing needs**.

Measures were taken in India:

- The **Union Minister of Finance** outlined **various measures taken in India** to **respond to the health crisis** as well as to **mitigate its impact**. In this regard, **about the allocation of \$2 Billion (Rs 15,000 crore)** by the **Government of India** for **strengthening the healthcare system**.
- Announcement of a scheme of **social support measures** amounting to **\$23 Billion (Rs 1.70 lakh crore)** to **alleviate the hardship of the poor and the vulnerable**.

- Provision of relief to firms in **statutory and regulatory compliance matters**.
- **Easing of monetary policy by the RBI and three-month moratorium on loan instalments.**

Topic- GS Paper 3–Economics

Source- PIB

The reverse repo rate, the becoming of benchmark interest rate in the economy

Why in the news?

- The recent **policy moves by RBI** are testifying to the fact that the **Reverse Repo rate** has now become the **new benchmark rate amid the Covid 19 crisis**.

About Repo and Reverse Repo Rate:

- The **repo (short for Repurchase agreement) rate** is the rate at which the RBI lends money to the **banking system (or banks) for short durations**.
- The **reverse repo rate** is the rate at which **banks can park their money with the RBI**.
- In both the **scenarios transactions happen via bonds** – one party sells bonds to the other with the promise to buy them back (or repurchase them) at a later specified date.
- Repo rate is a crucial option for commercial banks for raising funds.

Normal Scenario:

- Under normal circumstances, that is **when the economy is growing; the repo rate is the benchmark interest rate in the marketplace** because it is the **lowest rate of interest** at which funds can be borrowed.
- It forms the floor rate for all **other interest rates in the economy** – for instance, the **interest rate consumers** would have to pay on a **car loan or the interest rate** they will earn from a **fixed deposit etc**.

Reverse repo becoming the benchmark rate:

- The **excess liquidity in the banking system** has meant that **during March and the first half of April, banks have been using only the reverse repo (to park funds with the RBI)** instead of the repo (to borrow funds).
- As of April 15, RBI had close to Rs 7 lakh crore of banks' money parked with it.
- In other words, the **reverse repo rate has become the most influential rate in the economy**.
- Due to this **issue, the central bank** has cut the **reverse repo rate more than the repo (see graph) twice in the spate of the last three weeks**.

Efficacy of the move:

- It all depends on the **revival of consumer demand in India**.

- If the **disruptions induced by the outbreak of novel coronavirus disease** continue for a long time; **consumer demand will stay muted, and businesses** would feel no need to borrow heavily to make fresh investments.
- If consumer **demand revives quickly**, the **demand for credit will build up** as well.
- From the **banks' perspective**, it is also important for them to be confident about new loans, not **turning into NPAs** and adding to their already high levels of bad loans.
- Until banks feel confident about the prospects of an economic turnaround, cuts in reverse repo rates may have little impact.

Topic- GS Paper 3–Economics
Source- Indian Express

Priority sector relief for banks under TLTRO 2.0

Why in the news?

- The **Reserve Bank of India** has recently **provided priority sector relief to banks investing in papers** issued by **small and medium-sized NBFCs and microfinance institutions** under the **revised targeted long-term repo operations (TLTRO) 2.0**.
- These investments would not be calculated as **part of a bank's adjusted non-food bank credit** while **assessing the priority sector commitment**.



RBI Guidelines

- RBI had specified that **under the TLTRO 2.0 scheme, banks would have to invest at least half the total funds** in bonds of small NBFCs of **asset size of ₹500 crores** and below, **mid-sized NBFCs of asset size between ₹500 crores and ₹5,000 crores**, and MFIs. Banks currently have to **allocate 40% of their total loans to sectors like agriculture, small businesses, education, social infrastructure**, among others, collectively known as **priority sectors**.
- This exemption is **only applicable to funds availed under TLTRO 2.0** and RBI expects that this will **incentivize banks investment in these NBFCs and MFIs**.

About Long-Term Repo Operations

- It is a **tool** under which the RBI **provides one-year to three-year loans to banks** at the **prevailing repo rate**.

Objective

- To keep **short-term interest rates in sync with the policy repo rate**.

About Targeted long-term repo operations (TLTRO)

- It was **introduced by the RBI** under which **banks can access three-year funding** and use it to **invest in investment-grade corporate bonds, commercial paper, and debentures**.
- Of this, **banks are required to buy up to 50% of their incremental holdings** of eligible instruments from **primary market issuances** and the **rest from the secondary market**, including from **mutual funds and NBFCs**.
- LTROs are conducted on the **e-KUBER platform** that is the **Core Banking Solution of RBI**.

Significance of TLTRO

- It was introduced by the **RBI to help companies**, including **financial institutions**, resolves their **cash flow problems in the wake of the coronavirus outbreak and imposed lockdown**.

Topic- GS Paper 3–Economics

Source- Economics Times

Operation Twist

Why in the news?

- The **Reserve Bank of India (RBI)** has recently **announced simultaneous purchase and sale of government bonds** in a bid to **soften long-term yields**.

Objective:

- It is aimed at **managing liquidity and market conditions**: On a **review of current and evolving liquidity** and market conditions, which are **impacted by COVID-19**, RBI has decided to **conduct simultaneous purchase and sale of government bonds**.

Open Market Operations:

- RBI will buy **₹10,000 crores of bonds** maturing **between 2026 and 2030** and sell the same number of T-bills.
- Such **open market operations** are known as **‘Operation Twist,’**.
- **Operation Twist** was used by the **central bank in December last year** for the first time.

Impact of the RBI’s move

- The yields on the **10- year bonds** dropped by **20 basis points**.

- The move will also aid the **process of monetary transmission by prompting banks** to pass on **interest rate cut benefits** to their customers.
- The RBI had also recently **reduced key policy rate or the repo rate** by **75 bps to 4.4%** in the **monetary policy review**.

Topic- GS Paper 3–Economics
Source- The Hindu

Special liquidity facility for mutual funds (SLF-MF)

Why in the news?

- The **Reserve Bank of India** has recently **announced a special liquidity window** called **special liquidity facility for mutual funds of Rs 50,000 crore** to **bail out mutual funds** hit by the turmoil in the debt fund segment that led to the **closure of six credit risk funds** by **Franklin Templeton Mutual Fund**.

How does this special liquidity facility for mutual funds window work?

- Under the **SLF-MF**, the **RBI shall conduct repo operations of 90 days tenor** at the fixed repo rate.
- The **SLF-MF is on-tap and open-ended**, and banks can submit their bids to **avail the funding till May 11** or up to utilization of the allocated amount, whichever is earlier.

What will banks do with this money?

- **Banks can extend loans to mutual funds** and **undertake the outright purchase of and/or repos against the collateral** of investment-grade corporate bonds, commercial papers (CPs), debentures and certificates of Deposit (CDs) held by MFs. **Liquidity support** availed under the **SLF-MF** would be **eligible to be classified as held to maturity (HTM)** even in **excess of 25 per cent of total investment** permitted to be **included in the HTM portfolio**.

Features of the offer:

- **Exposures under this facility** will not be reckoned under the **Large Exposure Framework**.
- The **face value of securities acquired** under the **SLF-MF** and kept in the **HTM category** will not be reckoned for **computation of adjusted non-food bank credit (ANBC)** to determine **priority sector targets/sub-targets**.
- The **Support extended to MFs** under the **SLF-MF** shall be **exempted from banks' capital market exposure limits**.

Topic- GS Paper 3–Economics
Source- The Hindu + Economics Times

CARES Program

Why in the news?

- The **Government of India** and the **Asian Development Bank (ADB)** has signed a **\$1.5 billion** loan that will support the **government's response** to the novel coronavirus disease (COVID-19) pandemic.
- The **CARES Programme** is provided as the **first support** to meet the **immediate requirements** of the government.



Where this amount used?

- It will be used to implement **COVID-19 containment plan** to **rapidly ramp up test-track-treatment capacity**
- **Social protection** for the poor, vulnerable, women, and disadvantaged groups to protect **more than 800 million people over the next three months.**
- **Asian Development Bank** financial and technical support will contribute to the **sound implementation of the government's far-reaching emergency response programs** launched in **March 2020.**

About Asian Development Bank (ADB)

- It is a **regional development bank** established on **19 December 1966.**
- It is **headquartered in Manila, Philippines.**

Objective

- To **promote social and economic development in Asia.**

Members

- It has now **68 members**, of which **49 are from within Asia and the Pacific and 19 outside.**
- **Japan** holds the **largest proportion of shares in ADB** followed by the **USA**

Note:

- **Recently Asian Development Bank has published Asian Development Outlook 2019.**
- In this, **ADB has cut India's growth forecast to 7.2% for 2019-20** because of a **slower-than-expected pickup in investment demand.**
- The **growth rate in Financial Year 2020-21** is likely to be **7.3%.**

Topic- GS Paper 3–Economics
Source-PIB

International Financial Services Centres Authority

Why in the news?

- **Union Government of India** has recently **notified the establishment of International Financial Services Centres Authority.**

About the International Financial Services Centres Authority

- It was **established to regulate the financial services market** in the **International Financial Services Centres** set up under the **Special Economic Zones Act, 2005.**

Composition

It consists of **nine members:**

- **Chairperson**
- **members each from the RBI, SEBI, IRDAI, PFRDA**
- **Two members from the Ministry of Finance**
- **Two other members appointed on the recommendation of a Search Committee.**

Tenure

- The members will have a **term of three years subject to reappointment.**

Functions

- It will **regulate financial products** such as **securities, deposits or contracts of insurance, financial services** and **financial institutions** which have been **approved by an appropriate regulator in an IFSC.**

Powers:

- **All powers exercisable** by the respective **financial sector regulatory (RBI, SEBI, IRDAI, and PFRDA)** under the **respective Acts** can be exercised by the **Authority in the IFSCs.**

Topic- GS Paper 3–Economics

Source- Economics Times

Ecology and Environment Bulletin

Peace Forest Initiative

Why in the news?

- The **UN Convention to Combat Desertification** and the **Government of the Republic of Korea Forest Service** has signed a **Memorandum of Understanding (MoU)** to establish the **Peace Forest Initiative**.

About the Peace Forest Initiative

- It is an initiative of **South Korea** launched in **2019** during the **14th Conference of the Parties** to the **UNCCD in New Delhi, India**.
- It aims to contribute to **land degradation neutrality (LDN)** implementation through partnerships that build peace and security.
- The goal of the PFI is to **offer countries recovering from violent conflict**, an opportunity to **achieve stability and trust** while **re-building livelihoods and economies**.

Topic- GS Paper 3–Environment

Source- ET

Heron

Why in the news?

- Recently at the **Neendakara Coastal station (Kerala)**, some of the herons were **found famished and half-dead due to starvation**.

About Heron

- It is a **large species of bird that inhabits wetlands** and areas that are **close to lakes, ponds and rivers**.
- It is **commonly found in Europe and North America** along with the **more temperate regions of Africa, Asia and Australia**.
- It is a **carnivorous species of bird**, with the **heron primarily feeding on fish**.



Conservation Status

- It is listed as '**Least Concern**' on the **IUCN Red List of Threatened Species**.

Topic- GS Paper 3–Environment
Source- The Hindu + A to z animal

Leatherback Sea turtle

Why in the news?

- Recently, Thailand has witnessed the largest number of nests of rare leatherback sea turtles, and many of them hatched to make their way into a sea for the first time at a beach in Phang-nga district. This phenomenon was observed in over two decades.

About the Leatherback Sea Turtles

- Leatherbacks sea turtles are the world's most giant sea turtles.
- They are named for their shell, which is leather-like rather than hard, like other turtles.

Distribution

• Leatherback turtle is distributed **across the globe with nesting sites on tropical sandy beaches** and **foraging ranges** that extend into **temperate and subpolar latitudes**.



Conservation Status

- As per the **IUCN Red List**, leatherback populations around the globe are considered **critically endangered** and **vulnerable to extinction**. The **status** also **varies with the region** where the country falls. They are considered **endangered** in Thailand.

Topic- GS Paper 3–Environment
Source- newaisa.com, The Guardian

Earth Day 2020

Why in the news?

- Every year **World Earth Day** is **celebrated on April 22** and this year it **marks the 50 years of Earth Day**. Each year the Earth Day comes up with a theme, and for the year 2020, the theme chosen is, “**Climate action.**”
- Themed on Climate action, Earth Day 2020 has a lot in store: **digital events, performances, and collaborations.**
- With the global lockdown in progress due to the COVID 19 outbreak, the Earth Day celebrations will be predominantly digital this year.

Objective

- To increase awareness among common public, especially among youngsters, to get the full effect of the campaign of environmental safety.

About Earth Day

- Earth Day is celebrated every year on April 22 to raise awareness about our planet that sustains life. Earth Day started as a political movement back in the United States of America.
- It was first celebrated in 1970. On April 22, 1970, millions of people took to the streets to protest the negative impacts of 150 years of industrial development.



Organization

- **Earth Day Network (EDN)** is the not for profit organization that leads Earth Day worldwide.

About Earth Day Network

- Earth Day Network is a nonprofit organization whose mission is to diversify, educate and activate the environmental movement worldwide.
- The main office is located in **Washington, DC, USA.**

Some interesting highlights about Earth:

- Earth is not spherical. There is a **bulge like a spare tire** around the equator due to **opposite centrifugal forces** working at it.
- The **age of the Earth** is around **4.54 billion years**, and the findings are based on the dating of old rocks and meteorites discovered on the surface of the planet.
- Every day around 100 tons of interplanetary particles in the form of dust drifts down the earth surface.

- The current configuration of planets was once a single unit or a **supercontinent**. The most recent supercontinent was the **Pangaea** which started breaking apart **200 million years ago** and formed the setup that we see presently.
- There are many **earth-like planets orbiting stars**, although it is **not yet proved whether life exists** on the Earth. The research is underway.
- The world's largest mountain is the **mid-ocean ridge** which is an underwater chain of **volcanoes spanning 65,000 kilometres**.
- There are crater lakes – **Nyos, Monoun and Kivu** present in Cameroon and the **border of Democratic Republic of Congo and Zimbabwe** that sit above the volcanic Earth and could explode.
- There are some spots in the Atacama deserts of Chile and Peru where rainfall has never been recorded since its inception. It is the driest place on the planet.

Topic- GS Paper 3–Environment

Source- AIR

Dehing Patkai Wildlife Sanctuary

Why in the news?

- Amid the **countrywide lockdown**, the **National Board for Wildlife (NBWL)** has recommended **coal mining in a part of an elephant reserve** (Dehing Patkai Wildlife Sanctuary) in Assam.

Panel set up

- The NBWL had in **July 2019** formed a **committee comprising its member R. Sukumar, Assam's Chief Wildlife Warden** and a **representative of the local wildlife division** for **assessing the mining area**.

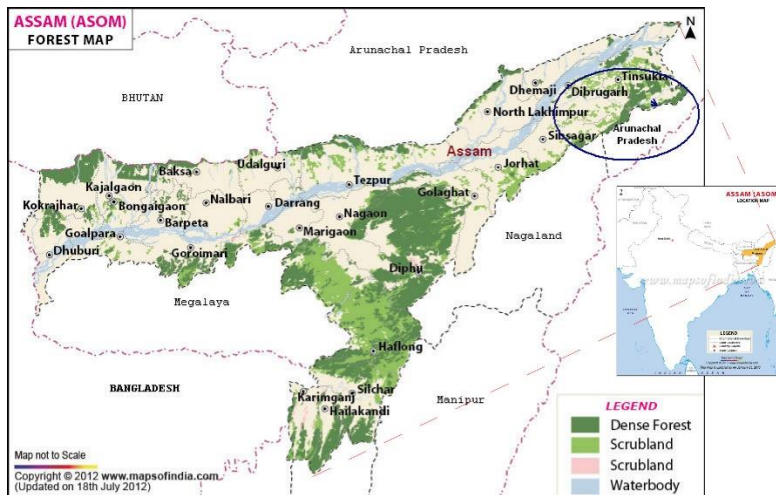


Figure 1. Forest map of Assam depicting the study area (circle).



Image 1. Tirap Reserve Forest (along the Tirap River on Arunachal Pradesh border)



Image 2. Borjan Reserve Forest, near Tinsukhia Town - potential site for butterfly inclusive ecotourism

About Dehing Patkai Wildlife Sanctuary

- It is also known as the **Jeypore Rainforest** which is in the districts of **Dibrugarh** and **Tinsukia** in **Assam**.
- **Dehing** is the name of **the river that flows** through this forest and **Patkai** is the **hill at the foot** of which the **sanctuary** lies.
- **Vegetation:** It is a **deciduous rainforest interspersed with semi-evergreen and lush green flora**.

About National Board for Wildlife

- It is a **statutory body** as it has been **constituted under Section 5 A** the **Wildlife Protection Act, 1972**.
- It is the **apex body** to review **all wildlife-related matters and approve projects** in and **around national parks and sanctuaries**, i.e. **Protected Areas**.

Composition:

- It is **chaired by Prime minister** and has a **47-member board** (including the chairman) which **usually meets once a year**.

Topic- GS Paper 3–Environment

Source- Indian Express

Geography

US Virginia Islands

Why in the news?

- The **United States Virgin Islands (USVI)** has recently banned sunscreen products with **chemicals are known to be harmful to coral reefs and marine life.**
- United States Virgin Islands became the **first territory in the United States** which **banned sunscreen product.**



About the Sunscreens

- Sunscreens containing the 3 Os – **oxybenzone, octocrylene and octinoxate** – **harm the coral reefs** that protect the Virgin Islands' shoreline.
- Sunscreens containing **mineral alternatives such as zinc oxide and titanium dioxide** have been exempted.
- The **concentration of these chemicals is 40 times** more than acceptable levels in some of **our territorial waters.**

Other countries banned who banned Sunscreens

- The **archipelago nation of Palau** is set to become the **first country to enact a sunscreen ban**, which will take effect in 2020.
- **Key West in Florida** has banned stores from **keeping sunscreen containing the toxin 3 O's from 2021.**
- The **Caribbean islands of Bonaire** have **unanimously voted to ban** the sale of sunscreen by 2021.
- The **Hawaii government** also voted to **ban the sale of sunscreens** containing reef-damaging chemicals oxybenzone and octinoxate from 2021.

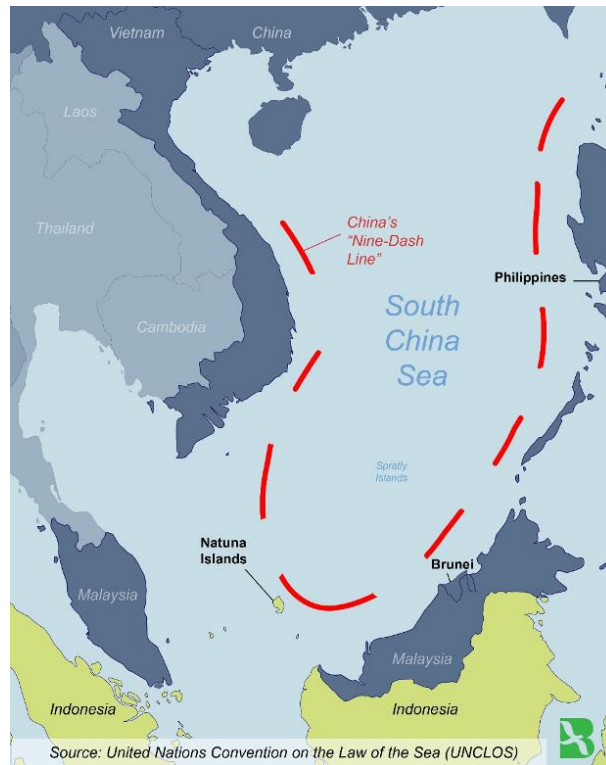
Topic- GS Paper 3–Environment

Source- Down to Earth

Natuna Islands

Why in the news?

- **China** has been **illegally fishing in the Natuna Islands** area, which is **internationally recognized as Indonesia's exclusive zone**.



About the Natuna Island

- The Natuna Islands are an **archipelago of 272 islands**, located between **Malaysia and Borneo (Kalimantan)**.
- They form a part of **Indonesia's Riau Islands province** (the west side of the South China Sea).

About the South China Sea

- It is an arm of **the western Pacific Ocean in Southeast Asia**.
- It is south of China, east & south of Vietnam, west of the Philippines and north of the island of Borneo.
- Taiwan Strait connects it with the **East China Sea** and by **Luzon Strait** with the **Philippine Sea**.
- It contains numerous shoals, reefs, atolls and islands.
- The **Paracel Islands**, the **Spratly Islands** and the **Scarborough Shoal** are the most important.

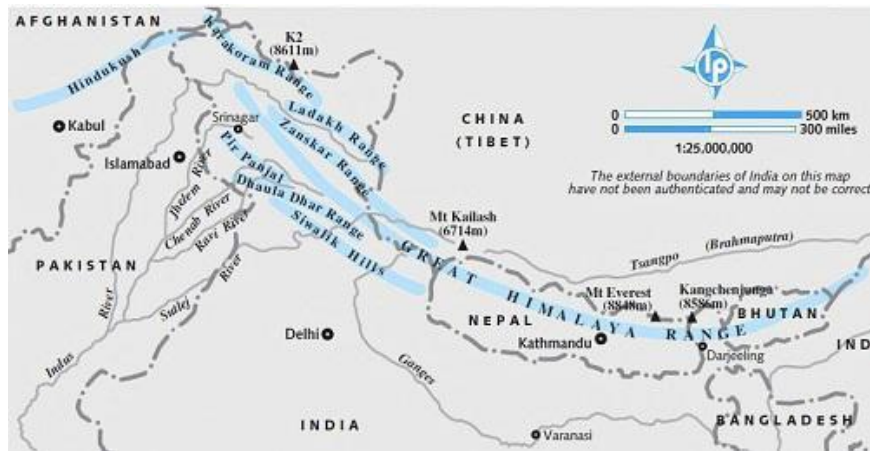
Topic- GS Paper 1–Geography

Source- New York Times

Dhauladhar range

Why in the news?

- Recently, the **Dhauladhar mountain range** has become **visible from Jalandhar, Punjab** for the first time because of **less air pollution** caused by the **ongoing lockdown**.



About the Dhauladhar range

- It is part of a **lesser Himalayan chain of mountains** and located **mainly in Himachal Pradesh**.
- These mountains are **mostly composed of granite**, but **limestone and sandstone** also exist in some parts.
- **Lam Dal lake**, a glacier lake, also situated in this range.
- One of the major passes across this range is the **Indrahar Pass** which forms the border between **Kangra and Chamba** districts of the state.

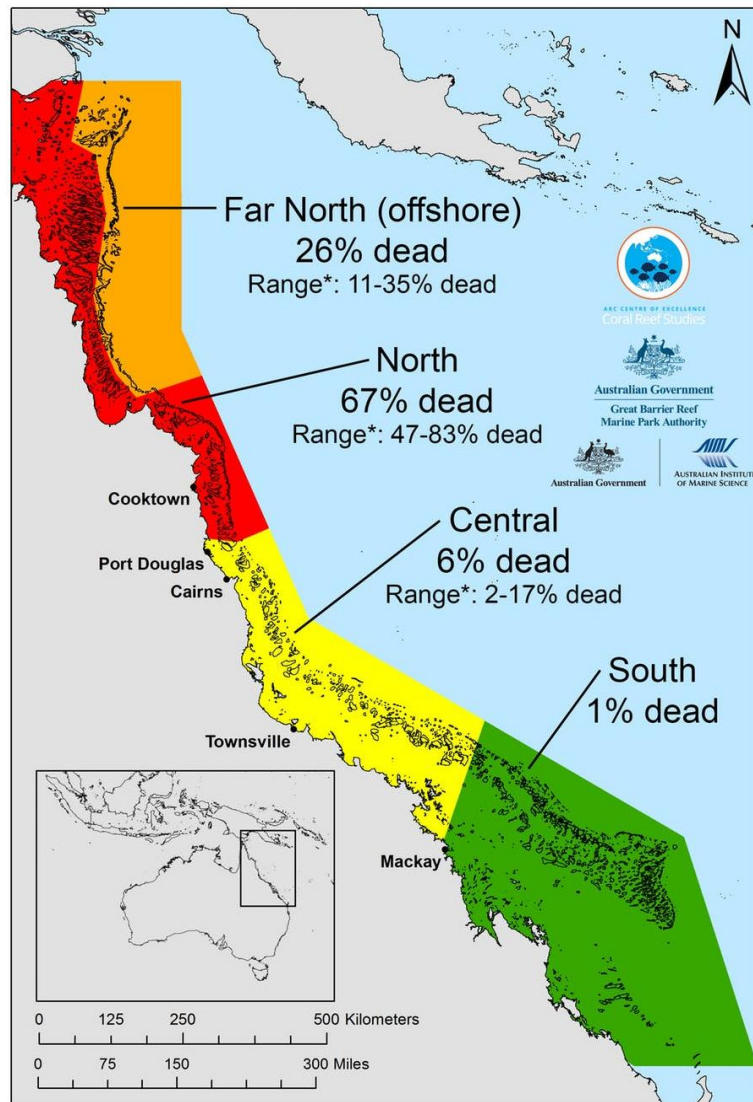
Topic- GS Paper 1–Geography

Source- The Hindu

Third mass bleaching of Great Barrier Reef: Study

Why in the news?

- Recently, **Australia's Great Barrier Reef** has suffered its **most widespread coral bleaching on record**, which is a **big threat** posed by **climate change** to the **world's largest living organism**.



What are Coral Reefs?

- Coral reefs are the **colonies of tiny living creatures** that are found in oceans.
- They are the **underwater structures** that are **formed of coral polyps** that are held together by **calcium carbonate**.
- Coral reefs are also **regarded as the tropical rainforest** of the sea and **occupy just 0.1%** of the ocean's surface but are **home to 25% of marine species**.



What is Coral Bleaching?

- The **coral and the zooxanthellae share a symbiotic relationship, and 90% of the nutrients** that are produced by the **algae are transferred to the coral hosts.**
- But this relationship gets affected under severe environmental stress which **causes the loss of symbiotic algae (zooxanthellae).**
- As a result, the white **calcium-carbonate exoskeleton** is visible through its transparent tissue leading to a **condition known as Coral Bleaching.**
- The corals become **vulnerable in the absence of the algae and begin to die** if the **temperature of the sea remains high for weeks.**
- **According to the records of 2016 and 2017, half of the Great Barrier Reef died due to Coral Bleaching.**

Types of Coral Reefs

Coral Reefs are **differentiated into three categories** based on their **shape, nature and mode of occurrence.**

a. Fringing Reef

- The coral reefs that are **found very close to the land and forms a shallow lagoon** known as **Boat Channel** are called **Fringing Coral Reefs.**
- The Fringing Reefs **develop along with the islands and the continental margins.**
- They grow from the **deep bottom of the sea** and have their **seaward side sloping steeply** into the **deep sea.**
- These are the **most commonly found coral reefs** among the three.
- Example: **Sakau Island in New Hebrides, South Florida Reef.**

b. Barrier Reef

- Barrier Reefs are **considered as the largest, highest and widest reefs** among the **three coral reefs.**
- They develop **off the coast and parallel to the shore** as a **broken and irregular ring.**
- Example of Barrier Reef: **The Great Barrier Reef of Australia** which is **1200 mile long.**

c. Atolls:

- An **atoll can be defined as a reef** that is **roughly circular and surrounds a large central lagoon.**
- This lagoon is **mostly deep having a depth of 80-150 metres.**
- The atolls are situated away from the **deep-sea platforms** and are found around an island or on a **submarine platform in an elliptical form.**
- For example, **Fiji Atolls, Suvadivo in Maldives and Funafootis Atoll of Ellice.**

Factors responsible for Coral Bleaching

- **Increased water temperature** (most commonly due to global warming), or reduced water temperatures.
- **Oxygen starvation** caused by an increase in zooplankton levels
- **Increased solar irradiance** (photosynthetically active radiation and ultraviolet light)
- **Increased sedimentation** (due to silt runoff)

- **Bacterial infections change in salinity**
- **Herbicides**
- **Extreme low tide and exposure**
- **Cyanide fishing**
- Pollutants such as **oxybenzone**, **butylparaben**, **octyl methoxycinnamate**, or **enzacamene**: four common **sunscreen ingredients that are nonbiodegradable** and can wash off of skin
- **Ocean acidification** due to **elevated levels of CO₂** caused by air pollution
- Being **exposed to Oil** or other chemical spills

Coral Reefs in India

- The major coral reef in India includes the **Palk Bay, the Gulf of Mannar, the Gulf of Kutch, the Andaman and Nicobar Islands** and **Lakshadweep Islands**.
- Among all these **coral reefs, the Lakshadweep reef** is an example of atoll while the rest are all fringing reefs.

Topic- GS Paper 1–Geography **Source- Down to Earth**

Anak Krakatau volcano

Why in the news?

- Recently **Indonesian Anak Krakatau volcano** witnesses **longest eruption** since its **explosive collapse in 2018**.

About the Anak Krakatau

- **Anak Krakatoa** is an **island** in a **caldera** in the **Sunda Strait** between the **islands of Java and Sumatra** in the **Indonesian province of Lampung**.
- On **December 29, 1927**, **Anak Krakatoa** emerged from the **caldera** formed in **1883** by the **explosive volcanic eruption** that **destroyed the island of Krakatoa**.
- Anak Krakatau, which means **child of Krakatau**, is the offspring of the **famous Krakatau volcano**, whose monumental **eruption in 1883** triggered a period of **global cooling**.



Other recent volcanic activity observed

Taal Volcano

- It is on the **island of Luzon**, 50 km from **Manila**, the **Philippines** **erupted** on **12th January 2020**. It is classified as a "**complex volcano**" by the **Philippine Institute of Volcanology and Seismology**.
- A **complex volcano**, also called a **compound volcano**, is defined as one that does not have just **one main vent** or cone but **several eruption points**. Another such example is **Mount Vesuvius** on the west coast of Italy.

Topic- GS Paper 1–Geography

Source- AIR

Matterhorn mountain

Why in the news?

- **Switzerland** has expressed **solidarity with India** in its **fight against the coronavirus pandemic** by **projecting the tricolour on the Matterhorn Mountain** in the **Swiss Alps**.



About the Matterhorn mountain

- The **Matterhorn** is a **mountain of the Alps** situated on the border of **Switzerland and Italy**.
- It is a **broad, near-symmetric pyramidal peak** in the **extended Monte Rosa** area of the **Pennine Alps**, whose summit is **4,478 metres (14,692 ft) high**.
- It is the **sixth highest mountain** in the **Alps and Europe**.



About Alps Mountains

- The Alps are a broad **mountain range** that lies **entirely in Europe**.
- It is **spread** over **eight alpine countries**: **France, Switzerland, Monaco, Italy, Liechtenstein, Austria, Germany, and Slovenia**. **Mont Blanc** is the highest mountain in the **Alps**.

Topic- GS Paper 1–Geography

Source- The Hindu

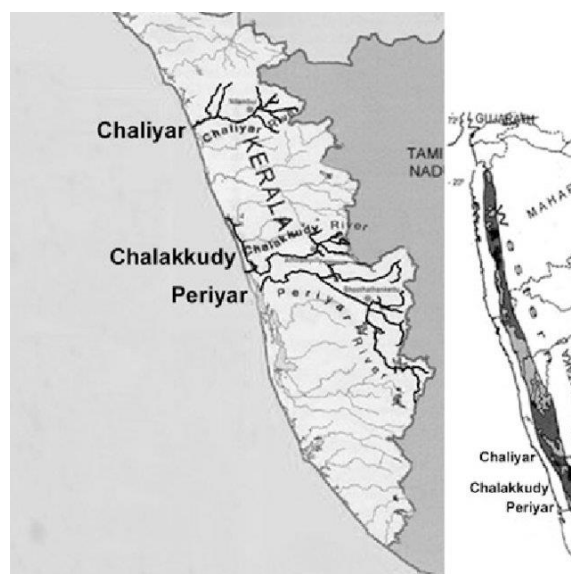
Periyar river

Why in the news?

- Recently, the residents have witnessed sections of the '**Periyar River**' turning **black** after the **shutters of Pathalam bund** were **opened**.

About Periyar River

- It is the longest river of Kerala popularly known as '**Lifeline of Kerala**'.
- It is a **perennial river**.
- It is one of the few perennial rivers in the region and provides drinking water for several major towns.
- The Idukki Dam on the Periyar generates a significant proportion of Kerala's electrical power.
- It flows north through Periyar National Park into Periyar Lake, a 55 km² artificial reservoir created in 1895 by the construction of a dam across the river.
- Water is **diverted from the lake** into the **Vaigai River** in Tamil Nadu via a **tunnel through the Western Ghats**.
- From the lake, the **river flows northwest through the village of Neeleswaram** into **Vembanad Lake** and out to the **Arabian Sea coast**.
- Through the **Periyar Lake dam and tunnel**, the river serves as the primary water source for **five drought-prone districts in the state of Tamil Nadu, including Theni, Madurai and Ramanathapuram**.



Source of the river

- It originates from **Sivagiri Hills of Western Ghats** and flows through **Periyar National Park** and reaches the **Periyar Lake**, and then the water flows into **Vembanad Lake** and finally into the Arabian Sea.

Major tributaries

- Its largest tributaries are the **Muthirapuzha River**, the **Mullayar River**, the **Cheruthoni River**, the **Perinjankutti River** and the **Edamala River**.

Dams on this river

a. Mullaperiyar dam

- It is located on the **confluence of the Mullayar and Periyar rivers** in **Kerala's Idukki district** which is operated and maintained by the **neighbouring state of Tamil Nadu**.

b. Idukki Dam

- It is situated on the **Periyar River** and **generates a significant proportion of Kerala's electrical power**.

Other Existing Hydroelectric Projects on the river

- Sengulam
- Nerimanagalam
- Panniar

Wetlands in Kerala:

- Ashtamudi Lake:** It is a **natural backwater** in Kollam district. The rivers, **Kallada and Pallichal** drain into it. It forms an estuary with the sea at **Neendarkara** which is a famous fishing harbour in Kerala. '**National Waterway 3**' passes through it. **Karimeen of Kanjiracode Kayal** is prominent fish harboured from Ashtamudi lake.
- Sasthamkotta Lake:** It is the largest freshwater lake in Kerala, situated in Kollam district. River Kallad had a unique replenishing system through a bar of paddy field which has now disappeared due to indiscriminate sand and clay mining. The lake is now depleting due to destruction of replenishing mechanism.
- Vembanad-Kol wetland:** Largest lake of Kerala, spanning across **Alappuzha, Kottayam, and Ernakulam** districts. Famous tourist locations like Alappuzha and Kumaeakom, known for houseboats falls here. River mouths of **Pamba-Achenkovil rivers in Vembanad** forms one of the unique wetland topography of Kerala, the Kuttanad. It is below sea level and is famous for exotic fish varieties and paddy fields that are below sea level.

Note: Farmers of Kuttanad are famous for Biosaline Farming. Food and Agriculture Organisation (FAO) has declared the Kuttanad Farming System as a Globally Important Agricultural Heritage Systems (GIAHS). Four of Kerala's major rivers, the **Pamba, Meenachil, Achankovil and Manimala** flow into the region. It is

well known for its boat race in the Punnamada Backwaters, known in Malayalam as Vallamkalli.

Topic- GS Paper 1–Geography
Source- The Hindu

Edakkal Caves

Why in the news?

- Recently a **huge crack has developed** on the eastern part of **Ambukuthi hills, on which the Edakkal caves** are situated after a fire devastated the area a few days ago.

About Edakkal Caves

- It is a located on **Ambukuthi mountain in the Sultan Bathery taluk of Wayanad district in Kerala.**



Historical Importance

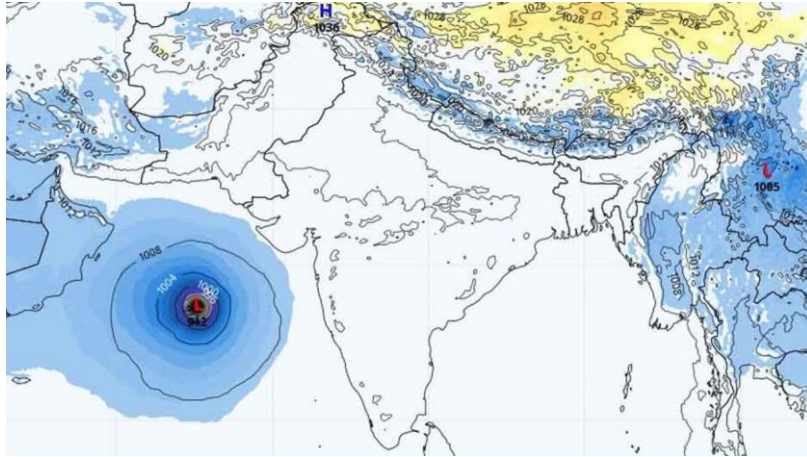
- Edakkal caves are **famous for its pictorial paintings** (cave paintings), which are **considered to be of 6000 B C.**Edakkal is the only known place in India with **Stone Age carvings** which belongs to **Neolithic and Mesolithic age.**

Topic- GS Paper 1–Geography
Source- Indian Express

IMD releases new list of cyclone names

Why in the news?

- The **India Meteorological Department (IMD)** has released a **new list of names of tropical cyclones over the north Indian Ocean** including the **Bay of Bengal and the Arabian Sea.**



Some highlights

- It is comprising of **169 names including 13 from India** such as **Gati, Tej, Aag, Neer, Vyom, Jhar and Jaladhi** among others.
- The **other names from India** in the new list include **Murasu, Probaho, Prabhanjan, Ghumi, Ambud and Vega**.
- The current list has, in fact, **13 names each from all 13 member countries** of the **regional specialized meteorological centres (RSMCs)** including **Bangladesh, Iran, Maldives, Myanmar, Oman, Pakistan, Qatar, Saudi Arabia, Sri Lanka, Thailand, United Arab Emirates and Yemen**.

How does the name assign?

- Any **tropical cyclone** that **hits the region** is known by a **name given in the list**.
- Since the **earlier list of 2004** is left with only **one name - Amphan** (shared by Thailand).

About India Meteorological Department

- The **India Meteorological Department** is **one of the six RSMCs in the world** to **provide tropical cyclone and storm surge** advisories finalized the **new list of 169 names**.

Significance

- **The naming of Tropical Cyclones** helps the scientific community, disaster managers, media and general masses to
 - a. **Identify each individual cyclone.**
 - b. **Create awareness of its development.**
 - c. **Remove confusion** in case of **simultaneous occurrence of Tropical Cyclones** over a region
 - d. **Remember a Tropical Cyclones** easily
 - e. **Rapidly and effectively disseminate warnings** to a much wider audience

Some Tropical Cyclones name

- a. Nisarga (shared by Bangladesh)
- b. Gati (India)
- c. Nivar (Iran)

Note: The names of Tropical Cyclones over the north Indian Ocean are not repeated, i.e. once used; it will cease to be used again.

Topic- GS Paper 1–Geography
Source- Indian Express

Paracel and Spratly Islands disputes

Why in the news?

- Recently, **China unilaterally renamed 80 islands, reefs and other geographical features around the Spratly and Paracel Islands (in the South China Sea) with Chinese names**, drawing criticism from neighbouring countries who have also **laid claim to the same territory**.

About Spratly Islands

- Spratly Islands are a **disputed archipelago in the South China Sea** which is **largely uninhabited**.

Countries in Dispute: **China, Taiwan, Vietnam, the Philippines and Malaysia and Brunei** have also claimed the southeastern part of the Spratlys.

About Paracel Islands

- The **Paracel Islands is a disputed archipelago** which is a **collection of 130 islands and coral reefs** and is located in the **South China Sea**, almost **equidistant from China and Vietnam**.

Countries in Dispute: **China and Vietnam**



Topic- GS Paper 1–Geography, Source- Indian Express

Science & Technology

Advanced Extremely High Frequency (AEHF)

Why in the news?

- The **United States Space Force** launched its **first national security mission** called **Advanced Extremely High Frequency** even as the coronavirus pandemic paralyzes much of the country.



About Advanced Extremely High-Frequency satellite

- It is the **sixth military communication satellite**, and the other five were **launched between 2010 and 2019**. The satellite constellation provides **global, survivable, protected communications capabilities** for **strategic command and tactical warfighters** operating on ground, sea and air platforms.
- It provides a **survivable line of communications** to military forces in **all levels of conflict, including nuclear war**.
- The communications will be delivered to the **armed forces of the US** and its **international partners, including the Netherlands, UK and Canada**.
- The **Initiative** will support **land and forest rehabilitation** in post-conflict areas to reduce peace and security challenges stemming from natural resource degradation.

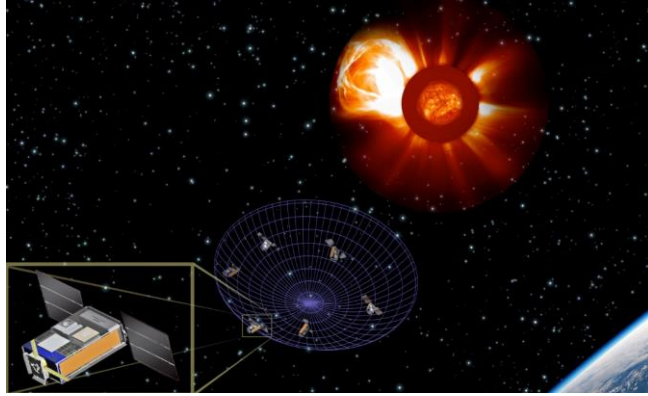
Topic- GS Paper 3–Defence

Source- Outlook

New SunRISE Mission

Why in the news?

- US space agency **National Aeronautics and Space Administration (NASA)** has announced the **Sun Radio Interferometer Space Experiment (SunRISE) Mission**.



The objective of the SunRISE Mission

- It will look into how **Sun generates and releases the giant weather storms**, known as the solar particle storms, into space.
- **Objective:** To study how the Sun generates and releases solar particle storms into planetary space.
- SunRISE contains six CubeSats which will observe radio images of low-frequency emission from solar activity and create 3D maps to locate the origin place of a solar particle storm on the Sun.
- Significance: Help in a greater understanding of the solar system and safeguard astronauts from solar storms while they travel to Mars or the Moon

Additional Facts:

- **Solar storms:** Also called geomagnetic storms, they're caused by disturbances in the Sun that send charged particles into space.
- It contains **six CubeSats** which will observe **radio images of low-frequency emission** from **solar activity** and **create 3D maps** to locate the origin place of a solar particle storm on the Sun.

How it helps NASA?

- The findings would safeguard astronauts from solar storms while they travel to Mars or the Moon.

About Solar storms

- These are also called **geomagnetic storms** and occur when a **variety of eruptions of mass and energy** from the **solar surface**.

Topic- GS Paper 3–Science and Technology

Source- TOI

GRACE-FO Mission

Why in News?

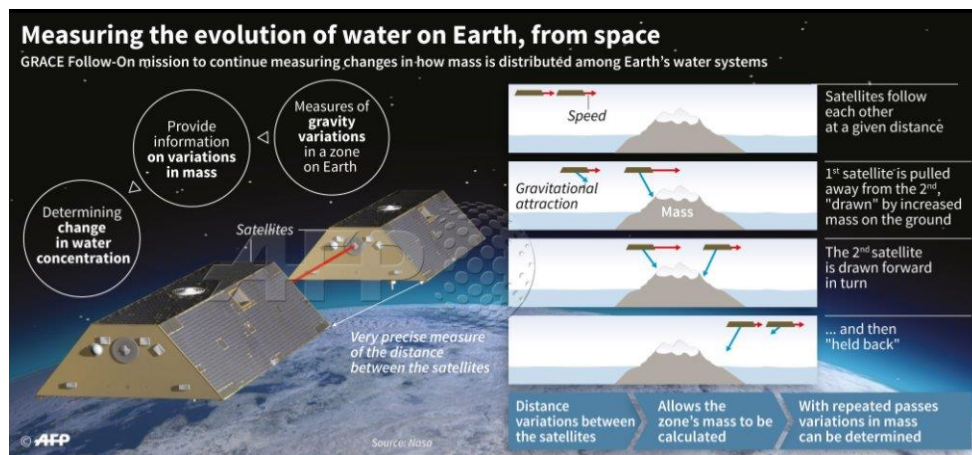
- NASA has released new global maps mapping groundwater, soil wetness using GRACE-FO mission satellites.

Objective

- To map Earth's gravity field every 30 days in order to monitor changes in underground water storage, the amount of water in lakes, soil moisture, ice sheets, glaciers and sea level.

About GRACE-FO Mission

- The Gravity Recovery and Climate Experiment Follow-On (GRACE-FO) mission was launched in 2018.
- It is a successor to the original GRACE mission which orbited Earth from 2002-2017 which was decommissioned in late 2017.
- GRACE was implemented as a joint mission of NASA and the German Aerospace Center.



How it works?

- GRACE-FO's raw data collates a series of measurements showing how far apart two satellites are from each other.
- The twin satellites follow each other in orbit around the Earth, separated by about 137 miles (220 km), constantly send microwave signals to each other to measure the distance between them.
- As the pair circles the Earth, areas of slightly stronger gravity (greater mass concentration) affect the lead satellite first, pulling it away from the trailing satellite.
- All this information from the satellites will be used to construct monthly maps of the Earth's average gravity field, offering details of how mass, in most cases water, is moving around the planet.

Topic- GS Paper 3–Science and Technology
Source- NASA.org

CAWACH - Centre for Augmenting WAR with COVID-19 Health Crisis

Why in the news?

- Recently **Department of Science & Technology**, in a rapid response to **combat COVID-19 global pandemic** approved **setting up of a Centre for Augmenting WAR with COVID-19 Health Crisis**



Objective

- It aims to **scout, evaluate and support** the **innovations and start-ups** that address COVID-19 challenges.

Implementing Agency

- The **Society for Innovation and Entrepreneurship (SINE)**, a technology business incubator at **IIT Bombay** supported by **Department of Science & Technology**.

About CAWACH

- The CAWACH's mandate will be to **extend timely support to potential startups** by way of the **requisite financial assistance and fund deployment targeting innovations** that are deployable in the market **within next 6 months**.
- It will identify up to **50 innovations and startups** that are in the area of novel, low cost, safe and effective ventilators, respiratory aids, protective gears, novel solutions for sanitizers, disinfectants, diagnostics, therapeutics, informatics and any effective interventions to control COVID-19.
- It will provide **access to pan India networks for testing, trial and market deployment** of these products and solutions in the identified areas of priority COVID-19 solutions.

Topic- GS Paper 3- Science and Technology

Source- PIB

Intensification of Research in High Priority Area (IRPHA)

Why in the news?

- **Science and Engineering Research Board** had recently invited competitive proposals under its **Intensification of Research in High Priority Area (IRPHA)** scheme.

Objective

- To ramp up national **R&D efforts for epidemiological studies on new anti-viral, vaccines, and affordable diagnostic against COVID-19** and related respiratory viral infections.

About the Intensification of Research in High Priority Areas

- It is a program of **Science and Engineering Research Board (SERB)** supports proposals in **high priority areas** from the **viewpoint of advances in fundamental science**.
- The project will be set up around **established research groups led by a Principal Investigator (PI)**.
- The duration of the project is generally for **5 years (3 years for COVID-19)**.

About the Science and Engineering Research Board

- It is a statutory body under the **Department of Science and Technology, Government of India**, established by an **Act of the Parliament of India in 2009**.
- The **Board was set up** for **promoting basic research in science and engineering** and to **provide financial assistance to scientists**, academic institutions, R&D laboratories, industrial concerns and other agencies for such research.

Topic- GS Paper 3–Science and Technology
Source- PIB

nCoVSENSEs (TM)

Why in the news?

- The **Union Ministry of Science and Technology** has funded a **Pune-based healthcare startup ‘Module Innovations’** to develop **‘nCoVSENSEs (TM)’** devices.

About the nCoVSENSEs (TM)

- It is a **rapid test device** that **aimed at detecting the IgG and IgM antibodies generated in the human body** upon the onset of viral infection and are targeted against the Spike proteins making it specific for **COVID 19**.
- The device will help in the **mass-screening of people** in the country and confirm infection in patients.
- It will also **determine the recovery of an infected patient** and identify the stage of infection in the patients.



About IgG and IgM

- **Immunoglobulin G (IgG)**, the most abundant type of **antibody**, is found in all body fluids and protects against bacterial and viral infections.
- **Immunoglobulin M (IgM)**, which is found mainly in the blood and lymph fluid, is the first **antibody** to be made by the body to fight a new infection.

Current Method

- The current **confirmatory method of Real-Time Reverse Transcription Polymerase Chain Reaction (RT-PCR)** though a **gold standard** is **costly and time-consuming**.
- This new rapid test will **help manage the problem** more efficiently at a lesser cost.

Topic- GS Paper 3–Science and Technology

Source- Indian Express

Hydroxychloroquine

Why in the news?

- The compound “Hydroxychloroquine” has been frequently in the news. The government has decided to ease its ban on the **export of hydroxychloroquine**, a drug that has **garnered global interest** in the **treatment and prevention of COVID-19**.

What is hydroxychloroquine?

- It is an **antimalarial drug option**, considered less toxic than chloroquine, and prescribed in some instances. Doctors also prescribe **hydroxychloroquine for patients of rheumatoid arthritis and lupus**.

Other Related Information

- At the end of last month, the **Indian Council of Medical Research (ICMR)** issued an **advisory recommending the use of hydroxychloroquine** in asymptomatic healthcare workers treating COVID-19 patients.
- The drug has since been moved to a **Schedule H1 status**, which means patients who need the drug would have to get a new prescription every time they needed to purchase it.
- The conditions for the sale of drugs specified in Schedule H1 to the Drugs and Cosmetics Rules, 1945.

Topic- GS Paper 3–Science and Technology

Source- Indian Express

Madhuban Gajar

Why in the news?

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

What is Biofortification

- It is the process by which the **nutritional quality of food crops** is improved through **agronomic practices, conventional plant breeding, or modern biotechnology**.



About Madhuban Gajar

- The Madhuban Gajar is a **highly nutritious carrot variety** developed through the selection method with **higher β -carotene content and iron content dry basis**.
- It is used for various **value-added products like carrot chips, juices, and pickles**.

Related information

- **National Innovation Foundation (NIF) – India**, an autonomous institute under the **Department of Science and Technology, Government of India** conducted **validation trials** for this variety at **Rajasthan Agricultural Research Institute (RARI), Jaipur**.
- In the trials, it was found that **Madhuban Gajar carrot variety** possesses a **significantly higher root yield and plant biomass** as compared to check variety.

Topic- GS Paper 3–Science and Technology

Source- PIB

Global Initiative on Sharing All Influenza Data

Why in the news?

- **India** has recently shared **nine whole-genome sequences of the coronavirus** with the **Global Initiative on Sharing All Influenza Data (GISAID)**.



About Global Initiative on Sharing All Influenza Data

- The **Global Initiative on Sharing All Influenza Data (GISAID) Initiative** was launched on the occasion of the **61st World Health Assembly in 2008**.
- The aim of this **initiative is to promote international sharing of all influenza virus sequences related clinical and epidemiological data** to understand how the viruses evolve, spread and potentially become pandemics.
- Its headquarters in **Munich, Germany**.

Topic- GS Paper 3–Science and Technology

Source- The Hindu

Science and Technology Empowered Committee for COVID-19

Why in the news?

- The Health Ministry has constituted a ‘Science and Technology Empowered Committee’ for COVID-19 response.

About the Committee

- The committee will be chaired by **Vinod Paul (member, NITI Aayog)** and **K. Vijay Raghavan (Principal Scientific Adviser to the government)**.
- It said this committee would coordinate among science agencies, scientists, industries and regulatory bodies.

Body Involved

- The Committee will work with the **Department of Science & Technology, Department of Biotechnology, Council of Scientific and Industrial Research, Defence Research and Development Organisation and Indian Institute for Science** to take quick decisions on research.

Topic- GS Paper 3, Sci & Tech

Source: PIB

Chitra Acrylosorb Secretion Solidification System

Why in the news?

- Recently, Scientists at **Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST)** have designed and developed a **super absorbent material called 'Chitra Acrylosorb Secretion Solidification System'**.

What is Chitra Acrylosorb Secretion Solidification System

- It is a highly efficient **super-absorbent material** for **liquid respiratory** and other **body fluid solidification and disinfection** for the **safe management of infected respiratory secretions**.
- A **super-adsorbent gel** with **embedded disinfecting material** is an **attractive proposition for the safe collection, consolidation, and quarantine of secretions** before their incineration.



How does it work?

- **AcryloSorb** can **absorb liquids at least 20 times** more than its **dry weight** and **also contains a decontaminant** for in situ disinfection.
- Containers filled with this material will **immobilize the contaminated fluid** by **solidifying it (gel-like)**, thus **avoiding spillage** and will also disinfect it.

Advantages

- It **minimizes the risk for the hospital staff**, the need for **personnel for disinfecting and cleaning the bottles and canisters for reusing them** and makes the **disposal safer and easier**.
- The **AcryloSorb suction canisters** will collect the **liquid respiratory secretions from ICU patients** or those with **copious secretions treated in the wards**.
- Sealable and disposable **AcryloSorb spit bags** are **provided for solidifying the sputum and saliva** of **ambulant patients with respiratory infections**, which can then be incinerated.

Topic- GS Paper 3–Science and Technology

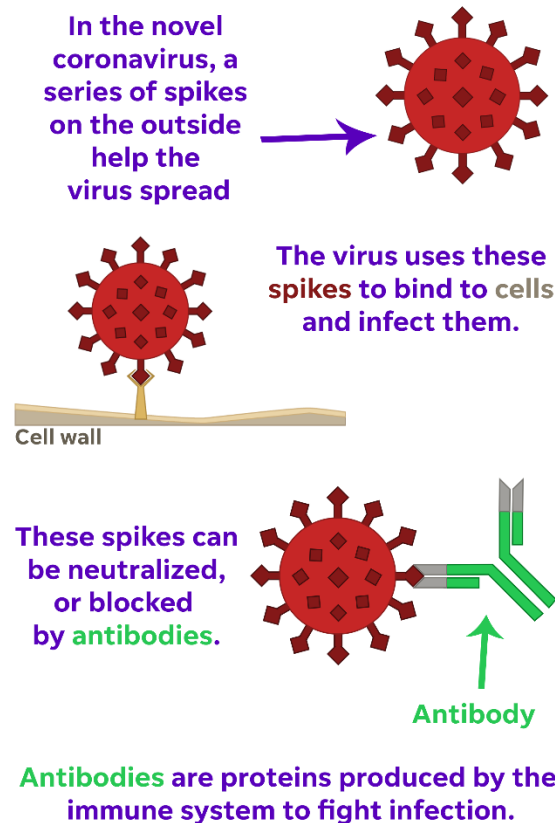
Source- The Hindu

Active Virosome Technology

Why in the news?

- **Seagull BioSolutions**, a **Pune-based** firm, a **startup working on new biological technologies**, is being funded by the **Department of Science and Technology**, undertaking the development of **Active Virosome (AV)-Vaccine and Immunodiagnostic kits for COVID-19** emergency.
- **Seagull Biosolutions** is the first company the government is financially backing for coronavirus vaccine efforts.

Antigens are structural parts of a virus.



About Active Virosome Technology

- Seagull Bio has developed it is **useful for the production of vaccines & immunotherapeutic agents**. The AVT platform is helpful for **producing novel, non-hazardous & economical**. **Active Virosome agents** are expressing **desired antigens from the target pathogen**.
- These will be used to **develop a novel vaccine for the prevention of COVID-19 infection** and also **immunodiagnostic ELISA kits for COVID-19**.

Difference between PCR diagnostic kits and Immunodiagnostic kits:

- **Polymerase chain reaction (PCR)** based diagnostic kits which are currently available in India are **rapid and enable detection of active COVID-19 infection**.
- It **cannot identify asymptomatic infections** or those people who were exposed to or infected with COVID-19 in the past and may **still be spreading the virus**.
- In contrast, **Immunodiagnostic kits help in detection of antibodies to COVID-19**, which **can identify these infections also**.

Topic- GS Paper 3–Science and Technology
Source- Indian Express

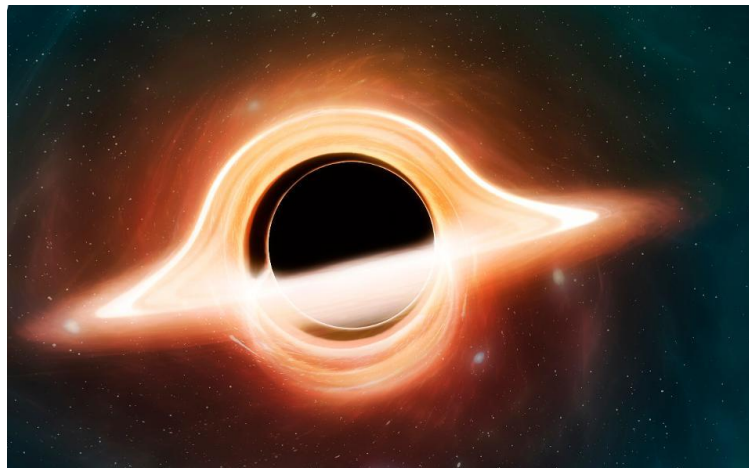
Primordial Black Holes

Why in the news?

- Researchers from **Inter-University Centre for Astronomy and Astrophysics (IUCAA)** have studied **primordial black holes (PBH)** that were born as a result of a tiny increase in the potential energy levels of the universe.

About Primordial Black Holes

- These were formed during the **Hot Big Bang phase**.
- It is **believed that they are formed as a result of collapsing radiations** as opposed to the **collapse of massive stars**, which is the case of **any other black holes**.
- **Primordial Black Holes** can be **massively massive as 3000kms** or be **extremely tiny like the nucleus of an atom**.



Some highlights

- According to the scientists, as time passes, this uniform energy prevailing in the Inflation Field wanes out.
- But, before the energy dies out completely, there could be a marginal increase in the potential energy for a very brief time in the form of a bump, on to an otherwise dwindling energy-level graph.
- As a result, the universe resumes its normal decelerating rate.
- Approximately 14 billion years ago before the commencement of the Hot Big Bang phase, the very young universe was found to be active and expanding at a highly accelerated rate.
- This exponential growth in its size, experts say, was fuelled by the presence of uniform energy field and density as the universe passed through the Cosmic Inflation phase.
- The universe had expanded to nearly 10^{27} times its original size, that too, within just fraction of a second by the time Cosmic Inflation phase concluded.

- Thereafter, the remnant energy possessed by this gravitational force got converted mainly into photons (light) in addition to protons, electrons, neutrons and other particles.
- As the universe continued to grow exponentially during the Cosmic Inflation phase, it sent across tiny quantum jitters.
- These fluctuations, released in a specific fashion, when sufficiently large, slowly give birth to galaxies and stars.

The research is underway, and further studies could reveal deeper insights as to how the energy was decaying.

About Black holes

- A black hole is a **place in space where gravity pulls** so much that even light cannot get out.
- The **gravity is so strong because the matter has been squeezed into a tiny space** which can happen when a star is dying.
- Black holes are **invisible because no light can get out of it. Space telescopes with special tools** can help find black holes.
- The **special tools can see how stars that are very close to black holes act** differently than other stars.

Topic- GS Paper 3–Science and technology

Source- Indian Express

NeMO-Net

Why in the news?

- NASA has recently created a '**NeMO-Net' video game** where the players can go on **virtual ocean research expeditions** looking for **coral reefs with real data** for navigation.



About NeMO-Net

- The NeMO-Net is also known as the **Neural Multi-Modal Observation and Training Network**.
- It is a **video game developed by NASA** in which players can **identify and classify corals using 3D images** while virtually navigating the ocean and help NASA to build a coral map.

- The game uses **real NASA data including 3D images of the ocean floor with corals, algae, and seagrass**, captured from drones or aircraft on **expeditions to Puerto Rico, Guam, American Samoa, and elsewhere**.

Some highlights

- Anyone, even a first grader, can play this game and sort through these data to help us map one of the most beautiful forms of life we know of. In this manner, the awareness about coral reefs, the giant marine ecosystem, can be spread easily.
- The game is available in the Apple App store and can be played on iPhones, iPads and Mac computers. A version is coming for Android systems.
- In the app, players will go on ‘dives’ where they interact with real NASA data and images, learning about the different kinds of corals that lie on the ocean floor and highlighting them.
- The missions will help NASA’s supercomputer learn to recognize corals and classify them. The more people who play NeMO-NET, the better the supercomputer’s mapping abilities become.

Scientists say corals are at risk from rising ocean temperatures, pollution and ocean acidification.

Topic- GS Paper 3–Science and technology

Source- NASA.org

ICMR suggests pooled testing of samples

Why in the news?

- **Indian Council of Medical Research (ICMR)** has recently issued an **advisory for using pooled samples for testing of COVID-19** in order to **increase the number of tests** conducted by laboratories **across the country**.



- The number of Covid-19 cases in India is rising exponentially. In view of this, it is critical to increase the numbers of tests conducted by laboratories. Positivity rate in cases is still low. Hence, it may help to use the pooled samples for screening.

What is pooled testing?

- **Pool testing** involves up to **five samples in one go**, rather than one at a time. If a **pool comes up positive**, **each sample** will be **tested individually**.

What is the purpose of pooled testing?

- to increase the capacity of laboratories to screen more samples in the same amount of time without doubling the resources needed.
- **Substantial cost savings** and **reduction in requirement of testing kits**.
- **Pooled screening** can also help in **tracking down the asymptomatic cases** of the disease, thereby tracking community transmission.

Methodology

- The **ICMR advisory** added that the **pool testing algorithm** involves the **Polymerase Chain Reaction (RT-PCR) screening** of a specimen pool, **comprising multiple samples**.
- In case a **pool tests positive**, then each sample will be individually tested.
- The real-time PCR testing for Covid-19 with multiple samples (upto five) is feasible when the prevalence rates of infection are low.
- The **RT-PCR test** is used to determine whether an individual has contracted Covid-19, caused by the SARS-CoV-2 virus.
- The **test is only prescribed to be used in areas with low prevalence of the infection**, i.e., with a positivity rate of **less than 2 per cent**.
- This means that of **1,000 samples in an area**, if **less than 20 have tested positive for Covid-19**, the area is said to have a low positivity rate and will **qualify for pool testing**.

What are the advantages of this initiative?

This method is effective in two ways:

- it increases the capacity of testing
- it saves a lot of resources — time, cost and manpower

The **Andaman and Nicobar administration** has been pool testing samples to reduce the number of test kits used, as the country faces an acute shortage.

Which areas can perform pool testing?

- Apart from areas with a low prevalence of Covid-19, which will be initially decided based on existing data, the advisory suggests pool testing in areas with positivity of 2-5 per cent.
- Pooling of samples is not recommended in areas or populations with positivity rates of greater than 5 per cent.

Note: It is unclear, though, whether pool testing will be used only in areas where tests have already been conducted.

Topic- GS Paper 3–Science and Technology

Source- The Hindu + ICMR

Coronavirus can pass from mother to foetus

Why in the news?

- Recently the **Indian Council of Medical Research (ICMR)** has released a report called ‘the Guidance for Management of Pregnant Women in COVID-19 Pandemic’.
- The guidelines also call for the **use of personal protective equipment for hospital staff**, especially at the time of delivery.

What is vertical transmission?

- A **vertically transmitted infection** is an infection caused by pathogens (such as bacteria and viruses) that use **mother-to-child transmission**.
- The transmission occurs directly from the mother to an embryo, foetus or baby during pregnancy or childbirth.
- It can occur when the mother gets an infection as an intercurrent disease in pregnancy (**concurrent, concomitant** or, in most cases, **pre-existing**).
- The nutritional deficiencies may exacerbate the risks of perinatal (relating to time, usually a number of weeks, immediately before and after birth) infections.

About the Report

- As per the ICMR, it is possible for a **pregnant woman who is positive for COVID-19 to pass on the virus to her child**.
- The emerging evidence now suggest that there is a possibility of **vertical transmission** (transmission from mother to baby **antenatally [before birth]** or **intrapartum [during labour]**).
- As per the US Centers for Disease Control and Prevention, mother-to-child transmission of coronavirus during pregnancy is unlikely, but after birth, a newborn is susceptible to person-to-person spread.
- There are instances when an infected mother has given birth to a perfectly healthy child, but the child contracted it soon after the birth.
- Special protection guidelines are recommended for health workers and the baby who come in contact with the mother’s body fluids.
- There are scientific guidance documents that prescribe separation of the mother and child in such cases immediately after birth.
- Further research is underway. But advisory regarding precautions has been released by ICMR.

Quick glance at the diseases where vertical transmission (mother to child) is possible

a. Rubella

- Rubella, also known as **German measles**, is an **infection caused by the rubella virus**.
- Rubella can **cross the placenta** from an infected pregnant woman to her developing **embryo or fetus after the first week of incubation**.

b. Syphilis

- It is a **sexually transmitted infection** caused by the **bacterium Treponema pallidum**.
- **Congenital syphilis**, which is passed from **mother to child during fetal development** or at birth.

c. HIV

- **Acquired immunodeficiency virus** is a serious infection **caused by the human immunodeficiency virus (HIV)**.
- During pregnancy, the **foetus is infected by HIV crossing the placenta**.

Zika virus

- The **Zika virus infection** during pregnancy can cause infants to be **born with microcephaly** and other congenital malformations, known as congenital Zika syndrome.

Topic- GS Paper 3–Science and Technology

Source: ICMR

CovidGyan: A Science-based website on COVID 19

Why in the news?

- With the ongoing viral outbreak **fear striking the nation** at an **exponential rate**, **scientists and engineers** brings the **CovidGyan**.

About CovidGyan

- It is a **multi-institutional, multi-lingual science communication initiative** which helps to bring the **scientific and factual aspects** of this **pandemic outbreak on to public domain**.
- The initiative is the **brainchild of Tata Institute of Fundamental Research (TIFR), Indian Institute of Science (IISc), and Tata Memorial Centre (TMC)**.



Objective

- The primary objective of this website is **to create public awareness and bring in a holistic approach** to the understanding of this disease and potential means to mitigate it.

Some highlights

- The **topics covered** range from the exact behaviour of the **novel coronavirus (SARS-CoV-2)**, **transmission dynamics of the Corona flu** and its **diagnostics to innovative technologies** to scale up the fight, **means of coping up** with physical distancing, and **critical assessment of communications**.
- This website also named **CovidGyan** serves as a **hub to bring together** a collection of resources in **response to the COVID-19 outbreak**.
- These resources are generated by **public supported research institutions in India** and **associated programs**.
- It is designed with **multi-faceted aspects to 'right information'** through talks from **eminent scientists in audio/podcast formats, infographics, posters, videos, FAQs and mythbusters**, and even links to **scientific papers**.
- The facilities include a **campus email helpdesk**, a campus **messaging service**, a **phone helpline**, and a **peer support line**, which is likely to stay for the campus in the years to come.
- The group of young researchers has also set up various **volunteer groups** to address **student needs during the lockdown**, as well as an **ongoing effort to match specific research/programming/design skills** with various **short term and long-term scientific challenges**.

Topic- GS Paper 3–Science and Technology

Source- PIB

Integrated geospatial platform

Why in the news?

- The **Department of Science and Technology** has created an **Integrated Geospatial Platform** to help decision making during the current COVID-19 outbreak.

Objective:

- **Integration of demographic information with geospatial data is essential for decision making, governance, and development.** In the context of COVID-19 spread, this effort will be a **special digital enabler** for **platforms** such as **AAROGYA-SETU**.

About Integrated Geospatial Platform

- It has been developed out of **available geospatial datasets, standards-based services, and analytic tools**.
- It is aimed at **helping decision making** during the current COVID-19 outbreak.
- It will also help in **devising area-specific strategies** to handle the **socio-economic impact** in the **recovery phase**.

- It is expected to **strengthen the public health delivery system** of the **State and Central Governments** and provide the **necessary geospatial information support to citizens and agencies.**



About SAHYOG app

- It is a **mobile application**, prepared & managed by the **Survey of India (SoI)**. It has been **customized to collect COVID-19 specific geospatial datasets through community engagement.**
- It is created to augment the response activities by the Government of India to the pandemic.
- **Information parameters** required as per the **Government of India strategy and containment plan for large outbreaks** have been incorporated in the SAHYOG application.
- This mobile application will **complement the “AAROGYA-SETU” mobile app** launched by the Government of India for **Contact tracing, public awareness, and Self-assessment objectives.**

How will it impact?

- The **Department of Science and Technology (DST)**'s efforts in **integrating geospatial information** can help the country in **taking rapid spatial information-based decisions** to face the **multilayered crisis** that the pandemic and brought and spread the **impact of such decisions** through the country.
- It will **strengthen the Nation's health emergency management** due to the COVID-19 outbreak and **support the socio-economic recovery process** through the seamless provision of spatial data, information, and linkage between human, medical, technological, infrastructural and natural resources.
- The **State Spatial Data Infrastructure (SSDI)** in **Madhya Pradesh, Odisha, Punjab, and Jammu & Kashmir** have been **providing collateral standards-based geospatial data services** to the **State and District Level Authorities** in the **respective States through State Geoportals for integration with related health data sets towards combating COVID-19 pandemic.**

Topic- GS Paper 3–Science and Technology
Source- PIB

Truenat

Why in the news?

- Recently, the **Indian Council of Medical Research (ICMR)** has recommended the use of **Truenat beta CoV test on Truelab workstation**. It is **validated as a screening test** by the apex medical body.



About Truenat

- It is a **device which is small, battery-operated and requires minimal training** and is usable even in lower settings such as the **Primary Health Centre**.
- It is a **Diagnostic machine** used to test **drug-resistant tuberculosis**.
- It uses a chip-based technology and takes just up to **60 minutes for a test, screening or confirmatory**.

Topic- GS Paper 3–Science and Technology

Source- AIR

Post-intensive care syndrome (PICS)

Why in the news?

- After leaving the ICU, the COVID-19 Patient, suffer from what is known as post-intensive care syndrome (PICS), which can **happen to any person who has been in the ICU**.

What is post-intensive care syndrome?

According to an article in the **Journal of Translational Internal Medicine**, **PICS comprises impairment in cognition, psychological health and physical function of a person** who has been in the ICU.

- It is defined as a **new or worsening impairment in physical** (ICU-acquired neuromuscular weakness), **cognitive** (thinking and judgment), or **mental health status** is arising after **critical illness and persisting beyond discharge** from the acute care setting.
- Further, such patients **may experience neuromuscular weakness**, which can manifest itself in the **form of poor mobility and recurrent falls**.
- A **psychological disability** may arise in a person in the **form of depression, anxiety, and post-traumatic stress disorder**

(PTSD). PICS may be induced if a person was on prolonged mechanical ventilation, experienced sepsis, multiple organ failure and a prolonged duration of “bed-rest or deep sedation”.

Symptoms

- These are generalized **weakness, fatigue, decreased mobility, anxious or depressed mood, sexual dysfunction, sleep disturbances and cognitive issues.**
- These symptoms may last for a few months or many years after **recovery**, according to the authors.

Treatment

- It is recommended that to **avoid PICS, patients’ use of deep sedation is limited**, and early mobility is encouraged, along with giving them “**aggressive**” **physical and occupational therapy.**
- Such patients should be given the **lowest dose of pain medications** when possible. They should be **put on lung or cardiovascular rehabilitation treatments** along with **treatments for depression, anxiety, and PTSD.**

Topic- GS Paper 2–Health Issue

Source- Indian Express

Past pandemics

Why in the news?

- The world is coping with the ongoing viral outbreak, which is taking a toll on the global economy. We, as a global citizen, do not even know the solutions to cope with it as the research and methodologies are underway. Applying specific measures like quarantine and lockdown, the further spread can be stopped.
- In such prevailing circumstances, it becomes essential to re-visit the deadliest pandemics of the past and how the world coped with them before COVID-19.



Various pandemics which have had significant influence in shaping human society and politics throughout history are as follows:

- (i) **Justinian Plague** It is one of the **deadliest pandemics that broke out in the sixth century in Egypt and spread fast to Constantinople, the capital of the Eastern Roman (Byzantine) Empire.**

- The plague was named after the then **Byzantine Emperor Justinian**.
- The **outbreak spread from Constantinople** to both the **West and East**, had **killed up to 25 to 100 million people**.

(ii) **Black Death**

- The **Black Death**, or **pestilence**, that **hit Europe and Asia** in the **14th century** was the **deadliest pandemic recorded in human history**. It killed some 75 to 200 million people.
- The **plague arrived in Europe in 1347**, where **up to 50% of the population died of the disease**.

(iii) **Spanish Flu**

- Spanish Flu broke out during the last phase of the **First World War** and was the **deadliest pandemic of the previous century that killed up to 50 million people**.
- One of the **significant impacts of the outbreak** was the **result of the war**. Though the **Flu hit both sides**, the **Germans and Austrians** were **affected badly**, and the outbreak derailed their offensives.

(iv) **Influenza Virus:**

a. **H1N1 virus**

- 1918 influenza pandemic was the most severe in recent history.
- An H1N1 virus caused it with genes of avian origin. It spread worldwide during 1918-1919.
- It is regarded as the deadliest pandemic of the 20th century.

b. **H2N2 Virus**

- In 1957, a new influenza A (H2N2) virus emerged in East Asia, triggering a pandemic ("Asian Flu").
- This H2N2 virus was comprised of three different genes from H2N2 infection.
- These originated from an avian influenza A virus, including the H2 hemagglutinin and the N2 neuraminidase genes.

c. **H3N2 virus**

- In 1968 pandemic was caused by an influenza A (H3N2) virus.
- The H3N2 virus comprised of two genes from an avian influenza A virus, including a new H3 hemagglutinin, but also contained the N2 neuraminidase from the 1957 H2N2 virus.
- It was first noted in the United States in September 1968. It continues to circulate worldwide as a seasonal influenza A virus.
- Seasonal H3N2 viruses, which are associated with severe illness in older people, undergo regular antigenic drift.

d. **H1N1 virus**

- In 2009, a novel influenza A (H1N1) virus emerged.
- It was detected first in the United States and spread quickly across the United States and the world.
- This new H1N1 virus contained a unique combination of influenza genes not previously identified in animals or people.
- This virus was designated as **influenza A (H1N1) pdm09 virus**.

The 10-year commemoration of the 2009 H1N1 flu pandemic is an opportunity to reflect on that event in history as well as to acknowledge the importance of ongoing efforts to improve domestic and global capacity to detect and respond to novel flu viruses. Since 2009, substantial advances have been made in influenza science and preparedness.

Topic- GS Paper 2–Health Issue

Source- The Hindu and Centre for Disease Control and Prevention, US

Remdesivir

Why in the news?

- According to **World Health Organization**, the drug '**Remdesivir**' has been under the spotlight as a **possible treatment for critical cases** of novel **coronavirus disease (COVID-19)**.



What is remdesivir?

- It is a **drug with antiviral properties** that was **manufactured by US-based Biotechnology Company in 2014**, to treat Ebola cases.
- It was also **tried in patients of MERS and SARS**, both caused by members of the coronavirus family.
- It is a **nucleotide analog**, specifically an adenosine analogue, which inserts into **viral RNA chains**, causing their premature termination. It is being studied during 2020 as a possible **post-infection treatment for COVID-19**.

Working of Remdesivir

- Coronaviruses have a **single-strand RNA** as their **genetic material**.
- When the **novel coronavirus SARS-CoV2** enters a human cell, an **enzyme called RdRP** helps the **virus replicate**.
- **Remdesivir** works by **inhibiting the activity of RdRP**.

What does India's stand on remdesivir?

- The **Indian Council of Medical Research (ICMR)** has said it can consider using the drug if local manufacturers are willing to procure it.

- The **ICMR plans** to wait and watch for the **results of WHO's Solidarity trials** to make an assessment on the efficacy of **'Remdesivir for COVID-19 treatment'**.
- Remdesivir is **currently not available in India**.

What are the other lines of treatment being investigated?

a. Hydroxychloroquine

- It is an anti-malarial drug, is undergoing multiple trials to assess if it can be used to treat severe COVID-19 cases.
- It works by decreasing the acidity in parts of the cell where the virus is present, thereby inhibiting it.

b. Ritonavir and lopinavir

- These are two antiviral drugs used for treatment of HIV.
- These too work by inhibiting the virus's RNA. Specifically, they target the enzyme that helps the virus split proteins.
- These two drugs are being used in India and several countries for seriously ill patients.

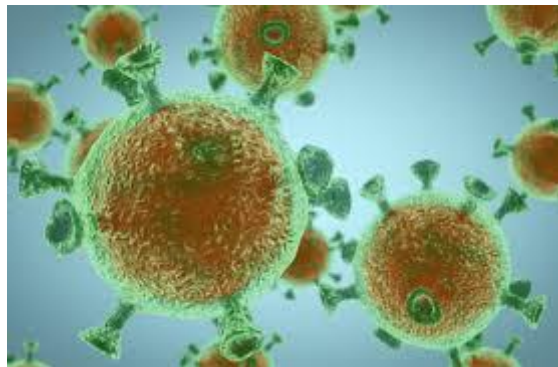
Topic- GS Paper 3–Science and technology

Source- Indian Express

Types of human coronaviruses

Why in the news?

- In the **last two decades**, more **aggressive coronaviruses** have **emerged** that can cause **serious illness and even death in humans**.
- Till date, **seven different types of coronaviruses** have been **identified** that **infects humans** include **SARS-CoV**, **MERS** and **now SARS-CoV-2**.



What are coronaviruses?

- Coronaviruses are **a large family of single-stranded RNA viruses** that **cause diseases in animals and humans**.
- The viruses usually **cause mild to moderate upper-respiratory tract illnesses** such as the **common cold**.

Common human coronavirus

- a. 229E (alpha coronavirus)
- b. NL63 (alpha coronavirus)
- c. OC43 (beta coronavirus)
- d. HKU1 (beta coronavirus)

People around the world commonly get infected with human coronaviruses 229E, NL63, OC43, and HKU1.

Other human coronavirus (zoonotic)

Sometimes coronaviruses that **infect animals can evolve and make people sick** and become a new human coronavirus. Three recent examples of this are 2019-nCoV, SARS-CoV, and MERS-CoV.

- a. MERS-CoV (the beta coronavirus that causes Middle East Respiratory Syndrome, or MERS)
- b. SARS-CoV (the beta coronavirus that causes severe acute respiratory syndrome, or SARS)
- c. SARS-CoV-2 (the novel coronavirus that causes coronavirus disease 2019, or COVID-19)

Discovery and Identification of coronavirus

a. 229E: One of the **first coronaviruses strains** to be described in the **mid-60s**, possibly by **D Hamre and JJ Procknow in 1966**.

b. OC43

- Discovered **in 1967** according to the **Journal of Virology**.
- However, a **paper in Virology Journal** has described it as the **first human coronavirus to be discovered in 1965**, citing a **1966 paper** written by **Tyrrell and Bynoe** who worked with the nasal swab titled **B814**.

c. NL63 and HKU1

- **First identified in the Netherlands in 2004**, probably after it was **isolated from a seven-month-old infant** showing **respiratory symptoms**.
- During this time, there was **an increase in research on human coronaviruses**, which led to the **discovery of NL63 and HKU1 in Hong Kong in early 2005**.

d. SARS-CoV

- It was **identified after the 2003 outbreaks in China**.
- It is thought to have **come from an as yet unknown animal source**, probably bats.
- **Bats thought to have given it to other animals**, probably **civet cats**.
- **Symptoms of SARS** include **cough, shortness of breath, diarrhea**.
- In severe cases, **the symptoms can progress to respiratory distress**, which may **require intensive care**.

e. MERS

- It is another **viral respiratory disease** caused by a **human coronavirus**.
- It was **first identified in Saudi Arabia in 2012**.
- It was **transmitted by dromedary camels**
- Typical symptoms include **fever, cough, and shortness of breath**.

f. SARS-CoV-2:

- It was **first identified in Wuhan**, in **2019**
- Source of the **virus is not yet known**, possibly bats.

- Symptoms: **Fever, Tiredness and Dry cough.**
- Further, while **SARS-CoV-2** is **milder than SARS-CoV and MERS**, it is especially **difficult to control its outbreak**, given its **high infectiousness.**

Topic- GS Paper 3–Science and Technology
Source- Indian Express

Blazar emission

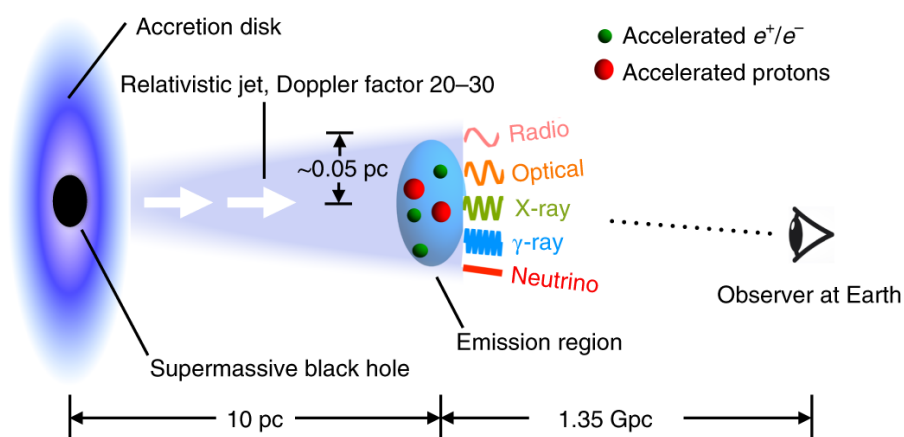
Why in the news?

- Researchers from the **Indian Institute of Astrophysics (IIA), Bangalore**, have recently conducted the **first systematic study on the gamma-ray flux** variability nature on **different types of blazars.**
- The study could **provide clues to the processes happening close to the black hole**, not visible through direct imaging.



About Blazars

- These are the **most luminous and energetic objects** in the known **universe** were found to be **emitters of gamma-rays** in the 1990s.
- **Blazars are AGN** whose **jets are aligned with the observer's line of sight.**
- Some blazars are thought to **host binary black holes** in them and could be **potential targets** for future gravitational-wave searches.



About Blazer Emission

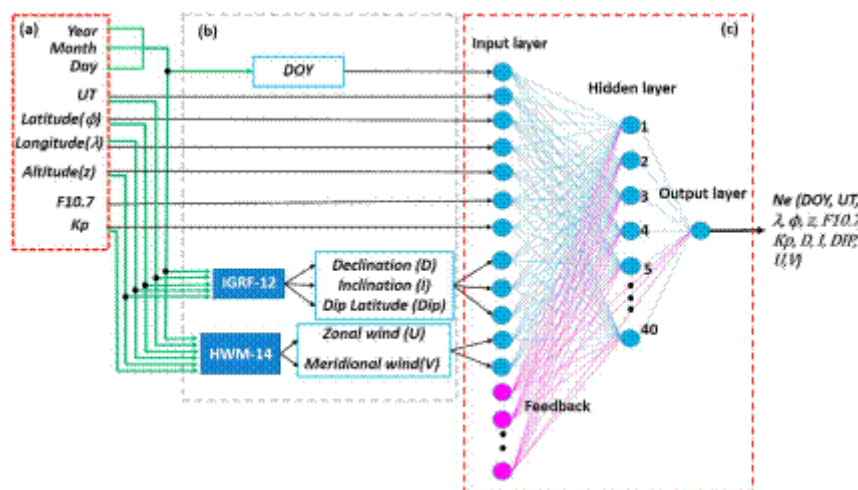
- At the **centre of most galaxies**, there is a **massive black hole** that can have a **mass of millions or even billions of Suns** that accrete gas, dust, and stellar debris around it.
- As this material falls towards the **black hole**, their **gravitational energy** gets converted to **light forming active galactic nuclei (AGN)**.
- A **minority of AGN (~15%)** emit **collimated charged particles** called **jets travelling at speeds** close to the **speed of light**.

Topic- GS Paper 3–Science and Technology
Source- PIB, The Guardian

Artificial Neural Networks based global Ionospheric Model

Why in the news?

- Researchers from the **Indian Institute of Geomagnetism (IIG)** have developed **Artificial Neural Networks based global Ionospheric Model**.



About Artificial Neural Networks based global Ionospheric Model

- It is a **global model to predict the ionospheric electron density**, which can **help communication/navigation**. The **Global Ionospheric Model (ANNIM)** has been **developed using long-term ionospheric** observations to predict the ionospheric electron density and the peak parameters.
- The ANNIM also captured the **general morphological features** of the ionosphere during the **disturbed space weather periods**, such as **geomagnetic storms** which occurs when the **magnetic cloud originated from Sun** (known as **Coronal Mass Ejection (CME)**) **interacts with the Earth's magnetosphere**.

Significance

- It will help predict the **ionospheric electron density** with larger data coverage which is crucial for **communication and navigation**.

About Ionosphere

- It is defined as **the layer of the Earth's atmosphere that is ionized by solar and cosmic radiation.**
- It lies **75-1000 km above the Earth.**
- It has **practical importance** because it **influences radio propagation to distant places on the Earth.**

Topic- GS Paper 3–Science and Technology

Source- The Hindu

World Wide Help

Why in the news?

- Recently, **IIT Bombay has developed a platform named Worldwide Help (WWH)** which can be used to **connect people seeking medical help with helpers**, such as doctors.

About World Wide Help

- It is an **Information Technology solution** to help with **physical distancing**. The **World Wide Help** platform can be used **with an app or a phone**.
- It aims to **connect people seeking medical help** with helpers, such as doctors.
- It is a **system to generate e-tokens** that can be **deployed by local markets and small vendors** to ensure physical distancing.

Topic- GS Paper 3–Science and technology

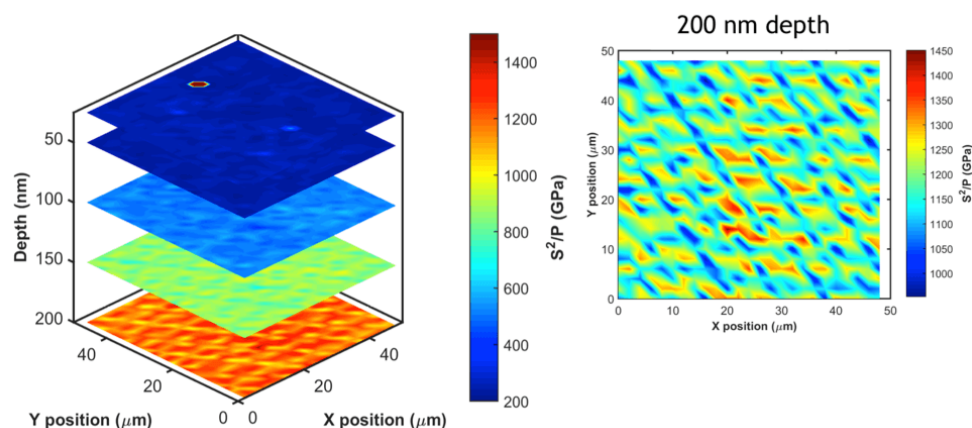
Source- The Hindu

NanoBlitz 3D

Why in the news?

- Recently, the scientists from the **International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI)** have developed an **advanced tool called 'NanoBlitz 3D'**.

4D mechanical property mapping of multilevel chip



About NanoBlitz 3D

- It is **jointly developed** by ARCI and **Nanomechanics Inc.**, Oak Ridge, USA.
- It is an **advanced tool for mapping nano-mechanical properties of materials** like multi-phase alloys, composites, and multi-layered coatings.
- The tool called **NanoBlitz 3D** has also been found to **yield excellent results** on a **wide range of material systems**, including glass-fibre-reinforced polymer composites, dual-phase steels, softwood and shale.
- It enables the **performance of a large array**, typically **consisting of 1000s high-speed nano-indentation tests**, wherein each **indentation tests** takes less than **one second to measure hardness and elastic modulus** of a given material.
- It provides capabilities to **carry out advanced data analysis**, such as **identifying and quantifying the mechanical properties** of constituent phases, features or components of multi-phase alloys, composites, multi-layered coatings and so on.
- The **high-speed mapping capabilities of the tool** can also be used to **quickly establish structure-property linkages at a micrometre length scale or higher**, which can help to understand multi-scale mechanics and aid in the development of hierarchical materials.

Topic- GS Paper 3–Science and Technology
Source- PIB

Feluda: A paper-strip test

Why in the news?

- Scientists at the **Council of Scientific & Industrial Research – Institute of Genomics and Integrative Biology (CSIR-IGIB)** have developed a **low-cost, paper-strip test** which can detect the new **coronavirus within an hour**.



About the Feluda

- The test, named **Feluda** after a **fictional detective character** created by **Satyajit Ray**, is expected to **cost around Rs 500** against the **RT-PCR**

test that costs Rs 4,500 in private labs. The test is based on a **bacterial immune system** protein called **Cas9**.

- It uses **cutting-edge gene-editing tool CRISPR-Cas9** system.
- The team has repurposed it for **diagnosis of COVID-19** genetic material.
- This technology is not limited to **COVID-19** and can work on any **DNA-RNA or single mutations, disease mutations** etc.

About CRISPR-Cas9

- **CRISPR technology** is a **gene-editing technology** that can be used to alter **the genetic expression or change the genome of an organism**.
- The technology can be used for **targeting specific stretches of an entire genetic code** or **editing the DNA** at locations.

Significance

- **CRISPR technology** is a simple yet **powerful tool for editing genomes** which allows researchers to alter DNA sequences and modify gene function easily.
- Its **many potential applications include** correcting **genetic defects, treating and preventing the spread of diseases and improving crops**. However, its promise also raises ethical concern.

Topic- GS Paper 3–Science and Technology

Source- Indian Express

Favipiravir

Why in the News?

- As per the **Drug Controller General of India (DCGI)**, '**Favipiravir**' looks promising as a drug against COVID-19 due to in-vitro results.
- The CSIR Director-General has informed that the synthesis process of '**Favipiravir**' has been completed and the DCGI will now take a call on introducing it for testing as COVID-19 treatment.



About Favipiravir

- It is an **anti-viral agent** that selectively and potently **inhibits the RNA-dependent RNA polymerase (RdRp)** of RNA viruses.

- It was **discovered through screening chemical library for anti-viral activity against the influenza virus** by **Toyama Chemical Co., Ltd.** Favipiravir is **effective against a wide range of types and subtypes of influenza viruses**, including strains resistant to existing anti-influenza drugs.
- It shows **anti-viral activities against other RNA viruses** such as **arenaviruses, bunyaviruses and filoviruses**, all of which are known to **cause fatal hemorrhagic fever**.
- These **unique anti-viral profiles** will make favipiravir a **potentially promising drug** for specifically **untreatable RNA viral infections**.

Topic- GS Paper 3–Science and Technology

Source- Indian express and NCBI

GW190412: First merger of two black holes with unequal masses detected

Why in the news?

- Recently, the **gravitational wave observatories at LIGO scientific collaboration** have detected a **merger of two unequal-mass black holes**.

About GW190412

- The event, **dubbed GW190412**, was **detected nearly a year ago**, and this is **almost five years** after the **first-ever detection of gravitational-wave signals** by **these powerful detectors**. Subsequent **analysis of the signal** coming from the **violent merger** showed that it involved **two black holes of unequal masses coalescing**, one of which was **some 30 times the mass of the Sun** and the other which had a **mass nearly 8 times** the solar mass.
- The actual merger took place at **2.5 billion light years away**.

Features

- The detected **signal's waveform** has **special extra features** in it when it **corresponds to the merger of two unequal-sized black holes** as compared with a **merger of equal-sized black holes**.
- These **features make it possible to infer** many more things about the characters in this **celestial drama**, namely, a **more accurate determination of the distance** from the event, the **spin or angular momentum** of the **more massive black hole** and the **orientation of the whole event concerning viewers on Earth**.

About Laser Interferometer Gravitational-Wave Observatory

- The **Laser Interferometer Gravitational-Wave Observatory (LIGO)** is a **large-scale physics experiment and observatory to detect cosmic gravitational waves** and to **develop gravitational-wave observations** as an **astronomical tool**.
- Two large observatories were built in the **United States to detect gravitational waves by laser interferometry**.

- These can detect a change in the **4 km mirror spacing of less than a ten-thousandth the charge diameter of a proton.**

LIGO India

- **LIGO India will come up in Maharashtra, which will also have two arms of 4 km length.**
- The project **aims to move one Advanced LIGO detector from Hanford to India.**
- This project is a collaboration between the **LIGO Laboratory and three leading institutions in the IndIGO consortium: Institute of Plasma Research (IPR) Gandhinagar, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune and Raja Ramanna Centre for Advanced Technology (RRCAT), Indore.**
- It is an **ultra-high precision large-scale apparatus**, which is expected to show a **unique “temperament”** determined by the **local site characteristics.**

Topic- GS Paper 3–Science and Technology
Source- The Hindu

Asymptomatic, Presymptomatic and Symptomatic Transmission

Why in the news?

- Two recent figures were given out on separate days by the **Indian Council of Medical Research (ICMR)** about people without symptoms **testing positive for novel coronavirus disease (COVID-19).**
- The WHO recognises **three stages of COVID-19 transmission – asymptomatic, presymptomatic and symptomatic.**



Symptomatic transmission

- Symptomatic transmission refers to **transmission from a person** while they are **experiencing symptoms.** Data from published **epidemiology and virologic studies** provide evidence that **COVID -19 is primarily** transmitted from **symptomatic people to others** who are in close contact through **respiratory droplets**, by **direct contact with infected persons**, or by **contact with contaminated objects and surfaces.**
- The incubation period of the **virus ranges between 5-14 days.**

Asymptomatic transmission

- It refers to **the transmission of the virus from a person** who does not develop symptoms.
- There are few reports of **laboratory-confirmed cases** that are **genuinely asymptomatic**, and to date, there has been no **documented asymptomatic transmission**.
- **Asymptomatic cases** have been reported as **part of contact tracing efforts** in some countries.

Presymptomatic transmission

- Presymptomatic transmission is when a person spreads the disease before symptoms appear, and eventually develops symptoms themselves.

Note:

- The **US Centers for Disease Control and Prevention (CDC)** is clear that both presymptomatic and asymptomatic transmission of the virus is possible.
- **SARS-CoV-2 RNA** may be detectable in the upper or lower respiratory tract for weeks after illness onset, similar to **infections with MERS-CoV and SARS-CoV**.

Topic- GS Paper 3–Science and Technology

Source- Indian Express

Mobile BSL-3 VRDL Lab

Why in the news?

- Defence Minister has recently **inaugurated through videoconference a mobile virology research and diagnostics laboratory (MVRDL)** called **Mobile BSL-3 VRDL Lab**.
- The MVRDL is the **combination of a bio-safety level (BSL)-3 lab and a BSL-2 lab**.

About Mobile BSL-3 VRDL Lab

- The design of **Mobile BSL-3 VRDL Lab** has been **developed by DRDO scientists**, whereas specification of the lab has been given by **ESIC Medical College & Hospital, Sanathnagar, and Hyderabad**.
- The project has been executed and constructed by **three industry partners of DRDO**.
- It will be **first of its kind facility** in the **country for Covid-19** and other related testing and research purposes.

Topic- GS Paper 2–Health Issues

Source- Economics Times

CIM-Paushak

Why in the news?

- Recently, the researchers at the **Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow** have developed '**CIM-Paushak**' and '**Herbal Cough Syrup**'.

About CIM-Paushak

- These are the **herbal products found to be effective in boosting the immunity** of a person.
- **Twelve valuable herbs**, including **Puranva, Ashwagandha, Mulethi, Harad, Baheda and Sataver** compounds, have been used in both these products.
- **CIM-Paushak** has also been found to be **cheap, safe and effective in the animal trials** conducted in the institute.
- **Herbal Cough Syrup** is developed based on **the latest guidelines of the AYUSH ministry**, and it has been prepared based on the '**Tridosha**' principle of Ayurveda.



About the Tridosha Theory

- When the **five eternal substances – space, air, fire, water and earth** combine to form the **human body**, they do so by **creating three vital energies, or doshas**.
- These are the forces that **govern all psycho-physiological functions in the body and mind**, respectively.
- They **construct the body and serve to maintain it in a dynamic state of health**.
- However, when these **vital forces are aggravated**, due to **improper gross or subtle factors**, the **body-mind connection** begins to suffer, and the **disease process begins**.
- The three vital energies are:
 - a. **Vata**: It is the most powerful among the doshas, which is formed by the interaction of space and air.
 - b. **Pitta**: The interaction of fire and water form it. It regulates body metabolism and transformations in the body's form.
 - c. **Kapha**: It is formed by the structural properties of earth, with water in its role as a lubricant to different tissues of the body, which also aids strength and adds stamina to the body.

Topic- GS Paper 3- Science and Technology

Source- PIB

Multi-system inflammatory state

Why in news?

- UK's Paediatric Intensive Care Society said it had observed an **"apparent rise"** in the number of **children, of all ages**, with a **"multi-system inflammatory state requiring intensive care"** which the doctors believe it could be **coronavirus related**.

What is multi-system inflammatory state?

- This is a **rare illness cause's inflammation** of the **blood vessels**, which leads to **low blood pressure**.
- It **affects the entire body** as it **causes a build-up of fluid** in the **lungs and other organs**.
- This **condition is similar to Kawasaki disease**.
- **Patients suffering** from it **require intensive care** to support the lungs, heart and other organs.



What are the symptoms?

- **Children were showing abdominal and gastrointestinal symptoms** as well as **cardiac inflammation**. According to PICS, there were also **overlapping symptoms of toxic shock syndrome and atypical Kawasaki disease**.

About Toxic shock syndrome

- It is a **rare life-threatening condition** caused when **certain bacteria** enter the body and **release harmful toxins**.
- If not **treated in time**, the **condition could be fatal**.

Symptoms

- It includes **high temperature, flu-like symptoms including headache, sore throat, cough, diarrhea, dizziness or fainting, difficulty breathing and confusion**.

About Kawasaki disease

- It is an **acute inflammatory disease** of the **blood vessels** and usually **occurs in children below the age of five**.
- The **inflammation caused by the disease** affects **many parts of the body** but has a more **serious effect on the heart** since it **causes**

inflammation in the coronary arteries that are **responsible for supplying blood to the heart.**

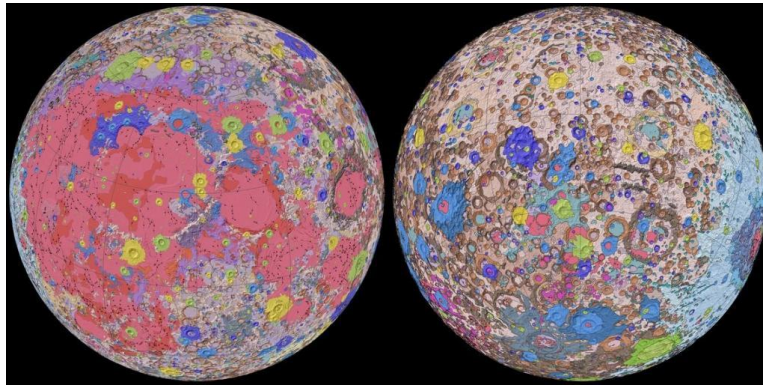
- This results in **enlargement or in the formation of aneurysms** that can **lead to heart attacks.**
- **Symptoms include fever, changes in extremities, rashes, and redness of the cornea, red and cracked lips, a red tongue and lymph node enlargement of the neck.**

Topic- GS Paper 3–Science and Technology
Source- Indian Express

First-ever digital geological map of moon released by US Geological Survey

Why in the news?

- The **first-ever digital, unified, global, geological map of the moon** was released **virtually by the United States Geological Survey (USGS), National Aeronautics and Space Administration and the Lunar Planetary Institute.**



About the digital geological map

- The map is a **'seamless, globally consistent, 1:5,000,000-scale geologic map'**.
- It is also called the **'Unified Geologic Map of the Moon'**.
- It will serve as a **blueprint for future human missions** and a **source of research and analysis** for the **educators and the general public interested in lunar geology.**
- The **final map** consists of **43 geologic units** across the **entire lunar surface, broken down into groups** based on **characteristics like materials of craters, basins, terra, plains and volcanic units.**

Note:

- The **Indian Space Research Organisation (ISRO) Chandrayaan 2** is an **active mission** that targets the **Lunar South Pole for exploration.**
- The **moon's South Pole** is especially interesting because **the area is much larger than the North Pole** and there could be **the possibility of the presence of water in these permanently shadowed areas.**

- Further, the **South Pole region** also contains the **fossil record of the early Solar System**.

Topic- GS Paper 3–Science and Technology
Source- The Hindu

Security

Red Flag air exercise

Why in the news?

- The U.S Air Force has recently **cancelled Exercise Red Flag** due to **Coronavirus outbreak**.



About the Exercise Red Flag

- It is an **annual aerial combat training exercise** between the **Air Force of the United States and its allies**.
- It was held for the **first time in 1975**. It aims to offer realistic **air-combat training for military pilots** and other flight crew members from the **United States and allied countries**.

Topic- GS Paper 3–Defence

Source- The Hindu

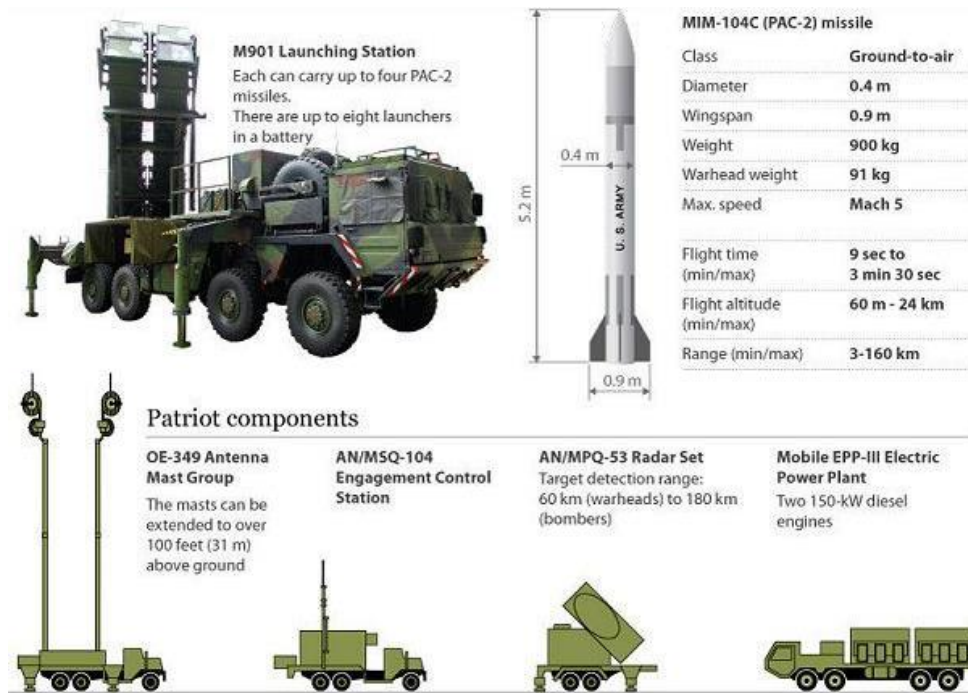
Patriot air defence missile

Why in the news?

- The **United States** has recently **deployed Patriot air defence missiles in Iraq**.

About Patriot air defence missile

- **Patriot (MIM-104)** is a **long-range, all-altitude, all-weather air defence system to counter tactical ballistic missiles, cruise missiles and advanced aircraft**.
- It is produced by **Raytheon in Massachusetts and Lockheed Martin Missiles and Fire Control in Florida**.
- The Patriot missile is **equipped with a track-via-missile (TVM) guidance system**.



How it functions?

- With **remarkable goal**, the Patriot missile system is designed to detect, target and then hit an incoming missile that may be no more than 10 to 20 feet (3 to 6 meters) long.
- It can fly at **three to five times** the speed of sound. The upgraded Patriot system can also **destroy incoming aircraft and cruise missiles**.
- It can **shoot down enemy missiles (e.g., Scud missiles)** and **protect soldiers and civilians** from a missile attack.

Patriot missile batteries were **activated several times in the Iraqi war** and were **used extensively in the 1991 Gulf war**. The five components of batteries are:

- a. The missiles themselves (MIM-104)
- b. The missile launcher, which holds, transports, aims and launches the missiles (M-901). This part is necessary because each missile weighs almost 1 ton.
- c. A radar antenna (MPQ-53 or MPQ-65) to detect incoming missiles.
- d. An equipment van known as the Engagement Control Station (ECS) houses computers and consoles to control the battery. (MSQ-104)
- e. A power plant truck equipped with two 150-kilowatt generators that provide power for the radar antenna and the ECS.

Topic- GS Paper 3–Defence
Source- TOI

Exercise NCC Yogdan

Why in the news?

- **Ministry of Defence (MoD)** had recently allowed **temporary employment of NCC cadets** under ‘**Exercise NCC Yogdan**’ in the fight against the **ongoing virus outbreak**.



About National Cadet Corps

- The **National Cadet Corps** is the **youth wing of Armed Forces** with its **Headquarters at New Delhi**.
- It is open to **school and college students** voluntarily.
- **National Cadet Corps** is a **Tri-Services Organisation**, comprising the **Army, Navy and Air Wing**, engaged in grooming the youth of the country into disciplined and patriotic citizens.

Types of tasks envisaged for cadets include amid viral outbreak

- Manning of helpline/call centres
- Distribution of relief materials, medicines, food/essential commodities
- Community assistance
- Data management and queue and traffic management
- Manning of CCTV control rooms

Topic- GS Paper 3- Defence

Source- DST

Putting the SAGAR vision to the test

Why in the news?

- India’s recent admission as **an observer to the Indian Ocean Commission (IOC)** will put its SAGAR vision to the test.

Objective

- To **enhance capacities to safeguard land and maritime territories & interests in the Indian Ocean**.
- To **deepen economic and security cooperation** in the **littoral**; action to **deal with natural disasters and maritime threats like piracy, terrorism**.
- It also includes engaging with countries beyond our shores to build greater trust and **promote respect for maritime rules, norms and peaceful resolution** of disputes.



About SAGAR (Security and Growth for All in the Region)

- Prime Minister enunciated the vision of SAGAR in March 2015, which is an **articulation of India's vision for the Indian Ocean**. SAGAR has **inter-related elements and underscores India's engagement in the Indian Ocean**.

About Indian Ocean Commission

- It is an **intergovernmental organization** comprising **five small-island states in the Western Indian Ocean: Comoros, Madagascar, Mauritius, Réunion (a French department), and Seychelles**.
- The **secretariat** is based in **Mauritius**.
- Recently the **IOC granted observer status to India on March 6, 2020**, at the **Commission's 34th Council of Ministers**.
- It now has **5 observers - China, India, Malta, the European Union and the Organisation Internationale de la Francophonie**.

Background

- In March 2015, Prime Minister Narendra Modi visited three small but significant Indian Ocean island states — **Seychelles, Mauritius, and Sri Lanka**.
- During this tour, he **unveiled India's strategic vision for the Indian Ocean: Security and Growth for All in the Region (SAGAR)**.

Topic- GS Paper 3–Defence

Source- Live mint, The Hindu

Noor Satellite

Why in the news?

- Recently, Iran has successfully launched a **satellite called 'Noor.'**

About Noor

- It is Iran's first **Military Satellite** into the orbit.
- The **Islamic Republic News Agency (IRNA)**, the official website of **the Iranian government** confirmed the successful launch of Noor.
- The satellite was launched from **three-stage carrier Ghased** and was **placed in 425-km orbit**.



Topic- GS Paper 3–Defence
Source- AIR

Pitch Black 2020

Why in the news?

- **Australia** has recently **informed India** that their **premier multilateral air combat training exercise Pitch Black 2020** scheduled from **July 27 to August 14** has been cancelled due to the **COVID-19 situation**.

About Pitch Black 2020

- It is a **biennial warfare exercise** hosted by the **Royal Australian Air Force (RAAF)**.
- The exercise aims to **practise Offensive Counter Air (OCA) and Defensive Counter Air (DCA) combat**, in a simulated war environment.
- It provided a **unique opportunity for an exchange of knowledge** and experience with these **nations in a dynamic warfare environment**.
- The next edition of **Pitch Black is scheduled in 2022**.



Other Exercise with Australia

AUSINDEX

- It is a **bilateral naval exercise** between **India and Australia**.

Note: Recently **Australian High Commissioner-designate Barry O'Farrell** made a **pitch for trilateral cooperation** among **India, Australia and Indonesia** to “**identify new ways that our three countries can collaborate to be the best possible custodians of the Indian Ocean**”.

Topic- GS Paper 3–Defence
Source- The Hindu

Art and Culture

Tablighi Jamaat

Why in the news?

- Recently **over 200** have **tested positive for COVID-19** from among **4,000-odd** who had **gathered in Delhi's Markaz Nizamuddin**, the **headquarters of the Tablighi Jamaat**.

What is Tablighi Jamaat?

- **Tablighi Jamaat**, which means a **society for spreading the faith**, is a **Sunni Islamic missionary movement**.
- It has **emerged as one of the most dominant forms of religiosity in post-colonial India**. The **proselytizing movement** aims to reach out to **ordinary Muslims** and **revive their faith**, particularly in matters of ritual, dress, and personal behaviour.

How did the movement begin?

- Its roots lie in the **Deobandi version of the Hanafi School of jurisprudence**.
- It was **launched by Deoband cleric** and prominent Islamic scholar **Maulana Muhammad Ilyas Khandhalaw in 1927 in Mewat**.
- Its **emergence also coincided with Hindu proselytizing movements**.

How does it promote Islam?

The Tablighi Jamaat is based on six principles:

1. The first is the **kalimah**, an article of faith in which the **Tabligh accepts** that there is **no God**, but **Allah** and that **Prophet Muhammad** is his messenger.
2. The second is **salaat, or prayer five times daily**.
3. The third is **ilm and dhikr, the knowledge and remembrance of Allah** conducted in sessions in which the congregation listens to preaching by the imam, performs prayers, recites the Quran and reads the Hadith
4. The **fourth principle is Ikram-i-Muslim**, the **treatment of fellow Muslims with honour**.
5. The **fifth is ikhlas-i-niyat or sincerity of intention**
6. The **sixth is dawat-o-tabligh or proselytization**.

Topic- GS Paper 1–Art and Culture

Source- The Hindu

Export Promotion Council for Handicrafts

Why in the news?

- Indian Handicrafts & Gifts Fair (IHGF) is **Asia's largest gifts & handicrafts trade fair** conducted by EPCH, **49th edition** of the fair has been **called off due to COVID-19**.



About the Export Promotion Council for Handicrafts

- The Export Promotion Council for Handicrafts (EPCH) was **established under the Companies Act in the year 1986-87**. It is a **non-profit organization**, with an **object to promote, support, protect, maintain and increase the export of handicrafts**.
- It is an **apex body of handicrafts exporters** for promotion of exports of Handicrafts from the country and **projecting India's image abroad** as a **reliable supplier of high quality** of handicrafts.
- The Council has created **necessary infrastructure** as well as **marketing and information facilities**, which are **availed both by the member's exporters and importers**.

Topic- GS Paper 1–Art and Culture

Source- The Hindu

Spring Harvest Festivals in India

Why in the news?

- The **President of India** greeted people on the occasion of **Vaisakhi, Vishu, Rongali Bihu, Naba Barsha, Vaisakhadi, Puthandu, Pirappu**, which are being celebrated in different parts of the country as a **Spring Harvest Festivals in India**.
- The first day of the month of **Vaisakh (April 13, 14 or 15)**, marks the start of Hindu New Year.
- Variously called **Baisakhi or Vaisakhi (UP, Uttarakhand, Himachal Pradesh, Haryana and Punjab)**, **Puthandu (Tamil Nadu)**, **Vishu (Kerala)**, **Mahabishuva Sankranti (Odisha)**, **Rongali Bihu (Assam)** and **Poila Boishakh (Bengal)**, it is also a celebration of the spring harvest.

Types of Spring Harvest Festivals in India

a. Rongali Bihu

- Rongali Bihu also known as Bohag Bihu, is celebrated in Assam.
- The festival celebrated in the Assam and other parts of northeastern India.



- Bohag Bihu or Rongali Bihu festival **continues for seven days** and called as Xaat Bihu. The seven days are known as **Chot Bihu, Goru Bihu, Manuh Bihu, Kutum Bihu, Senehi Bihu, Mela Bihu and Chera Bihu.**
- It marks the beginning of the **Assamese New Year.**
- This marks the **first day of the Hindu solar calendar** and is also **observed in Bengal, Manipur, Mithila, Nepal, Orissa, Punjab, Kerala and Tamil Nadu** though called by different names.
- The farmers prepare the fields **for cultivation of paddy and there is a feeling of joy** around.

Poila Boishakh

- Poila Boishakh also known as Pahela Baishakh or Bangla Nababarsha, is the first day of Bengali Calendar.



- Boishakh is the first month of the Bengali calendar, and **Poila** stands for **First**. So, **Poila Boishakh** means the first day of the month of **Boishakh**, thus, marking the **beginning of a new year**. People greet each other saying, **Shubho Noboborsho** where **Naba** means **New** and **Barsho** indicate **Year**, together with means **New Year**.
- According to the Gregorian calendar, the Bengali New Year usually falls around April 14 or April 15. This year Pohela Boishakh will be celebrated on April 14.
- The first day of the initial month of Baishakh of the Bengali solar calendar is called by many names like Naba Barsha, Pohela Boishakh, and Pahela Baisakh in various parts of India.

Puthandu

- **Puthandu** is celebrated with pomp and fervour by Tamilians across the world. It marks the first day of the Tamil New Year.
- On this day, people wish each other 'Puthandu Vazthukal' which means 'Happy New Year.'
- The Tamil New Year follows the spring equinox and generally falls on 14 April of the Gregorian year.
- In the temple city of Madurai, the Chitterai Thiruvizha is celebrated in the Meenakshi Temple. A huge exhibition is held, called Chitterai Porutkaatchi.
- Puthandu is also celebrated by Tamil Hindus outside Tamil Nadu and Puducherry, such as in Sri Lanka, Malaysia, Singapore, Reunion, Mauritius, and other countries with Tamil diaspora.
- The day celebrates the first day of the traditional Tamil calendar and is a public holiday in both Tamil Nadu and Sri Lanka.
- Several Buddhist communities in Myanmar, Cambodia, Thailand, and Sinhalese in Sri Lanka also celebrate the same day as their new year.

Baisakhi

- It is also known as Vaisakhi, Vaishakhi, or Vaisakhi, is celebrated with much fanfare in Punjab, Haryana and Chandigarh.
- Baisakhi is a spring harvest festival for the Sikhs and Hindus. It is usually celebrated on April 13 or 14 every year.
- It marks the Sikh new year and commemorates the formation of Khalsa Panth of warriors under Guru Gobind Singh in 1699.



- Vaisakhi is also an ancient festival of Hindus, marking the Solar New Year and also celebrating the spring harvest.
- Baisakhi was also the day when colonial British empire officials committed the Jallianwala Bagh massacre on a gathering, an event influential to the Indian movement against colonial rule.

Bikhoti

- It is the festival of Uttarakhand involves people taking a dip in holy rivers.

Jurshital

- It is celebrated in the **Mithila region of Bihar and Nepal**; the New Year is celebrated as Jurshital.

Mahabishuva Sankranti

- It is celebrated in Odisha, also known as Pana Sankranti. To observe this festival, the Odisha govt has decided to cancel the Meru Jatra festival amid the lockdown in Odisha.

Topic- GS Paper 1–Art and Culture

Source- PIB

Meru Jatra festival

Why in the news?

- **Odisha government** has recently **banned the Meru Jatra festival** and **congregations related to it at temples** on the occasion of **Mahavishuva Sankranti**.
- Mahavishub Sankranti is the **start of the Odia New Year**.

About Meru Jatra festival

- It marks the **end of the 21-day-long celebration of penance** named '**Danda Nata**'. Danda Nata or Danda Jatra is one of the **most important traditional dance festivals organized in different parts of South Odisha** and particularly in the **Ganjam District**.
- The **Danda Nata festival** is being **held in the month of Chaitra** of every year.
- **Only male persons** take part in this festival.
- The **Participants of Danda** are called **Danduas** (also known as **Bhoktas**).



Some highlights

- **Ganjam district** is the **heartland** of the ancient **Kalinga Empire**.
- The Kalinga Emperors organized this Chaitra festival for their **Ista Devi, Taratarini**.
- It is believed that the present-day **Danda Nata** is a **part of the ancient Chaitra Yatra festivals** being celebrated every year at **Taratarini Shakti/Tantra Peetha**.
- The **Danduas** or **Bhoktas** pray **Goddesses Kali and Shiva** during this **13-, 18- or 21-day Danda period**.

- All the `Bhoktas` or 'Danduas' **lead a very pious life** for all these days during the festival, and they **avoid eating meat, fish or cohabiting during this period.**
- **Danda Nata** is a **form of a religious festival** that has **theatrical and dance components.**
- The dance, along with the **accompanying events, is performed over three months March, April, and May.**

Topic- GS Paper 1–Art and Culture
Source-The Hindu

Nihangs

Why in the news?

- Recently, **Patiala witnessed an incident** between Nihangs and Punjab police during the national lockdown.

About Nihangs

- It is an **order of Sikh warriors**, characterised by **blue robes, antiquated arms such as swords and spears, and decorated turbans surmounted by steel quoits.**
- They use the slogans **‘chhardi kala’ (forever in high spirits)** and **‘tiar bar tiar’ (state of ever preparedness) for unforeseen events. Who can become a Nihang?**
- Any person **irrespective of caste, creed or religion** can be included, provided he has unshorn hair as per the Sikh traditions at the time of entering the sect.

Historical Background

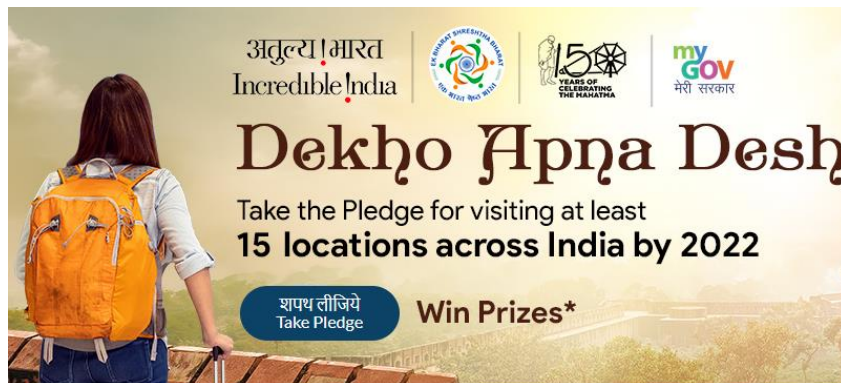
- They had a **significant role in defending the Sikh panth** after the fall of the **first Sikh rule (1710-15)** when **Mughal governors were killing Sikhs and during the onslaught of Afghan invader Ahmed Shah Durrani (1748-65).**
- They held the **grand council (Sarbat Khalsa) of Sikhs at Akal Takht** and **pronounced the resolution (Gurmata) passed.**

Topic- GS Paper 1–Art and Culture
Source- The Hindu

DekhoApnaDesh webinar series

Why in news?

- The **Ministry of Tourism** has recently launched its "**DekhoApnaDesh**" webinar series to **provide information** on the **many destinations** and the sheer depth and expanse of the culture and heritage of our Incredible India.



About the DekhoApnaDesh webinar series

- It has been launched to **provide information** on the **many destinations** and the **sheer depth and expanse of the culture and heritage of Incredible India**.
- The first webinar of the series titled "**City of Cities- Delhi's Personal Diary**" touched upon the long history of Delhi as it has unfolded as 8 cities.
- The webinar will be **available on the Ministry's social media handles- IncredibleIndia on Instagram and Facebook**.

Showcasing India's rich culture:

- Series of webinars will be an **on-going feature** and the **Ministry** would work towards **showcasing the diverse and remarkable history and culture of India** including its **monuments, cuisine, arts, dance forms, natural landscapes, festivals** and many other aspects of the **rich Indian civilization**.
- The core of the session based itself **on tourism awareness and social history**.

Launch of webinar in public domain soon:

- The webinar will be **available in public domain soon**.
- The next webinar is on the **16th of April from 11 am to 12 noon** and shall take visitors to the amazing **City of Kolkata**.

Topic- GS Paper 1–Art and Culture

Source- Indian Express

Darbar Move

Why in the news?

- For the **first time in 144 years**, the **Jammu & Kashmir (J&K) administration** has decided to halt the ‘**Durbar move**’ due to the **ongoing Covid-19 crisis**.

About the Darbar move

- It is the name for the **bi-annual shift** of the **secretariat and all other government offices in J&K from Srinagar** (state’s summer capital) to **Jammu** (state’s winter capital).

Duration

- The **secretariat is located in Srinagar** from **May to October** and in **Jammu** from **November to April**.

Historical origin

- The practice was started by Dogra King Maharaja Ranbir Singh in 1872 to escape extreme weather conditions in these places.

Topic- GS Paper 1–History

Source- AIR

World Heritage Committee of UNESCO

Why in the news?

- The **44th session of the World Heritage Committee of UNESCO** scheduled in **Fuzhou (China)** has been **postponed due to coronavirus outbreak**.
- **India ratified** the World Heritage Convention **in 1977**.



About World Heritage Committee of UNESCO

- It is a **group of representatives from 21 States Parties** to the **World Heritage Convention**. It is **responsible for the implementation of the World Heritage Convention**, defines the use of the **World Heritage**

Fund and allocates financial assistance upon requests from States Parties.

- It has the **ultimate decision-making power** of **declaring a property on the World Heritage List.**
- It also decides on the **inscription or deletion of properties on the List of World Heritage in Danger.**
- Three advisory bodies aid the deliberations of the World Heritage Committee are:
 - a. **International Union for Conservation of Nature**
 - b. **International Council on Monuments and Sites**
 - c. **International Centre for the Study of the Preservation and Restoration of Cultural Property.**

Topic- GS Paper 1–Art and Culture

Source- unesco.org

National List of Intangible Cultural Heritage (ICH) of India

Why in the news?

- **Union Minister for Culture (I/C)** has launched the **National List of Intangible Cultural Heritage (ICH) of India** in New Delhi.

Convention for the Safeguarding of the Intangible Heritage

- It was adopted by the **United Nations Educational, Scientific and Cultural Organization (UNESCO)** in **2003** and entered into force in **2006.**
- This initiative is also a part of the **Vision 2024** of the **Ministry of Culture.**
- **Intangible Cultural Heritages from India** included in the **UNESCO Representative List of the Intangible Cultural Heritage of Humanity.**



Domains of the intangible list

- The list has been classified into **five broad domains** in which intangible cultural heritage is manifested:
- **Oral traditions and expressions**, including **language as a vehicle of the intangible cultural heritage performing arts**
- **Social practices, rituals, and festive events**
- **Knowledge and practices concerning nature and the universe**

- **Traditional craftsmanship**

Objectives:

- It aims to **raise awareness** about the various **intangible cultural heritage elements** from **different states of India** at the national and international level and **ensure their protection**.
- To **safeguard the expressions of intangible cultural heritage** that are endangered by the **processes of globalization**.
- To ensure **respect for the intangible cultural heritage** of the **communities, groups, and individuals**
- to **raise awareness at the local, national, and international levels** of the **importance of the intangible cultural heritage**.

India has a **total of 13 intangible cultural heritages** included in the **UNESCO Representative List of the Intangible Cultural Heritage of Humanity**.



These include:

- **Koodiyattam**, Sanskrit Theatre, Kerala
- **Mudi yett:** a ritual theatre of Kerala
- The **Tradition of Vedic Chanting Ramlila** – the Traditional Performance of the Ramayana
- **Ramman:** religious festival and ritual theatre of the Garhwal Himalayas
- **Kalbelia:** folk songs and dances of Rajasthan
- **Chhau dance:** a tradition from eastern India
- **Buddhist chanting of Ladakh:** the recitation of sacred Buddhist texts in the trans-Himalayan Ladakh region, Jammu and Kashmir, India
- **Sankirtana**, ritual singing, drumming, and dancing of Manipur
- **Traditional brass and copper craft** of utensil making among the Thatheras of Jandiala Guru, Punjab

- **Yoga**
- **Kumbh Mela** (Recently Added)

Topic- GS Paper 1–Art and Culture
Source- PIB

Devanahalli chakota

Why in the news?

- Bangalore International Airport Limited (BIAL) has recently cultivated the Devanahalli Pomelo fruit under its CSR programme 'Namma Ooru'.



About the Devanahalli pomelo

- It is a variety of the **citrus fruit pomelo (Citrus maxima)** of the family **Rutaceae**.
- It is **exclusively grown in the region** around **Devanahalli taluk of Bangalore Rural District**. It is locally known as **chakota**.
- It is **protected under the Geographical Indications of Goods (Registration & Protection) Act (GI Act) 1999** of the Government of India.

Topic- GS Paper 1–Art and Culture
Source- The Hindu

Basaveshwara

Why in the news?

- Prime Minister has recently **offering homage** to the **12th-century social reformer Basaveshwara** on his **birth anniversary**.

About Basaveshwara

- He is also known as **Bhaktibhandari, Basavanna or Basaveswara** was a **12th-century philosopher, Kannada poet** and a **social reformer** during the reign of the **Kalachuri-dynasty king Bijjala I** in **Karnataka**. He rejected **gender or social discrimination, superstitions** and **rituals**.
- He introduced **new public institutions** such as the '**Anubhava Mantapa**' (or, the "hall of spiritual experience"), which **welcomed men**

and women from all socio-economic backgrounds to discuss spiritual and mundane questions of life, in open.

- He was the founder of the **Lingayats sect**.



Literary works

- He spread social awareness through poetry (**Vachanas**) such as **Shat-sthala-vachana** (discourses of the six stages of salvation), **Kala-jnana-vachana** (forecasts of the future) and **Mantra-gopya**.

Topic- GS Paper 1–Art and Culture

Source- AIR

UPSC and PCS Monthly Current Affairs April 2020

