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Current Affairs (CONSOLIDATION)

**MARCH 2020
(PART – II)**

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Polity and Governance

Highlights

- Supreme Court Invoked Special Powers to Remove a Minister
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- Prime Minister's 15 Point Programme
- Schemes Approved to Promote Drug Manufacturing
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- Unnat Bharat Abhiyan
- Public Health vs Private Information
- Worldwide Closure of Educational Institutions due to Covid-19
- Covid-19 and Work from Home in India

Supreme Court Invoked Special Powers to Remove a Minister

Why in News

Recently, the **Supreme Court** invoked its special powers under **Article 142** of the Constitution to **remove a Minister from the State Cabinet**.

Key Points

- The Supreme Court removed Thounaojam Shyamkumar Singh from the state cabinet and restrained him "from entering the Legislative Assembly till further orders".
- A **disqualification petition against the minister was pending before the Speaker since 2017** but the Speaker failed to take the decision within a reasonable time period.
- **Article 212** of the Constitution **bars courts from inquiring into proceedings of the Legislature**. In this case, however, prompted by the fact that the Speaker's conduct has been called into question on several occasions, the Court said it was "constrained" to invoke the court's extraordinary powers under Article 142 of the Constitution.
- Earlier, the **Manipur High Court, in this matter, had found grounds for disqualification under the Tenth Schedule** but stopped short of issuing directions.
 - The reason being that question of whether a High Court can direct a Speaker to decide on a disqualification petition within a time frame is already pending before a Supreme Court Bench.

- The Speaker also failed to take any decision within the **stipulated time period of 4 weeks** as provided by the **Supreme Court in its recent judgement on Disqualification Powers of Speakers**.

Highlights of SC Order on Disqualification Powers of Speakers

- The court in general said that **"the Speaker, in acting as a Tribunal under the Tenth Schedule, is bound to decide disqualification petitions within a reasonable period", which "will depend on the facts of each case."**
- The Supreme Court also held that disqualification petitions under the tenth schedule should be **adjudicated by a mechanism outside Parliament or Legislative Assemblies**.
- The Court had suggested a **permanent tribunal headed by a retired Supreme Court judge or a former High Court Chief Justice** as a new mechanism. However, this would require an amendment to the Constitution.
 - Currently, the disqualification of members of a House/Assembly is referred to the Speaker of the House/Assembly.
- The rationale behind the Court's suggestion was to **ensure that such disputes are decided both swiftly and impartially**, thus giving real teeth to the provisions contained in the Tenth Schedule.

Disqualification under the Tenth Schedule

- The **Anti-Defection Law** was passed in 1985 through the **52nd amendment to the Constitution**. It **added the Tenth Schedule** to the Indian Constitution. The main intent of the law was to combat "the evil of political defections".

Note:

- According to it, **a member of a House belonging to any political party becomes disqualified for being a member of the House**, if
 - he **voluntarily gives up** his membership of such political party; or
 - he votes or abstains from voting in such House contrary to any direction issued by his political party without obtaining prior permission of such party and such act has not been condoned by the party within 15 days.

Exceptions to the disqualification on the ground of defection (Two cases)

- If a member goes out of his party as a result of a merger of the party with another party. A merger takes place when two-thirds of the members of the party have agreed to such merger.
- If a member, after being elected as the presiding officer of the House, voluntarily gives up the membership of his party or rejoins it after he ceases to hold that office. This exemption has been provided in view of the dignity and impartiality of the office.

Powers of Speaker with regard to Anti-Defection Law

- Any question regarding disqualification arising out of defection is to be **decided by the presiding officer of the House**.
- After the **Kihoto Hollohan case (1993)**, the Supreme Court declared that the **decision of the presiding officer is not final** and can be questioned in any court. It is **subject to judicial review** on the grounds of malafide, perversity, etc.

Article 142

- It provides **discretionary power to the Supreme Court** as it states that the Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for **doing complete justice** in any cause or matter pending before it.
- In the **Union Carbide case**, relating to the victims of the Bhopal gas tragedy, the Supreme Court placed itself above the laws made by the Parliament or the legislatures of the States by saying that, to do complete justice, it could even override the laws made by Parliament.
 - However, in the Supreme Court Bar Association v. Union of India, the Supreme Court stated that **Article 142 could not be used to supplant the existing law, but only to supplement the law**.

- **Constructive Application:** The Cleansing of Taj Mahal and justice to many undertrials is a result of the invocation of this article only.
- **Cases of Judicial Overreach:** The ban on the sale of alcohol along national and state highways.
- **Suggestions:** All cases invoking Article 142 should be **referred to a Constitution Bench of at least five judges** so that this exercise of discretion may be the outcome of five independent judicial minds operating on matters having such far-reaching impact on the lives of people
 - In all cases where the court invokes Article 142, the **government should bring out a white paper** to study the beneficial as well as the negative effects of the judgment **after a period of six months or so from its date**.

Finance Bill, 2020 Passed

Why in News

Recently, the Lok Sabha passed the **Finance Bill, 2020** without any debate due to the situation arising out of the **Coronavirus** pandemic.

Finance Bill

- A Finance Bill is a Bill that, as the name suggests, concerns the country's finances — it could be about taxes, government expenditures, government borrowings, revenues, etc. Since the Union Budget deals with these things, it is passed as a Finance Bill.
- **Rule 219 of the Rules of Procedure of Lok Sabha states:** 'Finance Bill' means the Bill ordinarily introduced each year to give effect to the financial proposals of the Government of India for the following financial year and includes a Bill to give effect to supplementary financial proposals for any period.
- It is introduced in Lok Sabha after the presentation of the annual Budget is passed by the House. It is also certified as a Money Bill.
- The Constitution defines financial legislation into two categories: Money Bills and Financial Bills.
 - **Money Bills** – Article 110
 - **Financial Bills (I)** – Article 117 (1)
 - **Financial Bills (II)** – Article 117 (3)

Note:

- All **Money bills** are **Financial bills** but all **Financial bills** are not **Money bills**.
 - Only those financial bills are Money bills which contain exclusively those matters which are mentioned in Article 110 of the Constitution.
 - Money bills are **certified by the Speaker of Lok Sabha**.

Financial Bills (I)

- A financial bill (I) contains **all the matters mentioned in the Money Bill, as well as other matters of general legislation**. It is dealt under Article 117 (1) of the Constitution.
- It is **similar to a money bill in two respects** –
 - Both of them can be introduced only in the Lok Sabha and not in the Rajya Sabha.
 - Both of them can be introduced only on the recommendation of the President.
- In all other respects, a financial bill (I) is treated as an ordinary bill. ie.
 - It can be either rejected or amended by the Rajya Sabha.
 - In case of a disagreement between the two Houses over such a bill, the President can summon a joint sitting of the two Houses to resolve the deadlock.
 - When the bill is presented to the President, he can either give his assent to the bill or withhold his assent to the bill or return the bill for reconsideration of the Houses.

Financial Bills (II)

- A financial bill (II) contains provisions involving **expenditure from the Consolidated Fund of India**, but does not include any of the matters mentioned in Article 110. It is dealt under Article 117 (3) of the Constitution.
- It is governed by the **same legislative procedure which is applicable to an ordinary bill**.
- Such Bills can be introduced in either House of Parliament. However, recommendation of the President is essential for consideration of these Bills by either House and unless such recommendation is received, neither House can pass the Bill.
 - In other words, the recommendation of the President is not required at the introduction stage but is required at the consideration stage.

National Commission for Indian Systems of Medicine Bill, 2019

Why in News

Recently, the Rajya Sabha passed the **National Commission for Indian Systems of Medicines (NCIM) Bill, 2019**.

Key Features of the Bill

- **Constitution of the National Commission for Indian System of Medicine:**
 - The NCISM will consist of 29 members, appointed by the central government.
- **Functions of the National Commission for Indian System of Medicine:**
 - Framing policies for regulating medical institutions and medical professionals of Indian System of Medicine.
 - Ensuring compliance by the State Medical Councils of Indian System of Medicine to the regulations made under the Bill.
 - Ensuring coordination among the autonomous boards set up under the Bill.
- **Constitution of Autonomous Boards:**
 - **Board of Ayurveda, Unani, Siddha and Sowa-Rigpa** responsible for formulating standards, curriculum, guidelines for setting up of medical institutions, and granting recognition to medical qualifications at the undergraduate and postgraduate levels in their respective disciplines.
 - **Board of assessment and rating** to assess as well as to grant permission to educational institutions of Indian systems of medicine.
 - **Board of ethics and registration of practitioners of Indian systems of medicine** to maintain a National Register and deal with ethical issues.
- **Entrance Exams:**
 - In order to ensure transparency it also proposes a **common entrance exam and an exit exam** that all graduates will have to clear **to obtain their license to practice Indian medicine**.
 - Further, a **teacher's eligibility test** has been proposed in the Bill **to assess the standard of teachers before appointment and promotions**.

Note:



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- **Advisory Council for Indian System of Medicine:**
 - The Advisory Council for Indian System of Medicine will be the **primary platform through which the states/union territories can put forth their views** and concerns before the NCISM.
 - Further, the Council will advise the NCISM on measures to determine and maintain the minimum standards of medical education.

National Commission for Homoeopathy Bill, 2019

Why in News

Recently, the Rajya Sabha passed **National Commission for Homoeopathy Bill, 2019** to develop and streamline the usage of homoeopathy in the country.

Key Features of the Bill

- **Constitution of the National Commission for Homoeopathy:**
 - The Bill seeks to **repeal the Homoeopathy Central Council Act, 1973** and aims to provide availability of adequate and high quality homoeopathic medical professionals.
 - The Bill sets up the **National Commission for Homoeopathy (NCH)**, which will consist of 20 members, appointed by the central government.
- **Functions of the National Commission for Homoeopathy:**
 - Framing policies for regulating medical institutions and homoeopathic medical professionals.
 - Assessing the requirements of healthcare related human resources and infrastructure.
 - Ensuring compliance by the State Medical Councils of Homoeopathy of the regulations made under the Bill.
 - Ensuring coordination among the autonomous boards set up under the Bill.
- **Autonomous boards:**
 - **Homoeopathy Education Board:** It will be responsible for formulating standards, curriculum, guidelines for setting up of medical institutions and granting recognition to medical qualifications at the undergraduate and postgraduate levels respectively.

- **Medical Assessment and Rating Board for Homoeopathy:** It determines the process of rating and assessment of medical institutions and has the power to levy monetary penalties on institutions which fail to maintain the minimum standards. It will also grant permission for establishing a new medical institution.
- **Board of Ethics and Medical Registration for Homoeopathy:** It will maintain a National Register of all licensed homoeopathic medical practitioners and regulate their professional conduct. Only those medical practitioners who are included in the Register will be allowed to practice homoeopathic medicine.

- **Advisory Council for Homoeopathy:**
 - The Council will be the primary platform through which the states/union territories can put forth their views and concerns before the NCH.
 - Further, the Council will advise the NCH on measures to determine and maintain minimum standards of medical education.
- **Entrance examinations:**
 - There will be a uniform **National Eligibility-cum-Entrance Test** and an exit test for under-graduate homoeopathy education in all medical institutions regulated by the Bill.
 - The Bill also proposes a **National Teachers' Eligibility Test** for postgraduates of homoeopathy who wish to take up teaching homoeopathy as a profession.
- **Appeal on matters related to professional and ethical misconduct:**
 - If the medical practitioner is aggrieved by the decision of the Board of Ethics and Medical Registration for Homoeopathy, he can approach the NCH to appeal against the decision. Appeal of the decision of the NCH lies with the central government.

Homoeopathy

- The word 'Homoeopathy' is derived from two **Greek** words, **Homois** meaning **similar** and **pathos** meaning **suffering**. It was introduced in India in the 18th century.
- It takes a holistic approach towards the sick individual through promotion of inner balance at mental, emotional, spiritual and physical levels.

Note:

Prime Minister's 15 Point Programme

Why in News

Recently, the Union Minister of Minority Affairs shared information about the **Prime Minister's New 15 Point Programme** for the **Welfare of Minorities (PM's New 15 PP)**, in the Lok Sabha.

Key Points

- PM's New 15 PP is an overarching programme covering various schemes/initiatives of the participating Ministries/Departments and is implemented throughout the country.
- **Aim:**
 - To ensure that the benefits of various government schemes for the underprivileged reach the disadvantaged sections of the minority communities.
 - It also provides that, wherever possible, 15% of targets and outlays under various schemes should be earmarked for minorities.
- In the context of the PM's New 15 PP, Substantial **minority** population, has been used for identification of districts which are relatively backward.
 - Districts with **at least 25%** of the total population belonging to minority communities have been identified as the **Minority Concentration Districts (MCDs)**.
- The programme has four objectives further divided into focus areas with schemes under them. These are as follows:

A. Enhancing Opportunities for Education

1. Equitable availability of **Integrated Child Development Services (ICDS)** Services.
2. Improving access to School Education.
3. Greater resources for teaching Urdu by Central assistance for recruitment and posting of Urdu language teachers.
4. Modernizing Madarsa Education.
5. Scholarships for meritorious students from minority communities.
6. Improving educational infrastructure through the Maulana Azad Education Foundation.

B. Equitable Share in Economic Activities and Employment

7. Self-Employment and Wage Employment for the poor.
8. Upgradation of skills through technical training.
9. Enhanced credit support for economic activities.
10. Recruitment to State and Central Services.

C. Improving the Conditions of Living of Minorities

11. Equitable share in rural housing scheme.
12. Improvement in condition of slums inhabited by minority communities.

D. Prevention and Control of Communal Riots

13. Prevention of communal incidents.
14. Prosecution for communal offences.
15. Rehabilitation of victims of communal riots.

Minorities

- Muslims, Sikhs, Christians, Buddhists, Jains and Zoroastrians (Parsis) have been notified as minority communities under **Section 2 (c) of the National Commission for Minorities Act, 1992**.
- **Constitutional Provisions:**
 - The term "**minority**" is not defined in the Indian Constitution. However, the Constitution recognises only religious and linguistic minorities.
 - **Article 29:** It provides that any section of the citizens residing in any part of India having a distinct language, script or culture of its own, shall have the right to conserve the same.
 - **Article 30:** Under the article, all minorities shall have the right to establish and administer educational institutions of their choice.
 - **Article 350-B:** Originally, the Constitution of India did not make any provision with respect to the Special Officer for Linguistic Minorities. But, the Seventh Constitutional Amendment Act of 1956 inserted Article 350-B in the Constitution.
- **Parliamentary Provisions:**
 - **National Commission for Minorities Act, 1992**
 - It defines a minority as "a community notified as such by the Central government".

Note:

Schemes Approved to Promote Drug Manufacturing

Why in News

Recently, the Union Cabinet has approved two schemes, namely the **scheme on Promotion of Bulk Drug Parks** and **Production Linked Incentive (PLI) Scheme** to promote domestic manufacturing of critical Key Starting Materials/Drug Intermediates and Active Pharmaceutical Ingredients in the country.

Promotion of Bulk Drug Parks Scheme

- **Number of Parks:** The government aims to **develop 3 mega Bulk Drug parks** in India in partnership with States.
- **Funding:** Government of India will give **Grants-in-Aid to States** with a maximum limit of Rs. 1000 Crore per Bulk Drug Park.
 - A sum of Rs. 3,000 crore has been approved for this scheme for next 5 years.
- **Facilities:** Parks will have common facilities such as solvent recovery plant, distillation plant, power & steam units, common effluent treatment plant etc.
- **Need of the Scheme:** Despite being 3rd largest in the world by volume the Indian pharmaceutical industry is significantly dependent on import of basic raw materials, viz., Bulk Drugs that are used to produce medicines. In some specific bulk drugs the import dependence is 80 to 100%.
- **Objectives:** The scheme is expected to **reduce manufacturing cost of bulk drugs** in the country and dependency on other countries for bulk drugs.
 - The scheme will also help in providing continuous supply of drugs and **ensure delivery of affordable healthcare to the citizens.**
- **Implementation:** The scheme will be implemented by **State Implementing Agencies (SIA)** to be set up by the respective State Governments.

Production Linked Incentive (PLI) Scheme

- **Aim:** The PLI scheme aims to **promote domestic manufacturing of critical Key Starting Materials (KSMs)/Drug Intermediates and Active Pharmaceutical Ingredients (APIs)** in the country.

- **Funding:** Under the scheme **financial incentive will be given to eligible manufacturers of identified 53 critical bulk drugs** on their incremental sales over the base year (2019-20) for a period of 6 years.
- **Impact:** PLI scheme will reduce India's import dependence on other countries for critical KSMs/ Drug Intermediates and APIs.
 - This will lead to expected **incremental sales** of Rs. 46,400 crore and significant additional **employment generation** over 8 years.
- **Implementation:** The scheme will be implemented through a **Project Management Agency (PMA)** to be nominated by the Department of Pharmaceuticals.

Active Pharmaceutical Ingredients

- **APIs, also called bulk drugs,** are significant ingredients in the manufacture of drugs. The Hubei province of China is the hub of the API manufacturing industry.
- India is heavily import-dependent for APIs from China. India's API imports stand at around \$3.5 billion per year, and around 70%, or \$2.5 billion, come from China.

Defence Fund Shortfall

Why in News

Recently, a **Parliamentary Standing Committee on Defence** has shown concern at the widening gap between projections and allocations in the defence **budget**.

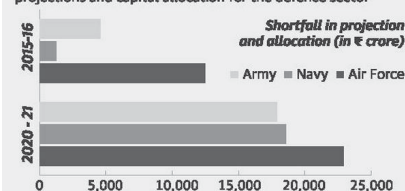
- The Committee noted that since 2015-16, **none of the three Services (Army, Navy and Air Force)** has been given the matching allocation as per the projection.

Key Findings of the Committee

- There is a considerable **shortage in the allocation in the Capital Head**, which is 35% less than the projection.
- **Such a situation is not conducive for preparation of the country to modern-day warfare,**

Missing the target

There is a widening gap over the last five years between projections and capital allocation for the defence sector



Such a situation is not conducive for preparation for modern-day warfare, where possession of capital intensive machines is a prerequisite for not only tilting the result of war in our favour but also has a credible deterrence — Standing Committee report

Note:

where possession of capital intensive modern machines is a prerequisite for tilting the result of the war in favour and also to have a credible deterrence.

- Both the Navy and the Indian Air Force (IAF) has a situation where their committed liabilities are more than their share of the capital allocation in the Budget.
- The shortfall in expenditure will affect:
 - Operationalisation of three tri-service organizations i.e. **Defence Space Agency (DSA)**, Defence Cyber Agency (DCYA) and Armed Forces Special Operations Division (AFSOD).
 - Operational readiness of **Andaman and Nicobar Command (ANC)**.
 - Maintenance of SIGINT (Signal Intelligence) equipment.
 - Administration of training institutes and operational units.

Unnat Bharat Abhiyan

Why in News

Recently, information related to the **Unnat Bharat Abhiyan (UBA)** was given by the Ministry for Human Resource Development (MHRD).

Key Points

- Unnat Bharat Abhiyan is a **flagship program of the Ministry for Human Resource Development (MHRD)**.
- It aims to **link the Higher Education Institutions with a set of at least (5) villages**, so that these institutions can contribute to the economic and social betterment of these village communities using their knowledge base.
- **Main Objectives:**
 - To engage the faculty and students of **Higher Educational Institutions (HEIs)** in identifying development issues in rural areas and finding sustainable solutions for the same.
 - **Identify & select** existing innovative technologies, enable customisation of technologies, or devise implementation methods for innovative solutions, as required by the people.
 - To allow HEIs to contribute to devising systems for smooth implementation of various Government programmes.

➤ Unnat Bharat Abhiyan 2.0

- It is the **upgraded version of Unnat Bharat Abhiyan 1.0**. It was **launched in 2018**.
- The scheme is extended to all educational institutes; however, under **Unnat Bharat Abhiyan 2.0** participating institutes are selected based on the **fulfillment of certain criteria**.

➤ Performance So Far

- Currently, under the scheme, 13072 villages have been adopted by 2474 Institutes.
- The **technological interventions** under the UBA cover different subjects broadly categorized as in the area of sustainable agriculture; water resource management; artisans, industries and livelihood; basic amenities (infrastructure & services) and rural energy system.
- This has transformed the living conditions in villages and has been beneficial for rural India.

Public Health vs Private Information

Why in News

- Recently, a list containing private information of suspects of **Covid-19** was found on social media and also some state governments have officially disclosed the data of those under quarantine.
 - Such disclosures have raised concerns over balancing the importance of **public health, doctor-patient confidentiality** and the **fundamental right to privacy**.

Key Points

- In the **absence of a national protocol or law**, state governments are divided on the approach to handle the situation.
- While some states have put the data in the public domain to **better inform citizens**, other states are making efforts to **protect identities to avoid panic and to respect privacy**.
- For **contact tracing** and **ensuring social isolation**, states are relying upon **informing communities**. For example:
 - **Karnataka** has published a district-wise list of those who are home-quarantined with travel details and exact addresses on the Department of Health and Family Planning's website.

Note:

- Many states including **Delhi, Gujarat and Karnataka** have instructed local authorities to label houses where individuals are quarantined.
- However, **West Bengal**, which has put peoples under home surveillance and in isolation, has **not disclosed the identities of individuals or hospitals** in which they are kept.

Legal Perspective

- There is **no law which backs disclosure** of personnel information to the public.
- The **Code of Medical Ethics** prescribed by the **Indian Medical Council**, bars disclosure of information relating to the patient learnt during the treatment **except in certain cases**.
 - The exceptions include circumstances **where there is a serious and identified risk to a specific person and /or community**; and in the case of **notifiable diseases**.
- The **Ministry of Health guidelines** for surveillance provide for sharing of patient/contact information with the **state or district level surveillance units** of the **Integrated Disease Surveillance Programme** or any **other authority** that first comes in contact with the patient.
 - But there is **no provision** in these guidelines to **make patient details public or even naming missing patients**.
- Legislation invoked to handle a public health emergency, **the Epidemic Act, 1897**, and **the Disaster Management Act, 2005**, provide **legal immunity** to action taken in **"good faith"** during this time.
 - The provision states that officers and employees of the Central/State Government, shall be immune from legal process in regard to any warning in respect of any impending disaster communicated or disseminated by them in their official capacity or any action taken or direction issued by them in pursuance of such communication or dissemination.
- Even, under the **Data Protection Bill**, a data fiduciary (the government) can process personal data of individuals to respond to a medical emergency where the life of a data principal is at risk.
 - It can also be processed in the face of an epidemic, outbreak of diseases or any other threat to public health.
 - The Covid-19 pandemic can fall under these categories.

Issues

- Publishing names of individuals, along with their addresses on social media or in front of their houses puts families at **risk of physical or emotional distress**.
- It will also create more **panic among the people**.
- If challenged in court, disclosure of personnel information by the government will have to pass the **"proportionality test"** prescribed by the Supreme Court in the landmark **Puttaswamy verdict**, 2017 that **recognised the fundamental right to privacy**.
 - **Proportionality test** is a legal method used by constitutional courts to decide hard cases, that is cases **where legitimate rights collide**.
 - In such a case, a **decision necessarily leads to one right prevailing at the expense of another**.

Way Forward

- Disclosures that are needed for contact tracing need to be **restricted to public officials** who are entrusted with enforcing the quarantine.
- Personal details must be **masked when disclosed in public**.

Worldwide Closure of Educational Institutions due to Covid-19

Why in News

According to the estimates of the **United Nations Educational, Scientific and Cultural Organization (UNESCO)** the **Covid-19** outbreak has pulled the majority of the world's **student population out of schools and universities**.

- UNESCO has also observed that 107 countries have announced a temporary closure of educational institutions, **impacting 86.17 crore children and youth**.

Key Points

- **Non-Pharmaceutical Interventions:**
 - The **World Health Organisation (WHO)** recommends school closure (including preschool and higher education) as one of the **"Non-Pharmaceutical Interventions (NPIs)"** for mitigating influenza pandemics.

Note:

- NPIs are actions, **apart from getting vaccinated and taking medicine**, that people and communities can take to help slow the spread of illnesses like pandemic influenza (flu).

➤ **Reasons:**

- The main reason for keeping educational institutions closed is that children and young people can be **vectors of transmission**.
- There are also **high contact rates** in schools which could result in the spread of the virus.
- The school closures during a pandemic are expected to **break the chains of transmission** of Covid-19 and in turn it will **reduce the number of confirmed cases, avoiding stress on healthcare systems**.
- It will also help to **delay possible transmission** and will also allow **more time to develop a vaccine**.

➤ **Economic Costs Involved:**

- The closure of education institutions **not only disrupts learning but also has a direct economic cost**.
- Because when schools close, families would have to **find childcare**.
- While some may manage to look after children without missing work, many parents will **end up skipping work**. Those **lost work hours** are a cost to the economy.
- A study published in the BMC Public Health journal in April 2008 suggested that a **12-week closure of schools in the UK** during an influenza pandemic could **cost about 0.2-1% of the country's Gross Domestic Product (GDP)**.

➤ **Disadvantages:**

- **Loss of Nutrition:** When schools close, children's **nutrition is compromised**. This is already evident in India, where the closure of schools has disrupted the supply of **midday meals**.
- **Access to Internet:** As schools and universities move towards learning online to make up for lost time, students from low-income families **risk falling behind** as they **don't have access to technology or stable Internet connections**.
- **Issues with Distance Learning:** The parents of first-generation learners in schools are often **unprepared for distance learning and home-schooling**.

➤ **Measures:**

- Countries are adopting **distance learning solutions** to ensure continuity of education.

- The UNESCO has set up a **Covid-19 task force** to advise countries in regular virtual meetings with Education Ministers.

Indian Scenario

- In India, the closure of schools started towards the end of the academic year. Hence, as of now, it **hasn't caused any significant learning loss**.
- The Ministry of Human Resource Development has decided to encourage schools and universities to make full use of **existing e-learning portals**.
- These e-learning portals include the **Massive Open Online Courses (MOOCs)**, platform **SWAYAM**, and the **free DTH channel Swayam Prabha**, which telecasts educational videos prepared by the NCERT.
 - **Massive Open Online Course (MOOC)** is a free Web-based distance learning program that is designed for the participation of large numbers of geographically dispersed students.
 - **SWAYAM platform** is indigenously developed by the Ministry of Human Resource Development (MHRD) and All India Council for Technical Education (AICTE) with the help of Microsoft. It is designed to achieve the **three cardinal principles of Education Policy viz. access, equity and quality**.

United Nations Educational, Scientific and Cultural Organization

- It was founded in **1945** to develop the "intellectual and moral solidarity of mankind" as a means of building lasting peace.
- It is located in **Paris (France)**.
- It develops educational tools to help people live as global citizens free of hate and intolerance.
- It also aims to promote cultural heritage and the equal dignity of all cultures with strengthening bonds among nations.

Covid-19 and Work from Home in India

Why in News

The rising wave of the **Covid-19 outbreak in India** has forced the corporate world in the country to **opt for 'work from home' widely**.

Note:



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- Currently, the work from home is the only viable option to **continue and sustain economic activities** in the country to **contain the spread of Covid-19**.

Key Points

- **Legal Provisions:**
 - India's labour laws and proposed Labour Codes **do not recognise work from home as a viable work arrangement**.
 - An organisation is also **required to maintain statutory records** under various acts such as Shops and Establishment Act, Minimum Wages Act, Payment of Wages Act, Equal Remuneration Act, Payment of Bonus Act, Factories Act, and Contract Labour Regulation and Abolition Act.
 - These laws **regulate** hours of work, payment of wages, leaves, holidays, terms of service and other conditions of work of persons employed.
 - However, the above provisions **assume that an employee has a fixed geography of work and does not account for an employee working from a remote location**.
- **Current Scenario:**
 - Most organisations in India **do not have well documented policies and guidelines** to support extended work from home arrangements.
 - Also most of the **managerial staff is not trained and equipped** to manage remote teams.

Applicability and Computation Challenges

- **Labour-a Subject on the Concurrent List:**
 - Under the Constitution of India, **Labour is a subject in the Concurrent List** where both the Central & State Governments are competent to enact legislation subject to certain matters being reserved for the Centre.
 - There are **416 Labour Laws and Rules between Centre, States and Union Territories** leading to 278 different filings and approximately 1,000 different formats of Registers.
 - Thus, if an employee works remotely and is **based in a different state**, the applicable labour laws will change leading to different compliance obligations.

- States have implemented **labour laws with different applicability criteria, registration and documentation requirements**.

➤ **Minimum Wages Act, 1948:**

- It is an Act of Parliament concerning Indian labour law that sets the minimum wages that must be paid to skilled and unskilled labourers.
- **The different states have different minimum wages based on schedule, skill level and zone.** As an example, just the state of Karnataka has over 800 different minimum wages.
- In the event of employees working remotely from different states, the complexity of wage computation will increase sharply.
- Minimum wage requirements for different states will have to be satisfied to stay compliant.

➤ **Overtime Wage Calculations:**

- An employer has to compute the wage of an employee **based on the days and hours of work** and maintain statutory registers as evidence.
- Overtime work hours have **different slabs and statutory payment requirements**.
- In a remote work arrangement, organisations will need to manage these records such that they are admissible by the Labour Department.

➤ **Professional Tax:**

- Professional tax is a tax on all kinds of professions, trades, and employment and levied based on the income of such profession, trade and employment.
- Professional Tax implementation **varies between states** in applicability, computation and filing requirements.

➤ **Labour Welfare Fund**

- Labour Welfare Fund is a **statutory contribution** managed by **individual state authorities**.
- In case an employee telecommutes from a different state, there are implications leading to additional registration and filings leading to **higher complexity and cost of managing compliance**.

Way Forward

- The world economies have become increasingly connected and interdependent. **Greater flexibility,**

Note:

adaptability and resilience will be the keys to the next-generation workforce.

- **The implementation of technology advancements** in office productivity tools, collaboration tools, digital documents, flexible workflows, cheaper broadband connectivity will continue to make work from home easier.
- The proposed labour codes in India are expected to acknowledge gig, informal and unorganised labour in addition to work from home as **a legal option**.
- The government is also expected to make a **regulatory framework** to enable teleworking, organisations should understand the implications of work from home during the ongoing crisis and ensure that they inadvertently do not miss critical compliances.

Pros and Cons of Work from Home

➤ Pros:

- Development of **virtual collaboration** without political as well as geographical boundaries.
- Easy **balance of Professional and Personal life**.
- Helps to **avoid congestion problems** majorly in metro cities.
- Leads a way towards a **conservation of resources** like fossil fuels, water, electricity, etc.

➤ Cons:

- **Reduction** in productivity.
- Lack of **creativity**.
- Risk of **isolation**.
- Lack of **accountability**.



Note:

Economic Scenario

Highlights

- Covid-19 Economic Relief Package
- Covid-19 and Global Unemployment
- India: 3rd Largest Producer of Electricity
- Electronics Manufacturing Clusters (EMC2.0) Scheme
- Use of Waterways for Reducing Transportation Cost
- ROPAX Service
- Regulating Payment Aggregators and Gateways
- Open Market Operations
- Cess Fund for Welfare of Construction Workers
- Burden on Companies Eased
- VIX: Measure of Market Volatility
- NRIs Can Invest in Specified Government Securities
- Withdrawal from EPF Accounts
- Flexibility Under the FRBM Act
- Recapitalisation of RRBs

Covid-19 Economic Relief Package

Why in News

The Union Finance Minister has announced a **₹1.70 lakh crore relief package** under the **newly framed Pradhan Mantri Garib Kalyan Yojana** for the poor to help them fight the battle against **CoronaVirus (Covid-19)**.

- As part of the **lockdown** in order to stop the virus from spreading, the government has stopped public transport, airlines and construction work, bringing to a halt most economic activities and **leaving millions of workers in the informal economy without a livelihood**.
- The central government's package **comes a week after Kerala announced a ₹20,000 crore support** for its people. Many states including Uttar Pradesh, Uttarakhand, Punjab, Telangana and Rajasthan have followed the suit.

Key Components

- **Insurance Scheme for Health Workers**
 - The Centre would provide **₹50 lakh medical insurance cover** for the next **three months** for about 22 lakh health workers in government hospitals fighting the spread of the virus at personal risk.

- The health workers include **ASHA (Accredited Social Health Activist) workers**, medical sanitary workers in government hospitals, paramedics, nurses and doctors.
- **Food Security for Next Three Months (PM Gareeb Kalyan Ann Yojana)**
 - Each person who is covered under the **National Food Security Act** would get an additional 5kg wheat or rice for free, in addition to the 5kg of subsidised foodgrain already provided through the **Public Distribution System (PDS)**.
 - A household would also be provided 1 kg pulse for free, according to regional preferences. This is expected to benefit about 80 crore people.
- **Cash Transfers and Other Benefits over Next Three Months**
 - About 3 crore poor pensioners above 60 years, widows and disabled people would be given ₹1000 in two instalments.
 - The 20 crore women holding **Jan Dhan Yojana** accounts would get ₹500 a month.
 - The 8.3 crore poor households, which received cooking gas connections under the **Ujjwala scheme**, would get free gas cylinders.
- **For Workers**
 - Wages are being hiked under the **Mahatma Gandhi National Rural Employment Guarantee Act** scheme, from **₹182 to ₹202 a day**.

Note:

- The Centre is directing the States to use the ₹31,000 crore held by **Building and Other Construction Workers Welfare Boards** to provide support to the 3.5 crore registered workers.
- The States can also use the money available under **District Mineral Funds** for medical screening, testing and treatment.
- **For Land-owning Farmers**
 - The first instalment of ₹2000 due under the **PM-KISAN** income support scheme will be paid promptly in April, the first month of the financial year.
- **For Companies & Self-Help Groups**
 - For small companies with **100 employees or less**, of whom 90% earn less than ₹15,000 a month, the **Centre will bear the cost of both employer and employee contribution (a total of 24%) to the Employees Provident Fund (EPF)** for the next three months. This will benefit 80 lakh employees and incentivise 4 lakh establishments.
 - **Collateral free loans** provided for women **self-help groups** (SHGs) under the **National Rural Livelihood Mission** are being doubled to ₹20 lakh, potentially benefiting seven crore households.

Immediate Impact of the Announcement on the Market

- Sentiments in the **market improved** leading to gains in **BSE Sensex and NSE Nifty**. Earlier, Sensex and Nifty crashed badly during the pandemic.
- The **rupee appreciated 57 paise** to 75.37 against the US Dollar in intraday trade.
 - Rupee has weakened against the US Dollar during the pandemic.
- The other news that is positive for India's fiscal health is the fall in crude oil prices.

Analysis of the Package

- **Positive Points**
 - It **covers various sections of the vulnerable**, ranging from farmers to healthcare workers.
 - It is appreciable on the part of the government that it has **made the use of existing schemes** like PM Kisan in the package. The efforts appear to keep the **funding within the budget** as much as possible and **retain control over the deficit**.

- Application of PM Gareeb Kalyan Yojana will **help in the disposal of excess stocks with the Food Corporation of India (FCI)**.
 - The Food Corporation of India (FCI) and the National Agricultural Cooperative Marketing Federation of India are now holding some 77.6 mt of cereals (3.5 times more than required) and 2.2 mt of pulses.
- The offer to pay both employer and employee contributions to the Provident Fund for very small business enterprises will offer **relief to those businesses that have been forced to shut down operations**.

Negative Points

- The **effectiveness of PM Gareeb Kalyan will be more in states with well-functioning PDS** viz Kerala, Tamil Nadu, Chhattisgarh and Odisha but not Uttar Pradesh and Bihar.
- When daily wage earners are supposed to remain at their homes (lockdown), **the only way to compensate them under MNREGA is through unemployment allowance**.
- **Farmers** are facing both lower crop prices due to a coronavirus-induced market collapse and higher harvesting costs on account of labour shortages from the lockdown.
 - **No new benefit** has been announced for them in the package.
- Another challenge for **the government will be to locate and deliver support to the migrant workers**, many of whom are walking hundreds of kilometres to their homes or lining up at shelters for a meal.
- **Corporate sector and middle class people not being beneficiaries**.

Way Forward

- Globally, many countries have announced stimulus packages involving 10-12% fiscal expansions. In comparison, this package is only **about 0.75% of India's GDP**, which is **marginal**.
- The **Government should now turn its focus towards businesses** that are running out of cash and may soon default on even salaries and statutory commitments if relief is not given.
- **Part II of the economic relief package** should not be delayed beyond few following days.

Note:

Covid-19 and Global Unemployment

Why in News

The **International Labour Organization (ILO)** has recently said that the **Covid-19 pandemic** will **drastically increase global unemployment**, leaving up to 25 million more people out of work and slashing incomes.

- Covid-19 is not only a global health crisis but also a major labour market and economic crisis that is having a huge impact on people.

Key Points

- The **International Labour Organization (ILO)**, has warned that the **economic and labour crisis** sparked by the coronavirus will have far-reaching impacts on labour market outcomes.
- The ILO said that by comparison, the global financial crisis of 2008-09 increased global unemployment by 22 million.
- **Major Findings:**
 - A study based on the report suggests that the world should prepare to see a significant **rise in unemployment and underemployment** in the wake of the pandemic.
 - In the best-case scenario, 5.3 million more people will be pushed into unemployment.
 - In the worst case scenario, 24.7 million more will become jobless, on top of the 188 million registered as unemployed in 2019.
 - Underemployment is also expected to increase on a large scale, as the economic consequences of the virus outbreak translate into reductions in working hours and wages.
 - Self-employment in developing countries usually serves to cushion the impact of economic shifts but this time due to the severe restrictions on the movement of people and goods, it might not help
 - Reductions in access to work will also mean large income losses for workers.
 - The number of people who **live in poverty despite holding one or more jobs will also increase** significantly.
 - The strain on incomes resulting from the decline in economic activity will devastate workers close to or below the poverty line.

➤ Suggestions:

- The ILO has called for urgent, large-scale and coordinated measures to protect workers in the workplace and stimulate the economy, employment and job support through social protections, paid leave and other subsidies.
- It is suggested to tackle this pandemic in the same way the global financial crisis of 2008 was tackled, by presenting a united front to address the consequences.

India: 3rd Largest Producer of Electricity

Why in News

- As per the **Key World Energy Statistics 2019**, India is the 3rd largest producer of electricity in the world.
 - India was 106th in terms of per capita consumption in 2017.

Key Points

- With a generation of 1,497 Terawatt-hour (TWh), India is the third largest producer and the third largest consumer of electricity in the world after the US and China.
- Although power generation has grown more than 100-fold since independence, growth in demand has been even higher due to accelerating economic activity.
- Electricity is also one of the **eight core industries** of India.
 - Electricity use and access are strongly correlated with economic development.
- **Related Government Initiatives**
 - **Saubhagya Scheme:** The 'Pradhan Mantri Sahaj Bijli Har Ghar Yojana' was launched by the Government of India with the aim of providing electricity access to **over 40 million families** in the country.
 - **The Ujwal Discom Assurance Yojana:** UDAY was launched by the Ministry of Power to help turn around the poor financial situation of state discoms. It also envisages development of renewable energy sector and availability of **24*7 Power For All at an affordable price**.
 - **Unnat Jyoti by Affordable LEDs for All (UJALA):** It aims to promote efficient lighting, enhance awareness on using efficient equipment which

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reduce electricity bills and help preserve the environment. The project is spearheaded by the **Energy Efficiency Services Limited**.

International Energy Agency

- The IEA was **created in 1974** to help coordinate a collective response to major disruptions in the supply of oil.
 - It was established in the wake of the 1973 (set up in 1974) oil crisis after the **OPEC** cartel had shocked the world with a steep increase in oil prices.
- It is made up of **30 member countries**. It also includes 8 association countries.
 - **India became an associate member** of International Energy Agency in 2017.
- It is an **autonomous inter-governmental organisation** within the **Organisation for Economic Co-operation and Development (OECD)** framework, headed by its Executive Director.
- The IEA has four main areas of focus, i.e. 4Es:
 - Energy security,
 - Economic development,
 - Environmental awareness and
 - Engagement worldwide.
- It is headquartered in **Paris, France**.

Key World Energy Statistics

- KWES is published by the **International Energy Agency**.
- It is an introduction to energy statistics, providing top-level numbers across the energy mix, from supply and demand, to prices and research budgets, including outlooks, energy indicators and definitions.
- It is part of the IEA's annual edition of the world's most comprehensive series of energy databases and data services, which include World Energy Statistics and Balances and the full range of fuel information data services.

Electronics Manufacturing Clusters (EMC2.0) Scheme

Why in News

Recently, the Union Cabinet has approved financial assistance to the Modified Electronics Manufacturing Clusters (EMC 2.0) Scheme.

- EMC 2.0 is a scheme for development of world class infrastructure along with common facilities and amenities through Electronics Manufacturing Clusters (EMCs).

Background

- The **Ministry of Electronics and Information Technology (MeitY)** notified the **Electronics Manufacturing Clusters (EMC) Scheme** in October, 2012.
- The objective of the scheme was to provide support for **creation of world class infrastructure for attracting investments in the Electronics Systems Design and Manufacturing (ESDM) sector**.
- The scheme provided grant assistance for setting up of both Greenfield and Brownfield EMCs across the country.
 - For projects in Greenfield Electronics Manufacturing Clusters, assistance is provided to the extent of 50% of the project cost subject to a ceiling of Rs. 50 crore for every 100 acres of land.
 - For Brownfield EMCs, 75% of the cost of infrastructure is provided, subject to a ceiling of Rs. 50 crore.
- Under the scheme, **20 Greenfield EMCs and 3 Common Facility Centres (CFCs)** have been approved in 15 states across the country.
- There was a need for EMC 2.0 for **further strengthening the infrastructure base** for the electronics industry in the country and **deepening the electronics value chain**. Thus, **EMC 2.0** was approved.

Key Features of the EMC 2.0

- The Modified Electronics Manufacturing Clusters (EMC 2.0) Scheme is in line with **National Policy for Electronics (NPE), 2019** to make India a global hub for mobile and component manufacturing.
- The scheme would support setting up of **Electronics Manufacturing Clusters (EMCs)**.
 - The focus is on development of basic infrastructure, amenities and other common facilities for the ESDM sector.
- The scheme would also support setting up of **Common Facility Centres (CFCs)**.
 - They would be set up in an area where a significant number of existing manufacturing units are located.

Note:



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- The focus is on **upgrading common technical infrastructure** and providing common facilities for the units in EMCs, Industrial Areas/Parks/ industrial corridors.

Expected Benefits

- A **robust infrastructure base** for the electronic industry.
- **New investments** in the Electronics System Design and Manufacturing (ESDM) sector.
- Increased **employment opportunities** in manufacturing units.
- **Revenue in the form of taxes** paid by the manufacturing units.
- Help development of the **entrepreneurial ecosystem**.
- Drive **innovation** and catalyze the **economic growth** of the country.

Electronic Production in India

- India's electronics production has **increased from** Rs. 1,90,366 crore (US\$29 billion) in 2014-15 to Rs. 4,58,006 crore (US\$ 70 billion) in 2018-19, at a **Compound Annual Growth Rate (CAGR) of about 25%**.
- India's share in global electronics manufacturing grew from 1.3% (2012) to 3.0% (2018). Electronics production accounts for **2.3% of India's GDP at present**.

Use of Waterways for Reducing Transportation Cost

Why in News

Recently, the Minister of State for Shipping has informed in the Rajya Sabha that significant savings in the cost of transportation are expected by using the **Inland Water Transport (IWT) mode**.

- IWT mode is widely recognized as an **environment-friendly** and **cost-effective mode** of transport.
- It aims to create for the shippers and logistic players, an alternative to the two dominant modes of transport viz. road and rail.

Key Points

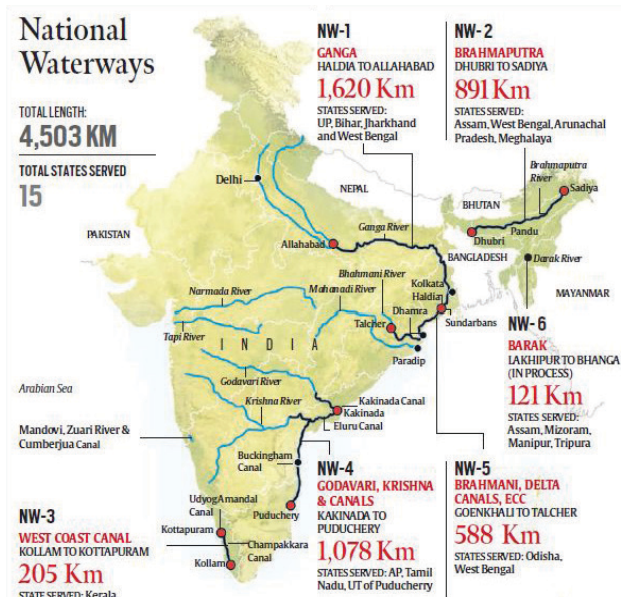
- As per RITES Report of 2014 on **Integrated National Waterways Transportation Grid**, the cost comparison on the modes of surface transport is given below:

Mode	Highways	Railways	IWT
Freight (Rs./T.km)	2.50	1.36	1.06

- India has about 14,500 km of **navigable waterways** which comprise of rivers, canals, backwaters, creeks, etc.
- About 55 million tonnes of cargo is being moved annually by IWT, a **fuel-efficient and environment-friendly mode**.
- As per the **National Waterways Act 2016**, 111 waterways have been declared as National Waterways (NWS).
 - **National Waterway-1 (Prayagraj-Haldia)** with length 1620 km is the longest National waterway in India.
- The **Inland Waterways Authority of India (IWAI)** is implementing the **Jal Marg Vikas Project (JMVP)** at an estimated cost of ₹5369.18 crores for capacity augmentation of navigation on the **Haldia-Varanasi stretch of Ganga (part of NW-1)** with the technical and financial assistance of the **World Bank**.

Integrated National Waterways Transportation Grid

- It plans to link many of the national waterways to each other and also to roads, railways and major ports.
- Setting up of a large number of ports/terminals, riverside jetties, godowns, boat-building workshops, repairing yards and ancillary industries will spur investment opportunities.



Note:

ROPAX Service

Why in News

The **Ministry of Shipping** has launched a **roll on-roll off cum passenger ferry service**, called '**ROPAX**', between **Mumbai and Mandwa** (Maharashtra).

- ROPAX service is a **water transport service** project under **Eastern Waterfront Development**.
- The road distance from Mumbai to Mandwa is about 110 kilometres, and it takes three to four hours, whereas by waterway the distance is about 18 kilometres and a journey of just an hour.
- **ROPAX Vessel M2M-1** was built in Greece in September 2019. This Vessel has a speed of 14 knots and can carry 200 cars and 1000 passengers at a time. It is capable of operating even in a monsoon season.
 - People will be able to travel in their cars directly onto the ROPAX vessel.
- The **benefits** of this service include reduction in the travel time, vehicular emission and traffic on the road.

Eastern Waterfront Development

- The Eastern Waterfront is the **Mumbai Port Trust's (MbPT's) plan** to develop the port lands across Mumbai's eastern coast stretching from Sassoon Dock to Wadala.
 - MbPT is an autonomous Body of the Government of India under the Ministry of Shipping.
- Some of the major proposals under the project include a 93- hectare park near Haji Bunder, around 17 hectares for tourism-related projects such as themed streets and affordable housing.
- The project also has a focus on water transport by making a provision for water taxis, international and domestic cruises and ro-pax (roll on/roll off passengers) services.

Regulating Payment Aggregators and Gateways

Why in News

The **Reserve Bank of India (RBI)** has released **guidelines** for regulating activities of **Payment Aggregators (PAs)** and **Payment Gateways (PGs)** in the country.

- PAs and PGs are intermediaries playing an important function in **facilitating payments in the online space**.

Payment Aggregators and Payment Gateways

- **Payment Aggregators facilitate e-commerce sites and merchants in accepting payment instruments from the customers** for completion of their payment obligations without the need for merchants to create a separate payment integration system of their own. **Example:** Billdesk.
- **Payment Gateways** are entities that **provide technology infrastructure** to route and facilitate processing of an online payment transaction without any involvement in handling of funds. PGs in India mainly include **banks**.
- A Payment Gateway allows the merchants to deal in a specific payment option put on the portal, whereas a Payment Aggregator allows one to have multitudes of options for payment. Thus, **a Payment Aggregator covers a payment gateway in its ambit**.

Guidelines

- **Authorisation**
 - **Non-bank PAs** will require authorisation from the RBI under the Payment and Settlement Systems Act, 2007 (PSSA). A PA should be a company incorporated in India under the Companies Act, 1956 / 2013.
 - **Banks provide PA services** as part of their normal banking relationship and **do not therefore require a separate authorisation from RBI**.
 - **E-commerce marketplaces** (e.g. flipkart, Paytm) providing PA services **should separate PA services from the marketplace business** and they should apply for authorisation on or before 30th June, 2021.
 - PGs will be considered as 'technology providers' or 'outsourcing partners' of banks or non-banks, as the case may be.
- **Capital Requirement**
 - **Existing PAs** have to achieve a net worth of ₹15 crore by 31st March, 2021 and a net worth of ₹25 crore on or before 31st March, 2023. The net worth of ₹25 crore has to be maintained at all times thereafter.
 - **New PAs** should have a minimum net worth of ₹15 crore at the time of application for authorisation and have to attain a net worth of ₹25 crore by

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the end of the third financial year of the grant of authorisation. The net worth of ₹25 crore has to be maintained at all times thereafter.

➤ Disclosure Requirements

- PAs need to disclose **comprehensive information** regarding merchant policies, customer grievances, privacy policy and other terms and conditions on the website and / or their mobile application.
- They need to undertake **background and antecedent checks of the merchants** to ensure that such merchants do not have any mala fide intention of duping customers, and do not sell fake / counterfeit / prohibited products.

Open Market Operations

Recently, the **Reserve Bank of India (RBI)** has decided to infuse ₹10,000 crore liquidity in the banking system by buying government securities through Open Market Operations (OMO).

- The financial markets have been facing heightened volatility due to the spread of the **Covid-19**.
- RBI had earlier infused **Rs. 25,000 crore** of liquidity through **Long-Term Repo Operations (LTRO)**.

Key Points

- **Open Market Operations (OMOs)** are market operations conducted by RBI by way of **sale/purchase of government securities to/from the market** with an objective to **adjust the rupee liquidity conditions** in the market on a durable basis.
- If there is excess liquidity, RBI resorts to sale of securities and sucks out the rupee liquidity.
- Similarly, when the liquidity conditions are tight, RBI buys securities from the market, thereby releasing liquidity into the market.
- It is one of the **quantitative (to regulate or control the total volume of money) monetary policy tools** which is employed by the central bank of a country to control the money supply in the economy.

Long-term Repo Operations

- Under **LTRO**, RBI will conduct term repos of one-year and three-year tenors of appropriate sizes for up to a total amount of Rs. 1 lakh crore at the prevailing **repo rate**.

- As banks get long-term funds at lower rates, their cost of funds falls. In turn, they reduce interest rates for borrowers.
- LTRO helps RBI to ensure that banks reduce their marginal cost of funds-based lending rate, without reducing policy rates.

Objectives of LTRO

- To assure banks about the availability of durable liquidity at reasonable cost relative to prevailing market conditions.
- Further encourage banks to undertake maturity transformation smoothly and seamlessly so as to augment credit flows to productive sectors.
 - Maturity transformation is when banks take short-term sources of finance, such as deposits from savers, and turn them into long-term borrowings, such as mortgages.

Cess Fund for Welfare of Construction Workers

Why in News

Recently, the Ministry of Labour & Employment has Issued an advisory to all States/UTs to use the Cess Fund for Welfare of Construction Workers.

Key Points

- The advisory comes under Section 60 of the **Building and Other Construction Workers (BOCW) Act, 1996**.
 - The Act regulates the employment and conditions of service of building and other construction workers.
 - It provides for their safety, health and welfare measures and for other matters connected therewith or incidental thereto.
- All State Governments/UTs have been advised to transfer funds from the Cess Fund to the account of construction workers through **Direct Benefit Transfer (DBT) mode**.
- The amount to be granted to construction workers may be decided by the respective state governments and Union territories.
- The financial assistance at this point in time would help to mitigate the financial crisis of construction workers to some extent and boost their morale to deal with Covid-19.

Note:

➤ About the Cess Fund

- The BOCW Cess Act, 1996, provides for the levy and collection of cess at 1-2 % of the cost of construction, as the Central government may notify.
- The cess has been levied at the rate of 1% of the cost of construction, as notified by the Central government in its official gazette.
- The cess is **collected by the State governments and UTs**.
- It is utilised for the welfare of building and other construction workers by the respective State Building and Other Construction Workers Welfare Boards.

Cess

- Cess is a **form of tax** levied over and above the base tax liability of a taxpayer.
- Cess is resorted to only when there is a need to meet the **particular expenditure for public welfare**.
- Cess is not a permanent source of revenue for the government, and it is **discontinued** when the purpose of levying it is fulfilled.
- It can be levied on **both indirect and direct taxes**.
- **Examples:**
 - **Swachh Bharat Cess:** Introduced in 2015, a 0.5% Swachh Bharat cess was imposed to fund a national campaign for clearing the roads, streets and the infrastructure of India.
 - **Infrastructure Cess:** Announced in Union Budget 2016, this cess was charged on the production of vehicles.

Burden on Companies Eased

Why in News

The Ministry of Corporate Affairs has made a series of announcements to ease the burden of companies during the Covid-19 outbreak.

Announcements

- Increase in the threshold for initiation of corporate insolvency from **Rs. 1 lakh to Rs. 1 crore**.
 - This would **prevent small businesses** from being **dragged into insolvency** (inability to pay debts when they are due).
 - This would also ease the compliance burden on companies during the coronavirus outbreak.

- A **suspension on mandatory filings** with the **Corporate Affairs Ministry's MCA-21 portal**, also additional fees for late filing has been removed.
- A **60 day relaxation** in the rule requiring that **board meetings** be held once every 120 days for the next two quarters.
- The companies would also be exempt from the requirement under the **Companies Act** that **at least one director** be in residency in the country for at least 182 days in the year.

Insolvency and Bankruptcy Code, 2016

- In India, the Insolvency and Bankruptcy Code, 2016 is a step towards settling the legal position with respect to **financial failures and insolvency**.
- It provides easy exit with a painless mechanism in cases of insolvency of individuals as well as companies.

Applicability of the Code

- The provisions of the Code shall apply for **insolvency, liquidation, voluntary liquidation or bankruptcy of the following entities:**
 - Any company incorporated under the Companies Act, 2013 or under any previous law.
 - Any other company governed by any special act for the time being in force, except in so far as the said provision is inconsistent with the provisions of such Special Act.
 - Any Limited Liability Partnership under the LLP Act 2008.
 - Any other body being incorporated under any other law for the time being in force, as specified by the Central Government in this regard.
- Moreover, this code shall apply only if the **minimum amount of the default is Rs. 1 lakh**.
- However, by placing the notification in the Official Gazette, the Central Government may specify the minimum amount of default of higher value which **shall not be more than Rs. 1 crore**.
- **Exceptions:** There is an exception to the applicability of the Code that it shall not apply to corporate persons who are regulated financial service providers such as Banks, Financial Institutions and Insurance companies.

MCA21

- MCA21 is an e-Governance initiative of the **Ministry of Corporate Affairs (MCA)**, Government of India.

Note:

- It enables an **easy and secure access of the MCA services** to the corporate entities, professionals and citizens of India.
- The application is designed to fully **automate all processes** related to the proactive enforcement and compliance of the legal requirements under **the Companies Act, 1956, New Companies Act, 2013 and Limited Liability Partnership Act, 2008.**
- This will help the business community to **meet their statutory obligations.**

VIX: Measure of Market Volatility

- **VIX (Volatility index)** is an index used to **measure the near term volatility expectations of the markets.**
 - Volatility signifies the rate and magnitude of change in the stock price or index value.
- The movement in the VIX index reflects the overall market volatility expectations **over the next 30 days.**
- Given the nature of the index, it is also known as **'fear gauge' or 'fear index'.**
- The VIX index was first created by the **Chicago Board Options Exchange (CBOE)** and introduced in **1993** based on the prices of S&P 500 index.

India VIX

- The India VIX was **launched by National Stock Exchange (NSE)** in 2010 and is **based on the computation methodology of CBOE** though amended to align with the Indian markets.
- India VIX indicates the **Indian market's volatility from the investor's perception.**
- **Volatility** and the value of **India VIX move parallel.** i.e a spike in the VIX value means the market is expecting higher volatility in the near future and vice versa.
- **India VIX** also has a strong **negative correlation** with **NSE Nifty.** i.e every time India VIX falls, Nifty rises and when India VIX rises, Nifty falls.

National Stock Exchange of India Ltd. (NSE)

- **NSE** is the leading stock exchange of India, located in **Mumbai.**
- The NSE was **established in 1992** as the first dematerialized electronic exchange in the country.

- VIX value is among the important parameters that are taken into account for pricing of options contracts, which are one of the most popular **derivative instruments.**

NRI's Can Invest in Specified Government Securities

Why in News

Recently, the **Reserve Bank of India (RBI)** has introduced a separate channel called Fully **Accessible Route (FAR)** to enable non-residents to invest in specified Government of India dated securities with effect from April 1.

- The move follows the **Union Budget** announcement that certain specified categories of government securities would be opened fully for non-resident investors without any restrictions.

Key Points

- **'Specified securities'** shall mean Government Securities as periodically notified by the Reserve Bank for investment under the FAR route.
 - The RBI has said that **all new issuances of Government securities (G-secs)** of 5-year, 10-year, and 30-year tenors will be eligible for investment as specified securities.
- Non Resident investors can invest in specified government securities **without being subject to any investment ceilings.**
- This scheme shall operate along with the two existing routes:
 - **The Medium Term Framework (MTF)** for Foreign Portfolio Investment (FPI) in Central Government Securities (G-secs) and State Government Securities (SDLs) was introduced in October 2015.
 - FPI consists of securities and other financial assets passively held by foreign investors.
 - **The Voluntary Retention Route (VRR)** encourages Foreign Portfolio Investors to undertake long-term investments in Indian debt markets.

Benefits of the Scheme

- This will **ease the access** of non-residents to Indian government securities markets.
- This would facilitate **inclusion in global bond indices.**

Note:

- Being part of the global bond indices would help Indian G-secs **attract large funds from major global investors**, including pension funds.
- This would also facilitate **inflow of stable foreign investment** in government bonds.

Government Security

- A G-Sec is a **tradable instrument** issued by the Central Government or the State Governments.
- It acknowledges the Government's debt obligation. Such securities are **short term** (usually called treasury bills, with original maturities of less than one year- presently issued in three tenors, namely, 91 day, 182 day and 364 day) or **long term** (usually called Government bonds or dated securities with original maturity of one year or more).
- In India, the **Central Government issues both treasury bills and bonds or dated securities** while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs).
- G-Secs carry practically **no risk of default** and, hence, are called risk-free **gilt-edged instruments**.
- Gilt-edged securities are high-grade investment bonds offered by governments and large corporations as a means of borrowing funds.

Withdrawal from EPF Accounts

Why in News

The **Union Ministry of Labour and Employment** has notified an **amendment to the Employees' Provident Funds (EPF) Scheme** allowing members to withdraw non-refundable advance amounts in the wake of the **Covid-19 pandemic**.

Key Points

- The notification amends the EPF Scheme, 1952 by inserting Sub-Para (3) under Para 68L of the EPF Scheme, 1952.
- This permits **withdrawal not exceeding the basic wages and dearness allowance for three months or up to 75% of the PF balance, whichever is lower**, in the event of outbreak of epidemic or pandemic.

- **Earlier, non-refundable advances were permitted only for specified purposes** such as housing and marriage. Even these were permitted only where the employee has put in a minimum service period.
- Since **the outbreak of Covid-19 had been declared a pandemic** for the entire country, all employees of establishments and factories in India who are members of the EPF scheme would be eligible for the amended scheme.
- Recently, the Finance Minister — as part of the **Pradhan Mantri Garib Kalyan Yojana** — said that the government will bear the **cost of the provident fund contributions, both of the employer and employees—12% each—for the next three months** for those establishments which have up to **100 employees and 90% of whom are earning less than ₹15,000 per month as salary**. It also relaxed withdrawal conditions from EPF accounts.

Employees' Provident Funds Scheme

- EPF is the main scheme under the **Employees' Provident Funds and Miscellaneous Act, 1952**. This scheme offers the institution of provident funds for factory employees and other establishments.
- The employee and employer each contribute 12% of the employee's basic salary and dearness allowance towards EPF.
 - The **Economic Survey 2016-17** had suggested that employees be allowed to choose whether or not to save 12% of their salary into EPF or keep it as take home pay.
- As per current laws, a person mandatorily becomes a member of EPF if his monthly **salary does not exceed Rs. 15,000**.

Flexibility Under the FRBM Act

Why in News

Recently, the State government of **Kerala has sought flexibility under the Fiscal Responsibility and Budget Management (FRBM) Act**.

- This is to ensure that fiscal stimulus in the wake of Covid-19 does not get deterred by FRBM considerations.

Reasons for Seeking Flexibility

- According to Kerala's current fiscal position, Kerala can borrow about ₹25,000 crore during the financial year 2020-21.

Note:

FRBM Act

- It was enacted in **August 2003**.
- It aims to make the Central government responsible for ensuring inter-generational equity in fiscal management and long-term macro-economic stability.
- The Act envisages the **setting of limits on the Central government's debt and deficits**.
 - It limits the fiscal deficit to 3% of the GDP.
- To ensure that the States too are financially prudent, the 12th Finance Commission's recommendations in 2004 linked debt relief to States with their enactment of similar laws.
 - The States have since enacted their own respective **Financial Responsibility Legislation**, which sets the same **3% of Gross State Domestic Product (GSDP) cap on their annual budget deficits**.
- It also mandates **greater transparency in fiscal operations** of the Central government and **the conduct of fiscal policy in a medium-term framework**.
 - The Budget of the Union government includes a **Medium Term Fiscal Policy Statement** that specifies the annual revenue and fiscal deficit goals over a three-year horizon.
- The rules for implementing the Act were notified in July 2004. The rules were amended in 2018, and most recently to the setting of **a target of 3.1% for March 2023**.
- **The NK Singh committee** (set up in 2016) recommended that the government should target a fiscal deficit of 3% of the GDP in years up to March 31, 2020 cut it to 2.8% in 2020-21 and to 2.5% by 2023.
- Kerala has announced an **emergency relief package of worth Rs. 20,000 crore** to mitigate the impact on livelihoods and overall economic activity from the sweeping steps taken to battle the Covid-19 pandemic, including the latest 21-day nationwide lockdown.
- The State has proposed to borrow as much as ₹12,500 crore from the market at the start of the financial year (April-March).
- The government is concerned that the stringent **borrowing cap under the fiscal responsibility laws should not constrain its borrowing and spending ability** over the remaining 11 months.
 - During the 11 months, the government will have to take not only Covid-19 mitigation measures but would also have to meet other expenditure for

routine affairs related to the running of the State's socio-economic programmes as well as the post pandemic recovery.

Relaxation under the FRBM Act

- **Escape Clause:**
 - Under **Section 4(2) of the Act**, the Centre can exceed the annual fiscal deficit target citing certain grounds.
 - The grounds include
 - National security, war
 - National calamity
 - Collapse of agriculture
 - Structural reforms
 - Decline in real output growth of a quarter by at least three percentage points below the average of the previous four quarters.
- The lockdown could cause severe contraction in economic output and the Covid-19 pandemic could be considered as a national calamity.
- Also, the government has already made the use of escape clause this year.

Instances of the FRBM**Norms been Relaxed in the Past**

- During the **Budget 2020-21** presentation:
 - The **reductions in corporate tax** were cited as **structural reforms** that triggered the **escape clause**. This implies that this year the government has already made use of the escape clause
 - **This enabled the government to adjust the fiscal deficit target** for 2019-20 to 3.8%, from the budgeted 3.3%.
 - It was also cited that the impact of the reforms would also necessitate a reset for 2020-21: from the earlier deficit target of 3% to 3.5%.
- During the **global financial crisis in 2008-09**:
- The Centre resorted to a focused fiscal stimulus: tax relief to boost demand and increased expenditure on public projects **to create employment and public assets**, to counter the fallout of the global slowdown.
- This led to the fiscal deficit climbing to 6.2%, from a budgeted goal of 2.7%.
- Simultaneously, **the deficit goals for the States too were relaxed** to 3.5% of Gross State Domestic Product(GSDP) for 2008-09 and 4% of GSDP for fiscal 2009-10.

Note:



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Recapitalisation of RRBs

Why in News

Recently, the Centre has approved a ₹1,340 crore recapitalisation plan for Regional Rural Banks (RRBs).

- The move is crucial to ensure liquidity in rural areas during the lockdown due to the **Covid-19** crisis.

Regional Rural Banks

- RRBs are financial institutions which ensure adequate **credit for agriculture and other rural sectors**.
- Regional Rural Banks were set up on the basis of the recommendations of the **Narasimham Working Group (1975)**, and after the legislation of the **Regional Rural Banks Act, 1976**.
- The first Regional Rural Bank "Prathama Grameen Bank" was set up on 2nd October, 1975.
- **Stakeholders:** The **equity** of a regional rural bank is held by the **Central Government**, concerned **State Government** and the **Sponsor Bank** in the proportion of **50:15:35**.
- The RRBs combine the **characteristics of a cooperative** in terms of the familiarity of the rural problems and **a commercial bank** in terms of its professionalism and ability to mobilise financial resources.
- Each RRB operates within the local limits as notified by the Government.
- The **main objectives** of RRBs are:
 - To provide credit and other facilities to **the small and marginal farmers, agricultural labourers, artisans and small entrepreneurs in rural areas**.
 - To check the outflow of rural deposits to urban areas and **reduce regional imbalances and increase rural employment generation**.
- The RRBs are required to provide 75% of their total credit as **priority sector lending**.

Key Points

- This recapitalisation (a strategy of enhancing the financial base of an entity to overcome a rough financial situation) would improve their **capital-to-risk weighted assets ratio (CRAR)** and strengthen these institutions for providing credit in rural areas.
 - The step will help those RRBs which are unable to maintain a minimum CRAR of 9%, as per the regulatory norms prescribed by the RBI.
- The release of the Rs. 670 crore as the central share funds will be contingent upon the release of the proportionate share by the sponsor banks.
- The recapitalisation process of RRBs **was approved by the cabinet in 2011 based** on the recommendations of a committee set up under the **Chairmanship of K.C Chakrabarty**.
 - The **National Bank for Agriculture and Rural Development (NABARD)** identifies those RRBs, which require recapitalisation assistance to maintain the mandatory CRAR of 9% based on the CRAR position of RRBs, as on 31st March of every year.
 - The scheme for recapitalization of RRBs was extended up to 2019-20 in a phased manner post 2011.

Capital-to-risk Weighted Assets Ratio

- CRAR or **Capital Adequacy Ratio (CAR)** is the ratio of a bank's capital in relation to its **risk weighted assets and current liabilities**.
- It is decided by central banks and bank regulators to prevent commercial banks from taking excess leverage and becoming insolvent in the process.
- The **Basel III norms** stipulated a capital to risk weighted assets of 8%.
- However, as per **RBI** norms, Indian scheduled commercial banks are required to maintain a **CRAR of 9%**.



Note:

International Relations

Highlights

- Virtual G20 Leaders' Summit
- Video Conference of SAARC Leaders on Covid-19
- Electronic Platform to Fight Covid-19
- Extradition Treaty between India and Belgium
- Kuril Islands
- Tokyo Olympics 2020 Postponed

Virtual G20 Leaders' Summit

Why in News

An extraordinary Virtual **G20 Leaders' Summit** was convened to discuss the challenges posed by the outbreak of the **Covid-19 pandemic** and to forge a global coordinated response.

- The **video-conference of leaders** of the world's top twenty economies was **hosted by Saudi Arabia's King Salman bin Abdulaziz Al Saud**.

Key Points

- **Major Takeaways:**
 - The G20 countries have voluntarily committed to inject **more than \$5 trillion** into the global economy and contribute to the **World Health Organisation (WHO)** led **Covid-19 solidarity response fund**.
- A **joint statement** has been issued which calls for a transparent, robust, coordinated, large-scale and science-based global response in the spirit of solidarity to come over the interconnectedness and vulnerabilities of the countries highlighted by the pandemic.
- The member countries have **agreed to share** timely and transparent information, exchange epidemiological and clinical data, share materials necessary for research and development and strengthen health systems globally by supporting the full implementation of the WHO International Health Regulations.
- The leaders agreed to have more interactions before the **Riyadh Summit** which will take place in **November 2020**.
- **Criticisms:**
 - **WHO was criticised** for failing to alert the world quickly enough of the potential threat from the

pandemic, even after it had been informed of its spread in Wuhan by China in December 2019.

- The **US has criticised China** for not having been transparent and sharing information about the virus.
- **Difference of opinion on lockdown:**
 - There have been differences among G-20 countries on lockdowns in order to control the pandemic spread through social distancing.
 - The **US wants to lift the lockdown** as it is impacting the economy.
 - The **President of Brazil** has called state-imposed lockdowns a **crime**.
 - **India** has imposed a **stringent 21-day lockdown** across the country.
- **Suggestions:**
 - In the effort to control the pandemic, most countries have acted individually but the **need for a more coordinated effort** was stressed upon by the members.
 - India emphasised on the **need to redefine conversations on globalisation to include social and humanitarian issues** like terrorism, climate change and pandemics along with financial and economic discussions.

G20

- It is an **informal group of 19 countries** and the **European Union (EU)**, with representatives of the **International Monetary Fund** and the **World Bank**.
- The membership comprises a mix of the world's largest advanced and emerging economies, representing about two-thirds of the world's population, 85% of global gross domestic product, 80% of global investment and over 75% of global trade.

Note:

- The **work of G20 is divided into two tracks**:
 - The **Finance track** comprises all meetings with G20 finance ministers and central bank governors and their deputies. Meeting several times throughout the year, they focus on monetary and fiscal issues, financial regulations, etc.
 - The **Sherpa track** focuses on broader issues such as political engagement, anti-corruption, development, energy, etc.
- **G20 Members**
 - The members of the G20 are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States and the European Union.
 - **Spain** as a **permanent, non-member invitee**, also attends leader summits.
- **Structure and Functioning of G20**
 - The G20 **Presidency rotates annually** according to a system that ensures a regional balance over time.
 - For the selection of presidency, the 19 countries are divided into 5 groups, each having no more than 4 countries. The presidency rotates between each group.
 - Every year the G20 selects a country from another group to be president.
 - **India is in Group 2** which also has **Russia, South Africa and Turkey**.
 - The G20 **does not have a permanent secretariat or Headquarters**.
- **Issues Addressed by G20**:
 - The G20 focuses on a broad agenda of issues of global importance, although, issues pertaining to the global economy dominate the agenda, additional items have become more important in recent years, like:
 - Financial markets
 - Fight against corruption
 - Advancement of women in job market
 - 2030 Agenda for Sustainable development
 - Climate Change
 - Global Health
 - Anti-terrorism
 - Inclusive entrepreneurship

Video Conference of SAARC Leaders on Covid-19

Why in News

Recently, the **Video Conference of South Asian Association for Regional Cooperation (SAARC) Leaders on Covid-19** has been held.

- All the **members of SAARC** (India, Bangladesh, Bhutan, Nepal, Maldives, Sri Lanka, Afghanistan and Pakistan) attended it..
- The conference is considered as a **step towards the revival of SAARC** as the SAARC Summit has not taken place since 2014 because of India-Pakistan tensions.

Key Points

- **Covid-19 Emergency Fund**:
 - India has proposed to create a **Covid-19 Emergency Fund** which could be based on a **voluntary contribution** from all SAARC members.
 - Further, **\$10 million** has been extended by **India** as a contribution to the fund.
 - The fund can be used to meet the **cost of immediate actions** by any member and will be coordinated through foreign secretaries and embassies of the member countries.
 - The **World Health Organisation (WHO)** has also constituted the **Covid-19 Solidarity Response Fund** with the help of corporate bodies, foundations and the UN Foundation.
- **Other Proposals by India**:
 - India has also proposed a **rapid response team of doctors and specialists**, along with testing kits and other equipment for all the member countries.
 - India has set up and offered to share an **Integrated Disease Surveillance Portal** to better trace possible virus carriers and the people they contacted.
- **Economic Issues and Measure**:
 - The conference also discussed **longer-term economic consequences** of Covid-19.
 - The member countries have also proposed to **insulate internal trade of South Asia and local value chains** from its impact.
- **Measures to Manage Health Pandemics**:
 - It has been decided to frame and enforce the **common SAARC pandemic protocols**.

Note:

- The members have decided to establish a **working group of national authorities for health information, data exchange and coordination** in real-time.
- It has also proposed a **SAARC health ministers' conference** and the **development of regional mechanisms** to share disease surveillance data in real-time.
- **Country-Specific Issues:**
 - **Afghanistan** has highlighted the **vulnerability** as it shares a **long and open border with Iran**, one of the worst affected countries in the world.
 - The **Maldives** has cited the **economic downturn** owing to the **drop in tourists inflow from Italy, China and Europe**, the main source of tourists for the country, and sought a South Asian response to the crisis.
 - The **tourism-dependent countries like Bhutan, Sri Lanka** have also sighted issues related to the economic slowdown.

Electronic Platform to Fight Covid-19

Why In News

Recently, India has decided to set up an electronic platform to help member countries of the **South Asian Association for Regional Cooperation (SAARC)** fight the **Covid-19** pandemic.

- The decision was conveyed during a **virtual conference** of health professionals of eight countries in the region.

Key Points

- The virtual conferencing of the health workers of the SAARC Nations was part of the two proposals made by Indian Prime Minister during the recently held virtual meeting of SAARC.
- The other proposal was to set up the **SAARC Covid-19 Emergency Fund**.
- The e-Platform will enable the SAARC nations to share and exchange information, knowledge, expertise and best practices for jointly combating the Coronavirus epidemic.
- **Objectives** of the e-Platform
 - Training of emergency personnel
 - Disease surveillance
 - Joint research

- Currently the platform is **in the construction stage**. India suggested setting up a **Whatsapp or email group** to help facilitate exchange of information among the SAARC countries till the platform became fully operational.

Technology Diplomacy by India in SAARC Region

- India launched the **GSAT-9**, also dubbed the **South Asia Satellite**, aiming to provide space-enabled services to other South Asian countries.
- India has offered member countries of the South Asian Association for Regional Cooperation (SAARC) to join its advanced navigational satellite programme—**GPS-Aided Geo Augmented Navigation (GAGAN)**.
- **Indian Regional Navigation Satellite System (IRNSS)** has potential to be useful for the SAARC countries which are dependent on foreign systems.

Extradition Treaty between India and Belgium

Why in News

Recently, the Union Cabinet has approved the signing and ratifying of the Extradition Treaty between the Republic of India and the Kingdom of Belgium.



- This will **replace the pre-Independence Extradition Treaty** between Great Britain and Belgium of 1901 that was made applicable to India through the exchange of Letters in 1958.
- The Treaty provides a legal framework for seeking extradition of terrorists, economic offenders, and other criminals from and to Belgium.

Salient Features of the Treaty

- **Obligation to Extradite:** Each Party agrees to extradite to the other any person found in its territory, who is accused or convicted of an **extraditable offence** in the territory of the other Party.
 - However, extradition of nationals is **discretionary**. The nationality will be determined **at the time the offence was committed**.
- **Extraditable Offences**

Note:

Extradition

- It is the formal process of one state surrendering an individual to another state for prosecution or punishment for crimes committed in the requesting country's jurisdiction.
- This is generally enabled through a bilateral or multilateral treaty.
- The legal basis for extradition with countries with whom India does not have an Extradition treaty is provided by **Section 3 (4) of the Indian Extradition Act, 1962.**
 - An extraditable offence means an **offence punishable under the laws of both the Parties with imprisonment for a period of one year or more severe punishment.**
 - **Offences relating to taxation, or revenue or one of a fiscal character** also fall within the scope of this Treaty.
- **Mandatory Grounds for Refusal Under the Treaty:**
 - The offence involved is a **political offence.**
 - The offence is a **military offence.**
 - The request for prosecution has been made on **account of his race, sex, religion, nationality or political opinion.**

Kuril Islands

Why in News

Recently, a 7.5 magnitude **earthquake** struck in the northern Pacific and a **tsunami warning** was issued for the **closest shores on Russia's far eastern Kuril Islands.**

- The earthquakes of this strength in the region have caused tsunamis in the past far from the epicenter of the earthquake.
- The **epicenter is the point on the Earth's surface directly above a hypocenter** or focus. (The hypocenter is where an earthquake or an underground explosion originates).

Geographic Location of Kuril Islands

- Kuril Islands are stretched from the **Japanese island of**

Hokkaido to the southern tip of Russia's Kamchatka Peninsula separating Okhotsk Sea from the North Pacific ocean.

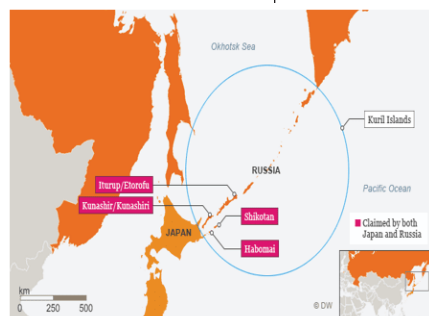
- It consists of **56 islands and minor rocks.**
- The chain is part of the belt of geologic instability circling the Pacific and contains at least 100 volcanoes, of which 35 are still active and many hot springs.
- Earthquakes and tidal waves are common phenomena over these islands.

Importance of South Kuril Islands

- **Natural resources:**
 - The islands are surrounded by **rich fishing grounds** and are thought to have **offshore reserves of oil and gas.**
 - Rare **rhenium deposits** have been found on the Kudriavsky volcano on Iturup.
 - **Nickel-based superalloys of rhenium** are used in the combustion chambers, turbine blades, and exhaust nozzles of jet engines.
 - **Tourism** is also a potential source of income, as the islands have several volcanoes and a variety of birdlife.
- **Strategic Importance:**
 - Russia has deployed **missile systems** in the region.
 - Russia also plans a **submarine project** and intends to prevent any American military use of the islands.
- **Cultural Importance:**
 - The Japanese people, especially conservatives in Hokkaido, are emotionally attached to the islands.

Historical Background of Kuril Islands Dispute

- **Sovereignty Issue of South Kuril Islands:**
 - The Kuril Islands dispute between **Japan and Russia** is over the **sovereignty of South Kuril Islands.**
 - The South Kuril Islands comprises **Etorofu island, Kunashiri island, Shikotan island and the Habomai**



Kuril Islands

The archipelago of some 56 islands has been controlled by Moscow since being seized by Soviet troops in 1945

- The dispute surrounds the four southernmost islands which Japan calls the "Northern Territories"
- The row has prevented Russia and Japan from signing a peace treaty to formally end World War II



Note:



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island. These islands are **claimed by Japan** but **occupied by Russia** as successor state of the Soviet Union.

- These islands are known as **Southern Kurils by Russia** whereas **Japan** calls them **Northern Territories**.
- **Original Inhabitants-Ainu People:**
 - The Kurils were **originally inhabited by the Ainu people**, and they were later settled by the Russians and Japanese, following several waves of exploration in the **17th and 18th centuries**.
 - The Ainu or the Aynu, also **known as the Ezo** in the historical Japanese texts, are indigenous people of Japan and Russia.
- **Treaty of Shimoda (1855):**
 - In **1855**, Japan and Russia concluded the **Treaty of Shimoda**, which gave control of the four southernmost islands to Japan and the remainder of the chain to Russia.
- **Treaty of Saint Petersburg (1875):**
 - In the **Treaty of Saint Petersburg**, signed between two countries in **1875**, Russia ceded possession of the Kurils to Japan in exchange for uncontested control of **Sakhalin Island**.
- **Yalta Agreement (1945):**
 - In **1945**, as part of the **Yalta agreements (formalized in the 1951 by Treaty of Peace with Japan)**, the islands were ceded to the Soviet Union and the Japanese population was repatriated and replaced by Soviets.
 - The **San Francisco Peace Treaty** signed between the Allies and Japan in 1951, states that Japan must give up "all right, title and claim to the Kuril Islands", **but it also does not recognize the Soviet Union's sovereignty over them**.
- **Japan-Soviet Joint Declaration (1956):**
 - The dispute over the islands has **prevented the conclusion of a peace treaty to end World War II**.
 - In 1956, diplomatic ties were restored between Japan and Russia by **Japan-Soviet Joint Declaration**.
 - During that time, Russia offered to give away the two islands closest to Japan. But the offer was rejected by Japan as the two islands constituted **only 7% of the land** in question.
- **Developments After 1991:**
 - Despite a series of agreements, the dispute continues and **Japan still claims historical rights to**

the southernmost islands and has tried repeatedly to persuade the Soviet Union and, from 1991, Russia to return those islands to Japanese sovereignty.

- In **2018**, the Russian President and the Japanese Prime Minister met on the sidelines of the **East Asia Summit** and decided to end the territorial dispute by Japanese PM agreeing to negotiate based on the 1956 declaration.
 - This implicitly showed that Japan has given up the two islands to maintain peace with Russia.
 - However, Russia indicated that the joint declaration signed by Japan and the Soviet Union in 1956 **neither mentions a basis for returning Habomai and Shikotan nor clarifies which country has sovereignty over the islands**.
- Further, in **2019**, Japanese PM made it clear that the country is **not in the favour of withdrawing control over the Islands**. Japan also believes that the islands are the inherent part of the nation's territory. Therefore, Japan mentioned that it aims to sign the peace treaty after the territorial issue is resolved.

Tokyo Olympics 2020 Postponed

Why in News

The **International Olympic Committee** and the **Tokyo 2020 Organising Committee** have decided to **postpone** the Tokyo 2020 Summer Games **to the summer 2021** due to the **coronavirus pandemic**.

- However, the Olympics Games **will keep the name Olympic and Paralympic Games Tokyo 2020**.
- The decision came after some of the major sporting nations like **Australia** and **Canada** withdrew from the Tokyo Olympics 2020.
- The nations withdrew in the backdrop of **limited international travel, difficulty in training and exposed risk of contracting or spreading the disease**.

Key Points

- **Historic Postponement:**
 - The organisers have postponed the event for the **first time in its 124-year modern history**. It is also considered as the **first postponement** of an Olympics in **peacetime**.

Note:

- Earlier, the games were not held during World War II considering the turmoil across the world.
- In **1940, Japan was to be the first Asian country to host** the Olympics.
 - However, its military aggression in Asia forced the annulment of the Olympics scheduled in Japan.
 - The 1940 Olympics is known as the **“Missing Olympics”** after the Games were switched to Helsinki (Finland) before finally being scrapped because of World War II.
- **Economic Cost:**
 - Tokyo was **spending \$12.6 billion** to host the Games and a postponement could **cost it \$6 billion** as the short-term period loss.
 - It will also be a **bitter blow to sponsors and major broadcasters** who rely on this four-yearly event for critical advertising revenue.

International Olympic Committee (IOC):

- It was created on **23rd June 1894** and is the **supreme authority** of the Olympic Movement.
- It is a **not-for-profit independent** international organisation that is committed to building a better world through sports.
- It ensures the regular celebration of the Olympic Games, supports all affiliated member organisations and strongly encourages, by appropriate means, the promotion of the Olympic values.
- **Pattern of Olympics Games:**
 - The Olympics have been held **every four years since 1948**.
 - The honour of holding the Olympic Games is **entrusted to a city, not to a country**. The choice of the city lies solely with the IOC.
 - Thus, the application to hold the Games is made by the chief authority of the city, with the support of the national government.



Note:

Science and Technology

Highlights

- Covid-19 and Medical Solutions
- ICMR to test for Community Transmission of Covid-19
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Covid-19 and Medical Solutions

Why in News

According to the **World Health Organization (WHO)**, the virus **SARS-CoV-2**, has caused the world's largest pandemic infecting nearly six lakh people globally.

- Considering the grave scenario the **discovery of vaccine and the licensed use of a drug** has been **ruled out as an immediate solution** noting that even if the process is fast-tracked, it would **take over 18 months to be ready for use**.
- Hence, WHO and other health agencies are re-looking the efficacy of **known therapies** such as **convalescent plasma therapy and drugs** to treat **Covid-19**.
 - The known drugs include a **combination of two HIV drugs - lopinavir and ritonavir**, anti-malaria medications- chloroquine and hydroxychloroquine and antiviral compound namely, remdesivir.

Efficacy of Known Drugs

- **Anti-Malaria Medications: Chloroquine and Hydroxychloroquine**
 - The **Indian Council of Medical Research (ICMR)**, has suggested the use of hydroxy-chloroquine to

contain the spread of SARS-CoV-2 (Coronavirus) for restricted populations.

- Also, the small study conducted in **France** found that it led to a **significant reduction in viral load in Covid-19 patients**.
- However, Hydroxychloroquine is known to have a **variety of side-effects** and can damage the organs like the heart, in some cases.
- **HIV Drugs: Lopinavir and Ritonavir**
 - The combination drug, ritonavir/lopinavir was introduced **to treat HIV infections**.
 - It was experimented in China with Covid-19 patients but there was **no significant difference observed among them**.
 - Although the drug is generally safe, it **may interact with other drugs** usually given to severely ill patients with other diseases.
 - The drug could cause significant **liver damage**.
- **Antiviral Compound: Remdesivir**
 - The drug, remdesivir which was developed **to treat Ebola and related viruses**, is being tested to find out whether it can be used on Covid-19 patients.
 - According to WHO, the drug helps to **prevent Covid-19 viral replication**.
 - It has the best potential and **can be used in high doses without causing toxicities**.

Note:

Convalescent Plasma Therapy

➤ Basis of the Therapy:

- The convalescent plasma therapy seeks to make **use of the antibodies developed in the recovered patient** against the coronavirus.
- The **whole blood or plasma** from such people is taken, and the plasma is then injected in critically ill patients so that the **antibodies are transferred** and boost their fight against the virus.

➤ Time Period for Infusion:

- A study in The Lancet Infectious Diseases stated that a Covid-19 patient usually **develops primary immunity against the virus in 10-14 days**.
- Therefore, if the plasma is **injected at an early stage**, it can possibly help fight the virus and prevent severe illness.

➤ Infusion into Covid-19 Patients:

- The plasma can be infused into two kinds of Covid-19 patients— those with a **severe illness or individuals at a higher risk of getting the virus**.
- However, while plasma transfers immunity from one person to another, it is **not known if it can save lives** in Covid-19 infection.
- The treatment could be **effective for patients in the age group 40-60** but may be **less effective for people aged beyond 60 years**.

➤ Previous Application of the Convalescent Plasma Therapy:

- The **United States** used plasma of recovered patients to treat patients of **Spanish flu (1918-1920)**.
- **Hong Kong** used it to treat **SARS (Severe Acute Respiratory Syndrome)** patients in **2005**.
- In **2009**, the **swine flu (H1N1)** patients were treated with plasma.
 - A study in Oxford University's journal Clinical Infectious Diseases found that "convalescent plasma reduced respiratory tract viral load, serum cytokine response, and mortality" in H1N1 patients.

➤ WHO Guidelines (2014):

- WHO guidelines in 2014 mandate a **donor's permission before extracting plasma**.
- Plasma from **only recovered patients must be taken** and donation must be done from people

not infected with HIV, hepatitis, syphilis or any infectious disease.

- If whole blood is collected, the plasma is separated by sedimentation or centrifugation, then injected in the patient.
- If plasma needs to be collected again from the same person, it must be done after 12 weeks of the first donation for males and 16 weeks for females.

➤ Application in India:

- Currently, India **has facilities for removing 500ml of plasma** from a donor.
- For this experimental therapy, the Drug Controller General of India will first have to grant blood banks approval for removal of plasma from recovered Covid-19 patients.
- In India, the **special care of the risk of infection during transfusion** needs to be taken care of.

Relapse in Patients Recovered from Covid-19

- Patients who test positive for Covid-19 develop protective antibodies. Theoretically, **there can be a relapse even in patients who have antibodies**. There are various reasons for such relapsing of Covid-19. Some of them are:

○ Mutation:

- The **probable mutations** is one of the major reasons for making an individual vulnerable to reacquire the Covid-19 infection.

○ Unknown Behaviour:

- Since the exact behaviour of the novel coronavirus is still being studied, **immunity against it is not fully understood**.
- At this stage, it is not fully understood as to **how long the antibodies provide protection** against the viral infection.
- Also, in the **absence of any vaccination**, it is not known whether the **immunity acquired by the persons is permanent or not**.

○ False RT-PCR test (Reverse Transcription Polymerase Chain Reaction) Test:

- It has been observed that a "false negative" **RTPCR test**, the RNA test being conducted to diagnose Covid-19 infection, can lead to a patient testing positive a second time after testing negative in between.

Note:



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ICMR to test for Community Transmission of Covid-19

Why in News

The Indian Council of Medical Research (ICMR) has announced that it would start testing influenza patients **without any travel history or contact with novel coronavirus disease (Covid-19)** for signs of community transmission.

Four Stages of Transmission of Covid-19

- **Stage 1-Imported Transmission**
 - It is reported among the travellers **entering the country** via the **borders and airports**.
 - These can be controlled through thermal screening and quarantine.
 - To prevent imported transmissions, India has suspended visas to foreign nationals and the facility of visa-free travel to **Overseas Citizen of India (OCI) card-holders**.
- **Stage 2-Local Transmission**
 - The **World Health Organisation (WHO)** defines it as the transmission through **direct contact with an infected person within the country**.
- **Stage 3-Community Transmission**
 - It signifies that a virus is circulating in the community and can affect people with no history of travel to affected areas or of contact with an infected person.
 - India's current emphasis on social distancing and discouragement of public gatherings is aimed at checking community transmission.
 - Once community transmission begins, it is more difficult to trace contacts. As one unknown source of infection can infect many people unknowingly.
 - Among the countries where community transmission seems to have begun are China, Italy and South Korea.
- **Stage 4 - Epidemic**
 - An **epidemic** is a large outbreak, one that spreads among a population or region.
 - It is less severe than pandemic due to a limited area of spread.

Level of Transmission in India

- So far, most of the cases in India have had a history of travel abroad or have contracted the disease from somebody around them.
- However, some of the cases in the country had neither any history of foreign travel nor had they come directly in contact with an infected person.
- Currently, India is at Stage 2 of Local Transmission and precautions are being taken to prevent it from entering Stage 3 of Community Transmission.

India's Current Strategy to tackle Covid-19

- **Social Distancing and Cluster Containment:**
 - The cluster containment strategy intends to contain the disease within a defined geographic area by early detection, breaking the chain of transmission and thus preventing its spread to new areas.
 - It includes geographic quarantine, social distancing measures, enhanced active surveillance, testing all suspected cases, isolation of cases, home quarantine of contacts, social mobilization to follow preventive public health measures.
- **Possible Involvement of the Private Sector:**
 - The government is working with private hospitals to develop standard operating procedures for treatment and isolation of patients.
 - The involvement of the private sector may face some issues like the possibility of profiteering, affordability issues, crowding of people at a large number of places, etc.

Global Scenario

- Italy followed a model of lockdown whereas South Korea has observed a model of free testing.
 - India has been following the Italian model of lockdown.
- China has adopted a graded approach, and the number of new cases are gradually declining.
 - It has locked down Hubei, the epicentre. Elsewhere, it enforced social distancing measures.

Indian Council of Medical Research

- Indian Council of Medical Research (ICMR) is the apex body in India for the formulation, coordination and promotion of biomedical research.

Note:

- Its mandate is to conduct, coordinate and implement medical research for the benefit of the Society; translating medical innovations into products/processes and introducing them into the public health system.
- It is funded by the Government of India through the Department of Health Research, Ministry of Health & Family Welfare.

Anti-HIV Drugs for Covid-19

Why in News

The Ministry of Health and Family Welfare has issued revised guidelines on the 'Clinical Management of Covid-19'.

- The Ministry has recommended use of **drug combinations Lopinavir and Ritonavir (sold under the brand name Kaletra)** depending upon the severity of the condition of a person having **coronavirus** infection, on a case-to-case basis.

Key Points

- Lopinavir-Ritonavir is recommended for high-risk groups of patients **aged above 60 who are suffering from diabetes mellitus, renal failure, chronic lung disease and are immuno-compromised**.
- Lopinavir-Ritonavir is used **widely for controlling Human Immunodeficiency Virus (HIV) infection**.
 - However, the use of Lopinavir-Ritonavir is also associated with significant adverse events which many times have led to discontinuation of therapy.
- There is **no current evidence from randomised controlled trials** to recommend any specific treatment for suspected or confirmed **Covid-19** patients.
 - **No specific antivirals** are recommended for treatment of those suffering from respiratory ailment due to lack of adequate evidence from medical literature.
- The use of this drug combination is suggested by an expert committee comprising doctors from the All India Institutes of Medical Sciences (AIIMS), experts from **National Centre for Disease Control (NCDC)** and **World Health Organisation (WHO)**.

ICMR Recommended Use of Hydroxy-Chloroquine

Why in News

The **National Task force for Covid-19**, constituted by the **Indian Council of Medical Research (ICMR)**, has suggested the **use of hydroxy-chloroquine** to contain the spread of **SARS-CoV-2 (Coronavirus)** for restricted populations.

Key Points

- **Hydroxy-chloroquine:**
 - Hydroxy-chloroquine (not to be confused with anti-malaria drug chloroquine) is an **oral drug** used in the treatment of **autoimmune diseases such as rheumatoid arthritis**.
 - Autoimmune diseases are in which the body's immune system attacks healthy cells.
 - Rheumatoid arthritis is a chronic inflammatory disorder affecting many joints, including those in the hands and feet.
- **Hydroxy-chloroquine against Covid-19:**
 - The drug shows antiviral activity in vitro against coronaviruses, and specifically, SARS-CoV-2 (the virus that causes Covid-19).
 - Further, the study suggests that prophylaxis (treatment given to prevent disease) with hydroxy-chloroquine at approved doses could prevent SARS-CoV-2 infection and may help to improve viral shedding.
 - Clinical trials are under way in China to know whether the drug can be used for treatment.
- **ICMR Recommended Usage of Hydroxy-chloroquine:**
 - The restricted population for usage of hydroxy-chloroquine include, namely, '**Asymptomatic (showing no symptoms) Healthcare Workers**' and '**Asymptomatic household contacts**' of laboratory-confirmed cases.
 - The above mentioned population have been advised to use the hydroxy-chloroquine to **contain further spread of the pandemic**.
 - However, the drug is **not recommended** as a preventive healthcare in children under **15 years of age**.

Note:



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- ICMR also advised that placing healthcare workers under hydroxy-chloroquine treatment **should not instill a sense of false security** and they **need to follow all prescribed public health measures** such as frequent washing of hands, respiratory etiquettes, keeping a distance of minimum one metre and use of personal protective equipment, etc.
- It has been also advised that the drug **should only be given on the prescription** of a registered medical practitioner.

Combination of Hydroxy-chloroquine with Other Drugs

- **Hydroxy-chloroquine and Chloroquine:**
 - A study suggests that **both hydroxy-chloroquine and chloroquine** have in vitro activity against SARS-CoV, SARS-CoV-2 and other coronaviruses, with hydroxy-chloroquine having higher potency against SARS-CoV-2.
- **Hydroxy-chloroquine with Azithromycin:**
 - It combines hydroxy-chloroquine with azithromycin, a commonly used antibiotic.
 - It is expected to be efficient for virus elimination.

Note:

- **In vitro studies** are performed with microorganisms, cells, or biological molecules outside their normal biological context (such as in a test tube).
- In contrast to in vitro experiments, **in vivo studies** are those conducted in living organisms, including humans, and whole plants.

Indigenously Developed Testing Kits for Covid-19

Why in News

Recently, the **test kits for Covid-19** developed by the Pune-based **MyLab Discovery Solutions** and Germany's **Altona Diagnostics** have been approved by the **Indian Council of Medical Research (ICMR)**.

- The two companies have also received **approval to mass manufacture the kits** after they received commercial approval from the **Central Drugs Standard Control Organisation (CDSCO)**.
- Currently, the diagnostic kits to test people for Covid-19 are **imported from the USA**.

Key Points

- **Approval Conditions:**
 - Earlier, the kits approved by the **United States Food and Drugs Administration** or certified by the **European Union** were allowed to offer commercial tests for detecting SARS CoV-2.
 - However, ICMR stated that it is no longer a requirement and even those **approved by the National Institute of Virology (NIV)** would be eligible for testing.
- **Feature of the Developed Testing Kit:**
 - **Quick Detection:** The developed kit **detects the infection within two and half hours** compared to over seven hours taken by current protocol.
 - **Accuracy:** The **ability to detect the early stage of disease and highest accuracy** has been observed with the indigenously developed testing kit for Covid-19.
 - **Affordable:** For the government labs, these testing kits would cost nearly **Rs. 1,200 per test kit, which is about one-fourth of the current testing kit** used by India.
- **Indigenously Developed:**
 - The indigenously developed testing kits for Covid-19 by MyLabs have been manufactured **as per World Health Organisation (WHO)/Centre for Disease Control (CDC) guidelines**.
 - **MyLabs discovery Solutions is the first indigenous manufacturer** to be approved for deploying its **kits for Covid-19 testing**.
 - The approval from National Institute of Virology (NIV) to MyLabs is expected to provide major support to the **'Make in India' programme** in the future.

Antibody Kits for Covid-19

Why in News

Recently, the Indian Council of Medical Research (ICMR) has invited manufacturers to supply **5 lakh antibody kits** for diagnosis of Covid-19 infection.

- The antibody test will help in screening suspected patients.

Key Points

- **The Antibody Test**

Note:



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- The antibody test for **Covid-19** will act as a **screening process** that will give quick results in a few hours.
- The antibody test detects the body's response to the virus. It gives an indication that a person has been exposed to the virus.
- If the test is positive, the swab is collected and an Ribonucleic Acid (RNA) test is done using the Polymerase Chain Reaction (PCR) kit. Therefore, this is a **two-stage process**.
- However, the antibody test **does not not definitely indicate that a person is infected with Covid-19 infection**. It is **only for screening**.
- Currently, India is **only conducting the conventional RT-PCR test (Reverse Transcription Polymerase Chain Reaction)**.
- **Antibody Kits vs RT-PCR Test**
 - RT-PCR test detects the **virus genetic material, which is the RNA**.
 - The antibody test detects the body's response to the virus.
 - RT-PCR provides direct evidence whereas antibody kits provide the indirect evidence.
- **Need for Antibody Kits**
 - **Shortage of the PCR kits** and thus the test is complicated, expensive and time-consuming.
 - The antibody test will be where a large number of people are being quarantined and where everybody cannot undergo an RNA test.
 - **Results of Testing in South Korea**
 - The antibody test was done in South Korea, one of the few countries which has been able to flatten the pandemic curve.
 - In South Korea, people with a history of travel and contact are screened using the antibody kit.
 - Then, a large number of suspected patients were being quarantined in the country through **contact tracing** of just a single patient.

Ribonucleic Acid

- RNA is an important **biological macromolecule** that is present in all biological cells.
- It is principally involved in the **synthesis of proteins, carrying the messenger instructions** from Deoxyribonucleic acid (DNA), which itself contains the genetic instructions required for the development and maintenance of life.

- In some **viruses, RNA, rather than DNA, carries genetic information**.

Contract Tracing

- Contact tracing is the process of identifying, assessing, and managing people who have been exposed to a disease to prevent transmission.

Indian Council of Medical Research

- Indian Council of Medical Research (ICMR) is the **apex body in India for the formulation, coordination and promotion of biomedical research**.
- Its mandate is to **conduct, coordinate and implement medical research** for the benefit of the Society; translating medical innovations into products/processes and introducing them into the public health system.
- It is funded by the Government of India through the **Department of Health Research, Ministry of Health & Family Welfare**.

IIT-B Designs UV Sanitiser

Why in News

Recently, the **Industrial Design Centre (IDC)** of **Indian Institute of Technology (IIT), Bombay** has developed a **portable UltraViolet (UV) sanitiser**.

- It can sterilise wallets, purses and other small items that are passed on from hand to hand.

Key Points

- The UV sanitiser has been made **using stainless steel kitchen containers and aluminium mesh** and is in the **proof-of-concept stage** right now.
- It's design is based on a study published in a journal PubMed, by the US National Library of Medicine.
 - The study demonstrates how **ultraviolet C Light can inactivate Severe Acute Respiratory Syndrome Coronavirus, Crimean-Congo Haemorrhagic Fever (CCHF) Virus and Nipah Virus**.
- **Objects might be carriers of the viruses** and sanitising gel cannot be used on every object humans come in contact with like papers, files, currency notes and phones.
- **Other contributions by IDC:**

Note:



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- IDC is also working on projects on sanitising bigger surfaces and working on different models.
- The institute has also been making its own **cotton masks**, which are **double-layered and washable**.
- IDC has also **collaborated with a company called Applied Systems to manufacture face shields using helmet visors**.
- IIT also **developed apps to help keep quarantine violations in check**.

Crimean-Congo Haemorrhagic Fever

- It is a **viral haemorrhagic fever** usually transmitted by ticks.
- It can also be **contracted through contact with viraemic animal tissues** (animal tissue where the virus has entered the bloodstream) during and immediately post-slaughter of animals.
- CCHF outbreaks constitute a threat to public health services as the virus can lead to **epidemics**, with a **high case fatality ratio** (10-40%).
- CCHF is endemic in all of Africa, the Balkans, the Middle East and in Asia.
- **Symptoms:**
 - Fever, muscle ache, dizziness, neck pain, backache, headache, sore eyes and photophobia (sensitivity to light).
 - There may be nausea, vomiting, diarrhoea, abdominal pain and sore throat early on, followed by sharp mood swings, confusion, depression and liver enlargement.
- **Treatment:**
 - General supportive care with treatment of symptoms is the main approach to managing CCHF in people.
 - The **antiviral drug ribavirin** has been used to treat CCHF infection with apparent benefit. Both oral and intravenous formulations seem to be effective.
 - There are **no vaccines widely available for human or animal use**. In the absence of a vaccine, the only way to reduce infection in people is by raising awareness of the risk factors and educating people about the measures they can take to reduce exposure to the virus.

Superhydrophobic Coating on Metallic Surfaces

Why in News

- A team from the Indian Institute of Technology (Indian School of Mines), Dhanbad, and Ohio State University has created a superhydrophobic coating to save steel from rusting.
- The coating was made from **polyurethane and silicon dioxide nanoparticles**.

Superhydrophobic Surfaces

- The term hydrophobicity is derived from two greek words that are **hydro (water)** and **phobos (fear)**. It is the ability to **repel water**.
- Superhydrophobic coating is a nanoscopic surface layer that repels water.
- Adding a superhydrophobic coating makes a surface liquid and water repellent, easy to clean, and boosts its anti-icing performance (ability to delay the formation of ice for a certain period of time).
- Super-hydrophobic coatings are also found in nature; they appear on plant leaves, such as the Lotus leaf, and some insect wings.
- Apart from steel the coating can be done on **other metallic surfaces, such as aluminum, copper, brass**. The coatings have also been **developed for glass, cloth, paper and wood**.

Silicon dioxide

- Silicon dioxide (SiO_2), also known as silica, is a natural compound made of two of the earth's most abundant materials: silicon (Si) and oxygen (O_2).
- Silicon dioxide is most often recognized in the form of quartz. It's found naturally in water, plants, animals, and the earth.

Polyurethane

- Polyurethane is a **polymer composed of organic units joined by urethane links**.
- It is a plastic material, which exists in various forms.
- They are used in a wide variety of applications to create all manner of consumer and industrial products that play a crucial role in making our lives more convenient, comfortable and environmentally friendly.

Note:

Successful Trails in Treating Drug-Resistant TB

Why in News

Recently, a small trial was undertaken to test the safety and efficacy of a few oral drugs against the **extensively drug-resistant TB (XDR-TB) and multidrug-resistant TB (MDR-TB)**.

- The trial showed encouraging results with a **success rate of 90%**.
- The favourable results held true regardless of the **HIV status** of the patients.

Key Points

- The trial (**Nix-TB**) tested three oral drugs namely **bedaquiline, pretomanid and linezolid** in patients with **XDR-TB and MDR-TB**.
- **Success Rate**
 - The **90% treatment success** in the case of hard-to-treat patients is at par with the success rate seen while treating drug-sensitive TB.
 - Of the 109 patients treated, 11 had unfavourable outcomes.
 - Of the 11 patients, there were seven deaths and two had a relapse during the six-month follow-up period.
 - The treatment **success rate was 89% for XDR-TB and 92% for MDR-TB**.
 - The MDR-TB patients included in the trial were either not responsive to standard treatment or had discontinued treatment due to side effects.

Tuberculosis

- It is caused by **bacteria (Mycobacterium tuberculosis)** that most often **affect the lungs**.
- **Transmission:** TB is spread from person to person through the air. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air.
- **Symptoms:** Cough with sputum and blood at times, chest pains, weakness, weight loss, fever and night sweats.
- **Treatment:** TB is treatable and curable disease. It is treated with a standard 6 month course of 4 antimicrobial drugs that are provided with information, supervision and support to the patient by a health worker or trained volunteer.

Multidrug-resistant Tuberculosis

- It is a form of TB caused by bacteria that do not respond to isoniazid and rifampicin, the 2 most powerful, first-line anti-TB drugs.
- MDR-TB is treatable and curable by using second-line drugs.

Extensively drug-resistant Tuberculosis

- It is a **more serious form of MDR-TB** caused by bacteria that do not respond to the most effective second-line anti-TB drugs, often leaving patients without any further treatment options.

Google Subsidiary Verily

Why in News

The company **Verily** has gone live with its **Project Baseline website for Covid-19 testing**.

- The website helps in determining whether a coronavirus screening test is required for a person living in the United States.

Key Points

- Verily is the **life sciences and healthcare subsidiary owned by Google's parent company Alphabet**.
- **Launched in 2015**, Verily claims its mission is to "make the world's health data useful so that people enjoy healthier lives".
- **Project Baseline was launched by Verily in 2017** with the goal of bridging the gap between research and care. A clear agenda is to create a detailed baseline of what a healthy human being should be using anonymised data from hundreds of users.
- **Verily also owns Calico** — acronym for "California Life Company" — researching into aging and related diseases.

Steps Taken by Technology Giants to Deal With Covid-19

- **Google**
 - An **"SOS Alert"** on coronavirus searches across the world, giving prominence to posts from mainstream news publications and health authorities.
 - SOS Alerts aim to make emergency information more accessible during a natural or human-caused crisis.

Note:

- It has also **banned ads for face masks as well as monetisation on YouTube videos** related to Covid-19. This seeks to disincentive creation of fake videos promoting alternative treatments for the virus.

➤ Microsoft

- Microsoft Bing team has launched a **web portal for tracking Covid-19 infections worldwide**.

Whiteflies Resistant Variety of Cotton

Why in News

Recently, the **National Botanical Research Institute (NBRI), Lucknow** has developed a **whiteflies-resistant variety of cotton**.

- Whiteflies are **one of the top ten devastating pests in the world** that damage more than 2000 plant species and also function as **vectors for some 200-plant viruses**.
- Cotton is one of the worst-hit crops by whiteflies. As **two-third of the cotton crop was destroyed** by the whiteflies in Punjab in 2015.

Key Points

- **Need for Development:**
 - Even though **Bt cotton** is also genetically-modified cotton and present in the market for farmers usage, it is resistant to two pests only and not resistant to whiteflies.
- **Constituents:**
 - The leaf extract of an **edible fern Tectaria Macrodonata** causes **toxicity to the whitefly**.
 - It works against whiteflies but is safe for application on the crop plants and provides protection from them.
- **Process:**
 - When whiteflies feed on doses of insecticidal protein of Tectaria Macrodonata, it interferes with the **life cycle of insects**.
 - The whiteflies suffer from very poor egg-laying, abnormal eggs, nymph and larval development, and the poor overall growth of the fly.
- **Target and Non-target Insects:**
 - The Tectaria Macrodonata is found to be **un-effective on non-target insects**.

- Thus, it clearly shows that the protein is **specifically toxic to whitefly** and **does not cause any harmful effect on other beneficial insects like butterflies and honeybees**.

Tectaria Macrodonata

- Tectaria Macrodonata is **native to tropical areas of Asia** and **commonly found in Western Ghats of India**.
- The fern is known to be used in salads in Nepal and as a concoction for gastric disorders in many regions of Asia.

National Botanical Research Institute

- It is amongst one of the constituent research institutes of the **Council of Scientific and Industrial Research (CSIR)**, New Delhi.
- It undertakes basic and applied research on various aspects of plant science, including documentation, systematics, conservation, prospection, and genetic improvement.
- It emphasises on under-exploited, non-traditional, and wild plant genetic resources of the country for sustainable development and human welfare.

Iron Rain on Exoplanet

Why in News

- **Wasp-76b**, an **exoplanet** (planet outside the solar system), probably has iron **raining** on it.

Key Points

- Wasp-76b orbits so close to its host star that its **dayside temperatures exceed 2,400 degrees Celsius - hot enough to vaporise metals like iron**.
- The planet's nightside, on the other hand, is 1,000 degrees cooler, allowing those metals to condense and rain out.

Wasp-76b

- Wasp-76b is a **huge gas planet** that is **twice the width of Jupiter**. It's name comes from the UK-led Wasp telescope system that detected it in 2016.
 - The UK **Wide Angle Search for Planets (WASP)** is a collaborative project involving several UK universities. The primary aim is the discovery of exoplanets.

Note:

- It is **640 light-years from the Earth** and is so close to its star that it takes just 43 hours to complete one revolution.
- Another of the planet's interesting features is that it always presents the same face to the star - a behaviour scientists call being "**tidally locked**". Earth's Moon does exactly the same thing.
 - Tidal locking is the name given to the situation when an object's orbital period matches its rotational period.
 - The moon takes 28 days to go around the Earth and 28 days to rotate once around its axis. This results in the same face of the Moon always facing the Earth.

Nanocomposite Coatings

Why in News

A group of scientists at the **International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI)**, an **autonomous R&D center of the Department of Science & Technology (DST)** have developed a process for size-selective deposition of nanocomposite coatings.

Key Points

- Nanocomposite coatings are formed by mixing two or more dissimilar materials at nanoscale to **improve the physical, chemical and physicochemical properties** of the new materials.
- The scientists have found that **nickel tungsten-based coatings** with infusion of **particular sized Silicon Carbide (SiC) submicron particles** using a **pulsed electroplating** can provide an excellent combination of **wear and corrosion resistance**.

Need for Nanocomposite coatings:

- Several **aerospace, defence, automobile, space devices** need to reduce friction, wear, and tear to enhance the life of components.
- Lubricating these dynamic systems add to the **cost, complexity, and weight** of these systems.
- The coating **could help in reducing the friction** of such devices.

Advantages of the Process

- The nanocomposite demonstrated excellent **tribological behavior** (science and engineering of interacting

surfaces in relative motion, which includes principles of friction, lubrication, and wear) compared to other wear-resistant coatings.

- The coatings **withstood 1000 hours of salt spray (corrosion)** without degradation when compared to conventional wear-resistant coatings.
- The process is **highly economical without environmental constraints**.

Electroplating

- Electroplating or electrodeposition is a process that employs an electrical signal provided by an external power source to reduce cations of a desired metal in solution and produce a **metallic coating**.
- It involves the metal parts to be immersed in an electrolyte bath solution.
- In this case, it is typically prepared by dissolving crystals of Nickel (Ni) and Tungsten (W) salts in a mix of distilled water and other additives.
- A Direct Current (DC) is passed through the solution, and the resulting reaction leaves a deposit of Ni-W alloy on the piece being plated.

Size-Selective Electrodeposition

- For size-selective electrodeposition, Pulse Current (PC) electrodeposition – **intermittent application of current** is used in place of conventional Direct Current (DC) deposition.
- In this process, **only particles having a size equal to or less than diffusion layer thickness** can be incorporated into the nanocrystalline coating.
 - The size of the diffusion layer thickness is controlled by changing the duration of the electric current pulse.

Laser Surface Micro-Texturing

Why in News

The **International Advanced Centre for Powder Metallurgy & New Materials (ARCI)** has developed ultrafast laser surface texturing technology, which can improve the fuel efficiency of internal combustion engines.

- The technology helps to **control friction and wear**.

Note:

Key Points

- Laser surface micro-texturing offers precise control of the size, shape and density of micro-surface texture features.
- In this technology, a pulsating laser beam **creates micro-dimples or grooves** on the surface of materials in a very controlled manner.
- Such textures can **trap wear debris** while operating under dry sliding conditions and sometimes provide effects like **enhancing oil supply (lubricant reservoir)** which can lower friction coefficients and may enable reduced wear rate.

**International Advanced Research
Centre for Powder Metallurgy and New Materials**

- It was **established** in the year **1997**.
- It is an **autonomous research and development centre** of the Department of Science and Technology (DST).
- Its **main campus** is located at **Hyderabad** with operations in Chennai and Gurgaon.
- ARCI's **mandate** is:
 - Development of high-performance materials and processes for niche markets.
 - Demonstration of technologies at prototype/pilot scale.
 - Transfer of technology to Indian industry.
- Surface engineering, ceramics, powder metallurgy and laser processing of materials constitute the **four major thrust areas** at ARCI.

Role of Lipids in Infectious Diseases

Why in News

Researchers at IIT-Bombay are using biologically active lipid molecules as chemical biology tools to understand their biological disease-causing function.

- Researchers are using **lipids from Mycobacteria tuberculosis (Mtb)**.

Key Points

- The role of lipids in critical mechanisms involved in host-pathogen interplay is being explored.

Lipids

- Lipids are molecules that contain **hydrocarbons** and make up the building blocks of the structure and function of living cells.
- They are responsible for maintaining the **integrity of our cell membrane, which allows nutrients and drugs to pass through the cell**.
- They play a major role in **altering properties** of the cell membrane.
- During infection and in diseases, the lipids are breached and membranes are harnessed by pathogens for their survival and infection.
- The mechanism of action of Mtb lipids on human host membrane and related cellular events represents a golden opportunity to deepen the understanding of the function of Mtb lipids in membrane-dictated bacterial survival, pathogenesis, and drug resistance.
- Scientists are also investigating the role of Mtb lipids in drug-membrane interactions, underscored by the fact that lipids critically dictate the molecular interactions of drugs with membranes influencing drug diffusion, partitioning, and accumulation.
- Membrane structures specific to mycobacterial lipids have also been developed which can act as 'cell-free' platforms for **anti-tubercular (relating to TB) drug interactions**. They would help in:
 - Investigating antibiotic interactions with mycobacterial (causative agent of Tuberculosis) specific membranes for **future antibiotic design**.
 - Shaping the **effectiveness** of already existing anti-TB drug molecules and fostering development of new ones.
 - Investigation of host **cellular pathways** rewired by pathogenic factors and elucidate possible **therapeutic targets in Tuberculosis**.

Huntington Disease

Why in News

A team of scientists from the **National Centre for Cell Science (NCCS), Pune** studied the **HTT gene in fruit flies**.

- Mutations in the HTT gene (also called Huntington or HD gene) cause Huntington Disease (HD).

Note:

Huntington Disease

- Huntington Disease (HD) is a **progressive genetic disorder** which **affects the brain**.
- It causes uncontrolled movements, impaired coordination of balance and movement, a decline in cognitive abilities, difficulty in concentrating and memory lapses, mood swings and personality changes.
- The HTT genes are involved in the production of a **protein called huntingtin**. They provide the instruction for making the protein.
 - Mutated genes provide faulty instructions leading to production of abnormal huntingtin proteins and formation of clumps.
 - These clumps disrupt the normal functioning of the brain cells, which eventually leads to death of neurons in the brain, resulting in Huntington disease.
- No cure exists, but drugs, physiotherapy and talk therapy can help manage some symptoms.

National Centre for Cell Science

- It is a national level, biotechnology, tissue engineering and tissue banking research center located at Savitribai Phule Pune University, Pune.
- It is one of the premier research centers in India, which works on cell-culture, cell-repository, immunology, chromatin-remodelling.

MACS 4028 Wheat Variety

Recently, scientists from Agharkar Research Institute (ARI), Pune, have developed a **biofortified durum wheat variety MACS 4028**.

- ARI Pune is an autonomous institute under the **Department of Science & Technology, Government of India**.

Key Points

- Biofortified durum MACS 4028 wheat variety shows **high protein content of about 14.7%, better nutritional quality having zinc 40.3 ppm, and iron content of 40.3 ppm and 46.1 ppm respectively, good milling quality** and overall acceptability.
 - ppm stands for parts per million.
- MACS 4028, is a **semi-dwarf variety**, which matures in 102 days and has shown the superior and **stable yielding ability** of 19.3 quintals per hectare.

Note:

- **Biofortification** is a process to increase the bioavailability and the concentration of nutrients in crops through both conventional plant breeding and **genetic engineering**.
- **Durum** is a kind of hard wheat grown in arid regions that is typically ground into semolina and used to make pasta.
 - **Durum wheat, or Triticum turgidum**, is the **second most cultivated species of wheat after bread wheat**, which is also called common wheat or **Triticum aestivum**.
 - It is **resistant to stem rust, leaf rust, foliar aphids, root aphids, and brown wheat mite**.
- The MACS 4028 variety is also included by the **Krishi Vigyan Kendra (KVK)** programme for United Nations Children's Fund (UNICEF) to alleviate malnutrition in a sustainable way and can boost the Vision 2022 "**Kuposhan Mukh Bharat**", the National Nutrition Strategy.
 - The **Indian Council of Agricultural Research (ICAR)** has also tagged this variety under the **Biofortified category** during the year 2019.
- MACS 4028 has been notified by the Central Sub-Committee on Crop Standards, Notification and Release of Varieties for Agricultural Crops (CVRC) for **timely sown, rainfed condition of Peninsular Zone, comprising Maharashtra and Karnataka**.
 - In the peninsular zone of India (Maharashtra and Karnataka states), wheat cultivation is majorly done under rainfed and limited irrigation conditions. Under such conditions, the crop experiences moisture stress.
- Efforts for the development of high yielding, early maturing varieties with good quality and disease resistance for rainfed conditions are carried out at **Agharkar Research Institute, Pune** under **All India coordinated Wheat and Barley improvement programme**, coordinated through **Indian Institute of Wheat and Barley Research, Karnal** governed by the ICAR.
 - The MACS 4028 is an outcome of such intervention for the farmers.
- **All India Coordinated Research Project on Wheat and Barley (AICRP)** mandates **multidisciplinary and multilocational testing of varietal, newly developed**

Note:



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improved genotypes, crop management and crop protection technologies across the diverse ecosystems for increasing and stabilizing the wheat production.

Wheat

- This is the **second most important cereal crop in India after rice**.
- It is the main food crop, in the north and north-western part of the country.
- Wheat is a **rabi crop** that requires a cool growing season and a bright sunshine at the time of ripening.
- It requires 50 to 75 cm of annual rainfall evenly-distributed over the growing season.
- There are **two important wheat-growing zones** in the country – **the Ganga-Satluj plains in the north-west and black soil region of the Deccan**.
- The Major wheat-producing states are **Punjab, Haryana, Uttar Pradesh** etc.

Operation Namaste: Indian Army

Why in News

The **Indian Army** has code-named its **anti-Covid-19 campaign** as **Operation Namaste** to help the government in its fight against the pandemic.

Key Points

- **Soldiers are advised to follow the lockdown**, wherever they do not have any operational role, and stay fit. They are assured that their families will be well taken care of.
 - **Leave extension** of those on leave as well as **curtailment of leave** to bare minimum have been imposed.
 - **Segregation facilities** have been set up to observe troops already back from leave from various states.
- So far **six quarantine facilities** at Manesar, Jaisalmer, Jodhpur, Chennai, Hindan and Mumbai have been established where 1,463 people evacuated from coronavirus-affected countries have been accommodated.
 - The forces are setting up more such facilities at Kolkata, Visakhapatnam, Kochi, Dundigal, Bengaluru, Kanpur, Jaisalmer, Jorhat and Gorakhpur which can be ready within 72 hours, if needed.

➤ 28 Armed Forces hospitals have been earmarked as Covid hospitals.

- These hospitals will include armed forces patients as well as civilian patients transferred from state health authorities.
- Five hospitals from the Army, Navy and the Air Force are conducting coronavirus tests using the **RT-PCR methodology** and more hospitals will be equipped soon with the resources.
- 62 Cantonment Boards have been instructed to identify beds in hospitals and health centres and guesthouses for any eventuality.

Contributions by Other Forces

- Recently, **Defence Research and Development Organisation (DRDO)** also came forward to help by **developing ventilators** and providing other medical equipment.
- **Indian Navy** also contributed by delivering 60,000 face masks ordered by **Indian Medical Association, Goa** which were stuck in Delhi due to the lockdown.
 - **Ilyushin 38 SD** departed **INS Hansa** for Palam Airport, New Delhi and returned on the same day with the masks.

DRDO Developed Ventilators

Why in News

Recently, the **Defence Research and Development Organisation (DRDO)** has developed a ventilator and plans to produce 5,000 of them per month to treat **Covid-19** patients.

Key Points

- DRDO had developed a ventilator along with the **Society for Biomedical Technology (SBMT)** and now the technology has been transferred to an industry in Mysuru.
 - The industry is producing the secondary version of a ventilator initially developed by DRDO.
 - Currently, it has a capacity to manufacture 5,000 ventilators per month and this could be scaled up to 10,000 per month.
- **Other contributions by DRDO:**
 - DRDO laboratories have **manufactured 20,000 litres of sanitiser** and supplied to various organisations like Delhi police.

Note:

- It has **developed N-99 and 3-layered masks** and **supplied 10,000 masks** to Delhi police personnel.
- It is **tying up with some private companies** to make **personal protection equipment** such as body suits and also ventilators.
- It is working on **providing ready-to-eat meals** for the government and health workers through the Defence Food Research Laboratory, Mysore which already supplies them to the armed forces.
- The **Ordnance Factory Board (OFB)** has also increased the production of sanitisers, masks and bodysuits.

Defence Research and Development Organisation

- It works under the **administrative control** of the **Ministry of Defence**.
- It's **objective** is to establish a world class science and technology base for India and provide Indian Defence Services decisive edge by equipping them with internationally competitive systems and solutions.
- It was **established in 1958** after **combining** Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO).
- **Mission:**
 - Design, develop and lead to production state-of-the-art sensors, weapon systems, platforms and allied equipment for Indian Defence Services.
 - Provide technological solutions to the services to optimise combat effectiveness and to promote well-being of the troops.
 - Develop infrastructure and committed quality manpower and build strong indigenous technology base.

Society for Biomedical Technology

- It is an **inter-ministerial initiative of the Government of India** established to **promote healthcare** by providing indigenous solutions in the field of medical equipment and devices.
- It was established under the **Department of Defence Research and Development (DRDO)** in collaboration with the Ministry of Science and Technology, Ministry of Social Justice and Empowerment and Ministry of Health & Family Welfare.

Ordnance Factory Board

- The OFB which comprises 41 ordnance factories is **headquartered at Kolkata**.
- Indian Ordnance Factories is the **oldest and largest industrial setup** which functions under the **Department of Defence Production of the Ministry of Defence**.
- The ordnance factories form an **integrated base for indigenous production of defence hardware and equipment**, with the **primary objective of self reliance** in equipping the armed forces with state of the art battlefield equipment.

Humidity and Spread of Coronavirus

Why in News

Recently, a study by researchers at the **Massachusetts Institute of Technology (MIT)** in the United States found that regions experiencing a monsoon might see a slowdown (not a stop) in transmission of the coronavirus as a result of moderate levels of humidity.

- This could help **mitigation strategies in tropical countries** such as India.

Key Points

- The findings show that 90% of the novel coronavirus transmissions have occurred in regions with **temperatures between 3 and 17 degrees Celsius**.
- These regions also had an **average humidity range of 3-9 gram per cubic metre (g/m3)**.
- These regions comprised the **United States and several European countries** that are inundated by **Covid-19** infections.
- There are comparatively **fewer infections in warmer and humid countries** such as Singapore, Australia, Taiwan and Qatar.
 - It is also possible that **warmer temperatures retarded the spread of the virus**.
- A series of experimental studies have shown that the **Coronaviruses** are sensitive to humidity and are less likely to thrive at moderate levels of humidity.
- A 2018 study in the peer-reviewed Applied and Environmental Microbiology concluded that

Note:



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- Coronaviruses thrived when the **Relative Humidity (RH)** (the proportion of water vapour in the air compared to what's the maximum possible) exceeded 85% or dipped below 60%.
- There is a **significant decrease in infectivity at mid-range RHs** (60 to 85%).
- A similar experiment that tested the ability of viruses to survive on **stainless steel surfaces**, found that:
 - At 4°C, infectious viruses persisted for as long as 28 days.
 - The lowest level of inactivation occurred at 20% RH.
 - Inactivation was quicker at 20°C than at 4°C at all humidity levels.
 - The slowest inactivation occurred at low levels of RH.

Sodium Hypochlorite Sprayed on Migrants

Why in News

Recently, migrant labourers returning to their homes from urban centres were forced to take an open bath with disinfectant before they were allowed to enter **Bareilly (Uttar Pradesh)**.

- It was done in order to **prevent Covid-19 from spreading** even further in the town.
- The Medical Officer of Bareilly has informed that **sodium hypochlorite solution** was sprayed on the migrants.

Sodium Hypochlorite

- Sodium hypochlorite is commonly used as a **disinfectant**, a **bleaching agent**, and also to **sanitise swimming pools**.

- It **releases chlorine**, which is a disinfectant and big quantities of chlorine can be harmful.
- **Uses:**
 - A **normal household bleach** usually is a **2-10%** sodium hypochlorite solution.
 - At a much lower **0.25-0.5%**, this chemical is used to **treat skin wounds** like cuts or scrapes.
 - An even **weaker solution (0.05%)** is sometimes used as a **handwash**.
- **Harmful effects on human beings:**
 - Sodium hypochlorite is **corrosive**, and is meant largely to clean hard surfaces.
 - If it gets inside the body, it can cause **serious harm to lungs**.
 - Even a 0.05% solution could be very **harmful for the eyes**.
 - It can cause **itching or burning** and is not recommended to be used on human beings, certainly not as a spray or shower.
- **Effect on the novel coronavirus:**
 - The **World Health Organization (WHO)**, and the US Centers for Disease Control and Prevention, **recommend homemade bleach solutions** of about 2-10% concentration to clean hard surfaces to **disinfect them from coronavirus**.
 - A Michigan State University tutorial says that cleaning hard surfaces with this solution can disinfect them not just from novel coronavirus but also **help prevent flu, food borne illnesses, and more**.
 - However, it advises to **always use the bleach in a well-ventilated area and wear gloves** when handling the product or solution.



Note:

Environment and Ecology

Highlights

- Olive Ridley Turtle
- Earth Hour
- World Water Day
- Legacy Waste
- House Sparrow
- Krishna Raja Sagar (KRS) Dam
- Teesta River

Olive Ridley Turtle

Why in News

- Recently, mass nesting of **Olive Ridley Turtles** started at Odisha's Rushikulya rookery coast.
 - The **Rushikulya rookery on the coast of Odisha in India is the largest mass nesting site for the Olive-ridley**, followed by the coasts of Mexico and Costa Rica.



Key Points

- **Features:** The Olive ridley turtles are the **smallest and most abundant of all sea turtles** found in the world.
 - These turtles are **carnivores** and get their name from their olive colored carapace.
- **Habitat:** They are found in warm waters of the Pacific, Atlantic and Indian oceans.
- **Migration:** They migrate thousands of kilometers between feeding and mating grounds in the course of a year.
- **Arribada (Mass Nesting):** They are best known for their unique mass nesting called **Arribada**, where thousands of females come together on the same beach to lay eggs.
 - They lay their eggs over a period of five to seven days in conical nests about one and a half feet deep which they dig with their hind flippers.
- **Threats:** They are extensively **poached for their meat, shell and leather, and their eggs**. However, the most severe threat they face is the **accidental killing through entanglement in trawl nets and gill**

nets due to uncontrolled fishing during their mating season around nesting beaches.

- **Protection Status and Steps Taken:** The species is recognized as **Vulnerable by the IUCN Red list**, they are also **protected under CITES Appendix I**. They are also listed on Schedule – I of the Indian **Wildlife (Protection) Act, 1972**.
 - To reduce accidental killing in India, the Orissa government has made it mandatory for **trawls to use Turtle Excluder Devices (TEDs)**, a net specially designed with an exit cover which allows the turtles to escape while retaining the catch.

Earth Hour

- Earth Hour was observed on 28th March this year.
- It is the **World Wildlife Fund for Nature's (WWF)** annual initiative that began in 2007.
- It is held **every year on the last Saturday of March**.
- It encourages people from more than 180 countries to **switch off the lights from 8.30 pm to 9.30 pm as per their local time**.

World Wildlife Fund for Nature

- It is the world's leading conservation organization and works in more than 100 countries.
- It was **established in 1961** and is **headquartered at Gland, Switzerland**.
- Its mission is to **conserve nature and reduce the most pressing threats** to the diversity of life on Earth.
- WWF collaborates at every level with people around the world to develop and deliver innovative solutions that protect communities, wildlife, and the places in which they live.

Note:

- The idea is to refrain from the use of non-essential lighting to save energy in a symbolic call for environmental protection.
- Earth Hour has become a **catalyst for positive environmental impact**, driving major legislative changes by harnessing the power of the people and collective action.

World Water Day

- It is observed on **22 March every year**. It focuses on the importance of freshwater.
- It has been observed **since 1993** and intends to raise awareness of the 2.2 billion people living without access to safe water.
- The **theme for 2020 is 'Water and Climate Change'** which aims to explore interrelation between water and climate change.
- A core focus of World Water Day is to support the achievement of **Sustainable Development Goal (SDG) 6: water and sanitation for all by 2030**.
- In addition to it, the **International Decade for Action on Water for Sustainable Development (2018-2028)** is being observed.
- These observances serve to reaffirm that water and sanitation measures are key to poverty reduction, economic growth, and environmental sustainability.

Note:

- **22 March:** World Water Day
- **22 April:** Earth Day
- **22 May:** World Biodiversity Day

Legacy Waste

Why in News

Recently, the **National Green Tribunal (NGT)** has directed a committee to assess the amount of damage caused to the environment due to the dump sites (legacy waste) in Delhi.

- The committee comprises representatives from the **Central Pollution Control Board, National Environmental Engineering Research Institute (NEERI)** and IIT Delhi.

Key Points

- Legacy wastes are the wastes that have been collected and kept for years at some barren land or a place dedicated for Landfill (an area to dump solid waste).
- This waste can be roughly grouped into **four categories**:
 - Contained and/or stored waste (contained or stored waste are wastes in tanks, canisters, and stainless steel bins).
 - Buried waste.
 - Contaminated soil and groundwater
 - Contaminated building materials and structures.
- **Biomining method** has been proposed by the Central Pollution Control Board (CPCB) for the effective disposal of legacy wastes.
- **Environmental Impact of Legacy Waste**
 - Legacy wastes not only **occupy large space**, but also become a **breeding ground** for pathogens, flies, malodours and generation of leachate, which may lead to **water contamination**.
 - They also contribute to generation of **greenhouse gases** and **pose risk of uncontrollable fire**.

Biomining

- Biomining is the process of **using microorganisms (microbes)** to extract metals of economic interest from rock ores or mine waste.
- Biomining techniques may also be used to **clean up sites** that have been polluted with metals.
- It is usually used for old dumped waste that remains in a **partly or fully decomposed state with no segregation in existence between wet and dry waste**.
- In the cost effective method of biomining, treatment is done by dividing the garbage heap at the site into suitable blocks to let the air percolate in the heap.
- As a result, the leachate which is the water in the heap with suspended solid particles is drained off and microbes are sprayed in the heap to initiate biological decompositions.
- The waste is turned over several times in order to devoid the waste to leachate as much as possible.
- This biological decomposition of the waste **decreases the volume of the waste by 40%**.

Note:

House Sparrow

Why in News

Every year **March 20** is observed as the '**World Sparrow Day**' to raise awareness about the bird.

- The Day was **first celebrated in 2010**.
- The initiative was started by the '**Nature Forever Society (NFS)**' of India.
- In India, **House Sparrow** is found throughout the country, up to the Assam valley and lower parts of the Assam hills. Towards the eastern Himalayas, the species is replaced by the **Eurasian tree sparrow**.

Key Points Related to House Sparrow

- **Scientific Name** - *Passer domesticus*
- **Conservation Status** - Least Concern on the Red List of The International Union for Conservation of Nature (IUCN).
- **Habitat and Distribution**
 - The house sparrow is widespread across the world, inhabiting every continent, **except Antarctica, China and Japan**. It is native to **Eurasia and North Africa**.
- It is the **State bird of Bihar and Delhi**.
- It is known to stay **close to human habitations**, and is therefore among the most commonly found bird species in urban cities.
- Some of the **causes for decline in its population** are as follow:
 - Unfriendly architecture of our homes.
 - The use of chemical fertilisers in crops.
 - Noise pollution.
 - Exhaust fumes from vehicles.

Krishna Raja Sagar (KRS) Dam

Why in News

The water level in the **Krishna Raja Sagar (KRS) Dam in Mandya district (Karnataka)** is coming down rapidly owing to the increase in the evaporation rate and the decrease in the inflows as a result of summer.

Key Points

- The Krishna Raja Sagar Dam was built across river Kaveri for the **Mysore and Mandya districts in Karnataka** in 1932.

- The dam is named for the then ruler of the Mysore Kingdom, **Krishnaraja Wodeyar IV**.



- The Dam is the creation of one of the greatest engineers that India had produced, **Sir M. Vishweshwaraiah**. His birthday, **15th September** is celebrated as **Engineers day**.

- The reservoir is also the main source of drinking water for **all of Mysore city and almost the whole of Bangalore**.
- The water released from this dam is further used as an important source of water in the **state of Tamil Nadu**.

Kaveri River

- **Source:** The river rises on Brahmagiri Hill of the Western Ghats in southwestern Karnataka.
- **Drainage Basin:** It flows in a southeasterly direction through the states of Karnataka and Tamil Nadu, and descends the Eastern Ghats in a series of **great falls**. Before emptying into the Bay of Bengal south of Cuddalore, Tamil Nadu, the river breaks into a large number of distributaries forming a wide delta called the "**garden of southern India**".
- **Tributaries:** Arkavathi, Hemavathi, Lakshmana Theertha, Shimsa, Kabini and Harangi.

Teesta River

Why in News

The **Border Roads Organisation (BRO)** has opened a 360 feet long bailey suspension bridge over Teesta river in Munshithang, Sikkim.

- The construction was commenced in October 2019 under **Project Swastik**.
- The bridge will help the state tourism in growing and facilitate the movement of logistics for the Armed Forces deployed in the state.

Key Points

- Teesta river is a **tributary of the Brahmaputra** (known as **Jamuna in Bangladesh**), flowing through India and Bangladesh.

Note:



- It **originates in the Himalayas** near Chunthang, **Sikkim** and flows to the south through **West Bengal** before entering **Bangladesh**.
- Originally, the river continued southward to empty directly into the Padma River (main channel of Ganga in Bangladesh) but around 1787 the river changed its course to flow eastward to join the Jamuna river.
- The **Teesta Barrage** dam helps to provide irrigation for the plains between the upper Padma and the Jamuna.

- **Teesta river water conflict** is one of the most contentious issues between **India and Bangladesh**.

Border Roads Organization

- It was conceived and raised in **1960** by **Pandit Jawaharlal Nehru** for coordinating the speedy development of a **network of roads in the North and the North Eastern border** regions of the country.
- It works under the **administrative control** of the **Ministry of Defence**.
- BRO is regarded as a symbol of **nation-building, national integration** and an inseparable component in maintaining the security and integrity of the country.
- The executive arm of the BRO, the **General Reserve Engineer Force (GREF)**, is a combined force consisting of members of the Army and GREF.
- It has diversified into a large spectrum of construction and development works comprising airfields, building projects, defence works and tunneling and has endeared itself to the people.



Note:

Social Issues

Highlights

- Permanent Commission for Women in Indian Navy
- Rashtriya Vayoshri Yojana
- Mid Day Meal
- Rashtriya Kishor Swasthya Karyakram
- Tech For Tribals: TRIFED
- Ayush Wellness Centres under National Ayush Mission
- School Health Programme: Ayushman Bharat
- OneHealth Approach
- Maharashtra: Top Performer in Organ Donation
- Covid-19 and 'Force Majeure'
- World Tuberculosis Day
- Eklavya Model Residential and Day Boarding Schools

Permanent Commission for Women in Indian Navy

Why in News

Recently, the Supreme Court upheld **the right of serving Short Service Commission (SSC) women officers of the Navy to be granted Permanent Commission (PC)** on par with their male counterparts.

- The judgment was based on a case filed by 17 women SSC officers who were denied PC and discharged despite completing 14 years of service as SSC officers.
- The verdict comes after the top court had **opened the doors for similarly-placed women officers in the Army.**

Note:

- A **permanent commission** entitles an officer to serve in the Navy **till he/she retires** unlike **Short Service Commission (SSC)**, which is currently for **10 years** and can be **extended by four more years**, or a total of 14 years.

Key Points

- **PC for Women:**
 - SC has directed that SSC women officers, found suitable for the grant of PC, shall be entitled to **all consequential benefits, including arrears of pay, promotions and retirement benefits as and when due.**
 - The grant of PCs will be subject to availability of vacancies in the stabilised cadre, suitability of

the candidate and recommendation by the chief of Naval Staff.

➤ Criticism of Government's View:

- It rejected the submissions of the Centre stating that **certain sea-sailing duties are ill-suited for women officers** as there is no return to the base, unlike in the Army and the Air Force.

➤ Stand against Discrimination:

- The Court **denied the discrimination on the grounds of physiology, motherhood and physical attributes** of the women officers in the Indian Navy.
- Thus, the judgement ensured the **right to fair and equal treatment with constitutional entitlement to dignity at the workplace for women.**

➤ Previous Notifications for PC of Women:

- The Court stated that the government had already drawn up **policies in 1991 and 1998 to give Permanent Commission to women in the Navy.**
 - The 1991 notification lifted the restriction on the appointment or enrolment of women for specified cadres/branches of the Navy.
 - The 1998 notification made women eligible for appointment as officers in all the branches of the Indian Navy.
- It also directed the stipulation in a **policy letter dated 26th September 2008**, making the grant of PC prospective and restricting its application to specified cadres/branches of the Navy **shall not be enforced.**

Note:



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Rashtriya Vayoshri Yojana

Why in News

Recently, the **Ministry of Social Justice and Empowerment** has informed about the implementation of the **Rashtriya Vayoshri Yojana (RVY)** in the country.

Key Points

- Rashtriya Vayoshri Yojana is the scheme of the **Ministry of Social Justice and Empowerment**.
- It was launched in **2017**.
- It is a **central sector scheme** funded from the **Senior Citizens' Welfare Fund**. The fund was notified in the year 2016.
 - All unclaimed amounts from small savings accounts, PPF and EPF are transferred to this fund.
- It aims to provide **aids and assistive living devices to senior citizens belonging to Below Poverty Line (BPL) category** who suffer from age-related disabilities such as low vision, hearing impairment, loss of teeth and locomotor disabilities.
 - The aids and assistive devices, viz walking sticks, elbow crutches, walkers/crutches, tripods/quad pods, hearing aids, wheelchairs, artificial dentures and spectacles are provided to eligible beneficiaries.
- The scheme is being implemented by **Artificial Limbs Manufacturing Corporation of India (ALIMCO)**, which is a **public sector undertaking** under the Ministry of Social Justice and Empowerment.

Mid Day Meal

Why in News

- Recently, the Ministry of Human Resource Development (HRD) has asked state governments to provide **Mid Day Meals (MDM) or food security allowance** whichever is feasible, to all eligible children till schools are closed due to Covid-19.
 - Kerala is already providing hot-cooked meals to students at home.
 - The schools across the country have been closed to contain the transmission of **Covid-19 outbreak**.

Key Points

- The Ministry's order came after the Supreme Court issued notices to all state governments to explain how they would ensure the midday meals reach the vulnerable while schools stay shut.
- According to the **MDM Rules 2015**, when meals cannot be provided to students on account of unavailability of foodgrains, cooking cost, or due to any other reason, the state government is expected to provide a **food security allowance to each child consisting of foodgrains and cooking cost entitlement**.
- The MDM rules 2015, provide that:
 - The **place of serving meals to the children shall be school only**.
 - If the Mid-Day Meal is not provided in school on any school day due to non-availability of food grains or any other reason, the State Government shall pay **food security allowance** by 15th of the succeeding month.
 - The meal shall be prepared in accordance with the Mid Day Meal guidelines issued by the Central Government from time to time.
 - Procuring **AGMARK** quality items for preparation of midday meals, tasting of meals by two or three adult members of the school management committee, including at least one teacher, before serving to children.
 - The School Management Committee mandated under **Right to Free and Compulsory Education Act, 2009** shall also monitor implementation of the Mid-day meal Scheme.
 - The **State Steering-cum Monitoring Committee (SSMC)** shall oversee the implementation of the scheme including establishment of a mechanism for maintenance of nutritional standards and quality of meals.

Mid Day Meal Scheme

- The MDM Scheme comes under the Ministry of HRD.
- It was launched in the year 1995 as a **centrally sponsored scheme**.
- The scheme provides that every child within the age group of **six to fourteen years** studying in **classes I to VIII** who enrolls and attends the school, shall be provided **hot cooked meal** having nutritional standards of 450 calories and 12 gm of protein for primary (I- V class) and 700 calories and 20 gm protein for upper

Note:

primary (VI-VIII class), free of charge every day except on school holidays.

- The scheme covers all government and **government aided schools** and also Madarsa and Maqtabas supported under the **Samagra Shiksha Abhiyan**.

Samagra Shiksha Abhiyan

- It is an **overarching programme launched in 2018** for the school education sector extending from **pre-school to class 12**.
- It has been prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes.
- It subsumed the three schemes of **Sarva Shiksha Abhiyan (SSA)**, **Rashtriya Madhyamik Shiksha Abhiyan (RMSA)** and **Teacher Education (TE)**.

Rashtriya Kishor Swasthya Karyakram

- **Rashtriya Kishor Swasthya Karyakram (RKSK)** was launched by the **Ministry of Health and Family Welfare (MoHFW)** in **2014**.
- It intends to **ensure holistic development of the adolescent population**.
- The RKSK programme defines an **adolescent as a person within 10-19 years of age**, in **urban and rural areas**, including both **girls and boys, married and unmarried**, poor and affluent, whether they are in **school or out of school**.
- The programme also focuses on reaching out to **all adolescents including those from the Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ)** community.
- To guide the implementation of this programme, MoHFW, in **collaboration with the United Nations Population Fund (UNFPA)**, has developed a **National Adolescent Health Strategy**.
- The **six thematic areas** of RKSK as well as that of the strategy are **nutrition, sexual reproductive health, substance misuse, non-communicable diseases, mental health and injuries and violence**.
- The program envisages a **paradigm shift from the clinic-based services to the promotion and prevention services**. It also tries to reach adolescents in their own environment, such as in schools, families and communities.

- The prime elements of the programme are:
 - **Adolescent Friendly Health Clinics (AFHCs)**.
 - **Weekly Iron Folic Acid Supplementation (WIFS) Programme**.
 - **Peer Educator Programme**.
 - **Menstrual Hygiene Scheme**.

Tech For Tribals: TRIFED

Why in News

- Recently, the **Tribal Cooperative Marketing Development Federation of India (TRIFED)** has launched a transformational **"Tech For Tribals" program** in partnership with Institutes of National Importance (INIs) to develop Tribal entrepreneurship.

Key Points

- **Tech For Tribals** program aims to **transform 5 crore Tribal Entrepreneurs by capacity building and imparting entrepreneurship skills to tribal forest produce gatherers** enrolled under the **Pradhan Mantri Van Dhan Yojana (PMVDY)**.
- The program will ensure higher success rate of the Tribal Entrepreneurs by enabling and empowering them to run their business with marketable products with quality certifications.
- Under the program **trainees will undergo a 30 days training program** over six weeks comprising 120 sessions. The **Partner institutions will develop course contents relevant to Entrepreneurship in Value Addition and Processing of Forest Produces**.
 - The course curriculum will include achievement motivation and positive psychology, entrepreneurial competencies, capacity utilization, product positioning - Grading / Sorting, Branding, Packaging, etc.

TRIFED

- The Tribal Cooperative Marketing Development Federation of India (TRIFED) came into existence in 1987. It is a national-level apex organization functioning **under the administrative control of the Ministry of Tribal Affairs**.
- The **objective of TRIFED is socio-economic development of tribal people in the country by way of marketing development of the tribal products**

Note:



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such as metal craft, tribal textiles, tribal paintings and pottery on which the tribals depend heavily for a major portion of their income.

- It also involves capacity building of the tribal people through sensitization, formation of Self Help Groups (SHGs) and imparting training to them for undertaking a particular activity.
- TRIFED has its Head Office located in **New Delhi** and has a network of 13 Regional Offices located at various places in the country.

Pradhan Mantri Van Dhan Yojana

- It was launched in 2018, in Chhattisgarh. A Van Dhan Vikas Kendra was set up under the program.
- The Van Dhan Vikas Kendra caters to ten Self Help Groups of thirty tribal gatherers each.

Ayush Wellness Centres under National Ayush Mission

Why in News

Recently, the Union Cabinet has approved the inclusion of **AYUSH Health and Wellness Centres** (AYUSH HWCs) in the **National AYUSH Mission** (NAM).

- AYUSH HWCs are a component of the **Ayushman Bharat**.

Background

- The **National Health Policy 2017** advocated for mainstreaming the potential of **AYUSH systems** (Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa-rigpa and Homoeopathy) within a **pluralistic system of integrative healthcare**.
- In 2018, the Government of India decided that **1.5 lakh health & wellness Centres** would be created by transforming existing sub-health centres and primary health centres **to deliver comprehensive primary health care**.
- So, it was decided that the Ministry of AYUSH would operationalize 10% of the total sub-health centres as HWCs under Ayushman Bharat.

Key Points

- **Cost and time:**
 - **Expenditure** - ₹3399.35 Crore (with a **ratio of almost 2:1 between the centre and the states** respectively).

- **Time** - Within a period of **five years** from **2019-20 to 2023-24**.

- AYUSH HWCs operating under NAM will have the following **objectives**:

- To **establish a holistic wellness model** based on AYUSH principles and practices focusing on preventive, promotive, curative, rehabilitative and palliative healthcare by integration with the existing public health care system.
- To **provide informed choice** to the public in need, by making the AYUSH services available.
- To spread community awareness about lifestyle, yoga, medicinal plants and provision of medicines for selected conditions as per strength of AYUSH systems.

- After consulting with the States/UTs, Ministry of Health and Family Welfare and other ministries involved, the **Ministry of AYUSH** has proposed **two models** for operationalization of AYUSH HWCs:

- **Upgradation of existing AYUSH dispensaries.**
- **Upgradation of existing Sub Health Centres (SHCs).**

- **Benefits:**

- **Enhanced accessibility** to achieve universal health coverage for affordable treatment.
- **Reduced burden** on secondary and tertiary health care facilities.
- **Reduced out of pocket expenditure** due to self-care model.
- **Integration** of AYUSH in implementation of **Sustainable Development Goal (SDG) 3 (Good Health and Well-being)**, as mandated by the **NITI Aayog**.
- **Validated holistic wellness model in target areas.**

National Health Policy, 2017

- It seeks to reach everyone in a comprehensive integrated way to move towards wellness.
- It aims at **achieving universal health coverage** and delivering quality health care services to all at affordable cost.

National AYUSH Mission

- It was launched by the **Department of AYUSH** under the **Ministry of Health and Family Welfare**, during the **12th Plan** for implementation through States/UTs.

Note:

➤ **Objectives:**

- To **promote** AYUSH medical systems through cost effective AYUSH services.
- To **strengthen** the educational systems.
- To **facilitate** the enforcement of quality control of Ayurveda, Siddha, Unani and Homoeopathy (ASU&H) drugs and sustainable availability of the raw-materials needed in them.
- It envisages **flexibility of implementation** of the programmes which will lead to substantial participation of the State Governments/UT.

➤ **Elements of the National AYUSH Mission:**

- **Obligatory** Components
 - AYUSH Educational Institutions.
 - AYUSH Services.
 - Medicinal Plants Quality Control of ASU&H Drugs.
- **Flexible** Components
 - AYUSH Wellness Centres comprising Yoga and Naturopathy.
 - Tele-medicine.

School Health Programme: Ayushman Bharat

Why in News

Recently, the **Ministry of Human Resource and Development (HRD)** informed the Rajya Sabha about the implementation of **School Health Programme (SHP)**.

Key Points

➤ **About the Programme:**

- The School Health Programme (SHP) **under Ayushman Bharat** was launched in **2018** by the Prime Minister in Bijapur, Chhattisgarh.
- It is a **joint collaborative** programme of the **Ministry of Health and Family Welfare** and the **Ministry of Human Resource and Development**.

➤ **Vision:**

- The initiative **targets both Education and Health** and intends to facilitate an **integrated approach to health programming** and more **effective learning** at the school level.

➤ **Major Roles:**

- Under the programme **teachers** act as **"Health and Wellness Ambassadors"** and disseminate various key information by organising culturally sensitive activity based sessions for one hour per week for 24 weeks in a year to promote joyful learning.
- Further, the **students act as Health and Wellness Messengers** in the society and **every Tuesday** is dedicated as **Health and Wellness Day** in the schools.

➤ **Objectives:**

- Awareness about age appropriate information about health and nutrition to the children in schools.
- Detection and treating diseases early in children and adolescents including identification of malnourished and anemic children.
- Usage of safe drinking water in schools.
- Promotion of safe menstrual hygiene practices by girls.
- Promotion of yoga and meditation through Health and Wellness Ambassadors.
- Encouragement for research on health, wellness and nutrition for children.

➤ **Themes:**

- The Programme is based on the **11 identified themes**.
- Some of them are emotional wellbeing, interpersonal relationships, responsible citizenship, gender equality, reproductive health, HIV prevention, safety and security against violence and promotion of safe use of the internet.

➤ **Linked with SDGs:**

- The Ministry of Human Resource and Development and the Ministry of Health and Family Welfare (MoHFW) **along with National Council of Educational Research and Training (NCERT)** have also developed **curriculum framework and training material for training of nodal teachers**, in line with the **Sustainable Development Goals (SDG- 3)**.
 - SDG 3 aspires to ensure health and well-being for all.

➤ **Integration with Other Initiatives:**

- The initiative is also linked with other government initiatives such as **Fit India movement**, **Eat Right campaign**, **Poshan Abhiyaan** for an all-round and holistic development model of health for the school children.

Note:



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- Additionally, the government is implementing a few schemes on the similar lines namely, **Rashtriya Kishor Swasthya Program** and **Rashtriya Bal Swasthya Programme**.
 - Rashtriya Kishor Swasthya Program intends to ensure holistic development of the adolescent population.
 - Rashtriya Bal Swasthya Programme is aimed at early identification and intervention of diseases in children from their birth to 18 years of age.

OneHealth Approach

Why in News

Recently, to deal with zoonotic diseases, a need to operationalize "OneHealth" policy in India was highlighted.

- Presently, India is dealing with **coronavirus (Covid-19)**. The virus appears to have its origin in bats.

OneHealth

- OneHealth is an **approach** to designing and implementing programmes, policies, legislation and research in which **multiple sectors communicate** and work together to achieve **better public health outcomes**.
- The **areas of work** in which a One Health approach is particularly relevant include **food safety**, the **control of zoonotic diseases** and **combating antibiotic resistance** (when bacteria evolve after being exposed to antibiotics and become more difficult to treat).
- Although OneHealth, as a conceptual entity, emerged relatively recently, a stellar **example of OneHealth being operationalised in the field was seen in India in the late 1950s**.

Zoonotic Diseases

- The diseases, which "**spillover**" from animals to humans are referred to as zoonotic diseases
- They represent more than **60% of emerging infectious diseases** worldwide.
- The destruction of the natural environment, globalised trade and travel and industrialised food production systems have created numerous pathways for new pathogens to jump between animals and humans.
- **E.g.** Flu, rabies, etc.

India and OneHealth Approach

- In the 1950s, the OneHealth approach helped discover the source of **Kyasanur Forest Disease (KFD)**, a highly dangerous haemorrhagic fever more threatening than Covid-19.
 - This was the result of working of several organizations such as the Virus Research Centre (now known as the National Institute of Virology), Pune, the World Health Organization (WHO) and the Bombay Natural History Society.
- In **2018**, Kerala reacted quickly and efficiently to tackle the **Nipah virus outbreak** and successfully managed to confine it to 23 cases.
 - This success is credited to the strong public health infrastructure and the political will to quickly seek help from a multidisciplinary team of national and international experts.
- One of the components of the **National Mission on Biodiversity and Human Well-being** explicitly links biodiversity to human health through the OneHealth framework.
 - However, the regulatory framework for doing OneHealth research in India with international collaboration typically requires **approvals from multiple authorities**. This hampers the country's ability to rapidly respond to emerging threats from infectious diseases.

National Mission on Biodiversity and Human Well-being

- The mission aims to explore the neglected links between biodiversity science and human well-being across the sectors of health, economic development, agricultural production and livelihood generation, in combination with efforts to mitigate climate change and related disasters.

Way Forward

- The frequency with which new pathogens are emerging or old ones are re-emerging across the world are alarm calls for greater transparency, cross-country collaborations, and enhanced national infrastructure and capacity for integrated OneHealth science.
- India needs to leap-frog over the systemic and institutional barriers that prevent an integrated OneHealth framework from being operationalised.

Note:

- The OneHealth framework will help government and private institutions, across a range of disciplines, in collaborating to understand how zoonotic diseases can emerge, the threats they can pose, and the mechanisms by which the emergence or spread can be controlled.

Maharashtra: Top Performer in Organ Donation

Why in News

Recently, **Maharashtra surpassed** Tamil Nadu and Telangana and became the top performer in the field of **organ donation**.

- Sensitisation drives and the meticulous efforts of **Regional Organ and Tissue Transplant Organisation – State Organ and Tissue Transplant Organisation (ROTTO-SOTTO)** along with four Zonal Transplant Coordination Centres (ZTCCs) are important contributing factors behind this achievement.

ROTTO-SOTTO

- The **Ministry of Health and Family welfare** has established **National Organ and Tissue Transplant Organisation (NOTTO)** at National level, **State Organ and Tissue Transplant Organisation (SOTTO)** in States and **Regional Organ and Tissue Transplant Organisation (ROTTO)** at regional level.
- National Network division of NOTTO functions as apex centre for coordinating all activities and networking for procurement and distribution of organs and tissues and maintaining registry of organs and tissues donation and transplantation in the country.

Organ Donation

- **Organ donation** means giving part of the body (organ) to a person with end stage organ disease who needs a transplant.
- The **organs that can be donated** for transplantation include kidney, liver, heart, lungs, and small bowel and **tissues** such as corneas, heart valves, skin and bone.
 - Tissue means a group of cells performing a particular function in the human body such as bone, skin, cornea of the eye, heart valve, blood vessels, nerves and tendon etc.
- **There are two types of organ donation:**

- **Living Donor Organ Donation:** A person during his life can donate one kidney, a portion of pancreas and a part of the liver.
- **Deceased Donor Organ Donation:** A person can donate multiple organs and tissues after (brain-stem/cardiac) death.

Legal Framework:

- Organ Transplantation and Donation is permitted by law, and covered under the **"Transplantation of Human Organs Act 1994"**, which has allowed organ donation by live & Brain-stem Dead donors.
- In 2011, amendment of the Act also brought in donation of human tissues, thereby calling the Amended Act "Transplantation of Human Organs & Tissues Act 2011".
- The Government of India has also started a **National Organ and Transplant Program (NOTP)**, under which patients below the poverty line are supported for the cost of transplant as well as cost of immunosuppression after transplant for one year.

Covid-19 and 'Force Majeure'

Why in News

- In view of the **Covid-19 pandemic**, Indian Railways has decided that the period from 22.03.2020 to 14.04.2020 shall be treated under **"Force Majeure"**.

Key Points

- **Force Majeure (FM)** means extraordinary events or circumstances beyond human control such as an event described as an Act of God (like a natural calamity).
- During this period no **demurrage, wharfage, stacking, stabling, detention and ground usage charge shall be leviable**.
- Zonal Railways have been advised to coordinate with State Government authorities **to ensure logistics support in order to keep up the essential goods transportation**.

Force Majeure

- Force majeure refers to a **clause that is included in contracts** to remove liability for natural and unavoidable catastrophes that interrupt the expected course of events and restrict participants from fulfilling obligations.

Note:



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- Force majeure clauses **excuse companies (or other parties to a contract) from meeting certain obligations** when events beyond their control interfere with their ability to hold up their end of the bargain.
- If invoked, the clauses can relieve companies from commitments, temporarily or permanently, without being in breach of their agreement.

World Tuberculosis Day

Why in News

World Tuberculosis (TB) Day is observed on **24th March** every year to raise public awareness about the devastating health, social and economic consequences of TB and to step up efforts to end the global TB epidemic.

- The date 24th March is chosen to commemorate the anniversary of **Dr. Robert Koch's discovery of the cause of Tuberculosis (Mycobacterium Tuberculosis) in 1882.**

Key Points

- TB remains the **world's deadliest infectious killer.**
 - Each day, over 4000 people lose their lives to TB and close to 30,000 people fall ill with this **preventable and curable disease.**
- **Theme for 2020: 'It's time'.** It puts the accent on the **urgency to act on the commitments** made by global leaders to:
 - scale up access to prevention and treatment.
 - build accountability.
 - ensure sufficient and sustainable financing including for research.
 - promote an end to stigma and discrimination.
 - promote an equitable, rights-based and people-centered TB response.
- **Global Efforts:**
 - The **World Health Organization (WHO)** has launched a **joint initiative "Find. Treat. All. #EndTB"** with the **Global Fund and Stop TB Partnership.**
 - It aims to accelerate the TB response and ensure access to care, in line with WHO's overall drive towards **Universal Health Coverage.**
 - WHO also releases the **Global Tuberculosis Report.**
- **India's Efforts:**

- The Government of India has committed to **eliminate the prevalence of TB by 2025**, with commensurate resources to rapidly reduce TB incidence prevalence and mortality in India.
- The **Ministry of Health and Family Welfare** is implementing the **National Strategic Plan (NSP)** for Tuberculosis Elimination (**2017-2025**).
- The President of India had appealed to all the stakeholders to come together to reinforce the efforts in **"TB Harega Desh Jeetega Campaign"** to make it a true people's movement.

Tuberculosis

- TB is caused by **bacteria (Mycobacterium tuberculosis)** that most often affect the lungs.
- **Transmission:** TB is spread from **person to person through the air.** When people with TB cough, sneeze or spit, they propel the TB germs into the air.
- **Symptoms:** Cough with sputum and blood at times, chest pains, weakness, weight loss, fever and night sweats.
- **Treatment:** TB is a treatable and curable disease. It is treated with a **standard 6 month course of 4 antimicrobial drugs** that are provided with information, supervision and support to the patient by a health worker or trained volunteer.
- Anti-TB medicines have been used for decades and strains that are resistant to 1 or more of the medicines have been documented in every country surveyed.
 - **Multidrug-resistant tuberculosis (MDR-TB)** is a form of TB caused by bacteria that do not respond to isoniazid and rifampicin, the 2 most powerful, first-line anti-TB drugs. MDR-TB is treatable and curable by using second-line drugs.
 - **Extensively drug-resistant TB (XDR-TB)** is a more serious form of MDR-TB caused by bacteria that do not respond to the most effective second-line anti-TB drugs, often leaving patients without any further treatment options.

Eklavya Model Residential and Day Boarding Schools

Why in News

- In view of prevailing sensitive health conditions affecting community health due to **Covid-19**, the **Ministry of**

Note:

Tribal Affairs has asked the State Governments for rescheduling of holidays in **Eklavya Model Residential Schools (EMRS)** and **Eklavya Model Day Boarding Schools (EMDBS)**.

Eklavya Model Residential Schools

- These schools **started in 1997-98** to impart **quality education to Scheduled Tribes (ST) children in remote areas**.
- The schools focus not only on academic education but on the all-round development of the students.
- The objective of EMRS is **to provide quality middle and high level education** to ST students in remote areas enabling them to avail of reservation in high and professional educational courses and also in government, public and private sector jobs.
 - It also seeks to ensure that the standard of the education they get is, at par with the education of non-ST population.
- Each school has a capacity of **480 students, catering to students from Class VI to XII**.

- These are being set up by grants provided **under Article 275(1) of the Constitution** and are **funded by the Ministry of Tribal Affairs**.
- In order to give further impetus to EMRS, it has been decided that by the **year 2022, every block with more than 50% ST population and at least 20,000 tribal persons**, will have an EMRS.
- Eklavya schools are on par with Navodaya Vidyalaya and have special facilities for preserving local art and culture besides providing training in sports and skill development.

Eklavya Model Day Boarding Schools

- Wherever **density of ST population is higher** in identified Sub-Districts (90% or more), it is proposed to set up Eklavya Model Day Boarding School (EMDBS) on an experimental basis for providing additional scope for ST Students seeking to avail of school education without residential facility.



Note:

Art & Culture

Highlights

- Classical Languages
- Mamallapuram
- Tara Tarini Temple
- Navroz
- Traditional New Year Festivals
- Gond tribals & Covid-19
- Tribal Lockdown Rituals
- Dr. Ram Manohar Lohia

Classical Languages

Why in News

Recently, a Bill to grant the status of Central universities to three deemed Sanskrit universities was passed by the Rajya Sabha.

- The **Central Sanskrit Universities Bill, 2019** gives Central status to the Rashtriya Sanskrit Sansthan and Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeeth in Delhi and the Rashtriya Sanskrit Vidyapeeth in Tirupati.
- The **Government has been accused of neglecting other classical languages** in India.

Key Points

- Currently there are **six languages** that enjoy the '**Classical**' status in India:
 - Tamil (declared in 2004), Sanskrit (2005), Kannada (2008), Telugu (2008), Malayalam (2013), and Odia (2014).
- The **Ministry of Culture** provides the guidelines regarding Classical languages.
- **Guidelines for declaring a language as 'Classical' are:**
 - High antiquity of its early texts/recorded history over a period of 1500-2000 years;
 - A body of ancient literature/texts, which is considered a valuable heritage by generations of speakers;
 - The literary tradition be original and not borrowed from another speech community;
 - The classical language and literature being distinct from modern, there may also be a discontinuity between the classical language and its later forms or its offshoots.

- Once a language is notified as a Classical language, the **Human Resource and Development Ministry provides certain benefits to promote it:**
 - Two major annual international awards for scholars of eminence in classical Indian languages.
 - A Centre of Excellence for studies in Classical Languages is set up.
 - The University Grants Commission is requested to create, to start with at least in the Central Universities, a certain number of Professional Chairs for the Classical Languages so declared.

Mamallapuram

- **Location:** Mamallapuram, also called **Mahabalipuram** or **Seven Pagodas**, is a town that lies along the Coromandel Coast of the Bay of Bengal, **south of Chennai (Tamil Nadu)**.
- **History:**
 - It is an important town of the **erstwhile Pallava dynasty** that **ruled in parts of South India** from 275 CE to 897 CE.
 - It was **founded by the Pallava king Narasimhavarman I** in the 7th century AD.
 - The name Mamallapuram derives from **Mamallan**, or "**great warrior**", a title by which the Pallava King Narasimhavarman I was known.
 - The **name Mamallapuram got distorted during the British era to Mahabalipuram** and thus it is also known as Mahabalipuram.



Note:

➤ **Architecture:**

- Mamallapuram contains many surviving 7th and 8th century Pallava temples and monuments, chief of which are the **sculptured rock relief** popularly known as “**Arjuna’s Penance**”, or “**Descent of the Ganges**”, a series of sculptured **cave temples**, and the **Shore Temple**.
- The town’s **Five Rathas**, or monolithic temples, are the remnants of seven temples, for which the town was known as Seven Pagodas. The entire assemblage collectively was designated a **UNESCO World Heritage Site** in 1984.

➤ **Significance:**

- Ancient Chinese, Persian, and Roman coins found at Mamallapuram point that it was a **seaport**.
- Mamallapuram and the Pallava dynasty are also historically relevant, for the earliest recorded **security pact between China and India** (in the early 8th century) that involved a Pallava king (Rajasimhan, or **Narasimha Varma II**), from whom the Chinese sought help to counter Tibet.
- The **second informal summit between India and China** was held here in October 2019.

Tara Tarini Temple

Why in News

The annual **Chaitra Jatra festival** scheduled to be held on 17th March, 2020 at **Odisha’s Tara Tarini hill shrine** was **cancelled** as a precautionary measure against **Covid-19** infection.

- The festival is **held on each Tuesday in the month of Chaitra**, which falls in March-April as per the English calendar.

Key Points

- Tara Tarini hill shrine, located at a hilltop on banks of the **Rushikulya river**, is a major centre of **Shakti worship in Odisha**.
- The twin goddesses Tara and Tarini represent one Shakti and are the **main deity of Ganjam district (Odisha)**.



- Tara is an important deity of the **Mahayana Buddhist Sect**.

- This temple had been built as per traditional **Rekha style of Odia temple architecture**, as per which famous Jagannath temple of Puri and Lingaraj temple of Bhubaneswar have been built.
- Unlike other temples, it wasn’t built under the patronage of a King or a Noble, the temple was set up by a **Brahmin named Basu Praharaj** as per popular legend.
- Since its inception it has been an established **seat of Tantrism**.
- Indian Navy’s sailboat **INSV Tarini** was named after Tara Tarini hill shrine. The first Indian all-woman crew had circumnavigated the globe in INSV Tarini.

Navroz

- Navroz is the new year celebrations for **Parsis (Zoroastrians)** and **Muslims (both Shia and Sunni)**.
- It is celebrated on **21st March every year**.
- In 1079 AD, a **Persian (Iranian) king** named **Jalaluddin Malekshah** introduced this festival to generate revenue and collect taxes from people.
- It was observed on March 21 to mark the beginning of spring and the day of equinox.
 - The equinoxes are the only time when both the Northern and Southern Hemisphere experience roughly equal amounts of daytime and nighttime.
 - The equinoxes happen in March (about March 21) and September (about September 23). These are the days when the Sun is exactly above the Equator, which makes day and night of equal length.
 - March equinox is also known as vernal or spring equinox and the September equinox is also known as autumnal or fall equinox.
- It is inscribed in the **list of UNESCO Intangible Cultural Heritage of Humanity of India**.
- In India it is known as Jamshed Navroz.

Intangible Cultural Heritage of India

Kumbh Mela	Yoga	Traditional brass and copper craft of utensils among thatheras of Punjab	Sankirtana (ritual singing, dancing and drumming of Manipur)
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Note:

Buddhist chanting of Ladakh	Chhau Dance	Kalbelia (folk song and dance of Rajasthan)	Kutiyattam (a Sanskrit theatre of Kerala)
Tradition of Vedic Chanting	Ramlila	Novruz (Persian New Year)	Ramman (religious festival and ritual theatre of the Garhwal Himalayas)
Mudiyettu (ritual theatre dance drama of Kerala)			

Traditional New Year Festivals

Chaitra Shukla Pratipada

- It marks the beginning of the new year of the **Vikram Samvat** also known as the **Vedic [Hindu] calendar**.
- Vikram Samvat is based on the day when the **emperor Vikramaditya** defeated Sakas, invaded Ujjain and called for a new era.
- It is the first day during the waxing phase (in which the visible side of moon is getting bigger every night) of the moon in the Chaitra (first month of Hindu calendar).

Gudi Padwa and Ugadi

- These festivals are celebrated by the people in the Deccan region including **Karnataka, Andhra Pradesh and Maharashtra**.
- The common practice in the celebrations of both the festivals is the festive food that is prepared with a mix of sweet and bitter.
- Gudi is a doll prepared in Maharashtrian homes.
- For Ugadi, doors in homes are adorned with mango leaf decorations called toranalu or Torana in Kannada.

Cheti Chand

- Sindhis celebrate the new year as Cheti Chand. Chaitra month is called 'Chet' in Sindhi.
- The day commemorates the birth anniversary of Uderlal/Jhulelal, the patron saint of Sindhis.

Navreh

- It is the lunar new year that is celebrated in Kashmir.
 - It is the Sanskrit word 'Nav-Varsha' from where the word 'Navreh' has been derived.
- It falls on the first day of the Chaitra Navratri.
- On this day, Kashmiri pandits look at a bowl of rice which is considered as a symbol of riches and fertility.

Sajibu Cheiraoba

- It is a ritual festival of Meiteis which is observed on the first day of Manipur lunar month Shajibu, which falls in March/April every year.
- On the day of the festival, people arrange a joint family feast in which traditional cuisines are offered to local deities at the entrance gates of the houses.

Meities

- The Meiteis are one of the most eminent ethnic groups of Manipur, hailing from the Manipur Valley.
- They speak Tibeto-Burman language and most of the people belonging to the group, follow Hindu customs.

Gond tribals & Covid-19

Why in News

- While people are struggling for masks and sanitizers in the urban areas, **Gond tribal** people living in **Panna, Madhya Pradesh** have devised **their own way to make masks to fight coronavirus**.
- Tribal people are **making masks with medicinal leaves** and following **traditional ways** to prevent the spread of the **coronavirus**.

Gond Tribe

- **Gonds** are one of the largest tribal groups in the world.
- They mostly live in **Madhya Pradesh, Chhattisgarh, Maharashtra, Andhra Pradesh, Gujarat, Jharkhand, Karnataka, Telangana, Uttar Pradesh, West Bengal and Odisha**.
- Gonds are subdivided into **four tribes**:
 - Raj Gonds
 - Madia Gonds
 - Dhurve Gonds

Note:

- Khatulwar Gonds
- Their staple food is two kinds of millet: **kodo and kutki**.
 - **Rice** is mostly consumed during festival feasts.
- Gonds believe that earth, water and air are ruled by Gods.
- They majorly speak **Gondi** which is an unwritten language of the **Dravidian family**.
- It has been notified as a **Scheduled Tribe**.

Tribal Lockdown Rituals

Why in News

Tribes in Arunachal Pradesh have revived indigenous lockdown rituals to contain the spread of **Covid-19**.

- The State of Arunachal Pradesh is geographically closest to **China's Hubei province** where the Covid-19 outbreak began.

Rituals by Different Tribes

- **Galo Tribe**
 - **Galos**, which are one of the 26 major tribes of Arunachal Pradesh that dominate West Siang district practised the **Arr-Rinam ritual**.
 - The Galo community has been recognized as a **Scheduled Tribe** in the Amendment to the Constitution (ST), Order, 1950, Part-XVIII.
 - **Mopin** is the main festival in Galos which is celebrated for the prosperity of the villages. The Galos perform **Popir dance**.
 - **Arr-Rinam** is the Galo equivalent of **lockdown** imposed by consensus for 48 hours whenever an epidemic strikes.
 - The Arr-Rinam follows the **Ali-Ternam** (the word Ali means epidemic and Ternam means forestall) ritual **to ward off an epidemic**.
 - These rituals were last performed almost four decades ago when a water-borne disease had affected many members of the community.
 - However, these rituals have been performed periodically for **livestock, primarily the semi-wild animal mithun, that are prone to contagious diseases**.
 - This is for the **first time in 30-40 years** that the rituals were performed for the **safety of humans**.

- The **Bos or deputy priests** performed the Ali-Ternam under the guidance of a **Nyibo (shaman)**.
- The ritual **ended with the community leaders sealing five major entry points of the district**.
- **Adi Tribe**
 - The Adi community also performed a similar ritual called the **motor or pator system** in the Adi (tribe) dialect.
 - This is a customary **self-restriction**, where the locals lock down several villages by **erecting barricades** to prevent the entry of outsiders. No person is allowed to enter or leave the villages.
 - They believe that this ritual lets shamans with legendary powers to locate wild herbs to combat an epidemic.

Note:

- The Adi tribe of Arunachal Pradesh is believed to have come from southern China in the 16th century.
- They are the **Tibeto-Burman language** speaking population.
- They reside in the far north inhabiting **East Siang and Lower Dibang Valley districts** of Arunachal Pradesh.
- The Adis are experts at **making cane and bamboo items**.
- **Solung** (harvesting festival where animal sacrifices and rituals are performed) and **Aran** (a hunting festival where all the male members of the family go for hunting) are two major festivals of the Adi tribes.

Nyishi Tribe

- In districts such as Papum Pare and East Kameng, the dominant Nyishi community observed **Arrue** involving **self-quarantine**.
- Nyishi Tribes also called **Bangni** are the tribal people of eastern Bhutan and Arunachal Pradesh (formerly North East Frontier Agency).
- Nyishi is a **Scheduled Tribe**. It is the **single largest tribe of Arunachal Pradesh**.
- They speak the **Tibeto-Burman language of the Sino-Tibetan family**.
- The Nyishi support themselves with **slash-and-burn agriculture and with hunting and fishing**.
- They live together in a longhouse without partitions but with a separate fireplace for each conjugal family.
- Aside from a patrilineal household there is **no formal social organization or village government**.

Note:



drishti

- Their religion involves **belief in spirits associated with nature**.

Dr. Ram Manohar Lohia

Why in News

The Prime Minister paid tribute to Dr Ram Manohar Lohia on his birth anniversary.

Key Points

- Ram Manohar Lohia, (born March 23, 1910) was a prominent figure in **socialist politics** and in the movement towards **Indian independence**.
- In 1934, Lohia became actively involved in the **Congress Socialist Party (CSP)**, a left-wing group within the Indian National Congress; he served on the CSP executive committee and edited its weekly journal.
- He **opposed the Indian participation on the side of Great Britain in World War II** and was arrested for anti-British remarks in 1939 and 1940.
- Lohia along with other CSP leaders, mobilized support for **the Quit India movement** (a campaign initiated by Mohandas K. Gandhi to urge the withdrawal of British authorities from India) in 1942. He was jailed again in 1944-46 for such resistance activities.
- Lohia and other CSP members **left the Congress in 1948**.
- He became a member of the **Praja Socialist Party** upon its formation in 1952 and served as general secretary for a brief period, but conflicts within the party led to his resignation in 1955.
- Later that year Lohia established a new Socialist Party, for which he became chairman as well as the editor of its journal, **Mankind**.
- He advocated for various **socio-political reforms** in his capacity as party leader, including the abolition of the caste system, the adoption of Hindi as India's national language, and stronger protection of civil liberties.
- Some of **his works** include: 'Marx, Gandhi and Socialism', 'Guilty Men of India's Partition', etc.
- In 1963, Lohia was elected to the Lok Sabha.
- He passed away in 1967.



Note:

Miscellaneous

Highlights

- Real-time Train Information System
- World Consumer Day
- UN World Happiness Report- 2020

Real-time Train Information System

Why in News

The Real-time Train Information system is being installed in locomotives to enable better tracking of train movement.

- The RTIS Project is being executed by the **Centre for Railway Information Systems (CRIS)** in collaboration with the **Indian Space Research Organisation (ISRO)**.
- RTIS is an **example of 'Make In India'** as it has been entirely designed, developed and manufactured within the country.

Benefits of RTIS

- RTIS enables **automatic acquisition of train movement timings** at the stations, including that of arrival & departure or run-through.
- It also helps in **automatic plotting of control charts** in ICT based Control Office Application (COA) on all divisions of Indian Railways.
- It also enables the train controllers to track the location and speed of locomotives/trains more closely, without any manual intervention, which helps in **improving the efficiency of train control**.
 - Further, it is extremely handy for **emergency messaging** from locomotive to control centre, helping in **faster response in case of any breakdown or disaster**.
- The real time data of RTIS is also linked with the **National Train Enquiry System (NTES)**. Thus, more accurate train running information is being passed to the passengers, which helps them to conveniently plan their arrival at the stations.

Centre for Railway Information Systems

- The Ministry of Railways set up CRIS as a Society in July 1986. It is the **Information Technology (IT) wing of Indian Railways**.
- It is **headquartered in New Delhi**.
- It performs the functions of Indian Railways such as passenger ticketing, freight operations, train dispatching and control, crew management, e-procurement, etc.
 - **NTES was developed by the CRIS.**

World Consumer Day

Why in News

The **Ministry of Consumer Affairs** observed the **World Consumer Day (15th March)** by organizing a webinar on, **'The Sustainable Consumer'**.

- **Every year 15th March** is celebrated as World Consumer Rights Day.
- However, **India celebrates 24th December** as **National Consumer Day every year**.
 - On this day, the **Consumer Protection Act, 1986** had received the assent of the President and came into effect.
- The webinar was organized in place of a physical event to maintain social distancing in the wake of **Covid-19 pandemic**.

Key Points

- **Theme: The Sustainable Consumer**
 - It aims to focus on the need for sustainable consumption globally as well as highlighting the important role that consumer rights and protection can play.

Note:

➤ **Objectives:**

- It signifies solidarity in the international consumer movement, demanding that consumer rights are to be respected and protected.
- The event also gives a chance to protest against the market abuses and social injustices which undermine those rights.

➤ **Background:**

- World Consumer Rights Day was inspired by **US President John F Kennedy**, who sent a special message to the US Congress on 15th March 1962, in which he formally addressed the issue of consumer rights. **He was the first world leader to do so.**
- The consumer movement first marked that date in 1983 and now uses the day every year to mobilise action on important issues and campaigns.

UN World Happiness Report – 2020

Why in News

The **Sustainable Development Solutions Network** for the United Nations released the World Happiness Report on 20th March, 2020.

- March 20 was designated as the **World Happiness Day by the UN General Assembly in 2012.**

Highlights From the Report

➤ **Top Performers**

- **Finland** is ranked as the world's happiest nation for the third consecutive year.
- **Nordic states dominated the top 10**, along with countries such as Switzerland, New Zealand and Austria.
- Luxembourg edged into the 10th spot for the first time this year.

About the World Happiness Report

- The World Happiness Report ranks **156 countries** by how happy their citizens perceive themselves to be.
- The **rankings are based on polling** (Gallup World Poll) which looks at **six variables**: GDP per capita, social support, healthy life expectancy, freedom, generosity, and absence of corruption.
- The 2020 Report **for the first time ranked cities** around the world by their subjective well-being and looked into how the social, urban and natural environments combine to affect happiness.

➤ **Worst Performers**

- The countries at the bottom are those afflicted by **violent conflicts and extreme poverty**, with Zimbabwe, South Sudan and Afghanistan classified as the world's least happy nations.

➤ **India's Performance**

- **India, previously ranked at 140 dropped to 144.**
- Its rank is way lower than its neighbours. Nepal is ranked 92, Pakistan is at 66, Bangladesh at 107 and Sri Lanka at 130.
- India is a **new entrant** to the bottom-fifteen group.

Sustainable Development Solutions Network

- The SDSN, launched in 2012, mobilizes global scientific and technological expertise to promote practical problem solving for the **Sustainable Development Goals (SDGs) and the Paris Climate Agreement.**
- It was established under the auspices of the **United Nations Secretary-General.**
- The SDSN and the Bertelsmann Stiftung have been **publishing the annual SDG Index & Dashboards Global Report since 2016.**



Note:

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Summary

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Summary