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SPECIAL ARTICLES

Polity & Governance

'Judicial review can't be done prior to Speaker's decision'

In News

Constitutional courts cannot judicially review disqualification proceedings under the Tenth Schedule (anti-defection law) of the Constitution until the speaker or Chairman makes a final decision on merits.

Details

- The judgment is significant in the case of the ousted Rajasthan Deputy Chief Minister Sachin Pilot and the 18 MLAs, who were issued a notice under the anti-defection law after the ruling Congress sought their disqualification.
- They have approached the Rajasthan High Court challenging the constitutionality of Paragraph 2(1)(a) of the Tenth Schedule which makes "voluntarily giving up membership of a political party" liable for disqualification.

Kihoto Hollohan versus Zachillu and Others Judgement

- A 28-year-old judgment of the Supreme Court in Kihoto Hollohan versus Zachillu and Others has said that "judicial review cannot be available at a stage prior to the making of a decision by the Speaker/Chairman and a quia timet action would not be permissible. Nor would interference be permissible at an interlocutory stage of the proceedings."
- "The only exception for any interlocutory interference being cases of interlocutory disqualifications or suspensions which may have grave, immediate and irreversible repercussions and consequence," the Bench had held.

Judicial Review

Judicial Review can be understood as a form of court proceeding, usually in the Administrative Court where the lawfulness of a decision or action is reviewed by the judge. Where there is no effective means of challenge, judicial review is available. The concern behind Judicial

Review is that whether the law has been correctly applied with and right procedures have been followed

Judicial Review and Constitution

- According to Article 13(2), the Union or the States shall not make any law that takes away or abridges any of the fundamental rights, and any law made in contravention of the aforementioned mandate shall, to the extent of the contravention, be void.
- Judicial review is called upon to ensure and protect Fundamental Rights which are guaranteed in Part III of the Constitution.
- The power of the Supreme Court of India to enforce these Rights is derived from Article 32 of the Constitution. This provides citizens the right to directly approach the SC to seek remedies against the violation of Fundamental Rights.

Suo Motu

In News

The Supreme Court took suo motu cognisance and initiated the contempt of court case against public rights activist and lawyer Prashant Bhushan.

Issue

- This step was taken by the apex court against his tweet criticising the current Chief Justice of India and the role of some Chief Justices of India in the last six years.
- As per the court if there is any issue with respect to the judgment delivered or procedure followed by the judiciary, then queries must be brought before the courts rather than humiliating the judiciary on social media platforms.

Contempt of Court

- As per the Contempt of Courts Act 1971, contempt refers to the offence of showing disrespect to the dignity or authority of a court. It divides contempt into civil and criminal contempt.
(i) Civil contempt: It is willful disobedience to any judgment, decree, direction, order, writ or other processes of a court or wilful breach of an undertaking given to the court.
(ii) Criminal contempt: It is any act which may result in scandalising the court by lowering its authority, interference in the due course of a judicial proceeding, an obstruction in the administration of justice.

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- The act was amended in 2006 in order to include the defence of truth under Section 13 of the original legislation. It states that the court must permit justification by truth as a valid defence if it is satisfied that it is in the public interest.
- The reason why the concept of contempt exists is to insulate the institution from unfair attacks and prevent a sudden fall in the judiciary's reputation in the public eye.

Constitutional Provisions related to this:

- Article 129: It grants the Supreme Court the power to punish for contempt of itself.
- Article 142(2): It enables the Supreme Court to investigate and punish any person for its contempt.
- Article 215: It grants every High Court the power to punish for contempt of itself.
- Concerns- Article 19(1)(a) of the Constitution gives the right to freedom of speech and expression to all citizens, while "contempt provisions" curb people's freedom to speak against the court's functioning.
- The law is very subjective which might be used by the judiciary arbitrarily to suppress their criticism by the public.

Punishment for Contempt of Court

- The Supreme Court and High Courts have the power to punish for contempt of court, either with simple imprisonment for a term up to six months or with fine up to Rs. 2,000 or with both.
- The High Courts have been given special powers to punish contempt of subordinate courts, as per Section 10 of The Contempt of Courts Act of 1971.

Way Forward

- In an era in which social media are full of critics, commentators and observers who deem it necessary to air their views in many unrestrained and uninhibited ways, the higher judiciary should not really be spending its time and energy invoking its power to punish for contempt of itself.
- The law for criminal contempt is completely asynchronous with our democratic system which recognises freedom of speech and expression as a fundamental right.
- Need to revisit the need for a law on criminal contempt, even the test for contempt needs to be evaluated like whether the weather contemptuous

remarks in question actually obstruct the Court from functioning.

- In an existing system in which judges are not expected to disclose the reason for recusing themselves, and even charges of sexual harassment are not credibly investigated, it is only the fear of scandalising the judiciary that restrains much of the media and the public from a more rigorous examination of the functioning of the judiciary.
- The contempt doctrine fell into disuse, and England abolished the offence of "scandalising the court" in 2013 and there is a need to revisit the need for a law on criminal contempt in India also.

Digital education 'PRAGYATA'

In News

The Ministry of Human Resource Development (MHRD) has released guidelines on digital education titled 'PRAGYATA'.

- The guidelines have been prepared by the National Council of Educational Research and Training (NCERT).
- These are only advisory in nature and state governments can formulate their own rules, based on local needs.
- The guidelines include eight steps of online/digital learning i.e. Plan- Review- Arrange- Guide- Yak (talk)- Assign- Track- Appreciate.

Digital Access

- Over 25 crore students across the country have been out of school since mid-March 2020. (owing to Covid-19 pandemic). The guidelines acknowledge that these students live in households which fall into different categories:
 - (i) Those who have computers or smartphones with 4G internet access.
 - (ii) Those with smartphones but limited or no internet access.
 - (iii) Those with television with cable or DTH.
 - (iv) Those with a radio set or a basic mobile phone with FM radio.
 - (v) Those with no communication devices at all.
- It emphasised the aim of digital classrooms is not to try and recreate Face-to-Face (F2F) classrooms over the internet.

Need for Survey

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It advises schools to first survey the digital infrastructure available with teachers as well as students, the levels of parental involvement before making decisions about the mode of teaching.

- Therefore, schools must also make arrangements to reach students who do not have access to any digital infrastructure at home.

Duration

For kindergarten, nursery and pre-school, only 30 minutes of screen time per day for interacting with parents is recommended.

- Schools can hold live online classes for a maximum of 1.5 hours per day for Classes 1-8, and 3 hours per day for Classes 9-12.
- Synchronous or Real-time Communication: This is real-time teaching and learning that can happen collaboratively at the same time with a group of online learners or individuals, and teachers allowing instant feedback, e.g. online teaching through video conference, audio conference, using satellite or telecommunication facilities.

However, schools should not assume that teaching-learning through it is the only requirement in order to support effective digital learning.

Asynchronous Learning

Apart from live classes, it offered a number of recommendations for asynchronous learning with tools to allow students to download lessons or listen to radio and TV programmes, communicate through Whatsapp and SMS, study on their own and undertake creative projects.

Health Issues

- Children exposed to digital technologies or gadgets for a longer time are prone to severe health issues.
- Hence sitting with digital gadgets for longer hours or their excess use can be avoided by designing age appropriate schedules.

Cyber Safety

- It also recommends ethical practices including precautions and measures for maintaining cyber safety.

Convergence

- It envisages convergence with the government initiatives on digital education e.g. SWAYAM Prabha, SWAYAM, DIKSHA and Radio Vahini, Shiksha Vaani.

Common electoral roll

In News

The Prime Minister's Office held a meeting with representatives of the Election Commission and the Law Ministry to discuss the possibility of having a common electoral roll for elections to the panchayat, municipality, state assembly and the Lok Sabha.

Background

The Law Commission recommended it in its 255th report in 2015. The EC too adopted a similar stance in 1999 and 2004.

How many types of electoral rolls do we have in our country and why the distinction?

- In many states, the voters' list for the panchayat and municipality elections is different from the one used for Parliament and Assembly elections.
- This is because the supervision and conduct of elections in our country are entrusted with two constitutional authorities — the Election Commission (EC) of India and the State Election Commissions (SECs).
 - Set up in 1950, the EC is charged with the responsibility of conducting polls to the offices of the President and Vice-President of India, and to Parliament, the state assemblies and the legislative councils.
 - The SECs, on the other hand, supervise municipal and panchayat elections. They are free to prepare their own electoral rolls for local body elections, and this exercise does not have to be coordinated with the EC. Each SEC is governed by a separate state Act.

Do all states have a separate voters list for their local body elections?

- No. Each SEC is governed by a separate state Act.
- Some state laws allow the SEC to borrow and use the EC's voter's rolls in toto for the local body elections.
- In others, the state commission uses the EC's voters list as the basis for the preparation and revision of rolls for municipality and panchayat elections.

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

Why is the Union government working on a common electoral roll for elections to all local bodies, state assemblies and Lok Sabha?

- The common electoral roll is among the promises made by the BJP in its manifesto for the Lok Sabha elections last year.
- It ties in with the party's commitment to hold elections simultaneously to the Lok Sabha, state assemblies and local bodies, which is also mentioned in the manifesto.
- The incumbent government has pitched a common electoral roll and simultaneous elections as a way to save an enormous amount of effort and expenditure.

Supreme Court held that States can sub-classify Scheduled Castes and Scheduled Tribes

In News

A five-judge Bench of the Supreme Court held that States can sub-classify Scheduled Castes and Scheduled Tribes in the Central List to provide preferential treatment to the "weakest of the weak".

Details

- The decision overruled a previous 2005 decision in *E V Chinnaiiah v State of Andhra Pradesh and Others*, also by a five-judge Bench, that state governments had no power to create sub-categories of SCs for the purpose of reservation.
- Since a Bench of equal strength cannot overrule a previous decision, the court also referred it to a 7-judge Bench.
- The judgment was on the constitutional validity of Section 4(5) of the Punjab Scheduled Caste and Backward Classes (Reservation in Services) Act, 2006.
- The act allows 50% of the reserved Scheduled Castes seats in the State to be allotted to Balmikis and Mazhabi Sikhs.

Judgment

- Reservation system has created inequalities within the reserved castes itself. There is a "caste struggle" within the reserved class as benefits of reservation are being usurped by a few.
- Reservation was not contemplated for all the time by the framers of the Constitution.
- Article 334 of the Constitution had originally required the reservation of elected seats to cease in 1960, but it was extended by various amendments. The latest one being the 104th Amendment extending it to 2030.
- If sub-classification is denied, it would defeat the right to equality by treating unequal as equal.
- Article 14 guarantees everyone "equality before law" and "equal protection of law". Equal protection of the laws means that amongst equals the law should be equal and treating unequals as equals will be violation of law.
- Among the SCs, there are some that remain grossly under-represented despite reservation in comparison to other SCs. This inequality within the Scheduled Castes is underlined in several reports, and special quotas have been framed to address it.
- Justice Ramachandra Raju Commission, 1997 recommended sub-dividing the SCs into four groups and apportioning reservations separately for each. It also recommended that Creamy layer of Scheduled Castes be excluded from receiving any reservation benefits in public appointments and admission to educational institutions.
- In Andhra Pradesh, Punjab, Tamil Nadu and Bihar, special quotas were introduced for the most vulnerable Dalits. In 2007, Bihar set up the Mahadalit Commission to identify the castes within SCs that were left behind. In Tamil Nadu, a 3% quota within the SC quota is accorded to the Arundhatiyar caste.
- States have the competence to grant reservation benefits to SCs and STs in terms of Articles 15(4) and 16(4), and Articles 341(1) and 342(1).
- Article 16 (4) provides that the State can make any provision for the reservation of appointments or posts and in matters of promotion in favour of any backward class of citizens who, in the opinion of the state, are not adequately represented in the services under the State.
- Article 15(4) empowers the state to create special arrangements for promoting the interests and welfare of socially and educationally backward classes of the society such as SC and STs.
- As per the Articles 341(1) and 342(1), the President of India, after consultation with the Governor. may specify,

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the castes, races, tribes or parts of groups within castes or races, which shall be deemed to be Scheduled Castes and Scheduled tribes.

Export Preparedness Index

In News

NITI Aayog in partnership with the Institute of Competitiveness released the Export Preparedness Index (EPI) report 2020.

Aim

To identify challenges and opportunities, enhance the effectiveness of government policies and encourage a facilitative regulatory framework for export.

Ranking Parameter

The index ranked states on four key pillars:

- Policy: A comprehensive trade policy providing a strategic direction for exports and imports.
- Business Ecosystem: An efficient business ecosystem helping states attract investments and create an enabling infrastructure for individuals to initiate start-ups.
- Export Ecosystem: Assess the business environment, which is specific to exports.
- Export Performance: This is the only output-based parameter and examines the reach of export footprints of States and Union Territories.

Features

The EPI is a data-driven effort to identify the core areas crucial for export promotion at the sub-national level (states and union territories).

Benefit

The Index would be a helpful guide for the state governments to benchmark regional performance with respect to export promotion and thus deliver key policy insights on how to improve and enhance the exports.

Performance

- Gujarat has topped the overall EPI 2020 followed by Maharashtra and Tamil Nadu.
- Among the landlocked states, Rajasthan has topped the index, followed by Telangana and Haryana.

- Among the Himalayan states, Uttarakhand topped the index, followed by Tripura and Himachal Pradesh.
- Across Union Territories, Delhi has performed the best.

India's Exports

- India's merchandise exports have witnessed growth from USD 275.9 billion in 2016-17 to USD 331.0 billion in 2019-20.
- However, the Covid-19 crisis gave a major blow to the current fiscal. Consequently, India's exports shrank by 60% in April 2020.
- This consistent positive growth has been a result of key measures adopted by the government post-2016 for the promotion of merchandise exports.
- A mid-term review of the Foreign Trade Policy 2015-20 was conducted in 2017 to assess the policy interventions required to boost the export levels.
- A new Logistics Division was established in the Department of Commerce to organize the integrated development of the logistics sector.
- Trade Infrastructure for Export Scheme (TIES) was launched in 2017 to address the existing export infrastructure gaps.
- Agriculture Export Policy was rolled out to target export contribution at a micro-level.
- Transport and Marketing Assistance (TMA) scheme was also introduced for the export of specified agriculture products to mitigate the disadvantage of the higher cost of transportation.

Mulgaonkar principles

In News

Recently, in the criticism against the Supreme Court's ruling that held advocate Prashant Bhushan guilty of contempt of court, his counsel has invoked the 'Mulgaonkar principles', urging the court to show restraint.

Mulgaonkar principles

- Mulgaonkar v Unknown (1978) is a case that led to a landmark ruling on the subject of contempt of court.
- In the verdict which had a 2:1 majority, the court held Mulgaonkar, then editor of The Indian Express, not guilty of contempt although the same Bench had initiated the proceedings.

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- Justices P Kailasam and Krishna Iyer formed the majority going against then Chief Justice of India M H Beg. Justice Iyer's counsel of caution in exercising the contempt jurisdiction came to be called the Mulgaonkar principles.

The case behind the Mulgaonkar principles

- An article by A G Noorani in the Indian Express newspaper about certain judicial decisions during the Emergency period, especially the Habeas Corpus case, had displeased the then CJI Beg.
- The Habeas Corpus case, often referred to as the "Supreme Court's darkest hour" upheld the detention law, citing that even the right to life can be suspended during an emergency.
- Justices A N Ray, Beg, Y V Chandrachud and P N Bhagwati formed the majority while Justice H R Khanna was the sole dissenter in the judgement of the case.
- Initially, the SC Registrar wrote to the editor seeking a retraction and an apology, which did not happen.

The Iyer Ruling of the case

- Justice Iyer said he agreed to initiating contempt proceedings as CJI Beg was anguished but did not agree with pursuing it.
- A similar case involving The Times of India was decided just days earlier, in which Justices Kailasam and N Untwalia had disagreed with CJI Beg forming the majority opinion.
- Underlining his reasons for not exercising the court's power to punish for contempt, Justice Iyer said the first rule in the branch of power is a "wise economy of use by the Court of this branch of its jurisdiction".
- He argued in favour of harmonising "the constitutional values of free criticism, the fourth estate included, and the need for a fearless curial process and its presiding functionary, the judge".

Judgement written by Justice Iyer

- The Court will act with seriousness and severity where justice is jeopardized by a gross and/or unfounded attack on the judges, where the attack is calculated to obstruct or destroy the judicial process.
- The court is willing to ignore, by a majestic liberalism, trifling and venial offenses-the dogs may bark, the caravan will pass. The court will not be prompted to act as a result of an easy irritability.

Opinion of CJI Beg

- Mulgaonkar's response to the Registrar was as if the case was between the newspaper and people, and not between the newspaper and the court.
- Justice is not hubris; power is not petulance and prudence is not pusillanimity, especially when judges are themselves prosecutors and mercy is a mark of strength, not whimper of weakness. Christ and Gandhi shall not be lost on the judges at a critical time when courts are on trial and the people ('We, the People of India') pronounce the final verdict on all national institutions.

The Present Case

- The Supreme Court took suo motu cognisance and initiated the contempt of court case against public rights activist and lawyer Prashant Bhushan.
- This step was taken by the apex court against his tweet criticising the current Chief Justice of India and the role of some Chief Justices of India in the last six years.
- The Supreme Court has held Prashant Bhushan guilty of contempt of court.

Swachh Survekshan 2020

In News

Awards for Swachh Survekshan 2020, the fifth edition of the annual cleanliness urban survey conducted by the Ministry of Housing and Urban Affairs (MoHUA), Government of India were announced.

- Swachh Survekshan 2020 surveyed a total of 4242 cities, 62 Cantonment Boards and 97 Ganga Towns.
- Indore won the title of the Cleanest City of India and Surat and Navi Mumbai won the second and third position respectively (in the > 1 lakh population category).
- Indore has created Record by Winning Title of Cleanest City Fourth Time in A Row.
- Chhattisgarh won the title of the Cleanest State of India in the > 100 ULB category while Jharkhand was adjudged the Cleanest State of India in the <100 ULB category.
- Among the towns along the banks of river Ganga, Varanasi has been awarded the cleanest town award.
- New Delhi has been awarded as the cleanest capital city in the country.
- Jalandhar Cantonment Board was conferred the cleanest cantonment board in the country.

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- Ahmedabad in Gujarat was awarded for being the cleanest city with over 40 lakh population.
- A total of 6 cities (Indore, Ambikapur, Navi Mumbai, Surat, Rajkot and Mysuru) have been rated as 5-star cities, 86 cities as 3-Star and 64 cities as 1-Star, as per MoHUA's Star Rating Protocol for Garbage Free Cities.

Way ahead

- Ministry of Housing and Urban Affairs has stated that "Swachh Survekshan will continue to help us in sustaining the gains made under Swachh Bharat Mission-Urban (SBM-U), while providing a comprehensive roadmap to institutionalize the concept of total Swachhata among all our cities.
- As the performance of cities rightly show, we are well on our way to creating not just a 'Swachh' (clean) but a 'Swasth' (healthy), 'Sashakt' (empowered), 'Sampann' (prosperous) and Atmanirbhar (self-reliant) New India!"

World conference of speakers of parliament

In News

Lok Sabha speaker On Birla attends inaugural ceremony of 5th World conference of speakers of parliament in virtual mode.

- The conference was organized jointly by the Inter-Parliamentary Union (IPU), Geneva, and the Parliament of Austria with the support of the United Nations.
- The theme of the Conference is Parliamentary leadership for more effective multilateralism that delivers peace and sustainable development for the people and planet.
- The Conference is being held in the backdrop of the current crisis of COVID-19 pandemic is expected to strengthen multilateralism and international cooperation in order to rebuild a better world.

Inter-Parliamentary Union

- The Inter-Parliamentary Union is an international organization of national parliaments.
- Its primary purpose is to promote democratic governance, accountability, and cooperation among its members; other initiatives include advancing gender parity among legislatures, empowering youth participation in politics, and sustainable development.

- The organization was established in 1889 as the Inter-Parliamentary Congress.
- As of 2020, the national parliaments of 179 countries are members of the IPU, while 13 regional parliamentary assemblies are associate members.
- The IPU has played a leading role in the development of international law and institutions, including the Permanent Court of Arbitration, the League of Nations, and the United Nations.

PM CARES Fund

In News

The Supreme Court endorsed the PM CARES Fund as a "public charitable trust" to which donors contribute voluntarily.

Details

- There is "no occasion" for the Comptroller and Auditor General (CAG) to audit a public charitable trust independent of budgetary support or government money.
- The court said that it is "not open" for a PIL petitioner to question the "wisdom" that created the fund in an hour of need.
- NGO Centre for Public Interest Litigation, represented by advocate Prashant Bhushan, had argued that the PM-CARES Fund was not subject to CAG audit. It was not under "public scrutiny". Contributions to it were "100% tax-free".
- The court dismissed the idea that the PM CARES was constituted to "circumvent" the National Disaster Response Fund (NDRF) — the statutory fund already in existence under the Disaster Management Act of 2005 to receive contributions to finance the fight against a calamity.
- The court refused to direct the transfer of funds from the PM CARES Fund to the NDRF. It said they were two separate entities.

Economy

Guidelines for Evaluation of Nano-based Agri-input and food products in India'

In News

Union Minister of Science and Technology and Agriculture Minister released the 'Guidelines for Evaluation of Nano-based Agri-input and food products in India'.

The guidelines will pave the way for significant benefits for our mission on 'Doubling Farming Income by 2022' and 'National Mission on Sustainable Agriculture'.

- The Guidelines are aimed to help the policymakers and regulators to frame effective provisions for future novel nano-based products in the agri-input and food sectors of India.
- The guidelines will encourage the Indian innovators and industries to develop and commercialize new nano-based formulations and products in these sectors.
- It is expected that when compared to the bulk form of chemical inputs in crops, the use of nano-nutrients can reduce nutrient run-off into ground and surface water. This will in turn can reduce environmental pollution.
- The formulation of these Guidelines is one of the most important steps for delineating quality, safety, and efficacy assessment of the novel nano-formulations which can be commercialized.
- These guidelines are also aimed to provide transparent, consistent, and predictable regulatory pathways for nano-based agri-input and food products in the country.
- The initiative has been brought on board all the Departments and Ministries that deal with Nanotechnology, and nano-based products.

Production-Linked Incentive (PLI) scheme

In News

Global electronics companies are in final stages of negotiations to benefit from the Ministry of Electronics and Information Technology's (MeitY) production linked incentive (PLI) scheme for making mobile phones and certain other specified electronic components.

PLI scheme

- According to the scheme, companies that make mobile phones which sell for Rs 15,000 or more will get an incentive of up to 6 per cent on incremental sales of all such mobile phones made in India.
- In the same category, companies which are owned by Indian nationals and make such mobile phones, the incentive has been kept at Rs 200 crore for the next four years.
- The scheme on one hand will attract big foreign investment in the sector, while also encouraging domestic mobile phone makers to expand their units and presence in India.

Tenure of the scheme

The PLI scheme will be active for five years with financial year (FY) 2019-20 considered as the base year for calculation of incentives.

\$400 mn currency swap facility for Sri Lanka

In News

The Reserve Bank of India signed a \$400 million currency swap facility for Sri Lanka till November 2022.

Background

- The RBI's action follows a recent bilateral 'technical discussion' on rescheduling Colombo's outstanding debt repayment to India.
- Following the outbreak of COVID-19 in the region, India had proposed a virtual meeting to discuss the request.
- Sri Lanka owes \$960 million to India.
- In turn, Sri Lanka would facilitate, protect and promote a liberal ecosystem for Indian investors.

Currency Swaps

- A currency swap, also known as a cross-currency swap, is an off-balance sheet transaction in which two parties exchange principal and interest in different currencies.
- Currency swaps are used to obtain foreign currency loans at a better interest rate than could be got by borrowing directly in a foreign market.

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How does it work

- In a swap arrangement, RBI would provide dollars to a Lankan central bank, which, at the same time, provides the equivalent funds in its currency to the RBI, based on the market exchange rate at the time of the transaction.
- The parties agree to swap back these quantities of their two currencies at a specified date in the future, which could be the next day or even three months later, using the same exchange rate as in the first transaction.
- These swap operations carry no exchange rate or other market risks, as transaction terms are set in advance.

Benefits of currency swap

- The absence of an exchange rate risk is the major benefit of such a facility.
- This facility provides the flexibility to use these reserves at any time in order to maintain an appropriate level of balance of payments or short-term liquidity.
- Swaps agreements between governments also have supplementary objectives like the promotion of bilateral trade, maintaining the value of foreign exchange reserves with the central bank and ensuring financial stability (protecting the health of the banking system).

RBI releases Financial Stability Report

In News

The Reserve Bank of India released the Financial Stability Report (FSR).

- It reflects the collective assessment of the sub-committee of the Financial Stability and Development Council (FSDC) on risks to financial stability.
- It also assesses the resilience of the financial system in the context of contemporaneous issues relating to development and regulation of the financial sector.
- The COVID-19 pandemic hit India in a period of growth moderation. The ensuing disruptions in demand conditions and supply chains have been aggravated by global spillovers.
- Recently the signs of a gradual recovery from the nationwide lockdown are becoming visible in the economy.
- The financial sector stability is a prerequisite for giving confidence to businesses, investors and consumers and we need to remain extremely watchful and focused.

Highlights of the report

- The global growth outlook for 2018 and 2019 remains steady although the underlying downside risks have risen.
- The spill-over risk to emerging economies engendered by tightening of financial conditions in Advanced Economies, protectionist trade policies and global geopolitical tension has significantly increased.
- The gradual monetary policy normalisation in advanced economies (AEs) as also the uncertainty in global trade regime may adversely affect capital flows to emerging markets (EMs) and exert upward pressure on EM interest rates and corporate spreads.
- In domestic financial markets, structural shifts in credit intermediation and the evolving interconnectivity between banks and the non-banks call for greater vigilance.

Financial Institutions: Performance and risks

- Credit growth of scheduled commercial banks (SCBs) has improved between March 2018 and September 2018, driven largely by private sector banks (PSBs).
- The asset quality of banks showed an improvement with the gross non-performing assets (GNPA) ratio of SCBs declining from 11.5% in March 2018 to 10.8% in September 2018.
- Under the baseline scenario, the GNPA ratio may decline from 10.8% in September 2018 to 10.3% in March 2019.
- Analysis of the financial network structure for the period September 2017 – September 2018 reveals a shrinking inter-bank market and increasing bank linkages with asset management companies-mutual funds (AMC-MFs) for raising funds and with NBFCs/Housing Finance Companies (HFCs) for lending.

Financial sector: Regulation and developments

- In order to finetune the supervisory mechanism for the banks, the Reserve Bank has recently reviewed the structure of supervision in the context of the growing diversity, complexities and interconnectedness within the Indian financial sector.
- The revised prudential framework on stressed assets issued by the Reserve Bank on June 7, 2019 while extending the erstwhile stressed asset resolution

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framework, also builds in incentive for early adoption of a resolution plan (RP).

- To address counterparty concentration risk in the banking sector, the Reserve Bank introduced a revised large exposures framework (LEF) effective April 01, 2019.
- To further enhance the quality of disclosures made by Credit Rating Agencies (CRAs) and strengthen the rating framework, the Securities and Exchange Board of India (SEBI) has introduced Guidelines for Enhanced Disclosures by CRAs.
- To provide flexibility to pension funds to improve fund performance depending on market conditions, the Pension Fund Regulatory and Development Authority (PFRDA) amended the investment guidelines.
- The Insolvency and Bankruptcy Board of India (IBBI) is showing steady progress in the resolution of stressed assets.

Government notifies 100% FDI in Air India for NRIs

In News

The government has notified changes in Foreign Direct Investment (FDI) norms on civil aviation, which will permit non-resident Indian nationals to own 100 per cent stake of Air India.

For the same, necessary amendments have been made in the Foreign Exchange Management Rules (Non-debt Instruments), 2019.

Background

- In March 2020, the Cabinet approved a policy to permit foreign investment up to 100% by those NRIs who are Indian Nationals in Air India through the automatic route.
- Foreign investments in Air India Limited, including that of foreign airlines shall not exceed 49% either directly or indirectly except in case of those NRIs, who are Indian nationals.

New Rules

- Category of Citizens: The amendment removes the exception which permitted Overseas Citizens of India (OCI) 100% FDI in air transport, but not Air India.
- This category of citizens has been replaced with NRIs, now allowed to commit 100% FDI in air transport, including Air India, through automatic route.

- Role of RBI: The Reserve Bank of India (RBI) has been vested with the sole power to issue/interpret the rules regarding 100% FDI of NRIs.
- Previously, it was required to do so in consultation with the Central Government.

Significance

- Disinvestment: It would likely to smoothen the divestment of Air India and have an impact on the sale of the national carrier.
- Substantial ownership and effective control of Air India will have to remain in the hands of Indian nationals after the divestment.
- Further, it will lead to increased FDI inflows and thereby contribute to higher investment, income and employment.
- Liberalisation of FDI: The amendment is meant to liberalise and simplify the FDI policy to provide ease of doing business in the country.
- Global Visibility of Air India: The amendment would boost Brand India and provide global visibility, alternate sources of capital and broaden the investor base for Air India.
- Need for Privatisation: Privatisation is necessary as airlines have been under strain due to Covid-19 pandemic.
- Further, the government may not be in a position to fulfill the demands being made by Air India in the current situation, like providing measures for relief to its employees.

Bamboo clusters

In News

Centre to develop three Bamboo Clusters in Jammu, Katra and Samba areas of J&K.

- Minister of Development of North Eastern Region (DoNER) Jitendra Singh has said that three Bamboo Clusters will be developed in Jammu, Katra and Samba areas for making of Bamboo basketry, Agarbatti and Bamboo Charcol.

Details

- It will provide direct employment to nearly 25 thousand people.

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- Apart from this a Mega Bamboo Industrial Park at Ghati near Jammu and Bamboo Technology Training Centre will also come up in the region.
- A team from his Ministry will soon visit Jammu and explore a field training programme for Bamboo farming in the region.

Bamboo's economic importance

- Bamboos are of notable economic and cultural significance in South Asia, Southeast Asia and East Asia, being used for building materials, as a food source, and as a versatile raw product.
- Bamboo, like wood, is a natural composite material with a high strength-to-weight ratio useful for structures.
- Bamboo's strength-to-weight ratio is similar to timber, and its strength is generally similar to a strong softwood or hardwood timber.

Sustainable Finance Collaborative

In News

The Department of Economic Affairs (DEA), Ministry of Finance, Government of India, in collaboration with the United Nations Development Programme India launched the Sustainable Finance Collaborative.

Details

The Collaborative saw a host of thematic discussions centred around the broad scope of Sustainable Finance architecture in India.

It included dialogues on:

- Barriers to deploying new and innovative financing such as impact investing
- Role of blended finance instruments
- Green finance instruments for sustainable development
- Need for taxonomy of environmentally sustainable activities

E-Auction Portal for the trading of GI-tagged 'Kashmir Saffron'

In News

Jammu and Kashmir's agriculture department has created an e-auction portal to promote trading of GI-tagged 'Kashmir Saffron'.

- The main aim of the portal is to make sure the buyers have quality access to Kashmir Saffron. The portal will help in hassle free e-trading between the registered growers and buyers.
- There are three types of saffron available in Kashmir namely Lachha Saffron, Mongra Saffron and Guchhi Saffron.

Kashmiri Saffron

- It is cultivated and harvested in the Karewa (highlands) of Jammu and Kashmir in the districts of Pulwama, Budgam, Kishtwar and Srinagar.
- It is grown at an altitude of 1,600 meters and it has been given the GI tag
- Kashmir saffron faces stiff competition from Iranian saffron, which has captured over 90% share of the world market.
- Characteristics – Natural deep-red colour, aroma, bitter flavour, etc.

GI Tag

- A geographical indication is a name or sign used on products which correspond to a specific geographical location or origin.
- It possess the qualities or reputation that are inherent in the products due to that origin.
- It is used for natural, agricultural and manufactured goods.
- The Department for promotion of industry and internal trade (DPIIT) under the Ministry of Commerce and Industry, provides the GI tag in India.

Consumer Protection (E-Commerce) Rules, 2020

In News

The government has notified the 'Consumer Protection (E-Commerce) Rules, 2020' on 23rd July, 2020. These are the new rules and regulations for ecommerce companies under the Consumer Protection Act 2019.

Features

- It aims to protect the rights of consumer by establishing authorities for timely and effective administration and settlement of consumers' disputes.

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- The rules will be applicable to all electronic retailers registered in India or abroad but offering goods and services to Indian consumers.
- The violation of the rules will attract penal action under the Consumer Protection Act, 2019.
- The e-commerce players will have to display the total price of goods and services offered for sale along with the break-up of other charges.
- They are also required to mention the 'expiry date' of goods offered for sale and the 'country of origin' of goods and services that are necessary for enabling the consumer to make an informed decision at the pre-purchase stage.
- It empower the central government to act against unfair trade practices in ecommerce and direct selling. They require e-tailers to facilitate easy returns, address customer grievances and prevent discriminating against merchants on their platforms.
- Marketplaces as well as sellers would be required to have grievance officers who have to respond in a time-bound manner.
- E-commerce companies are not allowed to "manipulate the price" of the goods and services offered on their platforms to gain unreasonable profit and discriminate between consumers of the same class.
- The new rules do not permit any inventory e-commerce entity to "falsely represent itself as a consumer and post reviews about goods and services or misrepresent the quality or the features of any goods and services"

Bharat Bond ETF

In News

The Department of Investment and Public Asset management (DIPAM) has recently decided to release the Second tranche of Bharat Bond ETF.

- ETF is a fund that is created by pooling together assets and then dividing this accumulated asset into individual units that are traded on the stock exchange. The value of the ETF comes from the value of the underlying assets (shares of stock, bonds, foreign currency, etc.). These ETFs are listed in the stock exchanges are similar to like shares and can be traded like ordinary shares. In nature, the ETFs are index funds because they comprise of shares of different companies.

- A bond ETF invests in a basket of bonds in the underlying index. It can invest in the government, corporate, or public sector unit bonds.

Features

- The Bharat Bond ETF is basket of bonds issued by CPSE/CPSU or any other Government organization. These Bonds are tradable on secondary market.
- The unit size of Bharat bond ETF has been kept at smaller value of Rs 1000 to attract retail investors.

Leasing out Airports

In News

Union Cabinet Approves Proposal for Leasing out Three Airports of Airports Authority of India (AAI) through Public Private Partnership (PPP) for Operation, Management and Development.

- Namely Jaipur, Guwahati and Thiruvananthapuram airports.

Background

- Government had leased out the Airports Authority of India's airports at Delhi and Mumbai on Public Private Partnership for Operation, Management and Development about a decade ago.
- PPP experiments have helped create world class airports and helped in delivery of efficient and quality services to the airport passengers.
- The PPP airports in India are consistently ranked among the top 5 in their respective categories by the Airports Council International (ACI) in terms of Airport Service Quality (ASQ).

Public-Private Partnership (PPP) model

- It is an agreement between a public/ government entity and a private entity which is usually entered into with the purpose of providing public goods and/or services for an agreed time period.
- Under this model, each entity has a clearly defined set of roles and responsibilities and the private entity is selected on the basis of open competitive bidding.
- This model involves full retention of responsibility by the government for providing the services, it doesn't amount to privatization.

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Airports Authority of India

- The Airports Authority of India is a statutory body (created through the Airports Authority of India Act, 1994) working under the Ministry of Civil Aviation, is responsible for creating, upgrading, maintaining and managing civil aviation infrastructure in India.
- It provides Communication Navigation Surveillance / Air Traffic Management (CNS/ATM) services over Indian airspace and adjoining oceanic areas.
- The Government of India constituted the International Airports Authority of India (IAAI) in 1972 to manage the nation's international airports while the National Airports Authority of India (NAAI) was constituted in 1986 to look after domestic airports.
- The organisations were merged in April 1995 by an Act of Parliament, namely, the Airports Authority of India Act, 1994 and has been constituted as a Statutory Body and was named as Airports Authority of India (AAI).

Industrial Informal System

In News

Department for promotion of Industry & Internal Trade (DPIIT, under the Ministry of Commerce and Industry) has developed Industrial Informal System (IIS) portal.

- It is a GIS enabled database of Industrial areas/clusters across the country to adopt committed approach towards resource optimisation, industrial upgradation and sustainability.
- The portal serves as a one-stop solution to the free and easy accessibility of all industrial information including availability of raw material "agriculture, horticulture, minerals, natural resources; distance from key logistic nodes; layers of terrain and urban infrastructure.
- The initiative is being supported by Invest India, the national investment promotion & facilitation agency, National Center of Geo-Informatics (NCoG), National eGovernance Division (NeGD), Ministry of Electronics & Information Technology and Bhaskaracharya Institute for Space Applications and Geo-Informatics (BISAG).

Industrial Information System (IIS) aims to provide:

- Information on available land for prospective investors looking at setting up units in the Country
- GIS Mapping of Industrial Clusters

- The system also holds the information about the existing External and Internal Infrastructure such as rail, road, air and port connectivity and other common facilities in and around the manufacturing clusters
- Links to State GIS Portals and State Land Banks

International Relations

US eases drone export standards

In News

The US relaxed standards for exporting drones to friendly countries.

Key points

- Under the new policy, drones that fly at speeds below 800 km per hour are no longer subject to the Missile Technology Control Regime (MTCR).
- Higher-speed systems such as cruise missiles, hypersonic aerial vehicles, and advanced unmanned combat aerial vehicles are not affected by this revision.
- As of now only three countries England, France and Australia are allowed to buy larger, armed drones from US manufacturers.

Advantages

- The move will increase the US's national security and economic security by improving the capabilities of its partners and by the expanding drones market to the US industry
- It modernises the US approach to implement its MTCR commitments and makes it more reflective of the technological realities.

Concern

- The Missile Technology Control Regime adopted stringent controls on exports of advanced drones and this move can disregard this policy and is likely to undermine the credibility and influence of the MTCR.

Missile Technology Control Regime (MTCR)

- It is an informal political understanding among states that seek to limit the proliferation of missiles and missile technology.

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- The regime was formed in 1987 by the G-7 industrialized countries (Canada, France, Germany, Italy, Japan, the UK, and the United States).
- Objectives- It seeks to limit the risks of proliferation of weapons of mass destruction (WMD) by controlling exports of goods and technologies that could make a contribution to delivery systems (other than manned aircraft) for such weapons.
- It places particular focus on rockets and unmanned aerial vehicles which are capable of delivering a payload of at least 500 kg to a range of at least 300 km and on equipment, software, and technology for such systems

India-UN virtual summit

In News

India and the European Union (EU) held their 15th “annual” summit after a gap of more than two years. The practice was put off due to disagreements over trade and investment that define their bilateral ties.

- EU & India have been planning a free trade deal since 2007.
- The EU is India’s largest trading partner.

India-EU Strategic Partnership

- India-EU Strategic Partnership: A Roadmap to 2025 has been endorsed between India and EU as a common roadmap to guide joint action and further strengthen the Strategic Partnership over the next five years.
- Same Values: India and EU both are "unions of diversity", sharing values of democracy, rule of law and human rights. Both are equally convinced of the necessity to preserve the rules-based international order and effective multilateralism.
- Common Interests: Both have a common interest in each other's security, prosperity and sustainable development. They can contribute jointly to a safer, cleaner and more stable world.

Trade Pact

- India and EU have agreed to launch a high-level trade dialogue to foster progress on “balanced, ambitious and mutually beneficial” trade and investment agreements, address trade irritants and discuss supply chain linkages.
- High-level trade dialogue will be held between the EU trade commissioner and India’s Commerce Minister.

- India and EU had launched talks for having a wide-ranging Free Trade Agreement (FTA), officially called broad-based Bilateral Trade and Investment Agreement (BTIA), long ago in 2007.
- The BTIA was proposed to encompass trade in goods, services and investments. However, the talks stalled in 2013 over differences on market access and movement of professionals.

Civil Nuclear Cooperation

- A civil nuclear cooperation agreement was signed between the European Atomic Energy Community or Euratom and Department of Atomic Energy, India.
- The agreement will focus on research and development cooperation for peaceful uses of nuclear energy and on new ways of using nuclear energy.

Defence and Security Cooperation

- The launch of a new maritime security dialogue.
- Consultations on crisis management and deeper cooperation between the Indian Navy and the European Union Naval Force Atalanta.
- The EU’s counter-piracy military operation in the western Indian Ocean.
- The EU officials described the recent India-China border standoff on the Line of Actual Control (LAC) as a matter of considerable concern.
- India’s Central Bureau of Investigation (CBI) and Europol launched negotiations to combat organised crime and terrorism.
- Both decided to intensify cooperation to tackle terror and its financing, radicalisation and abuse of the internet for such activities.
- Pakistan’s support for terrorism aimed at India and other countries in the region was also figured in the discussions.

Other Negotiations

- A joint declaration on circular economy and resource efficiency.
- A circular economy is an economic system aimed at eliminating waste and the continual use of resources.
- The renewal of a science and technology cooperation agreement and stepping up cooperation in environment and climate change.

Issues Involved

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- The EU is critical about India's "protectionist" measures on tariffs, on opening up India's services sector for European Companies and the termination of bilateral investment treaties with 25 EU member states.
- The EU also views India's recent Atma Nirbhar Bharat Abhiyaan as an initiative which might lead to protectionism.
- The trade relationship is also far below the potential, with India accounting for less than 3% of EU's total trade.
- The EU has been critical over the removal of Article 370 in Jammu and Kashmir as well as the Citizenship Amendment Act, which according to India is an internal matter.

Way Forward

- There is a need for comprehensive trade agreement that brings in strong rules, removes barriers to trade in goods and services and investments and opens up free markets. Addressing the mutual trust deficit, facilitating people's mobility and connectivity can improve mutual understanding and create opportunities for innovation and growth.
- Enhanced business cooperation between EU and India can diversify their strategic value chains and reduce economic dependency — notably on China.
- Europe's dependence on Asia for life-saving health goods has been revealed during the current pandemic. With India's vast drug manufacturing capabilities and the EU's technical expertise, a partnership between the two for the exchange of ideas, innovations, and capabilities in the health sector will benefit both regions.
- India and the EU can also cooperate over Information Communication Technology, which could help India to build strategic autonomy in the digital sphere and bring investments in emerging and disruptive technologies.

Chabahar Port

In News

India and Iran had signed an agreement to construct a rail line from Chabahar port to Zahedan, along the border with Afghanistan.

- Now Iran has started the development of the rail line on its own. Iran has cited delays from the Indian side in funding and starting the project.

- The railway project was being developed as part of trilateral agreement between India, Iran and Afghanistan. IRCON had signed an MoU in this regard.

Strategic importance of Chabahar Port for India

- It is located in the Gulf of Oman, near Iran's border with Pakistan. It serves as Iran's only major oceanic port because it is the only major port of Iran that lies beyond the Strait of Hormuz and has direct access to the Indian Ocean.
- Chabahar port in Iran connects to Afghanistan at the Zaranj and Deleram highway. Chabahar port to Deleram is approx. 1800 km.
- This highway then links it to the Afghan 'garland road' or 'Ring Road' that connects the major Afghan cities of Herat, Kandahar, Kabul and Mazar-e-Sharif.
- Chabahar port is the nearest Iranian port to India, which is at approx. 1020km from Kandla port, Gujarat or 1560km from Mumbai.
- The port also serves as the nearest port entry, after Pakistani ports, for India into Central Asia.
- Chabahar Port also provides direct access to India's Farkhor Air Base in Tajikistan.
- India and Afghanistan have been able to bypass Pakistan for trade exchange and can trade goods through the Chabahar port.
- With the help of the port, India has showcased commitment to the reconstruction and re- building of post-war Afghanistan and augmented its Soft Power status in Afghanistan.

Why India Delayed the construction?

India remained reluctant to start the work because of the fears of attracting US sanctions. U.S. had provided a sanctions waiver for the Chabahar port and the rail line to Zahedan, but it has been difficult to find equipment suppliers and partners due to worries they could be targeted by the U.S.

Afghanistan–Pakistan Transit Trade Agreement (APTTA)

In News

Traders in Punjab's Amritsar are upbeat about resuming their business after Pakistan recently allowed Afghanistan to send goods to India using the Attari-Wagah border under the Pakistan-Afghanistan Transit Trade Agreement.

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- Both Pakistan and India had suspended trade through the Attari-Wagah border in March to deal with the ongoing COVID-19 pandemic.

APTTA

- The APTTA is a bilateral trade agreement signed in 2010 by Pakistan and Afghanistan. Afghanistan is a landlocked country and hence it is critically dependent on Pakistan for trade. Hence, this treaty was meant to provide greater trade integration among these two nations.
- It allows for both countries to use each other's airports, railways, roads, and ports for transit trade along designated transit corridors.
- The agreement does not cover road transport vehicles from any third country, be it from India or any Central Asian country.
- The signed Agreement permits Afghanistan trucks access to the Wagah border with India, where Afghan goods will be offloaded onto Indian trucks.
- This agreement does not permit Indian goods to be loaded onto trucks for transit back to Afghanistan.

14th India-Singapore Defence Policy Dialogue (DPD)

In News

The 14th India-Singapore Defence Policy Dialogue (DPD) was held via video conferencing.

- It was co-chaired by Defence Secretary Dr Ajay Kumar and Permanent Secretary (Defence), Singapore Mr Chan Heng Kee.
- Both sides held discussions on a number of issues of bilateral defence engagements between India and Singapore. Both sides committed to further enhance the security partnership between the two countries.
- At the end of the DPD, the Implementing Arrangement on Humanitarian Assistance & Disaster Relief (HADR) between India and Singapore was also signed.

Defence Cooperation

- India and Singapore began their annual naval combat exercise called the SIMBEX in 1994.
- In 2003, the countries signed an agreement that allowed the Singapore army to conduct training on Indian soil.

- In 2015, the countries signed agreement for strategic relationship in security, military, intelligence cooperation, political exchanges, cooperation in multilateral forums, and to improve air connectivity.
- In 2017, the countries signed a naval cooperation that aimed to boost maritime security, mutual logistics and joint exercises. This agreement also permits ships of navy to restock, refuel, and rearm at each other military bases.
- In 2018, the countries signed a bilateral agreement that gave Indian Navy ships access to Changi Naval Base of Singapore.

ASEAN-India Network of Think Tanks

In News

The Ministry of External Affairs in partnership with the Foreign Ministry of Thailand has organized the 6th Round Table of ASEAN-India Network of Think Tanks (AINTT).

- The ASEAN-India Centre (AIC) at the Research and Information System for Development Countries (RIS) and ASEAN Studies Centre (ASC) at Chulalongkorn University, Bangkok were the organizing partners of the Round Table.
- The theme of the Round Table was 'ASEAN-India: Strengthening Partnership in the Post COVID Era'.
- The Round Table had five thematic sessions spread over two days namely:
 - (i) Changing Landscape of Global Order and ASEAN-India relations in the post Covid-19 Era
 - (ii) Emerging Value Chains: Opportunities for ASEAN and India in the post Covid-19 Era
 - (iii) New Normal and Significance of 4IR on ASEAN-India Partnership and Future Collaborations
 - (iv) ASEAN Outlook on Indo-Pacific (AOIP)
 - (v) Indo-Pacific Oceans Initiative (IPOI): Complementarities and Cooperation
- The ASEAN-India Round Table comprising think tanks, policy makers, scholars, media and business representatives was established at the 7th ASEAN-India Summit in Thailand in 2009 to provide policy inputs to Governments on future direction of cooperation.
- The forum serves as a high-quality research platform and provides long-term perspectives to further strengthen ASEAN-India Strategic Partnership.

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UAE, Israel establish direct phone service after deal

In News

The Israeli and UAE Foreign Ministers inaugurated direct phone services between the two countries in their first announced call after an agreement to normalise relations.

The deal

- The Israel-UAE deal, announced by U.S. President Donald Trump, is only the third such accord Israel has struck with an Arab country, and raise the prospect of similar deals with other pro-western Gulf states.
- Under the deal, Israel pledged to suspend its planned annexation of West Bank territories, a concession welcomed by European and some pro-western Arab governments as a boost for hopes of peace.

Science & Technology

Early Galaxy "AUDFs01" detected

In News

One of the earliest galaxies called AUDFs01 has been discovered using AstroSat.

Details

- A team of astronomers detected extreme-Ultraviolet (UV) light originating from a galaxy called AUDFs01 that is 9.3 billion light-years away from Earth.
- There are three subdivisions of ultraviolet radiation: near-ultraviolet (NUV), middle ultraviolet (MUV), far-ultraviolet (FUV), and extreme ultraviolet (EUV).
- Discovered by a team of Scientists from the Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune.
- The team comprises scientists from India, Switzerland, France, USA, Japan and Netherlands.

The galaxy AUDFs01

- The galaxy AUDFs01 is located in the Hubble eXtreme Deep Field (XDF).

- The XDF was assembled by combining 10 years of photographs captured of a patch of sky at the centre of the original Hubble Ultra Deep Field by the Hubble Telescope.

AstroSat

- AstroSat is India's first mission that focuses solely on astronomy and is a multi-wavelength satellite. At any given point, it has five X-ray and ultraviolet telescopes working in tandem. It was first launched in 2015 and is supposed to have a mission life of five years.
- Using one of the six payloads onboard the satellite, the UVIT- the observation showed that the galaxy AUDFs01 is the first example of a galaxy with clumpy morphology and leaking ionizing radiation.

ISRO releases Mars's latest image

In News

Indian space agency released an image of Phobos, the closest and biggest moon of Mars by the Mars colour Camera on board the Mars Orbiter Mission (MOM).

- According to Indian Space Research Organisation (ISRO), the image was clicked by MOM when it was about 7,200 km from Mars and 4,200 km from Phobos.
- Spatial resolution of the image is 210 m. This is a composite image generated from 6 MCC frames and has been colour corrected.
- Phobos is largely believed to be made up of carbonaceous chondrites.

Phobos

- Phobos is the innermost and larger of the two natural satellites of Mars, the other being Deimos. Both moons were discovered in 1877 by American astronomer Asaph Hall.
- Phobos is a small, irregularly shaped object with a mean radius of 11 km and is seven times as massive as the outer moon, Deimos.

The concept of herd immunity

In News

- The second serological survey in national capital found the presence of coronavirus-specific antibodies in about 29% of the samples tested.

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- On the other hand, 70 per cent of people in Delhi have not developed antibodies, which means that we are still far away from reaching the stage of herd immunity.

Serological survey

- It was meant to detect whether the person being tested had developed antibodies against the COVID-19.
- The survey was carried out to assess how widespread Covid-19 could have become.
- As it is not possible to test everyone, it is still not clear how many people in the population are infected, especially since most of the patients are asymptomatic.
- However, detecting antibodies in random sets of people is an indirect way of estimating the extent of disease spread in a community.
- Since random people were tested, the survey indicated that the spread of the disease was much wider than what diagnostic tests suggest.
- Information about the extent of the spread of the virus is very important for authorities to make decisions and plan containment measures.
- However, according to the scientists, the suggestion that herd immunity could be achieved in the near future was problematic.

Do antibodies ensure Immunity?

- The mere presence of the antibodies does not mean that the person is protected against the disease.
- These are two different things that holds importance
 - (i) The amount of antibodies present
 - (ii) Whether it also includes what are known as “neutralizing antibodies”. (Neutralizing antibodies are the ones that actually fight the disease)
- However, serological surveys are not designed to assess either the quantity of antibodies or detect the presence of neutralizing antibodies.

Herd immunity

- Herd immunity is a stage of an epidemic disease in which some members of a population group remain protected from infection because a majority of those around them have already developed immunity.
- This may be achieved either through vaccination or because they have been infected earlier.
- Therefore, everyone in the population group does not need to get infected before the epidemic is over.

- Once a certain proportion of the population gets infected by a disease the epidemic begins to slow down and eventually stop.
- However, it is unclear what percentage of the population needs to be infected before herd immunity kicks in.
- In the case of measles, herd immunity reaches only when 85% to 90% of the population attains immunity.
- In some other diseases, the threshold could be lower.
- For current coronavirus, it has been suggested that between 55-70% of the population would need to be infected before herd immunity would develop.

Survey findings

- The survey indicate a very significant slowdown in the spread of the disease in the national capital.
- The Pune survey reported antibodies in over 51 per cent of the participants, while Mumbai, where the exercise was conducted last month, had found about 40 per cent participants with antibodies.

Chinese new Type-054 class Frigate

In News

China has launched first of the four advanced naval warships it is building for Pakistan, amid deepening defence ties between the two all-weather allies.

- Pakistan-China defence ties turn a new chapter with the launch of the first ship of Type-054 class frigate.
- The Type-054 class, equipped with the latest surface, subsurface, anti-air weapons, combat management system, and sensors, will be one of the technologically advanced surface platforms of the Pakistan Navy fleet, the report said.
- Pakistan signed a contract with the China Shipbuilding Trading Company Ltd. (CSTC) for the delivery of two Type-054 A/P frigates in 2017. Last year, the Chinese official media reported that China would build four advanced frigates for Pakistan Navy.

Microsoft Initiative

In News

Microsoft Corp has announced a new global skills initiative aimed at bringing more digital skills to 25 million people worldwide by the end of the year.

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About initiative

- The comprehensive technology initiative will build on data and digital technology.
- It will give people access to data on jobs and skills from the LinkedIn Economic Graph, provide free access to content in LinkedIn Learning, Microsoft Learn, and the GitHub Learning Lab, and couple these with Microsoft Certifications and LinkedIn job-seeking tools.
- These resources will be available online in four languages: English, French, German and Spanish.
- The announcement comes in response to the global economic crisis caused by the covid-19 pandemic and will bring together every part of the company, combining existing and new resources from LinkedIn, GitHub and Microsoft.
- Microsoft also announced that it is creating a new learning app in Microsoft Teams designed to help employers skill and upskill new and current employees as people return to work and as the economy adds jobs.

BIS-Care

In News

Union Consumer Affairs Minister has launched the Bureau of Indian Standard(BIS) Mobile App named "BIS-Care".

Details

- The app aims to allow consumers to check the authenticity of the ISMarked and hallmarked products and also lodge complaints using the application.
- It came into existence in 1986 under BIS Act,1986 and was established as the National Standard Body of India under the BIS Act 2016 for the harmonious development of the activities of standardization, marking and quality certification of goods.
- **Nodal Ministry:** Ministry of Consumer Affairs, Food & Public Distribution.
- **President:** Union Consumer Affairs Minister is the ex-officio President of the BIS

Naval Innovation and Indigenisation Organisation (NIIO)

In News

The NIIO puts in place dedicated structures for the end users to interact with academia and industry towards

fostering innovation and indigenisation for self-reliance in defence in keeping with the vision of Atmanirbhar Bharat.

- The NIIO is a three-tiered organisation. Naval Technology Acceleration Council (N-TAC) will bring together the twin aspects of innovation and indigenisation and provide apex level directives. A working group under the N-TAC will implement the projects. A Technology Development Acceleration Cell (TDAC) has also been created for induction of emerging disruptive technology in an accelerated time frame.
- The Draft Defence Acquisition Policy 2020 (DAP 20) envisages Service Headquarters establishing an Innovation & Indigenisation Organisation within existing resources. Indian Navy already has a functional Directorate of Indigenisation (DoI) and the new structures created will build upon the ongoing indigenisation initiatives, as well as focus on innovation.

Social Issues

State of Food Security and Nutrition in the World 2020 (SOFI)

In News

The State of Food Security and Nutrition in the World (SOFI) 2020 report has been released.

- It is an annual flagship report jointly prepared by FAO, IFAD, UNICEF, WFP and WHO to inform on progress towards ending hunger, achieving food security and improving nutrition and to provide in depth analysis on key challenges for achieving this goal in the context of the 2030 Agenda for Sustainable Development.
- The report was released in New York on the sidelines of the High-Level Political Forum on Sustainable Development which tracks the progress of nations towards achieving Sustainable Development Goals 2030.

Findings

- The report underlines that in line with findings in the previous editions, hunger continues to be on the rise since 2014.
- The global prevalence of undernourishment, or the overall percentage of hungry people, is 8.9%.

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- Asia remains home to the greatest number of undernourished (38 crores), Africa is second (25 crores), followed by Latin America and the Caribbean (4.8 crores).
- According to current estimates, in 2019, 21.3% (14.4 crores) of children under 5 years were stunted, 6.9% (4.7 crores) wasted and 5.6% (3.8 million) overweight.
- The report highlights that a healthy diet costs more than ₹143 (or \$1.90/ day), which is the international poverty threshold.
- The number of people globally who can't afford a healthy diet is at 300 crore people, or more than the combined population of China and India.

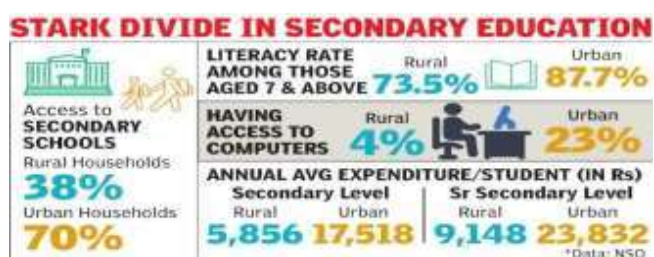
Concerns

- It warned that between 8.3 crore and 13 crore people globally are likely to go hungry in 2020 due to the economic recession triggered by COVID-19.
- The heads of the five agencies (that jointly produce the report) warn "five years after the world committed to end hunger, food insecurity and all forms of malnutrition, we are still off track to achieve this objective by 2030."
- Estimates drawn from data available till March 2020 show that almost 69 crore people went hungry in 2019 — up by 1 crore in 2018.

Rural-Urban gap in Education

In News

The National Statistical Office (NSO) released a report on "Household Social Consumption: Education" in which it



surveyed 1.13 lakh households spread across over 8,000 villages and 6,000 urban blocks between July 2017 and June 2018.

Details

- The rural-urban gap remains significant in literacy, accessibility to schools and household expenditure on education.

- On Accessibility to schools, 7% of the rural households have a primary school within 1 km as compared to 87.2% in urban areas. But only 38% of the rural household have access to secondary school as compared to 70% in the urban areas on similar parameters.
- The all India literacy rate among persons aged 7 years and above is 77.7%. However, for the same age group, the rural literacy is 73.5% and in the urban areas it is 87.7%.
- There is a digital divide, too, with just 4% of the rural households having access to computers as compared to 23% in urban areas. While 15% surveyed population in the rural cluster has internet access, 42% of the surveyed students in the urban areas have access to the internet.
- Annual average expenditure per student at secondary and senior secondary level in a rural household stands at Rs 5,856 and Rs 9,148 respectively. An urban household for the same classes spends Rs 17,518 and Rs 23,832 respectively.
- Around 76% of the rural children are attending primary and middle school run by the government, while only 38% of the urban children are attending government schools and instead prefer private schools.

Digital Divide

A digital divide is any uneven distribution in the access to, use of, or impact of information and communications technologies (ICT) between any number of distinct groups, which can be defined based on social, geographical, or geopolitical criteria, or otherwise.

NRI unified portal

In News

Chief Minister Yogi Adityanath launched an ambitious NRI unified portal.

Details

- In Uttar Pradesh, the State Government will prepare a database of the migrant workers of the state working in different countries of the world.
- It will help in providing them assistance during any emergency.
- The portal would also prove helpful to overseas Indians and NRIs to get their problems with the local administration or the State Government resolved.
- People who are living abroad, and are in constant touch with their village and family, they could use this

platform to help their families to resolve the problems related to their house and issues with local administration.

National Council for Transgender Persons

In News

In exercise of the powers conferred by section 16 of the Transgender Persons (Protection of Rights) Act, 2019 (40 of 2019), the Central Government has constituted a National Council for Transgender Persons.

- The Union Minister of Social Justice & Empowerment will be Chairperson (ex-officio) and Union Minister of State for Social Justice & Empowerment will be Vice-Chairperson (ex-officio).
- The other members of the Council include representatives of various Ministries/Departments, five representatives of transgender community, representatives of NHRC and NCW, representatives of State Governments and UTs and experts representing NGOs.
- A Member of National Council, other than ex officio member, shall hold office for a term of three years from the date of his nomination.

The National Council shall perform the following functions:

- (a) To advise the Central Government on the formulation of policies, programmes, legislation and projects with respect to transgender persons
- (b) To monitor and evaluate the impact of policies and programmes designed for achieving equality and full participation of transgender persons
- (c) To review and coordinate the activities of all the departments of Government and other Governmental and non-Governmental Organisations which are dealing with matters relating to transgender persons
- (d) To redress the grievances of transgender persons
- (e) To perform such other functions as may be prescribed by the Central Government.

Transgender

Transgender people have a gender identity or gender expression that differs from their sex assigned at birth.

Some transgender people who desire medical assistance to transition from one sex to another identify as transsexual. Transgender, often shortened as trans, is also an umbrella term.

Health

Indigenous vaccine for pneumonia gets nod

In News

The Drug Controller General of India (DCGI) has approved the first fully indigenously developed conjugate vaccine for pneumonia.

Details

- The vaccine is developed by the Serum Institute of India Pvt. Ltd, Pune.
- It has been granted permission to manufacture the first domestically-developed Pneumococcal Polysaccharide Conjugate Vaccine.
- Earlier the demand for such vaccine was substantially met by licensed importers since the manufacturers were all based outside India.
- Serum Institute of India has become the first to manufacture an indigenously developed pneumococcal vaccine.
- This vaccine is used for active immunisation against invasive disease and pneumonia caused by "streptococcus pneumonia" in infants and is administered intramuscularly.

Snakebite deaths in India

In News

- Recently, a study conducted by the Centre for Global Health Research (CGHR) at the University of Toronto (Canada), with Indian and United Kingdom as partners, has revealed that India recorded 1.2 million snakebite deaths from 2000 to 2019 (i.e. an average of annual 58,000 deaths).
- Earlier, in the largest ever such survey published in 2011 titled 'Snakebite Mortality in India: A Nationally Representative Mortality Survey', estimated 46,000 annual snakebite deaths in India.

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Details

- Half of all the snakebite deaths occurred during the monsoon period from June to September.
- Around 70% of deaths occurred in limited, low altitude, rural areas of the following States — Bihar, Jharkhand, Madhya Pradesh, Odisha, Uttar Pradesh, Andhra Pradesh, Telangana, Rajasthan and Gujarat.
- The numbers for annual snakebite deaths were highest in the states of Uttar Pradesh, Andhra Pradesh, and Bihar.
- The snakebite deaths occurred mostly in rural areas (97%), were more common in males (59%) than females (41%), and peaked at ages 15-29 years (25%).
- The overall lifetime risk of being killed by snakebite is about 1 in 250, but in some areas, the lifetime risk reaches 1 in 100.
- It also indicated that most of the envenomation (the process by which venom is injected by the bite or sting of a venomous animal) was by Russell's vipers followed by Kraits and Cobras.

Solutions

- **Immediate Action:** As India has tremendous snakebite burden and the World Health Organization (WHO) recognises snakebite as a top-priority Neglected Tropical Disease (NTD), there is a need for immediate action.
- **Snake Safe Harvest Practices:** The primary victims of snakebites are rural farmers and their families. Targeting certain areas and educating people with simple methods such as 'snake-safe' harvest practices — using rubber boots and gloves, mosquito nets and rechargeable torches (or mobile phone flashlights) — could reduce the risk of snakebites.
- **Snake Species Database:** Habitat details, clear photographs and geographical distribution in the form of snake database would help in the identification of the venomous and nonvenomous snake species.
- **Anti-Venom:** India has sufficient capacity to manufacture large volumes of anti-venom. However, Indian anti-venoms neutralise venom from only spectacled cobra, common krait, Russell's viper and saw-scaled viper, whereas there are 12 other snake species causing fatal bites that are not covered by current anti-venoms.
- Antivenoms are the medicines produced from antibodies made by animals to injected venoms.

- It is given to stop snake venom from binding to tissues and causing serious blood, tissue, or nervous system problems.

Decline in Maternal Mortality Ratio

In News

- Recently, the Office of the Registrar General's Sample Registration System (SRS) has released a special bulletin on Maternal Mortality in India 2016-18.
- As per the World Health Organization, maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, from any cause related to or aggravated by the pregnancy or its management.

Maternal Mortality Ratio of the Country

- MMR has declined to 113 in 2016-18 from 122 in 2015-17 and 130 in 2014-2016.
- MMR is defined as the number of maternal deaths during a given time period per 1,00,000 live births during the same time period.
- The target 3.1 of Sustainable Development Goals (SDGs) set by the United Nations aims at reducing the global maternal mortality ratio to less than 70 per 1,00,000 live births.

MMR of Various States

- Assam (215), Uttar Pradesh (197), Madhya Pradesh (173), Rajasthan (164), Chhattisgarh (159), Odisha (150), Bihar (149), and Uttarakhand (99).
- The southern States registered a lower MMR — Karnataka (92), Andhra Pradesh (65), Tamil Nadu (60), Telangana (63) and Kerala (43).

Government Initiatives

- Janani Suraksha Yojana under the National Health Mission to link cash assistance to institutional deliveries.
- The Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) provides a fixed day for assured, comprehensive and quality antenatal care free of cost to pregnant women on 9th of every month.
- Pradhan Mantri Matru Vandana Yojana and LaQshya Guidelines.

Way Forward

- Maternal mortality in a region is a measure of reproductive health of women in the area.

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- The WHO has already appreciated India's efforts in reducing the maternal mortality rate. India needs to give a special focus to states with higher maternal mortality ratio.

Chhavni COVID: Yodha Sanrakshan Yojana

In News

Ministry of Defence launched the 'Chhavni COVID: Yodha Sanrakshan Yojana.'

- It is a group life insurance scheme to be implemented through Life Insurance Corporation(LIC).
- It will cover more than 10,000 employees in all 62 Cantonment Boards in event of any unfortunate fatal calamity with an insurance cover of Rs five lakhs each.

Significance

The scheme will benefit permanent and contractual employees including doctors, paramedics and sanitation staff.

Cantonment Board

It is established for the administration of the civilian population in the cantonment area under the provisions of the Cantonments Act of 2006. Nodal Ministry: Ministry of Defence.

Hemodynamic stability therapy

In News

According to Army's Research and Referral Hospital, former President Pranab Mukherjee continues to be in deep coma but is haemodynamically stable.

Hemodynamic stability

- If a patient has stable hemodynamics, it means that the force at which the heart pumps blood is stable.
- On the other hand, hemodynamic instability is defined as any instability in blood pressure which can lead to inadequate blood flow to organs.
- This is also when the need for physiological and mechanical support arises, so that the patient gets adequate cardiac input and output or blood pressure.
- Abnormal hemodynamic parameters include irregularities in heart rate, blood pressure, cardiac output, central venous pressure, and pulmonary artery pressure.

Symptoms

Shortness of breath, pulmonary congestion, decreased urine output, hypotension, abnormal heart rate, alternative consciousness (restlessness, loss of consciousness, confusion) and chest pain.

Diagnosis

- A patient's vital signs like respiratory rate, pulse, blood pressure, urine output, organ perfusion, toe-temperature gradient, and capillary refill time are checked.
- Complications like hemorrhage, thrombosis, pulmonary embolism, and arterial spasm may occur at times.
- Pulse is the first sign to indicate hemodynamic instability.

Poliomyelitis Free Africa

In News

World Health Organization (WHO) has declared Africa free of polio, a landmark in a decades-long campaign to eradicate the notorious disease around the world.

- Poliovirus now joins smallpox in the list of viruses that have been wiped out in Africa.
- Since 1996, eradication efforts "have prevented up to 1.8 million children from crippling life-long paralysis and saved approximately 180,000 lives.

Polio

- Poliomyelitis, the medical term for polio, is an acutely infectious and contagious virus which attacks the spinal cord and causes irreversible paralysis in children.
- It was endemic around the world until a vaccine was found in the 1950s.
- In 1988, when the WHO, UNICEF and Rotary launched the worldwide campaign to eradicate the disease, there were 350,000 cases globally. In 1996, there were more than 70,000 cases in Africa alone.
- Poliovirus is typically spread in the faeces of an infected person and is picked up through contaminated water or food.
- The last case of polio in Africa was detected in 2016 in Nigeria.

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Polio Vaccines

The vaccine contains weakened-virus activating an immune response in the body, building up antibodies against the virus.

There are two types of vaccines available

1. OPV (Oral Polio Vaccine): It is given orally as a birth dose for institutional deliveries, then primary three doses at 6, 10 & 14 weeks and one booster dose at 16-24 months of age.
2. Injectable Polio Vaccine (IPV): It is introduced as an additional dose along with the 3rd dose of DPT under the universal immunization programme (UIP).

India and Polio

India received polio-free certification by the World Health Organisation (WHO) in 2014 since then no cases of wild polio have been reported in.

RLF-100 or Aviptadil

In News

An old drug formulation — RLF-100 — is being probed to treat Covid-19 patients after initial studies have shown that the drug is able to halt SARS-CoV-2 virus replication in lungs.

RLF-100

- RLF-100, also called Aviptadil, is a formulation of synthetic human Vasoactive Intestinal Polypeptide (VIP).
- VIP is released throughout the body, but remains mostly concentrated in lungs.
- It is produced by immune cells and nerve endings and acts as a neurotransmitter. It helps improve muscle activity and blood flow in gastrointestinal tract.

Thalassemia

In News

Union Minister of Health & Family Welfare inaugurated a Thalassemia Screening and Counselling Centre at Indian Red Cross Society's National Headquarters (IRCS NHQ) Blood Bank.

Thalassemia

- Thalassemia is an inherited blood disorder characterised by less oxygen-carrying protein

(haemoglobin) and fewer red blood cells in the body than normal.

- In India, Thalassemia Major (TM) and the severe form of Thalassemia Intermedia (TI) constitute the major burden of disease.
- India has the largest number of children with Thalassemia major in the world, about 1 to 1.5 lakhs, and about 10,000 -15,000 children having Thalassemia major are born every year.
- The only cure available for such children is bone marrow transplantation (BMT). However, BMT is difficult and not affordable by the parents of all these children.

Symptoms

- Fatigue
- Weakness
- Pale or yellowish skin
- Facial bone deformities
- Slow growth
- Abdominal swelling
- Dark urine

Causes

- Thalassemia is caused by mutations in the DNA of cells that make hemoglobin — the substance in red blood cells that carries oxygen throughout your body. The mutations associated with thalassemia are passed from parents to children.
- Hemoglobin molecules are made of chains called alpha and beta chains that can be affected by mutations.
- In thalassemia, the production of either the alpha or beta chains are reduced, resulting in either alpha-thalassemia or beta-thalassemia.
- In alpha-thalassemia, the severity of thalassemia you have depends on the number of gene mutations you inherit from your parents. The more mutated genes, the more severe your thalassemia.
- In beta-thalassemia, the severity of thalassemia you have depends on which part of the hemoglobin molecule is affected.

mRNA based vaccines

In News

Moderna is developing mRNA based vaccine for COVID-19.

Details

- Messenger RNA (mRNA) is a single-stranded RNA molecule that is complementary to one of the DNA strands of a gene. The mRNA is an RNA version of the gene that leaves the cell nucleus and moves to the cytoplasm where proteins are made. During protein synthesis, an organelle called a ribosome moves along the mRNA, reads its base sequence, and uses the genetic code to translate each three-base triplet, or codon, into its corresponding amino acid.
- Conventional vaccines usually contain inactivated disease causing organisms or proteins made by the pathogen (antigens), which work by mimicking the infectious agent. They stimulate the body's immune response, so it is primed to respond more rapidly and effectively if exposed to the infectious agent in the future.
- RNA vaccines use a different approach that takes advantage of the process that cells use to make proteins: cells use DNA as the template to make messenger RNA (mRNA) molecules, which are then translated to build proteins. An RNA vaccine consists of an mRNA strand that codes for a disease-specific antigen. Once the mRNA strand in the vaccine is inside the body's cells, the cells use the genetic information to produce the antigen. This antigen is then displayed on the cell surface, where it is recognised by the immune system.

Benefits

Benefits of mRNA vaccines over conventional approaches are:

- Safety: RNA vaccines are not made with pathogen particles or inactivated pathogen, so are non-infectious. RNA does not integrate itself into the host genome and the RNA strand in the vaccine is degraded once the protein is made.
- Efficacy: early clinical trial results indicate that these vaccines generate a reliable immune response and are well-tolerated by healthy individuals, with few side effects.
- Production: vaccines can be produced more rapidly in the laboratory in a process that can be standardised, which improves responsiveness to emerging outbreaks.

Challenges

The methods to make mRNA vaccines can be very effective. However, there are technical challenges to overcome to ensure these vaccines work appropriately:

- Unintended effects: the mRNA strand in the vaccine may elicit an unintended immune reaction. To minimise this the mRNA vaccine sequences are designed to mimic those produced by mammalian cells.
- Delivery: delivering the vaccine effectively to cells is challenging since free RNA in the body is quickly broken down. To help achieve delivery, the RNA strand is incorporated into a larger molecule to help stabilise it and/or packaged into particles or liposomes.
- Storage: many RNA vaccines, like conventional vaccines, need to be frozen or refrigerated. Work is ongoing to reliably produce vaccines that can be stored outside the cold chain, since these will be much more suitable for use in countries with limited or no refrigeration facilities.

Internal Security

Government nod for urgent defence procurements

In News

The Defence Ministry, once again gave emergency powers to the armed forces to procure weapons systems at costs up to ₹300 crore on an urgent basis, without any further clearances, to cut short the procurement cycle.

Details

- Similar powers were given to the services after the Balakot air strike in February 2019.
- The decision was taken at a meeting of the Defence Acquisition Council (DAC), chaired by the Defence Minister, which the Ministry had convened considering the security environment due to the situation along the northern borders and the need to strengthen the armed forces.
- The Army has already taken a decision to place repeat orders for 72,400 SIG-716 assault rifles from Sig Sauer of the U.S. and 12 launchers and around 250 missiles of the Spike Anti-Tank Guided Missiles (ATGM) from Israel.

Long Range Land Attack Cruise Missile Systems

- It is developed by Defence Research and Development Organisation (DRDO).
- It is aimed at enhancing the firing range of the Brahmos missile from 400-500 km to 1000 km.
- Its features include aerodynamic configuration, vertical launch using solid booster, thrust vector control system, booster separation, in-flight wing deployment, in-flight engine start and long range way-point navigation system”.
- The proposed development of fully indigenous long-range land attack cruise missiles can greatly enhance the operational capability of services.

Astra Missiles

- Astra missile is developed by Defence Research and Development Organisation (DRDO).
- It is a Beyond Visual Range (BVR) class of Air-to-Air Missile (AAM) system designed to be mounted on fighter aircraft. It has capability to destroy the enemy targets which are beyond their visual range.
- The missile has all weather day and night capability and will serve as a force multiplier and immensely add to the strike capability of the Navy and Air Force.

Defence Acquisition Council

- It is the highest decision-making body in the Defence Ministry for deciding on new policies and capital acquisitions for the three services (Army, Navy and Air Force) and the Indian Coast Guard.
- The Minister of Defence is the Chairman of the Council.
- It was formed, after the Group of Ministers recommendations on 'Reforming the National Security System', in 2001, post Kargil War (1999).

From Pinaka to Astra, the new weapons DAC has approved

In News

In the midst of India's tense border standoff with China, the defence ministry approved procurement of 33 frontline fighter jets, a number of missile systems and other military hardware at a cost of Rs 38,900 crore to bolster the combat capability of the armed forces.

Details

- In the current situation and the need to strengthen the Armed Forces for the defence of our borders” the DAC “accorded approval for capital acquisitions of various platforms and equipment required by the Indian Armed Forces.
- The government will buy 33 aircrafts, which include 21 MiG-29s from Russia, 12 new Sukhoi-30 fighters from Hindustan Aeronautics Limited (HAL).
- It also includes upgradation of 59 MiG-29 jets.

Indigenous Development

- The indigenous content in some of these projects is up to 80% of the project cost. A large number of these projects have been made possible due to Transfer of Technology by DRDO to the Indigenous Industry. These include Pinaka ammunitions, BMP armament upgrades and Software Defined Radios for the Army, Long Range Land Attack Cruise Missile Systems and Astra Missiles for Navy and Air Force.
- All equipment is to be manufactured in India involving the defence industry with the participation of several MSMEs as prime-tier vendors.

Pinaka missile systems

- Pinaka is an all-weather, indirect fire, free flight artillery rocket system. It provides a unique capability to accurately deliver a devastatingly lethal and responsive fire against a variety of area targets such as exposed enemy troops, armoured and soft skin vehicles, communication centres, air terminal complexes, fuel and ammunition dumps.
- The Pinaka weapon system consists of rocket, multi-barrel rocket launcher, battery command post, loader-cum-replenishment vehicle, replenishment vehicle and Digicora MET radar.

IAF gets Apache attack helicopters from Boeing

In News

Recently, Boeing has handed over the last of the five AH-64E Apache attack helicopters to the Indian Air Force (IAF).

- The handover was slightly delayed due to the Covid-19 induced lockdown.
- Earlier, Boeing handed over the last five of the 15 CH-47F(I) Chinook heavy-lift helicopters to the IAF as well.

Submarine Optical Fibre Cable (OFC)

In News

Prime Minister Narendra Modi recently inaugurated the Chennai-Andaman and Nicobar Island Submarine Cable System, which will provide better connectivity to the archipelago.

Details

- About 2,300 km of submarine optical fibre cable (OFC) has been laid at a cost of about Rs 1,224 crore to provide better connectivity in the UT.
- The project envisages better connectivity from Chennai to Port Blair and seven other Islands — Swaraj Deep (Havelock), Long Island, Rangat, Hutbay (Little Andaman), Kamorta, Car Nicobar and Campbell Bay (Great Nicobar).
- The project is funded by the government through the Universal Service Obligation Fund under the ministry of communications.

Benefits

- Better connectivity in the region will facilitate the delivery of e-governance services such as telemedicine and tele-education.
- Small enterprises will benefit from opportunities in e-commerce, while educational institutions will utilise the enhanced availability of bandwidth for e-learning and knowledge sharing.
- Business Process Outsourcing services and other medium and large enterprises too also benefit from better connectivity.
- After the launch of the project by PM Modi, the internet bills in Andaman and Nicobar will also come down substantially.

Submarine Communications cable

- It is a cable laid on the sea bed between land-based stations to carry telecommunication signals across stretches of ocean and sea.
- The optical fibre elements are typically individually coated with plastic layers and contained in a protective tube suitable for the environment where the cable will be deployed.

Details

- India contracted 22 Apache helicopters and 15 Chinook helicopters from Boeing through the Foreign Military Sales programme of the USA government in September 2015 under a USD 3 billion deal.
- The addition of both these helicopters is a significant step towards modernization of IAF's helicopter fleet.

AH-64E Apache Attack Helicopter

- These are all-weather capable, easily maintainable helicopters and have high agility and survivability against battle damage.

Capabilities

- Carry out precision attacks at standoff ranges and operate in hostile airspace with threats from the ground.
- Transmit and receive battlefield pictures through data up-linking and networking.
- Shoot fire and forget anti-tank guided missiles, air to air missiles, rockets while providing the versatility to helicopter in network-centric aerial warfare.
- Carries fire control radar, which has a 360° coverage and nose-mounted sensor suite for target acquisition and night vision systems.
- Boeing's joint venture in Hyderabad, Tata Boeing Aerospace Limited, has been producing aero- structures for the AH-64 Apache helicopter for both the USA Army and international customers.

15 CH-47F(I) Chinook Heavy-lift Helicopters

- It is capable of airlifting diverse military and non-military loads into remote locations.
- It has a fully integrated digital cockpit management system, advanced cargo handling capabilities and electronic warfare suite that complement the aircraft's performance.
- The helicopter has been customized to suit IAF's future requirements and capability roadmap.
- These are deployed in the Northern and Eastern regions of India.
- Boeing's suppliers in India are manufacturing critical systems and components for the Chinooks, including the crown and tail cone assembly by the Tata Advanced Systems and the ramp and aft pylon by Dynamatic Technologies.

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Types of Submarine fiber cables:

There are two types of Submarine fibre cables: unrepeated and repeated.

Unrepeated cables are preferred in short cable routes because it does not require repeaters, lowering costs; however, their maximum transmission distance is limited.

Importance of submarine cables

- Currently 99 per cent of the data traffic that is crossing oceans is carried by undersea cables.
- The reliability of submarine cables is high, especially when multiple paths are available in the event of a cable break.
- The total carrying capacity of submarine cables is in the terabits per second, while satellites typically offer only 1,000 megabits per second and display higher latency.

Challenges

A typical multi-terabit, transoceanic submarine cable system costs several hundred million dollars to construct.

Disaster Management

Seismicity study of Arunachal Himalaya

In News

Recently, a study by the Wadia Institute of Himalayan Geology (WIHG), pertaining to the exploration of the elastic properties of rocks and seismicity in Arunachal Himalaya, has revealed that the area is generating moderate earthquakes at two different crustal depths.

- WIHG is an autonomous institute of the Department of Science & Technology (DST), Government of India.
- The region has been placed into Seismic Zone V, thus most vulnerable to earthquakes.

Details

- WIHG has installed 11 broadband seismic stations (connected through the Global Positioning System) along the Lohit River Valley of Arunachal Himalaya to

understand the elastic properties of rocks and seismicity in the easternmost part of India.

- It used both teleseismic (earthquakes that occur more than 1000 km from the measurement site) and local earthquake data with the help of seismometers.
- A seismometer is an instrument that responds to ground motions, such as caused by earthquakes, volcanic eruptions, and explosions.

Latest Findings

- Two Different Crustal Depths: Low magnitude earthquakes are concentrated at 1-15 km depth, whereas slightly higher than 4.0 magnitude earthquakes are mostly generated from 25-35 km depth.
- The intermediate-depth is devoid of seismicity and coincides with the zone of fluid/partial melts.
- High Poisson's Ratio: Extremely high Poisson's ratio was also obtained in the higher parts of the Lohit Valley, indicating the presence of fluid or partial melt at crustal depths.
- Poisson's ratio is a measure of the Poisson effect that describes the expansion or contraction of a material in directions perpendicular to the direction of loading.
- A high Poisson's ratio denotes that the material exhibits large elastic deformation, even when exposed to small amounts of strain.

Underthrusting of the Indian Plate

- Himalaya is a result of collision between the Indian and the Eurasian plates about 50-60 million years ago. Due to continuous underthrusting of Indian plate beneath the Eurasian plate, stresses are increasing and accumulating progressively in the Himalayas.
- The Eurasian Plate is a tectonic plate which includes most of the continent of Eurasia (a landmass consisting of the traditional continents of Europe and Asia), with the exceptions of the Indian subcontinent, the Arabian subcontinent, and the area east of the Chersky Range in East Siberia.
- This process keeps modifying the drainage patterns and landforms and is the pivotal reason for causing an immense seismic hazard in the Himalayan mountain belt and adjoining regions, necessitating assessment and characterization of earthquakes in terms of cause, depth and intensity.
- The Tuting-Tidding Suture Zone: TTSZ is a major part of the Eastern Himalaya, where the Himalaya takes a

sharp southward bend and connects with the Indo-Burma Range.

- This part has gained importance in recent times due to the growing need of constructing roads and hydropower projects, therefore emphasising the need for understanding the pattern of seismicity in this region.
- **Crustal Thickness:** The crustal thickness in this area varies from 46.7 km beneath the Brahmaputra Valley to about 55 km in the higher elevations of Arunachal, with a marginal uplift of the contact.
- This marginal uplift defines the boundary between crust and the mantle, technically called the Moho discontinuity.
- The Moho discontinuity has been defined by the distinct change in velocity of seismological waves as they pass through changing densities of rock.

Environment

Mansar Wetlands

In News

Minister of State in PMO reviewed the Comprehensive Mansar Rejuvenation and Development Plan for initiating the process for development, rejuvenation and beautification of Mansar Wetlands.

Facts

- The plan aims at increasing tourist footfall and boosting the social economic development of Jammu region. Mansar, as a tourist destination, had immense potential for adventure sports, Eco-tourism, sightseeing, wildlife preservation and recreational activities.
- Mansar Lake is situated 62 km from Jammu. It is a lake fringed by forest-covered hills, over a mile in length.
- Surinsar-Mansar Lakes are designated as Ramsar Convention in November 2005.

Rare Orchids in India

In News

Recently, two rare orchid species i.e. Tiger orchids (*Grammatophyllum speciosum*) and Ground orchids (*Eulophia obtusa*) have been found to be blooming in different parts of the country after a gap of many years.

Tiger Orchid

- Scientific Name: *Grammatophyllum speciosum*
- Characteristics: It has large and resplendent flowers which resemble the tiger skin.
- It flowers in alternate years and remains in bloom for about a month.
- Geographical Distribution: These epiphytic plants are not native to India, and are endemic to southeast Asia i.e. Indonesia and Philippines.
- An epiphyte grows on the surface of a plant and derives its moisture and nutrients from the air, rain, water or from debris accumulating around it.
- It is found to be in full bloom at the Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI) Kerala, where it was introduced in the 1990s.

Ground Orchid

- Scientific Name: *Eulophia obtusa*
- Rediscovery: It has been rediscovered in Dudhwa Tiger Reserve, Uttar Pradesh after 118 years.
- It was last recorded in Pilibhit, Uttar Pradesh in 1902.
- Geographical Distribution: The species is originally from Uttarakhand.
- It was collected by botanists from Gangetic plains but there have been no sightings in the past 100 years. In 2008, the plant species was sighted in Bangladesh for the first time.
- Characteristics: It has white flowers and bright pink hues.
- Protection Status: Listed as “critically endangered” in the International Union for Conservation of Nature (IUCN) Red List of endangered species.

Ophiocordyceps Nutans Fungi

In News

Recently, researchers have found *Ophiocordyceps nutans* (fungi) for the first time in central India, while setting out on a plant survey at the Kanger Valley National Park in Bastar, Chhattisgarh.

Key Points

- *Ophiocordyceps nutans* host on a specific insect, *Halyomorpha halys*.
- *Halyomorpha halys* is commonly known as the stink bug and is a pest to forest trees and agricultural crops.

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- The stink bug is known to damage the flower and fruits of soybean, green beans, apple, pear, etc.

Mechanism

- The fungi infect the insect when alive and develop fungal mycelium (the vegetative part of a fungus) inside its thorax (chest).
- The spores (single-celled reproductive units) sprout out from between the insect's thorax and head, killing the insect but it continues to take nutrition from the dead body.
- The fungi are very host-specific, so the spores travel and infect stink bugs only.

Importance

- Studies have shown that these fungi can be used as a biological pest control agent against the stink bugs.
- Exploring these fungi as a pesticide will help reduce the harmful effect of chemicals in fields.
- Several species of the Ophiocordyceps fungi have medicinal properties.
- Reports show that China has been traditionally using it.
- In the Western Ghats, the local people use these fungi as an immune stimulator.
- These are rich in biologically active metabolites, vitamin C, phenolic compounds (disinfectant in household cleaners), and also have anti-inflammatory and antioxidant properties.
- Scientists claim that it contains a component called 'cordycepin' which has anti-cancer properties.

Dolphins in Chambal river

In News

The Madhya Pradesh forest department has prepared the latest census report which states that the dolphins' number in Chambal river has been reduced in four years.

Key Highlights of the Report

- There are just 68 dolphins left in 435-kilometre-long Chambal river sanctuary.
- The dolphins' number in Chambal river has been reduced by 13 per cent in four years i.e. from 78 dolphins in 2016 to 68 in 2019.

Reasons for Declining number of Dolphins in Chambal River

- Illegal Sand Mining: The illegal sand mining and consumption of water is rising rampantly and putting the whole ecosystem of the river in danger.
- Illegal Sand Mafia: The forest teams face so many life threatening attacks while taking actions against illegal sand mafia.
- Poaching: The increased incidents of poaching have led to significant decrease in dolphins' numbers in Chambal River.
- Lack of Studies on Dolphin: The dolphin is a sensitive animal and there is lack of availability of studies on dolphins.

About Gangetic Dolphin

- It is a rare species of dolphins i.e. platanista gangetica.
- It is listed as 'Endangered' under IUCN Red List of Threatened Species.
- It has rudimentary eyes i.e. from preying to surfing, dolphins do it through ultrasonic sound.
- It once lived in the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu river systems of Nepal, India and Bangladesh.
- It can only live in freshwater and protected under Schedule I of the Wildlife Protection Act (1972).
- Vikramshila Gangetic Dolphin Sanctuary (VGDS) in Bihar's Bhagalpur district is India's only sanctuary for dolphins.

Melghat Tiger Reserve

In News

- The Chief Minister of Maharashtra has requested the Union government for considering an alternative alignment for the Akola-Khandwa rail line that passes through the Melghat Tiger Reserve.

Location

- It lies in Melghat Forests of Amravati district in Vidarbha region of Maharashtra bordering Madhya Pradesh in the North and East.
- It is a part of the Satpura-Maikal landscape.

Tiger Reserve

- It is spread over an area of 2768.52 sq km.
- It is among the first nine places in the country designated as tiger reserves in 1973-74.
- Project Tiger was launched in 1973.

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- It was the first Tiger Reserve to be declared in the State of Maharashtra.

Protected Areas within the Reserve

- It consists of Gugamal National Park, Wan, Ambawarba and Narnala sanctuaries.

Features

- It is the Deccan trap and underlying rock is basalt in one form or another.
- It has various species of mammals including Tiger, Leopard, Sloth bear, Gaur, etc.
- The forests are of deciduous nature and have been classified as 'dry deciduous forests'. Most prominent is Teak.
- It forms a very important catchment to Tapi river systems.
- The Korku tribe adds to the cultural diversity of the Reserve.

California's Death Valley

In News

The hottest air temperature recorded anywhere on the planet in at least a century, and possibly ever, was reached in Death Valley in California's Mojave Desert where it soared to 130 Fahrenheit (54.4 Celsius).

- A temperature of 134F (56.7C) was recorded in Death Valley in July 1913, and Kebili, Tunisia, is said to have hit 131F in July 1931, according to the World Meteorological Organization.
- The record comes as climate scientists warn of the dangers of a warming planet. Last month was the world's third-hottest July on record, and three of the hottest ever Julys all occurred within the past five years.

Mojave Desert?

The Mojave Desert is an arid rain-shadow desert and the driest desert in North America.

It is in the Southwestern United States, primarily within southeastern California and southern Nevada.

Its boundaries are generally noted by the presence of Joshua trees, which are native only to the Mojave Desert.

NGT distance norm not for licensed quarries: HC

In News

- The Kerala High Court has ruled that quarries during their valid period of licence or lease need not fulfil the distance norm of 200 metres from residential and inhabited areas set by the National Green Tribunal (NGT).
- They only need to maintain the distance norm of 50 metres as contemplated in Kerala Minor Mineral Concession Rules.
- However, the court made it clear that licence or lease of quarries whose period has expired and which did not follow the distance norms set by the NGT should not be renewed. Neither should fresh licence or lease be granted to quarries that did not maintain the NGT-set distance norm.
- The court ordered that fresh or renewal applications may be processed and such applications need not be rejected solely on the ground of non-fulfilment of the new distance norm stipulated by the NGT.

Forest loss threatens hornbills

In News

A study by Chintan Seth of Bengaluru-based National Centre for Biological Sciences and Aparajita Satta and Devathi Parashuram of the Mysuru-based Nature Conservation Foundation was published in *Silva Fennica*, a forest journal of Finland.

Key findings

- Based on satellite data has flagged a high rate of deforestation in a major hornbill habitat in Arunachal Pradesh.
- Using fine-scale satellite imagery, a trio of ecologists assessed the changes in forest cover of the 1,064 sq.km. Papum Reserve Forest (RF) adjoining the Pakke Tiger Reserve as well as a part of Assam affected by illegal felling and ethnic conflict.
- Papum RF is a nesting habitat of three species of the large, colourful fruit eating hornbills: Great, Wreathed and Oriental Pied. The 862 sq.km. Pakke reserve houses a fourth species, the Rufous-Necked.
- The satellite data pointed to alarming deforestation rates annual loss rates as high as 8.2 sq.km. as per

estimates from 2013 where forest cover declined to 76% of the total RF area.

Illegal logging

- Hornbills used to be hunted for their casques-upper beak- and feathers for headgear despite being cultural symbols of some ethnic communities in the northeast, specifically the Nyishi of Arunachal Pradesh. But a 20-year old conservation programme entailing the use of fibre-glass beaks reduced the threat to the birds to a large extent.
- Illegal logging, however, has however led to fewer tall trees where the birds nest. While the protected areas such as Pakke are better guarded, the forests are often under pressure due to agricultural expansion, conversion to plantations or logging.
- According to the Global Forest Watch 2020 report, the State lost 1,110 sq.km. of primary forest from 2002-2019.

Species

Barn Owls

In News

The Lakshadweep Administration had embarked on the 'Pilot project on Biological Control of Rodents (Rats) by Using Barn Owls (*Tyto alba*) in Kavaratti Island' after studies revealed the shocking extent of damage caused by rats to the island's coconut yield and economy.

- Three pairs of barn owls shipped to the Lakshadweep Islands from Kerala in 2019.
- Barn Owls proved skilful slayers of pesky rats that have been ravaging the coconut plantations.

Barn Owls

- Scientific name and meaning – *Tyto alba*

The word *Tyto* has been derived from the Greek word 'tuto', meaning night which explains its nocturnal nature, and the word *alba*, which corresponds to its white or dull white colour.

- They are one of the most widespread owls in the Indian Subcontinent.

Taxonomic Structure

- These owls are medium-sized with long legs and wings and have a relatively shorter tail when compared to other similar-sized owls.
- The Barn Owl exhibits dark eyes and a distinct heart-shaped facial disc.
- This owl doesn't have the characteristic 'woo-woo-woo' hoot of owls and utters a screechy 'shreeeeeeeee' to protect its territory.
- Food and Habitat–The Barn Owl mostly hunt small mammals, especially rodents (hence it's called the 'farmer's friend').
- These owls prefer the open countryside and have adapted well to urban biodiversity. They tend to throng cities in large numbers as there is ample garbage in urban areas and rodents thrive on it
- They prefer palm trees to roost and are perhaps the only known owls to nest on ledges in buildings around human settlements.

Characteristics

- They also exhibit aerial displays and make purring sounds before mating, to strengthen their bond.
- Owls exhibit unique stealth when they hunt at night.
- They have a delicate sense of hearing and their eyes are very sensitive to movement, even in low light, making them one of the most prolific hunters in the animal world.
- Mythological significance- In Indian mythology, they are the vahanas(vehicles) of Lakshmi, the goddess of wealth.

Protection

- They are Protected under Schedule 3 of the Wildlife Protection Act. 1972, in which any kind of trade of the species is prohibited under Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES).
- IUCN status– They are the least concern under the IUCN Red List.
- Contribution in maintaining the ecological balance-

Barn owls manage the rodent menace effectively in Lakshadweep and are the most effective way to decimate the rodent population, which runs into "lakhs".

Government's Initiatives

Accelerate Vigyan Scheme

In News

- Recently, the Science and Engineering Research Board (SERB), has launched a scheme called Accelerate Vigyan (AV) to strengthen scientific research mechanisms in the country.

Objective

To give more thrust on encouraging high-end scientific research and preparing scientific manpower, which can lead to careers in research and knowledge-based economy.

Vision

To expand the research base, with three broad goals i.e. consolidation/aggregation of all scientific programs, initiating high-end orientation workshops, and creating opportunities for research internships.

Components

ABHYAAS Programme

- Under it, AV is inviting applications for the winter season (December 2020-January 2021).
- It is an attempt to boost research and development in the country by enabling and grooming potential PG/PhD students by means of developing their research skills in selected areas across different disciplines or fields.
- It has two components: High-End Workshops i.e. KARYASHALA and Research Internships i.e. VRITIKA.
- This is especially important for those researchers who have limited opportunities, access to facilities and infrastructure.

SAMMOHAN

- It has been sub-divided into SAYONJIKA and SANGOSHTI.
- SAYONJIKA is an open-ended program to catalogue the capacity building activities in science and technology supported by all government funding agencies in the country.
- SANGOSHTI is a pre-existing program of SERB for the organisation of workshops.

Science and Engineering Research Board

- It is a statutory body under the Department of Science and Technology, Ministry of Science and Technology established by an Act of the Parliament of India in 2009.
- It is chaired by the Secretary to the Government of India in the Department of Science and Technology and has other senior government officials and eminent scientists as members.
- It was set up for promoting basic research in science and engineering and to provide financial assistance to scientists, academic institutions, Research and Development laboratories, industrial concerns and other agencies for such research.

AIM iCREST

NITI Aayog's Atal Innovation Mission (AIM) launched AIM iCREST – an Incubator Capabilities enhancement program for a Robust Ecosystem focused on creating high performing Startups.

- It is a first of its kind initiative for advancing innovation at scale in India.

About

- India needs world-class incubators fostering world-class startups leveraging the tremendous innovation talent of the country.
- India has a great opportunity in its inherent innovative mindset to capture global markets while creating disruptive solutions for the challenges within the country.
- In the current pandemic crisis, the effort will focus on supporting start-up entrepreneurs in knowledge creation and dissemination as well as in developing robust and active networks.

AIM iCREST

- It has been designed to enable the incubation ecosystem and act as a growth hack for AIM's Atal and Established incubators across the country.
- Under the initiative, the AIM's incubators are set to be upscaled and provided requisite support to foster the incubation enterprise economy, that will help them to significantly enhance their performance and will be complemented by providing training to entrepreneurs, through technology-driven processes and platforms.

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- This programme is unique also in its design as it is a combination of interactive practices in the field of incubation; enabling the incubators to support sustainable and successful startups
- Implementation- AIM has joined hands with Bill & Melinda Gates Foundation and Wadhvani Foundation – organizations that can lend credible support and expertise in the entrepreneurship and innovation space.
- The partnerships will provide global expertise and showcase proven best practices to the AIM's incubator network.
- This programme is unique also in its design it is a combination of interactive practices in the field of incubation; enabling the incubators to support sustainable and successful startups.

"Chunauti"- Next Generation Start-up Challenge

In News

Ministry of Electronics and Information Technology has launched "Chunauti"- Next Generation Startup Challenge Contest.

Aims and Objectives

- To further boost startups and software products with special focus on Tier-II towns of India.
- Identify around 300 startups working in identified areas and provide them seed fund of upto Rs. 25 Lakh and other facilities.

Under this challenge the Ministry of Electronics and IT will invite startups in the following areas of work:

- Edu-Tech, Agri-Tech & Fin-Tech Solutions for masses.
- Supply Chain, Logistics & Transportation Management.
- Infrastructure & Remote monitoring.
- Medical Healthcare, Diagnostic, Preventive & Psychological Care.
- Jobs & Skilling, Linguistic tools & technologies.

Benefits for the selected startups

- The startups selected will be provided various support from the Government through Software Technology Parks of India centers across India.
- They will get incubation facilities, mentorship, security testing facilities, access to venture capitalist funding, industry connect as well as advisories in legal, Human Resource (HR), IPR and Patent matters.

- Besides seed fund of upto Rs. 25 Lakh, the startups will also be provided cloud credits from leading cloud service providers.
- Each intern (start-up under pre-incubation) will be paid Rs. 10,000/- per month upto a period of 6 months.

Clean Plates Campaign

In News

China's President Xi Jinping called on his country's citizens to drastically cut down on food waste in a new initiative called the 'Clean Plates Campaign'.

- The push came as the Covid-19 pandemic, devastating floods and worsening relations with major international partners have raised fears about food shortage in the world's most populous country.

The campaign

- Xi announced the campaign, promising to strengthen legislation and other mechanisms in support, calling the problem of food waste in the country "shocking and distressing".
- China produces around 17-18 million tonnes of food waste annually.
- The United States, the global leader in food waste, throws away approximately 40 million tonnes of food a year.

Food Waste in India

- About 40 % of the food produced in India is wasted.
- Despite adequate food production, the UN has reported that about 190 million Indians remain undernourished. It is further estimated that the value of food wastage in India is around ₹92,000 crores per annum.

Reports

Doing Business Report 2020

In News

The World Bank has said that it is pausing the publication of the Doing Business report that ranks countries on the basis of their business competitiveness, pending investigation into a "number of irregularities" in its 2018 and 2020 surveys.

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Details

- Stating that the integrity and impartiality of its data and analysis is paramount, the World Bank announced a raft of measures and review of its processes.
- According to the World Bank, the countries most affected appear to be Azerbaijan, China, Saudi Arabia and United Arab Emirates. India is not in the list of countries affected by the data irregularities.
- The World Bank conduct a systematic review of data changes in the last five Doing Business reports, and independent auditors will probe data collection and review processes.
- From 142nd position among 190 countries, India now ranks 63rd on the Ease of Doing Business list, having undertaken a series of reform measures.
- The last Doing Business report was published in October 2019.

ARIIA-2020

In News

Vice President of India announced ARIIA-2020 (Atal Ranking of Institutions on Innovation Achievements).

- ARIIA is an initiative of the Ministry of Human Resource Development which is implemented by AICTE and Ministry's Innovation Cell.
- The objective is to rank higher education institutions and universities in India as per Innovation, Entrepreneurship, Startup and Development amongst faculty and students.

Atal Ranking Has Six Prize Categories:

- (i) Centrally Funded Institutions
 - (ii) Women (only higher educational institutions)
 - (iii) Private Institutions
 - (iv) Private/Deemed Universities
 - (v) State-Funded Autonomous Institutions
 - (vi) State-Funded Universities
- To encourage women, in Atal Ranking, ARIIA 2020, a special prize category has been made for women. It has been introduced with the aim of bringing in gender parity in the areas such as- entrepreneurship and innovation.
 - For the first time ARIIA 2020 will have special prize category for women only higher educational institutions.
 - The other five categories are Centrally Funded Institutions, State-funded universities, State-funded

autonomous institutions, Private or Deemed Universities, and Private Institutions.

Result

- IIT Madras bagged the top position under the category of Institutes of National Importance, Central Universities, and Centrally Funded Technical Institutes.
- Institute of Chemical Technology, Mumbai got the top position under Government and Government Aided Universities.
- College of Engineering, Pune got the top position under Government and Government Aided Colleges.
- Kalinga Institute of Industrial Technology, Bhubaneswar got the top position under Private or Self-Financed Universities.
- S R Engineering College, Warangal got the top position under Private or Self-Financed Colleges.

Background

IIT Madras was the top institute in last year's ranking. Vellore Institute of Technology or VIT topped the rankings of private institutions.

Education

National Education Policy

The union cabinet recently approved the new National Education Policy, making way for large scale, transformational reforms in both school and higher education sectors.

Details

- The policy marks the fourth major policy initiative in education since Independence and is the first education policy of the 21st century and replaces the 34-year-old National Policy on Education (NPE), 1986.
- The policy is based on the foundational pillars of Access, Equity, Quality, Affordability, and Accountability.
- It is also aligned to the 2030 Agenda for Sustainable Development as giving quality education is SDG number 4.

Background

- In May 2016, 'Committee for Evolution of the New Education Policy' under the Chairmanship of Shri T.S.R.

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Subramanian, Former Cabinet Secretary, submitted its report.

- Based on this report, the Ministry prepared 'Some Inputs for the Draft National Education Policy, 2016'.
- In June 2017 a 'Committee for the Draft National Education Policy' was constituted under the Chairmanship of Dr. K. Kasturirangan, which submitted the Draft National Education Policy, 2019
- This draft was made public and opened for feedback after the Lok Sabha election in May 2019.
- NEP 2020 has been formulated after the process of consultation that involved nearly over 2 lakh suggestions from 2.5 lakh Gram Panchayats, 6600 Blocks, 6000 ULBs, 676 Districts.

Replacing 10+2 structure of school curricula with a 5+3+3+4 format:

- The 10+2 system will be divided into 5+3+3+4 format.
- This means the first five years of school will comprise of the foundation stage. The next three years will be divided into a preparatory stage from classes 3 to 5. Later, there will be three years of middle stage (classes 6 to 8), and four years of secondary stage (classes 9 to 12).
- Schools will not have any rigid formation of streams of arts, commerce, science, etc. and students can take up whichever courses they want.
- A new curricular framework is to be introduced, including the pre-school and Anganwadi years.
- A National Mission on Foundational Literacy and Numeracy will ensure basic skills at the Class 3 level by 2025.
- Students will begin classes on coding as well as vocational activities from Class 6 onwards.
- Indian knowledge systems, including tribal and indigenous knowledge, will be incorporated into the curriculum in an accurate and scientific manner.

Language issues

- Language issues caused the most outrage, as the original draft called for mandatory teaching of Hindi to all school students. That clause was subsequently dropped.
- There will be greater flexibility in the three-language formula, and no language will be imposed on any State. The three languages learned by children will be the choices of States, regions, and students.
- Sanskrit will be offered as an option at all levels of school and higher education.

- Other classical languages will also be available, possibly as online modules, while foreign languages will be offered at the secondary level.
- The medium of instruction till at least Grade 5, and preferably till Grade 8 and beyond will be in Home Language/Mother tongue/Regional Language.

Inclusive Education

- Inclusion is a theme of the Policy beyond technology as well.
- As per the Ministry, under NEP, efforts will be made to incentivise the merit of students belonging to SC, ST, OBC, and other SEDGs.
- Private Higher Educational Institutions will be encouraged to offer larger numbers of scholarships to their students.
- The National Scholarship Portal will be expanded to support, foster, and track the progress of students receiving scholarships.
- Regions such as aspirational districts, which have large numbers of students facing economic, social or caste barriers will be designated as 'Special Educational Zones'.
- Special funds have been earmarked for special education.
- The NEP emphasises universal access to schools, and aims to bring two crore out-of-school children back into the educational mainstream.
- It also aims to double the Gross Enrolment Ratio in higher education, including vocational education, from 26.3% in 2018 to 50% by 2035.

Gender Inclusion Fund

- The Centre will also set up a 'Gender-Inclusion Fund' to build the country's capacity to provide equitable quality education to all girls and transgender students.
- The fund will be available to States to implement priorities determined by the Central government critical for assisting female and transgender children in gaining access to education.

Multi-disciplinary approach

- Standalone Higher Education Institutes and professional education institutes will be evolved into multi-disciplinary institutes.
- By 2049, all higher education institutions (HEIs) should aim to become multidisciplinary institutions, each

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of which will aim to have 3,000 or more students, as per the data shared by MHRD.

- Further, by 2030, the aim is to set up at least one large multidisciplinary HEI in or near every district.

Exit options in degree courses

- The undergraduate degree, which is of 3 to 4-year duration will have multiple exit options.
- After completing one year, if a student decides to drop out, s/he will get a certificate in a discipline or field including vocational and professional areas.
- On dropping out after two and three years, students will get a diploma and a Bachelor's degree, respectively.
- The four-year multidisciplinary Bachelor's program, however, will be the preferred option and will give a degree with research if a student has pursued a project along with it.
- M.Phil. degree would be abolished.
- It would establish a common higher education regulator with fee fixation for both private and public institutions.

Academic Bank of Credit

- The ABC will digitally store the academic credits earned from various recognized HEIs so that the degrees from an HEI can be awarded taking into account credits earned.
- Currently, a similar programme is being run where a student can opt for a course related to their degree on SWAYAM – online portal by the government, and credits associated with that course will be given to the student and help in their assessment for their degree course also.

Teacher Education

- The minimum degree qualification for teaching will be a 4-year integrated BEd course by 2030 and stringent action will be taken against "substandard" stand-alone teacher education institutions, according to the new National Education Policy (NEP).
- A common National Professional Standards for Teachers (NPST) will be developed by the National Council for Teacher Education by 2022, in consultation with NCERT, SCERTs, teachers and expert organizations from across levels and regions.
- By 2021, a new and comprehensive National Curriculum Framework for Teacher Education will be

formulated by the National Council of Teacher Education (NCTE) in consultation with the NCERT.

Technology in Education

- The policy has proposed the setting up of a National Educational Technology Forum (NETF), a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration, etc., for both school and higher education.
- A dedicated unit for the purpose of creating digital infrastructure, digital content and capacity building will be set up in the ministry.

Education in India

Constitutional Provisions

- Part IV of Indian Constitution, Article 45 and Article 39 (f) of Directive Principles of State Policy (DPSP), has a provision for state-funded as well as equitable and accessible education.
- The 42nd Amendment to the Constitution in 1976 moved education from the State to the Concurrent List.
 - The education policies by the Central government provides a broad direction and state governments are expected to follow it. But it is not mandatory, for instance Tamil Nadu does not follow the three-language formula prescribed by the first education policy in 1968.
- The 86th Amendment in 2002 made education an enforceable right under Article 21-A.

Related Laws

- Right to Education (RTE) Act, 2009 aims to provide primary education to all children aged 6 to 14 years and enforces education as a Fundamental Right.
- It also mandates 25% reservation for disadvantaged sections of the society where disadvantaged groups

Government Initiatives

- Sarva Shiksha Abhiyan, Mid Day Meal Scheme, Navodaya Vidyalayas (NVS schools), Kendriya Vidyalayas (KV schools) and use of IT in education are a result of the NEP of 1986.

KVs unlikely to change medium of instruction

In News

The Centre is unlikely to implement its own National Education Policy (NEP) recommendations regarding the medium of instruction in Kendriya Vidyalayas, which are

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directly controlled by the Education Ministry, or in schools affiliated to the Central Board of Secondary Education.

- The new NEP contained a clause which provides for the mother tongue or local language to be used as the medium of instruction “wherever possible” at least until Class 5, but preferably till Class 8 and beyond.
- Kendriya Vidyalayas and schools affiliated to the CBSE cater to the needs of people in transferable jobs. It would not be practical to use students’ mother tongue or regional languages as the medium of instruction for such schools.

KVS

- Kendriya Vidyalayas cater to the needs of Central government employees posted anywhere and it contains students from all over India from Jammu and Kashmir to Kanniyakumari.
- Therefore, it becomes practically difficult to teach in their mother tongue or different medium of instructions in one class.
- KVs are directly controlled by the Education Ministry.
- Most of the CBSE schools are also catering to the requirement of people in transferable jobs.

National Recruitment Agency

In News

The Union Cabinet has given its approval for creation of National Recruitment Agency (NRA), paving the way for a reform in the recruitment process for central government jobs.

Recruitment Reform - a major boon for the youth

- At present, candidates seeking government jobs have to appear for separate examinations conducted by multiple recruiting agencies for various posts, for which similar eligibility conditions have been prescribed.
- Candidates have to pay fee to multiple recruiting agencies and also have to travel long distances for appearing in various exams. These multiple recruitment examinations are a burden on the candidates, as also on the respective recruitment agencies, involving avoidable/repetitive expenditure, law and order/security related issues and venue related problems.
- On an average, 2.5 crore to 3 crore candidates appear in each of these examinations. A common eligibility Test

would enable these candidates to appear once and apply to any or all of these recruitment agencies for the higher level of examination. This would indeed be a boon to all the candidates.

National Recruitment Agency (NRA)

- A multi-agency body called the National Recruitment Agency (NRA) will conduct a Common Eligibility Test (CET) to screen/shortlist candidates for the Group B and C (non-technical) posts.
- NRA will have representatives of Ministry of Railways, Ministry of Finance/Department of Financial Services, the SSC, RRB & IBPS.
- It is envisioned that the NRA would be a specialist body bringing the state-of-the-art technology and best practices to the field of Central Government recruitment.

Online exit examination for the seafarers

In News

Union Minister of State for Shipping launched online exit examination for the seafarers via a virtual ceremony in New Delhi.

- Seafarers, who are getting training in different Maritime Training Institutes under Directorate General of Shipping, can now appear in the exam from the comfort of their homes in this unprecedented time of COVID-19 pandemic.
- The online exit examination designed with enhanced security features, enables candidates to take examination from home, with almost zero possibility of any misconduct during the exam.

Persons in News

Shivajirao Patil Nilangekar passes away

- Shivajirao Nilangekar Patil (1 September 1931 – 5 August 2020) was a leader of Indian National Congress party who served as chief minister of Maharashtra.
- He was chief minister from June 1985 to March 1986. His rule was the briefest of all chief ministers (apart from caretaker chief minister P K Sawant).

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- Nilangekar established the Maharashtra Education Trust in 1968.

Mahinda Rajapaksa

- On August 9, 2020, former president of Sri Lanka Shri Mahinda Rajapaksa was sworn in as the new prime minister.
- Mahinda Rajapaksa Rajapaksa has completed 50 years of politics in July 2020.
- He was elected as the Member of Parliament at the age of 24. Since then, he has been elected as President of Sri Lanka twice and appointed as Prime Minister thrice.

Atal Bihari Vajpayee

- On August 16, 2020, India commemorated death anniversary of Atal Bihari Vajpayee.
- He served as the Indian Prime Minister for three terms. He served for 13 days in 1996, then for a period of 13 months between 1998 and 1999 and full term between 1999 and 2004.
- He was elected 10 times to Lok Sabha in over five decades. Also, he was elected to Rajya Sabha twice.
- In 1977, he served as the Minister of External Affairs in the cabinet of PM Moraji Desai.
- In 2014, PM Modi declared that Vajpayee birth anniversary (December 25) is to be marked as Good Governance Day.

Satya Pal Malik

- On August 18, 2020, Satya Pal Malik was appointed as the Governor of Meghalaya. He replaced Tathagata Roy. Mr Malik served as Governor of Goa previously.
- Malik served as the Governor of Jammu and Kashmir in 2018-19. It was during his tenure that the constitutional decision to abrogate Article 370 was implemented.
- He was elected as Member of Legislative Assembly of Uttar Pradesh in 1974. He was elected as Rajya Sabha representative in 1980-86.
- He served as Governor of Bihar in 2017-18. In 2018, he was given the additional charge to serve as Governor of Odisha.

Rajiv Kumar

- On August 21, 2020, the former finance secretary was appointed as the Election Commissioner.

- The outgoing Election Commission Ashok Lavasa is to join the Asian Development Bank as its vice president.
- Mr Kumar has 30 years of experience in public policy and administration in several sectors.
- He had worked in the key areas of Prime Minister Narendra Modi's plan of Financial Inclusion, Mudra loan schemes and Pradhan Mantri Jan Dhan Yojana.

Pranab Mukherjee

- On August 31, 2020, the former President Pranab Mukherjee passed away at 84 after testing positive for COVID-19. The Government of India has announced seven-day state mourning.
- He had served as the 13th President of India between 2012 and 2017. Also, he served as the senior leader of the Indian National Congress. Also, he had served as the Union Finance Minister between 2009 and 2012.
- In 2019, he was awarded with the highest civilian honour, the Bharat Ratna by President Ram Nath Kovind.
- Mr Mukherjee served as the Finance Minister for the first time in 1982-84. Also, he was nominated as the leader of Rajya Sabha in 1980.
- Pranab Mukherjee brought in several tax reforms. He scrapped the Commodities Transaction tax and the Fringe Benefits Tax.
- He expanded the funding of Jawaharlal Nehru National Urban Renewal Mission
- He expanded infrastructure programmed such as National Highway Development Programme.
- The Criminal Law (Amendment) Ordinance, 2013 was promulgated by Pranab Mukherjee. The ordinance amended the Indian Penal Code.

Noor Inayat Khan

In News

Noor Inayat Khan, a World War 2 spy and descendant of ruler Tipu Sultan, became the first Indian origin woman to be honoured with the Blue Plaque in the UK.

- Noor Inayat Khan, GC 1914-1944 SOE Agent codename 'Madeleine'.
- The Blue Plaque scheme run by the English Heritage charity honours notable people and organisations by installing a sign in a public place to commemorate the link between the place and the person.
- The plaque has been awarded to her for her service in the Special Operations Executive during World War 2.

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- She was the first female radio operator be sent into Nazi-occupied France and is also remembered as Britain's first Muslim war heroine.

Dinesh Kumar Khara

- The Banks Board Bureau recommended Dinesh Kumar Khara for the post of chairman of the State Bank of India (SBI).
- Constituted in 2016, Banks Board Bureau makes recommendations for the appointment of whole-time directors as well as non-executive chairpersons of public sector banks (PSBs).
- The present SBI chairman incumbent Rajnish Kumar will demit office on October 7. Kumar was appointed for a period of three years from October 2017.

Awards

International Booker Prize

- The Dutch author Marieke Lucas Rijneveld has become the youngest to win the International Booker Prize. He won the prize for his debut novel "The Discomfort of Evening".
- The author is to share the prize along with the book's translator Michele Hutchinson.

International Booker Prize

It is an international literary award hosted in United Kingdom. The award is being presented since 2005 every two years. Since 2016, it is being presented annually. The prize carries cash of 64,000 USD or 50,000 pounds.

National Sports Awards 2020

- President Ram Nath Kovind presented the awards in a virtual ceremony.
- There are 74 awards in 7 categories.

Rajiv Gandhi Khel Ratna Awardees

Rohit Sharma (Cricket), Mariyappan Thangavelu (Para Athletics), Manika Batra (Table Tennis), Vinesh Phogat (Wrestling), Rani Rampal (Hockey).

- Rajiv Gandhi Khel Ratna Award in Sports and Games, is the highest sporting honour of the Republic of India.

- The award is named after Rajiv Gandhi, former Prime Minister of India who served the office from 1984 to 1989.
- It is awarded annually by the Ministry of Youth Affairs and Sports.
- The recipient(s) is/are selected by a committee constituted by the Ministry and is honoured for their "spectacular and most outstanding performance in the field of sports over a period of four years" at international level.
- As of 2020, the award comprises a medallion, a certificate, and a cash prize of ₹25 lakh.

Sardar Patel National Unity Award-2020

The online nomination process for Sardar Patel National Unity Award, the highest civilian award in the field of contribution to the unity and integrity of India, has now been extended till 15.08.2020.

- Government of India has instituted the award in the name of Sardar Vallabhbhai Patel.
- The Award seeks to recognize notable and inspiring contributions to promote the cause of national unity and integrity and to reinforce the value of a strong and united India.
- The nominations are being received online on the website of Ministry of Home Affairs.

PM's Awards for Excellence in Public Administration

Prime Minister Narendra Modi will be conferring the Prime Minister's Awards for Excellence in Public Administration on the occasion of Rashtriya Ekta Diwas on October 31, 2020.

- The awards will be conferred in Gujarat.
- Almost 702 districts have registered and participated in the Prime Minister's Awards for Excellence in Public Administration 2020.

The Prime Minister's Awards for Excellence in Public Administration 2020 have been restructured to recognise the contribution of District Collectors for -

- Implementation of Inclusive Credit Flow to the Priority Sector.
- Promotion of people's movements through Swachh Bharat Mission in the district.
- The awards will also seek to recognize the efforts of district-level officials in the Namami Gange Programme.

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About the award

- The Indian Government had constituted the PM Awards for Excellence in Public Administration in 2006 to recognize, acknowledge and reward the extraordinary and innovative work done by districts and organisations of the central and state governments.
- The award programme was restructured in 2014 to recognise the performance of district collectors in priority programmes, innovations and aspirational districts.'
- The scheme was restructured again in 2020 to recognise the performance of district collectors towards the economic development of a district.

Gallantry Awards 2020

August 15 is our Independence Day. The day is to remember our freedom fighters who fought till the end to free our country from the clutches of the British. It is also the day to honour our bravehearts, the soldiers who gambled even their lives to ensure that the enemy does not enter our territory.

- Each year President of India honours brave men and women of Indian armed forces with gallantry awards.

Bharat Ratna

- The Bharat Ratna, the highest civilian award of the country, was instituted in the year 1954.
- Any person without distinction of race, occupation, position, gender or religion is eligible for this award.
- It is awarded in recognition of exceptional service/performance of the highest order in any field of human endeavour.
- On conferment of the award, the recipient receives a Sanad (certificate) signed by the President and a medallion.

Padma awards

- Padma Awards were instituted in the year 1954.
 - The award is given in three categories, viz. Padma Vibhushan, Padma Bhushan and Padma Shri, in the decreasing order of importance.
- (i) Padma Vibhushan is awarded for "distinguished service". Padma Vibhushan is the second-highest civilian award in India.
- (ii) Padma Bhushan for "distinguished service of a high order". Padma Bhushan is the third-highest civilian award in India.

- (iii) Padma Shri for "exceptional and distinguished service". Padma Shri is the fourth-highest civilian award in India.

Wartime gallantry awards

Established on 26th January,1950 with effect from 15th August,1947.

- Param Vir Chakra — Highest-military award in India.Awarded For national bravery in the presence of enemy.
- Maha Vir Chakra – Maha Vir Chakra is the second-highest military decoration in India and is awarded for acts of conspicuous gallantry in the presence of the enemy, whether on land, at sea or in the air.
- Vir Chakra – Third in precedence in the awards for wartime gallantry.

Peacetime gallantry awards

Established on 4th January,1952 with effect from 15th August,1947.

- Ashoka Chakra – An Indian military decoration awarded for valour, courageous action or self-sacrifice away from the battlefield. It is the peacetime equivalent of the Param Vir Chakra.
- Kirti Chakra – Second in order of precedence of peacetime gallantry awards.
- Shaurya Chakra – Third in order of precedence of peacetime gallantry awards.

Wartime/Peacetime service awards

Sena Medal (Army), Nau Sena Medal(Navy) and Vayu Sena Medal(Air Force).

Wartime Distinguished Service

- Sarvottam Yudh Seva Medal
- Uttam Yudh Seva Medal
- Yudh Seva Medal

Peacetime Distinguished Service

- Param Vishisht Seva Medal
- Ati Vishisht Seva Medal
- Vishisht Seva Medal

Rashtriya Khel Protsahan Puraskar 2020

- Army Sports Institute, Pune was awarded the Rashtriya Khel Protsahan Puraskar 2020 by the Ministry of Youth Affairs & Sports, Government of India.
- Army Sports Institute (ASI), Pune was raised as part of the Indian Army's "Mission Olympics" programme on 1 July 2001.
- The programme was aimed to train the vast reservoir of talent in the Army in selected seven disciplines to include Archery, Athletics, Boxing, Diving, Fencing, Weightlifting, and Wrestling.
- The main objective was to win medals at the Olympics.

Atal Ranking of Institutions on Innovation Achievements

- The Vice-President of India M. Venkaiah Naidu announced Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2020 virtually on 18th August 2020.
- ARIIA classified the institutes into two broad categories and six subcategories.
- IIT Madras topped the list under the category of Institutes of National Importance, Central Universities, and Centrally Funded Technical Institutes Institute of Chemical Technology, Mumbai got the top position under Government and Government Aided Universities College of Engineering, Pune under Government and Government Aided Colleges Kalinga Institute of Industrial Technology, Bhubaneswar under Private or Self-Financed Universities SR Engineering College, Warangal under Private or Self-Financed Colleges Avinashilingam Institute for Home Science and Higher Education for Women emerged as the top performer under Women (only higher educational institutions). ARIIA: ARIIA was launched by the Ministry of Education, GoI.
- The ARIIA is implemented by the All India Council for Technical Education (AICTE).
- In the year 2019, IIT-Madras emerged as the top Innovative Institution and also was one of the top 10 institutes in Public funded categories.

Important Days

August 2020

Dates	Events
01 August	<ul style="list-style-type: none"> • National Mountain Climbing Day • Yorkshire Day
04 August	<ul style="list-style-type: none"> • U.S. Coast Guard Day
06 August	<ul style="list-style-type: none"> • Hiroshima Day
07 August	<ul style="list-style-type: none"> • International Beer Day • National Handloom Day
08 August	<ul style="list-style-type: none"> • Quit India Movement
09 August	<ul style="list-style-type: none"> • Nagasaki Day • International Day of the World's Indigenous Peoples
12 August	<ul style="list-style-type: none"> • International Youth Day • World Elephant Day
13 August	<ul style="list-style-type: none"> • International Left handers Day • World Organ Donation Day
14 August	<ul style="list-style-type: none"> • Youm-e-Azadi (Pakistan Independence Day)
15 August	<ul style="list-style-type: none"> • Indian Independence Day • National Mourning Day (Bangladesh) • Day of the Assumption of the Virgin Mary
16 August	<ul style="list-style-type: none"> • Bennington Battle Day
17 August	<ul style="list-style-type: none"> • Indonesian Independence Day
19 August	<ul style="list-style-type: none"> • World Photography Day • World Humanitarian Day
20 August	<ul style="list-style-type: none"> • World Mosquito Day • Sadbhavana Divas • Indian Akshay Urja Day
23 August	<ul style="list-style-type: none"> • International Day for the Remembrance of the Slave Trade and its Abolition • European Day of Remembrance for Victims of Stalinism and Nazism
26 August	<ul style="list-style-type: none"> • Women's Equality Day
29 August	<ul style="list-style-type: none"> • National Sports Day
31 August	<ul style="list-style-type: none"> • Hari Merdeka (Malaysia National Day)

Art & Culture

World Urdu Conference

In News

Recently, the Union Education Minister addressed the inaugural session of the two days World Urdu Conference organised by National Council for Promotion of Urdu Language (NCPUL) in New Delhi.

- The Education Minister also announced that Urdu writers and the literators will be honoured with awards and honours in the name of important personalities of Urdu like Amir Khusrow, Mirza Ghalib, Agha Hashar, Ram Babu Saxena and Daya Shankar Naseem to encourage Urdu writers for literary and creative services by the Urdu Council from next year.
- Urdu is a major language of South Asia. It is spoken in countries including India, Pakistan, Afghanistan, Bangladesh, and Nepal.
- It has become the culture language and lingua franca of the South Asian Muslim diaspora outside the sub-continent, especially in the Gulf and the Middle East, Western Europe, Scandinavia, USA and Canada.
- Both Urdu and Hindi belong to the new Indo-Aryan group sharing the same Indic base and Urdu is one of the languages mentioned in the 8th Schedule to the Constitution,

National Council for Promotion of Urdu Language (NCPUL)

- It is an autonomous body under the Ministry of Human Resource Development (HRD), Department of Secondary and Higher Education, Government of India.
- It was set up in 1996 as the National Nodal Agency for the promotion of the Urdu language.

Great Andamanese tribe

In News

Five members of the Great Andamanese tribe, a Particularly Vulnerable Tribal group (PVTG), have tested positive for COVID-19.

About tribe

- The Great Andamanese are one of five PVTGs that reside in the Andamans archipelago and this is one of the first cases of COVID-19 infection among the endangered PVTGs of the region.
- The Great Andamanese, who number just 74, speak Jeru among themselves.
- The five PVTGS residing in Andamans are Great Andamanese, Jarawas, Onges, Shompens and North Sentinelese.
- The Great Andamanese are classified by anthropologists as one of the Negrito peoples, which also include the other four aboriginal groups of the Andaman islands (Onge, Jarawa, Jangil and Sentinelese) and five other isolated populations of Southeast Asia.

Particularly vulnerable tribal group

- PVTG is a government of India classification created with the purpose of enabling improvement in the conditions of certain communities with particularly low development indices.
- PVTGs are more vulnerable among the tribal groups. Due to this factor, more developed and assertive tribal groups take a major chunk of the tribal development funds because of which PVTGs need more funds directed for their development.
- In 1973, the Dhebar Commission created Primitive Tribal Groups (PTGs) as a separate category, who are less developed among the tribal groups. In 2006, the Government of India renamed the PTGs as PVTGs.
- In this context, in 1975, the Government of India initiated to identify the most vulnerable tribal groups as a separate category called PVTGs and declared 52 such groups, while in 1993 an additional 23 groups were added to the category, making it a total of 75 PVTGs out of 705 Scheduled Tribes.
- PVTGs have some basic characteristics - they are mostly homogenous, with a small population, relatively physically isolated, absence of written language, relatively simple technology and a slower rate of change etc.
- Among the 75 listed PVTG's the highest number are found in Odisha.

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Puli Kali

In News

Pulikkali, a colourful part of Onam celebrations in Thrissur, will be an online-only affair this year due to COVID-19.

- It is a recreational folk art and a colourful part of Onam celebrations in Thrissur, Kerala.
- Onam is an annual harvest festival.
- In Pulikkali, performers painted like tigers and hunters in bright yellow, red, and black dance to the beats of instruments like Udukku and Thakil.
- The performance revolves around the theme of tiger hunting.
- Pulikkali was introduced in Thrissur by Shakthan Tampuran two centuries ago

Origin

- The origin of Pulikkali dates back to over 200 years.
- Maharaja Rama Varma Sakthan Thampuran, the then Maharaja of Cochin, is said to have introduced the folk art, who wanted to celebrate Onam with a dance that reflected the wild and macho spirit of the force.
- Later, Konar of (Pattalam Road) used to celebrate with great fervor. They popularised the folk genre with steps and body language peculiar to a tiger being stalked by a hunter, enacting a play of the hunter and the beast.
- Along with the celebrations, they used to perform the art form decked as tigers with peculiar steps resembling the tiger, then known as 'Pulikkettikali' which was immensely enjoyed by the locals. Pulikkali in Thrissur is held in memory of this event.

New Circles of Archaeological Survey of India

In News

The Ministry of Culture has announced 7 new circles of the Archaeological Survey of India (ASI).

- New circles have been created in Madhya Pradesh, Tamil Nadu, Uttar Pradesh, Karnataka, West Bengal and Gujarat.
- Trichy, Raiganj, Rajkot, Jabalpur, Jhansi and Meerut have been announced as new circles.

Details

- Tamil Nadu which has thousands of temples and glorious memories of the Chola kings, Trichy has been made a new circle along with the circle of Chennai.
- Hampi city in Karnataka is a place of international importance from the point of view of archaeological heritage therefore the Hampi Sub-Circle now has been made a new full fledged circle.
- In West Bengal, Raiganj has been made as a new circle along with Kolkata, which will eliminate geographical inconvenience.
- In Gujarat, Rajkot has been announced as a new circle along with Vadodara.
- Jabalpur has been announced as a new circle along with Bhopal in Madhya Pradesh.
- This will include the monuments from Jabalpur, Rewa, Shahdol and Sagar divisions.
- Jhansi in Bundelkhand and Meerut in western UP have been announced as two new circles along with Lucknow and Agra in Uttar Pradesh.

Archaeological Survey of India (ASI)

- ASI, under the Ministry of Culture, is the premier organization for the archaeological research and protection of the cultural heritage of the nation.
- It administers more than 3650 ancient monuments, archaeological sites and remains of national importance.
- Its activities include carrying out surveys of antiquarian remains, exploration and excavation of archaeological sites, conservation and maintenance of protected monuments etc.
- It was founded in 1861 by Alexander Cunningham- the first Director-General of ASI. Alexander Cunningham is also known as the "Father of Indian Archaeology".

Bondas

In News

The COVID-19 pandemic has reached the Bondas, a PVTGs community residing in the hill ranges of Malkangiri district in Odisha.

Bondas tribe

- The Bondas are Munda ethnic group who live in the isolated hill regions of the Malkangiri district of southwestern Odisha near the junction of the three states of Odisha, Chhattisgarh, and Andhra Pradesh.

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- They are a scheduled tribe of India and are also known as the Remo (meaning “people” in the Bonda language).
- The tribe is one of the oldest and most primitive in mainland India; their culture has changed little for more than a thousand years.
- Their isolation and known aggressiveness continue to preserve their culture despite the pressures of an expanding Indian population.

Bru Tribals

In News

Non-Brus of Tripura has proposed six places for settling the displaced Brus from Mizoram and set a limit for the number of families to be accommodated in two subdivisions that have borne the brunt of the 23-year-old refugee crisis.

Brus

- Reangs or Brus are the second largest ethnic group in Mizoram.
- Their exodus in 1997 was spurred by violent clashes in Mamith subdivision, a Reang-dominated area when they demanded the creation of an autonomous council that was vehemently opposed by Mizo groups.
- Around 34,000 people were forced to live in sub-human conditions in tents in Tripura. No solution could be reached all these years.
- These people were housed in temporary camps at Kanchanpur, in North Tripura.

Siddi community

In News

The Siddi community gets its first lawmaker in Karnataka. They are included as the Scheduled Tribes in Karnataka.

Siddi Tribe

- The Siddi also known as Sidi, Siddhi, Sheedi or Habshi, are an ethnic group inhabiting India and Pakistan.
- They are sometimes referred to as Afro-Indians. They are descended from the Bantu peoples of the East African region.
- Similarly, another term for Siddis, habshi, is held to be derived from the common name for the captains of the Abyssinian ships that also first delivered Siddi slaves to the subcontinent.

- They are primarily Muslims, although some are Hindus and others belong to the Catholic Church.

How they came to India?

- The first Siddis are thought to have arrived in India in 628 AD at the Bharuch port. Several others followed with the first Arab conquest of the subcontinent in 712 AD.
- The latter groups are believed to have been soldiers with Muhammad bin Qasim’s Arab army and were called Zanjis.
- In the Delhi Sultanate period prior to the rise of the Mughals in India, Jamal-ud-Din Yaqut was a prominent Siddi slave-turned-nobleman who was a close confidant of Razia Sultana.
- Siddis were also brought as slaves by the Deccan Sultanates. They also served in the Navy of Shivaji Maharaj.
- Several former slaves rose to high ranks in the military and administration, the most prominent of which was Malik Ambar.
- Later the Siddi population was added to via Bantu peoples from Southeast Africa that had been brought to the Indian subcontinent as slaves by the Portuguese.

Tangams

In News

Arunachal CM released a book titled “Tangams: An Ethnolinguistic Study Of The Critically Endangered Group of Arunachal Pradesh”.

- The Tangams is a little-known community within the larger Adi tribe of Arunachal Pradesh and resides in the hamlet of Kugging in Upper Siang district’s Painedem circle.
- In 1975, the community’s population was pegged at 2,000 spread across 25 villages.
- From 2016 to 2020, a team from the Centre for Endangered Languages (CFEL) of Rajiv Gandhi University (RGU), carried out extensive field research and documented the community.
- Their survey revealed that Tangams were now concentrated in only one village (Kugging), with only 253 reported speakers.
- As per the UNESCO World Atlas of Endangered Languages (2009), Tangam — an oral language that belongs to the Tani group, under the greater Tibeto-

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Burman language family — is marked ‘critically endangered’.

Languages of Arunachal Pradesh

- There has been no systematic, scientific or official survey on the number of languages in Arunachal Pradesh till recently.
- An official linguistic survey by the state government began only in 2018, which is currently underway.
- Before that, People’s Linguistic Survey of India was published in 2017.
- According to experts, there are around 32-34 languages with a disclaimer that it is not a conclusive figure.
- If various linguistic varieties or dialects embedded within these languages are enlisted then the numbers can go up to 90.
- The languages of Arunachal Pradesh have been classified under the Sino-Tibetan language family and more specifically under the Tibeto-Burman and Tai group of languages, such as Lolo-Burmish, Bodhic, Sal, Tani, Mishmi, Hruishh and Tai.
- The education system introduced Devanagari, Assamese and Roman scripts for most tribal languages but new scripts such as Tani Lipi and Wancho Script have been developed by native scholars as well.
- According to the UNESCO Atlas of the World’s Languages in Danger, more than 26 languages of Arunachal Pradesh have been identified as endangered with the degrees ranging from ‘unsafe’, ‘definitely endangered’ to ‘critically endangered’.

Rabari, Bharvad and Charan Tribes of Gujarat

In News

The Gujarat government will constitute a commission to identify the members of Rabari, Bharvad and Charan communities who are eligible to get the benefits of Schedule Tribe (ST) status.

Rabari

- The Rabari, also called the Rewari are an indigenous tribal caste of nomadic cattle and camel herders and shepherds that live throughout northwest India, primarily in the states of Gujarat, Punjab and Rajasthan.

- The word “Rabari” translates as “outsiders”, a fair description of their primary occupation and status within Indian society.
- They speak ‘Bhopa’ which is a mixture of Gujarati, Kachchi, Marwari words and Pharasi (Persian) and use Gujarati script.
- The Rabari are known for their distinctive art, particularly the mirrored and whitewashed mud sculpture-work that adorns their homes and villages.
- Rabari women are responsible for this artwork and also traditionally spin the wool from their sheep and goats, and give it to local weavers to make their woollen skirts, veils, blankets and turbans.

Bharvad

- The Bharwad are tribals primarily engaged in herding livestock.
- The Bharwad name may derive from the Gujarati word badawad, constructed from bada (sheep) and wada (a compound or enclosure).
- The Bharwads have numerous subgroups known as ataks or guls (clans) whose main purpose is to determine eligibility for marriage.
- Constrained exogamy is practised between clans.

Charan

- The Charan, also called Gadhvi, is a small tribe in Gujarat and the name Charan is derived from the word ‘Char’ which means grazing.
- Members of the caste are considered to be divine by a large section of society.
- Women of the caste are adored as mother goddesses by other major communities of this region.

Special Articles

PM Address to Nation On 74th Independence Day

- Prime Minister Narendra Modi addressed the nation from the majestic Red Fort on the occasion of India's 74th Independence Day.

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- In the one-hour 26-minute speech, he focused on the themes of "Aatma Nirbhar Bharat (self-reliant India)", "Vocal for local" and "Make in India to Make for World".
- He also paid tribute to those on the frontlines of the fight against the coronavirus and declared that India had a roadmap ready for the production and distribution of three COVID-19 vaccines that are at various stages of testing.
- In his address to the nation on the occasion of India's 74th Independence Day, Prime Minister Narendra Modi Saturday applauded frontline workers fighting against novel coronavirus.
- PM Modi launched a National Digital Health Mission and said it will usher in a revolution in India's health sector.
- The Independence Day ceremony at the Red Fort was attended by over 4,000 people, including diplomats, officials and media personnel. Safety protocols were in place for the event, including social distancing and wearing masks.

National Education Policy

The Ministry of HRD formed a Committee chaired by Dr. K. Kasturirangan for preparing the National Education Policy. The Committee was constituted in June 2017. The Committee submitted its report on May 31, 2019.

- The National Policy on Education covers elementary and university education in urban as well as rural India.
- The very first policy for education was promulgated in 1968 with the second one following in 1986.
- The first NPE was based on the recommendations of the Education Commission (1964-66). This policy sought to have a 'radical restructuring' of India's educational system and equalising opportunities for education for all, to accomplish national integration and better economic and cultural development.
- The NPE also called for realising compulsory education for every child until the age of fourteen, as mentioned in the Indian Constitution.
- It also aimed at providing enhanced training and improving teachers' qualifications.
- NEP 2020 is the 21st Century's first education policy in India.
- The development of the creative potential of each student is emphasized upon in the National Education Policy 2020.

- The NEP 2020 mentioned the ancient scholars like Charaka and Susruta, Aryabhata, Bhaskaracharya, Chanakya, Madhava, Patanjali, Panini and Thiruvalluvar.

The principles of National Education Policy 2020 as mentioned by the government are:

- Flexibility
- No hard separations between subjects, curricular and extra-curricular activities
- Multi-disciplinary education
- Conceptual understanding
- Critical thinking
- Ethical Values
- Teachers as the heart of the learning process
- Strong public education system

Features of National Education Policy 2020

The National Education Policy as submitted by the Kasturirangan Committee submitted an education policy which seeks to address the following challenges facing the existing education system:

- Quality
- Affordability
- Equity
- Access
- Accountability

Highlights of the National Education Policy 2020

- The policy covers all the 3 stages of education, that is school education, higher education and professional education
- It includes even agricultural education, legal education, medical education, technical education, vocational education, teacher education and the research and innovation.
- Emphasizes on The early child care and education and includes it in the Ministry of Education [Ministry of HRD will be called Ministry of Education from now on]
- The policy also tries to focus on certain foundational skills that children should have in the proposed new structure of 5+3+3+4

5+3+3+4 STRUCTURE

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- The first stage of five years – (Children of 3-8 years of age)
- Is focused on discovery learning and learning by play.
- Aims to build the foundational literacy and numeracy skills
- Preparatory Stage (children in the age group of 8 to 11 year – grades 3 to 5)
- Middle Stage age group of 11-14 years – grades 6 to 8)
- Secondary Stage (age group of 14-18 years – Grades 9-12)

Reforms in School and Secondary education

- National Education Policy 2020 says, Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother-tongue/local language.
- Reason behind implementing multilingualism is that, according to research children pick up languages extremely quickly between the ages of 2 and 8 and that multilingualism has great cognitive benefits to young students
- In addition to Sanskrit, the teaching of all other classical languages [in schedule 8] and literature of India will happen at schools.
- School complexes and public library spaces should be used for adult education beyond school hours.
- Every child to learn at least one vocation and exposed to several more.
- Vocational training such as carpentry, electric work, metal work, gardening, pottery making, etc. to be the part of syllabus in schools between grade 6-8.
- By 2025, at least 50% of learners through the school and higher education system shall have exposure to vocational education
- Bagless period for Grades 6-8 once in 10 days will be implemented.
- Ministry of Defence along with State Governments may encourage opening NCC wings in their secondary and higher secondary schools
- Government to focus on digital infrastructure, digital content and capacity building for school and higher education.
- A National Curriculum Framework for Teacher Education, NCFTE 2021, will be formulated by the NCTE in consultation with NCERT. By 2030, the minimum degree qualification for teaching will be a 4-year

integrated B.Ed. degree . Violation of the rules will attract Stringent action

- There will be increased flexibility for students to choose the subjects to study from secondary school. It includes subjects in physical education, the arts and crafts, and vocational skills
- There will be no separation among curricular, extracurricular, or co-curricular activities in schools.
- In the same way, there will be NO hardline separation among 'arts', 'humanities', and 'sciences', or between 'vocational' or 'academic' streams.
- Subjects such as science, humanities, and mathematics will be will be taught along with physical education, the arts and crafts, and vocational skills
- A National Mission on Foundational Literacy and Numeracy will be set up by the Ministry of Human Resource Development (MHRD) on priority
- 360 degree holistic report card will be given to students, which will not only inform about the marks obtained in subjects, but also their skills
- The policy also proposes to expand Right to compulsory education between 3 -18 years
- The NEP aims to achieve fully literate society by 2030

Reforms in Higher education

- Restructuring the higher education system into Tier 1, Tier 2 and Tier 3.
- Tier 1 includes research universities focusing equally on research and teaching,
- Tier 2- teaching universities focusing primarily on teaching
- Tier 3 – colleges focusing only on teaching at undergraduate levels. All these institutions will gradually move towards academic, administrative, and financial autonomy. Government intends to spread 'research culture' at the undergraduate level.
- Foreign universities will be given special permissions and limited procedures to set up institutions in India.
- Higher Education Commission of India(HECI) will be a single overarching umbrella body the for entire higher education, except medical and legal education.
- The NEP establishes National Scholarship Fund to financially support students for higher education.
- Through NEP government aims to enhance GER [gross Enrollment Ratio] of 50% by 2035
- Establishing National Research Foundation [NRF] to enable the culture of research among youth.

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- Academic Bank of Credit (ABC) will be established which would digitally store the academic credits earned by students.
- Engineering institutions, like IITs, will move towards more holistic and multidisciplinary education to include arts and humanities.

Public funding of elections

India became a republic and chose universal adult franchise notwithstanding dire predictions that warned of chaos. With an overwhelmingly illiterate (85%) population and with female literacy at an abysmally low 7.5%, many prognosticated the failure of the experiment.

The Progress

However, it has not been a smooth ride. By the time of the 4th Lok Sabha elections (1967), party hopping by elected representatives became a frequent phenomenon.

While democracy was restored, the many malpractices in elections like booth capturing, intimidation of voters, vote buying and the like put a question mark over our democratic credentials.

Free and Fair Election

- Concept of free and fair election includes even preliminary stages to election such as delimitation of constituencies, preparation, revision or amendment of electoral rolls and many others.
- Concept of free and fair election mainly relates to political liberty and equality. In matters of election it implies that no one, under the electoral process, is in bondage of another, having his personal rights, social and political liberty, free thinking and choice subjected to a legal discipline.
- While exercising his right to vote one is not under undue influence of party discipline, religion, caste, creed, sex, language and also one is not under the strain of corrupt practices and so on. Thus, free and fair elections are the foundations of democratic form of government.

Growing Menace of Money Power

- Over the course of time several negative features of our electoral scene have worsened. Since the Model Code of Conduct came into effect, in just the first two phases this time, money power has been used so blatantly that seizures in form of unaccounted cash,

liquor, bullion and drugs amounting to ₹2,600 crore have already been made.

- The amount is greater than the entire seizures made in the nine phases of the general election in 2014. Most depressingly, this includes huge cache of drugs, the vast majority smuggled into Gujarat. Uttar Pradesh is awash with liquor. Tamil Nadu has seen the largest seizures of illicit cash — over ₹514 crore.
- These vast sums that intended to bribe or influence voters are only fraction of current illegal spending that has been exposed. A larger share has already been spent without the knowledge of ECI or other regulatory authorities.
- Political players have evolved their methods and are many steps ahead of the ECI's observers and their vigilance teams by moving their funds to their destinations even before the elections are announced.

Obstacles in Free and Fair Elections

- Electoral malpractice has appeared in newer forms in recent times. Voter bribery and manipulation through the media have become the techniques of unethically influencing voters in place of voter intimidation and booth capturing.
- Over the past few years incidence of corruption in public life in which politicians and officials have diverted the available resources to personal use has increased. Public funds have been misappropriated and have destroyed the moral and ethical environment of the nation.
- According to the Vohra Committee Report, criminalization of politics and corruption in high levels is destroying the very system and edifice of our parliamentary democracy, political authorities, the civil servants and even the judiciary.
- In the era of outside support and the coalition governments in the States and at the Centre, it is an admitted fact that the representatives of the people in the Assemblies and Parliament accept money to support a particular Government. Hence, Members of Parliament or State Assemblies became a marketable commodity and a subject of sale and purchase or horse-trading.
- Money power is a crucial factor in elections since modern devices of election propaganda are expensive. The availability of large funds ordinarily tends to increase the number of votes a candidate will receive. This money often takes the course of black money and is collected through nefarious and illicit means.

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- Electoral bonds which were meant for from enabling a legitimate and transparent means of political funding, have proved to be the reverse. The EC, in its own affidavit before the Supreme Court, has admitted as much.
- The Supreme Court's order has made sure that full disclosure, albeit to the EC, has already effectively killed further funding along this route.

Political Finance Issues

- Political Finance policies have attracted wide attention in all democracies being a sensitive issue with potential to subvert institutions. Many democratic countries have legislated to regulate Party and Election Finance.
- In India, there is a limit on candidate's expenditure in elections and for parties to submit accounts annually to ECI. Similar provisions exist in other countries notably in the UK.
- In India, two developments that have taken place over the years in the electoral arena deserve closer look. One is the steady increase in the number of those with criminal antecedents and second, the steady increase in the number of legislators with deep pockets.
- The financial status of MPs elected between 2009 and 2019 in three General Elections.

Party Finance

- While there is a ceiling on the individual candidate's election spend, there is no limit on party expenditure, a big loophole which the political parties are loath to plug.
- Party finances and their sources in our country is a grey area, while the law requires reporting details of the donations above Rs.20,000/-, parties are adept at avoiding it, many claiming more than 90% of the receipts to be below the reporting limit.

Why public funding of elections not a good idea

- Earlier, congress party talks of scrapping electoral bonds and setting up a National Election Fund, from which funds will be allocated during elections to recognised political parties as laid down by a law brought to this effect.
- This has revived the debate around public funding of elections, though it is hard to see how such a fund will generate voluntary contributions, with the incentive for a donor to contribute to a party of her choice gone.

- The underlying principle in state-funded or candidate/party agnostic public-funded (National Election Fund model) polls, of providing a level playing field, is an admirable one.
- The state funding each candidate from Panchayat to Parliament would mean considerable costs and a mind-boggling number of variables that can't be squared off.
- To start with, political financing today is as much about the sustenance of whole-time workers of parties as it is about poll expenditure.
- Even if state funding were to be limited to just elections, parties may just use their own funds to meet election expenses by exploiting loopholes. It will be very difficult to frame who gets state funding and how much.

The Rule of Law

The concept of Rule of Law is that the state is governed, not by the ruler or the nominated representatives of the people but by the law.

The Constitution of India intended for India to be a country governed by the rule of law. It provides that the constitution shall be the supreme power in the land and the legislative and the executive derive their authority from the constitution.

Origin

- The origins of the Rule of Law theory can be traced back to the Ancient Romans during the formation of the first republic; it has since been championed by several medieval thinkers in Europe such as Hobbs, Locke, and Rousseau through the social contract theory.
- Indian philosophers such as Chanakya have also espoused the rule of law theory in their own way, by maintaining that the King should be governed by the word of law.

Supremacy of law

- This has always been the basic understanding of the rule of law that propounds that the law rules over all people including the persons administering the law.
- The lawmakers need to give reasons that can be justified under the law while exercising their powers to make and administer the law.

Equality before the Law

- While the principle of supremacy of law sets in place cheques and balances over the government on making

and administering the law, the principle of equality before the law seeks to ensure that the law is administered and enforced in a just manner.

- It is not enough to have a fair law but the law must be applied in a just manner as well.
- The law cannot discriminate between people in matters of sex, religion, race etc.
- This concept of the rule of law has been codified in the Indian Constitution under Article 14 and the Universal Declaration of Human Rights under the Preamble and Article 7.

Media Governance: Ethos, Values & Integrity

If media has to play the role of actor as well as conduit in the process of governance then it is needed to reinvent it to ensure accountability to public. Thereby, it may evolve and adopt a balanced set of values into practice which may be considered as 'Public Value'. Integrity shall be achieved if both 'media governance' and 'mediated governance' revive public accountability while translating the ideas of public philosophy into public values.

- The last few decades have witnessed the changes and reforms in public policies, and its implementation across the world.
- Indian media sector too witnessed significant changes as a result of governance policies during last four decades with the rise of 24/7 news cycle, television channels, newspapers, social media, emergence of platform based economy, mobile, telephony and advancement in digitisation processes; thereby, transforming into a more competitive and more vulnerable economy of media production and delivery that subsequently have changed the landscape of media in India.
- Amid this burgeoning media landscape, Parthasarthy (2018) highlights the need to recognise the regulatory, organisational, and cultural conditions under which the media economy has emerged and constituted by decisions and decision-making.
- In fast-changing media and communication environments more people are connected than ever before. While most acknowledge that the influence and impact of changing media and communication on governance outcomes is growing, the degree to which new media landscapes are contributing to more informed, peaceful and accountable societies remains in

question. For some, increasingly networked young, educated and information-empowered global citizens have the potential to be democratically, socially and economically transformative. For others, increasingly fragmented and co-opted media and communication environments are driving political polarisation, extremism and violence.

- Access to internet and mobile phones is rising rapidly, not least in fragile states, but radio and TV remain the key sources of information for most people.
- Over the last couple of decades powerful changes in media markets have had a substantial impact on patterns of information, communication and governance: the number of media stations has rapidly increased; media environments have become increasingly fractured, with more stations catering for specific ethnic, linguistic or religious communities; advertising models are often unable to sustain quality journalism; and, in many countries, it is increasingly hard to see how the market can support inclusive media that reaches across divides. Political, religious, ethnic or other factional actors have stepped in, supporting media outlets to promote their agendas.
- For much of modern democratic history, media has been considered one of the most powerful agents of democratic accountability.
- Extensive empirical research has demonstrated the connection between a free press and good governance, including the association between access to balanced, independent programming and improved knowledge and political participation.

Journalism ethics and standards

Journalistic ethics and standards comprise principles of ethics and good practice applicable to journalists. This subset of media ethics is known as journalism's professional "code of ethics" and the "canons of journalism".

The basic codes and canons commonly appear in statements by professional journalism associations and individual print, broadcast, and online news organizations.

While various codes may have some differences, most share common elements including the principles of truthfulness, accuracy, objectivity, impartiality, fairness, and public accountability, as these apply to the

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acquisition of newsworthy information and its subsequent dissemination to the public.

Like many broader ethical systems, the ethics of journalism include the principle of "limitation of harm." This may involve the withholding of certain details from reports, such as the names of minor children, crime victims' names, or information not materially related to the news report where the release of such information might, for example, harm someone's reputation.

Some journalistic codes of ethics, notably some European codes, also include a concern with discriminatory references in news based on race, religion, sexual orientation, and physical or mental disabilities.

Evolution and purpose of codes of journalism

Journalism's codes of ethics are intended to ensure reliability of reported information by defining acceptable practices; and provide guidelines about circumstances to avoid that could interfere with, or appear to interfere with, the reliability of reported information.

The codes and canons provide journalists with a framework for self-monitoring and self-correction.

Journalism is guided by five values:

1. **Honesty:** journalists must be truthful. It is unacceptable to report information known to be false, or report facts in a misleading way to give a wrong impression
2. **Independence and objectivity:** journalists should avoid topics in which they have a financial or personal interest that would provide them a particular benefit in the subject matter, as that interest may introduce bias into their reporting, or give the impression of such bias. In cases where a journalist may have a specific financial or personal interest, the interest should be disclosed
3. **Fairness:** journalists must present facts with impartiality and neutrality, presenting other viewpoints and sides to a story where these exist. It is unacceptable to slant facts
4. **Diligence:** a journalist should gather and present pertinent facts to provide a good understanding of the subject reported

5. **Accountability:** a journalist must be accountable for their work, prepared to accept criticism and consequences.

Common elements

The primary themes common to most codes of journalistic standards and ethics are the following.

- Accuracy and standards for factual reporting
- Slander and libel considerations
- Harm limitation principle

Genres, ethics, and standards

- **Advocacy journalists**—a term of some debate even within the field of journalism—by definition tend to reject "objectivity", while at the same time maintaining many other common standards and ethics.
- **Civic journalism** adopts a modified approach to objectivity; instead of being uninvolved spectators, the press is active in facilitating and encouraging public debate and examining claims and issues critically. This does not necessarily imply advocacy of a specific political party or position.

Relationship with freedom of the press

- In countries without freedom of the press, the majority of people who report the news may not follow the above-described standards of journalism. Non-free media are often prohibited from criticizing the national government, and in many cases are required to distribute propaganda as if it were news.
- Various other forms of censorship may restrict reporting on issues the government deems sensitive.
- Some countries that have freedom of the press are the U.S., Canada, Western Europe and Scandinavia, Australia, New Zealand, Japan, Taiwan and a handful of countries in South America.

Geographic Information System

A geographic information system (GIS) is a computer system for capturing, storing, checking, and displaying data related to positions on Earth's surface. By relating seemingly unrelated data, GIS can help individuals and organizations better understand spatial patterns and relationships.

Geographic information systems are utilized in multiple technologies, processes, techniques and methods. It is

Agriculture and Social Security

attached to various operations and numerous applications, that relate to: engineering, planning, management, transport/logistics, insurance, telecommunications, and business.

GIS provides the capability to relate previously unrelated information, through the use of location as the "key index variable". Locations and extents that are found in the Earth's spacetime, are able to be recorded through the date and time of occurrence, along with x, y, and z coordinates; representing, longitude (x), latitude (y), and elevation (z).

All Earth-based, spatial-temporal, location and extent references, should be relatable to one another, and ultimately, to a "real" physical location or extent. This key characteristic of GIS, has begun to open new avenues of scientific inquiry and studies.

Techniques and technology

- Modern GIS technologies use digital information, for which various digitized data creation methods are used.
- The most common method of data creation is digitization, where a hard copy map or survey plan is transferred into a digital medium through the use of a CAD program, and geo-referencing capabilities.
- With the wide availability of ortho-rectified imagery (from satellites, aircraft, Helikites and UAVs), heads-up digitizing is becoming the main avenue through which geographic data is extracted.
- Heads-up digitizing involves the tracing of geographic data directly on top of the aerial imagery instead of by the traditional method of tracing the geographic form on a separate digitizing tablet (heads-down digitizing).

Geoprocessing

Geoprocessing is a GIS operation used to manipulate spatial data. A typical geoprocessing operation takes an input dataset, performs an operation on that dataset, and returns the result of the operation as an output dataset. Common geoprocessing operations include geographic feature overlay, feature selection and analysis, topology processing, raster processing, and data conversion. Geoprocessing allows for definition, management, and analysis of information used to form decisions.

Role of agriculture in social security

Social security is inbuilt and intrinsic to agriculture given the income augmentation, food and nutritional security it provides and also the large population and rural workforce it absorbs.

Challenges

Lack of social security

- Rural India constitutes over 65 percent of India's population and about 54.3 percent households of rural India get employment in agriculture either as self-employed or as casual labourers.
- Though the population of agricultural workers as percentage of rural population has gone down from about 69 percent in 1951 to about 55 percent in 2014-15 but in absolute terms, due to Increase in overall population, the number of agricultural workers available in rural areas has increased from 131 million in 1960-61 to 263 million in 2010-11.
- It is estimated that the number of agricultural workers will increase to about 336 million in 2032-33 (NITI Aayog, 2018).
- These agricultural workers are often subject to low paid jobs and underemployment. This results in the incidence of poverty in a large section of this population. Despite the overwhelming necessity of social security for this section, a large number of these agricultural workers lack social security.

To augment income

- Policies and programmes have to be redesigned to convert the low paid and underemployment providing agriculture into a competitive economic activity.
- The aim of doubling farmer's income is a welcome move in this direction.
- Diversify towards more income and employment:

Diversification has been recognised as a potent tool with a potential to cater the concerns of food, nutrition and income for social security. Horticulture and livestock farming have been a major trend in diversification of agricultural activity.

Horticulture

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Food Security and Indian Agriculture

- There is the need for reorientation towards product diversification like fruits, vegetables, flowers, and high value commodities.
- This could not only help increase income, but also help conserve resources and provide better and quality employment fetching more returns to the small-sized farms. Export of agricultural products should be encouraged.

Livestock farming

- Animal husbandry, dairying and fisheries activities would play an important role in the socio-economic development of rural India while contributing to the food basket, nutrition security and household income of the farmers.
- Livestock farming provides gainful employment in the rural areas, particularly among the landless, small and marginal farmers and women. Livestock are the best insurance for farmers against vagaries of nature like drought and other natural calamities.

Government Initiatives

- The PM-Kisan Samman Nidhi Yojana (PM-KISAN) provides direct income support to the farmers.
- Given the fact that the risk of crop failure makes a farmer and his dependents vulnerable in society, the central government had launched the PM-Fasal Bima Yojana in 2016.
- The Kisan Maandhan Yojana provides for old-age pension support for the farmers. Under this a farmers will get Rs. 3000 per month when he/she attains the age of 60 years.
- The agricultural credit and interest subvention scheme relieves the financial burden on the low income farmers.
- Mahatma Gandhi National Rural Employment Guarantee Act, 2006 ensures off season employment to agricultural labourers.
- The Aatmanirbhar Bharat package has introduced some much needed reforms in agricultural marketing, contract farming and land tenancy reforms.
- The Government has also focused on promotion of nutri-cereals and bio-fortified crops along with Public Distribution System (PDS) to bring in nutritional security as well as to ensure access and affordability of food. National Food Security Act (NFSA) ensures targeted distribution among the most vulnerable and needy classes of the society.

Ever since independence in 1947, agricultural development policies in India have aimed at reducing hunger, food insecurity, malnutrition and poverty at a rapid rate. Keeping this overarching goal in mind, the emphasis, which was initially (for 15 years or so) on keeping food prices low, shifted to macro food-security and subsequently to household and individual food-security.

Later, the food security of vulnerables, sustainable use of natural resources, and equity between rural and urban or farm and nonfarm population became the issues of dominant discourse related to agricultural development. The policies and programmes related to marketing and trade were obviously guided by the overall objective sought to be achieved from the agricultural development strategy.

The changes in marketing environment and production performance of the Indian agricultural sector should, therefore, be viewed in the context of weightage attached to these objectives at different points of time.

India's agricultural development strategy and approach to food security has yet again proved its resilience in the wake of recent global food crisis, which has created political and social unrest in several countries of developing world.

Approach to Food Security

Food security, at both the national and household levels, has been the focus of agricultural development strategy in India ever since mid-1960s when import dependence for cereals had gone up to 16 per cent and the country faced severe droughts continuously for two years.

The new strategy launched at that point of time was aimed at 'maximizing the production of cereals', and involved building a solid foundation of food security on three key elements, viz. (a) provision of an improved technology package to the farmers; (b) delivery of modern farm inputs, technical know-how and institutional credit to the farmers; and (c) assurance of a remunerative marketing and pricing environment for farmers.

For achieving these objectives, several policy instruments were used that influenced production

COVID-19 impacts on agriculture, food security, and livelihoods in India

potential, and marketing system of agricultural commodities in general and food products in particular.

Some of the main policy instruments that reflect the policy package adopted by India are as follows:

- Creation, strengthening and expansion of the national agricultural research system (NARS) for developing and perfecting new production technologies for foodgrains and other agricultural commodities.
- Establishment, strengthening and expansion of agricultural education and training system for agricultural extension workers and farmers for transfer of new technologies at the farm level.
- An arrangement for the production and/or import and distribution of high-yielding farm inputs like improved seeds, fertilizers, agro-chemicals and improved implements/farm machines to the farmers.
- Planning and execution of major, medium, and micro irrigation schemes for increasing the area under irrigation.
- Nationalization of commercial banks, creation of cooperative credit institutions, and reorientation of monetary policy to increase institutional credit flow to the farmers.
- Creation and expansion of physical and institutional infrastructure (primary market yards, roads, storage facilities, farmers' cooperatives and public sector organizations) for improvement of the marketing system to handle and distribute the emerging marketed surplus.
- Regulation of traders' exploitative marketing practices through a series of legal and regulatory measures such as licensing, levies, stocking limits and movement restrictions.
- Fixation of minimum support prices (MSPs) and arrangements for price support purchases and procurement by public or cooperative agencies.
- Building-up and maintenance of buffer stocks of cereals and distribution of cereals through public distribution system (PDS).
- Provision of food and input subsidies, explicit or implicit, for reconciling the conflicting objectives of cereal producers and consumers in terms of prices.
- Canalization, licensing, minimum export prices (MEPs), and custom duties for maintaining price stability in the domestic market.

India has taken early action to limit the spread of COVID-19, ordering a 21-day nationwide lockdown for its population of 1.3 billion people starting March 25. The economic shock will likely be much more severe for India, for two reasons. First, pre-COVID-19, the economy was already slowing down, compounding existing problems of unemployment, low incomes, rural distress, malnutrition, and widespread inequality. Second, India's large informal sector is particularly vulnerable. Out of the national total 465 million workers, around 91% (422 million) were informal workers in 2017-18.

Agriculture and supply chains

- COVID-19 is disrupting some activities in agriculture and supply chains.
- Preliminary reports show that the non-availability of migrant labor is interrupting some harvesting activities, particularly in northwest India where wheat and pulses are being harvested. There are disruptions in supply chains because of transportation problems and other issues.
- Prices have declined for wheat, vegetables, and other crops, yet consumers are often paying more. Media reports show that the closure of hotels, restaurants, sweet shops, and tea shops during the lockdown is already depressing milk sales. Meanwhile, poultry farmers have been badly hit due to misinformation, particularly on social media, that chicken are the carriers of COVID-19.

Here are some measures are required to keep the agricultural sector and supply chains working smoothly:

1. The government has correctly issued lockdown guidelines that exempt farm operations and supply chains. But implementation problems leading to labor shortages and falling prices should be rectified.
2. Keeping supply chains functioning well is crucial to food security. It should be noted that 2 to 3 million deaths in the Bengal famine of 1943 were due to food supply disruptions—not a lack of food availability.
3. Farm populations must be protected from the coronavirus to the extent possible by testing and practicing social distancing.

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