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I. POLITY & GOVERNANCE

TOPIC: GS II, ASPECTS OF GOVERNANCE

1. Issues related to farm loan waiver

Source: Business Line

Country wide protests have recently erupted with the aim of waiving farm loans

Why loan waiver a temporary solution for farm crisis?

- It is a temporary escape and not a permanent one.
- According to RBI data, small farmers accounts for less than 40 per cent of total farm credit and about 13 per cent of total farm credit is made up by loans of ₹ 1 crore or more. Thus farm loan waiver system ends up in benefitting the profit earning big farmers mostly.
- Crop loans disbursed to agriculturists leave out tenant farmers.
- Most of these loans are availed of by owners of warehouses, manufacturers of fertiliser and farm equipment etc due to the expansion of list under priority sector lending.
- Hierarchical rural order restricts the disadvantaged from accessing insurance, welfare and loan schemes.
- It widens the fiscal deficit of the state government.
- They only serve the political interest and not the interest of the farmers.
- Several survey reports found farmers turning deliberate defaulters in the hope that their loans will be waived sooner or later.
- Farmers, defaulting in anticipation of waivers, lose out on other benefits. For instance, accounts of many farmers anticipating waivers were sub-standard at the time of enrolment under the farm insurance scheme (PMFBY) and, thus, the compulsory coverage was not extended to them.
- Waivers lead to crowding-out of private investment as increase in government borrowings to fund waivers tends to increase cost of borrowing for private borrowers.

What should be done?

- Widening of weather-based crop insurance schemes could be a quicker method of alleviating farmer distress. Use of weather data for providing immediate interim relief should be made mandatory under the crop insurance scheme.
- Waiving only a portion of the loan or interest subvention scheme that reduces debt but doesn't destroy the credit repayment behaviour.

- To take care of market and price risks, State governments need to look at less distortionary schemes like price deficit financing or direct farmer investment support scheme Rythu Bandhu scheme to stabilise farmer incomes and provide immediate relief.

TOPIC: GS II, ELECTIONS

2. NOTA

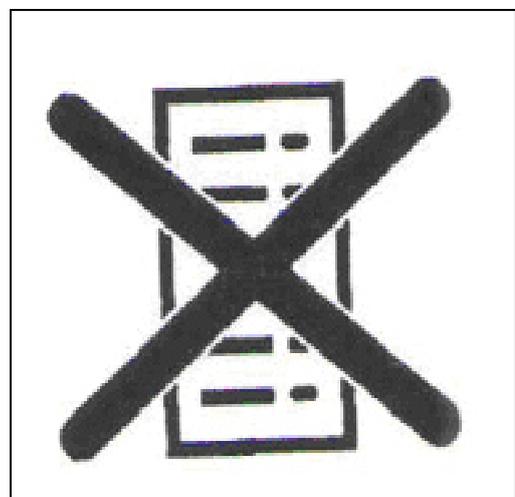
Source: The Hindu

Why in news:

Many political leaders have made NOTA responsible for their defeat in the recent assembly elections in the states of Rajasthan, Chhattisgarh and Madhya Pradesh.

What is NOTA?

- NOTA refers to None of The Above.
- It is the right to register negative opinion secretly in the electronic voting machine.
- It was introduced in 2013 and India became the 14th country to have such a system in the electoral system.
- The main objective of the 'NOTA' option is to enable electors who do not wish to vote for any of the candidates to exercise their right not to vote for any candidate without violation of the secrecy of their decision.
- It should be noted that NOTA only refers to negative voting and not right to reject. It means that if NOTA gets majority then it will not be translated into re-election or the constituency falling vacant and candidate with maximum votes will win the election.



Is there any dominant role played by NOTA in the elections?

- In the recent assembly elections, people who voted for NOTA constituted not more than 2% since its introduction in 2013.

What is the reason for having NOTA in direct elections in the country?

- NOTA provides opportunity to the people to show their disapproval which results in increases the number of people turning up to cast their votes, even if they do not support any candidate, and decreases the count of bogus votes.
- According to the Supreme Court, the negative voting could bring about “a systemic change in polls and political parties will be forced to project clean candidates.
- It will force the political parties to select the non corrupt candidates.
- It gives boost to people’s right to freedom of speech and expression.

What are its disadvantages?

- NOTA not leading to rejection is a self defeating concept.
- Absence of the facility of Right to recall where the voters could recall candidates they have elected weaken NOTA.
- It creates distortion by making a large number of votes invalid.

**TOPIC: GS III, ISSUES
RELATED TO PLANNING**

3. Strategy for New India

Source: PIB

Why in news:

- NITI Aayog has recently unveiled its comprehensive national Strategy for new India, which defines clear objectives for 2022-23.
- It is a detailed exposition across forty-one crucial areas that recognizes the progress already made, identifies binding constraints, and suggests the way forward for achieving the clearly stated objectives.
- Its focus is to improve the policy environment in which private investors and other stakeholders can contribute their fullest towards achieving the goals set out for New India 2022 and propel India towards a USD 5 trillion economy by 2030.
- The strategy has been disaggregated under four sections which are as follows:

A. **Drivers:** It aims at doubling of farmers’ incomes; upgrading the science, technology and innovation eco-system; and promoting sunrise sectors like fintech and tourism.

- Achieving a GDP growth rate of about 8% on average during 2018-23, increase the investment rate from the present 29% to 36% of GDP by 2022.

- Converting farmers to ‘agripreneurs’ by further expanding e-National Agriculture Markets and replacing the Agricultural Produce Marketing Committee Act with the Agricultural Produce and Livestock Marketing Act.
- Focus on Zero Budget Natural Farming’ techniques that reduce costs, improve land quality and increase farmers’ incomes.
- To ensure maximum employment creation, complete codification of labor laws and to upscale and expand apprenticeships.
- Launch a mission “Explore in India” by revamping minerals exploration and licensing policy.

B. **Infrastructure:** It deals with the physical foundations of growth which are crucial for enhancing the competitiveness of Indian business.

- Expedite the establishment of the Rail Development Authority (RDA) which will make informed decisions on an integrated, transparent and dynamic pricing mechanism for the railways.
- Double the share of freight transported by coastal shipping and inland waterways.
- Develop an IT-enabled platform for integrating different modes of transport and promoting multi-modal and digitized mobility.
- Completion of the Bharat Net programme by 2019 under which all 2.5 lakh gram panchayats will be digitally connected. It aims to deliver all government services digitally by 2022-23.

C. **Inclusion:** It aims at investing in the capabilities of all of India’s citizens by focusing on health, education and mainstreaming of traditionally marginalized sections of the population.

- Successfully implementing the Ayushman Bharat programme.
- Upgrade the quality of the school education system and skills, including the creation of a new innovation ecosystem at the ground level by establishing at least 10,000 Atal Tinkering Labs by 2020.
- Conceptualize an electronic national educational registry for tracking each child’s learning outcomes.
- To give a push to affordable housing to improve workers’ living conditions and ensure equity while providing a strong impetus to economic growth.

D. **Governance:** It aims at streamlining and processing the governance structures to optimize to achieve better developmental outcomes.

- Implement the recommendations of the second administrative reforms commission as a prelude to for designing reforms in the changing context of emerging technologies and growing complexity of the economy.
- To establish a new autonomous body i.e Arbitration Council of India to grade arbitral institutions and accredit arbitrators to make the arbitration process cost effective and speedy, and to preempt the need for court intervention.
- Addressing the backlog of pending cases.
- Expand the scope of Swachh Bharat Mission to cover initiatives for landfills, plastic waste and municipal waste and generating wealth from waste.

TOPIC: GS II, ASPECT OF GOVERNANCE

4. Commercial Surrogacy Bill

Source: The Hindu

Why in news:

- Lok Sabha has recently passed the Commercial Surrogacy Bill 2016 with penal provisions of jail term of up to 10 years and fine of up to ₹ 10 lakh.
- Surrogacy is a practice where a woman lends her womb for the delivery of child having different biological parent.

Key features of the bill:

- The bill prohibits commercial surrogacy which includes a monetary benefit or reward in cash or kind exceeding basic medical expenses and insurance for the surrogate mother.
- It allows only altruistic surrogacy which involves a surrogacy arrangement where the monetary reward only involves medical expenses and insurance coverage for the surrogate mother.
- According to the bill, child born out of a surrogacy procedure shall be the biological child of the intending couple and will be entitled to all rights and privileges that are available to a natural child.
- The couple intending to undergo a surrogacy arrangement must be a close relative of the surrogate mother. Surrogate mother should be married, between the age of 25 to 35 years, having her own child, and not been a surrogate mother before.
- The surrogate mother and the intending couple need eligibility certificates from the appropriate authority.

- The couple must be Indian citizens, married for at least five years and either or both of them should be suffering from infertility.
- They should be in the age group of 23-50 years (female partner) and 26-55 years (male partner)
- The couple should not have any surviving child be it biological, adopted or surrogate, except if the surviving child is mentally or physically challenged or suffers from a fatal illness.
- Appropriate authority and registration of surrogacy clinics:
 1. Central and state governments will appoint one or more appropriate authorities for (i) granting, suspending or cancelling registration of surrogacy clinics (ii) enforcing standards for surrogacy clinics and investigating (iii) taking action against complaints of breach of the Act.
 2. Surrogacy clinics cannot undertake surrogacy or its related procedures unless they are granted registration by the appropriate authority.
- The bill creates certain offences which include: (i) undertaking or advertising commercial surrogacy; (ii) exploiting the surrogate mother; and (iii) selling or importing human embryo or gametes for surrogacy. These offences will attract a penalty of 10 years and a fine of up to 10 lakh rupees.
- Authorisation of the appropriate authority is mandatory for an abortion to be done during the period of surrogacy.

Issues associated with the bill:

- The Bill permits surrogacy only for couples who cannot conceive a child. This procedure is not allowed in case of any other medical conditions which could prevent a woman from giving birth to a child.
- The surrogate mother and the intending couple need eligibility certificates from the appropriate authority. The Bill does not specify a time limit within which such certificates will be granted. It also does not specify an appeal process in case the application is rejected.
- According to the bill, the surrogate mother must be a 'close relative' of the intending couple. The Bill does not define the term close relative.
- Although the bill makes the permission of appropriate authority mandatory for abortion to be done during the period of surrogacy but it does not provide the time limit. It may be harmful for both the surrogate mother and the child.

Why banning commercial surrogacy?

- In 2008, the Supreme Court of India in the Baby Manji Yamada vs. Union of India case highlighted the lack of regulation for surrogacy in India.
- In 2009, the Law Commission of India observed that surrogacy arrangements in India were being used by foreign nationals, and the lack of a comprehensive legal framework addressing surrogacy could lead to exploitation of poor women acting as surrogate mothers.
- Law Commission recommended prohibiting commercial surrogacy, allowing altruistic surrogacy and enacting a law to regulate matters related to surrogacy.

TOPIC: GS II, ASPECTS OF GOVERNANCE

5. Consumer Protection Bill

Source: The Hindu

Why in news:

The Consumer Protection Bill 2018 has recently been passed in the Lok Sabha.

Causes for introducing new bill:

- Emergence of new market dynamics, large number of misleading advertising and marketing machinery and multi-layered delivery chains.
- Fast changing technological application in the market mechanism like e-commerce.
- The 1986 act doesn't grant any separate arrangement to proceed against violation of its provisions. Penal steps could be taken only through a judicial process before the state or district consumer redressal forums that made lead to large number of pending cases.
- Consumer redressal forums are affected by administrative issues which made the consumers to suffer for an average of five years to get their grievances redressed.

Key provisions of the bill:

- It replaces the Consumer Protection Act, 1986 and enforces consumer rights along with providing a mechanism for redressal of complaints regarding defect in goods and deficiency in services.
- Bodies to be established:
 1. Central Consumer Protection Authority (CCPA) will be set up to protect and enforce the rights of consumers.
 2. Consumer disputes redressal commissions (consumer courts) at district, state and national level to hear complaints on various matters.

3. Consumer Protection Councils to advise on promotion and protection of consumer rights.

- It provides for product liability against a manufacturer, seller, or service provider for any defect in a product or deficiency in a service. It provides enough powers to the regulatory authority to recall products and cancel licences if a consumer complaint affects more than one individual.
- It enables the consumers to file complaints electronically.
- The bill aims to set up Consumer Mediation Cells which will be attached to the redressal commissions at the district, State and national levels. This will further help reduce the backlog of cases and lessen the strain on redressal forums.
- It provides penalties for:
 1. Non compliance of the orders of the district, state or national commissions.
 2. Non compliance with an order issued by the CCPA.
 3. False and misleading advertisements.
 4. Dealing with adulterated products.

Issues related to the bill:

- The bill empowers the central government to appoint members of the disputes redressal commissions and does not specify that the Commissions will comprise a judicial member. If the Commissions were to have members only from the executive, the principal of separation of powers may be violated.
- It empowers the central government to appoint, remove and prescribe conditions of service for members of the consumer disputes redressal commissions. This could affect the independence of these quasi-judicial bodies.
- The bill delegates to the central government the power of deciding the qualifications of the President and members of the consumer disputes redressal commissions. In particular, the bill does not specify that the President or members should have minimum judicial qualifications. This is in contrast with the existing Consumer Protection Act, 1986, which states that the District Commission will be headed by a person qualified to be a district judge.
- Allowing the executive to determine the appointment of the members of Commissions could affect the independent functioning of the commissions.

Comparison of the Consumer Protection Act 1986 and Consumer Protection Bill 2018:

- 1. Ambit of the law:** 1986 Act applied on all goods and services for consideration, while free and personal services are excluded whereas 2018 bill includes all goods and services including online transactions and teleshopping.
- 2. Unfair trade practices:** 1986 Act included six types of such practices while 2018 includes nine types of such practices.
- 3. Product liability:** 1986 Act had no provision regarding product liability whereas 2018 bill includes claim for product liability against manufacturer, service provider, and seller.
- 4. Unfair contracts:** 1986 Act had no provision regarding unfair contracts whereas 2018 Bill lists six contract terms which may be held as unfair.
- 5. Regulator:** 1986 Act had no provision for regulator while 2018 bill establishes the central consumer protection authority (CCPA) to promote, protect, and enforce the rights of consumers as a class.
- 6. Pecuniary jurisdiction of Commissions:** 2018 bill has more pecuniary jurisdiction of commission at all the levels than 1986 act.
- 7. Composition of Commissions:** 1986 act had representation from the judiciary whereas the 2018 bill does not have any representation from the same.
- 8. Appointment process:** 1986 act had a selection committee comprising a judicial member to recommend members on the Commissions while no provision for such committee is present in 2018 bill. The central government will appoint through notification.
- 9. Alternate dispute redressal mechanism:** 1986 Act had no provision for such mechanism whereas 2018 bill provides for mediation cell.
- 10. E-commerce:** 2018 bill Defines direct selling, e-commerce and electronic service provider which was not present in the 1986 act.
- 11. Penalty:** The 2018 bill is more stringent in terms of penalising powers as compared to 1986 act.

II. SOCIAL JUSTICE

TOPIC: GS II, SOCIAL JUSTICE

6. Transgender Persons Protection of Rights Bill, 2018

Source: The Hindu

Why in news:

- Transgender Persons (Protection of Rights) Bill, 2018 has been recently passed in Lok Sabha to secure the rights of transgender persons.

- It is the improved version of the legislation introduced in 2016.

Key features of the bill:

A. Definition of a transgender person (Revised):

- Any person whose gender does not match the gender assigned at birth, as well as transmen, transwomen, those with intersex variations, the gender-queer, and those who designate themselves based on socio-cultural identities such as hijra, aravani, kinner and jogta.
- It has addressed the criticism of definition of transgender by the parliamentary standing committee as a person who is 'neither male nor female' and omitted the same.

B. Certificate of identity for a transgender person:

- A person recognised as transgender person under the Bill shall have a right to self-perceived gender identity.
- A transgender person has to obtain a Certificate of Identity which will confer rights and be proof of recognition of identity as a transgender person. It will be issued by the district magistrate on the recommendation of a screening committee. However, the earlier provision in the bill of getting a revised certificate from the same committee after sex reassignment surgery has been omitted.

C. Prohibition against discrimination against transgender persons

- The Bill prohibits discrimination against a transgender person, including unfair treatment or denial of service in relation to:
 1. Education
 2. Employment
 3. Healthcare
 4. Access to public goods and facilities
 5. Right to movement
 6. Right to rent or own property
 7. Opportunity to hold public or private office
 8. Access to a government or private establishment which has custody of a transgender person.

D. Benefits related to employment, health and education:

- Central or state governments shall provide:
 1. Welfare schemes and programmes to facilitate and support livelihood for transgender persons including vocational training and self-employment.

2. Healthcare facilities to transgender persons including separate HIV surveillance centers, sex reassignment surgery and hormonal therapy counseling, review of medical curriculum and a comprehensive insurance scheme.
3. Inclusive education and opportunities for sports, recreation and leisure activities to transgender persons.

E. National Council for Transgender persons:

It will be set up for advising the central government on policies, and legislation related to transgender persons along with monitoring and evaluating such policies.

F. Penalties in the form of imprisonment between six months and two years and a fine for:

- Compelling transgender persons to beg or do forced or bonded labour
- Denial of use of a public place
- Denial of residence in household, village or other place of residence
- Physical, sexual, verbal, emotional or economic abuse.

Issues related to the bill:

- The current definition of a transgender is prone to ambiguous and illiberal interpretation. It should be only as a person whose sense of gender does not match the gender assigned at birth.
- It prohibits forcible separation of transgender persons from their families, except through court orders. The revised bill takes only children under this prohibition whereas previously it also included adults also.
- The standing committee had noted that it was within the family that many transgender persons faced harassment and abuse, and often felt driven to flee their homes. The bill does not take this into consideration.
- The bill criminalises begging by making it an offence for someone to compel or entice a transgender person into seeking alms. Since begging is no more an offence, it may harm the transgenders if such a means of livelihood in the absence of employment is criminalised.
- The bill does not grant backward class reservation to the transgender community which was also recommended by the Supreme Court.
- The bill has not considered the standing committee's concerns about recognising civil rights in marriage, divorce and adoption for the transgenders.

TOPIC: GS II, EDUCATION

7. Revitalising higher Education in the Country

Source: PIB

Why in news:

The Government has recently approved Revitalising Infrastructure and Systems in Education by 2022, as per which the scope of institutions to be funded through Higher Education Financing Agency (HEFA) has been enlarged to encompass School Education and Medical Education institutions, apart from Higher Education.

Revitalising Infrastructure and Systems in Education (RISE):

- It was announced in Union Budget 2017-18. It aims to lend low-cost funds to government higher educational institutions. Under it, all centrally-funded institutes (CFIs), including central universities, IITs, IIMs, NITs and IISERs can borrow from a Rs 1,00,000 crore corpus over next 4 years to expand and build new infrastructure. It will be financed via restructured Higher Education Financing Agency (HEFA), a non-banking financial company.

HEFA:

- It was set in September 2016 to provide financial assistance to institutes of higher education in addition to grants given by Union Ministry of Human Resources Development. The total authorized equity capital of HEFA has been raised from 2000 crore to Rs.10,000 crore, with the facility to leverage additional resources from the market, based on requirement.
- All funds for educational infrastructure in centrally funded educational institutions will be in the form of ten year loans through HEFA to the institution, the interest liability of which would be borne by the Government. The principal repayment would be undertaken by the institutions and those which have limited internal fund generating capacity, the entire principal and interest repayment would be undertaken by the Government. There is an additional window of financing for school and medical education institutions where the sponsoring Department would undertake to repay the principal and interest to HEFA.

Impactful Policy Research in Social Sciences (IMPRESS):

- This scheme had been launched in August 2018 for implementation up to March 2021 under which 1500 research projects will be awarded for 2 years to support the social science research in

the higher educational institutions and to enable research to guide policy making.

- The Indian Council of Social Science and Research (ICSSR) will be the project implementing agency.
- Objectives:
 - (i). To identify and fund research proposals in social sciences with maximum impact on the governance and society.
 - (ii). To focus research on eleven broad thematic areas such as State and Democracy, Media, Culture and Society, Employment, Governance etc.
 - (iii). To ensure selection of projects through a transparent, competitive process on online mode.
 - (iv). To provide opportunity for social science researchers in any institution in the country, including all universities, private institutions.

III. ECONOMY

TOPIC: GS III, INDIAN ECONOMY AND ISSUES RELATING TO PLANNING, GROWTH, DEVELOPMENT AND EMPLOYMENT

8. States' Start-up Ranking 2018

Source: PIB

Why in news:

The Department of Industrial Policy and Promotion (DIPP) has announced the results of the first ever States' Start-up Ranking 2018.

States' Startup Ranking 2018:

- Best Performer: Gujarat
- Top Performers: Karnataka, Kerala, Odisha, and Rajasthan.
- Leaders: Andhra Pradesh, Bihar, Chhattisgarh, Madhya Pradesh, and Telangana.
- Aspiring Leaders: Haryana, Himachal Pradesh, Jharkhand, Uttar Pradesh, and West Bengal.
- Emerging States: Assam, Delhi, Goa, Jammu & Kashmir, Maharashtra, Punjab, Tamil Nadu, and Uttarakhand.
- Beginners: Chandigarh, Manipur, Mizoram, Nagaland, Puducherry, Sikkim, and Tripura.
- Fifty-one officers from States and Union Territories were identified as "Champions", who have made significant contributions towards developing their State's Start-up ecosystem.
- A total of 27 States and 3 Union Territories participated in the exercise.

Background:

DIPP began the exercise to review the Start-up ecosystem of the states from January 2016.

- States have been identified as leaders across various categories such as Start-up policy leaders, incubation hubs, seeding innovation, scaling innovation, regulatory change champions, procurement leaders, communication champions, North-Eastern leader, and hill state leader.
- The key objective of the exercise was to encourage States and Union Territories to take proactive steps towards strengthening the Start-up ecosystems in their states. The entire exercise was conducted for capacity development and to further the spirit of cooperative federalism.
- The methodology behind the exercise was aimed at creating a healthy competition environment wherein States were encouraged further to learn, share and adopt good practices.

TOPIC: GS III, REGIONAL AND GLOBAL GROUPINGS AND AGREEMENTS INVOLVING INDIA AND/OR AFFECTING INDIA'S INTERESTS

9. 7th Round of India - South Korea negotiations held

Source: PIB

Why in news:

The 7th round of India - South Korea Comprehensive Economic Partnership Agreement (CEPA) negotiations were held in South Korea from 11th to 13th December, 2018.

- The discussions were positive, and subject to Indian sugar industry meeting the quality standards and specifications prescribed by the South Korean Government.

More about trade relations between India and South Korea:

- South Korea imports around 15 lakh tonnes of raw sugar annually and the Indian sugar industry is making efforts to export raw sugar from India during 2018-19 sugar seasons.
- In 2017-18, India exported goods worth \$4.4 billion to South Korea while imports from the latter were worth \$16.3 billion.
- South Korea's main items of export to India include automobile parts, telecommunication equipment, hot-rolled iron products, petroleum refined products, base lubricating oils, nuclear reactors, mechanical appliances, electrical machinery and parts, and iron and steel products.

- India and South Korea decided to reduce duties on 11 tariff lines in a bid to expand bilateral trade by updating their existing free-trade agreement, called the Comprehensive Economic Partnership Agreement (CEPA).

TOPIC: GS III, EFFECTS OF LIBERALIZATION ON THE ECONOMY, CHANGES IN INDUSTRIAL POLICY AND THEIR EFFECTS ON INDUSTRIAL GROWTH

10. NABCB Accreditation Secures Recognition in Asia-Pacific Region

Source: PIB

What's the news?

The National Accreditation Board for Certification Bodies (NABCB), India's national accreditation body, has secured equivalence for its accreditation programme for Occupational Health and Safety Management Systems (OHSMS) Certification Bodies in Asia-Pacific region.

- It has signed the Multilateral Recognition Arrangement (MLA) of the Pacific Accreditation Cooperation (PAC) on 19 December 2018.
- NABCB is the third accreditation body in the Asia Pacific Region to become internationally equivalent in the region, the other two being the accreditation bodies of Hong Kong and Mexico.

Background:

- Accreditation has become an essential tool for getting acceptance of inspection, testing and certification done in India internationally and it is referenced in many bilateral Free Trade Agreements like the India – Singapore Comprehensive Economic Cooperation Agreement in which NABCB accreditation is a requirement for certification of electrical/electronic and telecom products. Thus, accreditation eliminates technical barriers to trade and facilitates export of Indian products in world market.

Significance:

- Any industry carrying ISO 45001 certificate with NABCB logo will be recognized in the Asia Pacific region. The immediate beneficiary of this equivalence is the Indian Industry which is exporting products to various countries specially in the Asia Pacific region. It can also be used by regulators for establishing confidence in certified units as Goa Government has done by accepting OHSMS certification under NABCB accreditation in lieu of annual audits under Factories' Act.

- Now, NABCB can facilitate export of Indian goods into the world market by attesting that these are certified as per international standards by competent certifying bodies.

About NABCB:

- NABCB, a constituent Board of the Quality Council of India, is responsible for accreditation of certification/inspection bodies as per applicable international standards under an international system of equivalence.
- NABCB can facilitate export of Indian goods in the global market by attesting that these are certified as per international standards by competent certifying bodies.
- NABCB programme is based on international standards, ISO/IEC 17021-1 and ISO 45001, applicable for OHSMS.

IV. ENVIRONMENT

TOPIC: GS III, CONSERVATION, ENVIRONMENTAL POLLUTION AND DEGRADATION, ENVIRONMENTAL IMPACT ASSESSMENT

11. Outcomes of COP24 in Katowice

Source: The Hindu

Why in news:

The 2018 United Nations Climate Change Conference that took place between 2 and 15 December 2018 in Katowice, Poland, is the 24th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC-COP24).

- The most important outcome of COP24 was that the countries have agreed on rules for the implementation of the 2015 Paris Agreement.

Major Outcomes of COP 24 in Katowice:

- The participating nations agreed on the rules to implement the Paris Agreement that will come into effect in 2020. The rules are regarding how the member nations will measure the carbon-emissions and report on their emissions-cutting efforts. This 'rulebook' can be called as the detailed "operating manual" of the 2015 Paris Agreement.
- The members of the conference did not agree to "welcome" the Intergovernmental Panel on Climate Change (IPCC) report on 1.5°C. The US, Saudi Arabia, Russia and Kuwait refused to "welcome" the IPCC report.
- The parties to the conference agreed to record the pledges in a public registry, as per the existing interim portal. The public registry will continue to

include a search function, although many attempts have been made to get it deleted.

- It was also agreed among the members that future pledges should cover a “common timeframe” from 2031. The number of years for the timeframe will be decided later.

More about the "rulebook":

- The Katowice package includes guidelines that will operationalize the transparency framework. It sets out how countries will provide information about their Nationally Determined Contributions (NDCs) that describe their domestic climate actions. This information includes mitigation and adaptation measures as well as details of financial support for climate action in developing countries.
- Besides transparency framework, the Katowice package also includes guidelines that relate to the process for establishing new targets on finance from 2025 onwards to follow-on from the current target of mobilizing \$100 billion per year from 2020 to support developing countries.
- It also includes how to conduct the Global Stocktake (GST) of the effectiveness of climate action in 2023 and how to assess progress on the development and transfer of technology.

Why did it take so long?

- There was a row over carbon credits, which are awarded to countries for their emissions-cutting efforts and their carbon sinks, such as forests, which absorb carbon. These credits count towards countries’ emissions-cutting targets. Brazil, which hopes to benefit from its large rainforest cover, insisted on a new form of wording that critics said would allow double counting of credits, undermining the integrity of the system. This issue has been put off until next year.

What wasn't agreed?

- Many difficult matters could not reach an agreement and have been postponed to next year for resolution. This includes questions such as ways to scale up existing commitments on emission reduction, different ways of providing financial aid to the poor nations, wording that prevents double counting and whether member nations are doing enough to cut their respective emissions.

About UNFCCC:

- The UNFCCC is a “Rio Convention”, one of three adopted at the “Rio Earth Summit” in 1992. The UNFCCC entered into force on 21 March 1994. Today, it has near-universal membership. The countries that have ratified the Convention are called Parties to the Convention. Preventing

“dangerous” human interference with the climate system is the ultimate aim of the UNFCCC.

- The Conference of the Parties (COP) is the supreme body of the UNFCCC Convention. It consists of the representatives of the Parties to the Convention. It holds its sessions every year. The COP takes decisions which are necessary to ensure the effective implementation of the provisions of the Convention and regularly reviews the implementation of these provisions.

TOPIC: GS I, IMPORTANT GEOPHYSICAL PHENOMENA SUCH AS EARTHQUAKES, TSUNAMI, VOLCANIC ACTIVITY, CYCLONE ETC.

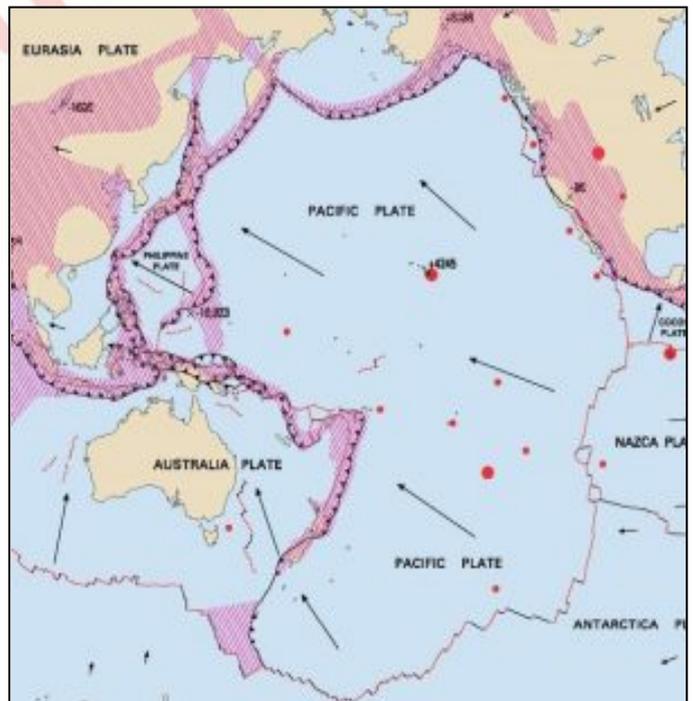
12. Mount Soputan Volcano

Source: The Hindu

Why in News:

Central Indonesia’s Mount Soputan volcano erupted on 16th December 2018, sending ash about 7.5 km high in the sky.

- Mount Soputan volcano is one of the most active volcanoes of Indonesia. It is located on the Sulawesi Island in Indonesia.



About volcanism in Indonesia:

- The country of Indonesia is an archipelago which is highly prone to earthquakes and volcanoes as it is located on the “the Pacific Ring of Fire”.
- The most active volcanoes of Indonesia are Kelud and Merapi. Both these volcanoes are located on the Java island of Indonesia and have claimed the lives of many people in the region.

- The Ring of Fire has seen a large amount of activity in recent days, but Indonesia has been hit hard due to its position on a large grid of tectonic plates.
- Indonesia is at the meeting point of three major continental plates – the Pacific, the Eurasian and the Indo-Australian plates – and the much smaller Philippine plate. As a result, several volcanoes on the Indonesian islands are prone to erupting, with Bali's Mt Agung taking the headlines last year and in 2018.
- Indonesia is home to roughly 400 volcanoes, out of which 127 are currently active, accounting for about a third of the world's active volcanoes.

What is the Ring of Fire?

- The Ring of Fire is a Pacific region home to over 450 volcanoes, including three of the world's four most active volcanoes – Mount St. Helens in the USA, Mount Fuji in Japan and Mount Pinatubo in the Philippines.
- It is also sometimes called the circum-Pacific belt.
- Around 90% of the world's earthquakes occur in the Ring of Fire, and 80% of the world's largest earthquakes.
- The 40,000 kilometre horse-shoe-shaped ring loops from New Zealand to Chile, passing through the coasts of Asia and the Americas on the way.
- The people most at risk from activity in the Ring of Fire are in the US west coast, Chile, Japan and island nations including the Solomon Islands. These areas are most at risk because they lie on so-called subduction zones – which are boundaries that mark the collision between two of the planet's tectonic plates.

How was the Ring of Fire formed?

- The Ring of Fire is the result from subduction of oceanic tectonic plates beneath lighter continental plates. The area where these tectonic plates meet is called a subduction zone.

V. INTERNATIONAL RELATIONS

TOPIC: GS II, INDIA AND ITS NEIGHBOURING COUNTRIES

13. Indo Maldivian Relation

Source: PIB

Why in news:

- Newly elected President of the Maldives, Ibrahim Mohamed Solih was recently on a state visit to India which is also his first visit abroad after assuming the office of President of the country.

- Both the countries signed a number of agreements and MoUs along with reiterating their commitment to further strengthening and reinvigorating their traditionally strong and friendly relations which had become bitter during the reign of last pro Chinese President of Maldives.

Key outcomes of the visit which shows re-emergence of strategic ties between the two countries:

- Maldives reaffirmed "India-First Policy", and commitment to working together closely with India.
- India announced a financial assistance package of \$1.4 billion for the Maldives in the form of budgetary support, currency swap agreements and concessional lines of credit.
- Both sides agreed to keep other's security interests in mind along with cooperating and strengthening maritime security cooperation in the IOR through coordinated patrol and aerial surveillance.
- For boosting trade ties, India has been allowed to expand investment in the areas like fisheries development, tourism, transportation, connectivity, health etc.
- Maldives supported India's longstanding demand to reform of the main UN bodies, including the revitalization of the UN General Assembly and expansion of the UN Security Council along with supporting India's candidature for permanent membership in UN Security Council and for non-permanent seat for the year 2020-21.
- Maldives decided to re-join the Commonwealth and join the Indian Ocean Rim Association. It is noteworthy that India is a key player of both these platforms which further increases in the absence of its rival China.
- Both leaders agreed on the importance of combating the impacts of climate change, especially detrimental to developing countries, and small Island developing States, and the need to work towards strengthening the global response to climate change, through the UNFCCC, and the Paris Agreement.
- Both the sides underscored the need for strengthening and reform of multilateral financial institutions and enhancing the voice and participation of developing countries in international economic decision-making.

Does it mean Maldives shifting away from China?

- Maldives has made it clear that while the neighbourhood will clearly be a priority, China will continue to play an important role as an economic partner.

- Thus, China is not going to disappear from the Maldivian foreign policy.

Why does Maldives need India?

- Although other reasons are important like cultural, traditional and historical proximity but right now Maldives is caught in the debt trap of China as its loan equals to around half of the GDP of the country. India, in such a scenario is a ray of hope for the country.
- India is an undeclared net security provider in the Indian Ocean Region to small island nations like Seychelles, Mauritius, etc due to its proximity in the region and Maldives cannot ignore it.
- India is known for its soft power policy which is absent in any of the major powers like China.



Why India's investments and donations are better for Maldives?

- In the Indian investments, Local partner concept is applied (contractor of local origin) under Safety clause which helps in ensuring transparency for the local government and population. This was absent in the Chinese investments which used to run on minimum information sharing which resulted in debt trap of the country. This should give the Maldivian polity and people an element of confidence in their systems and foreign investors' methods
- Indian aid would not be used to pay back China which would mean that India is not starting of an 'economic war' with China in the neighbourhood. Instead, India is helping neighbourhood nations to minimise their dependence on a single source of credit. It is good for Maldives.
- India provides the Currency swap facility which would help Maldives sustain the nation's foreign exchange reserves.

Way forward:

- India should undertake 'due diligence' about the feasibility of individual projects and undertake periodic work and financial audits, without

interfering with Maldivian decision-making processes.

- The two nations should create institutional mechanisms to de-politicise the processes as in the absence of such a mechanism, swift and changing domestic political conditions had badly impacted Indian investments which ended up negatively affecting larger bilateral relations.
- India should consider creating an advisory wing to guide all stake-holders and protect larger Indian interests, both political and strategic and work closely with prospective Indian investors with full knowledge of the local conditions.
- The logic of geography dictates that India's role will be critical in determining the trajectory of political developments in the Maldives.
- India should not be deterred by temporary setbacks. Instead of perpetually viewing the dynamics from a China-centric perspective, it must keep its eyes firmly on the long term.
- The more invested India is in strengthening democratic institutions in its neighbourhood, the better returns it will get in its foreign policy.

TOPIC: GS II, INDIA AND ITS NEIGHBOURHOOD

14. India's changing West Asia (Middle East) Policy

Source: Diplomat

Why in news:

- India recently abstained from voting on a U.S.-sponsored UN General Assembly (UNGA) draft resolution for condemning the activities of Hamas and other militant groups in Gaza.
- Although critics have questioned this move of India by raising questions on India's commitment on ending terrorism however this move also underscores India's changing west Asia policy.

Changing India's West Asia policy:

- Dehyphenating Israel and the Palestinian issue:
 1. It means India will try to boost its relation with both Israel and Palestine by dealing with them separately. Its relation with one will not affect its relation with the other.
 2. During his Israel visit in 2017, the first by an Indian prime minister not only did not visit Palestine, but also did not mention the Palestinians in public. In 2016, India hosted Palestine Authority President and reassured him of India's unwavering support toward the Palestinian. There was also no mention of East

Jerusalem being the capital of the future Palestinian state.

3. This made clear India's preference in favor of a negotiated compromise between the two sides.
- Look west policy:
 1. India is also making efforts to develop close cooperation with other major actors of the region such as Saudi Arabia, the UAE, and Oman.
 2. These relationships are no longer simply about oil but also on defense and security cooperation.
 3. India has recently secured access to the key Port of Duqm in Oman for military use and logistical support, enhancing its maritime imprint in the Indian Ocean.
 4. Recent extradition of the alleged middleman of the Agusta Westland chopper scam, Christian Michel, from the UAE to India underscores growing political synergy between India and the UAE.
 - From few to many: There has been a clear shift away from India's preference to engage with a select group of regional partners to a "multi-engagement" strategy.

Causes behind the change in the West Asian policy:

- India's economic growth, rising international influence, and new status as a nuclear weapons state have made it an attractive partner for most of the west Asian states.
- They have increasingly looked at India as an emerging geopolitical power in their neighborhood, a major destination for their primary exports, and a possible venue for investments.
- India no longer attempts to take sides in inter-Arab dispute and doing business with all the protagonists on the one hand, without ignoring India's diverse economic and political interests in the region on the other hand is the reason that India has disenchanted none in region.
- In the era of counter-terrorism and counter-piracy, countries in this region are very important for India for ensuring its security in the Persian gulf.
- The Gulf and the Arab countries are no longer just a source of oil and destination for Indian labor but they have also become economic and political partners.
- Importance of countries in this region has increased from India's security point of view.

- West remains consumed with its internal problems, the Gulf States are looking for new partners and India's proactive engagement has given India a new profile. India's role in the region is set to expand significantly in the realm of economics and security.

India's stake in the west Asian countries:

- Energy resources to sustain economic growth.
- Preserving the welfare of its large diaspora of around seven million.
- Acquiring high-tech military equipment from Israel.
- Compete with China for influence.

TOPIC: GS II, BILATERAL AND MULTILATERAL GROUPINGS

15. Changing role of G20

Source: ORF

Why in news:

G 20 summit has been recently held in Argentina which has deliberated on a range of issues like US- China trade war, climate change, Ukraine conflict etc.

Changing role of G 20 as a global governance body:

- It was formed with an aim of studying, reviewing, and promoting high-level discussion of policy issues pertaining to the promotion of international financial stability in 1999.
- Importance of the G20 as a global governance body changed in 2008 in the wake of worldwide recession when it was given the responsibility of finding solutions to the financial crisis. Since that meeting, the G20 has become the primary pillar of the geo-economic global governance architecture, acting as the de-facto economic steering committee of the world.
- Going beyond economic issues:
 1. It has incorporated key cross disciplinary issues such as climate change, trade conflicts, and the Sustainable Development Goals.
 2. It has also incorporated the global security issues like discussing Syrian civil war in 2013.
- Why this change?
 - Inability of the United Nations security council to restore the global security due to vested interests of the P 5 members.
 - G7 which is the group of major developed economies of the world are often engaged in resolving its internal conflict rather than taking global level economic decisions. For instance recent trade war sponsored by USA against major G7 countries like Canada.

- G 20 is more agile in its decision-making process than the cumbersome United Nations General body and it has proved itself as the ideal body for setting the global governance agenda.

TOPIC: GS II, INDIA AND ITS NEIGHBOURING COUNTRIES

16. China Myanmar Rail cooperation

Source: ORF

Why in news:

- China and Myanmar are contemplating on development of railway line between Muse and Mandalay in Myanmar which China may connect with its project of connecting Kunming (China) and Ruili (Myanmar).
- This could pose long-term and significant strategic ramifications for India.

Security challenges emanating from India's border with Myanmar:

- Chinese troops had used the Myanmar route to threaten India's North-eastern States prior to the 1962 war and during Sino Indian war 1962, Chinese troops had commissioned local muleteers in Myanmar to facilitate movement of troops and war logistics to challenge India's Northeast.
- Insurgents from India's North-eastern state of Nagaland reach China using the route passing through Myanmar.
- The proposed railway line can facilitate China to transport its troops to the Indian border or used to threaten India's security in case of minor spat like Doklam standoff.
- Myanmar has also accepted the Chinese sponsored belt and road initiative under which MoU has been signed to develop China-Myanmar Economic Corridor which could threaten India's act east policy under which India-Myanmar-Thailand trilateral highway is being constructed.

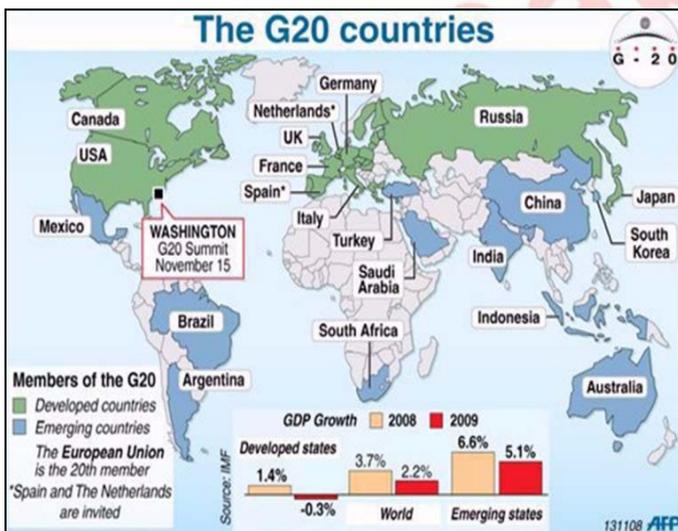
- As per the string of pearls policy China for encircling India, has recently acquired a deal to build a deep sea port in Kyaukpyu on Myanmar's western coast in the Bay of Bengal in addition to Gwader in Pakistan and Hambantota in Sri Lanka. India fears that these projects will allow the Chinese military greater access into its extended neighbourhood.
- The proposed China Myanmar connectivity projects may enhance China's support to insurgents active in India's north east.

What India has done to increase its presence in Myanmar?

- India, Myanmar and Thailand are jointly developing a 1,360km highway.
- India is undertaking rural connectivity project to provide basic internet access to villages in Myanmar.

What are the impediments towards G 20 becoming a global governance body?

- It is made up largely of high and middle-income nations where least developed nations don't have any representation.
- It is also not geographically comprehensive. For instance, Africa remains drastically under-represented in the grouping, with South Africa acting as the sole spokesperson for the continent.
- While there are a number of multilateral and intergovernmental organisations invited to participate in G20 summits, they act only as observers. They cannot provide substantive input into the policy decisions that are made except few organizations like the Organisation for Economic Cooperation and Development (OECD).
- G20 lacks a permanent secretariat that can help provide research and implementation support.
- With only seven members that can be loosely classified as emerging economies, the global south still has achieved only token representation in the collective.



Conclusion:

- The world does not "have a better platform at the present time given the weak state of the global multilateral system.
- The G20 is a step in the right direction but if it truly wishes to be the next multilateral iteration of global governance, the G20 must take steps to ensure equitable representation and contribution from all regions and classes of the worlds.

- Despite pressure from the west India refrained from condemning Myanmar on Rohingya issue and committed US\$25m of development assistance for restoration of normalcy in Rakhine State, and the return of the Rohingya refugees to Myanmar.
- India is working with Myanmar to develop the Kaladan Multi Modal Transit Transport Project, that connects the East Indian city of Kolkata to the port in Sittwe, the capital of Rakhine state, which is then further connected to India's north-east via inland road and river networks.
- Recently Indian President announced India's commitment to offer fund to the country and work on a range of development projects there and boosting connectivity with the country.



Loopholes in India's approach to enhance its presence in Myanmar:

- In terms of making significant inroads into Myanmar, India is way behind not just China, but also other countries such as Thailand and Singapore as they have engaged in investment activities not just in infrastructure, but also in the services sector.
- Bilateral trade relations remain well below potential. That is due to the insufficient infrastructure at border crossings.
- In contrast to India's slow progress, China has successfully linked its Yunnan Province with Myanmar, with an oil pipeline serving as a perfect illustration of its success in better integrating the two economies.

Way forward:

A. For tackling the security related threats:

- At the diplomatic level, it is important for India to raise concerns and seek clarifications from both China and Myanmar about the intentions of the proposed railway projects.
- It would be important for India to prepare its response strategy. To begin with, it would be

pertinent for India to enhance its own security preparedness to effectively counter a possible Chinese threat emanating from the Indo-Myanmar border.

- Work on infrastructure projects in India's North-Eastern States needs to be expedited to ensure speedy mobilisation of India's own troops to face different contingencies.
- Monitoring of developments including deployment of space assets to ensure that India is not caught unaware would be desirable.

B. For expediting India's presence in Myanmar:

- India's political leadership needs to be more aware of Myanmar's concerns and expedite its project so that they are completed within time limit.
- India needs to increase economic and security engagement with Myanmar without acting in a big-brotherly fashion.
- While India should seek to build its presence in Myanmar, it should not provoke China so that synergies with China in the context of the Bangladesh, China, India, Myanmar Corridor (BCIM) can be maintained.
- India should abandon the notion that Myanmar is a mere gateway to South East Asia, or just a provider of natural resources and start looking it as a business partner because viewing it only for the purpose can lead strained ties as happened between Myanmar and China.
- India has had the traditional advantage of not being looked at as hegemonic in its dealings with smaller countries. It is important not to lose that goodwill.

VI. SCIENCE & TECHNOLOGY

TOPIC: GS III, AWARENESS IN SPACE

17. GSAT-7A

Sources: The Hindu, ISRO

Why in news:

Indian Space Research Organisation's (ISRO) Geosynchronous Satellite Launch Vehicle (GSLV-F11) successfully launched the communication satellite GSAT-7A from the Satish Dhawan Space Centre (SDSC) in Sriharikota.

- This new satellite, along with GSAT-7 and GSAT-6, dubbed the "Indian Angry Bird", will form the band of communications satellite for use by the Indian military.

About GSAT-7A:

GSAT-7A has been placed in the geostationary orbit and this communication satellite is expected to help

the IAF to interlink different ground radar stations, airbases and AWACS (Airborne Warning And Control System) aircraft. The idea is to improve the IAF's network-centric warfare capabilities.

- It is an advanced communication satellite with a Gregorian Antenna and many other new technologies.
- It is the heaviest satellite being launched by GSLV with an indigenously developed cryogenic stage.
- GSAT-7A is the 39th Indian communication satellite of ISRO to provide services to the users in Ku-band over the Indian region.
- The GSAT-7A is also expected to be a big push for drone operations as it will help the Navy reduce the reliance on on-ground control stations and take satellite-control of military unmanned aerial vehicles (UAV) which should help boost the range and endurance of the UAVs.
- In addition to GSAT-7A, the IAF would also be getting the GSAT-7C in a few years, to boost the network-centric operations.

About GSLV:

- The GSLV is ISRO's fourth generation launch vehicle with three stages. The four liquid strap-ons and a solid rocket motor at the core constitute the first stage. The second stage is equipped with a high thrust engine that uses liquid fuel.
- The cryogenic upper stage forms the third and final stage of the vehicle. The GSLV-F11 was the seventh flight carrying indigenously developed cryogenic upper stage.

TOPIC: GS III, AWARENESS IN SPACE

18. Apollo 8 marks 50th anniversary

Source: NASA

Why in news:

NASA's Apollo 8 mission completed its 50th anniversary this year.

About the Apollo 8 Mission:

Apollo 8, the second manned spaceflight mission in the United States Apollo space program, was launched on December 21, 1968, and became the first manned spacecraft to leave low Earth orbit, reach the Moon, orbit it, and safely return.

- The three-astronaut crew—Frank Borman, James Lovell, and William Anders—became the first humans to travel beyond low Earth orbit, see Earth as a whole planet, and enter the gravity well of another celestial body.
- They were also the first humans to orbit another celestial body, see the far side of the Moon, witness and photograph an "Earthrise", escape the gravity of another celestial body (the Moon), and re-enter Earth's gravitational well.

TOPIC: GS III, AWARENESS IN SPACE

19. Mars InSight lander

Sources: The Hindu, NASA

Why in news:

A camera aboard NASA's Mars Reconnaissance Orbiter (MRO) has captured the image of the InSight lander, which recently touched down on the Red Planet.

- The InSight lander, its heat shield and parachute were spotted by HiRISE (High Resolution Imaging Science Experiment) in one set of images taken on December 6, and again on December 11.

High Resolution Imaging Science Experiment (HiRISE):

- The High Resolution Imaging Science Experiment (HiRISE) has photographed hundreds of targeted swaths of Mars' surface in unprecedented detail.
- The camera operates in visible wavelengths, the same as human eyes, but with a telescopic lens

GSLV-F11 successfully launches GSAT-7A into Geosynchronous Transfer Orbit (GTO)

- Geosynchronous Satellite Launch Vehicle – F11 (GSLV-F11) is the 13th flight of India's GSLV and the 7th flight of GSLV with indigenous Cryo stage
- The GSLV-F11 was launched from the Second Launch Pad (SLP) at Satish Dhawan Space Centre SHAR, Sriharikota

GSAT-7A

- GSAT-7A is a geostationary satellite built to provide communication services in Ku-band over the Indian region
- GSAT-7A is configured using ISRO's 2000 kg satellite bus

SALIENT FEATURES

Lift-off Mass	: 2250 Kg
Spacecraft Power	: 3.3 kW
Payload	: Ku-band transponders
Mission Life	: 8 Years

www.isro.gov.in @isro www.facebook.com/ISRO/

Background:

- The GSAT 7 series was launched in 2013 as a dedicated communications satellite for the Indian Navy, which made the Navy completely independent of relying on foreign satellites for its blue water capabilities, thanks to GSAT 7 having a 2,000 nautical mile footprint. This helps in providing real-time inputs to Indian warships, submarines and maritime aircraft.

that will produce images at resolutions never before seen in planetary exploration missions.

- HiRISE also makes observations at near-infrared wavelengths to obtain information on the mineral groups present.
- These new, high-resolution images will provide unprecedented views of layered materials, gullies, channels, and other science targets, as well as characterize possible future landing sites.

TOPIC: GS III, AWARENESS IN SPACE

20. InSight lander places its First Instrument (SEIS) on Mars

Source: phys.org

Why in news:

The US space agency's unmanned Mars Insight lander, which touched down on the Red Planet last month, has successfully deployed its key, quake-sensing instrument- Seismic Experiment for Interior Structure—on the Mars surface.

- The spacecraft used its robotic arm to place the seismometer on the ground in front of the lander, 5.4 feet (1.64 meters) away.

About SEIS:

- The seismometer, known as the Seismic Experiment for Interior Structure, or SEIS, was made by the French space agency, CNES.
- The seismometer allows scientists to peer into the Martian interior by studying ground motion -- also known as marsquakes. Each marsquake acts as a kind of flashbulb that illuminates the structure of the planet's interior. By analyzing how seismic waves pass through the layers of the planet, scientists can deduce the depth and composition of these layers.
- Main Job: To measure the pulse of Mars by studying waves created by marsquakes, thumps of meteorite impacts, and even surface vibrations generated by activity in Mars' atmosphere and by weather phenomena such as dust storms.

TOPIC: GS III, AWARENESS IN SPACE

21. 'Farout' Dwarf Planet

Source: Indian Express

What is it?

It is the most-distant body ever observed in our solar system.

More about Farout:

- It is located over 100 times farther than Earth is from the Sun.

- It has been given the provisional designation 2018 VG18. It is at about 120 astronomical units (AU), where 1 AU is defined as the distance between the Earth and the Sun.
- The discovery images of 2018 VG18 were taken at the Japanese Subaru 8-metre telescope located atop Mauna Kea in Hawaii on November 10, 2018. 2018 VG18 was seen for the second time in early December at the Magellan telescope at Carnegie's Las Campanas Observatory in Chile.
- The second-most-distant observed solar system object is Eris, at about 96 AU. Pluto is currently at about 34 AU, making 2018 VG18 more than three-and-a-half times more distant than the solar system's most-famous dwarf planet.

TOPIC: GS III, SCIENCE AND TECHNOLOGY INDIGENIZATION OF TECHNOLOGY AND DEVELOPING NEW TECHNOLOGY

22. Navic powered gadgets to Tamil Nadu Fishermen

Source: Indian Express

Why in news:

The Tamil Nadu government has distributed 200 Navic-powered satellite-enabled communication devices developed by ISRO to 80 fishing boat groups in Tamil Nadu.

- These gadgets have been given free of cost and there is no recurring cost associated with these devices.

More about the gadget:

- These gadgets will help the Tamil Nadu fishermen know about cyclones and provide weather updates on a real-time basis.
- These gadgets are basically receivers which will produce a beep when alerts are received by the device. They are Bluetooth enabled and the alerts received can be read on the NavIC app.

About NAVIC:

- The Indian Regional Navigation Satellite System constellation of eight satellites, named "NavIC", provides position, navigation and timing services over India and its neighbourhood.
- NavIC (Navigation with Indian Constellation) can be understood as the Indian version of the American GPS (Global Positioning System).
- It is designed to provide position information in the Indian region and 1500 km around the Indian mainland.

- It would provide two types of services, namely Standard Positioning Services available to all users and Restricted Services provided to authorised users.

Applications:

- Terrestrial, Aerial and Marine Navigation.
- Disaster Management.
- Vehicle tracking and fleet management.
- Integration with mobile phones.
- Precise Timing.
- Mapping and Geodetic data capture.
- Terrestrial navigation aid for hikers and travelers.
- Visual and voice navigation for drivers.

Why it is necessary to have indigenous global navigation system?

- Having a global navigation system bolsters the ability of a nation to serve as a net security provider, especially through the guarantee of such assurance policies. It can also play a significant role in relief efforts post disasters such as the tsunami in the Indian Ocean region in 2004 and the Pakistan-India earthquake in 2005.

**TOPIC: GS III, AWARENESS
IN THE FIELD OF IT**

23. National Supercomputing Mission (NSM)

Source: Economic Times

Why in news:

French IT services firm Atos has won a three-year contract to build the first phase of supercomputers under India's Rs 4,500-crore National Supercomputing Mission (NSM).

- In the first phase, IIT-Kharagpur will have a 1.3 petaflop machine and IISER Pune and IIT-BHU will have a 650 teraflop computer each.
- Atos will source the components from France and assemble the supercomputers in Chennai. Work will happen simultaneously on all three phases, but each has different stages of delivery.

National Supercomputing Mission (NSM):

- The NSM is being jointly implemented by the Department of Science and Technology and Department of Electronics and Information Technology at an estimated cost of Rs 4,500 crore over a period of seven years.
- The mission was announced three years ago with an intent to propel India higher in the global supercomputer rankings.

- The aim was to build a grid of 73 supercomputers across academic and research institutes in India, working on a wide range of applications, from weather forecasting to disaster management.
- These supercomputers will also be networked on the National Supercomputing grid over the National Knowledge Network (NKN). The NKN is another programme of the government which connects academic institutions and R&D labs over a high speed network.
- High Performance Computing (HPC) is important in order for India to make significant progress in various areas, from drug discovery to astrophysics and bioinformatics.

VII. PRELIMS/MISCELLANEOUS

24. Pradhan Mantri Ujjwala Yojana

- The cabinet committee on economic affairs has cleared the proposal of ministry of petroleum & natural gas to release deposit free LPG connections to poor families, who have not been considered earlier for release of LPG connections under Pradhan Mantri Ujjwala Yojana (PMUY) on account of their names not been covered either in Socio-Economic Caste Census (SECC) list.

About Pradhan Mantri Ujjwala Yojana (PMUY):

- It was launched on 1st May, 2016 with tagline of Swachh Indhan, Behtar Jeevan.
- It aims at providing clean-cooking fuel to poor households, who are otherwise vulnerable to various health hazards associated with indoor air pollution and bringing in qualitative changes in living standards.
- It is implemented by Ministry of Petroleum and Natural Gas.
- World Health Organisation hailed PMUY.

25. Project 'Mausam'

Project Mausam has been recently extended up to 2020.

About Project Mausam:

- Project 'Mausam' is the initiative of Ministry of Culture to be implemented by the Archaeological Survey of India which is also the nodal agency for the project.
- It aims to explore the multi-faceted Indian Ocean by collating archaeological and historical research in order to document the diversity of cultural, commercial and religious interactions in the Indian Ocean countries.
- The main objective of the project is to inscribe places and sites identified under Project Mausam

as trans-national nomination for inscription on UNESCO's World Heritage List.

- 39 Indian Ocean countries have been identified under Project Mausam.

26. Pradhan Mantri Kaushal Vikas Yojana

- The scheme has been launched by the Ministry of Skill Development & Entrepreneurship with the aim to provide skilling to one crore people under Short Term Training, Recognition of Prior Learning, Special Project across the country for over four years i.e. 2016-2020 with special focus on dropouts.
- It is replaced earlier programme for skill development i.e National Skill Development Mission which was launched in 2010
- Unique features of PMKVY:
 1. Skill training will be provided on the basis of National Skill Qualification Framework (NSQF) and as per standards of the industries.
 2. Monetary reward to be provided to the trainees on assessment and certification by third party assessment bodies.
 3. The scheme has mandatory provisions for placement tracking. The placement data is reported within 90 days of certification of trained candidates on the Skill Development Management System.
 4. Self-employed candidates trained under PMKVY 2016-20 have the facility to avail loan out of PM Mudra Yojna.

27. National Mission for Sustainable Agriculture

National Mission for Sustainable Agriculture (NMSA) has been made operational from the year 2014-15 which aims at making agriculture more productive, sustainable, remunerative and climate resilient by promoting location specific integrated /composite farming systems; soil and moisture conservation measures; comprehensive soil health management; efficient water management practices and mainstreaming rainfed technologies.

Components of NMSA:

1. On Farm Water Management (OFWM): It is being implemented with the objective of enhancing water use efficiency by promoting technological interventions like drip & sprinkler technologies, efficient water application etc.
2. The above activities have been subsumed under the 'Per Drop More Crop component of Pradhan Mantri Krishi Sinchayee Yojana launched in 2015-16.
3. Rainfed Area Development Programme: It is being implemented from 2014-15 which focuses on

integrated farming system for enhancing productivity and minimizing risks associated with climatic variability. Under this system, crops is integrated with activities like horticulture, livestock, fishery, etc. to enable farmers maximising farm returns for sustained livelihood and mitigate the impacts of drought, flood or other extreme weather events with the income opportunity from allied activities.

4. Soil Health Management: It aims at promoting integrated nutrient management (INM) through judicious use of chemical fertilizers including secondary and micro nutrients in conjunction with organic manures and bio fertilizers for improving soil health and its productivity, strengthening of soil and fertilizer testing facilities to improve soil test based recommendations to farmers for improving soil fertility.

National Action Plan on Climate Change (NAPCC):

National Mission for Sustainable Agriculture is one of the eight goals adopted under NAPCC in 2008. Others are as follows:

1. National Solar Mission
2. National Mission for Enhanced Energy Efficiency
3. National Mission on Sustainable Habitat
4. National Water Mission
5. National Mission for Sustaining the Himalayan Ecosystem
6. National Mission for a "Green India"
7. National Mission on Strategic Knowledge for Climate Change

28. NeVA Project

Minister of State for Parliamentary Affairs and Water Resources, River Development and Ganga Rejuvenation has recently given details on the status of implementation of National e-Vidhan Application (NeVA) Project.

About National e- Vidhan Application project:

- It is an initiative of Ministry of Parliamentary Affairs which aims to make all legislatures in the country paperless by making proceedings of houses digital.
- It also aims to bring all the legislatures of the country together, in one platform thereby creating a massive data depository without having the complexity of multiple applications.
- It is member-centric, decentralised digital application that makes information available on digital platform about day to day functioning of legislative houses.
- It will bring uniformity of database for easy and effective engagement of citizens with Government

which will lead to efficient delivery of services and ensure reliability, efficiency, transparency and accountability of all the stakeholders.

- It will bring legislatures closer to citizens, thereby taking decisive step in achievement of substantive democracy.

- The Railway University will be first of its kind institution in the nation and the third in the world after Russia and China.
- It will be a deemed university which will offer professional courses in technology and management of transportation networks.

29. India's First Railway University

India's first railway university has been opened in Vadodara.

More about the University:

- It is named as the National Rail and Transportation Institution (NRTI).

Question:

1. Loan waiver is only a temporary solution to resolve farm crisis in India. Do you agree? What are its impacts? What are the main causes for farm crisis in India? Suggest effective measures to tackle this problem.
2. Critically analyse the role of NOTA in the Indian electoral system.
3. Commercial surrogacy bill 2016 is an effective step towards curbing commercial surrogacy in India. Discuss highlighting its key features. Do you think it is free from loopholes? Also highlight the causes which led to banning commercial surrogacy in the country.
4. With the change in time the grounds for making the law changes. Discuss with reference to the Consumer Protection Bill 2018.
5. Despite having a revised version of the Transgender Persons Protection of rights bill, it is not free from loopholes. Discuss.
6. The Indo Maldivian relations are coming on the right track once again. Discuss. Does it mean China will disappear from Maldivian foreign policy? Do you think that Indian investments in Maldives are better for Maldivians as compared to the Chinese investment?
7. Critically analyse the changing West Asian policy of India. What are its causes?
8. As the global governance bodies have become less effective other global platforms, made for different purpose are taking the shape of a global governance body. Critically analyse with regard to changing role of G 20. What are the impediments preventing it to fully emerge as a global governance body?
9. India's border areas in the north east have been the source of problems historically as well as currently. Critically analyse. What are the implications of growing connectivity projects between China and Myanmar on these problems? Highlight the loopholes in India's approach in enhancing its presence in its neighbouring count.