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I. POLITY & GOVERNANCE

TOPIC: GS II, ASPECTS OF GOVERNANCE

1. Amendments in Right to Information Act, 2005

Source: The Hindu

Why in news:

The centre has proposed amendment in different provisions of RTI act 2005 which deals with the service conditions of Chief Information commissioner and Information commissioners such as salary, tenure etc.

Information Regarding RTI act 2005:

- RTI Act was passed by the parliament in 2005 which seeks to provide for a practical regime of right to information for citizens to secure access to information under the control of public authorities, in the working of every public authority.
- It has constituted Central Information Commission and State Information Commissions for enabling access of information in a transparent manner and they are bound by the law to provide the information to the applicants within 30 days of their application.
- The aim of the Right to Information Act is to empower the citizens and promote transparency and accountability in the working of the government, prevent corruption, and implement democratic governance in real sense.
- It became the tool for empowerment of the people as it exposed several wrongdoings in the Commonwealth Games, the allocation of 2G spectrum and coal blocks etc.
- Important sections of RTI act ensuring independence of Information commissioners:
 1. Section 13 and 16: deals with the tenure of Chief Information Commissioner and Central Information Commissioners which is five years or up to the age of 65. Section 13(5) says that the salaries and allowances and other terms and conditions of service of the Chief Information Commissioner and other information commissioners will be same as that of the Chief Election Commissioner and other Information Commissioners.
 2. Section 27: Allows the government to make rules to carry out the provisions of RTI act.

What are the proposed amendments to RTI act?

- Government has proposed to amend sections 13, 16 and 27 of the RTI act which states that the tenure and salaries of Chief Information

Commissioners and Information Commissioners of state will be prescribed by Central government.

Central Information commission

- Central Information Commission was constituted through an Official Gazette Notification under the provisions of the Right to Information Act (2005).
- It is not a constitutional body
- They are appointed by the President on the recommendation of a committee consisting of the Prime Minister as Chairperson, the Leader of Opposition in the Lok Sabha and a Union Cabinet Minister nominated by the Prime Minister
- The Chief Information Commissioner and an Information Commissioner hold office for a term of 5 years or until they attain the age of 65 years, whichever is earlier.
- The central information commission falls under the ministry of personnel

Reasons for mending the RTI act:

- The functions of Election Commission of India and the Central and State Information Commissions are totally different and thus, their status and service conditions need to be rationalised accordingly.

Concerns:

1. It will dilute the independence of Central and State Information Commissioners and give undue powers to the government for interfering in appointing commissioners with uncertain status and salary.
2. It may defeat very purpose of RTI Act 2005.
3. It is against the spirit of federalism which is the basic feature of Indian Constitution because it will take away the power of the Governor of the state to appoint state information commissioner.
4. It will reduce transparency of public institution of India.
5. RTI act upheld the fundamental right of the citizen and intended amendment will curb its independence which will be a violation of the fundamental right to information.

TOPIC: GS II, INTER STATE DISPUTE

2. Krishna water dispute

Source: The Hindu

Why in news:

- The Krishna River Management Board (KRMB) authorised its three-member committee to make allocations for Andhra Pradesh and Telangana.
- Both the states claim more than the quota from the Srisaillam reservoir which has become the bone of contention between these two states.
- According to an agreement between the two States at the time of bifurcation, both should draw equal amount for power generation.

Major Inter-State Water Disputes in India:

Inter-State River Disputes	States Involved
Cauvery Water Dispute	Tamil Nadu, Karnataka and Kerala
Krishna Water Dispute	Maharashtra, Karnataka and Andhra Pradesh
Tungabhadra Water Dispute	Andhra Pradesh and Karnataka
Godavari Water Dispute	Andhra Pradesh, Madhya Pradesh, Chhattisgarh, Orissa and Karnataka
Narmada Water Dispute	Gujarat, Maharashtra, Madhya Pradesh and Rajasthan
Ravi And Beas River Water Dispute	Punjab, Haryana, Himachal Pradesh, Rajasthan, Jammu and Kashmir and Delhi
Satluj-Yamuna Link Canal Dispute	Punjab, Haryana and Rajasthan

Provisions in the constitution for redressing inter state water disputes:

Article 262(PART XI):

- Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any inter State river or river valley.
- Parliament has the power to restrict the jurisdiction of Judiciary in respect of any such disputes.

Article 263(PART XI):

It deals with the inter-State Council to be set up by the President for:

- inquiring into and advising upon disputes which may have arisen between States.
- investigating and discussing subjects in which some or all of the States, or the Union and one or more of the States, have a common interest.
- making recommendation for the better coordination of policy regarding the above.

Inter-State River Water Disputes Act, 1956:

- It was enacted under Article 262 of Constitution of India on the eve of reorganization of states on linguistic basis to resolve the water disputes that would arise in the use, control and distribution of an interstate river or river valley.
- Section 4 of IRWD Act provides dispute resolution process in the form of Tribunal if the riparian

states are not able to reach amicable agreements on their own in sharing of interstate river water.

TOPIC: GS III, ENERGY

3. Phase II of Indian Strategic Petroleum Reserves

Source: PIB

Why in news:

- A road show has been organized for the phase II of Indian strategic reserves which entails creation of additional storage facilities of 6.5 MMT of crude oil to be stored in underground rock caverns at Chandikhol in Odisha and Padur in Karnataka.
- It will create additional storage capacity to tackle the unforeseen event of a longer period of supply disruption.

Indian strategic petroleum Reserves:

- It is reserve of crude oil for meeting unforeseen circumstances for providing energy security of 10 days of consumption in response to external supply disruptions. This idea was mooted in 1988 but it was commissioned in 2003.
- Government is building the underground rock caverns at Visakhapatnam, Mangaluru and at Padur.
- Chandikhol in Odisha and Padur in Karnataka will add strategic petroleum reserves of 12 days in addition to 10 days of reserves achieved in Phase I.
- Indian refiners maintain 65 days of crude storage, and when added to the strategic petroleum reserve, it will increase to 87 days which is very close to the storage of 90 days mandated by International Energy Agency for its member countries.

Advantages:

- Underground storage is more secure, safe, economical and environmental friendly than conventional above ground storage tanks.
- India is the 3rd largest consumer of energy and also the 3rd largest importer of crude oil in the world and energy demand in India is forecasted to grow more than any other country in the world in the next two decades.
- In last one year, the country faced severe headwinds by way of rising oil prices as since October 2017, crude prices have gone up around 70% due geo-political events and one of the mitigation measure for this problem is to create enough strategic reserve within the country to store adequate crude physically within the country.

**TOPIC: GS II, GOVERNMENT
POLICIES AND INTERVENTION**

**4. First National Summit on Invest in
AYUSH**

Why in news:

Ministry of AYUSH has decided to organize First National summit on Invest in AYUSH on the occasion of Ayurveda Day celebrations in AYUSH in partnership with NITI Aayog and Department of Industrial and Policy and Promotion on 4th November, 2018 to encourage public sector undertakings (PSUs) and private companies to invest.

Ayurveda Day:

- It is celebrated every year on the occasion of Dhanwantari Jayanti (October 17) who is considered as divine propagator of Ayurveda.

Objectives of the summit:

- It is an attempt to further promote Ayurveda into mainstream.
- It focuses on strengths of Ayurveda and its unique treatment principles.
- To reduce the burden of disease and related morbidity and mortality by utilizing the potential of Ayurveda.
- To explore the potential of Ayurveda to contribute towards National health policy & National Health programmes.
- To create a sense of awareness in today's generation and promote Ayurvedic principles of healing in society.

Steps taken for promotion of AYUSH:

- Ministry of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) was created with a view to promote research and education in these streams in 2014.
- AYUSH Ministry has signed MoU with Ministry of Micro Small and Medium Enterprises (MSME) to develop entrepreneurs in AYUSH sector and to strengthen the existing AYUSH Industry sector including manufacturers of AYUSH drugs, cosmetics, food supplements, hospital industry, etc.
- Ministry has announced to create one lakh job opportunities under the Champion Sector Scheme as devised by Union Cabinet.
- Ministry is working with Commerce Ministry to support non-government sector to establish international standard Ayurveda and other AYUSH Hospitals.
- Ministry of railways has agreed to set up AYUSH wing in railway hospitals. The Government of India

has allowed hundred percent foreign direct investments in health sector.

II. SOCIAL JUSTICE

TOPIC: GS I, SOCIAL JUSTICE

5. Changes in Sexual Harassment Law

Source: The Hindu

Why in news:

The Centre has recently announced to set up a panel of judges to look into the legal and institutional framework to curb sexual harassment at workplaces following the #MeToo campaign on social media reiterating the recommendations of Justice J.S. Verma Committee of 2013.

About Verma Committee:

- It was constituted in December 2012 to recommend amendments to the Criminal Law to provide quicker trial and enhanced punishment for criminals accused of committing sexual assault against women.
- It was headed by Justice J.S. Verma and made recommendations on laws related to rape, sexual harassment, trafficking, child sexual abuse, medical examination of victims, police, electoral and educational reforms.
- It made a number of recommendations on Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Bill, 2012.
- Recommendations:
 1. It broadened the definition of sexual harassment by recognising any unwelcome behavior under the complain for sexual harassment.
 2. It brought domestic workers should be included within the purview of the Bill.
 3. Provision of conciliation between the complainant and the respondent.
 4. Employer should pay compensation to the woman who has suffered sexual harassment.
 5. Employer to institute an internal complaints committee for filing complains.
 6. Employer to be held responsible for facilitation of any conducive environment for sexual harassment.
 7. It opposed penalising women for false complaints.
 8. It set time limit of 3 months for adjudication on any complaint for sexual harassment.
- Analysis of Verma committee recommendations:

1. Provision of conciliation and internal complaints committee defeats the purpose of the Bill and instead, there should be an Employment Tribunal to receive and adjudicate all complaints.
2. It is against the spirit of the Vishakha guidelines framed by the Supreme Court in 1997 which proposed forming an employment tribunal to receive and adjudicate all complaints to curb sexual harassment at the workplace. The internal complaints committee would be counter-productive to the complaints in-house as it could discourage women from filing complaints.

TOPIC: GS I, SOCIAL JUSTICE

6. Time limit for reporting crimes under POCSO Act abolished

Source: The Hindu

Why in news:

The government has recently done away with the time limit for reporting crimes by the survivors of child sexual abuse. It is important for those child who wish to file a complaint as adults after years of trauma but are turned away at police stations.

About POCSO Act:

- The Protection of Children from Sexual Offences Act (POCSO Act) 2012 was established to protect the children against offences like sexual abuse, sexual harassment and pornography and aims to provide a child-friendly system for trial where perpetrators could be punished.
- It is not retrospective in nature.
- It defines a child as any person below eighteen years of age.
- It defines different forms of penetrative and non-penetrative sexual abuse.
- It recognises the aggravated form of sexual assault where the abused child is mentally ill or when the abuse is committed by a member of the armed forces, a public servant or a person in a position of trust or authority of the child and makes it mandatory to report such cases.
- A person aware of the offence against the child has to report about the case failing which he can be punished with six months imprisonment or fine.
- Trial should be completed within the period of one year.
- Provision of in camera recording of the proceedings in the presence of parents or any other person in whom the child has trust or confidence.

- Different types of punishment for different types of abuse but at least 10 years imprisonment which may be extended to imprisonment for life in the case of aggravated penetrative abuse. It also prescribes punishment to the people who traffic children for sexual purposes.
- Punishment against false complaints or untrue information.

TOPIC: GS II, HEALTH

7. Antibiotic misuse in India

Source: The Hindu

What is antibiotic misuse?

- It means misuse or overuse of antibiotics with potentially serious effects on health.
- It is a prime factor for the development of antibiotic resistance and multidrug-resistant bacteria or "super bugs causing life-threatening infections.
- It emerged within a decade of the first clinical trials of penicillin by the end of the 1940s but the past 20 years it has become endemic in many countries of the world.
- It affects every country because it travels with the person carrying it across the boundaries.

Impact of antibiotic misuse:

- Emergence of various types of drug resistant disease which convert a simple curable disease into fatal disease.
- Antimicrobials and antibiotics are used during cancer treatment, organ transplantation, surgery etc and drug resistance to antibiotics affects antibiotics, antivirals, and antifungal therapies.
- It is also given to animals and fish for good hygiene, with little understanding of how this might impact on antimicrobial resistance in humans.

Causes for antibiotic misuse in India:

- Around 58,000 newborns die in India each year due to sepsis from resistant bacteria
- Antibiotic consumption doubled in India between 2000 and 2015 making common infections like pneumonia and tuberculosis more difficult to treat.
- Increase in consumption is the result of increasing economic growth, more access to antibiotics in both the public and private sectors and lack of awareness.
- India is yet to regulate antibiotic-use in poultry, while many developed countries like U.S. banned the use of antibiotics as growth-promoters in poultry.

- Profit maximization attitude of private clinics and medical practitioners.
- India has the highest burden of infectious disease in the world because it has the world's highest population with infection.
- Environmental antibiotic contamination due to pharmaceutical and hospital discharge into lakes and rivers.
- State drug-controllers unable to enforce the law for checking in restricted sale of antibiotics widely.
- India's 2017 National Action Plan on Antimicrobial Resistance aimed at restricting antibiotic use as growth promoters has not been enforced efficiently.
- India lacks proper standards for measuring antibiotics in waste water.

Way forward:

- Classified important antibiotics under Drugs and Cosmetics Rules 1945 should not be sold without prescriptions.
- Regulatory bodies need to be strengthened and regulations must be implemented to check antibiotic misuse.
- India needs to remove irrational fixed dose combinations, educate physicians on appropriate antibiotic prescribing, regulate over-the-counter sale of newer antibiotics and increase vaccination coverage.

TOPIC: GS II, EDUCATION

8. Right to Education

Source: The Hindu

Why in news:

- Karnataka has recently announced to change the criteria for admission under the RTE Act by applying its reservation policies only in government or aided schools.
- Under the Right to education act 2009, 25% of seats should be reserved for students of weaker sections and disadvantaged groups in private schools.

About Right to Education (RTE) Act:

- The Right of Children to Free and Compulsory Education (RTE) Act, 2009 came into effect on 1 April 2010 which is an embodiment of Article 21A, which says that every child has a right to full time elementary education of satisfactory and equitable quality in a formal school which satisfies certain essential norms and standards.

- It implies that every child in the age group of 6 to 14 year is entitled for free and compulsory education.
- Compulsory education shows obligation of the government to ensure compulsory admission, attendance and completion of elementary education by every child in the six to fourteen age group.
- Free means that children can't be compelled to pay any fee which may prevent him or her from pursuing and completing elementary education.
- It specifies the duties and responsibilities of appropriate Governments, local authority and parents in providing free and compulsory education, and sharing of financial and other responsibilities between the Central and State Governments.
- It lays down the norms and standards relating inter alia to Pupil Teacher Ratios (PTRs), buildings and infrastructure, school-working days, teacher-working hours.
- It provides for appointment of appropriately trained teachers.
- The nationwide Sarva Shiksha Abhiyan is the main vehicle for implementation of the RTE Act which is primarily funded from central budget.

About Sarva Shiksha Abhiyan:

- India's flagship programme for achievement of Universalization of Elementary Education (UEE) in a time bound manner.
- It was started in 2001 after modifying existing schemes like District Primary Education Programme.
- The 86th constitutional amendment which brought RTE into existence gave it a constitutional support.
- It gives special attention to urban deprived children, children affected by periodic migration and children living in remote and scattered habitations.
- Recent Initiatives under SSA:
 1. Padhe Bharat-Badhe Bharat was launched in 2014 aiming at improving language development by creating interest in reading and writing with comprehension and mathematics.
 2. ShaGun Portal for monitoring the progress of Sarva Shiksha Abhiyan was launched in January 2017.

III. ECONOMY

TOPIC: GS II, IMPORTANT INTERNATIONAL INSTITUTIONS, AGENCIES AND FORA, THEIR STRUCTURE, MANDATE

9. IMF Quota reforms

Sources: The Hindu, IMF

Why in news:

India has called for quota reforms so that share of emerging nations increases in line with their growing economic position.

About IMF Quotas:

The IMF is a quota-based institution. Quotas are the building blocks of the IMF's financial and governance structure. An individual member country's quota broadly reflects its relative position in the world economy. Quotas are denominated in Special Drawing Rights (SDRs), the IMF's unit of account.

- The largest member of the IMF is the United States, with a current quota (as of March 2017) of SDR82.99 billion (about US\$118 billion), and the smallest member is Tuvalu, with a quota of SDR2.5 million (about US\$3.5 million).

Multiple roles of quotas:

- **Resource Contributions:** Quotas determine the maximum amount of financial resources a member is obliged to provide to the IMF.
- **Voting Power:** Quotas are a key determinant of the voting power in IMF decisions. Votes comprise one vote per SDR100,000 of quota plus basic votes (same for all members).
- **Access to Financing:** The maximum amount of financing a member can obtain from the IMF under normal access is based on its quota.
- **SDR Allocations:** Quotas determine a member's share in a general allocation of SDRs.

Quota reviews:

- The IMF's Board of Governors conducts general quota reviews at regular intervals (no more than five years). Any changes in quotas must be approved by an 85% majority of the total voting power, and a member's own quota cannot be changed without its consent.
- Two main issues addressed in a general quota review are the size of an overall quota increase and the distribution of the increase among the members.

Quota formula:

- A quota formula is used to help assess members' relative position in the world economy and it can

play a role in guiding the distribution of quota increases. The current quota formula is a weighted average of GDP (weight of 50 percent), openness (30 percent), economic variability (15 percent), and international reserves (5 percent). For this purpose, GDP is measured through a blend of GDP—based on market exchange rates (weight of 60 percent) and on PPP exchange rates (40 percent). The formula also includes a “compression factor” that reduces the dispersion in calculated quota shares across members

$$(0.50 * GDP + 0.30 * Openness + 0.15 * Variability + 0.05 * Reserves) \text{ compression factor}$$

About International Monetary Fund (IMF):

- The IMF (also known as the Fund), along with the World Bank, was conceived in 1944 at a conference in Bretton Woods, in the US state of New Hampshire.
- It aims to preserve economic stability and to tackle – or ideally prevent – financial crises. Over time, its focus has switched to the developing world.
- The IMF is funded by a charge – known as a “quota” – paid by member nations – based on a country's wealth.
- The IMF also acts as a lender of last resort, disbursing its foreign exchange reserves for short periods to any member in difficulties.

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

10. Now, transfer money from one e-wallet to another

Source: The Hindu

Why in news:

The Reserve Bank of India has released the guidelines for interoperability between prepaid payment instruments (PPIs) such as wallets and cards that will effectively allow users of popular payment wallets such as Paytm, Freecharge, Mobikwik, PhonePe and PayZapp, among others, to transfer money from one wallet to another.

- As per the guidelines, where PPIs are issued in the form of wallets, interoperability across PPIs shall be enabled through UPI and where PPIs are issued in the form of cards, the cards shall be affiliated to the authorised card networks.

Significance:

- The guidelines, while boosting the e-wallet segment, would also ensure the safety and

accuracy of the transfer of money by individuals from one wallet to another.

- The interoperability amongst PPIs is going to significantly boost the e-wallet industry.
- The guidelines would also ensure that not only the customer's money remains safe but when the transition happens from one e-wallet app to another, it reflects utmost speed and accuracy for the interoperability to be effective and efficient.

About UPI:

- Unified Payments Interface (UPI) is an instant real-time payment system developed by National Payments Corporation of India (NPCI) facilitating inter-bank transactions. The interface is regulated by the Reserve Bank of India and works by instantly transferring funds between two bank accounts on a mobile platform.
- UPI is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the "Peer to Peer" collect request which can be scheduled and paid as per requirement and convenience. Each Bank provides its own UPI App for Android, Windows and IOS mobile platform(s).

How does it work?

- UPI, built on Immediate Payment Service (IMPS), allows a payment directly and immediately from bank account. There is no need to pre-load money in wallets. It allows payments to different merchants without the hassle of typing one's card details or net-banking password.

The UPI ecosystem functions with three key players:

- Payment service providers (PSPs) to provide the interface to the payer and the payee. Unlike wallets, the payer and the payee can use two different PSPs.
- Banks to provide the underlying accounts. In some cases, the bank and the PSP may be the same.
- NPCI to act as the central switch by ensuring VPA resolution, effecting credit and debit transactions through IMPS.

TOPIC: GS III, INCLUSIVE GROWTH AND ISSUES ARISING FROM IT

11. Tea Board plans app to help growers

Source: The Hindu

Why in news:

Tea Board of India is planning to launch an app aimed at guiding small growers, whose share in total tea

production is increasing. The proposed name of the app is Chai Sahay (tea help).

About the App:

- The mobile platform would have user-interface facilities with the targeted user groups (the small tea grower) and the various officials. It would also have information on the various activities of the board officials.
- The existing database of the STGs would be incorporated in the app, which would also give information on their registration process. There would be advisories on application of farm inputs and pesticide use. Small growers can also post queries for advice on pest control.
- It would help disseminate information about the various Tea Board schemes.
- It would help in tackling real time farm-issues such as pest identification as tea growers can now take the picture of a new pest and post it for identification and tackling methods.

About Tea Board of India:

- The Tea Board is set up under the Tea Act 1953. It has succeeded the Central Tea Board and the Indian Tea Licencing Committee which functioned respectively under the Central Tea Board Act, 1949 and the Indian Tea Control Act, 1938 which were repealed.
- The Tea Board is functioning as a statutory body of the Central Government under the Ministry of Commerce.
- The Board is constituted of 31 members (including Chairman) drawn from Members of Parliament, tea producers, tea traders, tea brokers, consumers, and representatives of Governments from the principal tea producing states, and trade unions. The Board is reconstituted every three years.

Functions:

Briefly the primary functions of the Tea Board are as under:

- (a) Rendering financial and technical assistance for cultivation, manufacture and marketing of tea.
- (b) Export Promotion
- (c) Aiding Research and Development activities for augmentation of tea production and improvement of tea quality.
- (d) Extend financial assistance in a limited way to the plantation workers and their wards through labour welfare schemes.

- (e) To encourage and assist both financially and technically the unorganised small growers sector.
- (f) Collection and maintenance of Statistical data and publication.
- (g) Such other activities as are assigned from time to time by the Central Government.

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

12. Cross-Border Insolvency

Sources: PIB, Livemint

Why in news:

The Insolvency Law Committee (ILC) constituted by the Ministry of Corporate Affairs to recommend amendments to Insolvency and Bankruptcy Code of India, 2016, has submitted its 2nd Report to the Government, which deals with cross border insolvency. The Report was handed over to Shri Arun Jaitley, Minister of Finance and Corporate Affairs on 22nd October, 2018.

- The ILC recommended the adoption of the UNCITRAL Model Law of Cross Border Insolvency, 1997 as it provides for a comprehensive framework to deal with cross border insolvency issues. The Committee also recommended a few steps to ensure that there is no inconsistency between the domestic insolvency framework and the proposed Cross Border Insolvency Framework.

Necessity of cross-border insolvency framework:

- The necessity of having Cross Border Insolvency Framework under the Insolvency and Bankruptcy Code arises from the fact that many Indian companies have a global footprint and many foreign companies have presence in multiple countries including India. Although the proposed Framework for Cross Border Insolvency will enable us to deal with Indian companies having foreign assets and vice versa, it still does not provide for a framework for dealing with enterprise groups, which is still work in progress with UNCITRAL and other international bodies. The inclusion of the Cross Border Insolvency Chapter in the Insolvency and Bankruptcy Code of India, 2016, will be a major step forward and will bring Indian Insolvency Law on a par with that of matured jurisdictions.

Significance:

- Inclusion of cross-border insolvency framework will further enhance ease of doing business, provide a mechanism of cooperation between India and other countries in the area of insolvency resolution, and protect creditors in the global scenario.
- Also, it will make India an attractive investment destination for foreign creditors given the increased predictability and certainty of the insolvency framework.

UNCITRAL Model Law of Cross Border Insolvency, 1997:

- The UNCITRAL Model Law has till now been adopted in 44 countries and forms part of international best practices in dealing with cross border insolvency issues. The model law gives precedence to domestic proceedings and protection of public interest.
- The advantages of the model law include greater confidence generation among foreign investors, adequate flexibility for seamless integration with the domestic Insolvency Law and a robust mechanism for international cooperation.

Four major principles of UNCITRAL Model Law- The model law deals with four major principles of cross-border insolvency, namely:

- Direct access to foreign insolvency professionals and foreign creditors to participate in or commence domestic insolvency proceedings against a defaulting debtor.
- Recognition of foreign proceedings & provision of remedies.
- Cooperation between domestic and foreign courts & domestic and foreign insolvency practitioners.
- Coordination between two or more concurrent insolvency proceedings in different countries. The main proceeding is determined by the concept of centre of main interest (COMI).

Global Scenario:

- On the global scale, the UNCITRAL (United Nations Commission on International Trade Law) Model Law on Cross-Border Insolvency, 1997 (Model Law) has emerged as the most widely accepted legal framework to deal with cross-border insolvency issues while ensuring the least intrusion into the country's domestic insolvency law. Due to the growing prevalence of multinational insolvencies, the Model Law has been adopted by 44 States till date, including Singapore, UK and US.

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

13. RBI opposes Govt plan for separate payments regulator

Source: Indian Express

Why the news:

The Reserve Bank of India (RBI) has resisted the Centre's proposal to set up an independent Payment Regulatory Board (PRB) which will oversee all payment systems in the country stating that the proposed body "must remain with the Reserve Bank" and headed by the RBI Governor.

- Coming out strongly against the Inter-Ministerial Committee's proposal to take PRB out of the RBI's purview, the RBI said there has been no evidence of any inefficiency in payment systems of India.

Background:

- The seven-member government panel, headed by Subhash Chandra Garg proposed in August that a payments regulator should be established independent of the RBI, with a chairperson appointed by the government in consultation with the RBI. The proposal overruled the central bank's recommendation that its governor should be head of the payments regulator.
- The proposal for an independent PRB was outlined in the draft Payment and Settlement System Bill, 2018.

Why the RBI is opposing this move?

- The RBI cited the report of the Ratan Watal Committee on digital payments as recommending the establishment of the PRB within the overall structure of the RBI, arguing therefore that there is no need for any deviation.
- Also, as per RBI, there has been no evidence of any inefficiency in payment systems of India.
- The digital payments have made good and steady progress. India is gaining international recognition as a leader in payment systems. Given this, there need not be any change in a well-functioning system.
- The RBI has argued that the payment system is bank-dominated in India. "Regulation of the banking systems and payment system by the same regulator provides synergy and inspires public confidence in the payment instruments. Regulation of the payment system by the central bank is the dominant international model for stability consideration. Thus, having the regulation

and supervision over Payment and Settlement systems with the central bank will ensure holistic benefits," it commented.

TOPIC: GS II, INFRASTRUCTURE-ENERGY

14. Phase II of Indian Strategic Petroleum Reserves

Source: PIB

Why in news:

Government of India has decided to keep the nation ahead in the quest for securing its vital crude oil buffer inventory by seeking to almost double the capacity of its underground storage caverns through the ambitious Phase-II programme which seeks Public Private Partnership in India's emerging Hydrocarbon Sector.

Indian Strategic Petroleum Reserves:

- With the objective to meet the energy security, Government of India formed Indian Strategic Petroleum Reserves Limited (ISPRL), a SPV under Ministry of Petroleum and Natural Gas.
- After a detailed study considering technical and commercial factors, two locations - Chandikhol in Odisha and Padur in Karnataka have been selected as the optimum location for these SPRs. These two SPRs will add strategic petroleum reserves of 12 days in addition to 10 days of reserves achieved in Phase I. Indian refiners maintain 65 days of crude storage, and when added to the storage planned and achieved by ISPRL, takes the Indian crude storage tally to 87 days. This is very close to the storage of 90 days mandated by IEA for member countries.

Phase II:

- The Union Cabinet has now accorded in principle approval for the Phase-II SPR program which entails creation of additional storage facilities of 6.5 MMT of crude oil to be stored in underground rock caverns at Chandikhol in Odisha and Padur in Karnataka with an envisaged investment outlay of Rs.11,000 Crores(US\$ 1.6 Billion). The Investment model seeks partnership through DBFOT (Design, Build, Finance, Operate and Transfer) and offers prospective concessionaire the rights on the crude oil inventory as per an agreed term where the Government of India will have the first right of refusal on the inventory in times of exigencies. As a key takeaway the Concessionaire will have access to the large Indian refining market and multiple other revenue streams.

Background:

- Underground storage of crude oil is more secure, safe, economical and environmental friendly than

conventional above ground storage tanks. Many other developed countries have created crude oil reserves in different types of underground storage facilities. Conceived during early 2000s, the Indian Strategic Petroleum Reserves Ltd. (ISPRL) was created by Government of India as a Special Purpose Vehicle under MoP&NG in 2004 to give wings to its vision of building the first of its kind strategic crude oil storages in India and to insulate the country from a volatile crude oil supply market, supply disruptions and future oil shocks. The crude oil storages are constructed in underground rock caverns and are located on the east and west coast of India namely Visakhapatnam, Mangalore and Padur. Crude oil from these storage installations are envisaged to cater to the Indian refineries either through pipelines or a combination of pipelines and coastal shipment.

Significance:

- India is the 3rd largest consumer of energy and also the 3rd largest importer of crude oil in the world. With Indian economy growing rapidly, energy demand is forecasted to grow more than any other country in the world in the next two decades. India has a very large requirement of petroleum fuels. Demand for petroleum products has been increasing at a CAGR of 5.5% from 2013 to 2017.
- In last one year, we have also faced severe headwinds by way of rising oil prices. Since October 2017, crude prices have gone up 50% in US Dollar terms and 70% in Indian Rupee terms. Much of it is to do with geo-political events imposed on the World. We have to mitigate the impact and use the challenge as an opportunity. One of the mitigation measure is to create enough strategic reserve within the country to store adequate crude physically within the country. This will not only help in avoiding disruption in case of supply side disruptions, it will also help in reducing price volatility.

IV. ENVIRONMENT

TOPIC: GS III, CONSERVATION, ENVIRONMENTAL POLLUTION AND DEGRADATION

15. Air Quality Early Warning System

Source: PIB

Why in news:

Air Quality Early Warning System for Delhi has been launched.

About the Air Quality Early Warning System:

- The System is designed to predict extreme air pollution events and give alerts to take necessary

steps as per Graded Response Action Plan (GRAP) of the Government of India.

- The air pollution system has been developed jointly by the scientists at Indian Institute of Tropical Meteorology (IITM), Pune, India Meteorological Department and National Centre for Medium Range Weather Forecasting (NCMRWF).
- The system will help in proactively forewarning, 3-4 days in advance, any large scale air pollution events which may occur over the Delhi region.
- The warning system consists of a) real time observations of air quality over Delhi region and details about natural aerosols like dust (from dust storms) and particulate matter using different satellite data sets b) Predictions of air pollutants from two different air quality prediction systems based on state-of-the-art atmospheric chemistry transport models and c) Warning Messages and Alerts and Bulletins.
- The prediction systems were developed by scientists of MoES institutions with the technical support from the National Centre for Atmospheric Research (NCAR), USA and the Finnish Meteorological Institute (FMI). The models have data assimilation facility, which can assimilate data from satellites on dust aerosols, particulate matter from stubble burning and other air pollutants like SO₂ and NO₂. The models will take into account the background aerosols and pollutants, long range transport of dust from dust storms and particulate matter from stubble burning. The predictions are now available up to 72 hours lead time.

TOPIC: GS III, CONSERVATION, ENVIRONMENTAL POLLUTION AND DEGRADATION

16. Harit Diwali-Swasth Diwali campaign

Source: The Hindu

Why in news:

Union Ministry of Environment, Forests and Climate Change (MoEFCC) has launched Harit Diwali-Swasth Diwali campaign aimed to reduce adverse environmental conditions especially pollution in the country after post Diwali celebrations due to excessive bursting of crackers which contributes significantly to air and noise pollution.

About the campaign:

- This campaign was initiated in 2017-18 to enlighten children about harmful fire crackers and motivate them to celebrate Diwali in environment-friendly manner and not to buy fire crackers, instead buy gift,

food items, or sweets for poor and underprivileged children living in their locality.

- Under this campaign, the MoEFCC will undertake various activities for creating awareness among various stakeholders and encourage people to participate in combating air pollution. This campaign was extremely successful and the air quality had not deteriorated post Diwali in 2017 unlike what was experienced in 2016.
- 2018 Campaign: Following its earlier precedence, MOEFCC has initiated similar campaign, but has extended pan-India. It also merged this year's campaign with "Green Good Deed" movement that has been initiated as social mobilization for conservation and protection of environment. All schools and colleges have been encouraged to be part of this campaign.

Background:

Air pollution is a serious health issue in the country especially in the northern parts during winter seasons. It is attributed to dust, burning of crops in certain states, burning of garbage construction and prevailing climatic conditions.

- This air pollution has serious impacts on the health of children aged people and people suffering from respiratory ailments. Diwali which is a festival of lights falls during the same period. As a matter of practice people have been celebrating Diwali by bursting crackers.
- Crackers contains combustible chemicals that include potassium chlorate powdered aluminum, magnesium, salts of barium, copper, sodium, lithium, strontium etc. and emits smoke on combustion of these chemicals along with sound. This smoke and sound has health impacts on children, aged people and also animal and birds. Apart from these compounds large amount of waste is also generated after bursting of crackers.

**TOPIC: GS III, CONSERVATION,
ENVIRONMENTAL POLLUTION
AND DEGRADATION**

17. India gets \$43.4 million from Green Climate Fund for climate action

Source: India Today

Why the news:

UN-backed fund Green Climate Fund (GCF) has approved US \$43.4 million for enhancing climate resilience for millions of people living in India's coastal communities as part of its efforts to combat extreme impacts of climate change.

- The grant is part of more than US \$1 billion approved by 21st meeting of GCF Board held in Bahrain's capital Manama for 19 new projects to help developing countries tackle climate change.

About the projects:

- This GCF funded multi-dimensional project in India will focus on selected vulnerable areas of Andhra Pradesh, Maharashtra and Odisha states. It will help to enhance resilience and adaptability and also lead to emissions reduction while providing support to local communities for their livelihoods.
- This project will be supported through United Nations Development Programme (UNDP). The project activities will focus on restoration and conservation of over 15,000 hectares of mangroves, coral reefs, seagrasses and saltmarshes. Communities, including local youth, will be trained to work with scientists in monitoring ecosystem health and coastal ecology.
- The innovative project will create online decision-support tool available via mobile phone for use by government officers, academic institutions, community members and scientists for strengthening climate risk-informed coastal management and infrastructure planning. The project will also build local knowledge of climate change and the associated risks via training and public education programmes.

Significance of project:

- It will help communities to establish more climate-resilient livelihoods, thus contribute to global efforts to reduce greenhouse gas emissions – over 3.5 million tonnes of CO² will be absorbed through restored ecosystems. It will also have considerable long-term environmental benefits including healthier ecosystems, better biodiversity conservation and improved buffering against climate change-driven extreme weather. It will be also essential step for India in reaching its goals outlined in Paris Agreement and 2030 Agenda for Sustainable Development.

Background:

- India's coastal areas are quite vulnerable to climate change. Its coastline is expected to be among regions most affected by climate change globally. Bay of Bengal and Arabian Sea are both predicted to be subject to extreme climate variability, with extreme weather events and frequency and intensity of cyclones projected to increase, particularly on eastern coastline. India has about 6,740 km² of mangroves, including some of largest mangrove forests in the world. Mangrove cover along India's coastline has decreased by 50% in some areas, largely because

of human pressures, including alteration of flow of freshwater from upstream. Sea-level rise is predicted to result in further reductions.

About GCF:

- The GCF was set up in 2010 under the UNFCCC's (United Nations Framework Convention on Climate Change) financial mechanism to channel funding from developed countries to developing countries to allow them to lessen climate change and also adapt to disruptions arising from a changing climate.
- The fund is governed and supervised by a board that has the full responsibility for funding decisions and that receives the guidance of the COP (conference of the parties). The fund is accountable to and functions under the guidance of, the COP.

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

18. Third Pole on Earth

Source: WEF

Why in news:

Scientists conducting research in the third pole area have warned of disturbing global warming trends, and how, if they continue, they could affect the lives of 1.3 billion people.

- The glacier has lost 60% of its mass and shrunk 250 m since 1982.

Third Pole and its significance:

- The Hindu Kush-Himalayan region spans an area of more than 4.3 million square kilometres in Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan. It is the third largest area of frozen water on the planet, giving its name: 'The Third Pole'.
- Although much smaller than its north and south counterparts, it is still enormous, covering 100,000 square kilometres with some 46,000 glaciers. The Third Pole contains the world's highest mountains, including all 14 peaks above 8,000 metres, is the source of 10 major rivers, and forms a formidable global ecological buffer.
- The Third Pole region has enormous socioeconomic and cultural diversity; it is home to many different ethnic communities speaking more than 600 languages and many more dialects.
- It is endowed with rich natural resources and contains all or part of four global biodiversity hotspots. The mountain resources provide a wide

range of ecosystem services and the basis for the livelihoods to the 210 million people living in the region, as well as indirectly to the 1.3 billion people — one fifth of the worlds' population — living in the downstream river basins. More than 3 billion people benefit from the food and energy produced in these river basins that have their origin in the mountains.

The impact of Climate Change:

Mountain systems are particularly sensitive to climate change and the Third Pole region is home to some of the people most vulnerable to these changes in the world. Changes in the river systems and their basins have impacted directly on the wellbeing of millions of people.

- The rate of warming in the Third Pole region is significantly higher than the global average, and the rate is higher at higher altitude, suggesting a greater vulnerability of the cryosphere environment to climate change. This trend is expected to continue.
- Climate change projections suggest that all areas of South Asia are likely to warm by at least 1°C by the end of the century, while in some areas the warming could be as high as 3.5-4°C. The life and livelihoods of the people in the Third Pole region is challenged due to climate change, and the stability and prosperity of the region affected by the Third Pole is at risk, which will have implications for all of Asia and for the world.
- However, there is still little knowledge of this situation, and its potential implications, outside the immediate vicinity; a special effort is needed to raise awareness of the fragility of the mountain social-ecological system.
- The Third Pole Environment (TPE): TPE, an international research program, was launched in 2009 and focuses on the Tibetan Plateau and surrounding mountain ranges.

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

19. Earth's inner core is softer, a study reveals

Source: India today

Why the news:

Contrary to the fact the Earth's inner core is solid, researchers from Australian National University (ANU) have found that it is comparatively softer.

Facts about the inner core of the Earth:

- Radius: 1,220 kilometres (760 miles) i.e. 70 per cent of the Moon's radius.
- Composed of: Nickel-iron alloy.
- Temperature: 5,700 K (5,430 °C) or 9806 °F, which is almost the temperature of Sun.

What is inner core made of?

- The inner core is made up of two layers outer and inner.
- Outer core is 1,355 miles (2,180 km) thick.

Why is the radius of inner core unknown?

- There is no estimated radius of the inner core; however, it plays a distinct role in making Earth's magnetic field.
- The inner core is measured by shear waves, a seismology term, which is so tiny and feeble that it can't be observed directly.
- In fact, detecting them has been considered the 'Holy Grail' of global seismology since scientists first predicted the inner core was solid in the 1930s and 40s.

Purpose of the Earth's inner core:

- When charged particles from the solar wind collide with air molecules above Earth's magnetic poles, it causes the air molecules to glow, causing the auroras – the northern and southern lights.

How has it been discovered?

- Researchers came up with a way to detect shear waves, or "J waves" in the inner core – a type of wave which can only travel through solid objects.
- According to the research published by the university, the wave field method looks at the similarities between the signals at two receivers after a major earthquake, rather than the direct wave arrivals. The study shows these results can then be used to demonstrate the existence of J waves and infer the shear wave speed in the inner core.
- It has been found that the inner core shares some similar elastic properties with gold and platinum.

What is the significance of this method?

- The understanding of the Earth's inner core has direct consequences for the generation and maintenance of the geomagnetic field, and without that geomagnetic field there would be no life on the Earth's surface.

V. INTERNATIONAL RELATIONS

TOPIC: GS II, BILATERAL AND MULTILATERAL GROUPING

20. First India-U.S. tri-services exercise

Source: The Hindu

Why in news:

- US has indicated its plan to conduct its first India-U.S. tri-services exercise in 2019.
- The three forces of each country participate in bilateral exercises separately which are Yudh Abyaas(Army), Cope India (Air force) and Malabar(Navy)
- For the first time the three services of India and the U.S. will participate in a drill together in 2019.
- The exercise will focus on a United Nations-based scenario, humanitarian assistance, disaster relief measure.
- Conducting the joint tri-services drill was announced after the first 2+2 dialogue between.

TOPIC: GS II, BILATERAL AND MULTILATERAL GROUPINGS

21. China India 2+1 in Africa

Source: The Hindu

Why in news:

China announced \$60 billion package for Africa in Forum on China–Africa Cooperation (FOCAC) organized at Beijing in China

About Forum on China–Africa Cooperation

- It is an official forum between China and all states in Africa (with the exception of Eswatini or Swaziland) to boost multidimensional cooperation between China and African states primarily focused on enhancing the level of infrastructure in African countries like roads, power plants, railways etc.
- Starting from 2000 it is held at every three years and seventh summit has been held in September 2018.

Cooperation between India and China in Africa:

- Like China, India also hosts its own triennial conclave with African leaders, which was last held in 2015. Despite spending less in Africa in comparison to China, India's contribution to Africa's development is significant.
- China and India need to co-link their development strategies in Africa for ensuring rise of this continent. This was indicated by China during its foreign ministers Rwanda visit when it put out the message

of cooperating with India to pursue 'China-India Plus One' model in engaging with Africa.

- Wuhan informal summit between India and China also hinted about the coordination of their approaches for engaging a third country or set of countries in South Asia and beyond.
- China has also described India and China as like-minded partners in Africa.

TOPIC: GS II, IMPACT OF POLICIES OF OTHER COUNTRIES ON INDIA

22. India's strategic autonomy in the era of rising interstate rivalry

Source: The Hindu

India's strategic autonomy in USA and Russia rivalry:

- India, Russia agreement on the S-400 air defence system concluded successfully despite U.S. warning of imposing sanctions. This deal has been signed just a month after India signed the Communications Compatibility and Security Agreement (COMCASA) with the U.S. which is a sign that India will not be forced to put all its eggs in one basket.
- India has expressed support for the Moscow format aiming at facilitating the national reconciliation process in Afghanistan for securing peace. It supports negotiation with Taliban.

On the Iran Front:

- There could be a lower volume of purchases of oil from Iran after US sanctions. However past experience shows that government has option to circumvent these sanctions through a rupee-rial mechanism or through banks that don't have exposure to the U.S. These mechanism can be adopted this time also.

Strategic policy towards China:

- On Tibet issue India started to move away from its old consistent policy and invited head of the Tibetan government-in-exile and allowed Dalai Lama to visit Tawang which provoked China. However, after Wuhan summit, the government has returned to that old policy as the new policy was not sustainable.
- China has also agreed to stop extending the road ahead to areas considered sensitive for India which has been a limited gain for India, but not insignificant one.
- However on the issue of India's membership in Nuclear Supplier Group China still blocks India's claim and on the issues like climate change where India and China stood together, China dealt directly with the U.S. to strike a deal and didn't

consult India. This is a point where India needs to be more cautious towards China's intentions.

Conclusion:

- India's relationships with big powers like the U.S., Russia, China and Europe are increasingly being complicated by their rivalries with each other thus the country needs to follow its traditional policy of strategic autonomy pursuing on its own interests.
- All the major countries are trying to push India in a direction it likes however it is not a new and difficult challenge for India given its strategic autonomy.
- India will be an important component of the reshaping of the world as it has room for manoeuvre and to expand its strategic space as India now has more economic and military power than in the past.
- Rise in U.S.-China tensions means lowering of tensions between India and China which should be exploited by India to check China's assertiveness in India's neighbourhood.

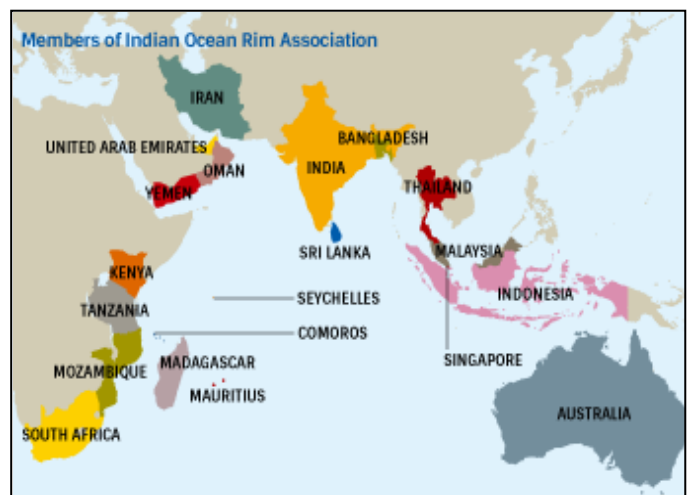
TOPIC: GS II, BILATERAL AND REGIONAL GROUPING

23. Goa Maritime Symposium

Source: PIB

Why in news:

- The Goa Maritime Symposium (GMS) – 2018 has been inaugurated by India's Chief of Naval Staff at INS Mandovi in Goa on 16th October 2018.
- The theme for GMS this year is "Building Stronger Maritime Partnerships in IOR".
- It is focused on:
 1. Deliberating on capacity building among IOR Navies to tackle emerging maritime threats.
 2. Enhancing interoperability among partner maritime agencies.



What is Goa Maritime Symposium?

- It is a forum for boosting friendly relations with the maritime neighbours.
- It aims at:
 1. Establishing academic excellence.
 2. Sharing ideas among India's maritime neighbours through interaction among senior representatives of navies and maritime agencies in the Indian Ocean Region.
 3. Playing a constructive role by bringing together stakeholders involved in evolving strategies, policies and implementation mechanisms in the maritime domain.
- It is the second edition of the Goa Maritime Symposium (GSM) series.
- The GSM was first held in 2016.

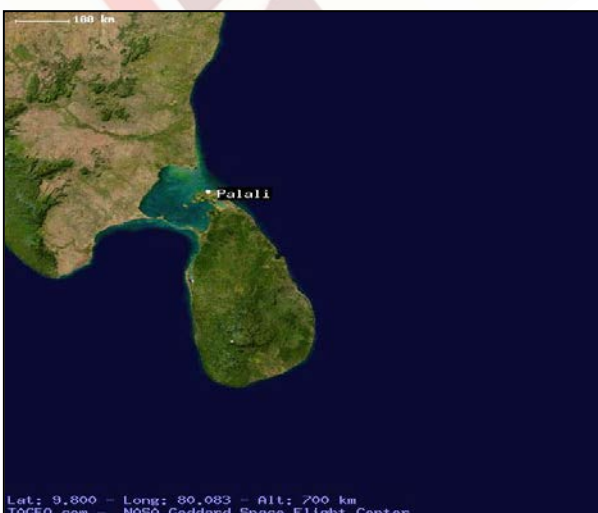
TOPIC: GS II, INDIA AND ITS NEIGHBOURING COUNTRIES

24. Palaly airport in Sri Lanka to be developed by AAI

Source: The Hindu

Why in news:

- Airports Authority of India (AAI) is set to develop Palaly airport in Sri Lanka. India is looking to develop other airports in the island nation along with Palaly.
- India has also offered to develop the Kankesanthurai airport also in the north, as well as the Mattala international airport in south Sri Lanka, neighboring the Chinese developed Hambantota port.



Significance of this project:

- Palaly is in Jaffna in the north of Sri Lanka. It is sensitive tamil-dominated and traditionally closer to India. By developing critical infrastructure here, India is also keeping a foothold in this part of Sri Lanka.

- This airport will be Sri Lanka's first in the north and it will give the northern people direct connectivity with places like south India.

TOPIC: GS II, BILATERAL AND MULTILATERAL GROUPINGS

25. Dharma Guardian- 2018

Source: PIB

Why in news:

- India and Japan have decided to hold the first ever joint military exercise 'DHARMA GUARDIAN-2018' which will involve the Indian Army and Japan Ground Self Defence Force at Counter Insurgency Warfare School, Vairengte.
- It will be focused on increasing interoperability between forces from both countries.
- This exercise is a step in deepening strategic ties including closer defence cooperation between the two countries.



TOPIC: GS II, INDIA AND ITS NEIGHBOURING COUNTRY

26. Hand-in-Hand

Source: The Hindu

Why in news:

- India and China have resolved to resume their annual joint army exercise 'Hand-in-Hand' in China's Chengdu region.
- It is one of the several attempts by both the countries after Wuhan summit to normalize their relations.

About Hand in Hand:

- It was started in 2007 as a part of confidence building measure between the two countries and last exercise was conducted in 2016 in Maharashtra but cancelled in 2017 in the wake of Doklam standoff.
- The exercise will focus on understanding the transnational terrorism and evolve joint drills for the conduct of counter terrorism operations, in addition to humanitarian assistance and disaster relief operations under the UN mandate.

- It is also an important step to uphold peace, prosperity and stability in the region.

VI. SCIENCE & TECHNOLOGY

TOPIC: GS III, SCIENCE AND TECHNOLOGY DEVELOPMENTS

27. Water Disinfection System “OneerTM”

Source: PIB

Why in news:

Council of Scientific and Industrial Research, Indian Institute of Toxicology Research (CSIR-IITR), Lucknow has developed an innovative technology for “Drinking Water Disinfection System” with Trade name “OneerTM” which was transferred to M/S Bluebird Water Purifiers, New Delhi.

About “OneerTM”:

- It is useful for continuous treatment of water and eliminates all disease causing pathogens such as virus, bacteria, fungi, protozoa and cyst to provide safe drinking water to domestic and communities settings as per National and International standards prescribed for potable water (BIS, WHO etc.).

Significance:

According to the World Health Organization, “access to safe drinking-water is essential to health, a basic human right and a component of effective policy for health protection”. However, currently, a large proportion of India’s rural community is consuming water that does not meet the WHO drinking water quality standards. And infection through drinking water results in an increase in morbidity and mortality particularly amongst children.

- Oneer developed by CSIR-IITR, will provide access to safe and clean drinking water at a cost of just 2 Paise / Ltr. The Community level model is of 450 LPH capacity which can be scaled up to 5000 to 1 lakh L/day; and is also maintenance and membrane free.
- The smaller unit of Oneer is particularly suitable for homes, street food vendors, and small establishments.
- The technology will be helpful especially for rural people since it can be solar powered.

TOPIC: GS III, AWARENESS IN SPACE

28. China plans to launch artificial moon

Source: Times of India

Why the news:

China is in the process of creating an “artificial moon” that would be bright enough to replace the streetlights in the south-western city of Chengdu by 2020.

Key points:

- Chinese scientists plan to send three artificial moons into space in the next four years, and the moons — made from reflective material like a mirror — are expected to orbit at 500 kilometres above the Earth and light up an area with a diameter of 10 to 80 kilometres.
- The artificial moon will have a reflective coating that can deflect sunlight back to Earth, similar to how the moon shines.
- The three artificial moons would operate alternately in order to significantly reduce infrastructural electricity consumption, especially during winter. The illuminated satellite is designed to complement the moon at night.
- Lighting from the artificial moon covering 50 square kilometres in Chengdu could save about 1.2 billion yuan (\$240 million) in electricity costs every year. It could also be used to light up areas experiencing power outages caused by natural disasters such as earthquakes.

Background:

- The idea for the man-made moon originated from a French artist who imagined hanging a necklace made of mirrors in the sky to light up the streets of Paris at night.
- Russia attempted to launch a 25-metre “space mirror” but the project was put off in 1999.

TOPIC: GS III, ISSUES RELATING TO IPR

29. Bihar’s Shahi litchi gets GI tag

Why the news:

Shahi litchi from Bihar has got the Geographical Indication (GI) tag from Chennai based Geographical Indication Registry and Intellectual Property India.

Key facts:

- The Shahi litchi, which is famous for its sweet, juicy, unique flavour and aroma, is mostly grown in Muzaffarpur and neighbouring districts including East Champaran, Vaishali, Samastipur and Begusarai.
- The GI registration was done in name of Muzaffarpur-based Litchi Growers Association of Bihar, which had applied for the tag.
- Shahi Litchi is fourth agricultural product from Bihar after Katrani rice, Jardalu mango and Magahi paan (betel vine), to get GI tag.
- In addition to four GI tags in agricultural field, some art form from Bihar such as Madhubani painting, applique – Khatwa patch work, Sikki grass work, Sujini embroidery work and Bhagalpur

silk have also been accorded GI tag under handicraft category.

Significance:

- Bihar produces 40% of the litchi grown in the country on 38% of the area. The GI tag to Shahi litchi will boost up its demand in the market and will minimise the fear of fake and poor quality litchis. The GI tag for the fruit will help and benefit thousands of litchi growers who will gain access to more markets and get better price in the country and abroad.

TOPIC: GS III, AWARENESS IN THE FIELDS OF IT, SPACE, COMPUTERS

30. India's first Bitcoin ATM kiosk set up in Bengaluru

Source: Indian Express

Why the news:

Amidst uncertainty over the validity of cryptocurrencies and the Central government directions preventing banks from trading the same, Unocoin Technologies Private Ltd has set up India's first ATM kiosk to trade in cryptocurrencies in Bengaluru.

About the Bitcoin ATM:

- The first-of-its-kind automated teller machine will have both a trading and exchange platform, and will allow verified customers to use the device. It is expected to become operational soon.
- This kiosk is accessible to registered customers of Unocoin. The customers will be able to buy or sell up to 10 Bitcoins — one of the high value cryptocurrencies per day. However, all the transactions will have to be conducted in Indian rupees which will then be changed into the currency of choice of the consumer.
- The kiosk will allow customers to trade in Bitcoin and Ethereum, while providing an exchange platform for 24 other cryptocurrencies in circulation.
- Customers risking the use of Bitcoins will have to register by using their mobile number and entering a password. A verification process is initiated during which details such as PAN number, phone number, address, bank details, and others have to be furnished. It uses an elaborate procedure for both deposits and withdrawals, with the withdrawals requiring a prior request and 12-digit OTP.

What is Cryptocurrency?

A cryptocurrency is a digital or virtual currency designed to work as a medium of exchange.

- It uses cryptography to secure and verify transactions as well as to control the creation of new units of a particular cryptocurrency. Essentially, cryptocurrencies are limited entries in a database that no one can change unless specific conditions are fulfilled.
- Bitcoin is one of many cryptocurrencies that have gained popularity across the world.

Fiat and Non-fiat currency:

- A fiat currency is any currency that has no intrinsic physical value, but whose value is established by government decree. For example, most national currencies around the world, including the Rupee and the Dollar, are fiat currencies as their values are dictated by the government.
- Non-fiat currencies such as the Gold Standard have more or less been effectively phased out, as they require adequate physical stockpiles to maintain their value.
- However, the new breed of digital cryptocurrencies such as Bitcoin blurs the boundaries between fiat and non-fiat – they don't have any physical value as such, but are also not government-controlled. This has created uncertainties about their role in the modern financial system.

TOPIC: GS II IMPORTANT INTERNATIONAL INSTITUTIONS, AGENCIES AND FORA, THEIR STRUCTURE, MANDATE

31. Fusion Energy Conference (FEC 2018)

Source: The Hindu

Why in news:

The 27th Fusion Energy Conference (FEC 2018) was recently held in Gandhinagar, Gujarat.

- The six-day event was organised by the International Atomic Energy Agency (IAEA) and hosted by Department of Atomic Energy and Gandhinagar-based Institute of Plasma Research.

FEC 2018:

- The aim of FEC 2018 was to provide forum for discussion of key physics and technology issues as well as innovative concepts of direct relevance to the use of nuclear fusion (reaction that powers Sun and stars) as a source of energy.
- The scientific scope of FEC 2018 is intended to reflect the priorities of this new era in fusion energy research.
- With the participation of international organizations such as the ITER Organization and the European Atomic Energy Community (Euratom), as

well as the collaboration of more than forty countries and several research institutes, including those working on smaller plasma devices, it is expected that this conference will, like previous conferences in the series, serve to identify possibilities and means for continuous and effective international collaboration in this area.

About IAEA:

- The IAEA is the world's centre for cooperation in the nuclear field. It was set up as the world's "Atoms for Peace" organization in 1957 within the United Nations family. The Agency works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies.
- It seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons.
- IAEA reports to both the United Nations General Assembly and Security Council.
- The IAEA has its headquarters in Vienna, Austria.
- The IAEA serves as an intergovernmental forum for scientific and technical cooperation in the peaceful use of nuclear technology and nuclear power worldwide.

TOPIC: GS III, AWARENESS IN THE FIELDS OF ROBOTICS, NANO-TECHNOLOGY, BIO-TECHNOLOGY

32. Acinetobacter Junii: Bacteria to degrade toluene

Source: The Hindu

Why in news:

Using bacteria- Acinetobacter Junii, isolated from soil and effluents near an oil refinery, researchers from the University of Delhi and IIT-BHU, have successfully degraded toluene into less-toxic by products.

About Toluene:

- Toluene is one of the petrochemical wastes that get released without treatment from industries such as refineries, paint, textile, paper and rubber.
- Toluene has been reported to cause serious health problems to aquatic life, and studies point that it has genotoxic and carcinogenic effects on human beings.

Acinetobacter Junii:

- The bacteria were isolated from the soil samples, identified and studied for their toluene-degrading abilities.
- When exposed to toluene, these bacteria changed their morphology to escape toxicity. The

degradation is found to be general aerobic (in presence of oxygen) biodegradation. The bacteria use up this toluene as their carbon source in the presence of oxygen.

VII. PRELIMS/MISCELLANEOUS

33. Migingo Island

Why in News:

- For over a decade, Migingo has been a source of tension between Uganda and Kenya, who have been unable to decide to whom it really belongs.
- Compared to half the size of a football pitch, Migingo is a small rock island, located in Lake Victoria which is the largest lake in Africa and the largest Tropical Lake in the whole world.

34. Hong Kong-Zhuhai bridge: World's longest sea crossing

Chinese President Xi Jinping has officially opened the world's longest sea crossing bridge, nine years after construction first began.

- Including its access roads, the bridge spans 55km (34 miles) and connects Hong Kong to Macau and the mainland Chinese city of Zhuhai.
- The bridge has cost about \$20bn (£15.3bn) and seen several delays. The bridge, designed to withstand earthquakes and typhoons, was built using 400,000 tonnes of steel, enough to build 60 Eiffel Towers.
- About 30km of its total length crosses the sea of the Pearl River delta. To allow ships through, a 6.7km section in the middle dips into an undersea tunnel that runs between two artificial islands.

35. India's longest river bridge

India's longest river bridge will be built on Brahmaputra river in Assam. It will have total length of 19.3 kilometers.

- This bridge will connect Dhubri of Assam to Fulbarani of Meghalaya. This bridge will reduce the distance between these two places by 203 kms. At present, India's largest river bridge is Dhola-Sadia bridge, its length is 9.15 kilometers.
- Japanese Finance Agency (JICA) has approved the loan for this project as part of road infrastructure improvement package in the north-east after assessing the economic benefit of the big project.
- Two northeastern states of Assam and Meghalaya will be connected by NH127B with the help of this bridge.

36. Indian Silk Export Promotion Council (ISEPC)

6th India International Silk Fair (IISF), organized by Indian Silk Export Promotion Council, was held in New Delhi. The fair gave a platform to exporters to display their products and to overseas buyers an opportunity to place orders and source their merchandise.

- India is the second largest producer of silk in the world. The country's silk industry is agriculture based and labour intensive and provides gainful employment to around eight million artisans and weavers in rural areas.

About The Indian Silk Export Promotion Council:

- The Indian Silk Export Promotion Council (ISEPC) was set up in 1983 as a company not for profit under Companies Act duly sponsored by the Government of India in the Ministry of Textiles.
- ISEPC works closely with the Government of India on policy formulation concerning silk sector and provides specialized services to the entrepreneurs enlarging global business opportunities for the silk industry in India.

37. Lhotshampa in Bhutan

About Lhotshampa People:

- They are Nepali-speaking people branded as immigrants and stripped of citizenship rights when the then-king introduced a "One Nation, One People" policy in 1985 under which Buddhist majority in the country was mandatory, including wearing their traditional dress, and speaking Nepali was banned.
- Those who resisted were labelled as "anti-nationals", arrested and subjected to brutal treatment.
- Lhotshampa were ordered to leave Bhutan voluntarily as a condition of their release who ended up in refugee camps in eastern Nepal.
- Bhutan still describes the Lhotshampa as immigrants, justifying its nationalistic laws as essential for cultural identity and political stability.

Bhutan's concept of Gross National Happiness:

- This term was coined by the Fourth King of Bhutan, Jigme Singye Wangchuck in the 1970s which implies that sustainable development should take a holistic approach towards notions of progress and give equal importance to non-economic aspects of well being.
- There are four pillars of GNH:
 1. Good governance,

2. Sustainable Socio-Economic Development,
3. Cultural Preservation, and
4. Environmental Conservation

These four pillars were further divided into nine domains which refers to fulfilling conditions of a 'good life' as per the values and principles laid down by the concept of Gross National Happiness. These are:

1. Psychological well being,
2. Health,
3. Education,
4. Time use,
5. Cultural diversity and resilience,
6. Good governance,
7. Community vitality,
8. Ecological diversity and resilience, and
9. Living standards.

38. World Food Day

Why in news:

- World Food Day has been observed globally on 16th October with the theme "Our actions are our future – A zero hunger world by 2030 is possible".
- It is a day of action dedicated to tackling global hunger.

About World food day:

- The World Food Day is observed on 16 October globally to mark foundation of Food and Agriculture Organisation (FAO) of the United Nations in 1945.
- It is dedicated for tackling global hunger and aims to raise public awareness about hunger challenges and encourage people around world to take action in fight against hunger.
- It shows the commitment to Sustainable Development Goal (SDG) 2 – to achieve Zero Hunger by 2030.
- It was observed for the first time on 16 October 1981 and idea of celebrating the WFD worldwide was mooted by Hungarian Delegation to FAO.

39. Garba

- This is a folk dance originated in Gujarat. Its name is derived from the Sanskrit term Garbha which means womb and Deep means a small earthenware lamp.
- The dance is performed around a clay lantern with a light inside called a Garbha Deep means "womb lamp".

- This lantern represents life and the foetus in the womb in particular.
- It is performed in the honor of Durga, the feminine form of divinity during the nine-day Hindu festival Navaratri.

40. First smoke-free State in India

- Kerala is set to become the first smoke-free State with public sector oil companies eyeing 100% LPG penetration.
- The target has almost been achieved in most villages and cities.

41. Largest unmanned drone

- China has successfully tested the world's largest unmanned transport drone which can carry a payload of 1.5 tonnes. It is a commercial drone named Feihong-98 (FH-98).

42. Azad Hind Government

- Prime Minister recently hoisted the National Flag at Red Fort, to commemorate the 75th Anniversary of formation of Azad Hind Government.
- Government announced an award in the name of Netaji Subhas Chandra Bose, to honour those involved in disaster response operations.

About Azad Hind Government:

It was a government-in-exile founded in Singapore on October 21, 1943 with assistance from Imperial Japan and it was headed by Netaji Subhash Chandra Bose.

- It was India's first independent government established by Indian nationalists-in-exile.
- It aimed at allying the Axis powers during Second World War to free India from British Rule.
- Its armed force was called Azad Hind Fauj which aimed at freeing India from British control. Bose was the supreme commander of this army. Ras Bihari Bose played important role in its establishment.
- Japan provided Andaman and Nicobar islands to this temporary government, later these islands were renamed Shaheed Island (Andaman) and Swaraj Island (Nicobar).
- Bose gave a famous slogan Delhi Chalo after formation of this government. Azad Hind Fauj along with this slogan reached India on March 21, 1944. Ram Singh Thakur composed the song Kadam Chacha Ho Jaa.

- It also laid down the foundation for equal opportunity for women in armed forces through the formation of Rani Jhansi Regiment.

43. Nobel Prize

- 2018 Nobel Prize in Medicine jointly awarded to James P. Allison and Tasuku Honjo for their discovery of cancer therapy by inhibition of negative immune regulation.
- The discovery has paved the way for a new class of cancer drugs which are improving the outcomes for patients. It is the first time the development of a cancer therapy has been recognized with a Nobel Prize.
- The new drug stimulates the ability of immune system to attack tumour cells.

About Nobel Prize:

- It is awarded by Swedish and Norwegian institutions for outstanding achievements in the field of medicine, physics, chemistry, literature, and peace on the basis of will of Alfred Nobel. Nobel Prize in Economic science is awarded by Swedish central bank since 1968 in the memory of Alfred Nobel and not on the basis of his will.
- Nobel Peace Prize is presented in Norway while the other awards are awarded in Sweden.
- India's Nobel Laureates:
 1. Rabindranath Tagore-1913 (Literature) for Geetanjali
 2. Chandra Shekar Venkata Raman -1930 (Physics) for Raman Effect" related to light
 3. Hargobind Khorana-1968 (Chemistry) for study of the Human Genetic Code and its role in Protein Synthesis
 4. Mother Teresa-1979 (Peace) forservice through her Charitable Mission "Nirmal Hriday" to people suffering from Leprosy.
 5. Subramanian Chandrashekar-1983 (Physics) for theory on white dwarf stars' limitation known as 'Chandrasekhar Limit'.
 6. Amartya Sen-1998 (Economics) for Economic Theory related to Poverty, Democracy, Development and Social Welfare.
 7. Venkataraman Ramakrishnan-2009 (Chemistry) for mapping ribosomes, the protein producing factories within cells at the atomic level.
 8. Kailash Satyarthi -2014 (Peace) for struggle against the suppression of children and young people and for the right of all children to education.

Question:

- Q1. Although changes to RTI act is an attempt to rationalize the status of constitutional body and statutory body. However it may undermine the purpose behind the RTI act. Discuss.
- Q2. Verma committee report is an attempt start a new era for justice delivery for the victims of sexual harassment. However it is not satisfactory and not free from loopholes. Discuss.
- Q3. India has become the world capital in antibiotic abuse in the era of globalization. Why? Suggest measures to eliminate this menace.
- Q4. China's 2+1 policy is not South Asia centric. Comment.
- Q5. Do you agree that India's foreign policy in the current global scenario is autonomous?
- Q6. Post Wuhan Sino Indian relations have shown certain level of maturity. Do you think that it is sustainable?